

**AN EXPLORATION OF THE MANAGEMENT OF MURDER CRIME SCENES BY  
FIRST POLICE RESPONDERS IN GAUTENG PROVINCE**

by

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**DECLARATION**

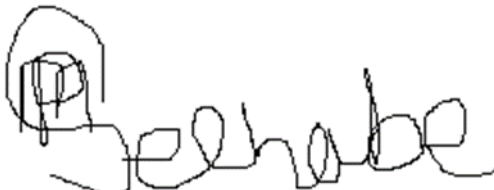
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**AN EXPLORATION OF THE MANAGEMENT OF MURDER CRIME SCENES BY FIRST POLICE  
RESPONDERS IN GAUTENG PROVINCE**

**I declare that the above thesis is my own work and that all the sources that I have used or  
quoted have been indicated and acknowledged using complete references.**



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To whom it may concern

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Stephan Gericke

## TURNITIN REPORT

# EXPLORATION OF THE MANAGEMENT OF MURDER CRIME SCENES BY FIRST POLICE RESPONDERS IN GAUTENG PROVINCE

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**ABSTRACT**

This qualitative study intends to explore the actions of the first police responder's management at murder crime scene in the Gauteng province, South Africa. Crime scene investigation is an important tool in the criminal investigation process. The proper processing of crime scenes is a prerequisite for successfully solving a criminal case. In the South African Police Service (SAPS), local police officers are not properly trained or equipped with the necessary items required for the systematic processing of crime scenes. This includes the proper identification and collection of evidence.

It is important to implement and increase capacity-building measures in the SAPS to improve the proper processing of crime scenes. This study focused on the large stations because Gauteng province had high crime rates of murders. Crime scene investigation is the primary point of the criminal justice system, which maintains law and order in society. Therefore, a crime scene is the place where the incident or crime has taken place and contains the required evidence to catch the perpetrator. Therefore, crime scene investigation can be the most crucial part of a criminal case. A lot of the hard work done by law enforcement agents is not reflected in the results, due to poor evidence collection and contaminated crime scenes. Consequently, many cases remain unsolved and are then closed without results.

For this study, data was collected through perusing the existing literature, SAPS information notes, official documents, and articles. Interviews were conducted with a maximum of 29 South African Police Service members. A non-random sampling procedure was used to select participants. The information obtained from the participants was analysed by using the ATLAS.ti software. This is a computer program used to analyse data in qualitative research.

**KEYWORDS**

The keywords used in this study include:

- Crime scene
- Crime investigation
- Crime scene management
- First responder
- Murder
- Criminal investigation
- Evidence
- Physical evidence
- Identification
- Individualisation

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**DEDICATION**

This study is dedicated to my wife Kedibone Dorcus Sechabe and my children, for paving the way so that I could continue my education, for always encouraging me, and for believing that education is the future. I also dedicate this thesis to my mother, Letty Sechabe, who raised me and my late father, Alfred Manabeng Sechabe, for their continuous spiritual support.



## **LIST OF ABBREVIATIONS & ACRONYMS**

**ACPO** – Association of Chief Police Officers

**AFM** – Area Forensic Manager

**ALS** – Alternative Light Sources

**APSC** – Australian Public Sector Commission

**BPA** – Blood Pattern Analysis

**CAS** – Case Administration System

**CCC** – Command Centre Commander

**CI** – Crime Intelligence

**CIAC** – Crime Information Analysis Centre

**CID** – Criminal Investigator Department

**CJOC** – Commander of Joint Operational Centre

**CLO** – Scene Log Office

**CPA** – Criminal Procedure Act

**CR** – Criminal Record

**CRC** – Criminal Record Centre

**CRFSS** – Criminal Record and Forensic Science Services

**CRSA** – Constitution of Republic of The South Africa

**CSC** – Community Service Centre

**CSE** – Crime Scene Examiner

**CSI** – Crime Scene Investigator

**CSM** – Crime Scene Management

**COSHH-** Control of substance Hazardous to Health

**CSO** – Crime Scene Co-Ordinator

**CST** – Crime scene Technician

**DDU** – Detective Division Unit

**DNA** – Deoxyribonucleic Acid

**DPCI** – Directorate Priority Criminal Investigation

**DPP** – Deputy Public Prosecutor

**DS** – Detective Service

**DSEAR-** Dangerous substances and Explosive Atmospheres

**EC** – Eastern Cape

**EMS** – Emergency Medical Services

**FBI-** Federal Bureau of investigation

**FMO** – Forensic Medical Officer

**FMT** – Forensic Management Team

**FSD** – Forensic Service Division

**FSL** – Forensic Science Laboratory

**FSNI** – Forensic Science Northern Ireland

**FSR** – Forensic Science Regulator

**GP** – Gauteng Province

**GPS** – Global Positioning System

**HMIC** – Her Majesty's Inspectorate of Constabulary

**IACP** – International Association Assistance

**IACP** – International Association of Chief Police

**ICP** – Incident Control Point

**IFSA** – International Forensic Strategic Alliance

**LAPD**- Los Angeles Police Department

**ILAC** – International Laboratory Accreditation Cooperation

**IO** – Investigating Officer

**IT** – Information Technology

**JOC** – Joint Operational Centre

**JOC** – Joint Operational Commander

**LAB** – Laboratory

**LCRC** – Local Criminal Record Centre

**MCI** – Managing Criminal Investigation

**MEO** – Medical Examiner Office

**MO** – Modus Operandi

**NI** – National Instruction

**NRF**- National Research Foundation

**OCC** – Operational Commander Centre

**OIC** – Officer in Charge

**PF** – Policy Framework

**POLSA** – Police Search Advisor

**PPE** – Personal Protective Equipment

**ROCP** – Resolving of Crime Programme

**RSA** – Republic of South Africa

**SABC** – South African Bureau Cooperation

**SAPS** – South African Police Service

**SAPSA** – South African Police Act

**SAPSNI** – South African Police National Instruction

**SCC** – Senior Crime Co-Ordinator

**SCE** – Scene of Crime Examiner

**SCL** – Security Crime Log

**SIO** – Senior Investigating Officer

**SLO** – Scene Log Officer

**SOP** – Standard Operation Procedure

**SVC** – Serious and Violent Crimes

**TTM** – Technology and Technical Management

**UCT** – University of Cape Town

**UNES** – United Nation's Educational Scientific

**UNISA** – University of South Africa

**VISPOL** – Visible Policing

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>I</b>
<b>PROOF OF EDITING</b> .....	<b>II</b>
<b>TURNITIN REPORT</b> .....	<b>III</b>
<b>ABSTRACT</b> .....	<b>IV</b>
<b>KEYWORDS</b> .....	<b>V</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>VI</b>
<b>DEDICATION</b> .....	<b>VII</b>
<b>LIST OF ABBREVIATIONS &amp; ACRONYMS</b> .....	<b>VIII</b>
<b>TABLE OF CONTENTS</b> .....	<b>XII</b>
<b>CHAPTER ONE: GENERAL ORIENTATION</b> .....	<b>1</b>
<b>1.1 INTRODUCTION</b> .....	<b>1</b>
<b>1.2 BACKGROUND OF THE STUDY</b> .....	<b>1</b>
<b>1.3 PROBLEM STATEMENT</b> .....	<b>8</b>
<b>1.4 RESEARCH AIM AND OBJECTIVES</b> .....	<b>21</b>
1.4.1 Research Aim.....	21
1.4.2 Research objectives.....	22
<b>1.5 RESEARCH QUESTIONS</b> .....	<b>22</b>
<b>1.6 KEY THEORETICAL CONCEPTS</b> .....	<b>23</b>
1.6.1 Crime scene .....	23
1.6.2 Crime investigation.....	23
1.6.3 Crime scene management.....	23
1.6.4 First responder.....	24
1.6.5 Murder.....	24
1.6.6 Criminal investigation.....	24
1.6.7 Evidence.....	25
1.6.8 Physical evidence .....	25
1.6.9 Identification .....	25

1.6.10 Individualisation .....	26
<b>1.7 VALUE OF THE STUDY .....</b>	<b>26</b>
<b>1.8 SUMMARY .....</b>	<b>27</b>
<b>CHAPTER TWO: LITERATURE REVIEW ON THE ROLE OF THE FIRST POLICE RESPONDER AT MURDER CRIME SCENES.....</b>	<b>28</b>
<b>2.1 INTRODUCTION.....</b>	<b>28</b>
<b>2.2 OVERVIEW OF THE MURDER CRIME SCENE .....</b>	<b>28</b>
<b>2.3 LEGAL FRAMEWORK MANAGING MURDER CRIME SCENE.....</b>	<b>31</b>
2.3.1 The Constitution of the Republic of SA 1996 (Act 108 of 1996.....)	31
2.3.2 The South African Police Service ACT 1995 (ACT 68 OF 1995.....)	32
2.3.3 National Instructions Policy of 2005/2015.....	35
2.3.4 The criminal Procedures and Investigation Act 1996 (CPIA).....	37
2.3.5 Criminal Law (Forensic Procedures) Amendment Act 6 of 2010.....	39
2.3.6 Criminal Law (Forensic Procedure) Amendment Act 37 of 2013.....	41
2.3.7 The police and criminal evidence Act 1984.....	42
2.3.8 Legislation pertaining to fingerprints.....	43
<b>2.4 THEORETICAL CONCEPTS.....</b>	<b>45</b>
2.4.1 Locard Principle.....	46
2.4.2 Rational choice theory.....	46
2.4.3 Strain theory .....	47
<b>2.5 THE ROLES OF THE FIRST POLICE RESPONDER AT THE MURDER CRIME SCENES.....</b>	<b>47</b>
<b>2.6 SUMMARY.....</b>	<b>99</b>

<b>CHAPTER THREE: CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER AT THE MURDER CRIME SCENE.....</b>	<b>101</b>
<b>3.1 INTRODUCTION .....</b>	<b>101</b>
<b>3.2 SUMMARY.....</b>	<b>150</b>
<b>CHAPTER FOUR: BEST PRACTICES ON MANAGING MURDER CRIME SCENES BY THE FIRST POLICE RESPONDER.....</b>	<b>152</b>
<b>4.1 INTRODUCTION.....</b>	<b>152</b>
<b>4.2 NATIONAL BEST PRACTICE ON THE MANAGEMENT OF THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER.....</b>	<b>152</b>
4.2.1 Effective crime scene management .....	153
4.2.2 Utilising of forensic science technique at the murder crime scene.....	156
4.2.3 Best practice on forensic evidence.....	164
<b>4.3 INTERNATIONAL BEST PRACTICE ON THE MANAGEMENT OF THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER.....</b>	<b>168</b>
<b>4.4 SUMMARY.....</b>	<b>176</b>
<b>CHAPTER FIVE: RESEARCH METHODOLOGY AND DESIGN.....</b>	<b>178</b>
<b>5.1 INTRODUCTION.....</b>	<b>178</b>
<b>5.2 THE PHILOSOPHICAL WORLDVIEW OFFERED OF THE STUDY .....</b>	<b>179</b>
5.2.1 The Constructivist worldviews.....	180
5.2.2 The post-positivist worldview.....	182
5.2.3 The paradigmatic worldview.....	183
5.2.4 Epistemological perspective.....	187
<b>5.3 RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>190</b>
5.3.1 Research design.....	92
5.3.2 Research Approach .....	197
<b>5.4 TARGET POPULATION AND SAMPLING .....</b>	<b>202</b>

5.4.1 Target population .....	202
5.4.2 Population.....	203
5.4.3 Sampling.....	204
<b>5.5 SAMPLING PROCEDURE .....</b>	<b>206</b>
5.5.1 Purposive sampling.....	210
5.5.2 Representativity .....	211
<b>5.6 DATA COLLECTION .....</b>	<b>212</b>
5.6.1 Interviews.....	216
5.6.2 Focus group interviews.....	218
5.6.3 Literature review .....	220
5.6.4 Observational evaluation .....	221
<b>5.7 DATA ANALYSIS .....</b>	<b>222</b>
<b>5.8 PROBLEMS ENCOUNTERED .....</b>	<b>227</b>
<b>5.9 METHODS TO ENSURE TRUSTWORTHINESS.....</b>	<b>227</b>
<b>5.10. CREDIBILITY.....</b>	<b>228</b>
5.10.1 Prolonged engagement.....	229
5.10.2 Persistent observation .....	230
5.10.3 Triangulation .....	230
5.10.4 Referential adequacy .....	231
5.10.5 Peer debriefing .....	231
5.10.6 Member checks .....	231
<b>5.11 DEPENDABILITY .....</b>	<b>232</b>
<b>5.12 TRANSFORMABILITY .....</b>	<b>233</b>
<b>5.13 CONFORMABILITY .....</b>	<b>234</b>
<b>5.14 ETHICAL CONSIDERATIONS .....</b>	<b>235</b>
<b>5.15 UNIVERSITY OF SOUTH AFRICA CODE OF RESEARCH ETHICS .....</b>	<b>238</b>



<b>5.16 THE SAPS CODE OF CONDUCT .....</b>	<b>242</b>
<b>5.17 THE BELMONT REPORT .....</b>	<b>243</b>
<b>5.18 UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION .....</b>	<b>244</b>
<b>5.19 SUMMARY.....</b>	<b>245</b>
<b>CHAPTER SIX: PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS.....</b>	<b>248</b>
<b>6.1 INTRODUCTION.....</b>	<b>248</b>
<b>6.2 EMERGING THEMES.....</b>	<b>248</b>
<b>6.3 UNDERSTANDING THE CONCEPT OF THE CRIME SCENE.....</b>	<b>248</b>
<b>6.4 CRIME SCENE MANAGEMENT .....</b>	<b>253</b>
<b>6.5 UNDERSTANDING THE FIRST POLICE RESPONDER .....</b>	<b>259</b>
<b>6.6 UNDERSTANDING THE ROLES OF THE FIRST POLICE RESPONDER IN THE MURDER CRIME SCENE .....</b>	<b>269</b>
<b>6.7 ROLE OF LCRC MEMBERS AT THE MURDER CRIME SCENES.....</b>	<b>275</b>
<b>6.8 TRAINING FOR FIRST POLICE RESPONDER ON THE MURDER CRIME SCENE .....</b>	<b>278</b>
<b>6.9 CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER AT THE CRIME SCENES.....</b>	<b>285</b>
<b>6.10 IDENTIFYING THE MOST SUITABLE PRACTICES FOR THE FIRST POLICE RESPONDER ON MANAGE THE MURDER SCENE.....</b>	<b>311</b>
<b>6.11 SUMMARY.....</b>	<b>333</b>
<b>CHAPTER SEVEN: INTERPRETATION OF THE RESEARCH FINDINGS .....</b>	<b>334</b>
<b>7.1 INTRODUCTION.....</b>	<b>334</b>
<b>7.2 THE CRIME SCENES.....</b>	<b>335</b>
<b>7.3 THE PROCESS TO BE FOLLOWED AT THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER.....</b>	<b>336</b>

<b>7.4 MISTAKES MADE BY THE FIRST POLICE RESPONDER AT THE CRIME SCENE.....</b>	<b>337</b>
<b>7.5 PRESENT CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER AT THE SCENE OF CRIME.....</b>	<b>345</b>
<b>7.6 THE DEVELOPMENT OF INVESTIGATIVE PRACTICE AT THE CRIME SCENE.....</b>	<b>347</b>
<b>7.7 SUMMARY.....</b>	<b>348</b>
<b>CHAPTER EIGHT: SUMMARY, RECOMMENDATIONS, AND CONCLUSION ...</b>	<b>349</b>
<b>8.1 INTRODUCTION.....</b>	<b>349</b>
<b>8.2 SUMMARY.....</b>	<b>349</b>
<b>8.3 RECOMMENDATIONS.....</b>	<b>351</b>
<b>8.4 CRIME SCENE MODEL OF THE ROLE PLAYERS.....</b>	<b>397</b>
<b>8.5 LIMITATIONS OF THE STUDY .....</b>	<b>408</b>
<b>8.6 FURTHER RESEARCH .....</b>	<b>409</b>
<b>8.7 CONCLUSION .....</b>	<b>409</b>
<b>LIST OF REFERENCES .....</b>	<b>414</b>
Appendix A - Permission letter from the saps .....	463
Appendix B - Permission letter from unisa .....	467
Appendix C - Semi-structured questions for all participants .....	469
Appendix D - Informed consent form .....	479
Appendix E - Profile of participants .....	481
Appendix F - Atlas.ti analysis network links .....	<b>482</b>

**LIST OF FIGURES**

Figure 1.1: Summary of the trend of murder for a five year period in Gauteng province..... 13

Figure 1.2: Murders ..... 16

Figure 8.4.1: Crime scene model of the role players.....397

**LISTS OF TABLES**

Table: 2.5.1 Component of scientific temper that on relevant to crime scene.....50

Table: 2.5.2: Objective observation .....51

## **CHAPTER ONE: GENERAL ORIENTATION**

### **1.1 INTRODUCTION**

This study explores the management of murder crime scenes in Gauteng province, South Africa, by the first police responder. As mandated by Section 205 (3) of the Constitution of South Africa of 1996 (Act No. 108 1996), the South African Police Service (SAPS) should prevent crime and investigate any criminal activities within South Africa. Regulated by these legal provisions, the SAPS officials are responsible for upholding and enforcing the law. The investigation of crime scenes can therefore only have a positive effect on crime rates if the investigation procedure includes proper detection, successful prosecution, and final conviction. This chapter includes the background of the study, the problem statement, the aim of the research, the objective of the research, and key theoretical concepts that will be highlighted throughout the study.

### **1.2 BACKGROUND OF THE STUDY**

Understanding the specific assignments given to officers in the SAPS requires a grasp of the department's organisation. It is important to grasp the relationships among various officers, the overall function of the SAPS and the roles of individual police officers or assignments of specific units in SAPS. Uniformed police officers are patrol officers carefully selected and thoroughly trained to investigate crimes and accident scenes, emphasising the determination of facts from physical evidence rather than relying solely on statements from individuals. All over the world police agencies share a common objective to provide efficient service to their local communities. In addition, police strive towards significantly decreasing the rate of crime in the area where they are located. This is also relevant to the most serious types of crime, such as murder. Murder is the “unlawful and intentional killing of a human being” (South African Police Service (SAPS) must tackle (Steyn & Klopper, 2020). The investigation of murder requires both extensive experience and skilful first police responder. Detective work predominantly entails investigating violent crimes such as murder and rape.

A detective is dispatched to the scene to initiate the investigation process (Eck & Rossmo, 2019:605). Subsequently, crime scene investigators endure the effects of traumatic incidents that go beyond the standard course of work. Investigating murder involves crime scene construction and subsequent processes until the case is officially concluded (Eck & Rossmo, 2019:605); Steyn & Klopper, 2020:287). Exposure to trauma can occur throughout an investigation, making occupational stress inevitable among murder detectives (Cronje & Vilakazi, 2020:526). Murder is one of the most violent crimes committed in South Africa. It occurs in various settings, posing many impediments for officers investigating murder cases. According to the latest SAPS crime statistics, South Africa's murder steadily increased in the first quarter of 2021 (SAPS, 2021). Consequently, a critical responsibility is placed on the first police responder who must perform a very wide range of duties to adequately investigate the crime. There is no different as the first police responder is also representative of the service being delivered by the police in SA. Similarly, the national SAPS strategy emphasises the importance of providing effective and competent service to communities.

The role of the first police responder is crucial, and authors like Geberth (2010:60) have effectively helped to define their role. Their role, however, does not include processing the scene, as this role is fulfilled by the crime scene technician or investigator. Still, the first police responder should be attentive to countless details, especially when considering that crime scenes are dynamic and rapidly changing environments. One of the primary tasks of the first police responder is to protect the crime scene (Fisher & Fisher, 2012:30). Generally, the success of the investigation and perhaps any chance of a successful resolution of the case hinges on the actions and the steps taken by the first police responder (Fisher & Fisher, 2012:30).

The first police responder must employ effective observation principles, as this can result in identifying clues that can solve the crime. The first police responder must be capable of identifying and accurately recalling pertinent information and determining suitable solutions to implement as needed. Subsequently, the first police responder from the SAPS becomes the first line of contact with the law enforcement agency. They are the first to receive the public's complaints or reports of crime either in person or telephonically.

Any member representing the SAPS can be considered the first police responder when they are first to bear witness to the reporting of the incident by a member of the public, and when they record the complaint in the occurrence book (OB). If a member of the public reports a crime to the SAPS telephonically they will reach the first police responders by dialling the 10111 numbers. In most such instances, the first responder answering the call will be officially trained (SAPS, 2010). The first responder then acts as either the dispatcher or hands over the reported information to an official dispatcher. It is then the dispatcher's responsibility to notify and activate the necessary role-players as required. The different role-players attend to the crime, and while keeping personal safety in mind, must evaluate potential evidence and possible suspects (Becker & Dutelle, 2013:17). According to the information available and the relevant contingency plan, the dispatcher must choose the appropriate investigating unit and take the necessary steps for their activation (SAPS, 2010). It is also possible that a member of the public may report a crime in person at a community service centre or directly to a member on patrol, instead of reporting it telephonically.

The dispatcher's role remains similar, however, as it can be any member of the SAPS who takes on the role of dispatching other SAPS members to a crime scene. The public's involvement in a crime can either be as victims or witnesses of the crime or as owners of the property where a crime was committed. Usually, it is members of the public who arrive at the crime scene first before the arrival of any police officers. There are many factors that the dispatcher should consider ensured that the patrol officer arrives at the scene of the crime as soon as possible (SAPS, 2013:15). Similarly, the first police responder should consider all available information about the event and the scene they will be attending, even before arrival. This includes the information provided by the member of the public who reported the crime via 10111 or in person. On arrival, the first responder should inform and update the dispatcher about the situation at the crime scene. All information received or obtained, either from members of the community or police officers, must be passed onto radio control at the SAPS offices or to the community services centre. This communication process is necessary so that police officers can prioritise their actions at the scene of the crime and minimise any associated risks (Fisher & Fisher, 2012:32).

When the first police responders arrive at the scene of a crime, they should stabilise the situation and take necessary control of the area to prohibit any members of the community from contaminating potential evidence. This includes establishing a command centre and a perimeter by setting up cordons with controlled access. This is necessary to protect the integrity of the crime scene. It remains vital that necessary precautions are taken by authorised persons not to contaminate any objects within the crime scene (Gardner, 2012a:32). It is the responsibility of the first police responding officer to be aware of the importance of maintaining the integrity of the management of the crime scene. This is just one of the roles a police officer is responsible for within the criminal justice system, and it is as critical as maintaining public safety or providing testimony in court. Still, seeing as securing criminal evidence can significantly impact the outcome of a criminal case, some might argue that this is the most important and fundamental role of a police officer (Carter & Carter, 2016:10).

The first responding officer must take note that if any suspects or witnesses are still at the scene or close by or if any person is injured and requires urgent medical assistance; if a fatally wounded person is still conscious enough to report important information; if there are threatening weather conditions or other external factors that may destroy or damage physical evidence; or any circumstances that could potentially alter the scene of the crime (Gardner, 2012a:42). It is the first responder's duty take control of the crime scene and their priority must be to attend to anyone who is injured. Unfortunately, until the detective's officer arrives at the scene of crime, the risk exists that valuable material may be lost or contaminated.

To minimise this risk, the first responder can request the person who first reported the crime to stay close to the scene of the crime, but no one should enter the area and they should prevent others from doing so as well. Furthermore, they should be asked to make sure no objects at the scene of the crime are touched or moved. When they see the first responding officer arriving at the scene, they should identify themselves and be prepared to give a statement (Fisher & Fisher, 2012:32). It is during the initial police response to an incident that the greatest risk of scene contamination exists. When dispatchers coordinate and deploy resources to the scene of a crime, they should consider the risk of cross-contamination.

Deployments should be managed in such a way as to ensure that the same officer does not inadvertently appear on more than one crime scene. In this manner, the risk of cross-contamination can be minimised (Geberth, 2010:60). Cross-contamination is particularly a problem when suspects are identified during the initial response and officers are deployed to make arrests. However, the relationship between command-and-control structures of criminal records and forensic science services in SAPS response units should be considered.

The first police responder should establish a command-and-control structure and lead as its commander until an official commander is assigned (SAPS, 2015a). The role of the commander of the control centre is to manage all available resources required by the various role-players at the crime scene. This includes organising visible policing and specialised units (such as the VISPOL specialist units and other emergency services). Should a crime scene escalate, and the operational response division, other major operations or task forces are required for public order policing, a joint operational centre (JOC) should be established to support the command centre. In addition, per standard operating procedures, a formal JOC or command centre can be further supported by the establishment of a field JOC (SAPS, 2010). To do so, additional access routes to the crime scene may need to be established for control purposes (SAPS, 2015a). It should be considered that such a command structure will entail various components. The public should be made aware that there are different divisions within each branch of the SAPS. However, SAPS programmes that are responsible for visible policing and crime prevention, as well as attending to complaints in a particular area, remain the responsibility of detective services as a subcomponent of the detective division components. These programmes operated by detective services comprise crime investigation centres, criminal record centres, and forensic service laboratories.

Another subprogram run by the detective services is the Directorate of Priority Criminal Investigation (DPCI) (SAPS, 2015a). As a division of the SAPS, their activities should adhere to the mission and priorities of the SAPS by being actively implemented and controlled effectively. These include the activities of each province's decentralised criminal record and crime scene management units which supervise the performance of the Local Criminal Record Centre (LCRC) (SAPS Policy 2, 2015a).



Crime scene management personnel is responsible for all criminal records and scientific support for crime investigations. Services are distributed among LCRC's to aid in identifying persons of interest or perpetrators. These services performed by the crime scene laboratories include crime scene investigations and examinations, drafting techniques, facial identification, updating of criminal records, investigating, and processing fingerprints, the collection of forensic evidence such as biological samples and bullets, and the processing of other evidence, like shoe prints (Kempen, 2014:11).

The Criminal Record and Forensic Science Service (CRFSS) oversees the application of the findings from the Forensic Science Laboratory (FSL) towards crime prevention and detection. CRFSS also oversees the management of criminal records and the application of sophisticated techniques to recover physical evidence from the crime scene criminal record centre (CRC) the facilitation of technology development in the SAPS and the rendering of support services to the division technology and technical management (TTM) (SAPS, 2007a; Kempen, 2014:11). The Crime Scene Management (CSM) section is mainly in charge of processing a crime scene, including the scene of a murder (Kempen, 2014:11). Different crime scene processing methods utilised by detectives to solve cases, include photography, videography, evidence collection and processing. It is the CSM section's responsibility to ensure that the crime scene is processed and managed efficiently. Directed by prescribed policies and procedures the CSM analyses a crime scene by documenting, identifying, and packaging exhibits while avoiding contamination of the scene (Kempen, 2014:11).

These processes are specified in the SAPS policy documents and standard operating procedures. Policy 5 of the local criminal record centres (SAPS, 2003) specifies the LCRCs' procedures for fingerprint and photographic activities. The National Instruction (N1) 2 of 2015 (SAPS, 2015c) stipulates that the Criminal Procedure Act depicts the required conduct during crime scene management and criminal investigation. Furthermore, the first police responders are responsible for the early documentation of the crime scene, its evidence, and all activities at the scene. The preliminary investigation can only be initiated once all relevant information is accurately collected, (Palmiotto,2013:14; Bell 2014:14).

To ensure that a crime scene is effectively investigated, there are important actions that need to be carried out before departure, as well as while travelling to the scene. The solution to a murder is ultimately achieved by different units working together. These units include the VISPOL unit, crime intelligence unit, detective unit, criminal record centre unit, and forensic science laboratory unit. Each of these groups has a critical role to play given their different responsibilities (Gardner, 2012b:12). Conventionally, the CSM and criminal records unit (CR) should be involved in attending to a crime scene. The CSM and CR are then referred to the forensic services division of the SAPS (SAPS, 2015c). The CSM and CR are vital parts of the justice system by implementing strategies to improve public safety and to successfully investigate crimes, especially murders. The CR and CSM components include decentralised criminal records, explosive, and investigative psychology. The Criminal Record and Crime Scene Management units initially was established in April 1925.

Situated within the Forensic Services division of the SAPS, the unit assumes a crucial role in overseeing criminal records information and providing scientific support for crime investigations. As highlighted by Kempen (2014:11), the significance of the units lies in offering vital support services to investigators, particularly in the examination of crimes like murder, leading to the prompt deployment of crime scene experts to secure evidence. The unit's primary responsibility is the processing of crime scenes including those related to murders. Detectives employ various crime scene processing techniques such as photography, videography, and evidence processing and collection, which form a vital aspect of the overall investigative process. There are standardised principles specifying how LCRC's should manage crime scenes.

These include the standards that should be observed when exploring crime scenes for latent fingerprints, individualisation of latent fingerprints, and the collection of all physical evidence with possible forensic value. The National Instruction (N1) 2/2015 thoroughly stipulates how crime management principles should be applied to secure the crime scene and ensure control. These principles guide how the crime scene should be investigated and processed without altering or contaminating the crime scene. Furthermore, it includes the standards for co-ordinating and optimising the collection of exhibits, and how to utilise investigation resources optimally.

This is necessary to ensure the integrity, preservation, and originality of the evidence and exhibits (SAPS National 1/2 Policy, 2015). In chapter 2 of this study, more attention will be given to how facts and events should be recorded properly, and how to ensure that the crime scene remains under police protection. The local criminal record centres (LCRC) and forensic science service centres (FSSC) are the component centres on crime scene management, placing a particular emphasis on crime scene processing, evidence collection, and the storage and maintenance of criminal records.

### **1.3 PROBLEM STATEMENT**

Crime poses intricate challenges to society, prompting the criminal justice system SAPS to address them. In the pursuit of a successful prosecution, criminal investigators strive to amass evidence establishing the facts of a crime and supporting the suspect's involvement. Throughout the evidence collection process, investigators may encounter diverse types of evidence in the early stages of an investigation. The available evidence ranges from witness-related, such as eyewitness testimonies, to tangible evidence, like Deoxyribonucleic Acid (DNA) and fingerprints. Both categories of criminal evidence are essential at every phase of the criminal justice system (Skolnick & Shaw, 2001:86) and during interrogation (Granhag & Hartwig, 2015:20; Moston & Engelberg, 2011:13; St-Yves & Meissner, 2014:45). The first police responders' perceptions regarding each type of evidence can shape their subsequent judgments significantly. Considering the significant impact that first police responders have on the legal process, it is critical to understand how they view various forms of evidence from an investigative and social perspective. The type of evidence that investigators have access can introduce biases that are felt throughout the entire process, from the first assessments made on the scene to the final decisions made by the fact finder in court (Dror, 2018:86). Should the first police responder's lack scientific knowledge regarding proper collection, preservation, storage, and transportation of crime scene evidence, it can hinder the ability to conduct appropriate analyses, obtain results, and ultimately diminishes the exhibit's value in the court of law.

The public expects thorough investigations of murder crime scenes or any offences, conducted to high professional standards by skilled, understanding, and experienced officers. The SAPS is a professional institution, and its members must consistently project a professional image. Society places heightened expectations on police officials due to the nature of their profession. Therefore, every police official must earn the respect of the community they serve (Iqabane, 2010:1). The primary mandate of the SAPS is to reduce crime, as crime remains a significant impediment to improving the quality of life. The authorities of the SAPS must assume responsibility for the society they serve to achieve this goal. To effectively address these challenges, all stakeholders in this process must work together as a cohesive team and coordinate their efforts toward a common objective. The professional execution of this process relies on handling the crime scene with careful consideration for the integrity of evidence and the continuity of possession, as stipulated by the rules outlined in the Criminal Procedure Act 51 of 1977. It is imperative to assume control of the scene promptly after the event, ensuring its security and protection against any potential contamination.

A proper assessment of the situation and effective planning lead to the early activation of the processing team) (Stelfox,2013:126; Marais, 1992:13). Stelfox (2013:126) draws attention to the problem of certain members' low self-esteem, lack of drive to perform well, indifference, and general bad attitudes, all of which lead to inadequate police services. Stelfox (2013; Marais, 1992:13) continued to mention that going above and beyond is not a culture that is particularly present or observed in the police. The justice system frequently falls short of achieving its objective, resulting in the wrongful incrimination of innocent individuals while criminals go free (Hails, 2005:50). Citing a SAPS Report (2022:10).

The SAPS Annual Report (2022:10) highlights the perspective of former Lt General Japhata who indicated that inadequate crime scene management is hindering the successful investigation of crime (Japhata, 2017:np). This SAPS report emphasises the need to regulate the management of crime scenes to ensure proper control, documentation, and investigation, maintaining the integrity of items with potential evidential value (SAPS, 2022:10).

However, it lacks guidance on addressing traumatised persons or witnesses at the scene, who should be contained and assisted to provide evidence. Members' noncompliance results in poor investigations and low conviction rates. Additionally, as members of the community are frequently the first on the scene, they end up destroying evidence inadvertently. Community development efforts should be implemented to empower communities to take responsibility for preserving a crime scene until the arrival of the SAPS (SAPS, 2022:20). Crime scene management is a critical responsibility for police officials in the SAPS. Each crime scene narrates a story, underscoring the paramount importance of implementing proper crime scene management to prevent the destruction of any potential evidence at the scene.

A crime scene should be regarded as sacred ground, as it marks the first step towards delivering justice to the crime victim. Crime scene management holds immense significance in investigations, as evidence originating from the crime scene paints a vivid picture of events for the court's consideration. This portrayal includes witness testimony, crime scene photographs, physical exhibits, and the analysis of both exhibits and the crime scene itself. According to Lee, Palmbach and Miller, 2011b: 20; Lee, Palmbach and Miller, 2007:20) a thorough and organised investigation of the crime scene is imperative. Since murder involves almost every facet of a criminal investigation, it poses a substantial challenge to investigators (Osterburg & Ward, 2010:337). Murders occur regularly in South Africa and other countries, reflecting the pervasive nature of crime within communities.

The crime statistics for South Africa from 2019 to 2020 serve as indicators of murder rates and trends in reported crime. This data offers valuable insights into the extent of challenges faced by communities concerning homicide (White Paper, 2016:45). The statistics reveal a 3.4% increase in murder cases from 2018 to 2019, and a subsequent 1.4% increase from 2019 to 2020, resulting in 21,325 reported cases according to the annual report on crime statistics in South Africa from April to March (SAPS, 2020b:32). This translates to an average of 58 people being murdered every day in the country, at a rate of 35.8 people per 100,000 population, as per the crime statistics SAPS, 2019-2020. The annual report on crime statistics from 2018 to 2022 delineates changes in various types of criminal activity over the specified period SAPS, 2018-2022.

An analysis of the crime indicators from 2018 to 2022 reveals a difference of 303 recorded murder cases, as per the annual report on crime statistics (SAPS, 2022:20). Notably, the top seven police stations in Gauteng province, have a disproportionately high amount of murder cases, as highlighted by the statistics below. In addition, The SAPS Annual Report on Crime Statistics for the period from April to March 2018 to 2022 also provides further insights. The report illustrates a consistent increase in the crime of murder in Gauteng province from 2010 to 2020. Gupta and Guttman (2014:6) Hodgkiss (2004:69) they were notes that the SA murder rate surpasses the international average. Given this situation, it becomes imperative for SAPS members to employ all available techniques to address the rising murder rate.

The crime rate in South Africa, evident in the SAPS crime statistics, remains notably high (Gupta & Guttman, 2014:6). The escalating trend in murder cases is apparent in the annual reports spanning from 2010/2011 to 2019/2020, and according to SAPS financial years, crime increased from 2010-2011 to 2019-2020. In the specific period from 2019 to 2020, there was a 1.4% increase in crime, with a total of 21,325 reported murder cases. In the mid-1990s, coinciding with the advent of democracy in SA, there was a noticeable surge in murder cases that drew the attention of law enforcement (Treves, 2013:25; Gottschalk, 2009:135; Thibault, Lynch & McBride, 1998:164).

For example, the central statistical service, reporting on prosecutions and convictions for certain crimes in 1995/1996, provided insights into this trend Central Statistical Service. Treves (2013:25) Thibault, Lynch and McBride (1998:164) were stated that Martin Schonteich utilised the sources to compile and analyse various performance indicators related to the South African criminal justice system. Additionally, international comparators offer insights into the situation as well. This study's results section attempts to compare the findings with those of previous studies. However, the impact of a single murder investigation can reverberate throughout the SAPS, adversely affecting public confidence. A notable example is the enduring impact of offenders like Moses Sithole and the so-called station strangler on the nation's psyche (Omar, 2008a:28). Initial measures were taken to address this evolving threat. For instance, a police officer intervened to rectify the mishandling of the crime scene and evidence during the management of the Oscar Pistorius case (Newsroom 24, 1October2023).

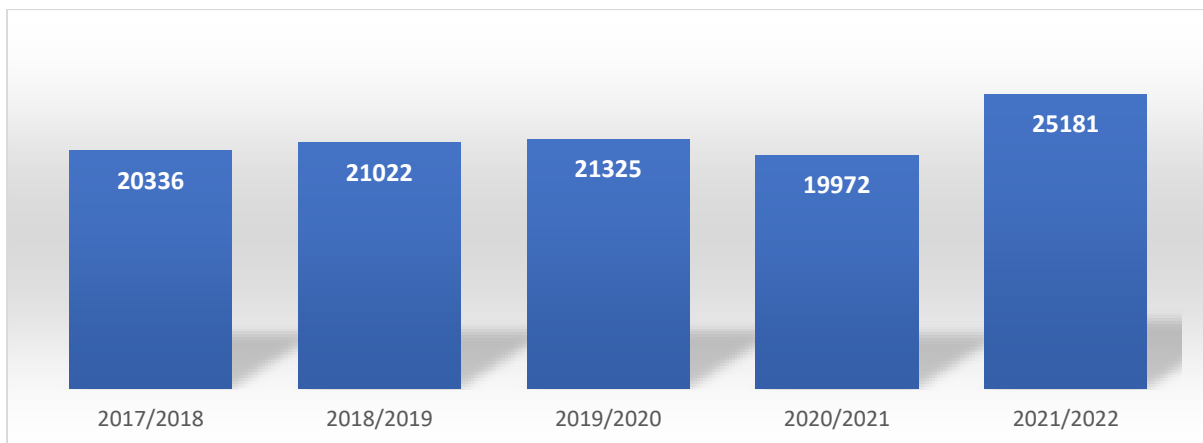
During the Oscar Pistorius trial, a police officer admitted to mishandling evidence in court during cross-examination (Newsroom24 10 June,2023). The officer mentioned that they had picked up the handgun from Pistorius's house, and touched the bloody bathroom floor, without wearing protective gloves (World News, 19 September 2014a and Newsroom24, 12August 2023). Additionally, another police officer testifying in the Oscar Pistorius murder trial conceded that evidence was mishandled at the scene where the Paralympian shot Reeva Steenkamp to death (Newsroom24 1October, 2023, (Emsie & Ferreira, 2014:20). In the more recent murder case of Senzo Meyiwa, a police official faced cross-examination regarding the management of the crime scene (Newsroom24 23 May 2022). Significant concessions were made during the trial when the first state witness, a police forensic officer, contradicted his earlier statements.

A police officer who was an expert admitted that crucial evidence was not collected upon arriving at the scene of Senzo Meyiwa's death, and there was a risk of contamination in the area or on the body (Newsroom 24, 20September 2023). The police officer in this case displayed evasiveness and did not provide clear answers, citing two separate versions in affidavits the police officer also had submitted regarding the events on the night of Meyiwa's murder (Newsroom 24, 19 September 2023). Additionally, the Oscar Pistorius trial serves as an example again, where another police officer was cross-examined in court regarding the crime scene at Pistorius' residence where Reeva Steenkamp was killed in 2014 on Valentine's Day. During the trial of Oscar Pistorius in 2014 the police officer also testified the weapon was handled without wearing gloves (Newsroom24, 1 October, 2023).

This issue has had detrimental effects on the prosecution of criminal cases, tarnishing the image of the SAPS and the country. Murder investigations at crime scenes are essential to prevent injustices witnessed since the 1980s, as mishandling of murder crime scene management gains attention on social media platforms both in South Africa and globally (Lee, Palmbach & Miller, 2011a :25). According to South African crime statistics from 2018 to 2022 and the SAPS crime statistics, the volume of murder crimes remains a prominent aspect of service delivery attended to by the members of the SAPS.

The Crime Information Analysis Centre (CIAC) of the SAPS has conducted numerous studies highlighting the issue of reported murder crimes that have not undergone finalisation in the investigation process. Furthermore, the criminal justice system has been hindered in its ability to proceed with prosecutions due to these outstanding investigations. The figures presented below depict a consistent trend in murder crimes over five years. These statistics underscore the significant challenge that murder crime poses to South African society, emphasising the importance of understanding investigative practices in addressing this issue. At its core, crime is a persistent aspect of human behaviour that centres on how individuals interact with one another. According to Stelfox (2009:10), crimes against individuals, groups, and states have been extensively documented in recorded history, and there are numerous stories of people who broke the law in ancient myths. These days, a news bulletin wouldn't be complete without reports on crimes. Moreover, crime is often fabricated for entertainment, with a considerable number of books, films, plays, and television dramas featuring fictitious crimes as their central theme.

**Figure 1.1: Summary of the trend of murder for five years in Gauteng province**



**Source:** SAPS Annual Reports for the 2017/2018 to 2021/2022 Financial year

The above figure illustrates provincial and national figures and ratios from 2018 to 2022. It presents trends in murder crime at the provincial level for each financial year. The highest reported case rate is 25,181 during the specified financial years from 2018 to 2022. This summary encapsulates South Africa's crime statistics for the mentioned period. The mismanagement of crime scenes and evidence can have significant repercussions, impacting the prosecution of criminals negatively, leading to agency liability, or a loss of public confidence (Van Der & Luke, 2011:202).



As of the 2015 mid-year population estimates, South Africa's population was reported to be 54,956,900 people. Gauteng is the most populous province, accounting for 24% of the total population. Previous crime statistics released by SAPS in September 2015 indicated an increase in the number of violent crimes in South Africa since 2013/2014. South African criminals, including those involved in violent crimes, often escape conviction. For every reported violent crime, such as murder, a significant number of perpetrators go unpunished due to officers' insufficient training, lack of skills, and lack of experience in managing crime scenes. Failing to protect crime scenes and employing poor management techniques during the collection of physical evidence contribute to this problem. Gauteng province faces a serious challenge considering reported murder cases from 2018 to 2022, consistently exhibiting high rates every quarter. Investigation, gathering, and analysing evidence meticulously is crucial to ensure that justice is served. This responsibility falls on the first police responders to process and manage evidence correctly, making it admissible in court.

The SAPS crime statistics for the period from 1 April 2019 to 31 March 2020, revealed an increase in crimes of murder with aggravating circumstances. Although the latest quarterly crime statistics for criminal activity reported between July and September 2020 showed a reduction in year-on-year numbers, this decrease can be attributed to the country still being under some degree of lockdown. Moreover, the SAPS annual report for 2018/2019 highlights the critical importance of precise evidence management for effective crime investigation and the successful prosecution of offenders.

The report reveals that in 2018/2019, SAPS fell short of achieving its detection rate targets for the effective investigation of serious crimes, including contact crimes such as murder. The report cites several reasons for this deviation, emphasising that evidence is often compromised when the community disrupts crime scenes before the first responder arrives, resulting in forensic evidence being contaminated. Additionally, witnesses may be hesitant to provide statements or information due to fear of victimisation, and complainants may struggle to identify suspects, possibly due to intoxication, mental incapacity, or the use of disguises.

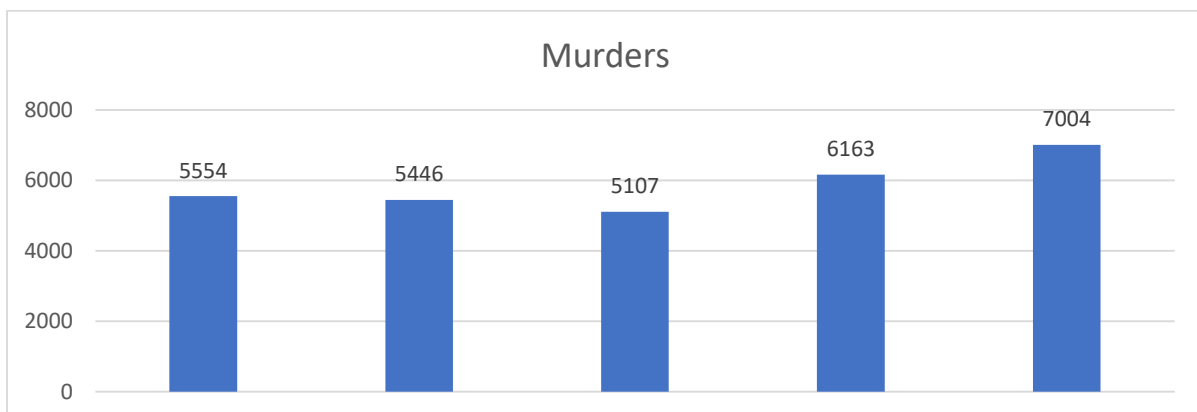
Other variables that contribute are the lengthy turnaround times for case record decisions, the lengthy delays in receiving toxicology reports because of the intricate procedures involved in sample analysis, and the challenges associated with tracking down and apprehending unidentified and undocumented repeat offenders based on forensic leads and linkages. The significance of evidence to ensure successful investigation and prosecution of crimes underscores its inclusion in the curriculum of every South African law qualification and other professions linked to the police force. In simple terms, when evidence is mishandled, justice is compromised, and the rule of law is undermined. The evidence's aim is to support legal professionals and law enforcement practitioners in the appropriate management and presentation of evidence, in line to advance the rule of law. This resource provides practical guidance on the steps required to present evidence in court.

The total number of reported murder cases in SA was 21,022 (SAPS Report, 2022:20). For the period 2018/2019 and increased to 21,325 for 2019/2020 (SAPS Report, 2020c:10). The rapid increase in reported murder cases highlights that murder poses a significant challenge to South African society and the SAPS. South Africa comprises nine provinces. Each province witnessed an increase in murder cases from 2018/2019 to 2019/2020. The overall increase in murder crime was notable, with a difference of minus 86 cases, equating to a percentage decrease of 2.2% in total. This indicates that murder crime remains a significant challenge in South Africa.

The total number of cases reported in all provinces was 21,022 in 2018/2019, and in 2019/2020, the total number of reported cases rose to 21,325. The table underscores that murder crime is a serious problem. The persistently high levels of recorded crime in South Africa demarcate the crucial need for accurate data to comprehend, explain, and control crime. The crime rate, whether on the rise or decline, serves two primary purposes. First, it serves as a gauge of the police's efficiency in preventing crime. Second, practices and policies for crime control are informed by knowledge of the incidences of crime. The following figure illustrates the crime situation in Gauteng province, South Africa, as reported in the annual crime statistics. The data indicates a concerning escalation in serious and violent crimes, particularly murders, aligning with the information from the SAPS Crime Statistics 2021/2022.

There is a noticeable increase in murders compared to the previous years, highlighting a pressing issue in the province. The reliance on information found at crime scenes is one approach to addressing this challenge. The figure emphasises the severity of the murder crime situation in Gauteng province, with a notable increase in just three months. SAPS has undertaken a new objective to align its crime statistics with international best practices. This involves a memorandum of understanding with Statistics South Africa (Stats SA) to enhance the quality and integrity of crime statistics. SAPS's crime statistics play a crucial role in the statistics system, informing policy development and planning in the criminal justice system. Collaboration with Stats SA aims to bolster the integrity of SAPS crime statistics, providing policymakers with quality data for informed decision-making. The latest crime statistics for the third quarter of 2022/23, covering October to December 2022, reveal a concerning figure of 7,555 recorded murders, averaging 82 murders every day – an alarming number by any measure.

**Figure 1.2: Murders**



**Source:** SAPS Annual Report (2022) from 2017/2018 to 2021/2022 financial year

The figure above indicates that the latest crime statistics depict South Africa as a violent country facing significant challenges. SAPS appears to lack effective preventive measures, and crime intelligence, and faces an overworked detective workforce. There are concerns about political interference and cadre deployment affecting the efficacy of criminal justice. The Lifestyle News of 2023 and the staff Writer 3 February 2023 indicated that global rankings. South Africa is positioned as the sixth most dangerous country in the world, holding the 187th rank out of 192 countries.

A recent ranking of the safest countries in the world in 2023 lists South Africa as one of the most dangerous by a country's murder statistics. Research platform by Wise voter compared 192 countries based on a country's death by stabbing, gunshot, and the overall homicide rate per 100, 000 people using the latest data from the Institute for Health Metrics and Evaluation and the Lancet's Global Burden of Disease (Lifestyle News, 2023:np). Regarding safety and security, certain countries stand out from the rest. The most secure countries in the world are generally those with strong economies, robust infrastructures, and low crime rates. Low crime rates in a country often correspond with strict gun control laws, effective law enforcement and a high standard of public health like Japan, Said Wisevoter (Staff writer, 3 February 2023).

Portia (2023:np) unlike the top-ranked countries, high unemployment, inequality, corruption, and a lack of policing foster several types of crime in a country including homicides. The data covered by the report is based on statistical data published data between 2019 and 2021. More recent data from the SAPS crime statistics presented in November 2022, shows that aggression and violence have escalated in South Africa and are now at worrying levels. Crime levels across the country were up between July and September 2022, with increases for most in the double digits. What is more concerning is that the number of murders showed a year-on-year increase of 13.6%, while attempted murder increased by 19.4%. For example, the countries that managed to outrank South Africa's poor ranking included El Salvador, Venezuela, Lesotho, Colombia, and Guatemala (Portia, 2023:np).

South Africa's neighbour Lesotho is the third most dangerous country, followed by Colombia and Guatemala with homicide rates of 35.95, 35.71, and 35.4, respectively. Fraser (2023:np) stated that thousands of South Africans are losing their citizenship some without even realising it. For example, in the case of Switzerland is another top contender for the title of the safest nation in the world due to its consistent commitment to neutrality and peacekeeping efforts. At the same time, Norway is known for its sophisticated emergency medical services and a general culture of respect for human rights, Wise voter (Staff writer, 2023, 3 February 2023). The Staff writer, 2023 (3 February 2023) indicated that the ranking, of the safest country in the world is Singapore, with just 0.44 homicides per 100,000 people.

Monaco follows this closely, with a homicide rate of 0.46, making it the second safest country in the world. Followed by San Marino comes in third place with 0.5 homicides per 100.000 people, and the United Kingdom follows close behind as the fourth safest country, at 0.51 homicides per 100.000, said Wisevoter (Staff Writer, 2023, 3 February 2023). Out of 193 countries: That is how badly South Africa ranks globally for crime, according to the latest organised crime data (Leathern, 2023). Portia (2023:np) stated that a recent ranking of the safest countries in the world in 2023 lists South Africa as one of the most dangerous measured by a country's murder statistics.

The study's main objective is to investigate how first police responders handled or managed murder crime scenes in Gauteng Province. The murder rate in South Africa is reported at 34.4 homicides per 100,000 people, with a notable breakdown of 16.95 deaths by stabbing and 17.04 deaths by gunshot per 100,000 people. The statistics reveal a worrisome year-on-year increase of 13.6% in the number of murders and a 19.4% increase in attempted murder. South Africa holds the third-highest crime rate globally, which includes a particularly high rate of murder. Specifically, during the period over three months starting from 23 November 2022, more than 7,000 people were murdered in South Africa. New police statistics indicate a rise in violent crime compared to the same period in the previous year (Newsroom 24, 20 September 2023).

This information was presented to South Africa's parliamentary portfolio committee on police, detailing crimes reported to the SAPS from July to 30 September 2022. These quarterly figures indicate a troubling rise of 14 per cent in the murder rate between July and September, compared to the same period in 2021 when 6,163 people were killed. Among the victims in 2022, nearly 1,000 were women. Additionally, over 13,000 women experienced assault with the intent to cause grievous bodily harm, and 1,277 women were victims of attempted murder. These figures stress the urgency of addressing how first police responders manage murder crime scenes to enhance conviction rates. The data suggests that the technique employed by the first police responder in managing murder crime scenes plays a crucial role in mitigating issues at the crime scene to secure proper convictions. The implementation of crime scene management policies should extend beyond theoretical considerations and be put into practical action.

Immediate and effective practical training is essential to address the challenges in managing crime scenes. The primary issues at murder crime scenes often stem from first police responders lacking the necessary skills, inadequate practical training, and a lack of experience in following established procedures, principles, and policies (Jairam, 2015:20). This demonstrates a lack of understanding, the possibility that higher authorities provided illegal instructions, and insufficient experience with murder crime scenes. Challenges include an inability to report facts thoroughly, clearly, and accurately due to limited linguistic ability. There may be difficulties in distinguishing between fact and fiction, and a negative attitude and approach towards murder crime scenes may be evident. Furthermore, there's a propensity to use theories and early deductions as a guide, accepting possibilities only after these biased opinions were formed (Lee & Harries, 2011:80). Dutelle (2014:18) highlights additional problems, including the tendency to confuse the unlikely with the impossible, the disregard for obvious facts, and the inability to follow up on plausible and probable responses or consequences. Recurring crime scenes can also lead to the emergence of stereotyped behaviour. These challenges collectively underscore the need for enhanced training, knowledge, and a more nuanced approach to effectively manage murder crime scenes.

Furthermore, as Dutelle (2014:15); Van Rooyen (2007:10); Van Rooyen (2012:10); Van Rooyen (2011:10) have noted, investigating officers may have misinformed beliefs that they have already collected enough evidence to establish guilt. Confessions and admissions may have the potential to mislead, and there may be scepticism about the veracity of crime scenes. Furthermore, the investigator's attention may be narrowly focused on observing only those aspects that pique their interest or capture their attention, ignoring other valuable exhibits. The conduct of members of the SAPS at crime scenes often has a detrimental impact on the investigation process and, ultimately, on convictions in a court of law. The public, courts, and media consistently scrutinize the behaviour of police officials in a society where individuals are acutely aware of their rights. Crime affects everyone, and there is a growing demand for efficient service delivery. While positive attention is beneficial, negative attention and perceptions can significantly harm the credibility and image of a service that has undergone a decade-long transformation from an apartheid force to a democratic institution based on principles of human dignity, equality, and freedom.

However, individual police officials can avoid negative attention and embody the professional ethos of the SAPS by enhancing their knowledge in their respective fields. Positive clarification of the crime situation and a successful criminal investigation depends on identifying the crime situation and the people involved, as Dutelle (2014:18) points out. As such, crime scenes may be altered or tainted with evidence to depict the scene's conditions. This can happen when people handle evidence at crime scenes incorrectly (Lochner & Zinn, 2019:6). However, there is a tendency among officers to concentrate primarily on the weapon or objects used to cause harm, leading to immediate arrests of suspects in the crime scene.

This focus may overshadow other crucial physical evidence, such as blood, hair, fibres, fingerprints, footprints, tool impressions, and tissues, which are essential in establishing a connection between the criminal and the crime scene (Jackson & Jackson, 2011:120). Physical evidence often remains concealed at crime scenes, risking oversight or destruction due to carelessness and lack of awareness (Bell, 2014:14). Care and common sense are not always used, despite the necessity of exercising caution to prevent jeopardising any physical evidence that may already exist (Lochner & Zinn, 2019:6). As a result, this practice results in the loss of important evidence, especially in cases involving murder, where members may fail to recognise the significance of exhibits. Ineffective or inadequate processing methods, as well as members' ignorance of the proper procedures and basic principles when handling physical evidence, can be blamed for the possible loss of cases (Ogle, 2012:15).

Investigators must base their decisions on the particulars of each case, drawing from their experience and common sense, even though there are no rigid guidelines specifying what and how physical evidence should be collected. In a legal context, investigators must acquaint themselves with fundamental principles, policies, and procedures, understanding their respective expectations in each. Tilstone and Ricciuti 2007:19; Osterburg and Ward (2010:96) were stated that the assert that crime scene processing stands as the most crucial phase in solving crime investigations. They acknowledge that errors made during crime scene processing can introduce flaws in the foundation of an investigation, potentially leading to the collapse of the entire criminal case.

SAPS (2013:15; Inman and Rudin, 2011) illustrates that a poorly managed crime scene, mishandled evidence, and the subsequent neglect of chain-of-custody requirements resulted in the acquittal of the accused. According to Palmiotto (2013:99; Omar (2008b:28), police personnel need to be constantly aware that errors and omissions made during a crime scene are difficult, if not impossible, to correct afterwards. The guiding principle is clear: "A crime scene is Holy Ground and should be dealt with and respected as such" (Van Rooyen, 2012:13; Marais & Van Rooyen,1993:13). The subject of this study is the improper handling and management of murder crime scenes, which necessitate a high degree of expertise because of the deep effects that murder has on a community. Murders warrant a more thorough approach to crime scene investigation than other crimes. The study specifically examines the actions of the first police responders in managing murder crime scenes.

## **1.4 RESEARCH AIM AND OBJECTIVES**

This section of the study describes the purpose and intent of the research. The objectives of the research are presented and discussed in depth. The act of doing research comprises a logical and methodical pursuit of innovative and useful information on a specific topic (Kothari, 2014:50). Mills and Birks (2014: 204; Leedy (2015:11) both emphasise that stating the purpose of the research reveals the researcher's intention to the readers of the study by telling them what the researcher wishes to achieve. Given the importance placed on the quality of the first police responder's management of a murder crime scene and the lack of research about the critical skill sets required by the first police responders, this research aims to be the first step in addressing this gap.

### **1.4.1 Research Aim**

According to Braum and Clarke (2013:53); Mouton (2012:50) stated that the researcher must be clear about the general aim of the study. In other words, the researcher should have a defined understanding of what exactly they want to find out and establish through the research. In this research, the study aims to explore the actions of the first police responders in the management of murder crime scenes.



### **1.4.2 Research objectives**

For this study, the research objectives provide an outline of what the researcher wants to achieve at the end of the study. The study's main objective is to investigate how first responders handle murder crime scenes in South Africa's Gauteng Province. The central focus of the researcher is the role of the first police responder in the management of the murder crime scene. Therefore, the objectives are as follows:

- To identify the roles of the first police responder at the murder scene.
- To establish challenges encountered by the first police responder at the murder scene.
- To identify the most suitable practices for the first police responders to manage the murder scene.

### **1.5 RESEARCH QUESTIONS**

To achieve the aim of the research, the key themes of the research must be identified through the development of research questions. These research questions then guide the researcher in managing and analysing the emerging data (Wangner, Kawulich & Garner, 2012:18). The research questions provide a structure for the literature review of a research study. Defining the research questions is a critical phase of the research process since the research questions define the direction that the research will take (Jassen, Matheson & Lacey, 2011:18). Likewise, Denscombe (2010:31); Denscombe (2021:31) both of them stated that the research questions identify what is to be investigated. Subsequently, the research questions for this study were formulated to focus on the identified research problem. The research questions are as follows:

- What are the roles of the first police officer at the murder scene?
- What are the challenges faced by the first responder at the murder scene?
- What are the best practices for the police responders to manage the murder scene?

## **1.6 KEY THEORETICAL CONCEPTS**

Leedy and Ormrod (2005:119); Leedy and Ormrod (2015) explained the purpose of defining key concepts for the research study to prevent any misunderstanding while Berg (2007:36; Maxfield and Babbie (2005:120) both emphasises the value of conceptualising as a term used to ensure that readers understand what is meant by certain concepts in the research.

### **1.6.1 Crime scene**

A “crime scene” is a “place where direct or indirect evidence of a crime or an allegedly committed crime can be found”. This notion is echoed by Fisher (2004:5); Fisher & Fisher (2012) who states that the term specifically refers to an area where a crime took place, and by Gilbert (2007:79) who defines a “crime scene as a location at which a suspected criminal offence has occurred”. Similarly, Stelfox (2013:126) writes that the term “crime scene” is used to describe any location in which significant activity related to a crime takes place”. A crime scene is a physical area where an alleged might have occurred and where evidence related to the crime is presumed to be located (Stelfox 2013:126; Schmallegger, 2005:237).

### **1.6.2 Crime investigation**

“Crime investigation” is a systematised search for the truth and is primarily aimed at the positive clarification of the crime situation based on objective and subjective traces (Van Rooyen, 2012:17; Marais & Van Rooyen, 1993:17). Crime investigation is directed at the gathering of facts and information through which the crime can be reconstructed (Orthman & Hess,2013:8; Marais & Van Rooyen, 1993:13).

### **1.6.3 Crime scene management**

“Crime scene management” is the term used to define the action taken to ensure that all available forensic evidence is recovered from a crime scene (Gardner, 2012a:13).

Gehl and Pleasca (2016:102); Omar (2008a:28) both describes the term “crime scene management” as “the process of ensuring the orderly, accurate, effective collection and preservation of physical evidence so that the evidence can be used to take legal action.” Gehl and Plesca (2016:102) describe the term as the necessary skills required for investigation because evidence that originated from the crime scene will construct a picture of events for the court to consider in its deliberations.

#### **1.6.4 First responder**

The “first responder” refers to the member of the SAPS, irrespective of their unit, who after being dispatched are first to arrive at the crime scene (SAPS, 2005:2). Correspondingly, the SAPS (2013:13) and Lochner and Zinn (2019:5) assert that the first responder refers to the person who arrives first at a crime scene or the scene of an incident. The term “first responders” refers to a range of professional occupations, including police officers, fire fighters, search and rescue personnel, ambulance personnel, and military personnel (Daugherty & Armetzs, 2018:np).

#### **1.6.5 Murder**

“Murder” entails the unlawful and intentional cause of death of another person (Joubert, 2001:104). Brookman (2005:3-8) explained murder as the killing of one person by another and similarly, Geach (2014:1) defines murder as the unlawful and intentional killing of one person or another.

#### **1.6.6 Criminal investigation**

Gilbert (2010:34) defines “criminal investigation” as a logical, objective legal inquiry involving possible criminal activity, while Bennett and Hess (2004:4) define it as the process of discovering, collecting, analysing, and presenting evidence in a court of law to determine what happened and who is responsible. A criminal investigation is the process of discovering, collecting, preparing, identifying, and presenting evidence to determine what happened and who is responsible (Orthmann & Hess 2013:8).

### **1.6.7 Evidence**

According to Houck and Siegel (2011:49), “evidence can be defined as information given in legal investigation to make a fact or proposition less or more likely”. Houck and Siegel (2011:49); Holden (2006:39) points out that “evidence” is the term used for anything or any item, either seen or unseen to the naked eye, that has been used, left, removed, altered, or contaminated during the commission of an offence. Van Rooyen (2012:244); Van Rooyen (2011) gives a sharp analysis of the concept of evidence. He contends that when considering the court’s point of view, evidence pertains to all the relevant information that exists and is presented to the court.

### **1.6.8 Physical evidence**

Physical evidence is any object of a material nature and must be a physical object that is linked to a crime (Ogle 2012:4). Ogle (2004 :2) defines the term “physical evidence” as physical objects that are associated with a crime. According to Lyman (2011:177), physical evidence has physical attributes such as shape, size, and dimension making it possible for evidence to be brought to or removed from a crime scene. According to Marais (1992:6), ‘physical evidence’ can also be referred to as “real evidence”. Schivikkard and van der Merwe (2002:367) define real evidence as “anything, person, or place that is observed by the court so that a conclusion may be drawn as to any fact in issue”. Therefore, physical evidence covers a wide range of possible items and materials from the murder scene.

### **1.6.9 Identification**

Van Graan and Budhram (2015:48); Fisher (2004:7) states that “identification” refers to the fact that items with the same properties often originate in the same place and can be classified or placed into similar groups accordingly. Gardner (2012b:23) states that the concept refers merely to the classification of something or someone belonging to a specified class or group. Osterburg and Ward (2010:36); Lee et al (2001a:274) define the term as a process whereby the class characteristics of an object or known substances are used to create a comparison with evidence collected from a crime scene.

### **1.6.10 Individualisation**

Houck and Siegel (2010:4) define the concept of “individualisation” as follows: ‘[i]t is a process that takes place through comparison to another and is used to establish that a disputed sample, when compared, is of the same origin’. Gardner (2012a:25) expands upon this concept of individualisation and its relation to forensic investigation. He states that the primary objective of forensic investigation is the examination of an individual’s characteristics. It is an important process that can conclude that evidence, like blood, fingerprints, and hair samples, came from a specific individual. According to Ogle (2012:352) and Bell (2014:180), the term ‘individualisation’ is the process of linking physical evidence with a common source. Bell (2014) goes on to say that individualisation is a process which starts with identification, progresses to classification, and leads, if possible, to assigning a unique source to a given piece of physical evidence. Gilbert (2010:37,38) states that a process of individualisation takes place to determine individuality. He adds that the process usually consists of a series of several identifications and comparisons.

### **1.7 VALUE OF THE STUDY**

The conceptual framework of this study is based on the exploration of the first police responder’s management of the murder crime scene. Denscombe (2010:24) believes that research is justified to pursue when it extends the boundaries of knowledge by contributing something to existing information, theories, or ideas, even if such a contribution is modest in influence. It is the viewpoint of this researcher that research should be used to advance the understanding of the fundamental nature of knowledge in general as well as social constructs by applying study results to solve specific and immediate problems. Leedy and Ormrod (2013:46) reiterate that it is very important for the researcher to illustrate the importance of the study. LoBiodo-wood and Habber (2014:39); Blaickie (2009:19); Brynard and Hanekom (2006:2) also argue that research regarding crime management must make a reasonably direct or useful contribution to some field of high concern. As Denscombe (2010:43) and De Vos, Strydom, Fouché, and Delport (2011:94) also envisage that the knowledge obtained in research should be able to make positive contributions with real-life applications, this study also aims to add value in the following areas:

- The academic body of knowledge will increase with the recommendations from this study. The acquired knowledge will be made available to the University of South Africa (UNISA) libraries, and subsequently, the greater academic community will have access to the document.  
Information from this document could be used in curricula and learning programs and as a referral source for academics for further studies.
- SAPS members will enhance their understanding of the best management practices to process murder scenes.
- As the SAPS members enhance their skills to process murder crime scenes, it will also improve police effectiveness and efficiency at a station level.
- The study findings and recommendations can close the gap between any lack of skills or information in first police responders and the expected requirements for accurately managing crime scenes.

## **1.8 SUMMARY**

The chapter serves as the introduction to the research set out in this thesis. This chapter discusses the scientific and academic standards appropriate for this research study in detail. The various scientific and research processes applied to conduct this research were discussed in length. The chapter outlines the general structure of this study, as well as the research methodological parameters followed. The research problem and the corresponding aim of this study is to explore the first police responder's management of a murder crime scene in Gauteng province.

## **CHAPTER TWO: LITERATURE REVIEW ON THE ROLE OF THE FIRST POLICE RESPONDER AT MURDER CRIME SCENES**

### **2.1 INTRODUCTION**

The chapter discusses the roles of the first police responder at the scene of a murder. Much work has not been done on murder crime scene management to unsolved murders crime scene in South Africa. The review would therefore cover relevant studies on Crime scene management unsolved murders in South Africa with a view to helping build up a literature base for this field of study. The purpose of crime scene management is to collect facts that can serve as evidence before a court of law; through which the associative part of an accused in the commission of a crime can be proved, with the purpose to resolve the crime. It concluded that the effectiveness of accurate crime scene management is always closely linked to other factors.

The first police responders should not rely on presumptions but need to prove a crime by means of evidence. It provides an overview of the different aspects of a murder crime scene, including the legal framework and other theories relevant to this study. Overview of the murder crime scene. The legal framework includes the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996), the South African Police Service Act 1995 (Act 68 of 1995), National Instructions Policy 2 of 2005, the Criminal Procedure and Investigation Act 1996 (CPIA), Criminal Law (Forensic Procedures) Amendment Act 6 of 2010, Criminal Law (Forensic Procedures) Amendment Act 37 of 2013, and Criminal Evidence Act of 1984 and Legislation pertaining to fingerprints, theoretical concepts include: Locard principle, rational choice theory and strain theory.

### **2.2 OVERVIEW OF THE MURDER CRIME SCENE**

This section provides an overview of a murder crime scene. Gardner (2012a); Gardner (2012b) recognized that crime scene management, first and foremost, is to manage the scene and search for the truth of what has happened and to establish who were involved.

However, Gardner (2012b) affirms that in carrying out crime scene management is to collect and search for the truth of what has happened and to establish who were involved. Gardner (2012a) concluded that in carrying out forensic investigation it should be done in such a manner that is lawful and does not violate the rights or liberties of those being investigated. Each of the above research work is an important contribution to the role of crime scene management in unsolved murders. A significant percentage of both violent and non-violent crimes are never solved by the police because the police are unable to make an arrest. Some of these crimes remain unsolved due to lack of solvability factors (e.g., no eyewitnesses, no physical evidence, no known suspects, no leads, lack of police resources, etc.) while others remain unsolved due to investigative failures (Rossmo, 2008). However, none of this work directly links forensic investigation to unsolved murders in South Africa.

The study, therefore, seeks to fill that void. Consequently, the study attempts to explore the actions of the first police responder in the management at the murder crime scene. Considering the overviews murder is classified as a serious offence. Crimes against the person are those offences that violent such inalienable personal interests of the individual as his or her life, liberty, dignity, and the well-being of his or her person, including the body and personality (Joubert, 2013:104). The murder requires a severe punishment. Murder is among the most disturbing challenges that the SAPS must tackle. Seeing as the overall aim of this study is to explore the action of the first police responder in the management of a murder scene.

The impact of such work on the individual executing this task must also be considered. The investigation of a murder scene contributes significantly to occupational stress among the first police responders at a SAPS station. The investigation of murder requires extensive experience and adept detective work, particularly when dealing with violent crimes. Lee et al (2011b:1) assert that investigating a crime scene goes beyond the documentation, processing, and packaging of physical evidence; it represents the first and most crucial step in examining a potentially criminal act. Pepper (2010:13) concurs with this notion, emphasising that a thorough and conscientious examination and recording of the crime scene is paramount.



Pepper (2010:13) further signals a warning that a crime scene investigator only has one opportunity to recover the evidence that could prove the case. Failure to do so may result in the destruction or contamination of crucial evidence. Even though the number of murder cases in South Africa is affected by many of the same universal factors that are also present in other countries, our unique situation and history have contributed to a range of factors specific to our situation. “For example, on 29 December 2022, Ivan Pijoo and Marvin Charless indicated the crime stories that shocked South Africa in 2022. In the case from child women murders to the mass shooting at Taverns, Rapes, and Kidnappings, crime in South Africa continues to send shockwaves across the country.” (Newsroom 24 118 December,2023).

While presenting the crime statistics reported to the SAPS from the first of July to 30 September 2022, Minister of the Police, Bheki Cele, said:

“The high level of abuse and murder of women were worrying and unacceptable. The minister indicated that a double-digit percentage increase was reported over a three-month period for murder, attempted murder, and assault with intent to cause grievous bodily harm (GBH) against women” (Newsroom 24, 18 December 2023).

From April to the end of September, 558 children were killed in the country. Furthermore, the “President of South Africa also spoke of how all these murders thus happened in the country told a story about the society that was deeply disturbing” (Newsroom 24, 18 December 2023). Further example is, Enyobeni Tavern tragedy in East London, what was supposed to be a regular weekend party, turned into tragedy. During a celebration of “hanja iphepha” pens down a tradition celebrating the end of school exams, 21 people were killed in the Enyobeni Tavern in June. Nine girls and twelve boys aged between 13 and 17 died in the tragedy. During that particular year, the provincial health department announced that 21 youngsters had died of suffocation at the overcrowded tavern (Newsroom24 18 December 2023). In July, the owner of Enyobeni Tavern, Siyakhangela Ndevu 52, and two of his employees were arrested. The arrests came after the Eastern Cape Liquor Board laid charges at the Scenery Park Police Station” (Newsroom 24, 18 December 2023).

For example, of the Mdlalose Tavern shooting, in July, more than 130 AK-47 cartridges were collected from the scene at Mdlalose Tavern in Soweto where 16 patrons were gunned down. Bloodstains could still be seen at the tavern, and empty beer bottles were scattered outside during government visits following the shooting. The tavern's steel door was riddled with bullet holes (Newsroom 24, 18 December 2023). In the case of Khayelitsha, there have been several violent incidents. But in the informal settlement of Endlovini, five people were killed in the early hours of the morning of 14 March 2022 (Newsroom 24, 18 December 2023).

## **2.3 LEGAL FRAMEWORK MANAGING MURDER CRIME SCENE**

The first police responders must operate within the legal framework when managing murder crime scenes. As highlighted in the introduction of this chapter, various legislative and policy guidelines exist. However, the question arises whether these are substantial enough to effectively regulate the SAPS's management of crime scenes. The law, in this context, refers to the body of rules and regulations governing human conduct or other social relations, which are enforceable by the state. The fact that these laws are enforceable by the state distinguishes them from other rules.

### **2.3.1 The Constitution of the Republic of SA 1996 (Act 108 of 1996).**

The constitution of a country governs the organisation and the structure of the state. SAPS derives its unique mandate from Section 205 (3)(a) of the Constitution of the Republic of South Africa, 1996 (Act 108 of 1996). The section of the Constitution legislated that the SAPS is mandated to prevent, combat, and investigate crime, maintain public order, protect, and secure the inhabitants of the RSA and their property, and uphold and enforce the law. For the SAPS, to effectively carry out its mandate, and address the complexities and evolution of the policing environment, evidence-based innovation and operations are required (SAPS Policy 2, 2015c).

The policy provides guidelines for the management of all crime scenes, irrespective of the scale or nature of the crime, ensuring that crime scenes are properly controlled, managed, and documented, and that the integrity of items with potential evidential value is beyond doubt. It is therefore important for the first police responders to thoroughly investigate the murder crime scene, as any evidence gathered will aid in the prevention and combatting of crime. Chapter 2 of the Bill of Rights stipulates that everyone has the right to freedom and security, which includes the right not to be arbitrarily deprived of freedom. This includes the right not to be detained without trial or without just cause. Individuals have the right to be free from all forms of violence from public or private sources, not to be tortured in any way, and not to be treated or punished in a cruel, inhuman, or degrading manner. As outlined in the problem statement in section 1.3, the criminal justice system addresses the set of complex problems in society caused by crime. One of these problems is that crime causes fear and can restrict people's freedom of movement. Society is exposed to many terrifying criminal deeds such as rapes and robbery. The first police responder, as mandated by the Constitution, must protect people and their property from such crimes. The proper response by the first police responder at the murder crime scene can deter criminals from further tampering with the crime scene.

### **2.3.2 The South African Police Service Act, 1995 (Act 68 of 1995)**

The purpose of the Police Service Act is to establish, organise, regulate, and control the SAPS (Joubert, 2013:16). SAPS, as mandated by Section 205 of the Constitution, is tasked with preventing, combating, and investigating crime, safeguarding the inhabitants of South Africa and their property, and upholding and enforcing the law. This mandate aligns with the National Development Plan (NDP) outcome 3: 'All people in South Africa are safe and feel safe'. The reference to 'feeling safe' relates to the public's inner perception of safety and security, while 'being safe' refers to the external prevalence of serious crime in the country. The SAPS's performance undergoes scrutiny from internal and external oversight bodies. Governed by its act, every member is expected to adhere to the SAPS Act No. 68 of 1995.

Smit, Minnaar, and Schnetler (2004:12) and Joubert (2013:20) state that the SAPS Act covers the establishment, organisation, regulation, and control of the SAPS, as well as matters related to the following:

- Ensuring the safety and security of all persons and property in South Africa, requires the police to ensure community safety.
- This is also highlighted in the problem statement (section 1.3.) above, emphasising the role of the first police responder in managing murder crime scenes.
- Maintaining and safeguarding the fundamental rights guaranteed by Chapter 3 of the Constitution of South Africa, which states that communities have the right to free movement in the country, which requires police officials to ensure commuters' safety. This is the principle envisaged by the Constitution of the Republic of South Africa of 1996 (Joubert, 2013:48). This concept has also been expanded upon in the previous section.
- Ensuring cooperation between SAPS and the communities in the fight against crime, requires effective policing that relies on a positive working relationship between the police and local communities.

The different facets of crime can be addressed together by fostering collaboration between the police and other stakeholders, including private security firms.

- Ensuring effective supervision of service members, requires supervisors of the police service to monitor members on the ground to ensure diligent execution of their duties. Supervision is pivotal in crime prevention.
- Pheiffer (2013:78) outlines that the SAPS Cluster and Station Commanders take responsibility for motivating and focusing their members on daily priorities to reduce crime, eradicate corruption, and fulfil their duties in line with the SAPS Act No. 68 of 1995 (Joubert, 2013:16). It was suggested that collaborations between all crime-fighting entities, including the media, can enhance the information-gathering database for crime tipoffs received from residents, thereby positively impacting crime conviction rates (Pheiffer, 2013:84).
- To demonstrate respect for victims of crime and to meet the victims' needs, the SAPS Act mandates that police treat the victims with dignity, fostering trust between the police and communities.

- Stopping an offence in progress or preventing a potential offence; enabling the search for evidence of the offence; enabling the search for items that may cause danger to the police investigator or others; establishing the identity of suspected persons; and guaranteeing accused persons attend court to face charges.

The meticulous investigation of the crime scene by the first responder aims to bring perpetrators to justice, thereby protecting and securing the inhabitants of the country. Stelfox (2013:18) defines police investigations as inquiries conducted to determine whether a person should be charged with an offence or if a charged person is guilty. This encompasses investigations into committed crimes and those initiated to establish if a crime has occurred, potentially leading to criminal proceedings. When a police officer is under the impression that a crime might still occur, they can observe premises or individuals for a certain period with the intent to prosecute potential criminals. Charging a person with an offence may include prosecution via summons, especially if the suspect is still present at the crime scene.

The suspect should then be arrested and detained. Police officials must recognize that an arrest may only be executed when authorised by law. If a warrant has not been authorised for an arrest, the apprehension of a person is performed based on the discretion of the police official concerned. A police official is therefore not compelled to exercise their power of arrest, and they should carefully consider alternative courses of action as well. The police official should deliberate on their objectives for arresting a person. The Criminal Procedure Act and the Constitution impose strict conditions and provisions regarding arrests, and failure to comply with these could render an arrest unlawful. Gehl and Plesca (2016:27) emphasise that arresting or detaining a suspect represents two of the most critical actions a first police responder can perform in any investigation. Arresting or detaining a suspect are both distinct courses of action, each with strategic advantages that allow the first police responders to exert control over the investigative environment by securing suspected persons in custody. The concept of arrest for first police responders involves the process of taking a person into custody when there are reasonable grounds to believe that the person being arrested has committed an offence.

The police are granted the power of arrest by numerous statutes, including criminal procedure acts. Nevertheless, the South African constitution of 1996 (Act 68 of 1995) provides guidance for all police officials in South Africa regarding the power of arrest. Section 13(1) of the Constitution confirms that police officials may exercise the power of arrest and perform the duties and functions assigned unto them by law. However, police officials' actions remain subject to the Constitution and with due regard to the fundamental rights of every person. This implies that police officials are obligated to consider the provisions of the Constitution, particularly the rights of individuals when authorising and performing any action. Therefore, every empowering provision should be subject to the conditions set out in the Constitution.

### **2.3.3 National Instructions Policy 2 of 2005/ 2015**

The SAPS National Instruction 1 of 2015 (SAPS, 2015a) outlines the crime scene management process, including planning and implementation measures. The policy aims to provide comprehensive guidelines for managing all crime scenes, and ensuring that, regardless of the scale or the nature of the crime, scenes are appropriately controlled, managed, and documented, and that the integrity of items with potential evidential value remains unquestionable. This is achieved by maintaining the overall integrity of the crime scene; securing access routes, preventing rioting and looting; restricting unauthorised access; and minimising traffic flow at the crime scene (Lochner & Zinn, 2016:10).

The Crime Scene Management section plays a crucial role in ensuring the effective processing and management of crime scenes, aiming to eliminate contamination, thoroughly document, identify, and package exhibits, and conduct analyses by established policies and procedures (Kempen, 2014:11). Crime scene processing is guided by provisions outlined in SAPS policy documents and standard operating procedures. Policy 5 of the framework for LCRCs delineates its responsibilities regarding fingerprint and photographic activities (SAPS, 2003). SAPS National Instruction 1 of 2015 (SAPS, 2015a) outlines the required conduct during crime scene management, while criminal investigation procedures are stipulated in the Criminal Procedure Act.

Traditionally, the management of a crime scene commences when a police officer or private investigator, after having responded to a call, arrives at the scene. The responding officer or private investigator is then responsible for assessing the crime scene. The first police responders will secure the area and provide information to other police officials attending the crime scene, including the investigating officer responsible for the overall investigation. Similarly, all other officials are required to also report to the senior police officer in control of the scene upon arrival (Kempen, 2014:11). In practice, should a private investigator be the first to arrive at a scene, they will hand over the crime scene to the first police responder.

Private investigators are typically experienced and trained in crime scene management. While there are various scene-of-crime management processes, investigators must recognize that these processes will vary from incident to incident and from one type of crime to another. The management process for a toxic waste spillage, for instance, will differ from that of a stolen motor vehicle. Given this diversity of incidents, there cannot be rigid rules about the actions to be taken that will fit all crime scenes.

This encompasses the location, along with its surrounding area, where an alleged offence occurred or where items with potential evidential value can be collected. Gehl and Plecas (2019:102) stated that crime scene management involves the process of planning and implementation of measures such as:

- Securing and taking control of the crime scene.
- Ensuring the integrity and originality of evidence and exhibits.
- Thoroughly and undisturbedly investigating and processing the crime scene.
- Increasing and coordinating the collection of exhibits.
- Optimally utilising investigation support resources.
- Accurately recording facts and events.
- Ensuring that the crime scene remains under police protection for the period determined by the crime scene manager (Gehl & Plecas (2019:102)).

To identify the golden rule of managing an incident at a crime scene: “Never touch anything”.

Adhering to these golden rules is crucial until the evidence has been thoroughly documented, identified, measured, and photographed, for once an item or object has been moved, and it cannot be restored to its original position (Gehl & Plesca, 2016:102). A proper scene of the crime management process should avoid contamination and disturbance of the scene and the remaining evidence, guaranteeing the integrity and unspoiled nature of the evidence and exhibits. This guarantees that the rest of the scene of the crime remains intact, preserving the accuracy of facts and events and facilitating the collection of exhibits and evidence. Furthermore, ensuring the safety of complainants, victims, witnesses, investigators, and officials on the scene of the incident is a paramount aspect of incident management.

### **2.3.4 The Criminal Procedure and Investigation Act 1996 (CPIA)**

All senior investigators should possess a thorough understanding of the requirements outlined in the Criminal Procedure and Investigations Act 1996 (CPIA, 1996). Section 2.1 of the Code of Practice under Part II of the CPIA of 1996 provides key definitions relevant to the role of the Senior Investigating Officer (SIO). Relevant extracts from the CPIA are discussed below. One such definition found in the CPIA states that a criminal investigation is characterised as an inquiry conducted by police officers that aims to determine whether a person should be charged with an offence or if a person already charged is guilty of an alleged offense.

This encompasses investigations into committed crimes, inquiries to establish whether a crime has occurred for potential criminal proceedings, and investigations initiated on the belief that a crime may transpire. The CPIA specifies guidelines when police keep premises or individuals under observation for a defined period, anticipating potential criminal proceedings. Charging a person with an offence can include prosecution by summons. An investigator is defined as any police officer engaged in the execution of a criminal investigation and holds the responsibility to fulfil their duties as outlined in the CPIA. This encompasses tasks such as recording information and maintaining records of information and other materials.



Section 3 of the CPIA delineates some general responsibilities, clarifying that the functions of the investigator, the officer in charge of an investigation, and the disclosure officer are distinct. The allocation of these responsibilities to one or more individuals depends on the case's complexity and the administrative setup within each police force. In cases where multiple individuals are involved, close collaboration between them is imperative for the effective execution of duties mandated by this code. The chief officer of police for each police force bears the responsibility of recording the identity of the officer in charge and the disclosure officer in every investigation. While the officer in charge of an investigation may delegate tasks to another investigator or civilians employed by the police force, they retain responsibility for ensuring task completion and that the investigation adheres to general policies. A fundamental aspect of the officer in charge's duties is to ensure that all relevant material for an investigation is retained and either provided to the disclosure officers or, in exceptional circumstances, disclosed directly to the prosecutor.

Stelfox (2013:67) emphasises that the purpose of criminal procedure and investigations is to guarantee a level playing field at trial by imposing a legal duty on investigators to disclose all gathered material to both the prosecution and the defence. This necessity emerged due to instances where investigators and procedures neglected to disclose material that could have supported the defence case, leading to miscarriages of justice. In some cases, such behaviour might have been influenced by the adversarial nature of the legal system and the strategic imperative of the police organisation to bring offenders to justice. The CPIA supersedes such considerations by essentially incorporating the gathering of material into the responsibilities of both the criminal investigation and the investigator.

It imposes obligations on both parties to maintain records of the investigation, pursue all reasonable lines of investigation, and disclose the material they uncover to all parties involved in the trial (Stelfox, 2013:67). These provisions render the investigative procedures a pertinent issue in a trial. For instance, if the investigation did not pursue a reasonable line of enquiry or did not disclose some of the material collected, the defence could argue that the defendant could not receive a fair trial.

The CPIA is supplemented by a code of practice outlining the roles of the officer in charge of the case, the disclosure officer, the investigator, and the supervisors. It also defines the duties and responsibilities of these officers concerning the recording and retention of material obtained during a criminal investigation (College of policing, 2023:np). The CPIA has undeniably played a crucial role in shaping investigative practice by placing the recording of decisions and the retention and disclosure of material at the core of the investigative process. More indirectly, it has influenced how many investigators perceive their responsibilities, as they no longer see themselves solely on the prosecution side of the adversarial system, but as neutral gatherers of material for the overall investigative process (Stelfox, 2013:68).

### **2.3.5 Criminal Law (Forensic Procedures) Amendment Act 6 of 2010**

The Criminal Law (Forensic Procedures) Amendment Act 6 of 2010 aims to amend the South Africa Criminal Procedure Act of 1977 by imposing that taking fingerprints of certain categories of persons is made compulsory. The South Africa 1977 Criminal Law (Forensic Procedures) Amendment Act provides guidelines for:

- Collecting fingerprints and body prints for investigative purposes.
- Enhancing regulations on the retention of acquired fingerprints and body prints.
- Refining procedures for the destruction of collected fingerprints.
- Establishing guidelines for verifying certain facts appearing in affidavits or certificates.
- Amending the South African Police Service Act of 1995.
- Overseeing the storage and utilization of fingerprints, body prints, and photographic images of specific groups of individuals.
- Establishing databases and authorising comparative searches against those databases.
- Ensuring security measures concerning the integrity of information stored in these databases.
- Developing standard operating procedures for accessing the databases of other state departments.

A criminal can't perform an action at a scene without leaving behind some traces of their presence. Locard also argues that the nature and extent of violence used in executing the crime correlates to the number and extent of traces of the criminal left behind. Lochner and Zinn (2016:12) quote Locard as saying:

“Whatever the steps, whatever you touch, whatever you leave, even unconsciously, will serve as silent evidence against you. Not only your fingerprints and your shoe marks but also your hair, the fibre of your clothes, the glass you break, the tool marks you leave, the paint you scratch, and the blood or semen that you deposit or collect bear mute witness against you” (Gehl & Plesca, 2016, Fish, Miller & Braswell, 2011:110).

Lochner and Zinn (2016:14) define the Locard Principle as follows: “...to reveal invisible technological traces left at a crime scene by mapping them through telecommunication techniques and to provide a technological service to examine a crime scene to make the invisible trace visible”. Locard principles a scientific principle, albeit not scientific theories. Nevertheless, both can be tested scientifically and legally. These principles permit researchers and investigators to explore additional traces of criminal activity, including traces that could be deemed “invisible” traces, such as evidence recovered on a remote computer database (Lochner & Zinn, 2016:14).

If traces cannot be recovered where it is presumed that contact was made at a crime scene, it could indicate limitations in the techniques and methods of detection. Future technological advances could potentially assist in making it possible to find traces where none could be recovered in the past. Fish, Miller and Braswell (2011:110) indicated that the Locard exchange principle is often interpreted in different ways because the translations of the principle have often been cited differently. The authors also demonstrate, however, that the Locard exchange principle remains applicable in its present form. This principle continues to be utilised in contemporary investigation processes of crime scenes. This principle is the reason why crime scenes are preserved. If the Locard principle were invalidated, there would be no reason to find available traces or evidence for investigation and presentation in legal proceedings (Fish et al, 2011:110).

### **2.3.6 Criminal Law (Forensic Procedures) Amendment Act 37 of 2013**

In South Africa, Section 232(1) of the Criminal Procedure Act (CPA) (Act No. 51, 1977) empowers any court to accept photographs of articles as admissible evidence in place of the actual articles during criminal proceedings. Ascertaining the body features of a suspect or accused often forms an essential part of the investigation of crime and is in many respects a prerequisite for the effective administration of any criminal justice system. Section 37 of the Criminal Procedure Act authorises and regulates the ascertaining of the bodily features of certain persons by the police (Joubert, 2013:274). By complying with the provisions of this section, a police official will ensure that these features are ascertained properly and lawfully (Joubert, 2013:274). Section 37 also read with section 225(2) of the Criminal Procedure Act, which provides that evidence of prints or the bodily appearance of an accused will not be inadmissible by reason only of the fact that it was obtained against the wish or will of the accused concerned.

Joubert (2013:282) stated that it was held in *S v Huma and Another* that the Constitution will not be violated by taking an accused person's fingerprints against his or her wish or will. This was confirmed in *S v Maphumulo* where it was also stated that the accused's fingerprints may be taken forcibly if necessary. The court, however, cautioned the police to exercise discretion and care and to have due regard for the dignity of the accused (Joubert, 2013:282). This applies to any item except documents, and the court may allow parties to present photographs even when the physical articles are available for presentation.

For example, photographs of a firearm, spent cartridges or bullet heads found at a crime scene could be submitted as evidence. According to CPA Subsection 20, the state has the authority to seize items at a crime scene for evidential purposes in prosecuting a case (Joubert, 2013:285). Specific laws mandate Crime Scene Technicians (CSTs) from the Local Criminal Record Centres (LCRCs) to capture the crime scene and collect exhibits. The Locard principle underscores the crucial role of strategic crime scene management, emphasizing planning and outcome-oriented investigation over sole reliance on advanced forensic technologies.

Locard's Principle asserts that only the crime scene investigator possesses the capability to uncover evidence at the crime scene and comprehend its significance. The Criminal Law (Forensic Procedures) Amendment Act 37 of 2013 seeks to improve upon the Criminal Procedure Act of 1977, by providing guidelines for the collection of specific body samples from certain individuals for forensic DNA analysis, with a focus on safeguarding the rights of women and children during the sampling process. It also addresses how the validity of certain facts stipulated on affidavits or certificates can be proven. Additionally, the amended Act proposes to include in the Criminal Procedure Act under offences "schedule 8" such murder cases where DNA samples must be obtained such as blood on the crime scene (National Newsletter, 14 December, 2020:np).

Furthermore, this ACT elaborates on the SAPS Act of 1995 by proposing to establish and regulate the administration and maintenance of the national forensic DNA database of South Africa (Joubert, 2013:285). The amended Act outlines conditions for retaining or destroying samples and forensic DNA profiles, their use in crime investigations, proving innocence or guilt (before or during prosecution or exoneration), and assisting in identifying missing persons and unidentified human remains. Special provisions are made for protecting the rights of children in the retention and removal of forensic DNA profiles by establishing oversight over the national forensic DNA Database, as well as handling complaints related to the taking, retention, and use of DNA samples and forensic DNA profiles.

### **2.3.7 The Police and Criminal Evidence Act 1984**

The early stages of evidence gathering, arrests, and criminal trials were marked by primitive and harsh methods. During this period, the judicial process heavily relied on religious beliefs, witchcraft, suspicions, confessions obtained through torture, and the concept of two classic witnesses. This reliance was due to strong trust in human credibility, a lack of scientific tools to complement subjective evidence, and scepticism about conclusions from experts in specific scientific fields (Marais & Van Rooyen, 1993:16).

In contrast, the Police and Criminal Evidence Act of 1984 (PACE) empowers the police to investigate crimes. PACE aims to strike a balance between the authority afforded to the police and the rights and freedoms of the public. It covers various aspects such as search procedures, custodial detention, interview techniques, methods of arrest, and a spectrum of police powers crucial to investigations. The PACE codes of practice (College of Policing, 2013) provide supplementary support and guidance in implementing these agencies. Before the introduction of PACE, the police relied on a wide range of legislation to guide the processes needed for investigations, especially regarding stop and search, arrest, interviews, and premises entry.

These directives were scattered across numerous legislations, some outdated, others applicable only locally, and some rooted in common law (College of policing, 2023:np). This resulted in inconsistent practices and significant gaps in legal definitions, leaving room for varying interpretations of what was permissible. This fragmented legal landscape failed to safeguard individual rights, and the 1970s witnessed several miscarriages of justice. In response, the Royal Commission on Criminal Procedure was established, delivering recommendations in 1981. These aimed to strike a balance between the investigative and prosecutorial needs and the rights of individuals under investigation (Stelfox, 2013:np).

### **2.3.8 Legislation pertaining to fingerprints**

Different Acts govern the taking of fingerprints from different people and for different reasons (Hess & Orthmann (2013:145). These Acts are considered important because if they are not followed correctly the prosecution of cases will be hampered and the evidence will be deemed unconstitutional. Section 37(1) (a) of the Criminal Procedure Act, 1977, and SAPS Criminal Procedure and Law of Evidence (2014:37) state that a police official must take the fingerprints or “must cause such prints to be taken of any-

- Person arrested upon any charge related to an offence referred to in Schedule1;
- Person released on bail if such person’s fingerprints were not taken upon arrest;

- Person upon whom a summons has been served in respect of any offence referred to in Schedule 1;
- Person convicted by a court of law and sentenced to a term of imprisonment without the option of a fine, whether suspended or not, if the fingerprints were not taken upon arrest;
- Person convicted by a court in respect of any offence, which the minister has by notice in the Gazette declared to be an offence for the purpose of this subsection.”

As indicated above, the police are not authorised to take any person’s fingerprints but only those who are suspected of having committed a crime. As an example, on one occasion while the researcher was on duty, two community members arrived at the community service centre (CSC) and explained that they had had a break-in at their house and had seen that fingerprints had been left at the scene. They suspected a particular individual, whose name they mentioned. They requested that the fingerprints of this person be taken and compared with those found in their house because they were sure that they belonged to the person they suspected. Their request was denied in terms of Section 37(1) (a) of the Criminal Procedure Act. Section 36B of the Criminal Procedure Act provides further guidance in respect of when fingerprints may be taken.

Subsection (2) states that a police official may take or cause the fingerprints to be taken of any person arrested upon any charge or the fingerprints to be taken of a person deemed under section 57(6) to have been convicted in respect of any offence that the Minister has by notice in the Gazette declared to be an offence for the purpose of this subsection. Subsection (3) states that the fingerprints taken in terms of this section must be stored on the database maintained by the National Commissioner, as provided for in Chapter 5A of the South.

African Police Act. Subsection (4) states that a police official may again take fingerprints of any person referred to in subsection (1) if the fingerprints taken on the previous occasion do not constitute a complete set of his or her fingerprints. The person referred to in subsection (1) is the person arrested on a charge, person released on bail, person upon whom summons has been served of any charge and a person convicted by the court of law.

Subsection (5) states that fingerprints taken under any power conferred by this section may be the subject of a comparison search, and subsection (6) states that any fingerprints taken under any power conferred by this section must upon the conviction of an adult person be retained on a database referred to in Chapter 5A of the South African Police Act. Criminal Procedure Act 36B(6)(b) states that fingerprints retained in terms of this section may only be used for the purposes related to the detection of crime, the investigation of an offence, the identification of missing persons, the identification of unidentified human remains or the conducting of a prosecution. The sections of the Criminal Procedure Act outlined above provide guidelines and restrictions in terms of which the police are obliged to act. As an institution that operates under South African legislation, the SAPS may not operate outside this legislation.

The Criminal Procedure Act and Regulations of South Africa, Act 51 of 1977 (South Africa, 1977) add, that the CRC should expunge criminal records from the system after the specified time has lapsed (SAPS,2013:np). According to the SAPS strategic plan of 2010 to 2014 (SAPS, 2010:15–16), the functions of the CRC are as follows:

- To improve the collection of evidence at crime scenes by crime scene experts
- To improve the procedure for updating records of offenders
- To ensure that bail-opposing reports are issued before bail hearings are held
- To share a database with the Department of Home Affairs to strengthen the capacity of the SAPS in identifying an individual's involvement in the commission of crime
- To ensure that all provinces are more effective in linking suspects to crimes

## **2.4 THEORETICAL CONCEPTS**

This section presents theories relevant to the study and they are below listed and discussed:



### **2.4.1 Locard Principle**

The Locard Exchange Principle, commonly known as Locard's theory, was proposed by forensic scientist Dr Edmond Locard in the twentieth century. Pepper (2010:6) writes that in 1910 Edmond Locard established the first real police forensic laboratory to compare evidence recovered from the crime scene with that from the perpetrator. His principle, first published in 1920, that when one object comes into contact with another something is exchanged between and taken away by both objects has become the basis of the transfer and recovery of all forensic evidence (Osterburg & Ward, 2010:92). Perpetrator inadvertently transfer or take physical to the crime scene during the commission of a crime, such as objects used in the crime, fingerprints, shoe prints, tool marks, blood spatter and bullets (Osterburg & Ward, 2010:92).

This principle is founded on the concept that once a perpetrator was in a crime scene, they leave or remove trace amounts of elements, which serve as factual evidence or exhibits of their presence (Roux, Crispino, & Ribaux, 2012). The first police responder bears the responsibility of ensuring the collection of all this evidence, including fingerprints that perpetrators might leave at the murder crime scene. According to Fish, et al, (2011:110) stated that any item can and may be physical evidence that a crime has occurred. Trace evidence can provide valuable leads for the first police responder, but first, it must be recognised as evidence by the first police responder (known as Forensic Crime Scene Analyst in South Africa. Locard's Exchange Principle is rooted in contact theory, asserting that when two objects encounter each other, one will leave a trace on the other. According to Locard's Principle, reciprocal transfer of traces occurs in two ways: the criminal leaves traces on the scene, or they take traces from the scene with them. These two methods of transferring traces are referred to as "trace donors" and "trace recipients".

### **2.4.2 Rational Choice Theory**

Wittek (2015:688) mentions that Rational choice theory is an umbrella term for a variety of models explaining social phenomena as outcomes of individual action that can in some way be construed as rational.

“Rational behaviour” is suitable for the realization of specific goals, given the limitations imposed by the situation. The key elements of all rational choice explanations are individual preferences, beliefs, and constraints. Preferences denote the positive or negative evaluations individuals attach to the possible outcomes of their actions. It can therefore be assumed that perpetrators of this kind of crime make decisions before they commit murder and know the consequences thereof (Witteck, 2015:688).

### **2.4.3 Strain Theory**

Jang & Agnew (2015: 595) state that certain strains or stressors lead to negative emotions, which create pressure for corrective action. Crime is one possible response, especially when people lack the ability to cope in a legal manner; the costs of criminal coping are low, and there is some disposition for criminal coping. Classic strain theories focus on one type of strain, the inability to achieve conventional success goals. Agnew’s general strain theory (GST) focuses on a much broader range of strains and factors that influence the likelihood of criminal coping. Empirical support for GST has rejuvenated criminological research on strain. This theory emphasizes the consequences as a result of one being stressed that may lead to negative thoughts that may create irrational behaviour such as committing murder (Jang & Agnew, 2015: 595).

## **2.5 THE ROLES OF THE FIRST POLICE RESPONDER AT THE MURDER CRIME SCENES**

This section discusses the procedures that a first police responder is guided by regarding their roles upon arriving at a murder crime scene and the subsequent management of the scene. The term “First responders” are identified as professionals who respond to emergency situations to provide safety and protection to citizens, property, and communities (Arble & Arnetz, 2016).

First responder groups that have received notable empirical attention include police or law enforcement officers (Arble & Arnetz, 2016), fire fighters (Harvey, Milligan-Saville, Paterson, Harknes, Marsh, Dobson & Bryant, 2016:649-659), search and rescue personnel such as those in National Guard services (Sahker, Acion, & Arndt, 2016:63-102-106), ambulance personnel (emergency medical technicians and paramedics (Streb, Hällner, & Michael, 2014:452-463), and military personnel (Jacobson, Donoho, Crum-Cianflone, & Maguen, 2015:30-36). Although these professions are tasked with widely discrepant responsibilities and challenges, all first responder groups are engaged in uniquely demanding and dangerous work (Penalba, McGuire, & Leite, 2009) involving regular exposure to both physical and psychological stressors (Gallucci's, Silverman, & Francek, 2000; McCaslin, Rogers, Metzler, Best, Welss, Fagan & Marmar, 2006: 591-597).

Among first responder groups, police officers have been the subject of numerous researches, in part, because of their frequent exposure to many potentially traumatic, critical incidents in their everyday occupational responsibilities (Andersen, Papazoglou, Koskelainen, Nyma, Gustafsberg & Anretz, 2015: 1-8). Examples of police critical incident exposures include motor vehicle chases and accidents, domestic violence, crowd control, physical assaults, handling dead bodies, and dealing with unpredictable, dangerous, and armed criminals (Arble, Lumley, Pole, Blessman, & Arnetz, (2017:1-10); Carlier, Lamberts & Gersons (2000:29-39); (Van Hasselt, Shechan, Makolm, Seller, Baker & Couwels, 2008:133-151).

The consequences of police officer critical incident are exposure severe. The first person on the scene of a crime, referred to as "first responder", takes on the role and responsibility of securing and preserving the scene. First responder could be an armed response officer, a member of SAPS, or even a member of the local neighbourhood watch. Their prompt actions contribute significantly to the overall effectiveness of crime control and evidence preservation. Remember, their duty is to protect the public and maintain the integrity of the crime scene to the best of their ability. According to the SAPS learning guide (SAPS, 2010a:43), the first police responder as an official member of the SAPS, assumes initial control of the crime scene and bears the responsibility for maintaining the case docket.

In the researcher's own experience, the investigating official is colloquially referred to as a "detective" by colleagues. Lyman (2011:26), as well as Orthmann and Hess (2013:11), stipulate that the role of the first police responder includes determining the events that transpired at the crime scene. This involves locating witnesses and sources of evidence crucial for establishing what occurred. The first police responder should be aware that additional investigative steps are necessary, such as obtaining and evaluating the accuracy of witness statements. They must decide whether further action is required based on the statements and evidence discovered at the scene.

Thereafter, the first police responder must also record what has been accomplished; study the gathered information; identify remaining tasks; conduct raids, surveillance, stakeouts, and other undercover assignments; identify and arrest suspects; and testify in court. According to Lee et al (2011:1), crime scene investigation is the primary and most vital phase in any criminal inquiry. Gardner (2011a:1) emphasises that crime scene investigation constitutes an inherent responsibility for most criminal investigators. Lee et al (2011:4) further elucidate that crime scene investigation entails exploring the crime scene comprehensively, where investigators aim to unveil all aspects of criminal activities. It is a systematic process designed to locate and collect physical evidence from the crime scene.

Lee et al (2011:49) assert that crime scene investigation goes beyond the mere processing or documentation of crime scenes; it serves as the investigator's starting point to delve into the alleged crime. The SAPS learner's guide (SAPS, 2010a:46) complements this perspective by highlighting that the detective must also attend the post-mortem and assist the state prosecutor during the trial. The researcher concludes that the first police responder holds the responsibility of executing the objectives of the criminal investigation. The protocols and procedures outlined in the section below can be deemed as the minimum requirements for the processing of serious crimes, such as homicides. The role of the first responding officer is pivotal at the crime scene and failure to adhere to official directives (such as the SAPS National Instruction 1 of 2015). The actions of the first officer attending the crime scene are critical to successfully examine and recover all available evidence.

Therefore, it is essential that all officers comprehend the significance of scene preservation and do not compromise their methodology during scene examinations, because the first officer responders bear the responsibility for all initial measures in a crime scene. So many authors confirm that the first police responder's role includes assessing the crime scene, including Jackson & Jackson (2008:22, Lee et al 2011:51, Osterburg & Ward 2010:97) Pena 2000:57, and Palmiotto, 2013:4). The scene of crime is the starting point of investigation as this is the place where direct or indirect proof of the commission of a crime exists and place where evidence can be found to solve the crime. The proper roles can only be achieved if the scene of the crime is organised an objectively. The first police responder at the scene of a crime must know what is expected from them to shows the familiar with advantages of correct conduct and the disadvantages of incorrect conduct. Whenever a crime is committed, the victim, or the kin of the victim, files a complaint at the nearest police station.

The police officer who reaches the scene of crime as the first responder is expected to perform a host of duties which may be broadly listed below. The first responding officer, who sees the crime scene in its original state, is duty bound to protect the integrity of the site so that the follow-up investigations proceed in a mettle of scientific temper (Saferstein, 2013:29-52). The latter is a broad term which encompasses several components. These to which the first responder must adhere to are listed in Table 2.5.1, along with their relevance to crime scene management.

**Table 2.5.1. Components of scientific Temper that are relevant to crime scene.**

Component of scientific temper	Relevance to crime scene management
objectivity	To process the scene in an unbiased manner
Open mindedness	Not to be carried away by emotions
Ethical	Neither to further victimise the victim, nor to favour the suspect
Precision	Not to leave out any piece of evidence
Reliability	To trust on observations and not on preconceived notions
Accuracy	To remember that exactitude matters

Verifiability	Authenticity in comparing evidence like fingerprints, blood, hair, etc.
Creativity	Every crime scene is unique and therefore management demands innovative thinking
Flexibility	To change the theory in light of new evidence

**Source Adopted (Saferstein, 2013:29-52)**

If the first responder follows an investigative protocol based on such logical, rational, and scientific approach, the objectives of the criminal justice system are served. When the first responder receives a request to respond to a crime scene, first police responder should note down the time of call and seek the identity of the caller, along with their contact details. The first police responder should maintain an open and objective mind while approaching the crime scene, knowing very well that first police responder will have to take control of a site which would be ridden with chaos and confusion (Baldwin & Hayden, 2017:440-443). Once there, first police responder can progressively restore a semblance of order by following a systematic, stepwise protocol which, in turn, will ultimately lead to successful prosecution of the suspect.

The steps, no doubt, will vary from one crime scene to another, but the police organisation endeavour to formulate a broad, scientific code of conduct for the first officer at the crime scene. The first police responder must know that they are destroyed or damaged and can never be replaced. The first responder at a crime scene plays a crucial role in securing and preserving the area (Baldwin & Hayden, 2017:440-443).

**Table 2.5.2: Objectives of investigation**

Reasons for conducting investigations at the crime scenes	Questions to be answered during an investigation of a crime scenes
<ul style="list-style-type: none"> <li>• Develop leads for responders.</li> <li>• Develop specific information in the form of evidence.</li> </ul>	<ul style="list-style-type: none"> <li>• What happened?</li> <li>• When did it happen?</li> <li>• Where did it happen?</li> </ul>

<ul style="list-style-type: none"> <li>• Locate probative evidence.</li> <li>• Locate significant information in the form of evidence.</li> <li>• Link crimes through the evidence.</li> </ul>	<ul style="list-style-type: none"> <li>• Who was involved?</li> <li>• How was it done?</li> <li>• Why was it done?</li> </ul>
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**Source: (Shaler, 2012:14)**

Shaler (2012:4) combines the abovementioned reasons for investigation with the questions to be answered during an investigation of a crime scene. Shaler (2012) concludes that the ultimate objectives of investigation are to reconstruct the incident, ascertain the sequence of events and to determine the mode of operation. Further objectives are to uncover a motive, discover what property was stolen, to find out all that the criminal has done, and lastly to recover physical evidence. Essentially, the objective of investigation is to find evidence. Moreover, it is to solve a crime also gives a brief but insightful analysis that investigation is the systematic search for the truth.

Bennett and Hess (2004:4) believe investigation is a step-by-step inquiry of observation, as well as a careful examination and recording of evidence. The gross visual inspection conducted at the crime scene, aimed at gathering evidence and clues, is usually the act of observation (Shaler 2012:332). Observation can, therefore, be acknowledged as a visual collection of evidence used for analysis of the crime scene (Shaler 2012:332). It leads to the decision of what vital evidence needs to be collected and examined, and further leads to the reconstruction of the crime scene (Review Committee 2012:55). Observation also leads to answering specific questions during any investigation, as stipulated above. However, in this research the focus is on the murder crime scene management by the first police responder hence a discussion of this specific crime. This individual is typically the first to arrive at the scene and takes on the responsibility of managing the situation. Here are some key aspects of the first responder's role:

- **Identification of crime**

In crime identification, situation identification determines the type of crime committed if any, and what kind of information or clues can be collected.

The crime situation therefore is identified using set juridical elements and preliminary observations made at the scene of the crime (Palmiotto,2013:4). The information and the facts gathered should confirm that an unlawful deed has taken place and that a specific person or persons are responsible (Palmiotto, 2013:4). Normally the evidence identified at a crime scene during interviews with complainants, victims and witnesses can identify the nature of events. The first police responders should be able to recognise and identify all relevant information that can shed light on the crime committed before it has been gathered (Palmiotto, 2013:4; Byrd, 2004:np; Marais, 1992:8). First and foremost, the first police responder must ascertain whether a crime has indeed occurred and, if so, identify the specific nature of the crime.

Genge (2002:149) designates both the bodies of the victim and the suspect as the scene of the crime. Crime scenes can be naturally classified into two types: primary and secondary crime scenes (Gardner, 2005:67-68; Gardner, 2012a). This classification is based on the original location where the crime occurred (Lee et al, 2001b:2-3). James and Nordby (2009:167) assert that crime scenes are classified according to the location of the initial criminal activity. For example, crime scene labels can be classified as either primary or secondary crime scenes. The classification of a crime scene has a direct impact on the way the crime scene is handled and in turn, the quality, quantity, and integrity of the evidence gathered by members of the SAPS. Subsequently, it is crucial for first responders to effectively identify and prioritise crime scenes, as they may contain material critical to successfully resolve the investigation. The process of identifying and assessing the crime situation involves formulating which areas of investigation pose questions that require solutions. Lochner and Zinn (2016:33) offer additional considerations when identifying what constitutes a crime scene:

- They define the inside perimeter as the immediate vicinity of the crime scene.
- The outside perimeter includes the entry and exit to the scene.
- The scene of crime also includes the routes used to and from the scene.
- Some crimes have no fixed scenes, such as fraud, forgery, and extortion.
- A scene may include any place or territory where stolen goods were disposed of or where the crime scene was planned.



- It is crucial never to refer to the “border” of a crime scene because the exact border can never be determined.
- A scene is where direct or indirect, noticeable, or undiscovered proof is found that an unlawful act was committed.
- A crime scene will have a high concentration of physical evidence.
- A scene is often referred to as “the field laboratory” where objects of dispute can be located.
- Crime scenes can occur indoors and outdoors, with outdoor scenes potentially covering a large geographical area, such as a forest or the backyard of a house.
- A scene can be in a vehicle, a building, or at a docking place for boats, meaning that a scene can be anywhere.

In essence, drawing upon their knowledge and experience, the first police responder endeavours to isolate facts relevant to the crime at hand, aiming to illuminate the specific circumstances of the crime (Marais, 1992:13). “Situation identification” as it relates to criminal activity, is associated to establishing the unlawful nature of a crime scene, which serves as a link between the current scene of the crime and potential future identification efforts (Prinsloo, 1996:17). According to Van Graan and Budhram (2015:48), situational identification involves the investigator confirming the incident's occurrence, determining its type, and promptly assessing the situation to formulate an investigative hypothesis. This hypothesis should encompass all relevant circumstances surrounding the incident. Accurate identification of the crime situation holds fundamental importance, as errors in identification can lead the investigation astray, result in the loss of valuable evidence, and leave the problem unverified.

Once a crime scene is discovered, immediate measures are necessary to secure and protect it from contamination. Maintaining the scene's integrity requires law enforcement to cordon off the surrounding area and carefully monitor access, ensuring that a record is kept of individuals entering and leaving the scene. By implementing these precautions, officers can safeguard the admissibility of collected evidence in court. Contaminated, tampered, or mishandled evidence can compromise the scene and the evidence and lead to the dismissal of a case (Prinsloo, 1996:17).

Although maintaining a constant state of vigilance and critical assessment of every piece of information may not be feasible, it becomes a necessary practice for a first police responder while on duty. For the first police responder, this entails a deliberate effort to remain mentally engaged and 'switched on' to a heightened level of information collection, assessment, and validation during duty hours. For example, a first police responder must adeptly navigate this elevated and more responsible level of analytical thinking, encompassing both tactical and strategic investigative responses. The 'switched-on' police responder must be attentive to (Gehl & Plesca, 2016:30):

- The first police responder must respond appropriately to situations where they must protect the life and safety of others.
- First police responder must gather the maximum available evidence and information from people and locations.
- First police responder must recognise a possible offence, or offenses, based on available facts.
- The first police responder must preserve and document all evidence and information.
- First police responder must critically analyse all available information and evidence.
- First police responder must develop an effective investigative plan.
- First police responder must strategically act by developing reasonable grounds to either identify or arrest those responsible for criminal acts or to eliminate those who are wrongfully suspected.

The criminal investigation of serious crimes has always garnered a significant level of interest, concern, and even apprehensive fascination from the public, the media, and the justice system. Police actions and investigations have often been chronicled and dissected by commissions of inquiry and the media. For example, since a fascination with serial killers, like Paul Bernardo (Campbell, 1996:68), exists, and there have been wrongful convictions with historical impact, like in the case of David Milgaard (MacCallum, 2008:70), the investigative procedures of such crimes draw public attention and are openly examined and critically assessed. When reviewing past investigations of this nature, the same types of questions are frequently repeated:

- Is it possible that the wrong person was arrested or convicted?
- Is it possible that other persons were involved?
- Were all possible suspects properly eliminated?
- Was the information properly shared among the police agencies?
- Did the investigators miss something?
- Was all the evidence recovered?
- Was the evidence properly interpreted?
- Were the investigative theories properly developed and followed to the correct conclusion?
- Did tunnel vision misdirect the investigation?

Today, transparency throughout the criminal justice system and public disclosure of evidence through investigative media reports, make it much easier for the public and the media to also examine the investigative process closely. Public and media access to information on first police responder investigative techniques and forensic tools has shaped an audience that is more familiar with police work. Public debate on social and other forms of traditional media has increased the expectation for higher standards to be upheld during investigations of serious crimes (Gehl & Plecas, 2016:20).

One only needs to look at historical and contemporary judicial reviews and public inquiries to appreciate that there is an expectation for police investigators and police organisations to maintain and demonstrate a high level of competency. In a judicial review, it is often too late if an investigator discovers that they have pursued the wrong theory or that they have failed to analyse a piece of critical information or evidence. These situations can be career-altering or even career-ending. A good first police responder needs to show awareness of their thought processes which should be attentive and intentional. Gehl and Plesca (2016:20) explain: "A uniform patrol officer receives a call to attend a complaint through radio dispatch. The caller reports that he has just witnessed his neighbour punch his wife in the front yard and then drag her forcibly into their house." The responding officer can immediately classify this event as an active event. The officer should be able to immediately classify the offence of the criminal act as possible assault and forcible confinement.

Given this assessment, the officer should deduce that the situation requires a tactical investigative response that the suspect is likely still at the scene, and there is an ongoing possibility of danger to the life or safety of the suspect's wife. In this type of situation, the officer can use their implied authority in exigent circumstances to ensure the safety of the wife when considering the information that has been reported. Subsequently, the officer can go to the residence and use necessary force to enter the premises without a warrant to investigate the safety and well-being of the identified victim. If, after entering the home, the further investigation provides evidence to confirm an assault, the officer can arrest the identified suspect for that offence (Gehl and Plesca, 2016:20). In this scenario, the information that allows the classification of the active event and the recognition of the offence is clear in the reported circumstances. Gehl and Plesca (2016:20).

- **Identification of the victim's body at the scene of the crime**

James, Nordby and Bell, 2014:167) state that crime scenes are classified according to the location of origin of the initial criminal activity. The classification of the crime scene labels can be either a primary crime scene or a secondary crime scene. The first police responder must identify that the location, the victim's body, and the suspect's body should each be treated as a separate crime scene. Horswell (2004a:3) categorises the suspect's body as a third crime scene. Hazelwood and Burgess (2001:262) hold a contrary viewpoint to Horswell (2004a:3) and assert that the suspect's body cannot be classified as a crime scene, because it is not a location where a crime has been committed. However, the researcher aligns with Horswell's perspective, for the classification of the victim's body as a crime scene is rooted in Locard's Principle, which assumes that "every contact leaves a trace". Given the inherent nature of murder, the victim's body serves as the focal point in the early stages of the investigation process (Hazelwood & Burgess, 2001:277). The victim's body is expected to contain evidence of the murder, such as body fluids. Consequently, considering the violent physical contact between the suspect and the victim's body in a murder case, it is clear from analysing Van Heerden's (1986:217) definition of a crime scene that a murder victim's body should be considered a crime scene.

Carney (2004:37) aligns with Savino and Turvey (2005:120) and believes it is nearly impossible not to transfer physical evidence, such as body fluids and hairs, from the suspect to the victim or vice versa during a murder. After identifying victims' body, the first police officer should once again turn their attention to the crime scene to have its overview, the officer enters the scene, albeit carefully, taking care not to trample upon any piece of evidence by overstepping. This procedure is called a walkthrough. Biological evidence-like blood or semen, which is likely to be degraded with time, should be provided with a tag so that its collection can be prioritised once the forensic team arrives at the scene. likewise, physical evidence-like hair or fibre, which is likely to be blown off easily, should be provided with a protective covering. First police responder should also note down the conditions of entry point, whether the door was open or closed or whether a windowpane was broken to gain access. It should also be documented whether lights and fans were on or off. Simultaneously, the officer should prepare a rough sketch of the crime scene which may later be fine-tuned.

- **Medical Assistance**

Saving lives remains the top priority, taking precedence over all other considerations. Different emergencies dictate the necessary procedure to be followed, and sometimes the appropriate course of action is also influenced by the number of available police officials and decisions made based on sound judgment. Decisions are often challenging and must be made in a split second, and usually, the option to save a life must take precedence. If the police official realises, however, that they cannot do anything to save a victim, then the arrest of a suspect becomes the priority (Osterburg & Ward, 2010:97; Palmiotto, 2013:4; Pena, 2000:57; Lee et al, 2007:51).

Regardless, the situation must first be stabilised before any meaningful investigation can take place. The first police responder must ensure that medical assistance is provided to any injured victim or suspect. Although saving lives is always the number one priority, the first police responder must not neglect their other duties to manage the crime scene (SAPS Policy 2, 2005). The first police responder's responsibilities include recording the identities of all medical personnel upon their arrival at the scene, noting the time they arrive, and directing them to individuals in need of assistance.

They should be instructed to use a single entry and exit route to minimise contamination of the crime scene (Gardner, 2012:64). Furthermore, the first police responder should attempt to establish the victim's identity to facilitate follow-up actions but avoid searching for forms of identifications in the victim's clothing or moving the body. (Gardner, 2012:64). After paramedics or emergency medical personnel arrive and guiding them to enter the scene without unnecessary disturbance, the first police responder should refrain from interfering with their work. The first police responder should observe the movements of medical personnel and notate any objects that are moved (Fisher & Fisher, 2012:38). If rescue personnel arrive at the scene before the first police responder, the first police responder should still document their arrival time and identity, determine how the rescue personnel entered, and what has been moved, removed, or altered at the scene. In cases where a victim or suspect is transported for medical treatment, the first police responder should call for patrol units to be dispatched to the medical facility and remain with the individual until they are relieved by investigative personnel.

If possible, patrol units should accompany anyone transported from the scene, and all this information must be meticulously documented. It should be accepted that rescue personnel will to some extent disturb the crime scene, and the first police responder's role is to minimise disturbance without unnecessarily hindering their lifesaving efforts. In cases where there is a possibility that the victim may die, attempts should be made to obtain a declaration of death. The victim must be aware that they have suffered life-threatening injuries and may be about to die for the declaration to be considered valid, regardless of whether the victim passes away or not (Gardner, 2012:64). Moreover, if administering first aid to an injured person is immediately essential, it should be provided even if valuable evidence may be lost or destroyed (Lee et al, 2007:np). If immediate first aid is not required, the officer should note the victim's position by drawing a simple sketch, making a mark on the floor, or mentally taking note of the position to write it down at a later stage (Barry & Fisher, 2004). The researcher's experience and understanding, many situations that first police responders find themselves in are often potential crime scenes.

While the police understand the priority of providing emergency medical care and the role of Emergency Medical Services sometimes the police may be obliged to leave the scene of a crime even while these professionals are still active on the crime scene (Sharma, 2003:267-273). Differences may also occur because of perceived duties that conflict between the two services, each of which carries out tasks that it considers to be the highest priority at the time (Lee et al, 2007:np). With a proper understanding of these differences, patients can be adequately and quickly cared for while maintaining the integrity of forensic evidence to the greatest extent possible. It is therefore crucial for first police responders to comprehend the responsibilities of EMS personnel and law enforcement when responding to a crime scene (Putkonen, Weizmann, Heneliw, Lindbug, Eronen & Hakkaner, 2009:np).

Upon arriving at the scene of a serious crime, law enforcement focuses on numerous tasks that must begin immediately. Additional injuries or loss of life to the public are prevented, and police officers and other responders (such as firefighters and EMS personnel) are dispatched (Rimstad & Braut, 2015:205-215). The handling of the victim's body presents a significant challenge at the crime scene. Carney (2004:37) contends that in any murder investigation, two crime scenes must be processed: first, the location of the occurrence, and second, the victim's body. Osterburg and Ward (2010:201) align with Carney's perspective and assert that the victim's body constitutes its crime scene containing potential evidence transferred from the suspect. Savino and Turvey (2005:120) add that, in addition to the murder site, the victim's body might indeed be the most critical crime scene. In contrast to Carney (2004:37) and Osterburg and Ward (2010:201) who advocate two crime scenes exist, however, Horswell (2004a:3) takes it a step further, acknowledging the existence of three crime scenes.

- **Recording time of arrival at the crime scene**

In the SAPS, various recording files are utilised by members, such as pocketbooks for non-commissioned officers and diaries for commissioned officers. Diarising the arrival and departure times at the crime scene is crucial, as this information holds significance in court.

From their time of arrival at the crime scene, the first police responder must objectively observe and continuously evaluate the situation, make deductions, and identify potential collection points for important evidence (Palmiotto, 2013:99). Meticulous notes should be made of changing conditions as they transpire, including dates and times not only for arrival and departure from the scene but also for observations, discovered objects, traced persons, and executed arrests. Other essential observations that must be recorded include the condition of doors (locked, closed, open, damaged), the presence of keys, the types of locks, and the condition of windows (secure window catches, open or closed, intact windowpanes). Further details regarding windows involve assessing whether broken glass pieces are inside or outside the building, the condition of the window catch the window type, and the presence of barriers such as blinds, curtains, or burglar proofing (Palmiotto, 2013:99).

Additional considerations cover odours perceptible at the scene (like tobacco smoke, gunpowder, perfume, petrol, paraffin, oil, or mentholated spirits) and weather conditions (like rain, snow, fog, or fine weather). Crime recording rules require officers to record all these different aspects at the earliest opportunity or within 24 hours. Various versions of police notebooks have emerged over the years to facilitate these recording requirements. In legal proceedings, the court may accept police notes written on a scrap of paper, if that was the only paper available at the time. Especially in extreme circumstances. However, if there weren't any extraneous circumstances influencing the investigation's operations, police notes and notebooks should adhere to the following guidelines (Gehl & Plesca, 2016:103):

- A book with a cover page indicating the investigator's name, the notebook's start date, and its conclusion date.
- Sequential page numbers.
- A bound booklet preventing the removal of pages without detection.
- Lined pages for neat scripting of notes.
- Each entry should start with a time, date, and case reference number.
- Devoid of blank spaces. Should any blank spaces occur a single line or diagonal line should be drawn to fill the space.
- Errors should be crossed out with a single line, ensuring legibility.



Upon arriving at the crime scene, the officer should record the time and assess the overall scene with caution. Notes should cover details about doors, windows, lights, shades, smells, signs of activity, or any pertinent aspects depicting the scene. During court proceedings, the first police responder's notebook serves as a valuable reference document. The court generally allows an officer to refer to their notes during a trial to refresh their memory while testifying. When a court examines a first police responder's notebook, notes consistent with the responder's testimony provide circumstantial assurance of the evidence's accuracy and truthfulness (McRory, 2014).

Conversely, if crucial aspects of the investigation are inadequately recorded or missing, the defence may scrutinize the evidence more closely. The court might accord less weight to unrecorded facts in its final deliberations on proving guilt beyond a reasonable doubt. For a first police responder, comprehensive notes offer an overview of observations and actions taken. A chronological sequence of notes reflects the mental map of the responder, outlining the facts that led to the establishment of reasonable grounds for arrest and charges. Extended court cases which can span up to several years, due to adjournments, appeals, or suspects evading immediate capture, can create a substantial time gap between the investigation and the trial. In such prolonged cases, detailed and accurate notes become crucial for the first police responders to accurately trigger their memory of the facts.

In South Africa, the Police Act 1996 Sections 44 (2 and 3) empowers the police to mandate members of services in South African Police Services to provide statistical data and the ability to specify the form in which the data is presented. The South African Police Services utilises this authority to request members to regularly provide data on the number of crimes they record. This data must adhere to the National Head Office crime recording rules, which were formerly known as the National Office Counting Rules (HOCR) (Gehl & Plesca, 2016:27). Gehl and Plesca (2016:27) stated that these rules aim to introduce more consistency to the process of creating and maintaining crime records at the police service.

Additionally, the crime recording rules advocate for a victim-oriented approach to crime recording, wherein a victim's belief that a crime has occurred is generally sufficient to justify its recording as a crime. The crime recording rules stipulate that all reports of incidents, whether from victims, witnesses, or third parties related to crime will result in the registration of an incident report by the police. To adhere to these rules, incident reports must be recorded on one or more auditable systems, such as an incident log (also known as a command-and-control log) and on the Service Crime System. When recording an incident, staff assign an "opening code" to the incident log, indicating the nature of the incident (for example if it is a road traffic accident or burglary). These opening codes serve as crucial identifiers, enabling supervisors to promptly assess the types of incidents currently open and allocate resources accordingly.

- **Establishing a perimeter**

The primary concern upon entering a crime scene is to render the scene safe, considering the possibility that the suspect may still be at the location. Lee et al, (2011:30) illustrate that if a portion of a crime scene is located outside, it should be processed first, especially if adverse weather conditions exist or pose a threat. The ability or inability to secure a scene or a portion of the scene effectively is another factor that may influence the order of processing. In cases of large scenes without natural or man-made barriers, ensuring adequate security becomes challenging. Additionally, scenes located in high-traffic areas or public spaces should receive higher priority than remote scenes with limited access points (Govender, 2011:np).

Traditionally, crime scenes are categorised as indoor (houses, buildings) or outdoor (yards, parks, fields, roads, vehicles). However, investigators are encouraged to consider any area or object that may contain relevant physical and pattern evidence as a potential crime scene (Lee et al, 2011:40). As reiterated by Gehl and Plesca (2016:106), the first police responder should decide the size of a crime scene and set up the perimeter to demarcate the area. The size of a crime scene is usually defined by the area where the criminal acts have taken place and should include all areas where the suspect has had any interaction or activity within that scene, including points of entry and points of exit.

The perimeter should also include areas where any interaction between the suspect and a victim occurred. In some cases, where there is extended interaction between a suspect and a victim over time, or where the activity has taken place over a distance or in several areas, the investigator may need to confine either one large crime scene or several smaller crime scene areas. Considering the three stages of originating evidence, pre-crime stage, post-crime stage and criminal event stage activities might require a first police responders to either set up a perimeter to surround a larger area or consider the possibility of additional separate crime scenes.

This is one of the big dilemmas in crime scene management is determining where the criminal event happened or where the event extended to (Dehl & Plesca, 2016:111). These determinations provide the first police responders with the locations where evidence of the crime may be found. Gehl and Plesca (2016:111) stated that is often not a simple matter of just attending one location or thinking about the criminal event in just a single timeframe. Gehl and Plesca (2016:112) also indicated that these three stages of crime can also mean there could be other locations outside the immediate crime scene area where criminal activities might have also taken place and evidence might be found (Gehl & Plesca, 2016:112).

Gehl and Plesca, (2016:112) stated that the first police responder must point out that the originating stages of evidence are that each of the stages provides possibilities for collecting evidence that could connect the suspect to the crime. Gehl and Plesca (2016:112) furthermore stated that these three can also assist in development or making of an investigative plan. In some crime scenes with innate barriers, such as buildings with doors, it is easier to define the perimeter and clear points of access, whereas outdoor venues or large indoor public venues, can present more challenges for setting up the perimeter as fencing, barricades and tape markers may be needed. Once the crime scene perimeter has been established and locked down, it becomes necessary to ensure that unauthorised persons do not cross the perimeter. To protect evidence and secure the crime scene, it is imperative to erect barriers immediately upon arrival. Determining the dimensions of a crime scene can be a simple matter of closing a bedroom door or securing a square mile of wood.

Regardless of the size, the first goal of a police responder was to attend to any personnel with medical needs at the crime scene. First police responder must secure the integrity of the crime scene (McKenna, 2023:50). This initial step is crucial before identifying and retrieving evidence in line with protocols can commence, which will then ensure the validity of the evidence during subsequent trial proceedings. Typically, and ideally, there will only be one controlled access point to the crime scene, but on the other hand, this access point also becomes the entry for various factors that can potentially contaminate the scene and evidence. The public or outer barrier, the inner or "command area" barrier, and the core crime scene Van Rooyen (2012:94) discusses the establishment of perimeters at a crime scene and suggests three perimeters:

- Inner perimeter: This allows for a command post to be set up.
- Outer perimeter: Established as a border larger than the actual scene to keep onlookers and non-essential personnel safe and at a distance.
- Comfort area: The area between the scene and the inner perimeter.

Van Rooyen (2012:94) emphasises that perimeters play a crucial role in restricting access and preventing evidence destruction at a crime scene. The author also suggests that first police responders should refrain from jumping to conclusions about what happened and instead generate several different theories to explain the crime.

These theories can aid in considering multiple scenarios for which a larger scope of conditions needs documenting and recognising more pieces of evidence with potential value. According to the Crime Scene Management policy SAPS (2015:9-16), separate guidelines for different members and personnel exist. Among these, the first police responders are tasked with establishing the perimeter after the discovery of the scene. The discovery of a crime scene marks the beginning of a thorough, drawn-out process to examine, interpret, identify, and retrieve physical evidence. While discovering the crime scene may seem to be the most complex aspect of the investigation, initiating the perimeter is even more vital, as all subsequent actions may be compromised without the evidence being properly protected (McKenna, 2023:50).

For example, in the case of Senzo Meyiwa, (Newsroom 24,19 January 2023). The failure to close the perimeter of the yard compromised the protection of the crime scene from unauthorised access. The extent of the measures for any crime scene cannot be set in stone, as each crime scene and each situation are unique (McKenna, 2023:50). Indoor scenes pose different challenges than outdoor scenes, and crime scene first police responders encounter a diverse range of situations that might seem illogical at first glance. Ideally, crime scene security can involve three or more levels, depending on the circumstances. As a rule, it is advisable to maintain at least three different perimeters around any crime scene: In outdoor crime scenes, the first step toward securing the area is to establish public barriers (McKenna, 2023:50).

This initial barrier, often referred to as a “perimeter containment barrier”, is crucial for keeping the public at a safe distance from the crime scene. Typically, street barriers or police vehicles are used to prevent people from entering or leaving a designated area, such as a path or street (McKenna, 2023:50).

For example, if a body is discovered in a soccer field or an open space given a neighbourhood park, law enforcement personnel (particularly the first police responders) may block access to all entrances to the park to ensure that the public and media are kept away from the immediate crime scene. Yellow barrier crime scene tape is a widely recognised method for restricting access, but depending on the circumstances, ropes, cones, vehicles, or any available resources may be utilised to initially protect a crime scene (McKenna, 2023:50). The second barrier, often referred to as the "inner barrier" or "command area," is positioned at a further distance inside the first outer barrier. This barrier serves to create an additional buffer zone between the public and the core crime scene. To illustrate using the same neighbourhood park example as above, the inner barrier might be established around the area encompassing the baseball field, including the bleachers, the entire baseball field, and the dugouts. Establishing additional perimeters around the core crime scene has the added benefit of saving time for crime scene investigators because access to this core area is so limited (McKenna, 2023:50).

This allows investigators to disregard fingerprints or footprints of law enforcement personnel actively confined to the outer area.

Even commanding officers should be required to remain outside the core perimeter barrier to ensure the preservation of evidence (McKenna, 2023:50). Proper security of a crime scene is achieved by establishing a perimeter boundary to safeguard the scene from unauthorised access or exit. The size and extent of this perimeter depend on the type of crime and the location of the scene. Typically, the perimeter is set up at a distance from the actual crime scene to protect potential points of entry or exit that the perpetrator or victim may have used, or areas where evidence could have been moved to or left behind (McKenna, 2023:50).

In the case of Senzo Meyiwa, considerations such as transporting him to the hospital and the size of the house he was shot in influenced the size of the perimeter. In this case, the perimeter did not need to include a large area. As a rule, the perimeter can be adjusted based on the specific requirements of the investigation. It can easily be reduced or expanded as needed. Establishing the perimeter involves using physical barriers such as crime scene tape or rope from the outset. Access control points along the perimeter are assigned to officers, and a central entry and exit point is established (Newsroom24 23 May,2022).

An access control officer is responsible for maintaining a crime scene sign-in log at the main entry point, documenting everyone entering or exiting the scene. This controlled access helps preserve the crime scene by regulating movement in and out of the area, ensuring the integrity of the scene is maintained (McKenna, 2023:50). The establishment of a perimeter, often demarcated with barricade tape, serves the crucial purpose of limiting access to only those individuals essential to the crime scene investigation. This measure is taken to minimize the risk of damage, as investigators strive to maintain the integrity of the crime scene. While complete avoidance of contamination may be challenging, strict protocols are followed to prevent unnecessary interference with potential evidence. Officers are instructed to refrain from activities like eating, drinking, smoking, or taking breaks near the crime scene to prevent any inadvertent contamination. Any item initially belonging to an officer that ends up at the crime scene could be mistaken for potential evidence and interfere with the successful resolution of the investigation (McKenna, 2023:50).

Barriers are strategically placed to encompass all vital pieces of evidence, including entrances and exits. Restricted access to a crime scene is implemented through various means, with yellow barrier crime scene tape being the most recognisable. Ropes, cones, vehicles, or any available resources may also be used to establish initial protection of the crime scene. Public access to the crime scene is restricted by clearly marking perimeters as described above and stationing officials to inform the public of the restrictions and address any attempts to breach them. To effectively restrict unnecessary access to a crime scene, certain guidelines should be followed (McKenna 2023:51):

- Every officer and investigator at the crime scene should complete a report detailing their involvement and actions.
- Individuals within the core crime scene should provide any necessary exemplars for elimination purposes, such as hair, fingerprints, and shoeprints.
- The officer assigned to the main entrance of the crime scene should maintain a sign-in sheet recording names, ranks, arrival and departure times, and the purpose of each person entering the perimeter.
- The commanding officer at the scene should take responsibility for regulating access to the crime scene.

In many cases, a crime scene may consist of primary and secondary areas, and regardless of the number, it is crucial to establish barriers to restrict access to all demarcated zones. The choice of methods may vary based on the specific incident, location, and available workforce. The number of law enforcement personnel required to secure a crime scene will also vary based on the nature of the incident and its location. The responsibilities of a crime scene investigator may include dealing with diverse circumstances, such as arriving at a crime scene that has not been properly secured or is in the process of being secured. Even if the investigator is acting in a sole capacity, they may need to erect the perimeter individually to ensure the integrity of the crime scene. This underscores the importance of adaptability and resourcefulness in the field of crime scene investigation.

For example, first police responder on the scene of a murder along a busy road. First police responder must establish scene boundaries around the area containing the body but chose not to block the street to keep traffic flowing.

A crowd gathers at the boundaries while new information is uncovered that the suspect may have shot the victim from across the street. The area across the street is not included within scene so first police responder must expand the scene boundaries. The first hurdle is to move the crowd, and this can prove very difficult when it includes potential family members and friends of the victim. Once first police responder has moved the crowd, first police responder need to establish the scene boundaries. Expanding a scene often takes more police officers and resources than making the scene larger at the beginning.

- **Cordoning of crime scene**

Securing the crime scene and its surroundings is a critical responsibility of the first police responder. The safety of individuals in the area takes precedence, followed by the preservation of evidence. This involves cordoning off the scene to prevent unauthorised access and ensuring that valuable physical evidence is not compromised or damaged (Zinn & Dintwe, 2015:165). The rationale behind securing the crime scene is rooted in Locard's Exchange Principle as examined in the previous section of this study, which posits that whenever two objects come into contact, there will be an exchange of material between them. Therefore, the risk of evidence transfers, loss, or contamination is minimized when the area is properly secured (Zinn & Dintwe, 2015:165). This principle is especially relevant in the context of biological samples, where contaminants like coughing or sneezing could introduce foreign DNA, and non-essential observers might inadvertently destroy critical footprints left by a perpetrator.

One procedural measure to support the security of the crime scene is the maintenance of a security log by the first officer on the scene. Furthermore, the first police responder should collect relevant information, assess the situation, and request additional resources to conduct a thorough investigation. Depending on the nature of the crime, the first responder may call for additional officers to secure the area or request specialised teams of experts (Zinn & Dintwe, 2015:165). The process of securing a crime scene is vital for preserving evidence and preventing the scene of crime.



The potential for evidence contamination increases with the number of people entering the crime scene. Once a scene has been properly secured, the risk of contamination is significantly reduced. However, challenges arise when considering events that occurred before the scene was secured or the potential for unauthorised personnel entering the scene. For example, in a private residence, only the victim, their family and the investigating officers have entered the crime scene. In sharp contrast, if a bank robbery occurs, it is not only the physical evidence of those customers that were present at the time of the incident inside the crime scene, but traces of evidence left by all the recent customers as well. A crime committed inside a motel room or public park would pose similar challenges to law enforcement since numerous individuals were present before or during the incident and could potentially contaminate or destroy physical evidence (Zinn & Dintwe, 2015:165).

The first police responder should perform a post-securing of the scene. Even after the scene is secured, there remains a potential for contamination. Typically, only one officer is assigned to secure the scene, which becomes problematic if no provisions are made for others entering the crime scene from different avenues. In certain situations, it can be exceedingly challenging to completely protect the scene from unauthorised personnel. In the case of a residential burglary, for example, the scene is less complex and can be quickly secured with minimal personnel (Gehl & Plesca, 2016:113).

For example, securing a public park can pose significant challenges, making it exceptionally tough, if not downright impossible, to completely secure the crime scene until thorough processing is concluded. In all crime scenes, rigorous safeguarding of the scene is crucial for minimizing the risk of contamination. Therefore, the primary concern should be determining the dimensions of the scene. The first police responder's responsibility is not merely to protect an object; it involves recognising the victim as an integral part of the scene. Indoor scenes, being enclosed structures, are comparatively easier to secure.

In contrast, outdoor scenes, susceptible to potential contamination from factors like weather conditions and crowds, demand a more substantial personnel presence for effective protection.

Typically, yellow barrier tape, labelled with “crime scene” or “police line” and the cautionary phrase “do not cross,” is used to demarcate the outer perimeter. Physical barriers are crucial to defining areas restricted to the public and other law enforcement personnel. These barriers can range from a simple rope to additional markings with attached signs. Establishing a visual boundary helps in limiting access and mitigating contamination risks (Gehl & Plesca, 2016:113).

Once the area is defined, the next step involves setting up a command post. Establishing a command post is critical in minimizing the potential for contaminating the scene by regulating personnel access and monitoring entries and exits. Numerous individuals might be present during a major crime investigation, including paramedics, firefighters, family, friends, neighbours, patrol officers, investigators, supervisors, crime scene personnel, and medical examiners or coroners. Each person increases the risk of crime scene contamination through natural processes like hair loss and the transfer of fibres and other trace evidence from their surroundings (home, office, or vehicles) before arriving at the incident (Omar, 2008a:28). Even family pets can contribute to contamination by introducing additional trace evidence or transferring evidence within the scene (Baldwin & Hayden, 2017:14).

In the Senzo Meyiwa case (Newsroom 24, 19 September 2023) Masilela reported that Mthethwa did not secure the crime scene initially because it seemed there was no apparent crime at the time. However, Matlhabe (Newsroom 24, 19 September 2023) contradicts this, stating that Mthethwa informed the court they couldn't determine what had occurred at the Khumalo house initially, as Themba Khumalo was the only person present. Themba claimed to be guarding the house for Ntombi Khumalo, also known as MaKhumalo (Newsroom24 19 September, 2023). The crime scene was cordoned off only upon their return from the hospital with MaKhumalo. According to Newsroom 24 report (20 September 2023), the defence argued that Officer Mthethwa was “reckless and ignorant” in not securing the crime scene after receiving a report of a shooting in progress. Officer Mthethwa contends that they would not have left the scene had they known what was happening, and they had left to gather more information.

The police testimony in the Senzo Meyiwa case (Maverick, 16 September 2020; Newsroom 24, 20 September 2023), reveals that the house was not initially cordoned off. Officer Mathebula explained that they found no blood or cartridges, leading them to believe it wasn't a crime scene. The police rushed to Botshelong Hospital to check Meyiwa's fatal chest wound, on the police arrival, the police only then realised the Khumalo house was a crime scene. They returned to cordon it off and discovered evidence, including a hat, a bullet projectile, damage to the kitchen door, and blood stains in the dining room next to the couch.

Advocate Zandile Mshololo, representing Ntuli, criticised Mthethwa's testimony, suggesting that leaving the crime scene at a crucial time could have prevented tampering (Newsroom 24, 23 January, 2023). The judge also condemned the police officers for negligent investigative work and for failing to exit the vehicle and explore possible escape routes for suspects, as suggested by neighbours (Maverick, 2022). One can understand the judge's scrutiny because when considering Locard's Principle, as described above, there is a high probability for the exchange of evidence between the scene, individuals, and criminals. Subsequently, anyone could have entered the crime scene and potentially altered the evidence.

- **Effective observation at the crime scene**

Observing a crime scene centred around the collection of physical evidence while preserving it in its recovered condition. This applies irrespective of whether the evidence is of substantial size, such as a weapon (Houck, 2007:33) or the body of a deceased person, or minute traces like hair, or biological samples, such as a blood smear. The primary objective is to safeguard and maintain the evidence for subsequent forensic examination (Eckert, 1992:1). The first officer on the scene of the crime must apply effective observation principles. Effective observation leads to the identification of clues that could solve the crime, requiring first officers on the scene to possess the ability to identify and recall a situation accurately (Kerry, Anderson & Randinelli, 2013:117). Gilbert (2010:15) asserts that it is the responsibility of every police officer to hone their observational skills to the point where they can accomplish three primary objectives:

Giving the court an accurate account so that it may draw a logical conclusion; being able to precisely observe and describe persons, things, and crime scenes in detail; and to make sure that clues that help solve crimes are not overlooked or lost. Effective observation is the capacity to recognise and recall a scene with precision, intricacy, and clarity. The initial step in observing the crime scene and locating physical evidence is to conduct a walkthrough. Sharman and Elliot (2000:459) suggest that, upon arrival, the investigator should be prepared to initially focus on only looking and listening for an extended period. Gilbert (2010:15) asserts that investigations rely on the fact that physical material can transfer, whether it is visually apparent or not.

First police responders must possess specialised skills to locate any physical evidence left at or removed from the scene. Common areas in a scene that may reveal physical evidence include the point of entry, the crime location, areas where a suspect may have cleaned up, and the point of exit. It is crucial that the first police responder actively takes notes of the potential evidence's location during the observation. The walkthrough should commence as close as possible to the point of entry. In many cases, the evidence is initially not visible to the naked eye (Gehl & Plesca, 2016:112). However, whether it is an invisible (latent) fingerprint, footwear mark, or other mark, such evidence must undergo treatment with substances to make it visible for recovery. This type of evidence mustn't be damaged in attempts to make it visible. It's crucial to recognise that the first police responder is not tasked with answering the question of "who did it?" at this stage.

The role of the first police responder is not to determine whether an accused person committed the crime, as that responsibility falls to the prosecutor's counsel during court proceedings. In line with the current study's scope, the investigator's objective should be to gather evidence that either supports or refutes the occurrence of murder. Gehl & Plesca, 2016:105) outlines the steps involved in a crime scene examination by stating that the initial step is to conduct an observation to locate physical evidence, followed by formulating a hypothesis about the nature of the incident. The author defines the final step as testing the hypothesis against the physical evidence identified during observation until it cannot be refuted. The primary duty of the first police responder is to streamline the processes for effective evidence collection.

To ensure the maximum efficiency of evidence recovery, the first police responder must not only process the crime scene systematically and orderly but also handle the recovery of evidence with care. Each item should be packaged in a manner that prevents damage during transport from the scene or while in storage. Additionally, individual labelling of each item is crucial for identification, and every aspect of the examination must be accurately recorded. There is only one opportunity to collect the evidence, and subsequently, it must be done correctly and comprehensively the first time.

There is typically not a second chance, since once the evidence is gone, it is gone for good. As an absolute prerequisite for a successful crime investigation, the first police responder should conduct effective observation, identification, description, and recording of persons, objects, and occurrences involved within the crime scene and its vicinity (Gehl & Plesca, 2016:105; Marais & Van Rooyen, 1993:35). It is, therefore, imperative that every first police responder be cognizant of the potential value inherent in every physical clue and occurrence. The first police responder should meticulously observe all objects and occurrences, no matter how minute, identify them as potential physical clues, and recognise their possible significance to fully exploit the crime scene. Effective observation leads to identifying appropriate clues that could lead to successfully solving the crime. First police responders must have the ability to identify and recall a situation accurately. Effective observation can be upheld by approaching every observation systematically, by following these guidelines (Gehl & Plesca, 2016:105; Marais & Van Rooyen, 1993:16):

1. Obtain a comprehensive understanding of the specific situation.
2. Navigate through the scene in straight lines or circles, adapting to the circumstances.
3. Focus on significant standalone objects to discern their connection to the overall scenario.
4. Examine each object independently to ascertain its role in the broader context.
5. Proceed to meticulously observe and analyse every component of these objects to uncover any related connections with the alleged criminal activity.
6. Meticulously note everything that has been observed.

Some factors impair effective observation by police members at crime scenes. Marais et al (1993:30) recognised some contributory factors that can hinder effective observation:

- Lack of knowledge and experience regarding a particular incident.
- The inability to report facts completely, clearly, and accurately due to limited linguistic ability.
- The inability to distinguish between fact and fiction.
- Negative attitudes towards a particular incident.
- Accepting preliminary deductions and theories as conclusions.
- Failing to consider obvious facts because they are deemed as unnecessary or unimportant.
- Not following up on natural and probable reactions or consequences.
- Confusing the improbable with the impossible.

Kerry et al (2013:117) identified the following hindrances that negatively affect first police responders' observation of a crime scene:

- Stereotyping behaviour and reactions based on previously recurring incidents.
- Unfounded beliefs available evidence is sufficient to prove guilt.
- Being misled by confessions and admissions.
- Having doubts about the merit of the incident.
- Focusing observations only on what catches attention or interest.

The murder crime scene of Senzo Meyiwa was changed before the police arrived, according to information provided to the Pretoria High Court (Newsroom 24, 19 September 2023). Three statements were given by Mshololo as a defence in court, including incidents in which a woman known only as "Maggie (Ma) Phiri" was observed cleaning the property following the shooting (Newsroom 24, 19 September 2023). "Maggie Phiri began to remove the empty bottle from the floor," Mshololo said in one of the statements in court which was obtained by the police (Newsroom 24, 19 September 2023). She continued: "I asked her why she was doing these before the police could arrive at the scene." (Newsroom 24, 19 September 2023). In response, Maggie said she did not want "...the police to see that the people who were inside the house were drinking" (Newsroom 24, 23 January, 2023).

The forensic expert, Sgt Mosia, testified in court that Meyiwa was shot, but he later acknowledged that he did not find any bloodstains on the kitchen floor, despite his original claims that Meyiwa was shot in the kitchen and had bled significantly. The only blood swabs they gathered were from the kitchen wall and on the floor of the sitting room (Newsroom 24, 19 September 2023). Mosia was made aware by Mshololo that the inquiry could not definitively rule out the possibility that any of the occupants of the residence were engaged in the shooting due to his failure to conduct the necessary tests. In addition, Mosia admitted to the court that he never looked for blood splatter in Meyiwa's car, despite reports that the football player was bleeding as Senzo Meyiwa was driving him to the hospital (Newsroom24 23 January, 2023).

This showcases that the first police responder neglected to properly observe the scene upon arrival. Based on the reconstruction of the crime scene, the inference is that the deceased Meyiwa could have had his back to the kitchen door, somewhere toward the centre of the kitchen (Newsroom 24, 20 September 2023). A critical quality of a crime scene first responder is the ability to observe. Observation begins immediately on the scene, and good observation skills are used throughout crime scene processing (Gardner & Bevel, 2009:98). The first police responder should first pause and survey the scene thoroughly, before taking any significant intrusive action, such as attempting to enter the scene for photography, sketching, or item collection.

According to Lee et al (2011:23), the crime scene can provide clarity on various aspects. For instance, the position of the deceased body about the position of various objects can be crucial indicators of the cause of death, whether it is murder, suicide, or accident. This can also be indicative of the direction in which the criminal approached the crime scene and how the scene was exited. Furthermore, it also provides insight into the method used to commit the crime, the identity of the victim, the identity of the offender, and the nature of their involvement in the crime. According to Palmiotto (2013:99), the goals of visiting and searching a crime scene are to find, gather, and preserve tangible evidence to solve a crime and get a conviction in a court of law.

Palmiotto (2013:99) further provides the following general guidelines when searching a crime scene: give priority to any evidence that is most likely to be seriously damaged over time by the elements. All significant pieces of evidence need to be inspected, photographed, documented, and gathered in the most logical order to prevent evidence from being contaminated. Casts are created, and latent prints are lifted from items that need to be removed from the scene. However, items shouldn't be moved until they have been analysed for Deoxyribonucleic Acid (DNA) evidence and trace evidence - any material that could be transferred during the commission of a crime, such as hair, fibres, or fabric (Palmiotto, 2013:17). People make incidental observations at any given time, and how they interpret an event determines how they will interpret the situation overall (Gehl & Plesca, 2016:107). This study may have implications for police work since police officers' observational skills may deteriorate to the point where they are unable to observe, intently, or directly. However, these incidental observations can be transformed into useful observations by a seasoned investigator.

- **Drafting notes**

Although creating notes by first police responders to manage the crime scene, no other document will be as important to the first police responder as the notebook (Dehl & Plesca, 2016:103). In court, the first police responder's notebook is their best reference document. When testifying, the court will allow first police responders to refer to notes made to refresh their memory of events and actions taken. When the first police responder's notebook is examined by the court, notes consistent with the first police responder's testimony provide the court with a circumstantial assurance or truthfulness that the evidence is accurate and truthful (McRory, 2014:np). A complete record of the scene and all its contents should be made to have specifics available for use in the forensic laboratory when examining physical evidence in the preparation of court cases. The court will require factual evidence to be presented to it during the trial, and the investigators can both "reconstruct" the events using these details.



The complete record may comprise photos, videos, and sketches of the incident (Dehl & Plesca, 2016:39). A sketch is preferable because it can eliminate clutter, which is frequently seen in photos, but should always include measurements. The first police responder is required to accurately record all visual evidence in a crime scene report. These notes will include an account of the actual scene as well as specifics regarding the criminal's modus operandi (method of operation), including how the perpetrator entered the scene. The complete record needs to be kept in log form and includes information about each item that the first police responder finds.

Each item's location, time of recovery, and unique identification number should also be logged. These particulars will come in handy for the first police responder when they must write a statement if they are called to testify in court (which could happen more than a year after the crime scene was investigated (Dehl & Plesca, 2016:39). As soon as a police officer starts to assess a scene, they should commence keeping a record of their actions simultaneously. According to one point of view, the goal of this process is to create an everlasting record of the crime scene, which will enable future researchers to replicate the scene precisely. This will aid in further investigation and, in addition, be necessary for presentation in official courtrooms when needed.

A reliable tool for any crime scene investigation is the investigative note. Classification of the crime, specific actions taken upon arrival, and a clear and comprehensive record of all observations and actions made while at the scene, should all be included in the first police responder's notes (Gardner, 2012:223). According to Pepper (2010:21), who cited Gardner (2012:30), every police agency in the world uses different formats for reporting their investigations. Either printed hard copy booklets are used, or reports are captured electronically. However, to manage the crime scene, the first police responder is likely to create additional documents, the most important of which remains the first police responder's notebook. The first police officer who documents the investigation keeps a notebook as a personal reference. According to Pepper (2010:21); Marais and Van Rooyen (1993:36), first police responders are fortunate to have access to a variety of technological tools that can aid them in creating effective investigation notes. These aids range from pen and paper to modern video recorders.

Today's most popular and efficient technique for crime investigators is pocketbook recording. In his pocketbook, the first police officer typically drafts notes temporarily. After the investigation is complete, these pocketbook notes are then used to create a final, thorough report that will be presented to the court (Palmiotto, 2013:99). Field notes are essential as people usually can't accurately recall specifics like dates, serial numbers, measurements, or the exact words uttered by the victims, suspects, or witnesses. Therefore, the notebook used in the field becomes one of the most, if not the most, crucial tools and aid in law enforcement. Gardner (2012:223) emphasises that the notes should include information about the techniques used, the areas in which they were applied, and the outcomes of those applications.

This is especially crucial in cases where a method produces unfavourable results. Additional effort is put into documenting the outcome of an investigative technique that yields positive results, by taking pictures, annotating the crime scene sketch, and making specific remarks concerning the procedure followed to obtain those results. Nonetheless, when a notebook becomes filled, more notebooks may be utilised and recognised as a continuation document of the initial book. A supervising officer may set up an incident control point (ICP) adjacent to the outer cordon and assume the role of Officer in Charge (OIC) to oversee, control, and safeguard the scene as well as provide direction and assistance to staff.

The ICP's OIC records personnel's names, ranks, numbers, signatures, and the times they oversee cordon management (Dutelle, 2014:81). For several reasons, it is crucial to accurately record the details of any crime scene, incident scene, or subsequent examination. For the crime scene investigator who will have to compile statements and reports later, the first police responder on the scene must document the scene. Accurate information about the crime scene recording can also provide the first police responders with information which they may not otherwise know the insights at a later stage that they might not have been aware of initially (Dutelle, 2014:81). It will also help the court reconstruct the crime scene by giving the most reliable facsimile about the condition of the scene and the evidence (and their inter-relationship) which otherwise would have been unobtainable.

This facsimile also provides witnesses with the ability to identify objects or people's locations within the crime scene at the time of the incident. The primary goal of taking notes is to create a thorough and precise record of observations and events that can still be valuable months or even years down the road. For this reason, it is better to take thorough notes initially, rather than attempting to save time by using acronyms, which, while understandable when written down, may not be enough to jog the first police responder's memory of the crime scene after a few months. On arrival at a crime scene first police responders must consider the following (Dehl & Plesca, 2016):

- Arrival date and time.
- Names of the people present.
- Weather conditions.
- Lighting conditions at night-time.
- Occurrences during the incident.
- Events following the incident.
- Details of the officer in charge of the case.
- Details of the officer guarding the scene.
- Assistance provided.
- Additional resources requested.

The sequence of actions followed at a crime scene varies depending on the circumstances facing the first police responder on arrival. When it is not required to start a particular examination immediately, it is usually acceptable to first spend some time studying the crime scene and documenting all observations. Once there is no risk of contamination or damaging possible evidence, movement inside the crime scene and the notation of observations commenced. A pathway should be identified and then established, which serves as a shared path into and out of the critical areas of the crime scene (Dehl & Plesca, 2016).

- **Identification of witnesses**

When the witnesses are located it is usually a manageable task, and in cases where difficulties arise, a raid may be called.

Planning and staging a raid require coordination, and this is primarily a police function rather than an investigative one (Geberth, 2010:184). The officer must always prioritise their safety, recognising it as of paramount importance (Fisher & Fisher, 2012:35). Lee, Palmbach, and Miller (2011b:53) emphasise that once a suspect has been apprehended away from a crime scene, it is crucial not to return the suspect to the scene. This precaution is based on the understanding that victims or witnesses can more effectively identify the suspect in a controlled environment, away from the chaos of the crime scene. Importantly, by keeping the suspect away from the scene, any physical evidence found at the scene that originates from the suspect remains uncontaminated and can be used for later identification by victims or witnesses.

Officers are advised to effect the arrest of individuals involved in the crime if it is safe to do so (Bennett & Hess, 2001:12; Lee et al, 2007:53). If a crime falls outside the investigator's jurisdiction, there is no obligation to investigate it. However, the complainant may be directed to the appropriate authority. Occasionally, crimes may occur on the borderline of two jurisdictions or involve multiple jurisdictions, requiring cooperation and coordination among law enforcement entities. During the apprehension of a suspect, the officer must ensure that the suspect is afforded all the rights guaranteed by the applicable laws of the jurisdiction and the Constitution of South Africa (Bennett & Hess, 2001:13; Joubert, 2013:221; Osterburg & Ward, 2010:250). For instance, if the suspect is still at the scene can make an arrest.

Furthermore, first police responders can safely make an arrest and anticipate the need for backup (Bennett & Hess, 2009; Bennett & Hess, 2001:12; Bennett & Hess, 2012). If the suspect is arrested at the scene, it is advisable to wait for the murder detective to conduct the interrogation (Bennett & Hess, 2009; Bennett & Hess, 2001:12; Bennet & Hess, 2012). This approach ensures a coordinated and effective investigative process. The first police responder has a crucial duty to establish the identity of witnesses who observed the occurrence of a crime. Witness identification involves linking the perpetrator through accounts of events obtained from statements of witnesses and complainants. It is imperative for the first police responders to record each witness' full details (such as name, identity number, residential address, place of employment, and telephone numbers).

Whenever possible, statements from witnesses should be obtained promptly. However, some witnesses may be fearful of reprisals by the criminal and their associates, while others may dread being labelled as traitors or turncoats. Consequently, many witnesses may be unfamiliar with court proceedings and perceive it as a disgrace to appear in court as witnesses. Moreover, these outcomes highlight that in many cases, trials proceed without the presentation of all available evidence. The first police responder should correct disposition and judgement on the part of the police official can overcome reluctance in many cases. (Palmiotto, 2013:19). The next priority is to separate witnesses, as they should not be allowed to communicate with each other to avoid the possibility of the witnesses collaborating to fabricate a story (collusion.) and their accounts of the events should be compared. It is only the officers who should compare the witnesses' separate interviews. Each witness should be asked the following questions (Gehl & Plesca, 2016:015):

- When did the crime occur?
- Who reported the crime?
- Who is the victim?
- Can the perpetrator be identified?
- What did you see?
- Where were you when you witnessed the crime scene?

Newsroom 24 19 September (2023) reported that the first crime scene expert who went to the Valorous house where footballer Senzo Meyiwa was murdered did not treat people at home as suspects while answering the question in Pretoria High Court (Tshikalange, 2023:38). It is crucial to keep witnesses separated to prevent them from influencing each other's descriptions of the suspect and the version of events. This separation should be maintained even when transporting witnesses to another location for interviews. Preliminary statements from witnesses should be taken and turned over to investigative personnel upon their arrival. While detectives may later take subsequent statements, the first police responder must still accurately complete all documents and record initial statements. In cases where witnesses are reluctant, the first police responder should attempt to gain their cooperation by appealing to their sense of civic responsibility (Tshikalange, 2023:38).

At a minimum, obtaining accurate identification is essential so that investigative personnel can conduct follow-up interviews (Tshikalange, 2023:38). At this stage of the investigation, the degree of involvement of witnesses or knowledge about the full extent of the crime cannot be definite, making accurate identification a critical responsibility for consideration later.

- **Victim identification and suspect identification**

Victim identification involves identifying either a living or deceased victim and forms a crucial aspect of the total investigation process (Gehl & Plesca, 2016:106). Typically, the identification process of a victim who is still alive poses few challenges (Ogle, 2012:9). Even in cases of murder, where a person is killed in their own house or flat, identification is usually straightforward as relatives, friends, neighbours, and facility caretakers can easily identify the body. However, when identification cannot be achieved in this manner, the first police responder heavily relies on the information present at the crime scene to assist in identifying the victim.

Suspect identification, on the other hand, pertains to the identification of the offender rather than identifying their unlawful participation. Establishing the identity of the perpetrator or suspected perpetrator of a criminal act is crucial, as the perpetration of a crime cannot be determined without identifying the perpetrator (Ogle, 2012:9; Marais, 1992:4). Immediately when the first police responder identifies or attempts to identify the suspect, they must promptly ascertain and document the details of the suspected person. Gathering as many specifics about the offender as possible from witnesses is imperative. Practical examples related to Gehl and Plesca (2016:118) categories of identification are further explained. Identification, situation identification, witness identification, victim identification, imprint identification, culprit identification, origin of identification and action identification. Osterburg and Ward (2010:100) echo the opinions of Powers (1996:17), who suggests that the victim should be questioned about what the perpetrator touched or took, as these items may be found in unexpected locations and still contain fingerprints.

Other questions that could positively influence the objectives of the investigation include whether the offender used the toilet, raised the toilet seat, flushed the toilet, used tissues to wipe body parts, or used a cup to drink. Answers to these questions could yield information about possible fingerprints, seminal fluid, or semen samples for recovery. Additionally, this information assists investigators in understanding the events that transpired at the crime scene. Houck and Siegel (2010:33) indicates that most of the relevant evidence created while the crime is being committed will still be found at the crime scene, or at locations where the suspect or victim had been either before or after the crime. It is also important to document the state of the suspect's clothing and any stolen items they may still have on them.

Furthermore, the mode of transport used and the direction in which the suspect left the scene should be noted (Palmiotto, 2013:99). If multiple suspects are located, they must be kept separate from one another to prevent collusion and the collaborative creation of a plausible explanation for their activities. Arrest is a serious intrusion upon the freedom and privacy of a citizen. Police officers possess wide-ranging powers of arrest but should only exercise this authority if there are reasonable grounds to assume a summons or written notification requesting the suspect's presence at a hearing would be inadequate. The first police responders to respond must keep in mind that an arrest may only take place when permitted by law and additionally, an arrest should only take place if it is safe to do so.

The first police responder can take into custody any person who has violated the laws of the jurisdiction (Palmiotto, 2013:4). If the police arrive promptly at the scene of the crime, it is possible that the police officials can witness the crime and/or arrest the suspect. A suspect identified at the scene must be duly informed of their constitutional rights, after which a decision should be made regarding whether an arrest is warranted. Swift removal of the suspect from the crime scene is imperative to minimize the risk of contamination, damage, or destruction of potential exhibits and clues. This action also reduces the likelihood of the suspect gaining insights into the scene and potentially tampering with, manipulating, or destroying incriminating evidence.

The arresting officer is responsible for ensuring that the suspect is fully aware of their rights as granted by the applicable laws of the jurisdiction and the constitution of South Africa. In cases where the suspect is still at the scene when the first police responder arrives, an arrest should be carried out safely (Palmiotto, 2013:4). However, if the first police responder assesses that backup might be necessary, waiting for assistance is prudent, for if the situation is not safe the first police responder can become the murderer's next victim. If the suspect is arrested at the scene, they should be detained until the arrival of the murder detective to conduct the interrogation.

If the suspect must be transported from the scene, the transporting officer should not question the suspect (Bennett & Hess, 2012:12). If the suspect, however, volunteers any statements, it should be documented, as well as the date, time, location, and circumstances of the statement. If it is necessary to question the suspect immediately, the first police responder must first read the constitutional rights to the suspect before the deposition commences (Osterburg & Ward, 2010:250). Depending on state law, any waiver of those rights must be done according to procedure, the suspect should give their waiver in writing if possible (Bennett & Hess, 2012:13). However, should the suspect begin to give a written statement and then decide to stop, the detective assigned to the case should be informed, so that they may attempt to obtain another waiver later. Either way, whenever the suspect invokes their constitutional rights, the questioning must cease (Bennett & Hess, 2012:11; SAPS Policy 2, 2015). The South African Constitution Section 35(1) every person who is arrested or detained for an alleged offence has the following rights (Joubert, 2013:146):

- To be promptly informed of the reasons for arrest.
- To inform that they have the right to immediately contact and keep counsel.
- To be tried within a reasonable time.
- Not to be obliged to be a witness in proceedings against an arrested person concerning the offense.
- To be presumed innocent until proven guilty according to law in a fair and public hearing by an independent and impartial tribunal.
- Not to be denied reasonable bail without just cause.



- Except in the case of an offence under military law tried before a military tribunal, to have the benefit of trial by jury where the maximum punishment for the offence is imprisonment for five years or a more severe punishment.
  - Not to be found guilty on account of any act or omission unless, at the time of the act or omission, it constituted an offence under South African constitutions or international law or was criminal according to the general principles of law recognised by the community of nations.
  - If finally acquitted of the offence, not to be tried for it again and, if finally found guilty and punished for the offence, not to be tried or punished for it again.
  - If found guilty of the offence and if the punishment for the offence has been varied between the time of commission and the time of sentencing, to the benefit of the lesser punishment.
- **Call for help.**

Traditionally, members of the public arrive first at a crime scene thereafter members of the public call the police to the scene of the crime as already indicated in the background of the study section 1.2. The moment the first police responder arrives at a crime scene and encounters unforeseen challenges, they should call for assistance, which can include legal and scientific professionals. Various professionals are involved with crime scene investigation, such as police officers, detectives, crime scene investigators, district attorneys, medical examiners, and scientific specialists. Apart from the responsibilities of the police officers and EMS as described in the previous sections, the roles of other professionals at the crime scene are as follows (Dehl & Plesca, 2016:63):

- Crime scene investigators document the crime scene in detail and collect physical evidence. This team includes recorders to document data, sketch artists to illustrate the scene, photographers to capture photos of the crime scene and evidence collectors.
- A district attorney may be present to determine whether a search warrant is necessary for crime scene investigators.

- Medical examiners (also called coroners) may be necessary to determine the cause of death when a homicide has occurred.
- Detectives look for leads by interviewing witnesses and consulting with investigators at the scene of the crime.

Furthermore, specialists such as entomologists (insect biologists), forensic scientists, and forensic psychologists may be consulted if the evidence requires their expertise. Although these steps should be carried out concurrently with the first police responder's other duties, they are listed separately here to highlight the distinctions that should be made. The presence of appropriately trained personnel, especially those with specialised training, is essential to further the investigative process. The first police responder shall request additional personnel to assist in crowd control, maintaining the perimeter, gathering witness information, transporting witnesses or suspects, processing the scene, searching the area, canvassing the neighbourhood, and performing other tasks (Dehl & Plesca, 2016:64).

The first police responder's responsibilities include notifying their communication unit of their exact location, the situation at hand, and the assistance they require (Palmiotto, 2013:4). Assistance can be any of the following resources: additional patrol units, immediate supervisor, rescue personnel, murder detective, evidence technician, public information officer (Palmiotto, 2013:97). It is important to note, however, that the first police responder may not receive all the requested assistance due to various factors such as the availability of technicians or detectives, the public information officer being occupied at another scene, or the immediate supervisor being temporarily unavailable. If the only action a first police responder can take is to protect the crime scene, then this is the only action they should focus on, since witnesses, crime scenes, and suspects can be addressed later. However, a dying victim cannot be saved later, and a crime scene cannot be secured later, so these tasks should be of the highest priority (SAPS Policy 2, 2015).

- **Crime scene search**

The specific procedure for searching a crime scene varies depending on factors such as the type of crime, the physical layout of the scene (such as outdoor settings, multiple floors), and the nature of evidence present (such as hazardous materials, blood, fire, bodies) (Lee et al, 2012:122). In the case of a large scene, it might be necessary to divide and examine it in zones, treating each part separately. In instances where the perpetrator's path needs to be preserved, stepping plates may be employed to avoid contamination. The first police responder has the responsibility to determine the point of entry and exit of the perpetrator, revealing signs of forced entry or areas where trace evidence like fingerprints, glove marks, earmarks, footwear impressions, tool marks, and other physical impressions may be recovered. Points of entry (POE) may also contain fragments of glass, paint, hairs, fibres, and blood or saliva smears, all of which must be carefully preserved for later recovery (Horswell, 2012:27). Evidence found at crime scenes can encompass a broad spectrum of physical items, including but not limited to knives, guns, tools, cigarette ends, discarded clothing, drugs, and traces of substances like gunshot residues and body fluids. The diversity of potential evidence is extensive (Ogle, 2012:2).

Preserving the integrity of the crime scene in its entirety is crucial to prevent contamination, but this extends to the tools used during investigations as well as they also pose a threat. Simple precautions taken by the first police responder can safeguard the integrity of DNA evidence. Hazelwood and Burgess (2001:261), DNA evidence is sensitive to potential transfer as the investigative tools used can transfer DNA samples from one scene to another. Tools, like fingerprint brushes, can inadvertently transfer DNA between crime scenes if reused. To mitigate this risk, it's essential to use a new brush for each crime scene (Warrington, 2014:np), especially in cases like homicides where DNA plays a critical role. While this may incur additional costs, it is a small price to pay for ensuring uncontaminated evidence and resolving potential uncertainties. Handling gloves properly is also imperative at a crime scene. Locard's Principle succinctly states that "every contact leaves a trace" (Trimm, 2003:6). Delving deeper into this principle, we find that when the perpetrator leaves evidence at the scene, it constitutes a one-way transfer.

A classic example is a fingerprint left by the perpetrator, connecting them to the crime scene. However, the reciprocity of this law is essential to acknowledge, as the person committing the crime not only leaves traces at the scene but may also carry trace materials away from the scene on their person and clothing. This dual aspect highlights the intricate nature of forensic evidence, emphasizing the importance of meticulous handling and consideration of every potential avenue for trace material transfer (Warrington, 2014:np).

For example, if the person who left a fingerprint also broke a window to gain entry to the property, small particles of glass could have transferred to and might persist on their clothes long after the crime occurred. Forensic scientists refer to this as a two-way transfer and such evidence provides robust support for placing the suspect at the scene of the crime. While traces of evidence can only be recovered from the person who committed the crime after their arrest, the first police responder can still recover physical evidence from the scene in the meantime.

Wearing gloves is not a fool-proof method to prevent contamination. However, the crucial factor is to change gloves frequently (Warrington, 2014:np). Failure to do so can lead to contamination not only from obvious sources like touching blood and other fluids but also through simple actions such as covering one's mouth when sneezing or scratching the face. As is the case with brushes mentioned above, gloves are inexpensive and should be discarded and replaced when compromised (Warrington, 2014:np). The first police responders must recognise that many laws governing search and seizure can be found in a state's statutory criminal code and court rules of criminal procedure. Each state mandates its own set of rules which are usually listed under its name and followed by the rules of criminal procedure (Joubert, 2013:283).

Section 21 stipulated that the Criminal Procedure Act provides two instances where a search warrant may be issued before the trial and during the trial. In addition, section 21 also prescribes certain formal requirements a search warrant must comply with if a valid search warrant was issued before the trial. The warrant must be issued by a magistrate or justice of the peace. Information on oath must be given to the magistrate or justice of the peace (Joubert, 2013:283).

The information on oath must indicate reasonable grounds for believing that an article referred to in section 20 is in the possession or under the control of any person or upon or at any premises within the area of jurisdiction of the person that is approached with the application. The magistrate or justice of the peace must issue a warrant only if it appears to him or her from the information on oath that there are reasonable grounds for believing that the circumstances mentioned (Joubert, 2013:287-288). Section 20, Stipulates that the Criminal Procedure Act provides what type of articles may be seized by the state. This Section itself does not authorise the search for any article but prescribes what type of article may be seized when a search in terms of another section of the Criminal Procedure Act takes place.

The section provides that the following three categories of articles may be seized by the state (and, accordingly, by police officials who act on behalf of the state) (Joubert, 2013:285). Section 22(a) of the Criminal Procedure Act provides that to seize any article referred to in section 20, a police official may search without a warrant any person, container, or premises, if the person concerned consents or if the person, who may consent to the search of the container/premises, consents to the search and seizure (Joubert, 2013:292).

Section 22(b) of the Criminal Procedures Act the section provides that to seize any article referred to in section 20, a police official may search any person container or premises without a search warrant if he or believes on reasonable grounds a search warrant will be issued to him or her under section 21(1)(a) (Joubert, 2013:292).

For example, in *S v Motloutsi* a person who was leasing the property (lessee) sublet a room to the accused. The court held that the consent from the lessee did not amount to valid consent in terms of section 22(a), because the lessee did not have the accused's property in his custody or under his control. The only person who could have consented was the accused. Constitution Republic of South Africa Constitution Act, No 200 of 1993 evidence obtained in breach of accused's constitutional right to personal privacy as entrenched in section 13 court has discretion to admit such evidence (Sher, 1995:28).

Criminal procedure – Criminal Procedure Act, No 51 of 1977 Section 22(a) permission granted by person not having custody of or control over the article to be seized does not render the search and seizure lawful. Evidence, admissibility of court has discretion to admit evidence obtained illegally or in breach of accused's constitutional rights. Evidence, admissibility of where person violating constitutional rights acts bona fide not relevant to admissibility (Sher, 1995:28). Evidence, admissibility of whether evidence inadmissible test evidence obtained as result of deliberate and conscious violation of accused's constitutional rights and no extraordinary excusing circumstances exist (Sher & Mayekiso, 1996:28). Therefore, the search and seizure were unlawful (Joubert, 2013:292).

In the case of *S v Mayekiso and Andere*, accused 1 and accused 3 shared a home. The police obtained consent from accused 1 to enter the shared home and searched. A bag with a pistol that belonged to accused 3 was seized (Sher & Mayekiso, 1996:np). The court held that Accused 1 had no authority from Accused 3 to permit a search of his property in the house (Joubert, 2013:292; Sher & Mayekiso, 1996:np). For example, Constitution, right to a fair trial includes right of an accused to have any question on the admissibility of evidence obtained in violation of his or her constitutional rights decided by way of a trial within a trial. Constitutional right to privacy search and seizure admissibility of evidence seized in violation of accused's right to privacy where such violation is deliberate and conscious, and no extraordinary excusing circumstances exists evidence seize is inadmissible (Sher & Mayekiso, 1996:np).

Criminal procedure search and seizure investigating officer conducting search without search warrant and seizing certain items, state not proving that investigating officer had reasonable ground to believe that search warrant would be issued if he applied therefor. Court finding that investigating officer not entitled to conduct such search and seizure ((Joubert, 2013:292; Sher & Mayekiso, 1996:np). Evidence, Admissibility of evidence obtained in violation of accused's constitutional rights such violation only justified where compelling reasons exist therefor materiality of items seized for the prosecution of the accused must be weighed up against the constitutional rights of the accused. In case, accused's right to privacy violated and no evidence of the privacy violated and no evidence of the materiality of the items seized. Court finding that evidence inadmissible (Joubert, 2013:292; Sher & Mayekiso, 1996:np).

For example, the police had searched a room occupied by the accused without a search warrant and had seized bloodstained banknotes which had been hidden in a music system belonging to the accused. The evidence showed that the police could have obtained a search warrant from a justice of the peace who was on duty on the night of the search. The police had entered the premises with the permission of the tenant (Mr Mvula) who sub-let a portion of the house to the accused. Upon being requested to do so by the police, Mr Mvula pointed out the room where the accused slept. The police then searched that room and found banknotes to the value of R9 540,00. The accused contended that the search and seizure infringed his right to personal privacy as entrenched in section 131 of the Constitution of the Republic of South Africa Act, No 200 of 1993 (the Constitution) (Sher & Mayekiso, 1996:np). Although it was accepted by the accused that section 222 of the Criminal Procedure Act, No 51 of 1977 was a permissible limitation in terms of section 33 of the Constitution, it was argued that the search and seizure in this particular instance were not authorised by section 22 of the Criminal Procedure Act. The State argued that section 22 of the Criminal Procedure Act was a justifiable limitation of the accused's constitutional rights and that in this case, the search and seizure were permitted by section 22 because Mr Mvula had given the police permission to search the premises. In the alternative, it was argued that the police officer who conducted the search bona fide believed that Mr Mvula's permission was sufficient and that the Court should therefore exercise its discretion in favour of admitting the evidence (Sher & Mayekiso, 1996:np).

Both parties conceded that the Court had a discretion to admit evidence obtained in breach of the accused's constitutional rights and the Court accepted that it had such a discretion (Joubert, 2013:292; Sher, 1995:29). Therefore, there was no valid authority to search and seize accused 3's bag, since consent in terms of section 22(a) was not obtained from accused 3 (Joubert, 2013:292). The warrant was issued in terms of section 25 of the Criminal Procedure Act. A search warrant may also be used in terms of the Criminal Procedure Act. Unlike section 21, where the application is based on the suspected presence of an article mentioned in section 20, the reason for obtaining a warrant in terms of section 25 is linked either to state security or to the commission of an offence. These sections emphasise the requirement for prior authorisation in search and seizure activities (Joubert, 2013:283).

The purpose of this requirement is to ensure that, before the search and seizure occurs, the conflicting interests of the state and the individual are assessed by a completed arbitrator to ensure that there are no unwarranted intrusions on basic human rights. Therefore, an independent, determined, responsible officer is required in terms of this section to make such an assessment (Joubert, 2013:283). Section 21 of the Constitution of South Africa guarantees the following rights: No citizen may be deprived of citizenship. Everyone has the right to freedom of movement *and* residence. No one may be subjected to slavery, servitude or forced labour.

A provision of the Bill of Rights binds a natural or a juristic person if, and to the extent that, it is applicable, considering the nature of the right and the nature of any duty imposed by the right (Joubert, 2013:np). Joubert (2013:289) summarised the following principles that courts adhere to when regarding the contents of a search warrant:

- Not every article has to be described in detail; reasonably clear descriptions are sufficient. Categories or classes of articles may be identified.
- A search warrant authorising the seizure of “documents” should provide adequate details and not be too general. The person executing the warrant must be able to determine with “reasonable certainty” which items should be captured.
- If an article does not fall within the authorisation of the search warrant but is relevant to the crime, it should not be seized until a search warrant specifically for that article is obtained. Exceptions may only be made in exceptional circumstances that justify a search without a warrant (Joubert, 2013:289).

The South African Government’s rules governing criminal procedure are outlined in the South African Constitution. Rules of criminal procedure can offer valuable guidance for when a search warrant is necessary, the process for obtaining a warrant, time limits and specifications for executing the warrant, as well as the circumstances under which a warrantless search or arrest can be conducted (Joubert, 2013:285-287). However, these rules often fall short of addressing specific questions and issues related to crime scene searches. In such cases, the first police responder needs to turn to case law.



The laws governing crime scene searches are rooted in the Constitution, and both the South African Constitution and the "Supreme Law of the Land." The Constitution establishes protections and limitations that are integral to the due process requirements of the criminal justice system. Legal rules concerning crime scene searches must align with the protections and limitations established by the Constitution, or risk being overturned by the courts which possess the authority to interpret the Constitution and implement its laws (Joubert, 2013:85).

Crime scene searches are conducted to discern and confirm evidence, providing insight into the events that transpired. The selection of the search method is influenced by factors such as the size, location, and complexity of the scene. Three commonly employed methods for crime scene searches are the strip method, the grid method, and the zone method (Marais & Van Rooyen, 1993: 53; Lee, Palmbach & Miller, 2011a:53). The strip method proves effective in large, open areas and can be executed by multiple searchers or a single searcher when examining a single room. The procedure involves traversing the search area in a straight line from one end to the other, then retracing the path in the opposite direction. The grid method extends the strip method by performing searches in two directions. After covering the area in one direction, the searcher proceeds perpendicularly, ensuring a thorough examination of the same space in both directions (Lee, Palmbach & Miller, 2011b:53).

This method proves efficient and comprehensive, suitable for various scenarios with any number of searchers, making it the preferred choice in many situations. The zone method compartmentalises the search area into blocks or zones, with individual searchers assigned to specific areas of responsibility. A useful practice is to rotate searchers after completing their designated zones to bring fresh perspectives into each area, potentially uncovering evidence missed by earlier efforts (Lee, Palmbach & Miller, 2011a: 53; Marais & Van Rooyen, 1993:55). In this case, the police failure to search the crime scene is the reason why the defence counsel wishes to understand why the scene of the crime was searched during the night when Senzo Meyiwa was killed. The defence counsel has sought to challenge the forensic field worker's testimony, Sergeant Thabo Mosia, regarding crucial investigations that were not conducted at the crime scene.

The defence, led by advocate Zandile Mshololo, aims to establish that these investigations could have either exonerated or implicated individuals present in the house on the night Meyiwa was shot. During cross-examination, Mosia admitted that gunshot residue tests were not performed on the people present at the Vosloorus house when Meyiwa was shot on 26 October 2014 (Newsroom 24, 19 September 2023). Gunshot residue tests detect chemical compounds deposited on a person's skin or clothes when a firearm is discharged. In this case Advocate Mshololo emphasised that the failure to perform these tests hindered the investigation's ability to conclusively determine the involvement of those in the house in the shooting. Mosia attributed the omission of the crucial test to the first officer on the scene, acknowledging that he did not fulfil his duties in this instance.

Mshololo continued to question Mosia about other investigations that had not taken place (Newsroom 24, 20 September 2023), suggesting potential flaws in the forensic examination. The defence strategy also focused on the possibility of tampering with the crime scene. Mshololo presented witness statements indicating that a woman named Maggie Phiri was cleaning the house after the shooting and before the police arrived. Phiri allegedly removed beer bottles from the floor and expressed a desire to clean up before the police arrived (Newsroom 24, 20 September 2023).

Advocate Mshololo the defence argued that this suggested tampering with the crime scene, contradicting Mosia's earlier testimony that he did not think the crime scene was tampered with. The defence aimed to cast doubt on the thoroughness and integrity of the crime scene investigation, highlighting potential lapses that could impact the reliability of the evidence presented in court. A law enforcement officer is responsible for taking into custody any person who has committed a crime against the laws of the jurisdiction. In certain situations, however, investigators may choose to retain authority and actively participate in a case, particularly when there is an inherent interest, or the case is perceived as being important. This could include cases that attract publicity, high-profile cases, or those offering an opportunity to make a significant arrest. Alternatively, the first police responder might negotiate with another jurisdiction to take over the case (Osterburg & Ward, 2010:10).

- **Crime scene assessment**

The documenting of the crime scene should commence with a comprehensive overview of the situation and its surrounding area. Once first police responders have identified a scene or multiple scenes, they should conduct an initial assessment of potential evidence available. This assessment, along with the subsequent formulation of a scene strategy (including necessary resource allocation as discussed above), should incorporate considerations for forensic procedures. Failing to consider forensic issues at this stage may lead to valuable material being contaminated, overlooked, or lost (Gehl & Plesca, 2016:95).

Murder investigation can fail for several reasons. One hand, the most obvious reasons include the lack of police resources (Wellford & Cronin, 2000:1-7). Less than adequate police response to crime scenes, improper treatment of the crime scenes that is failure to prevent crime scene contamination etc. investigation also fails due to cognitive bias, probability errors, and investigator's overconfidence (Rossmo, 2008; Rossmo, 2006:1-8). On the other hand, there are factors beyond an investigator's control such factors include lack of solvability factors that do solely depend on the police response that is factors that the offenders have control over. Nonetheless, the biggest failure in the criminal investigation of cases is a failure to correct the known problems.

Knowing that the same investigative methods or procedures produce the same failed outcome, and not addressing those known problems is a failure to recognise self-weaknesses Rossmo, 2008; Rossmo, 2006:1-8). Sometimes, this problem is directly related to the resistance to change due to fear of the unknown. From the perception point of view, confirmatory bias is among the most serious factors that need to be addressed. Confirmation bias is a type of selective thinking where an investigator is likely to search and notice only the evidence that confirms his theory while failing to assess the evidence that contradicts his conclusions (Rossmo, 2008). In essence, confirmation bias is a form of tunnel-vision, which is an investigative failure that could send a case as far as to a wrongful conviction of an innocent person (Bell, Clow, Ricciardelli, 2008:75-96; Findley, 2012:303-323; McFarlane, 2008).

This is oftentimes as a direct result of over-confidence that is build based on the un-reviewed/ un-evaluated experience that comes from a specific mindset, not open to constructive criticism. Despite these influencing factors, people ask what can be done to improve success. The best way to approach this concern is to focus on changing what is changeable to change things that are within reach. For murder cases, adding more officers, better coordination between units, and fast responses to such incidents are usually within reach. The current study is focusses on an exploration of the first police responder on the management of murder crime scene. in this aspect, this study asks the questions: What is the role of the first police responder at the murder crime scene? What are the challenges encountered by the first police responder at the murder crime scene? What is the most suitable practice for the first police responders to manage the murder crime scene? First police responders should be aware of the impact that securing and managing a scene can have on a community and should consider community engagement strategies as well (Bell, Clow, Ricciardelli, 2008:75-96; Findley, 2012:303-323; McFarlane, 2008). The police must follow a strict set of procedural guidelines designed to protect themselves and everyone else present, guard evidence against damage, contamination, or loss, and document everything that occurs at the scene. Following these procedures and maintaining control of the scene until crime-scene investigators arrive, offers the best chance of obtaining the evidence needed to identify and convict the perpetrator.

The researcher argues that failure to follow these directives can result in the crime remaining unsolved or a known perpetrator walking free. Assessing the risks to the first police responder's health and safety when processing a scene where hazardous substances or other dangers may be present is vital (Bell, Clow, Ricciardelli, 2008:75-96. These dangers could include loose flooring, sharp objects like broken glass, or even the presence of the perpetrator of the crime who might be in hiding or observing whether their actions have been discovered. The first police responder must take all necessary steps to minimise injury by complying with relevant legislation such as the Control of Substances Hazardous to Health (COSHH) Regulations and the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).

Details about these regulations can be found in official documents or resources provided by relevant authorities. The first police responder should only start processing the scene once they are satisfied that they have obtained all the necessary information to ensure their safety (McFarlane, 2008). After the initial response and preliminary investigative considerations have been addressed by the first police responder, the lead investigators taking charge of the crime scene investigation (whether patrol officers or specialised investigators) must conduct their own assessment of the crime scene to determine how to proceed. This assessment includes a briefing by the first police responder, another walk-through of the scene, an assessment of the type of crime to be investigated, as well as planning the level of investigation, personnel required, and equipment needed to properly process the crime scene. Conducting a walk-through of the crime scene gives the lead first police responder an overview of the entire scene and helps in planning how the crime scene should be processed. The first police responder can observe the crime as it happened, identify the location of the incident, and recognise entry and exit points, as well as where potential evidence could be located. This walk-through is instrumental in assisting the first police responder in forming an initial hypothesis of the crime, often referred to as the theory of the case.

This preliminary understanding aids the first police responder in developing an opinion on the type of crime that transpired, how it unfolded, and where it took place (Palmiotto, 2013:26). As noted by Palmiotto (2013:26), a crime scene assessment is vital for investigators as it allows for the development of a plan for the coordinated identification, collection, and preservation of physical evidence, along with the identification of witnesses. Furthermore, it facilitates the exchange of information among law enforcement personnel and contributes to the development of investigative strategies. This assessment is a fundamental step in planning the objective of the investigation and determining how to search and process the crime scene effectively.

- **Debriefing on the occurrence of crime**

The extent of responsibility placed on the first police responder for managing a crime scene and developing crime scene strategies is influenced by the complexity and severity of the crime and the policies of the local law enforcement agency. During the collection of evidence, investigators must collaborate with detectives and crime scene managers to ensure the use of the most appropriate methods for examining the scene. Once the first police responder has briefed the authorities on the crime scene occurrence, a crime scene technician or investigator will eventually arrive to assume responsibility for the scene (Gardner, 2012b:75). When the first police responder briefs the lead investigator upon their arrival, denotes a crucial moment for several reasons.

It facilitates the smooth transition of control over the crime scene from the first police responders to the investigator who will subsequently be leading the crime scene search. This handover requires effective coordination and communication, allowing the ensuing investigation to proceed efficiently. It allows the lead investigator to become aware of the primary aspects, observations, and relevant information observed by the first police responder. This might include what the first police responder observed upon arrival, the presence of suspects or victims, personnel in or out of the scene, actions taken, whether a crime has been established, and, if so, the type of crime involved. The briefing alerts the lead investigator to security or safety issues that need to be considered in planning the succeeding crime scene investigation. It also facilitates the maintenance and prevention of contamination of all crime scene documentation and logs. The investigator can see where the crime was committed, identify entry points, and assess the existence and potential evidence at any of these points (Gardner, 2012a:75).

## **2.6 SUMMARY**

The chapter provided discussions on the role of the first responder at the murder crime scene. Additionally, legislation and theories relevant to the study under investigation were discussed. Proper management of the crime scene is crucial in forensic investigation and during crime scene management.

Crime scene management always starts with the first member at the crime scene, who should preserve lives, remove perpetrators, identify witnesses, and act according to the knowledge that a less disturbed crime scene assists the court of law to reach the correct decision pertaining a criminal case. All stages of crime scene management, which are: control; handing over to crime scene manager and technician; planning; investigation and processing; debriefing; restoring; releasing; and evaluation, should be thoroughly explored to ensure that the crime scene is secured and thoroughly searched, and that evidence is correctly identified, collected and packaged. Cordoning off the crime scene is the responsibility of the first member, but it is the investigation team's responsibility to ensure that the crime scene remains cordoned. This shows that every role player in the police department should ensure that the integrity of the crime scene is maintained. The crime scene processing team should ensure that every member entering the crime scene wears Personal Protective Equipment (PPE) to avoid further contamination and to protect the members against certain diseases.

## **CHAPTER THREE: CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER AT THE MURDER CRIME SCENE**

### **3.1 INTRODUCTION**

This chapter presents a discussion of challenges encountered by the first police responder in the management of murder crime scenes. The first police responder at the murder crime scene in Gauteng province faces several challenges that might hinder the SAPS from fulfilling its constitutional mandate, and these challenges are outlined below and discussed. The discussion is complemented by relevant examples of cases that have occurred in Gauteng.

Some of the challenges are drawn from high-profile cases that have made headlines in South African Television (TV) shows, such as the cases of Senzo Meyiwa and Oscar Pistorius. As a comparison, references will also be made to an international case that took place in Los Angeles City, California, involving OJ Simpson. The challenges encountered includes communication, identification and individualisation, crime scene contamination, looking for evidence at the crime scene, legal challenges of the first police responder, limitation of power, legal requirement challenges on documentation of the crime scene, Challenges on evidence in police investigation, Challenges on evidence and human errors, decomposition of body at the scene of crime, victims body as a crime scene, weather and light conditions political pressure, media, incompetence of police office, bystander and police officials at the crime scene, Work Stress/ Occupational stress. and corruption.

- **Communication**

Police departments have traditionally tried to tightly control the flow of information regarding ongoing incidents and investigations. Generally, the release of information is centralised in the hands of crime scene commanders and designated spokesperson. There are good reasons for doing so (Gehl & Plesca, 2016).



It ensures consistency in the message that is provided to the public with only a handful of officials speaking to the media, it is much less likely that multiple, conflicting messages will be disseminated. There are also some challenges associated with releasing information (Gehl & Plesca, 2016).

For example:

- If a suspect is alerted that the police are specifically looking for certain pieces of evidence, it is possible that suspect will be attempted to destroy or hide that evidence to prevent the police from findings it.
- If a suspect is alerted to the fact that the police are looking for suspect may flee. This could also create the potential for violence if the suspect has time to prepare, whereas the police may have been able to make an arrest without violence if the suspect was surprised.
- Sometimes initial information or reports are wrong. Investigators are trained to keep this possibility in mind and to seek out as much corroborating evidence as possible, but the media often reports whatever the initial account is as unquestioned fact. This is led to false narratives of events becoming widely believed by the public and to the misidentification of suspects.
- Individuals speaking to the media may not stick strictly to information that they know for certain to be true. Individuals may give into the temptation to speculate or report information that they merely believe to be true but is inaccurate.
- Défense attorneys will attempt to claim that particularly widespread or sensational coverage is so prejudicial that it prevents their clients from getting a fair trial. If successful in court, these claims can endanger successful prosecutions (Gehl & Plesca 2016).

Given these challenges, it is understandable why many police department choose to tightly control the flow of information from within the department to the public. When communication was limited to daily newspapers and nightly news broadcasts, such a system of controlling public statements worked well as police officers are all aware, however, information moves much, much faster today.

- **Identification and individualisation**

Osterburg and Ward (2010:30) cited with Van Rooyen (2012:11) emphasises that identification and individualisation are comparable concepts that should be considered inseparable. Identification of all persons involved in a crime is an indispensable requirement for the individualisation of the crime (Palmiotto,2013:18); Marais (1992:19). However, where identification of offenders is a legal requirement, the solving of certain crimes, such as murder, can only truly proceed once the victim has been positively identified.

The first police responder encounters significant challenges in the identification and individualisation of physical evidence. Saferstein (2011 :47); Saferstein (1981:47) agree that the purpose of identification is to establish the physical or chemical identity of a substance. The researcher describes that the identification process starts with implementing testing procedures for specific standard materials (Ogle 2012:9; Marais, 1992:18). The results are then recorded and used to prove the identity of materials. The substance undergoes a process of elimination to obtain a single conclusion which then serves as an identification of the object.

Ogle (2012:9); Houck (2007:38) views identification as the examination of the chemical and physical properties of an object and classifying it. Osterburg and Ward (2010:36) explain identification as the process used to place an item in a specific category, while Ogle (2012:9) elucidates identification as "...the collective aspect of a set of characteristics by which a thing is recognizable [sic]." Additionally, he states that a set of characteristics includes all the features that define a category to which objects belong, but it is the individual characteristics that distinguish an object from others in its class. This patterning process establishes the individuality of the object. If the characteristics of an object are unique to only one component of a class, the individual source of evidence will be identified. This process is called individualisation. Osterburg and Ward (2010:30); Houck (2007:40) both of them explains the individualisation of evidence as the ability to place an object into a category with only one defining feature. Osterburg and Ward (2010:30)'Marais (1992:19) explained that individualisation is only possible if it concludes a series of identification processes.

Individualisation is based on a comparison that demonstrates that a particular sample is unique, even among members of the same classification. When employing the process of individualisation in crime scene investigation, involves comparing a disputed object found at the crime scene with an authentic specimen of known origin. This comparison signifies that if the object shares identical individual features with specific objects from the crime scene, it can be inferred that the contested object also originated from the same crime scene (Osterburg & Ward, 2010:30; Marais, 1992:19).

The process of individualisation commences at the crime scene and culminates when evidence is presented in court, ultimately aiming to positively determine the deceased's identity. This sequential process involves a series of identifications and comparisons. First, to definitively individualise disputed objects and subsequently, to indicate the involvement of an object or person through comparison. According to Ogle (2012:9) Marais (1992:21), for the identification and individualisation of the deceased, disputed objects must meet specific criteria to be valuable to the case. These criteria encompass uniqueness, individuality, invariability, reproducibility, and classifiability (Osterburg & Ward 2010:30; Marais, 1992:21).

Identification operates on the principle that everything in the universe is unique, possessing distinct individual and classifiable characteristics. Osterburg and Ward (2010:30) note that in a murder case, examining fibres recovered under a victim's fingernails may identify a natural filament, as opposed to a synthetic filament.

For example, through the identification process, the examined fibre can be identified as human hair. However, when a single origin is established, it moves beyond identification to individualisation. Accordingly, the process of individualisation occurs once it has been established that the human hair specimen unequivocally belongs to the suspect. Osterburg and Ward (2010:30) distinguishes between two processes in the analysis of evidence: identification and comparison.

Osterburg and Ward (2010:30) they further note that in the comparison process, disputed evidence is contrasted with objects whose source is known. Saferstein (2013: 48); Saferstein (1981:48) elaborates on the comparison process, stating that a suspect specimen and a control specimen undergo the same test to determine whether they share a common origin.

For example, fingerprints are identifiable by the fine pattern of ridges on the skin. Radiographic examination is a useful method for evaluating remains, clothing, and personal effects by detecting foreign objects and materials. Dentin establishes dental characteristics and is the hardest substance in the body. It can provide information on age, race, habits, occupation, and pre-existing diseases. Age at death, sex, race, and other individual characteristics can be determined by a physical anthropologist analysing the completeness of skeletal remains (Saferstein, 2013: 48).

For example, a hair examination can establish a potential link between the suspect and the crime or between the victim and the weapon. A detailed examination of tattoos, birthmarks, and scars provides a basis for comparison with employment and medical records. Serological and cytological examinations determine blood group antigens, detecting whether individuals are from one family or race, or even confirming their identity. According to the SAPS Crime Scene Policy (2015:8-13), upon the investigator's arrival, the first police responder should handover the crime scene to the investigator through a detailed explanation of the situation.

A meticulous, systematic, thorough, and comprehensive search for the identification of physical evidence takes place during the preliminary phase of the investigation. Some types of physical evidence can come from a single source, but most physical evidence can be associated with a group or category of sources (Houck & Siegel, 2011:49).

- **Crime scene contamination**

Contamination in conveyance crime scenes often originates from human factors. Crimes committed using transportation, such as robbery, grand theft, carjacking, sexual battery, and homicide, fall into this category (Gehl & Plesca, 2019:106). Each type of crime scene, depending on the nature of the crime (such as robbery, homicide, or rape), necessitates distinct investigative procedures. When examining vehicle crime scenes, it is crucial to extend the focus beyond the vehicle itself. For instance, footprints or shoe impressions left by someone fleeing the scene, and the tracks they create, can carry evidence that the suspect picks up at the scene, such as soil, rocks, or sand (Gehl & Plesca, 2016).

The involvement of these diverse professionals demands proper coordination to ensure the comprehensive collection of evidence in the crime investigation and scene examination. Teamwork is a paramount for optimal outcomes. The crime scene is highly susceptible to contamination, and there are several rationales for securing the scene. It is crucial to prevent contamination of the scene and any evidence within it. The scene can be contaminated by present officials and the curious public, press, or media with a vested interest in the proceedings. Additionally, contamination risks exist due to changes in weather conditions, underscoring the importance of shielding the scene from elements that could compromise its integrity post-crime.

A crime scene is a location where a crime or incident, such as theft, armed conflict, murder, fire, suicide, rape, or an accident, has occurred. One of the fundamental principles of forensic science governing crime scene analysis is Locard's Principle of exchange, which posits that every physical contact leaves a trace. This means that whenever first police responders encounter anyone or anything, they leave a trace of themselves and take a trace of the person or thing with them (Avril, 2015). Avril (2015) stated furthermore that there is various physical evidence are left at a crime scene, and the evidence retrieved from these traces can contribute to understanding how the crime was committed, interpreting the facts, reconstructing the event, determining when the crime occurred, identifying individuals involved, understanding the tools or methods used, and exploring the motives behind the crime.

Examples of evidence that can assist in determining the time of death include biological evidence (such as blood and semen for DNA analysis), trace evidence (such as hair and fibres), digital evidence (such as mobile phones and laptops), document evidence, ballistic evidence (such as matching a bullet to a weapon used in the crime), and the presence of insects. the reliability and preservation of this evidence, often fragile, depends significantly on how the crime scene was initially managed. therefore, it can be deduced that forensics commence at the crime scene (Avril, 2015).

Preserving a crime scene in its original state poses a significant challenge, and contamination and disturbance of the scene are often attributed to a lack of awareness of appropriate behaviour (Avril, 2015). A notable example is the crime scene at Kelly Khumalo's house in Valorous with concern to the Senzo Meyiwa case.

If this crime scene had not been contaminated, forensic expert Thobo Mosia might have successfully lifted fingerprints, offering a valuable opportunity to narrow down the suspect pool (Newsroom 24, 19 September 2023). The individual characteristics of each fingerprint make them crucial forensic evidence, as no two individuals among the approximately 80 billion people on Earth share the different fingerprints. Therefore, fingerprints are essential in identifying and apprehending perpetrators of crimes.

In the Senzo Meyiwa trial, senior forensic analysts could testify that DNA evidence found at the scene played a pivotal role in excluding all accused individuals. Following the football star's murder, witnesses in the trial identified a checker hat that belonged to one of the intruders and was left behind as they fled the scene. Senior forensic analyst, Captain Mmapshedi Masetla, revealed that the DNA on the checker hat excluded all the accused individuals (Modise, 2023). Masetla, testifying as a state witness, conducted a DNA analysis on evidence collected from the crime scene. Masetla explained that the DNA found on the hat comprised a mixture of profiles in terms of gender, suggesting that two men or a man and a woman could have worn the hat (Modise, 2023). Additionally, Masetla testified that Mthokoziseni Maphisa, Fisokuhle Ntuli, and Muzikawu khulelwa Sibiyi did not match any of the swabs taken in the house (Modise, 2023). Crime scene contamination can have significant repercussions, as illustrated by the OJ Simpson case in the United States of America. Nicole Brown Simpson and Ron Goldman were found murdered at their home, but a bloody fingerprint found at the crime scene, which could have served as a key piece of evidence, became inadmissible in court due to contamination (Avril, 2015). Another challenge during scene preservation and disaster management includes the frantic and chaotic reaction humans have to a crime incident, which often leads to pandemonium. This was also evident in the Senzo Meyiwa case.

This chaotic response can contaminate the scene, compromising the integrity of potential forensic evidence. Therefore, swift, and careful actions are necessary when responding to a reported or detected crime. This includes providing lifesaving measures without compromising the scene, managing access in and out of the area, and preventing crowds from congregating around the scene until law enforcement arrives. Access to the crime scene demands stringent measures to minimise contamination and preserve the integrity of potential evidence. Individuals entering the scene must put on protective clothing, particularly gloves, before making any contact.

The proper collection and storage of items from the crime scene, along with meticulous documentation, are crucial to maintaining a chain of custody. However, ensuring this chain of custody poses a significant challenge during the investigative process. Crime scene contamination typically arises from the actions of personnel present at the scene. Generally, the more individuals present, the higher the likelihood of scene or evidence contamination (Baldwin & Hayden, 2017). Scene personnel can introduce hairs, fibres, or trace materials from their clothing, and they may inadvertently destroy latent footwear or fingerprints. Likewise, footwear patterns can also be transferred to crime scene personnel or anyone entering the scene (Baldwin & Hayden, 2017). Adhering to Locard's Principle, every contact between objects results in the exchange of trace evidence.

Accordingly, each entry into a crime scene has the potential to leave behind or take away trace evidence. Contamination is defined as the undesired alteration of evidence that could compromise the integrity of the original exhibit or the crime scene itself. This undesired alteration of evidence has the potential to erase original evidence transfers, dilute samples, or introduce misleading new materials into an exhibit (Baldwin & Hayden, 2017:np). Comparable to how evidence transfer between a suspect and the crime scene, or the suspect and the victim can establish a circumstantial connection, contamination has the potential to undermine the analysis of the original evidence transfer. Due to such a compromise, the court may reject the analysis and any conclusions that the analysis might have otherwise provided.

Gehl and Plesca (2016:110) outline the following examples of ways that contamination can occur:

- First police responders can interfere with evidence during a tactical investigative response.
- Suspects can tamper with the crime scene to conceal or remove evidence.
- Victims or witnesses can mishandle evidence.
- Animals, including pets, can cause unwanted transfer or removal of evidence through contact or consumption.
- Weather-related contamination from rain, wind, or snow can lead to the dilution or washing away of evidence.

- Crime scene investigators can fail to adhere to proper crime scene management procedures and cause contamination of exhibits or cross-contamination between exhibits.

Contamination is an unfortunate reality and an omnipresent challenge for investigators. Until police secure the crime scene, a variety of activities can still take place, subjecting the scene to some level of contamination. Courts are likely to accept that some contamination is beyond the investigator's control, especially when people's lives and safety are at risk. However, this tolerance for uncontrollable contamination significantly diminishes once the crime scene is secured and under control. Once the scene is locked down, effective crime scene management procedures become imperative. Crime scene contamination poses three distinct challenges for investigators:

- Prevent contamination when feasible.
- Control ongoing contamination.
- Document the known instances of contamination.

The term "control" as it appears above in the phrase "control ongoing contamination" encompasses the fact that investigators cannot eliminate ongoing contamination. Their objective is to manage it to the best extent possible. The practice of identifying and documenting known contamination is essential. Even if contamination has occurred, the process of identifying and explaining such contamination can potentially salvage the analysis of exhibits that may have been compromised. For example, DNA evidence can be contaminated when mixed with DNA from an external source (exogenous DNA). This can occur in various ways, such as someone sneezing or coughing over the evidence, or samples being inadvertently mixed during sequencing. To minimise the risk of DNA evidence contamination, it is crucial to take precautionary measures. These include wearing gloves, changing the gloves frequently, using disposable instruments, or thoroughly cleaning instruments before and after handling each sample (Baldwin & Hayden, 2017).



For example, in the trial of Amanda Knox and Raffaele Sollecito during the Hellmann-Zanetti court case, a second trial overseen by Judge Claudio Pratillo Hellmann began on 24 November 2010 in the United States of America (US Department of Justice, 2013). This trial involved a comprehensive review of all previously presented evidence and testimony.

This included an independent examination of DNA evidence, particularly the samples obtained from a clasp on Kercher's bra and a kitchen knife found in Sollecito's apartment. The weapon used to murder Meredith Kercher was not recovered at the crime scene. Instead, a knife was found separately at Sollecito's residence, with a low-level DNA profile matching Kercher on the blade and a profile matching Knox on the handle. These results played a crucial role in the Knox case (New York Daily News, 2023). From a forensic perspective, it's important to note that there was no evidence of blood on the knife, despite claims that the DNA originated from Kercher's blood. Additionally, the prosecution's explanation of "selective cleaning" to justify the absence of Knox's DNA at the scene was deemed highly implausible (New York Daily News, 2023). The collection process of the knife was questioned, as it involved improper handling and non-sterile packaging (using an envelope that had been used to store gloves).

The absence of controls and unjustified collection left ample opportunities for contamination. Carla Vecchiotti and Stefano Conti found the DNA evidence to be unreliable due to a high likelihood of contamination during scene processing and exhibit analysis (Baldwin & Hayden, 2017:np). It was determined that the police forensic scientists involved had made numerous mistakes during the investigation. Subsequently, on 3 October 2011, Knox and Sollecito were both declared not guilty of the murder (Knox, 2007:np). Judge Hellmann's report, also referred to as the Hellmann Report, stated that the key evidence against Amanda and Raffaele was unreliable, and the first court did not apply the correct standard of proof (Schadebeck, 2023:np). A bloodstain found on a bedsheet at the crime scene was determined to be in the shape of a knife but was of a different size and shape from the one collected from Sollecito's apartment (Baldwin & Hayden, 2017:np). Moreover, it was established that most of the wounds sustained by Kercher could not have been caused by the knife.

The lack of recorded anticontamination procedures raised concerns, and there was a possibility that the knife could have been exposed to Kercher's DNA at the laboratory or during improper handling (New York Daily News, 2023). The DNA result readings were also below the acceptable threshold. The fact that Meredith had also been in Sollecito's apartment before and could have left DNA traces on the knife on those occasions, was also neglected. This serves as an example of how issues regarding contamination of physical evidence can cast a shadow over criminal cases.

Potential contamination of physical evidence can occur at various stages: During the crime scene investigation, during the packaging, collection, and transportation of evidence to a secured facility or laboratory, and evidence analysis and storage. While forensic scientists in laboratories are sensitive to the issue of contamination and have developed protocols to identify and reduce the risk of contamination, law enforcement has been slower to incorporate precautions for contamination prevention. Recent advances in forensic DNA technology highlight the increasing importance for crime scene personnel to be more sensitive to contamination issues (Baldwin & Hayden, 2017). Forensic DNA analysis has become an increasingly powerful investigative tool.

The analysis of biological fluids and cells found at crime scenes can, with relatively high accuracy, exclude or include a possible suspect and provide a numerical estimate of the similarity between the crime scene and the suspect's DNA. The DNA technology employed in crime laboratories across the country has the capability to amplify very small or degraded samples, by essentially replicating the existing DNA to provide a sufficiently large sample for analysis. Given the analyst's ability to amplify minute amounts of DNA from biological evidence, the importance of minimising contamination at crime scenes becomes even more critical. Should an investigator inadvertently deposit a single hair, perspiration, or saliva at the crime scene it can muddle or confuse the interpretations of the physical evidence, possibly discount a viable suspect, and jeopardise valuable time (Baldwin & Hayden, 2017). This underscores the necessity to avoid careless handling of the crime scene, which can lead to contamination of evidence. Most courts have recognised "concerns about contamination that may arise concerning any forensic evidence" (Gehl & Plesca, 2016:106).

Such legal challenges either relate to the procedural mistakes committed by first police responders at the crime scene, or scene contamination in general, only affects "the weight of the evidence and not its admissibility. The defence can attack the credibility of the first police responder witnesses or present its witnesses to challenge the way a crime scene was handled or investigated. The potential for contamination may present an open field for cross-examination or may be addressed through testimony of defence experts at trial, as is true of other forensic evidence (Gehl & Plesca, 2016:105).

For instance, when fingerprints and other items are smudged or smeared, it compromises the quality of evidence and the ability to establish crucial details. The first police responder must always wear plastic gloves and package everything found in individual evidence bags. To avoid confusion, it is important to maintain a clear log or inventory of items at the scene and to label them appropriately when placing them in bags. However, sometimes first officers do not respond properly and do not secure the scene and the immediate area. Uniformed officers may be hesitant to stop or challenge superior officers or other unauthorised persons who insist on entering the scene (Gehl & Plesca, 2016:107).

In this case also Amanda Knox, an American woman famously jailed in Italy and then acquitted in the 2007 murder of her roommate, Lamented the fact that she is still "fighting to clear (her) name" some 16 years later, while the man convicted of the grisly crime is "free from prison" and continues to hurl accusations regarding her involvement in the high-profile slaying (Schadebeck, 2023:np). In a recent case of Senzo Meyiwa, one of the lawyers claimed that there were no bloodstains on the spot where the former Bafana Bafana captain had allegedly been shot, leading to allegations by Advocate Zandile Mshololo that this indicated tampering with the crime scene (Mitchley, 2022). There were allegations that someone was seen cleaning the crime scene after the shooting. While former Bafana Bafana captain Senzo Meyiwa was shot in the kitchen of his girlfriend Kelly Khumalo's house, there were no bloodstains on the floor, leading to allegations that the crime scene had been cleaned up (Newsroom 24, 19 September 2023). Often, police officers congregate at the scene inadvertently contaminating evidence as they haphazardly "go through the motions" while waiting for additional responders and investigators to arrive (Buckles, 2007).

Forensic Officer, Sergeant Thabo Mosia, suggested that the delays in reporting the murder of Senzo Meyiwa may have caused additional contaminations of the crime scene. Mosia took the witness stand when the trial resumed at the Pretoria High Court. Mathebula told the court that MaKhumalo led them to an area near the kitchen when they asked her to demonstrate what had happened (Newsroom 24, 23 May 2022). “They looked around the house for cartridges and found a bullet projectile near a hat (Newsroom24 19 September 2023). They also found blood stains in the dining room next to the couch,” he said. Advocate Mshololo asked Mathebula to clarify whether MaKhumalo pointed to the hat or picked it up. Newly presented evidence, however, showed how the police did consider the potential contamination of the scene where Senzo Meyiwa was murdered (Newsroom 24, 19 September 2023).

The first piece of evidence was the statement of one of the witnesses who arrived at the scene before Mosia, who said she saw a woman called Maggie Phiri wipe water from the floor (Newsroom24 20 September, 2023). In her statement, the woman also said there were cans of alcohol that Phiri removed, stating that she did not want the police to know that the people in the house had been drinking. This led the Pretoria High Court to conclude that the crime scene of Senzo Meyiwa’s murder had been altered before the police arrived. Maggie Phiri picked up many cans of alcohol and removed the empty bottle from the floor before the police could arrive at the scene, and when asked why, she replied that she did not want the police to know that the people had been drinking (Newsroom24 19 September, 2023). After insisting that the crime scene had not been tampered with, Mosia admitted that he found no bloodstains on the kitchen floor despite having led testimony that Meyiwa was shot in the kitchen, and it was alleged that he had bled a lot (Newsroom 24, 19 September 2023). Mistakes committed by first police responders are numerous.

First police responders must identify and notate their observations regarding family members/friends of the victim who were at the scene. First police responders should initiate a sign-in sheet at the scene to keep a chronological list of anyone entering the crime scene. Mistakes incurred by the first police responder include failing to take notes of observations at the scene before the arrival of the investigator and failure to accompany any victims to the hospital to obtain statements (Geberth, 2010:50).

For example, the first police responder might fail to inform other officers about the relevant information regarding the murder scene; they might wait too long before contacting investigators; they may assume that the death is a suicide or natural and that there is no need to establish a crime scene; they might fail to detain all persons present at the scene, allowing a potential suspect to get away; they might fail to separate possible witnesses; or fail to obtain preliminary statements (Geberth, 2010:10).

In the case of the Senzo Meyiwa crime scene, the police failed to determine the boundaries of the crime scene, resulting in the inadequate securing of the area. Instead of only securing the front door, they should have surrounded the entire house and the front walkway. Four officers failed to secure the crime scene by cordoning it off before going to the hospital (Newsroom 24 19 September, 2023). A Valorous police officer, who was among the first to respond at the scene, told the Gauteng North High Court in Pretoria that he only realised they were dealing with a serious crime when he saw Senzo Meyiwa's body at the Botshelong Hospital.

Examples of improper response continued, including a failure to monitor and properly supervise EMTs and paramedics as EMS personnel often arrive on the scene before the police. Another example is an incident where uniformed officers responded to a call saying, "Man out the window." Upon arrival, they observed a crowd gathered around a body in the alleyway of a tenement building (Newsroom24, 19 September 2023). The officers determined that the man appeared dead and called for an ambulance and detectives.

They failed to establish any crime scene except where the body lay, and they did not attempt to detain anyone or identify any witnesses (Newsroom 24, 19 September 2023). Instead, they chased the crowd away and only cordoned off the body pending the arrival of the ambulance crew, which pronounced the victim deceased. During this time, a drunken man carrying a bottle persisted in viewing the victim's body and stated that the victim and he were roommates. The first police responder threatened to arrest the man as a suspect if he did not go away. Upon arrival, they ascertained from witnesses that the drunken man and the victim had been in an altercation earlier in the evening in a fifth-floor apartment in the adjacent apartment building.

The murder had occurred, and the drunken man threw his friend out of the window, and his body ended up in the alleyway. None of these locations had been secured, and the assailant had been chased away by the first police responder. It is evident that the investigation of murder is not the exclusive domain of the first responder, but that a successful murder investigation often depends on the initial actions taken by first police responders. All police officers have a responsibility to contribute to the crime-solving process actively and competently (Geberth, 2010:10).

All unattended deaths should be looked at and treated as suspicious, and an experienced officer or investigator should be dispatched to the scene. These deaths should be treated as homicides and crime scenes until the facts prove otherwise. Many departments allow untrained patrol officers to conduct basic death investigations after an assumption had been made that the cause of death was either suicide or natural, and not murder or homicide. Untrained officers are likely to misinterpret a staged or altered crime scene (Geberth, 2010:10). If a crime scene is not initially processed correctly and later determined to be the site of a murder, important evidence may have been lost or destroyed, and the scene's integrity may be compromised. Physical evidence handled too many times can also be subject to an increased risk of contamination. If the equipment used to collect and preserve physical evidence is not clean and free from any material, it will certainly transfer irrelevant material. The authors strongly recommend the single use of equipment when the investigator collects physical evidence, and that each item be preserved and collected as a separate entity.

In the case of Oscar Pistorius, for example, the defence sought to discredit the behaviour of the SAPS, claiming that the police "disturbed, contaminated, and tampered with" crucial evidence at the athlete's house when they arrived in the early hours of Valentine's Day morning in 2013. Over several hours, Pistorius' defence counsel, Advocate Barry Roux, led the crime scene photographer, Warrant Officer Barend Van Staden, through numerous photographs, alleging that items had been moved around and disturbed by police officers (Peck, 2014).

The defence demanded to know why there was such an apparent "disturbance" in a pile of objects on the bedroom carpet and why some of them had been moved.

Van Staden claimed that once the preliminary set of photographs had been taken, it was common practice to pick up and move objects as part of a crime scene investigation. Discrediting the work of the police became a crucial part of Pistorius's defence strategy (Peck, 2014:15). During the trial, Oscar Pistorius' defence team accused a South African Police photographer of mishandling the crime scene. The athlete's lawyer argued that some images showed "great disturbance" caused to the evidence, but the police officer insisted that he had followed procedure (Newsroom24 12 August, 2023).

Advocate Barry Roux challenged previous police witnesses over details of their movements, aiming to uncover contradictions to support his argument that the investigation was substandard. The defence pointed out several errors by police investigators, including an officer handling the suspected murder weapon without gloves and another stealing from the house. Police officials made embarrassing admissions, such as the theft of wristwatches from the athlete's home during the first few hours after the shooting (Newsroom 24, 10 June 2023).

The High Court in Pretoria also heard that a ballistics police officer handled Pistorius' gun without gloves, some crime scene photos were taken only after officers moved items around, and the door through which Pistorius shot Steenkamp was kept in a body bag in a police station commander's office and not in a secured evidence vault (Peck, 2014). Any police officials or police experts who enter in crime scene must prevent contamination or destruction of physical evidence. The level of contamination risk is linked to the type of crime scene and the number of individuals accessing it. In a murder scene, only the victim and the reporting officer may be present initially.

In contrast, a typical death scene could attract the first responder, paramedics, investigators, crime scene examiners, coroner, medical examiners, prosecuting attorneys, supervisors, as well as the victim's family, friends, or neighbours. With a higher number of individuals in contact with the scene, the potential for contamination significantly increases at a death scene. The first police responder should limit access to the crime scene and use protective equipment and clothing (Lochner & Zinn, 2015:20).

Advocate Barry Roux suggested that the crime scene photos indicated that police had tampered with the scene. The defence recalled forensic expert Gerhardus Vermeulen to the stand after the defence found another mark on the door that had not yet been explained (Newsroom 24, 12 August 2023).

- **Modus Operandi**

The principle of modus operandi (MO) is rooted in the tendency of criminals to adhere to a stereotyped pattern of behaviour, encompassing habits, techniques, and distinct behavioural patterns that they seldom deviate from. Criminals evaluate the value and effectiveness of the successful outcome of their previous actions, making them reluctant to deviate from these actions (Palmiotto, 2013:25). Information about a criminal's modus operandi typically includes details such as the type and location of the premises where the crime is committed, the day, date, and time of the crime, the method and implements used, the motive, articles stolen, strange habits of the criminal, personal eccentricities, and the mode of transportation employed by the criminal. "Modus operandi" is defined as conduct, manner of conduct, or operational method of procedure about the methods and techniques utilised.

In criminal investigations, crime scenes are fundamentally associated with the location(s) where the crime occurs (Palmiotto, 2013:66). The criminal's MO is a crucial consideration in many situations (Osterburg & Ward, 2010:8). The choice of a specific crime and the method employed to carry it out constitute a criminal's MO. While not all criminals adhere to a distinct MO, enough exhibit unique patterns of operation, justifying the classification of crimes based on their shared characteristics. The MO serves as a criminal's signature. If a crime is being investigated, it can be inferred that a specific suspect is responsible, should their past offences share enough common features with the crime being scrutinized (Lushbaugh & Weston, 2012:113). Palmiotto, (2013:99); Osterburg and Ward (2010:96) defines MO as the repetitive use of the same operational method by offenders during the execution of a crime. He further elucidates that an MO serves as a system to identify a perpetrator who consistently leaves behind distinctive traits at crime scenes.



Establishing the MO is important as it can help identify the criminal, starting from the moment the crime is committed and ending with the guilty decision rendered by the court. (Osterburg & Ward, 2010:8). According to the SAPS (2013:6), MO refers to a uniquely defined method employed by an individual to achieve a particular goal. When a crime scene is visited, the primary objective is not only to solve the crime and secure a conviction by searching for, locating, collecting, and preserving physical evidence, but also to comprehend the MO of perpetrators (Palmiotto, 2013:99; Osterburg & Ward, 2010:96). It can be inferred that the MO serves as a tool for identifying individuals based on their distinctive methods of operation during the commission of crimes. However, it is important to note that the MO alone cannot be used to pinpoint specific perpetrators committing similar offences of the same nature. Therefore, investigators must thoroughly study and analyse the MO of perpetrators at crime scenes to establish meaningful links with criminal activities.

- **Crime Scene Examination**

The meticulous and thorough examination and documentation of the crime scenes are of utmost importance, as the first police responder has a singular opportunity to recover evidence that may prove crucial to the case (Pepper, 2010:17). While a visit from the first police responder may suffice for examining a crime scene related to crimes, major crimes typically require the involvement of a diverse team with various specialities. No single professional possesses all-encompassing knowledge, necessitating the collaboration of various experts depending on the nature of the crime. Such experts include uniformed police officers and plain clothes detectives from the CID (Criminal Investigation Department), multiple first police responders, the crime scene manager, and specialists such as forensic biologists, paramedics, fire officers, the Coroner's Assistant, Police Doctors, and others. The first police responder is tasked with attending various crime scenes, which can occur at different times of the day and night and in all weather conditions. These scenes can encompass a broad spectrum of criminal activities, ranging from murders and robberies to burglaries and thefts. Moreover, these incidents can unfold in various locations, spanning high-density population areas in deprived neighbourhoods to crime scenes situated in less disadvantaged areas (Pepper, 2010:17).

The importance of accurate notetaking during the examination of the crime scene, the completion of Criminal Justice Act (CJA) labels, and completion of the statement at a later stage cannot be overstated. The 1996 Criminal Procedures and Investigation Act institute the requirement for both the prosecution and defence to disclose any material that might undermine the case, which ensures the fairness of any subsequent court proceedings. Pepper (2010:134) emphasises that the responsibility for examining a crime scene for forensic evidence falls on all police service support units. A crime scene investigation team, led by a crime scene manager, would attend each separate major crime scene.

Crime scene managers are tasked with establishing the extent of the crime scene, sometimes necessitating the expansion of the cordon established by the first police responder attending the crime scene. Leveraging their experience or incorporating information that has surfaced since the initial response, the crime scene manager may opt to expand the cordons to preserve additional evidence, such as trails of blood.

### **Legal challenges**

The SAPS operates within a legal framework that outlines the guidelines for the first police responder when carrying out their constitutional mandate. This framework recognises certain legal restrictions that limit the full empowerment of the first police responder at the crime scene. While there are overarching principles guiding crime scene investigations, specific laws, rules, and regulations at the local level govern various aspects of the crime scene investigation and forensic processes. These regulations address issues such as obtaining authority to enter the scene, conducting the investigation, handling evidence (including specific sealing procedures), and submitting physical evidence to the forensic laboratory. Importantly, these legal provisions ultimately determine the admissibility of evidence collected at the crime scene (Gehl & Plesca, 2016:119). Non-compliance with extant laws, rules, and regulations can lead to a scenario wherein the evidence becomes inadmissible in a court of law. Therefore, it is imperative for personnel operating at the crime scene to be cognisant of and ensure meticulous adherence to these stipulations.

In cases where comprehensive laws, regulations, and rules facilitating the forensic process are absent, their formulation becomes a matter of imperative necessity. Irrespective of the prevailing local legal framework, codes of professional conduct delineate the ethical responsibilities of crime scene personnel. Such codes typically emphasise the significance of acting with prudence and professionalism (due diligence), maintaining objectivity ("treat evidence for what it shows, not what you think it shows"), and upholding openness and impartiality ("you may not be independent of the police, but you are impartial") (Gehl & Plesca, 2016:119).

In instances where a conflict arises between preserving evidence and the potential to save a human life, the paramount consideration is invariably given to emergency medical care. Jurisprudence explores the differences in the elements needed to prove guilt for different types of crimes and how these differences affect the type of evidence first responders must gather at the scene. Identifying the suspect and their connection to the offence is universally requirement in all cases (Stelfox, 2013:200). The ease of collecting evidence varies among offences. In a murder case, proving someone was unlawfully killed is relatively straightforward due to limited lawful circumstances for killing. On the other hand, there are situations when it is not illegal for an adult to kill with permission. As a result, the emphasis in such cases revolves around demonstrating that the killing occurred without the victim's consent and often relies on conflicting testimonies from the victim and the suspect.

Considering that murders are seldom witnessed; it is a challenge for officials to gather corroborative testimonies. Forensic or medical evidence occasionally supports a crime, but such instances are uncommon and seldom conclusive. Consequently, rape is considered a challenging offence to detect. Legislative drafting creates disparities in the processes first responders must follow, resulting in different instructions regarding the materials they must gather. These disparities contribute to the explanation of why some crimes are more likely to be solved than others (Stelfox, 2013:200-201). One important legal issue in crime scene investigation is whether law enforcement needs a search warrant for post-initial response inquiries.

Other legal challenges involve ensuring proper procedures in securing the scene, maintaining safety, and preventing evidence contamination or destruction during the initial response and preliminary investigation of a crime scene. The nation's law enforcement officers and investigators perform commendably in criminal investigations. However, first police responders should also acknowledge they are not infallible and recognise the potential for errors in their investigations (Buckles, 2007:11). The nationally televised Senzo Meyiwa murder trial underscored this reality by highlighting mistakes made at the crime scene, such as taking a hat from the house without examining it properly and neglecting to capture photographs (Newsroom24, 23 May 2023).

The police responder failed to conduct a thorough search of the entire house and permitted multiple friends and family members to be present before the investigator's arrival. Furthermore, the investigator allowed numerous individuals access to the house. Consequently, the entire crime scene became contaminated by the presence of various individuals. The study elucidates some challenges encountered by first police responders, particularly at murder scenes. Crime scene management has evolved to address contemporary challenges faced by crime scene experts. Over the past 75 years, significant changes have occurred, particularly in the types of recovered evidence and the investigative tools employed for processing. The appointment of qualified Scientific Support Managers plays a pivotal role in overseeing all experts at a scene, ensuring that the recovery of evidence remains intact and uncompromised. Undoubtedly, the murder scene stands out as the most important crime scene an officer will be summoned to investigate (Gerberth, 2010:15). Due to the nature of the crime, death from violence or unnatural causes can only be determined after a careful and intelligent examination of the crime scene (Gerberth, 2010:15).

For instance, during the trial of Senzo Meyiwa in the Gauteng province, the expert police officer Thabo Mosia was interrogated in Court during the trial, He acknowledged the challenges that he faced. Thabo Mosia who was the crime expert, visiting the musician's house Kelly Khumalo shortly after the footballer's Senzo Meyiwa death, recounted the difficulties during cross-examination, revealing that he had to suspend investigations while waiting for assistance from a management task team (Newsroom24, 23 January 2023).

This illustrates the myriad challenges crime scene investigators encounter both in and out of court. In legal proceedings, they must substantiate the accuracy of their findings at the scene, ensuring they are not open to divergent interpretations. This highlights that in the Gauteng Province, numerous first police responders confront plentiful challenges when managing murder crime scenes. Any action they take can also be scrutinised as it could potentially have a destructive impact on the scene and the pursuit of justice (Lee, Palmbach & Miller, 2011a:67).

- **Crime Scene Evidence**

Criminal evidence plays a decisive role in police investigations and for the administration of criminal justice (Dror, 2018:243). With little or unreliable criminal evidence, investigators and other decision-makers (e.g., defendants, prosecutors, jurors, and even judges) in the legal system can be even more susceptible to making wrongful legal decisions because humans are susceptible to diverse cognitive error factors (e.g., confirmation bias, guilt-presumptive bias, tunnel vision (Ask & Granhag, 2007:561-591; Ask, Rebelius & Granhag, 2008; Kassin, Goldstein & Savitsky, 2003:187-203). Gehl and Plecas (2016:33) provided a good illustration of the role of evidence in investigations:

For example, "Evidence forms the building blocks of the investigative process and for the final product to be built properly, evidence must be recognised, collected, documented, protected, validated, analysed, disclosed, and presented in a manner which is acceptable to the court".

As described, criminal evidence is indispensable in every phase of a police investigation and can exert significant influence on police investigators' various decision-making processes such as guilt-presumption (Kassin, Goldstein & Savitsky, 2003:187-203) and interviewing styles (Häkkinen, Ask, Kebbell, Alison & Granhag, 2009:468-481; Leo, 1996:266-303; Sellers & Kebbell, 2011:84-94).

When police investigators make wrongful decisions with respect to the available evidence that they hold, they can be the source of error by causing bias snowball to forensic experts or even prosecutors, eventually leading to injustice (a psychological phenomenon that bias can grow in strength and momentum as different elements of an investigation affect one another (Dror, Morgan, Rando & Nakhaeizadeh, 2017:832-833; see also Dror, 2018:243).

For example, “an investigator can influence an eyewitness by showing evidence implicating the suspect. Later, the eyewitness evidence can affect prosecutors’ and judges’ interpretation of other evidence. Therefore, it is reasonable to suppose that examining how investigators interact with various types of criminal evidence is of importance for practitioners, scholars, and the public”.

When the first police responder arrives at a crime scene, they face a challenge as they are uncertain of the exact evidence that should be investigated. The responder must proactively search for any evidence that could offer pertinent information or assistance to the case at hand. Physical evidence, which can be seen, touched, or felt and identified by its inherent nature, is among the most crucial forms of evidence sought at a crime scene, including weapons.

Contents of physical evidence is more reliable than other forms of evidence, because of its corporeal nature (Gehl & Plesca, 2016:111). Gehl and Plesca (2016:113) stated that generally, physical evidence can be derived from five primary sources: The crime scene, the victim, the victim's environment, the suspect, and the suspect's environment. Gehl and Plesca (2016:214) stated that almost anything can be regarded as evidence, although some more common types of evidence that a first police responder might encounter at a crime scene include:

- Trace evidence: Gunshot residue, paint residue, broken glass, unknown chemicals, and drugs.
- Impressions: Fingerprints, footwear impressions, tool marks.
- Body fluids: Blood, semen, saliva, vomit, hair, and fibres.

For example, for physical evidence to be admissible in court, a proper foundation must be established through a witness who can testify to the authenticity of the evidence.

Crime scene evidence serves several crucial purposes, including determining whether a crime has occurred, understanding how, when, and where it transpired, identifying potential suspects, and establishing legal proof in a criminal trial. The evidence is instrumental in connecting a suspect to the crime and the crime scene, aiding in the location and identification of the perpetrator. On the defence side, crime scene evidence may be utilised to challenge the assertion that a crime occurred or that the defendant is responsible (Gehl and Plesca, 2016:214).

However, a significant challenge in investigations is the potential removal or loss of evidence from the crime scene. The high human traffic in areas increases the likelihood of items being misplaced, stolen, or moved which becomes a significant hindrance to investigating the crime thoroughly. This can occur when technicians fail to arrive at the crime scene within the shortest time possible. To avoid this, first police responders can ensure that the scene is securely maintained by law enforcement departments. Collecting evidence from a crime scene is a crucial aspect of solving crimes. Before evidence can be seized, there must first be a court order approving the search of the crime scene and the collection of the evidence found at the scene (Gehl & Plesca, 2016:119). The standard protocol for officers is always to wear latex gloves, avoid plastic bags, double-wrap small objects, package each object separately, and collect as much evidence as possible (Gehl & Plesca, 2016:119). It is better to have too much evidence than not enough. There are countless objects available for recovery at any crime scene that can be used as evidence.

- **Limitation of powers**

The Criminal Procedure Act imposes stringent limitations on the circumstances in which the policing powers it bestows may be exercised. These laws restrictions on the first police responders as their actions are only authorised if they adhere to these certain requirements or if specific circumstances are present. Before South Africa's current constitutional dispensation, inherent limitations largely safeguarded individuals' rights (Joubert, 2013:20). Section 22 of the Criminal Procedure Act serves as an illustrative example. This section stipulates that a police official may search for a person not under arrest without a search warrant under specific conditions.

Joubert (2013:20) continues by saying that these conditions include obtaining the person's consent for the search or having reasonable grounds to believe that a search warrant would be issued under Section 21(1)(a) of the Criminal Procedure Act if applied for, but delaying the search to obtain the warrant would likely defeat the objective of the search. If the person does not consent to the search, and the police official lacks reasonable grounds to anticipate the issuance of a warrant, any ensuing search would be deemed unlawful, with the involved police official committing an offence. The policing activities of South Africa fall under the regulation of the Police Regulation South African Police Services, which originated during the apartheid era. While numerous amendments have been enacted, the fundamental core of this regulation has endured. An illustrative example involves the restriction on conducting post-mortems after 14:00, a provision stemming from historical limitations in lighting conditions during the apartheid period. Despite technological advancements removing these constraints, the law remains unchanged, resulting in inefficiencies and delays in the process (Joubert, 2013:20).

- **Documentation of crime scene.**

This section also addresses legal challenges faced by first police responders with specific reference to noting infractions regarding the proper procedures at the crime scene and court testimony. Legal requisites necessitate that true and accurate representation of the observed details at a crime scene should be documented. Crucially, any report from a crime scene investigation should be precise and verifiable. An error in a report does not automatically render the subsequent testimony inadmissible at trial, but it can negatively impact the credibility of the first police responder and the investigation itself. Reports found to be poorly written or inaccurate can be indicative of a careless attitude and the potential for negligent performance throughout the crime scene investigation (Schiro, 2014: np; Buckles, 2007:42). When the first police responder or investigator testifies, there might be instances where they do not recall details from their written report. According to Buckles; (2007:40; Schiro, 2014:np) establishing objectives during documentation is crucial to recording the crime scene accurately.



Objectives include documenting the scene's appearance and observations, detailing the actions taken by investigators and crime lab personnel, recording any observed or identified evidence along with its location, and documenting the evidence collection process at the scene. Such documentation serves as a permanent record for the investigation, related inquiries, and any subsequent prosecution and trial. As highlighted earlier, crime scene documentation employs notes, reports, photography, video, and sketching. Recordings, whether in the form of video or other media, should navigate through the crime scene, incorporating wide-angle, close-up, and even macro (extreme close-up) shots to illustrate the layout of evidence and its significance to the crime scene (Schiro, 2014:np).

Concluding the documentation process involves creating a crime scene sketch. While photographs are valuable, they inherently present two-dimensional representations of three-dimensional objects. This limitation can distort the spatial relationships of photographed objects, potentially misrepresenting their proximity or distance. When precise spatial relationships or proportional measurements are crucial for calculations, such as determining bullet trajectory angles or conducting accident reconstructions, a crime scene sketch becomes indispensable (Schiro, 2014:np).

- **Decomposition of body at the scene of crime**

The first police responder is confronted with various factors when dealing with a deceased body, encompassing environmental, artificial, and physiological elements such as stomach contents and entomological larva analysis. Natural factors like abrasions, scratches, and grazes significantly influence the onset and progression of the body's decomposition. If a first police responder has reason to believe that an individual has died from unnatural causes, then as per Section 3(1) of the Inquest Amendment Act (Act 52 of 1983) they must investigate (or facilitate an investigation) into the circumstances of the death or alleged death (Gerberth, 2010:15). The involvement of first police responders or officers often pertains to cases where death resulted from unnatural causes and the demise can be attributed to the unlawful actions of another person. In cases involving unlawful deaths, it is crucial to determine the correct actions at the scene and evaluate indicators for cause and time of death.

Given that police officers lack expertise in forensic medicine, collaboration with district surgeons and forensic pathologists becomes essential. Cordial cooperation and mutual understanding between the police and the expert's paramount. Since the Investigator's responsibilities extend to scene processing, transport, and presentation of the case in court (Gerberth 2010:np). The police responder requires a comprehensive understanding of legal and interdepartmental rules and regulations.

Gerberth (2010:10) asserts that decomposition marks the ultimate stage in the transition from organic to inorganic matter. This process typically commences immediately after death and becomes visibly apparent within 48 to 72 hours. The initial signs of decomposition manifest in the abdomen as enzymes and bacteria spread from the intestines to surrounding tissues. The decomposed state of a body at a crime scene poses significant challenges for identification, often making it difficult to determine gender, and at times the body can be rendered unidentifiable. Another challenge occurs if the first police responder faces the limitation of not being able to visually assess wounds on the body, or calculate the time elapsed since death. Furthermore, until a post-mortem examination is conducted, it cannot be ascertained whether the person was indeed killed. Nevertheless, at a murder scene, a body can still yield substantial evidence that may lead to the discovery of both the perpetrator and the cause of death. Bodies should be treated with respect and as separate and complete entities within a crime scene. The recovery of a body from the crime scene can extend over several days and demands careful conduct to prevent the loss of evidence during transportation (Pepper, 2010:137).

As decomposition commences within minutes after death, seasoned investigators have also observed blowflies appearing rapidly to lay eggs on a decedent's body. This process can occur indoors or outdoors, depending on insect access. While decomposition is irreversible, it can be delayed by slowing down the body's natural breakdown processes, especially in extreme cold conditions, such as underwater during winter months, or in a morgue refrigeration. Once decomposition begins, fragile evidence is susceptible to permanent destruction. For instance, post-mortem blood samples may become unusable for tests in the hours after death due to bacterial activity and natural breakdown processes (Gerberth (2010:49).

Some of the first noticeable stages of decomposition after death include rigour mortis, livor mortis, and algor mortis (Gerberth, 2010: 65). Rigor mortis is the stiffening of muscles attributed to the depletion, which assists with muscle contractions while alive. Livor mortis is the settling of red blood cells to dependent areas of the body due to the cessation of cardiac activity and the influence of gravity. Algor mortis refers to the gradual cooling of the body, acclimatising its temperature with the ambient environment (Gerberth,2010:49). The putrefaction process begins with the proliferation of bacteria from within the gut, resulting in the decomposition of flesh and the emission of unpleasant odours often associated with the "smell of death."

Once this process commences, a person may appear disfigured and indiscernible by gender after a relatively short period. The extent of soft tissue preservation is influenced by the time until the body's discovery and prevailing environmental conditions. Decomposition stands as the most common factor rendering a body unidentifiable, often posing a significant hurdle in investigations (Gerberth, 2010:49). Other factors contributing to identification challenges include animal and insect activity, as well as external elements or conditions like fire or extensive trauma. In the aftermath of a homicide, perpetrators may intentionally attempt to obscure the victim's identity through methods such as dismemberment. Despite these challenges, there are various methods for determining a person's identity, such as tattoos, birthmarks, teeth, hair, and fingerprints (Gerberth, 2010:37). investigators need to remember that for effective sample comparison, a standard sample should be collected as well as those recovered from the deceased body.

For instance, in the informal settlement of Boiketlong in Sebokeng, residents expressed shock upon the discovery of a decomposed body in a shallow grave. The discovery was made on Tuesday evening in 2021 at about 20:00 by a passer-by who alerted local police officers during the evening. Forensic experts only recovered the body the following morning. A resident named Thabang Mokoena conveyed that fear spread among residents in Sebokeng following the discovery of the decomposed body. Mokoena stated, "Whoever killed the deceased is cruel. Before the police could arrive, we looked at the deceased's face, and it was not identifiable due to the state of decomposition" (Seleka, 2021:np).

Forensic pathologists were on-site at the location where the body of an unidentified adult male was found buried in a shallow grave in Sebokeng. The deceased was discovered with the body tied using a rope (Seleka, 2021:np).

- **Weather and light conditions**

Crime scenes can be categorized into different types, including outdoors, indoors, and conveyance. Outdoor crime scenes pose the greatest investigative challenges, being susceptible to elements such as rain, wind, or heat, along with animal activity, which can contaminate and compromise evidence. Inadequate securing of the crime scene is another factor that can lead to evidence contamination (Gerberth,2010:np). When a crime occurs both outdoors and indoors, priority is typically given to processing the outdoor crime scene. Night-time processing of outdoor crime scenes is particularly challenging because even with enhanced lighting, there is a higher risk of jeopardising the preservation of evidence, leading to potential loss and destruction.

Whenever possible, preserving a crime scene for daylight processing is considered the optimal approach (Gerberth,2010:np). In contrast, indoor crime scenes offer a significantly lower risk of contamination due to the controlled environment and limited exposure to external elements. Environmental conditions also play a significant role in the potential contamination of crime scene evidence. Factors like wind, sun, rain, snow, and temperature can contribute to the deterioration of evidence at a crime scene. For example, if there is blood at an outdoor crime scene and it rains, the blood may become diluted to the point where blood testing becomes impractical.

The same degradation may occur if the blood is exposed to the sun on an extremely hot and humid day (Gerberth, 2010:np). Fluids at a crime scene can decompose or become contaminated by bacteria to the extent that further analysis becomes impossible or, at best, inconclusive. Wind and temperature also present potential ways for contamination. The wind can introduce contaminants or blow away evidence. Extreme temperatures can pose problems, causing items containing evidence to be either 'cooked' or 'frozen.'

This concern is relevant not only to outdoor scenes without protection but can also apply to indoor scenes lacking adequate heating or cooling capabilities (Baldwin & Hayden, 2017:np). Hard-to-reach crime scenes present additional challenges. Some crime scenes may be challenging to access due to weather conditions and distance factors. The first police responder needs to be informed about the distance of the scene so that they can prepare with the appropriate equipment. In rural crime scenes, technicians must consider that weather and animal activity may contribute to the destruction of some evidence and interfere with determining decomposition period. In practice, environmental factors such as hot conditions introduce a higher risk of contamination, for instance, in scenes where extreme heat may lead to contamination due to perspiration during recovery activities.

Additionally, connections such as communal corridors, waterways, or streets, can impact the crime scene (Baldwin & Hayden, 2017:np). Weather conditions should be a crucial determining factor, particularly when processing outdoor scenes. Barry, Fisher, and Fisher (2012:397) emphasise that the examination of an outdoor crime scene must be planned quickly and carried out as soon as possible. Changes in weather conditions can completely jeopardise the chances of finding evidence that may be present. Clues that are easily detected initially, may disappear rapidly due to factors such as precipitation, drying, vegetation growth, flooding, or animal activity.

Zinn and Dintwe (2015:173) concur with Barry, Fisher, and Fisher (2012:397), noting that evidence may be altered, concealed, and even destroyed by rain or wind. Another factor to consider is the deterioration of natural light. The detection of fragile pieces of evidence can be complicated during the search of indoor and outdoor crime scenes at night, especially when artificial light sources are being used (Zinn & Dintwe, 2015:173). Zinn and Dintwe (2015:173) emphasise that examining the scene at night is even more challenging. Bloodstains on grass, for example, change colour rapidly and become difficult to detect. A brief shower may completely remove smaller stains. Other biological evidence, such as hair, seminal fluid, urine, faeces, vomit, saliva, nasal secretions, skin fragments, brain substance, and so on, can quickly change due to drying or may be washed away (Barry et al, 2012:397).

Based on the nature of the crime scene and the types of evidence being searched for, the investigator will have to decide whether the scene should rather be protected and preserved until daylight.

- **Bystanders and police officials at the crime scene**

Crime scenes attract attention from various sources, including the police investigation department and the media. The curiosity of onlookers might become unmanageable and pose a threat to the crime scene and the safety of those working on it. The constant movement and presence of people hinder the ability of the first police responders to adequately process the site. It can also complicate the meaningful engagement of first police responders with potential eyewitnesses (Oluoch, 2015:np).

Zinn and Dintwe (2015:177) emphasise that bystanders at the crime scene and police officials not assigned to specific tasks should remain outside the cordoned-off area. Contamination often occurs when these individuals smoke or eat at the crime scene (Oluoch, 2015:30-33). Curious onlookers pose significant challenges for crime scene technicians. Spectators, including eyewitnesses, other police officers, and the public, can leave items at the crime scene that interfere with a technician's work. In some instances, onlookers can become unmanageable, forcing police and crime scene technicians to leave the scene before recording and obtaining all the necessary evidence.

Popular areas often require increased police presence to control the perimeter of the crime scene and allow technicians to complete their jobs efficiently and safely. Items such as cigarette butts, chewing gum, and empty drink containers are occasionally discarded at the scene, potentially derailing a critical investigation. During the processing of large and high-profile crime scenes, there is a risk that scattered objects may be removed by police officials or bystanders seeking to boast about their presence.

An example, “by considering any crime scene of murder could include a lack of visible police tape or cones indicating exhibits; emotional members of the public standing too close to the body; police officers just standing around aimlessly; and unauthorised public photographers gaining access and taking photos of the situation. Questions should be raised about how scenarios like these are allowed to happen (Zinn & Dintwe, 2015:178). Zinn and Dintwe (2015:179) use the term ‘extraordinary’ to describe how investigators overcome challenges when dealing with crime scenes that go beyond conventional expectations”.

- **Political Pressure**

At times, police officers face pressure from political elites using their political influence or requesting favours, which indirectly impacts the investigation process. Instances of political pressure to impede or dismiss cases are not uncommon in our country, despite increased efforts to ensure independence within the police force. However, remote, and rural areas, situated far from police headquarters, still exhibit some susceptibility to political biases (Eck & Rassmo, 2019:606). In South Africa today, politicians have exploited the police service, partly because politicians provide the recommendations to appoint national police commissioners to top positions in the police. Police officers find themselves in a competitive and compromised position, often seeking favours from politicians. The inseparable relationship between police and politicians raises concerns in South Africa. Previous researchers have argued that the fusion of police and politicians results in reduced police accountability to citizens (Eck & Rassmo, 2019:606).

- **Media Management**

Where the media attend the location of a crime, access to the scene should be carefully managed, both to protect the scene and for health and safety reasons. The investigating officer must decide when access to the scene should be allowed, but in some circumstances, they may wish to consult their press office for advice and help (Happer & Philo, 2013:321-336).

Media access should be under direct police supervision and media representatives should wear high visibility jackets while at the scene. The media should be encouraged to obtain the information they want as quickly as possible, and their equipment, for example, high powered lighting, must not be allowed to endanger others. The representatives of media would try their best to seek information from the first police responder even though they understand media are not authorised to speak to the press. However, rather than curtly saying “No Comments”, the first police responder should politely assert that the PRO would soon be at the site to brief the media (Lee, Palmbach, Miller, 2011b:588). Under no circumstances the media persons should be allowed to enter the crime scene.

Media is the groups of communication channels such as newspapers, Tv, Internet or as files for computers. Media has a great influence on shaping public opinion about significant political and social issues (Happer & Philo, 2013:321-336). Whether it is Televisions, press, Radio, internet, or any other form of social media, it affects the public in general, politicians, and law enforcement as well. The effect of such crime shows on the general audience, and the jurisdictions is popularly known as the crime scene investigation. The police must propose to work with media team for a successful crime investigation (Palmiotto & Kingshott, 2010:43-57). Appropriate media management provides the investigator with direct passage to the public to seek witnesses and provides realistic updates without compromising the complete investigative process. When the media covers a crime scene, careful management of access is essential for both scene preservation and health and safety considerations.

The investigating officer holds the responsibility to determine when access to the scene is permissible. In certain situations, seeking advice and assistance from the press office may be advisable. Media access must be conducted under direct police supervision, and representatives should wear high-visibility jackets while present at the scene. The investigating officer is encouraged to facilitate the media's prompt acquisition of desired information. However, media equipment, such as high-powered lighting, should not pose a risk to others and must be controlled accordingly.



According to Happer and Philo, 2013:321-336), the term “media” is defined as "the main means of communicating with large numbers of people." (Groark, 2010:30-32; Kellner, 2011:np). defines “media” as "...the plural form of medium, referring to the means of mass communication, especially television, radio, and newspapers, regarded collectively." Many police officials perceive the media as a double-edged sword. Media appeals undeniably play a role in generating useful information. However, the frequency of such incidences remains unclear, and anecdotal evidence suggests that this does not happen frequently (Stelfox, 2013:110).

Media outlets, including newspapers, radio, and television, are primarily driven by the desire for compelling stories. Given that crime ranks high on their list of interesting topics, they are consistently inclined to cover it. This presents investigators with an opportunity to publicise crimes and appeal for witnesses. However, the primary interest of reporters is not necessarily finding witnesses (Stelfox, 2013:110). Their goal is to develop a compelling story (Palmiotto & Kingshott, 2020:43-57). Consequently, police officials often find themselves in a position where they must share information about a crime, hoping that the media will include an appeal for witnesses. Local media is generally willing to cooperate and aim to maintain a positive working relationship with police officials in their area. However, there is no assurance that the reported story will favour the investigation. Many police officials inevitably encounter situations where a crime is reported in an unhelpful manner, either because it makes for a more compelling story or is deemed too mundane to report at all (Stelfox, 2013:111).

Major crime investigations and high-profile incidents consistently draw media attention, enabling investigators to deploy specialised resources from their force's media department. Trained staff can offer guidance on a media strategy that enhances the likelihood of the crime being reported in ways that support the investigation. This often involves tactics to sustain public interest in the story even as initial enthusiasm diminishes. In contrast, smaller, local investigations frequently lack such professional support. Depending on a force's policies, investigators are often tasked with formulating and implementing their media strategy.

The initial step in garnering publicity for a specific crime involves ensuring that the victim is willing to have the details publicised. While the police technically have the authority to publicise crimes without the consent of victims, they typically seek to ensure anonymity in such cases. This is more likely to occur in serious offences where public interest overrides individual wishes. In the case of less serious crimes (which constitute most investigations), it is prudent to seek publicity only when the victim is willing to cooperate. Many local media outlets routinely contact the police in their area to stay informed about crimes of potential interest to their audience. This serves as the typical means by which investigators bring crimes to their attention. When utilising the media, a delicate balance must be struck between the investigative needs and the potential for causing unnecessary fear within local communities (Stelfox, 2013:111).

There is a constant risk community and offering may be sensationalised, distorting the actual level of threat within a community, and offering little useful material for the investigation (Stelfox, 2013:111). Lochner and Zinn (2016:27) emphasise that the media should be confined to the perimeter of the outer cordon and interactions should be conducted with patience, respect, and professionalism. Providing unconfirmed information or details that may adversely affect the investigation should be avoided. According to Lochner and Zinn (2016:27), information shared with the media can sometimes negatively impact a suspect's confession or disclosure of crucial details, such as the location of the incident or the whereabouts of hidden exhibits. Suspects often read newspapers and may use information from the media to support their attitudes and defence in court.

- **Incompetence of police officers**

This section also delves into the issue of incompetence among the first police responders at a crime scene. Gross incompetence is characterised by a significant inability or failure of a police officer to perform their duties at a satisfactory standard, (irrespective of attendance) and warrants dismissal. Failing to conduct a reasonable investigation can lead to legal actions against the police for negligence, potentially allowing individuals to seek compensation. In South Africa, the community has voiced concerns about police conduct.

Malfeasance is characterised by wilful neglect and misconduct, which stems from either a positive act or a failure to act. It is crucial to establish a close connection between the misconduct and how the action (or lack thereof) influences the relevant public function (Chris, 2022:np). The maintenance of the scene's integrity and the items collected is paramount. Following the examination, a comprehensive report detailing the examination process and relevant findings should be prepared.

As a practical example, a reference is made to the Senzo Meyiwa case. In October 2020, Fisokuhle Ntuli, Muzikawukhulelwa Sibiyi, Bongani Sandiso Ntanzu, Mthobisi Prince Mncube, and Mthokoziseni Maphisa were arrested and charged with attempted murder, armed robbery, possession of firearms without a licence, and possession of ammunition. None pleaded guilty (Newsroom24, 18 December 2023).

According to National Newsletter 14 December 22 December 2023 indicated that at stage, Mosia had testified in court revealing that he did not conduct tests for gunshot residue on individuals present in the house when Meyiwa was murdered, did not take DNA samples from the door handle allegedly used by the robbers, and did not trace the alleged stolen phone. Additionally, he allowed the people present during the murder to remain in the house (Newsroom 24, 20 September 2023). Eight years after Meyiwa's death, Mosia faced cross-examination at the Pretoria High Court regarding his actions upon arriving at the crime scene on 26 October 2014. When questioned about his decisions, Mosia stated that either it was not his responsibility, or he did not deem it necessary. This raises the question of what is considered necessary for a forensic investigator at a crime scene (Maverick, 2020:np).

In court, Mosia explained that he did not take gunshot residue tests from those in the house during the alleged robbery because he did not consider them suspects. Forensic consultant Kevin McDonald emphasised that "If there is a shooting, then everyone should be treated as a suspect until they have been cleared." Forensic criminologist Laurie Pieters-James (DM168) noted that the decision not to perform gunshot residue tests on people in the house is "...done at the discretion of the forensic investigators. I would have also taken their clothes because blood does not just splatter on the wall."

When asked about the absence of DNA samples from the door handle used by the alleged robbers, Mosia cited the number of people who had touched it as a reason. Pieters-James agreed that a door handle touched by many people could be a valid reason not to collect DNA samples (Maverick, 2022:np). The required skills and knowledge for forensic investigations vary based on the complexity of the crime scene. Reports should undergo peer review by competent personnel before issuance. Forensic experts, employed on behalf of Oscar Pistorius, visited the residence of the double-amputee Olympian, the site where he fatally shot his girlfriend on Valentine's Day 2013. Their task involved reconstructing the crime scene, which included reattaching the toilet door marked by bullets (Maverick, 2020:np).

The SAPS released details of the work conducted by defence forensic specialists in response to inquiries from the Associated Press. The door's pivotal significance about the entrance was emphasised as crucial evidence for Pistorius' trial. In the event of a conviction for premeditated murder in the killing of Reeva Steenkamp, the athlete could face a life sentence with a minimum of 25 years in prison (Maverick, 2022:np). The examination of the bullet holes' height in the door and the trajectory of the four bullets discharged by Pistorius from his licensed 9mm handgun into the cubicle aims to establish whether the disabled athlete was standing on his prosthetic limbs, as asserted by the prosecutors, or on his stumps, as claimed by Pistorius himself (Maverick, 2022:np).

'The Pistorius forensic team had made prior arrangements with the South African Police Service Investigating Team for the visit,' as confirmed in the police release (Maverick, 2022:np). A case in point is the trial of Oscar Pistorius, where the defence team accused a South African police photographer of mishandling the crime scene during the twelfth day of proceedings in Pretoria. The police officer who apprehended Oscar Pistorius on the night of Reeva Steenkamp's death testified on Friday that there were instances of evidence mishandling by the police at the crime scene, including a ballistics expert who handled the murder weapon without gloves (Newsroom24, 10 June 2023). The officer observed a colleague mishandling the 9mm pistol, the murder weapon, left on the blood-soaked bathroom mat at Pistorius' residence.

At that moment, the ballistics expert handled the firearm without gloves and removed the magazine from the gun, according to the police officer's testimony. During cross-examination, the police commander acknowledged several contradictions between his statements and those of other officers at the scene, noting that some colleagues had provided hearsay evidence (Newsroom 24, 10 June, 2023). The purpose of this visit was to allow them to have access to the toilet door and reconstruct the crime scene. The investigating officer and a SAPS ballistics expert were present during the examination of the toilet door. They had controlled access to the toilet door to allow them to conduct their independent examination (Palmiotto 2013:99).

The statement indicated that this marked the second occasion investigators on behalf of Pistorius had visited the scene, accompanied by the police team. As Palmiotto (2013:99) outlines, the purpose of visiting and searching a crime scene is to discover, gather, and preserve physical evidence to solve a crime and secure a conviction in court. Adhering to general rules recommended for conducting a crime scene search (Palmiotto, 2013:99), considerations include prioritising evidence vulnerable to significant deterioration over time. Additionally, the examination, photography, recording, and collection of all main evidence items follow a logical order, considering the need to protect evidence from contamination. Casts are made, and latent prints are lifted from objects that require removal from the scene. Items should remain undisturbed until they undergo examination for trace evidence, which includes materials potentially transferred during the commission of a crime, such as hair, fibres, and fabric, as well as DNA evidence (Gehl & Plesca, 2016:20).

Before moving an object, fingerprints should be taken or, at a minimum, developed and covered with tape. In cases involving a deceased individual, the processing of evidence items lying between the point of entry to the scene and the body takes precedence (Gehl & Plesca, 2016:20). Subsequently, a detailed search of the deceased person is conducted. Following this search, the body should be removed, and the processing of obvious evidence continues. Once the more evident evidence has been processed, the search for and collection of additional trace material should commence. Prioritising trace and DNA evidence precedes the fingerprint dusting process.

When sweeping or vacuuming, investigators should partition surface areas, packing the sweepings from each area separately and documenting the location of each point of recovery. Usually, fingerprints and physical evidence samples are collected after the steps have been executed (Gehl & Plesca, 2016:20). Pistorius reportedly engaged South African forensic examiners in the immediate aftermath of the shooting for an initial examination. Additionally, authorities stated that Pistorius's residence in the upscale gated estate in the eastern suburbs of the South African capital was "no longer a crime scene and was handed back to him long ago".

No training was allocated to the crime scene investigators when dealing with the investigation of deceased bodies at the scene of the crime. Before collecting physical evidence, the body must be recognised. While large material objects typically pose no problem, a diligent and thorough search is often required when the physical clues are minute and not visible ((National Institute of Justice 1999:np; Marais, 1992:9). This includes foreign particles, substances, hair, paint flakes, foreign soil, bloodstains, and body secretions. In the collection of physical evidence, investigators must bear in mind that the evidence may ultimately be used in court and, therefore, must be obtained legally.

For example, in the cases of Oscar Pistorius and Senzo Meyiwa, no samples were taken from the scene. This shows that many cases have been unsuccessful because of poor technique and a lack of knowledge by investigators of the basic principles and processes surrounding physical evidence (Newsroom24 19 September,2023).

The nature of the crime should in most cases guide the crime scene (Gehl & Plesca, 2016:20; Marais, 1992:9). In the case of Senzo Meyiwa, the police were supposed to concentrate on the weapon or object that was used to cause the death by searing inside the house by checking blood, hair, fibres, and tissue to connect the criminal with the crime scene (Newsroom24 23 January 2023). Care and common sense should always prevail with due precaution not to destroy any physical evidence that may exist (Nataraja, Santhra & Srinivasan, 2020:117-119; Marais, 1992:9).

The nature of the crime should, in most cases, guide the crime investigator or indicate what should be searched for at a crime scene. In a murder investigation, the focus is usually on the weapon or object that caused the death. Efforts should be made to search for blood, hair, fibres, and tissue to establish a connection between the criminal and the crime scene. It is essential to exercise care and common sense, ensuring not to destroy any potential physical evidence. A crime scene is dynamic, much like the crime itself. The first officer who arrives at a crime scene should take precautions to guard areas likely to be disturbed or damaged by the public, onlookers, and environmental factors (Nataraja, Santhra & Srinivasan, 2020:117-119).

Challenges experienced at crime scenes, particularly in death investigations, are attributed to improper crime scene preparation and a lack of knowledge in evidence handling (Ajit, Ramesh, Piyush, Kapileshwar & Nilesh, 2018:115-118; Nataraja, 2007:78-99). This is especially true in cases of hanging or when a body is found in a non-residential or outdoor area. The body's posture may introduce confusion for the forensic crime investigator when explaining the events at the crime scene. Crime scene investigators must apply expert knowledge gained through scientific training, experience, and a foundational understanding of various fields such as science.

An illustrative instance is evident in the Senzo Meyiwa murder case, where the first four police officers who twice attended the crime scene before the arrival of other law enforcement officials failed to observe anything on the kitchen sink. This oversight occurred despite the case's high profile. During the cross-examination of the police, a photograph was presented showing the examination of the area behind glass jars where the bullet was found in the kitchen. The police forensic expert acknowledged that the picture was taken the day following the initial visit (Newsroom24 23 January, 2023).

Upon the forensic expert's return to the crime scene, he conceded his inability to inform the court about the condition of the area where the bullet was recovered, as he had not taken notice of it during his initial visit (Newsroom24, 19 September 2023). Upon their initial arrival at the scene on 24 September 2014 at about 20:53, police observed cans of beer, a hat, and a crutch, which were objects they found perplexing as they struggled to explain their presence.

It was only during their second visit, led by the homeowner and another witness, that they gained clarity. The hat was identified as belonging to one of the suspects, the crutch to a victim in the house, and a damaged kitchen door, presumably struck by the bullet projectile found on the floor. A police officer remarked, "It looked like something hit there (on the door)," based on the witness's interpretation and the evidence observed on the floor. The police officer remarked: "According to my thinking and due to what police saw on the floor, police think it was a bullet hit." In opposition, a previous state witness had informed the court that the police found a bullet projectile on top of the kitchen cupboard behind the glass jars (Newsroom 24, 19 September 2014). However, the police officer asserted that during their two visits to the house, even when guided by another police officer, they did not notice anything on the cupboard until being instructed to leave by the lead investigator. The head investigator was followed by the Senior Commander and then the task team.

During the investigator's cross-examination, a photograph of the location where the bullet was recovered behind glass jars in the kitchen was presented. The investigator admitted that the pictures were taken the day after when he returned to the crime scene. He conceded that he was unable to inform the court about the condition of the area where the bullet was found because he had not taken notice of it during his initial visit the previous night. The police present at the crime scene initially were unable to conduct a thorough search of the house due to unfavourable conditions. Consequently, they overlooked the cartridge case, which was situated inside the house. It was only on the following day during a revisit to inspect the in-log that they discovered the cartridge case behind the carport, located in the dining room (Newsroom 24, 10 June 2023).

Zinn and Dintwe (2015:np) stipulate that shoe impressions are particularly vulnerable to weather conditions and deteriorating light sources, warranting that evidence of this nature receive priority during processing at the crime scene. Lee, Palmbach, and Miller (2011b:144) highlight that impression evidence is a common type of physical evidence found at crime scenes, and when properly recognised, documented, and interpreted, it can be invaluable in the investigation and subsequent reconstruction of the incident.



Impression evidence can link a victim, suspect, or witness to a specific location at the scene, offering crucial investigative leads. For instance, footwear scene and can reveal the shoe size, and the number of persons present at the scene, and provide indications of physical conditions and the direction of travel of the individuals who left the impressions. Two types of impression evidence are typically encountered at crime scenes. Two-dimensional impressions (also known as imprints) are usually found indoors on objects and occasionally on nonporous outdoor surfaces.

Three-dimensional impressions (also known as indentations) are typically recovered in outdoor scenes on softer receiving surfaces. In this example, the researcher shows that the police do not have the skills and training to approach some of the outdoor crime scenes. Barry, Fisher, and Fisher (2012:399) reference an example of an outdoor scene case which was investigated by the Suffolk County Crime Laboratory in New York as follows:

For example: On a winter day, a neighbour called the police to report the discovery of a deceased female located behind his neighbour's home. He informed the police operator that after noticing the body, he had gone back to the house to confirm his observation. Upon arriving at the scene, the officer met the caller in front of his neighbour's house. The caller reported that he had walked on the right side of the house (as seen from the front) to view the body and returned using the same route. Subsequently, the officer and the caller proceeded to the right side of the home to view the body together. When another police officer arrived, the initial respondent secured the entire scene for protection, noting fresh undisturbed snow on both the left and right sides before they circled the house. During the scene processing, a critical piece of evidence emerged: there were only four sets of tracks when there should have been six (Barry, Fisher, and Fisher, 2012:399). The caller's consistent claim of checking on the body by circling the residence raised suspicions. Further investigation by crime laboratory personnel revealed additional tracks leading away from the deceased. Strikingly, these tracks did not lead to the front of the house but to the neighbour's backyard through an opening in the fence. As the caller became the primary suspect, he was placed under surveillance. Subsequently, he was observed disposing of several trash bags in a neighbouring dumpster.

The recovered bags were found to contain bloody clothing when examined by crime laboratory personnel (National Institute of Justice 2012, 25 July 2023).

This evidence provided significant grounds for obtaining an arrest warrant for the suspect. The researcher supports the explanation by referencing a case report from other countries. For instance, consider a scenario where a deceased female body is discovered in an open field on the outskirts of a village, exhibiting bleeding from the nose and ears. Numerous villagers, including relatives, gathered near the area surrounding the body. The first police responder, upon arrival at midnight, managed the crowd and secured the scene. When the Inspector of Police arrived at the location at a later stage, they registered a case under suspicious death and requested the services of a forensic crime scene investigator (Barry, Fisher, & Fisher, 2012:399).

Upon receiving the message from the Inspector of Police, Tamil Nadu promptly arrived at the crime scene after midnight and conducted a comprehensive observation of the dead body and the surroundings. The villagers recognised the deceased as a resident of the nearby village. She was clothed in a typical outfit for that region in South India, including a saree, blouse, and petticoat (National Academy of Science, 2009, 26 October, 2023). The deceased, a farmer with a humble background, wore plastic bangles, an ear stud, a nose stud, and a black sacred thread attached to a metal capsule. A black sticker labelled 'Kumkum' adorned the centre of her forehead and remained intact (Nataraja 2007:np).

An additional crucial observation was the presence of old slippers on her feet, with the right slipper still attached to her foot and the left slipper found nearby. Careful examination of the evidence definitively ruled out the possibility of a struggle before death. The investigator observed torn marks on the neck region of the blouse and saree. Interestingly, a small wing-like knitted coconut leaf was noticed, attached with a twisted rubber cord near the deceased, exhibiting a charred mark at one edge. In rural areas, dry-knitted coconut leaves were commonly utilised for roof thatching and creating small mats (Nataraja, Segaran & Srinivasan, 2020:5).

Villagers often used woven coconut leaves as improvised umbrellas to cover their heads during rainy times (Nataraja, Segaran & Srinivasan, 2020:5). About the Senzo Meyiwa crime scene, Mosia informed the court more about a lack of maintained and properly functioning investigative tools. During the search, Mosia observed a walking stick at the crime scene and later identified a bullet hole on the tiled floor, next to which a grooved bullet and a hat were found. Another bullet hole was discovered in the kitchen door, along with blood between the couch and the Television (TV) stand.

There was no suspicion implicating any of the individuals in the death of Senzo Meyiwa as no gunpowder residue was detected on their hands or clothing (Newsroom 24 19, September, 2023). The appointment of a gatekeeper at any crime scene is essential because even other law enforcement personnel can pose obstacles to the investigation process if their conduct is not regulated. The gatekeeper's role is to uphold the scene's integrity, maintain a record of those entering, and prevent unauthorised personnel from gaining access. Some officers unintentionally end up contaminating the crime scene upon arrival, while others just assume their role is merely to observe. Such officers pose the most challenges for the gatekeeper to preserve the crime scene.

In elementary terms, the three most common errors in the strategic investigative response are (Gehl & Plesca, 2016:60):

- Failing to identify and collect all available evidence and information.
- Failing to effectively analyse the collected evidence and information to identify suspects and establish reasonable grounds for action.
- Becoming too quickly fixated on one suspect or theory of events, ignoring evidence of other viable suspects or theories that should be considered.

First police responders often err when managing crime scenes by:

- Not controlling police personnel.
- Failing to identify evidence.
- Neglecting to document interviews and evidence.
- Taking insufficient photographs.
- Not identifying secondary or tertiary crime scenes.

There are different responsibilities for armed officers and first police responders. An armed officer is tasked with investigating individuals. This includes interviewing, questioning, and cross-examining principals, witnesses and all other people who might have some knowledge of the crime. In contrast, the first responder is responsible for reconstructing the crime and endeavours to identify the perpetrator by gathering information from individuals. The role of uniformed police, however, does not prioritise interactions with people. Instead, their focus is restricted to tangible aspects of the crime scene (Newsroom 24, 10 June 2023). The first police responder conducts a comprehensive search of the extended crime scene, not only the interior of the building where the crime occurred. The space surrounding the crime scene also holds traces left by the criminal. These can be a physical clue that contains the potential to establish their identity, a distinctive mark that may be attributed to them, or some tool, instrument, or device that was in their possession.

The primary responsibility of the first police responder lies in reconstructing the crime based solely on the physical evidence discovered at the scene. The first police responder must meticulously capture this evidence through photographs and measurements, facilitating the recreation of the crime in the court's imagination. Police officers, tasked with handling numerous crucial details, face a challenging job that carries substantial stress and workload, creating multiple opportunities for errors. These mistakes could compromise the state's case against a defendant, and in some cases, result in the dismissal of charges. Improper evidence collection encompasses actions such as mishandling DNA samples and fingerprints or failing to document physical evidence at a crime scene.

Additionally, officers must ensure the proper storage of such items to prevent inconclusive or erroneous results in tests (Gehl & Plesca, 2016:60). Osterburg and Ward, (2010:97); Palmiotto (2013:4) errors made by the police can significantly undermine the prosecutor's case against the defendant, potentially leading to the dismissal or reduction of charges through a plea agreement. In some instances, investigation mistakes can falsely accuse individuals of crimes they did not commit.

It is notably, in the Senzo Meyiwa crime scene, the police committed common errors, including failure to secure the crime scene, improper evidence collection, lapses in maintaining the chain of custody, and shortcomings in managing the crime scene process. This underscores the importance of the cross-examination of police officers in the Senzo Meyiwa murder trial. The investigation of death is a complex process involving various members of the police department and diverse forensic disciplines collaborating to solve the case. Furthermore, due to the diverse responsibilities of individuals involved, ranging from uniformed officers to investigators, medical examiners, forensic experts, prosecutors, and several other contributors, miscommunications may occur and lead to significant errors that impact the case's outcome (Geberth, 2016:50). Typically, the defence leverages police report statements that contain essential facts and observations to question or highlight the absence of crucial information.

Reports should include details about weather conditions, descriptions of vehicles, firearms, drugs, or other contraband, the witness's location when the offence occurred, the content of witness statements, the defendant's demeanour, the presence of others at the scene, the recovery condition of certain evidence, who had access to the evidence, how the crime scene was secured, and any allegations made against the defendant. Unfortunately, the possibility exists that these facts may not be adequately addressed in the report. For instance, if the defence concentrates on the police report statement and identifies essential facts lacking the defence attorney can suggest that the absence of certain facts may have been exculpatory or indicative of the defendant's innocence. This approach can raise questions about whether the events occurred as alleged, seeing as there is no record of them. Moreover, as seen in the United States of America (USA), a significant police error in the JonBenet Ramsey case was revealed by the first Federal Bureau of investigation agent on the scene (Geberth, 2016:50). Ron Walker, the initial FBI agent to arrive at the scene of JonBenet Ramsey's murder, disclosed a critical mistake made by the Boulder Police in Colorado. Walker asserted initial errors, particularly the failure to interview the parents of JonBenet separately, undermined the case from the outset.

Critics have faulted the Boulder police for not following proper procedures on 26 December, such as conducting separate interviews with John and Patsy and obtaining full signed statements from them. Likewise, in Los Angeles, the OJ Simpson murder trial exposed deficiencies in police and forensic work. This provided a lesson as to the actions that law enforcement should avoid at a crime scene (Warrington, 2014:np). Two decades ago, Simpson's defence attorneys undermined the prosecution's case by highlighting issues in the Los Angeles Police Department's (LAPD) handling of evidence (Warrington, 2014:np). Several lessons emerged, emphasising the importance of adhering to procedures, maintaining meticulous records of evidence, and presenting candid information to the jury, even when deemed unfavourable (Warrington, 2014:np).

The OJ Simpson trial highlighted deficiencies in evidence handling, where police forensic technicians were criticized by the defence for improperly packaging evidence samples and leaving them in an overheated van on a summer day (Warrington, 2014:np). The responsibility for most evidence collection fell on a novice technician. After Simpson's acquittal, following the murder charges for his ex-wife, Nicole Brown Simpson, and her friend, Ronald Goldman, the LAPD underwent significant changes in its scientific investigation division.

Defence attorney Johnnie Cochran referred to it as a "cesspool of contamination" due to sloppy evidence handling (Buckles, 2007:np). These cases serve as examples that underscore the need for precision in scientific investigations, especially when trials involve highly technical testimony about the chemistry, biology, and physics of evidence analysis (Warrington, 2014:np). The goal should be a commitment to never lose a case on a technicality by pre-emptively addressing questions before they become issues. In cases reaching the court, any unexplained evidence collected at the scene must be identified. Elements that are initially unidentified like latent fingerprints, shoe tracks, hair, blood, and DNA swabbing, need to be investigated and classified (Warrington, 2014:np).

- **Corruption in South Africa Police Service**

The SAPS has the responsibility of safeguarding the community and addressing various interests beyond public safety and security. However, police corruption in South Africa not only exposes the public to elevated crime rates but also fosters distrust in the police service, thereby allowing criminal activities to thrive (Motala, 2019). The recent Corruption in Uniform report (Motala, 2019), released in mid-June 2019, reveals a troubling scenario of corruption within the South African police and metro police services. For instance, an analysis of 1,440 received reports on police corruption highlights the top three types of corruption experienced by whistle-blowers: bribery (33%), abuse of power (23%), and failure to act (18%) (Newsroom24, 23 May, 2022). These findings align with Transparency International's 2019 Global Corruption Barometer (GCB) for Africa (Motala, 2019:np), where 40% of South African respondents believed that some officers are corrupt, and 30% believed that most of them are corrupt. This underscores the pervasive nature of corruption within the police force, contributing to a challenging environment for public safety and security.

A concerning finding reveals that 19% of individuals “A worrying 19% believe that at all are (Motala, 2019)”. The GCB for Africa reported that 19% of South African respondents admitted to having paid bribes to police officers, be it on a single occasion, occasionally, or frequently. This pattern is observed across the 35 surveyed countries, with citizens identifying the police as the most corrupt public institution. Almost half (47%) expressed the belief that most or all police officers are corrupt (Motala, 2019). Whistle-blowers also recounted instances of police officers actively seeking bribes, sometimes involving coercion or intimidation.

One journalist recounted being followed home by a police car, subsequently stopped, and falsely accused of driving under the influence to extract a bribe. The repercussions of bribery in such cases extend beyond corruption. The allowance of dangerous or reckless driving in exchange for illicit financial gains signifies a failure of law enforcement representatives to uphold road safety standards (Motala, 2019:np). The significance of the legitimacy of legal authorities, especially the police, is globally acknowledged as vital for the state's ability to function justifiably and effectively.

South Africa's Minister of Defence, Thandi Modise (Motala, 2019:np). Expressed concern over the persistently low level of public trust in the country's law enforcement agencies. As the head of the Justice, Crime Prevention, and Security Cluster, she highlighted an enduring legitimacy issue in the relationship between the police and the public. To comprehend the magnitude and nature of this challenge, we explore representative survey data tracking trends in police confidence since the late 1990s.

The data indicates that public trust in the police has generally been low throughout the democratic period. Notably, between 2020 and 2021, there was a significant decline in the level of trust that ordinary people placed in the police (Roberts, 2022:np). The research aims to identify key factors influencing general attitudes toward law enforcement to implement interventions to rebuild public trust in the police. The survey-based evidence presented by Roberts (2022:np) outlines several factors affecting confidence in the police in South Africa that will be discussed below.

- Experiences of crime:  
Individuals who have recently fallen victim to crime exhibit significantly lower levels of trust in the police.
- Fear of crime:  
Elevated levels of fear correlate with reduced trust in the police. This association extends to traditional concerns, such as fear of walking alone in the dark, as well as apprehension about home robbery or violent assaults. These associations persist across multiple survey rounds.
- Experiences of policing:  
Negative personal encounters with police officers influence public perceptions of the police. Those reporting unsatisfactory interactions express lower trust compared to those with satisfactory encounters.
- Well-publicised instances of police abuse or failure:  
High-profile cases such as the 2012 Marikana massacre or the perceived inefficiency in responding to the July 2021 social unrest, can diminish public confidence in the police.
- Perceptions of police corruption:  
Strong negative effects on confidence in the police are associated with perceptions of police corruption.



- Perceived fairness and effectiveness:

Previous in-depth studies indicate that the South African public places considerable emphasis on fairness and effectiveness in their overall assessments of confidence levels in the police. If the police are perceived as acting unfairly based on race, class, or other attributes, people are more likely to view them as untrustworthy.

Likewise, perceptions that the police exhibit disrespect towards individuals, lack impartiality in decision-making or operate opaquely can erode public confidence. The ineffectiveness in preventing, reducing, and responding to crime by the police also contributes to diminished confidence. Another influential factor in shaping public perceptions of the police is the broader assessment of the government's democratic performance and trustworthiness. It is noteworthy that public confidence in democratic institutions has exhibited a notable downward trend over the past 15 years, impacting confidence in the police indirectly (National Research Council,2009:np).

The National Research Foundation (NRF) financially supports the conversation and eight universities, including Cape Peninsula University of Technology, Rhodes University, Stellenbosch University, and the Universities of Cape Town, Johannesburg, Kwa-Zulu Natal, Pretoria, and South Africa. The NRF is hosted by the Universities of Witwatersrand and Western Cape, the African Population and Health Research Centre, and the Nigerian Academy of Science, while The Bill & Melinda Gates Foundation serve as a strategic partner (Roberts, 2022).

### **3.2 SUMMARY**

This chapter supplies an overview of the background and challenges confronted by first responders at crime scenes. It is imperative that visible policing members familiarise themselves with the purpose of investigation and develop an understanding of the term “Locard’s Principle”, the process that must be followed when crime is reported, the basic considerations in the preliminary investigation of a crime and the main mistakes made by the first responders at the scene of crime, as these carry significant weight in the execution of their daily duties.

These must be understood by the first responder as they contribute to the successful investigation and prosecution of offenders. This research hopes to assist in securing convictions and decreasing the number of repeat offenders who commit crimes. However, summarising the social research literature on the application of crime scene management to volume crime poses several challenges. Similar to the body of research on general investigative approaches, it encompasses a mix of phase-specific studies and more general overviews of the crime scene management process within investigations. An additional challenge in reviewing social research on forensic techniques lies in assimilating information from a domain significantly impacted by the development and application of new technology.

While the crime scene management process shares similarities with studies from the 1970s and 1980s, the processing and analysis of forensic material have undergone a revolution through automated fingerprint searching, DNA technology, and the establishment of related databases. This evolution raises crucial questions about the ongoing validity of some earlier research findings, and where necessary, such points have been highlighted in the text. The subsequent chapter delves into best practices for the first police responder in managing a murder crime scene. It explores the optimal approach to the management of a murder crime scene applicable to the SAPS, drawing insights from practices employed in other countries.

## **CHAPTER FOUR: BEST PRACTICES ON MANAGING MURDER CRIME SCENES BY THE FIRST POLICE RESPONDER**

### **4.1 INTRODUCTION**

This chapter engages in a discussion on best practices for the management of murder crime scenes by the first police responder. These practices will be presented through the application of both national and international benchmarking. The international best practices are gleaned from countries including Brazil, the United States of America (USA), China, Russia, Australia, and the United Kingdom (UK).

### **4.2 NATIONAL BEST PRACTICES ON THE MANAGEMENT OF THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER**

In this section, the national best practices for the first responder in managing murder crime scenes are similar practices in South Africa and other countries. A forensic investigation is the practice of lawfully establishing evidence and facts that are to be presented in a court of law. The aim is to explore how these practices can be applied by the first police responder and their utility at the crime scene during the management of murder cases. First responders at operational crime scenes are likely to provide evidence in court throughout their careers, including testifying in high court proceedings. The researcher examines these perspectives to draw comparisons with how police in other countries manage murder crime scenes. Considering the most recent crime statistics, with Gauteng Province leading the other countries in the number of contact crimes, there is a significant likelihood that individuals may become victims or witnesses to crimes at some point.

#### 4.2.1 Effective crime scene management

Fidelity and Average Daily Traffic (ADT) highlight this real probability, emphasising the importance of effective crime scene management Tyner (1998:np); Gehl & Plesca (2016:102) both outlines several best practices for processes to manage a crime scene:

- Ensure the area is secured. Decide on the size of the scene to be cordoned off with barrier tape and err on the side of making it larger than initially deemed necessary. It is easier to reduce the size later, but expansion is rarely feasible once established.
- Secure weapons only if they pose a threat or danger. If not, leave them untouched in their original positions.
- Set up one designated entry and exit point to minimise unnecessary tracking throughout the crime scene.
- Allow entry only to those who have a legitimate need to be present at the crime scene. Control access to maintain security.
- Remove victims and witnesses from the crime scene promptly while ensuring a secure environment is maintained.
- Secure the uncontaminated crime scene promptly and maintain its integrity for the required duration.
- Initiate a crime scene log and ensure all individuals entering sign it, as this documentation holds significance in later stages of the investigation.
- Record the individuals present upon your arrival, their locations, and activities.
- Document any alterations made to the scene by other officers.
- Take note of environmental conditions, such as lights and appliances, as these details may prove crucial.
- If unsure about an item's relevance as evidence, collect it, as it is simpler to return than to attempt retrieval later while substantiating its non-compromise during your absence.
- Avoid unnecessary additions to the scene, refraining from activities like chalk outlining evidence or a victim's body unless essential.
- Resist marking evidence unless necessary.

- Never cover a body with a blanket or object that might introduce trace evidence to the scene or the body. Generally, refrain from physically touching the body, as covering it can impede the evidence recovery process while awaiting the coroner's involvement.

These practices contribute to the effective management of a crime scene, promoting both security and the preservation of critical evidence. While the fundamental approach to managing and controlling a crime scene remains consistent, an investigator's decision-making and actions are inevitably influenced by specific circumstances. Common sense and experience play pivotal roles in enabling investigators to navigate diverse situations. The paramount objective in handling a scene correctly is the preservation of evidence, emphasising that an investigator's actions should align with this objective (Lochner & Zinn, 2015:130). It is noteworthy that the police service has recently acknowledged the need for a distinct occupational practice in the investigation of crime.

Although individuals involved in crime investigations have always practised a form of craft, there has been a lack of consensus on its specific nature. Additionally, this practice was not documented in a way conducive to training and accreditation for the first police responder. Historically, it resembled more of a craft, passed down from one first police responder to another, marked by individual and local variations. However, the practice of criminal investigation, along with training and accreditation for investigators, has gradually become more standardised over time (Gehl & Plesca:2016:102).

The police service aims to professionalise this practice further (Stelfox, 2009:27). To do so, guidelines such as policies need to be established and expanded upon to contain rules and instructions specifying how to manage a murder scene. Existing guidelines for managing murder scenes may vary between institutions, but their core purpose is the preservation and securing of evidence. This preservation ultimately aids in determining the truth and, if applicable, supports convictions in a court of law, civil actions, or departmental investigations (Lochner & Zinn, 2016:9).

The literature and various sources indicate that the first police responder will observe different processes and guidelines, emphasising that there are no fixed rules for managing a murder scene. Instead, there are fundamental rules and guidelines based on systematic and logical processes governing scene management. Different authors note diverse viewpoints among crime researchers on the concept of murder scene management, yet there is a unanimous agreement that it is a complex task. Furthermore, they emphasise that the first police responder involved in murder scene management requires a high level of professional competence. Lochner and Zinn (2016:np) outlined guidelines for managing murder scenes that include:

- Planning the process of managing the murder scene.
- Implementing measures to take control and secure the scene.
- Ensuring the integrity and originality of evidence and exhibits.
- Thoroughly investigating and processing the murder scene without disturbance.
- Coordinating and maximising the collection of exhibits.
- Optimally using supporting resources and accurately recording facts and events.

The murder scene must be protected by the police for the duration specified by the investigating officer or the designated official. It is vital to recognise the distinction of crime management process. The scene of crime management process involves various actions and steps leading to the management of the crime scene. Scene of crime management process was examined in other countries to compare them with the processes followed by members of the South African police service in Gauteng Province. For instance, processing the crime scene involves examining reported facts and physical evidence, making observations, and establishing connections between people and circumstances. Furthermore, forensic analysis enhances the significance of physical evidence. Investigative efforts aim to determine evidence related to motive, opportunity and means to commit the offence. This includes creating timelines of activities and developing assumptions and theories to guide the investigation process. Investigative plans are then formulated based on these theories.

Authentication of the event involves verifying whether it occurred at the reported time, place, and in the manner described, or if the report is fabricated. Prioritising and focusing on results are essential to guide the investigative process. This includes safeguarding the lives and safety of individuals, protecting property, and gathering and preserving evidence. Additionally, accurate documentation of the event is crucial. The overarching goal is to establish reasonable grounds to identify and arrest suspects (Gehl & Plecas, 2016:66).

#### **4.2.2 Utilising of forensic science technique at the murder crime scene**

Brown and Davenport (2012:7) state that forensic science begins at the crime scene the place where crime took place. James and Nordby (2005:70) reveal that scientific crime scene investigation is based on a scientific method. A method that is methodical and systematic. The utilisation of the scientific knowledge of forensic techniques applied in physical evidence examinations, to develop investigative leads that will ultimately solve a crime. The SAPS Forensic Services (FS) assumes specific responsibilities at crime scenes.

The Forensic Science Laboratory (FSL) is mandated to attend crime scenes when specialised services are required, including fire origin-and-cause investigations, fire debris analysis, detection of ignitable liquids, representative sampling for chemical analysis, scenes involving firearms requiring shot range or distance determination, and coordination of clandestine drug scenes. The Forensic Science Laboratory undertakes to scientifically interpret all clues with physical evidence optimally, to deliver an impartial expert finding with opinions in criminal cases, thereby ensuring that justice is served (SAPS, 2006:9). The FSL comprises the biology, chemistry, and scientific analysis, ballistics, questioned documents and explosives units (Omar, 2008:19). FSL experts must be available 24 hours a day, providing telephonic advice when feasible. If telephonic guidance is adequate for the investigating officer or crime scene examiners, physical attendance by the FSL may not be necessary. A fundamental understanding of forensic science or criminalistics is most often required for an investigator to understand the basic techniques for the collection and preservation of physical evidence (Omar, 2008a:19).

According to (Prinsloo 1996:39), criminalistics can be defined as the scientific application of various methods and techniques that uncover and resolve criminal actions. Criminalistics often relies on highly sophisticated and advanced methods and techniques to keep abreast of any technological advances made in the field of forensic science. Lyman (2011:10) states that criminalistics is the application of various sciences to answer questions relating to the examination and comparison of biological evidence, trace evidence, impression evidence (such as fingerprints, ballistics, firearm, and tool mark examinations), as well as any other evidence, in criminal investigations.

Orthmann and Hess (2013:8) refer to criminalistics as specialists trained in identifying and interpreting the minute details of physical evidence, and further state that criminalistics is a branch of forensic science, which is a broader field encompassing the application of science to the law. However, when specific and scientific services are unequivocally required, a forensic expert from the FSL will attend the scene. In major crime investigations, especially series, where detection of the individual case is deemed to be of critical importance, forensic science resources are drawn on relatively liberally according to specific needs as they are seen to arise. Where other evidence to detect the case is not readily to hand, crime scene examiners examine scenes thoroughly, and forensic scientists are brought in to play a major part in the investigation (Tilley & Ford, 1996:73).

Forensic science has been under rigorous global scrutiny in the last decade. Key reports from the UK and the US have contributed to this examination, including the National Academy of Science Annual report for 2009, the Law Commission Annual report for 2011, the UK Forensic Science Regulator Annual reports for 2014, 2018 and 2019, and the UK Government Chief Scientific Adviser Annual report for 2015, along with the US PCAST report in 2016. The UK House of Commons Science and Technology Committee released successive annual reports covering 2010-2012, 2017-2019, and 2019, and the House of Lords Science and Technology Select Committee issued its annual report for 2017-2019. The application of forensic science and expertise is a prerequisite for the investigation of crime at the local and national levels (Tilley & Ford, 1996:73).



Without the use of forensic scene and expertise, an investigation within the framework of a criminal process becomes dead and unsubstantiated (Shepitko, 2014:np). But with the globalisation of world processes, the development of technologies, the speed of information transmission, the formation of crime outside the borders of the state and its entry into the international level has become an urgent problem, which has become a challenge in countering such crime and the need to steer forensic science and expertise towards assisting law enforcement activities (Lopata, 2016:97-102).

A special feature of countering the investigation of crime was the creation of international cooperation between forensic specialists and expert witnesses even before the establishment of practical institutions that could counteract them in practice (Reiss, 1916:np). Therefore, some representatives of such international unions and associations have taken serious steps in creating mechanisms for real counteraction to crimes at the international level (Shepitko, 2019:43-61). Forensic science involves the application of scientific methods and expertise to investigate crimes or examine evidence that may be presented in a court of law. It encompasses a diverse range of disciplines, including fingerprint and DNA analysis, anthropology, and wildlife forensics (Tsepeley, 2001).

Despite their varied fields, all forensic scientists encounter a common set of challenges. Globally, forensic sciences serve as a cornerstone in criminal justice investigations, employed by modern police and justice services to address various types of crimes, and ultimately, deliver justice to victims. Utilising forensic science expertise and maintaining the chain of custody for evidence is vital because even the smallest pieces of evidence can yield crucial information and provide solid evidence for the court (Himani, 2021:np). For instance, forensic sciences offer highly effective means to expedite crime-solving by building cases on physical evidence rather than relying solely on confession and testimony. Forensic analysis aids in establishing links with other investigations, facilitating the identification of criminal networks involved in transnational and international organised crime, human trafficking, migrant smuggling, and illicit trafficking within short time frames.

In criminal and legal proceedings, the chain of custody plays a pivotal role in ensuring the integrity of evidence presented in court (Chornous, 2020:267-281). The forensic evidence chain of custody encompasses the entire history of the evidence, which can be any artefacts (such as documents, DNA, fingerprints, photographs, or firearms). It includes a detailed chronological record of how the evidence was collected or seized, taken into custody, documented, analysed, transferred, stored, assessed, and eventually disposed of (Chornous, 2020:267-281). Every piece of evidence submitted to the court must have the integrity of its chain of custody verified to be admissible.

This meticulous process aims to guarantee that evidence has not been distorted, planted, or misrepresented. In the event of the wrong person accessing the information, delays in transferring it, mislabelling, or accidental tampering, vital evidence could be deemed inadmissible. This underscores the importance of maintaining a proper chain of custody to ensure a high-quality, fair, and impartial justice system. The term "crime scene" encompasses the body of a being, any form of vehicle, an outdoor location, or anything found in those areas (Chornous, 2020:267-281). The term "crime scene inspection" refers to the meticulous scrutiny conducted through forensic or scientific methods to preserve and gather physical evidence related to any unlawful activity (Himani, 2021). Investigation, as defined in Section 2 of the Criminal Procedure Code, is the process of unearthing evidence as the truth can often be found at the crime scene.

Therefore, specific actions are required to ascertain the facts and collect evidence. Investigators employ various methods, such as observing and scrutinising evidence, blood, fluids, witness testimony, prints, residues, digital devices, or technology, to understand how a crime occurred. The relevance of science and its techniques to both criminal and civil laws within the criminal justice system, as enforced by police agencies, is crucial. Forensic science, for example, has established its value within this framework. Its advancement provides a powerful tool for law enforcement (Himani, 2021). Crime scene management and forensic investigation play a crucial role in determining the accessibility and efficacy of forensic tests in the later stages of an investigation.

The primary goal of crime scene management is to control, preserve, document, and recover evidence from the crime scene. Evidence discovered by first police responders should be appropriately packaged and labelled to prevent damage and contamination (Himani, 2021:np). During forensic analysis, it is essential to ensure that the questions posed are investigative rather than purely scientific. At times, bringing the forensic professional to the actual crime scene proves beneficial (Himani, 2021). Ludwig and Fraser (2014:81-88) highlighted that the advancements in scientific, technological, and legal domains, particularly the introduction of national DNA and fingerprint databases, have led to an increased reliance on forensic science in crime investigations. There is a prevailing assumption and at times explicit assertions, that such developments bring improvements not only in broad criminal justice terms but also in terms of economic or practical efficiencies. The main assumption is that these new technological opportunities will be comprehended and effectively implemented. This research delves into the best practices by examining the utilisation of forensic science at murder crime scenes, aiming to determine whether the increased activity in this field has been accompanied by improvements in its effective application (Ludwig & Fraser (2014:81-88)).

A systematic review was conducted, examining 36 reports published primarily in England and Wales since the 1980s. These reports focused on the use of forensic science in the investigation of volume crimes. As outlined by Ludwig and Fraser (2014:81-88), these reports have identified several recurring themes that impact the effectiveness of forensic science in investigations. Brown and Davenport (2012:7) emphasise that forensic science initiates at the crime scene, the very location where an incident occurred. According to these authors, the first police responder relies on a scientific method to solve a crime which entails a systematic and logical series of steps. In murder cases, the scientific method comprises the police discovering the crime, arriving at the scene to process it, searching for clues, collecting exhibits, and subsequently sending these exhibits to the laboratory for scientific comparison and analysis.

Brown and Davenport (2012:7) align with the perspectives of Horswell (2004b:4) and James and Nordby (2005:169) by asserting that scientific crime scene investigation, grounded in a scientific method, is methodical and systematic. James and Nordby (2005:169) further elaborate that crime scene investigation aims to develop investigative leads that ultimately result in solving a crime. They argue that this is achieved by using Locard's Exchange Principle, logic, and the application of scientific knowledge in forensic techniques for examining physical evidence. As emphasised by Brown and Davenport (2012:2), the application of forensic science in any crime begins with the discovery of the crime scene and continues through the entire court proceedings.

Orthmann and Hess (2013:46) highlight that photography and plan drawing, employed as methods under the discipline of forensic science, are used to document and record the scene. This record serves to reproduce the crime scene in detail for presentation to the prosecution, defence, and witnesses, playing a crucial role in investigation, prosecution, and police training. Exhibits collected from the crime scene are then forwarded to the (FSL) for analysis. This analysis aims to ascertain the identity of the suspect or confirm the use and/or identification of a firearm in the commission of the offence. Drawing from the researcher's experience, this process may extend into the reconstruction stage, where photographs of the initial crime scene are employed for blood pattern analysis. The following case study serves as an international landmark judgment about the utilisation of forensic science methods at the murder scene (Orthmann & Hess, 2013:46).

In the matter of Vishal Yadav versus The State of Uttar Pradesh (Himani, 2021:np), it was noted that Nitish Katara was murdered in India. The challenging aspect of the investigation lay in identifying the victim because the evidence of the deceased where their fingers found on a small part of one unburnt palm. DNA reports played a crucial role in identifying the body remnants by matching DNA samples with the parents of the deceased. This DNA evidence played a pivotal role in the Dehl High Court's decision to uphold the conviction of the defendant. A similar example can be found in the matter of Sushil Mandal versus the State represented by the inspector of police (Himani, 2021).

Sushil Mandal was the distraught father of a deceased boy and sought justice through the court system. He contested the findings of DNA reports related to the death of his son, Sandesh, who was romantically involved with a student named Maharishi Vidya. The school administration, aware of the relationship, had advised both sets of parents to keep an eye on the young couple (Himani, 2021). Following a missing person report that was issued a week after Sandesh's disappearance, a severely decomposed unidentified body was recovered from a lake. Sushil, upon seeing the remains and clothes, denied recognising his missing son and filed a *habeas corpus* petition in the high court (Himani, 2021).

Sushil accused the father of the girl and urged the high court to initiate an investigation by the Central Bureau of Investigation. DNA examination of the body remains matched the genetic profiles of the deceased's parents (Himani, 2021). The skull superimposition test also established a connection between the deceased and the recovered body. Despite repeated DNA tests, Sushil refused to accept the truth revealed by these scientific examinations. The apex court, acknowledging the reliance on scientific tests, including DNA profiling for human identification, concluded the case (Himani, 2021). Questions arose, however, about whether forensic evidence infringes upon Article 20(3) of the Indian Constitution. In the State of Bombay versus Kathi Kalu Oghad and Others (Himani, 2021), the court ruled that providing thumb imprints, semen, blood, hair, and specimen signatures by the defendant does not qualify as 'being a witness' under the mentioned article.

Therefore, the suspect has no right to object to DNA testing for investigative and trial purposes. In a recent judgment in the case of the State of Gujarat versus Mohan Hamir Gohil and others (Himani, 2021), the Division Bench of the Court specifically noted the increasing reliance on DNA outcomes in courts, both in India and globally. They made this proclamation after considering various authorities on DNA technology, different testing procedures, and global scientific advancements. It observed that DNA reporting technology has evolved significantly over time, producing results that can be crucial for either incrimination or exoneration of the suspect (Himani, 2021).

Researchers discovered that at the core of the criminal justice system lies a big responsibility. Suitably punishing perpetrators of crimes exonerating the innocent. Although this sounds like a straightforward undertaking, misleading forensic evidence has proven to be one of the biggest systematic defects. One that has cost many innocent people their freedom. Although relatively reliable in most instances, forensics can be subject to several errors, inconsistencies, and biases, which have resulted in the wrongful arrests of innocent people (Himani, 2021). The peer-reviewed study published in 2019 by Professors Adebola Olabode and Lirieka Meintjes van der Walt, titled "The Danger of Convictions based on a Single Piece of Forensic Evidence", states that investigating officials have often been found to depend on a single piece of evidence to convict suspects when, in fact, there should be a strong substantiation, with additional forms of evidence linking the accused to the crime (National Newsletters 14 December (2020)).

Advancements in science have come a long way in expanding the scope of forensic gathering techniques from DNA analysis, which is considered the "gold standard for forensic feature comparison methods, followed by fingerprints analysis, bite-mark analysis, microscopic hair analysis and firearms identification. These are used in many jurisdictions around the world to bring justice to some of the most heinous crimes, such as sexual assault and murder (National Newsletter 14 December (2020)). Another example from the National Newsletter on 14 December (2020) states:

Wrongful arrests cost the State. In United States keeps a National Register of Exonerations that has recorded 20500 wrongful convictions since 1899; in South Africa, such shortcomings are made clear by the large sums of money spent on Civil claims related to wrongful convictions.

In 2016, the SAPS revealed that it had paid out more than R854- Million for wrongful arrests and detention between 2009-2010 and 2015-2016. Subsequently, years saw a substantial annual increase in Civil claims, reportedly because of illegal detentions, use of unnecessary force by police, inadequate training, and lack of compliance with standing orders (National Newsletter 14 December, 2020:np). In the 2015 and 2016 financial years, the SAPS paid out R290 million in Civil claims against the police. The total claims made amounted to R14.6 billion, of which R7.3 billion was cancelled or reduced, with the other claims still pending (National Newsletter 14 December (2020:np)).

In March this year, police were ordered to pay millions in damage to a man in the Eastern Cape for arresting him for no reason at all (National Newsletter 14 December, 2020). But incompetence and police brutality are not the only reasons why people are wrongfully convicted. The only reason for this wrongdoing is because forensic sciences are not utilised at the crime scenes (National Newsletter 14 December (2020:np). South Africa, on the other hand, draws on England law, with evidence being admissible whenever it is relevant (National Newsletter 14 December,2020). Moreover, South Africa, like England and Wales, does not have clear standards regarding the admissibility of scientific evidence. There is no admissibility requirement that scientific evidence should be valid or reliable. If scientific evidence cannot be logically supported, it can be discredited by the defence and the court.

South Africa also does not yet have a reliable database for wrongful convictions, such as the Innocence Project and the National Register of Exonerations in the US. Finding case examples specific to each technique, in which a conviction was made because of misleading results from the analysis, is difficult because that information is highly classified. However, law scholars Gray Edmond and Meintjie van der Walt point out that the reliability of evidence “will be explored effectively during the trial, through cross-examination and or by expert evidence that may be adduced by another party” (National Newsletter 14 December 2020; Tonisi,2020).

#### **4.2.3 Best practice on forensic evidence**

The foundation of all forensic investigation is based on the ability of the crime scene investigator therefore is to recognise the potential and importance of physical evidence, large and small, at the crime scene (Turvey, 2012). One of the guiding principles in forensic science as postulated by Edmond Locard, an authority in the field of forensic science is that every contact leaves a trace. These traces are usually the physical, biological or trace evidence collected from a crime scene for onward transmission to the laboratory for scientific examination (Turvey, 2000). Forensic science plays a crucial role in the criminal justice system by offering scientifically based information derived from the analysis of physical evidence.

While investigating a crime scene, the evidence collected at the scene and from individuals undergoes analysis in a crime laboratory, and the results are subsequently presented in court. Each crime scene is unique, presenting its own set of challenges. Forensic science involves the application of a scientific method to criminal investigations, with the results serving as evidence in court to support either the prosecution or the defence in a criminal trial (Turvey, 2015). The various fields within forensics draw from a range of scientific disciplines, including physics, chemistry, and biology, among others (Carli, 2020). Forensic science has been a pivotal aspect of criminal investigations and convictions for many decades. The discipline has evolved far beyond the analysis of bullet casings and fingerprints. Today, there are more than 14 different fields of expertise, encompassing DNA analysis and digital forensics.

In South Africa, the landscape of forensic education differs from that of other regions. Unlike many other parts of the world, South Africa offers postgraduate programs for aspiring forensic scientists. University of Cape Town (UCT) aptly defines the career path of a South African forensic scientist as a scientist in one of the disciplines of science who applies their knowledge to “forensic cases”. Forensic science, also known as criminalistics, involves the application of science to criminal and civil laws, primarily on the criminal side during criminal investigations, guided by legal standards of admissible evidence and criminal procedure (Carli, 2020).

Forensic scientists are responsible for collecting, preserving, and analysing scientific evidence during investigations. Some forensic scientists travel to crime scenes to collect evidence first-hand, while others work in laboratories, analysing objects brought to them by others. The crime scene manager employs scientific methods to observe and collect physical evidence at the crime scene. Collaborating with investigating officers, they carefully assess the scene and its surroundings (Carli, 2020). Subsequently, the crime scene manager develops a hypothesis to address fundamental questions such as “who, why, what, when, and how did it happen.” On the other hand, the Crime Scene Technician (CST) refrains from forming a hypothesis and instead forwards the collected evidence to the laboratory for further analysis (Brown & Davenport, 2012:7).



In the researcher's experience, examples of evidence sent to the laboratory in murder cases include blood for DNA analysis, fingerprints lifted from the crime scene for comparison on the Automated Fingerprint Identification System (AFIS), and firearms, spent cartridges, and bullet heads for ballistic analysis. Orthmann and Hess (2013:29) note that many criminal investigations involve processing physical evidence through a forensic crime laboratory. According to Brown and Davenport (2012:9), the evidence gathered at the crime scene is dispatched to the crime laboratory for comprehensive analysis. Forensic scientists at the crime laboratory specialise in various fields such as chemistry, toxicology, pathology, and firearms (Brown & Davenport, 2012:9).

The SAPS (FSL) was established in January 1971, initially comprising three units: biology, chemistry, and electronics. Subsequently, in 1987, the Ballistics and Questioned Documents units were integrated into the FSL, and in the early 2000s, the Explosive Investigation unit also amalgamated with the FSL. Presently, in South Africa, the FSL consists of units dedicated to biology, chemistry, scientific analysis, ballistics, questioned documents, and explosives (Omar, 2008:29). The primary objective of the FSL is to apply scientific methods to investigations.

Brown and Davenport (2012:9) emphasise that forensic scientists at the crime laboratory must maintain complete neutrality and avoid bias in their analyses. Forensic scientists, as stressed by Govender (2017:30), are bound by the scientific method and cannot formulate hypotheses or draw conclusions about the guilt or innocence of an individual accused of committing an offence without it. The duties performed by the first police responder and members of the FSL are conducted with a commitment to the principle of not only bringing offenders to justice but also ensuring a fair trial. This involves preventing innocent individuals from being wrongly convicted due to inadequate crime scene examinations or flawed physical evidence analysis. Crime investigation is a process spanning from the identification of individuals and physical objects at the time the crime occurs to establishing the guilt or innocence of the suspect in a court of law (Govender, 2017:30). To reinforce this perspective, tactical and technical investigation methods play a prominent role as elaborated upon below.

Tactical investigation methods encompass the strategies and techniques employed by criminals during the commission of a crime. This involves elements such as the MO, which includes operational methods, techniques, secret language, and disguise techniques (Brown & Davenport, 2012:9). Additionally, it includes the methods utilised by the first police responder, such as searching, interrogation, observation, and surveillance techniques. These methods operate at the operational level and may not necessarily require expert knowledge (Brown & Davenport, 2012:9). The effectiveness of these methods is contingent on factors like knowledge, persistence, attention to detail, and the ability to communicate effectively with investigators at the crime scene (Marais, 1992:1).

In contrast, technical investigation methods are intricately linked to scientific forensic investigation techniques, encompassing analytical approaches from specific sciences and the application of modern technological aids. This includes the use of tools such as comparative microscopes, gas chromatographs, and spectrometers. Technical investigation primarily revolves around tangible and macro- or microscopically visible material or physical clues. It is inherently medical. Here, forensic experts analyse, evaluate, and explain the evidence, with the responsibility for detection, collection, and preservation depending on the crime scene investigator.

Specific scientific examinations like ballistics, dactyloscopy, serology, and the scrutiny of disputed documents and tool marks are included in this domain. It's crucial to note that tactical and technical investigation methods don't represent two distinct approaches but rather work in conjunction to gather information and evidence effectively (Marais, 1992:2). The role of forensic science in criminal justice and the legal system is immensely significant, even though it might not always receive due recognition. In contemporary times, criminal activities have surged, adopting modern methods and technologies as well. Consequently, the investigative process must stay ahead, leveraging scientific technologies to comprehend the nature of evolving crimes. As awareness and scrutiny grow, criminal investigations increasingly rely on forensic science to adhere to standard principles and proper procedures. The harsh and torturous methods of interrogation are deemed inappropriate in a civilised society.

Looking forward, the government must make amendments, incorporating more practical and scientific methodologies in investigations, considering the evolving landscape of crime and technological advancements in South Africa.

#### **4.3 INTERNATIONAL BEST PRACTICES ON THE MANAGEMENT OF THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER**

This section provides discussion on the best practices regarding the management of the murder crime scene by the first police responder as benchmarked from international countries:

- **Brazil**

In Brazil, the optimal approach to managing murder crime scenes involves the continuous training of first police responders. These responders undergo training to effectively handle various aspects, including processing the murder scene, establishing perimeters, dealing with barricaded suspects, conflict resolution, and providing emergency aid to citizens and partners, among other skills. The rationale behind this extensive training is twofold. First, upon arriving at the scene, first police responders need to implement best practices without hesitation, and training helps build resistance to adopting suboptimal procedures (Beauregard & Field, 2008:179). This same principle applies to the identification and collection of physical evidence. Amidst the tumult and disorder of a crime scene, it is easy for plans to change, initial thoughts to become clouded, and crucial details to be overlooked (Tyner, 1998:180).

In Brazil, the primary officer assumes the responsibility of assessing the scene, calling for support, directing support as needed, establishing perimeters, securing routes of ingress and egress, ensuring the safety of victims, witnesses, and other first responders, and, equally crucially, identifying evidence and ensuring proper collection and processing (Butler, 2005:76). Based on the best practises exemplified by the Brazilians, the SAPS can also adhere to similar steps when managing a murder scene:

- Take charge upon arrival.

- Provide medical care to the victim.
- Search for and apprehend the suspect if present.
- Minimise contact with the scene unless necessary for apprehension.
- Document and report all actions taken.
- Secure the scene using boundary tape, rope, or other methods.
- Ensure ample security, prohibiting smoking, eating, or drinking within the boundaries.
- Remove unnecessary individuals from the crime scene.
- Identify and gather witnesses.
- Involve evidence technicians or crime scene investigators as needed, keeping in mind the officer's responsibility for the crime scene.
- Brief evidence technicians or investigators fully, work collaboratively and maintain open communication.

In their 1995 national survey of all 43 police forces in the UK, Taylor and Hirst (1995:95) identified 26 distinct "initial visit schemes." For this study, the results of the survey can be categorised broadly into three policies regarding the attendance of Crime Scene Examiners (CSEs) at murder scenes. These policies include the "First Attending Officer (FAO) System", "Forensic Awareness Training", and "Simultaneous Attendance".

- **United States of America**

In the United States of America (USA), crime scene investigation serves the dual purpose of establishing what transpired (crime scene reconstruction) and identifying the responsible party. The meticulous documentation of conditions and the recognition of all relevant physical evidence remains crucial. Recognising and properly collecting physical evidence is often pivotal in solving and prosecuting violent crimes. It's not an exaggeration to assert that the law enforcement officer safeguarding and investigating a crime scene plays a vital role in determining whether physical evidence will be instrumental in solving or prosecuting violent crimes (Adam & Krutzing, 2000:40).

The best practices for managing crime scenes in the United States include the following steps (Adam & Krutzinger, 2000:40):

- Approach the scene.
- Secure and protect the scene.
- Initiate preliminary procedures.
- Determine scene boundaries.
- Evaluate the possibilities of physical evidence.
- Prepare a narrative description.
- Photograph the scene.
- Prepare a diagram/sketch of the scene.
- Conduct a detailed search.
- Record and collect physical evidence.
- Conduct the final survey and release the crime scene.

As is the case in the rest of the world, every incident in the USA, every incident, whether it's a crime, accident, natural disaster, armed conflict, or otherwise, leaves traces at the crime scene of murder. The subsequent investigation aims to accurately interpret the facts, reconstruct events, and understand what transpired (Adam & Krutzinger, 2000:40). Given the transient and delicate nature of these traces, their reliability and physical integrity depend significantly on the initial actions at the incident scene. Notably, there are no national requirements in the USA for serving as a crime scene investigator. Professionals in this field may hold titles such as Reconstructionist and Certified Senior Crime Scene Analyst. Through a systematic examination of relevant areas, crime scene investigators uncover physical evidence crucial for identifying what happened and who was involved (Adam & Krutzinger, 2000:40).

According to Adam and Krutzinger (2000:40) stated that South Africa can also learn from the best practices in crime scene investigation as applied in the USA, which include:

- Situation identification.
- Planning, organisation, and coordination.
- Preservation of the scene and its evidence.
- Documentation of the scene and its evidence.

- Recognition, recovery, and preservation of physical evidence.
- Reconstruction of the crime scene.
- Application of the principles of exchange and interpretation.
- Individualisation of physical evidence at the scene of crime.
- Classification and individualisation of physical evidence (Adam & Krutzinger, 2000:40).

Stelfox (2009:17) noted that investigative practices needed to change, leading to the launch of a national training and development program by the Association of Chief Police Officers of England, Wales, and Northern Ireland (ACPO) in September 2005. This program aims to enhance the crime investigation skills of police officers and members involved in the investigative process, driving new standards of investigation at all levels. The term "professionalising" was deliberately chosen to signal that the professionalisation of investigative programs aims to bring about improvements in criminal investigation through training and development, rather than alternative strategies such as reengineering business processes or improving management systems.

- **China**

In China, crime scene investigators employ various techniques to unravel the details of a crime and identify its perpetrator. Analysing physical evidence involves scrutinizing fingerprints and DNA and examining blood-spatter patterns to deduce the type of weapon used and its spatial relationship to the victim. Bullet trajectory techniques complement blood-spatter analysis and digital photography aids in preserving the crime scene's appearance for future assessment. Among the most pivotal techniques employed by forensic investigators is the analysis of physical evidence left at the crime scene (Adam & Krutzinger, 2000:40). For proper collection, the crime scene must be secured, protected, and preserved by the first responding officer. Investigators gather physical evidence such as DNA, bloodstains, fingerprints, and shoe prints from the crime scene. In cases of violent crimes, evidence often includes blood spatters or bloodstains.

Crime scene investigators meticulously analyse blood spatter patterns to reconstruct the events of a crime. Certain weapons create distinct spatter patterns that prove crucial in investigations. Forensic scientists, specialising in blood analysis, often interpret bloodstains or spatters (Adam & Krutzing, 2000:40). Crime scene investigators collect evidence for later analysis by forensic scientists. Evidence at crime scenes may encompass blood, hair, fibres, glass, and fingerprints. Different types of forensic scientists analyse these items based on the nature of the evidence. Forensic science provides investigators with valuable information about how a crime occurred, including details about weapons used, the timing of the crime, and its location.

For instance, criminalists can examine gun shells to identify the type of gun used, and a forensic pathologist can inspect a body to determine if a victim has been subject to repeated abuse (Marais, 1992:np). Evidence analysed by forensic scientists serves to assist in the identification of criminals. Whenever a suspect interacts with an environment, they invariably leave traces, and crime scenes are no exception. Criminals may deposit identifying elements like blood, semen, and hair, which can yield DNA evidence, or fingerprints that can be matched against stored information in criminal databases. For example, such as the scientific analysis of forensic evidence is inherently reliant on mathematics. Crime scene investigators play a crucial role in collecting, measuring, and documenting evidence.

Their data aids forensic scientists in performing calculations to establish the facts of a crime. Mathematics is essential for presenting evidence of what transpired during a crime through data and numerical representation (Adam & Krutzing, 2000:40). Examination of crime scenes is meticulous, whether it involves a burglary, homicide, or sexual assault. Crime scene investigators systematically scrutinise the scene, interview individuals with pertinent information, and photograph evidence. During the preliminary investigation, the lead investigator's primary responsibility is to assess the crime scene. Communication with first responders is imperative to gather any observations or activities that may have been overlooked.

Additionally, the lead investigator must identify safety concerns, such as those related to blood-borne pathogens, establish the boundaries of the crime scene, and assess the necessity of obtaining a search warrant (Joubert, 2013). Above all, it is imperative that the crime scene investigator documents everything fully through written records and photographs or ensures that someone else does so. This practice enables the development of a plan for subsequent investigations and ensures the preservation of the scene's integrity. As part of a preliminary investigation, evidence must be stored temporarily but securely for protection, transport, and comprehensive examination. Any fragile or perishable evidence susceptible to compromise must be meticulously documented.

In a follow-up investigation, investigators may conduct additional searches and surveys of the crime scene to locate any missing evidence. The laboratory results of examined evidence must also be reviewed as part of this follow-up. The primary responsibility of the crime scene manager is to oversee the scene examination, facilitating the input of specialists to extract the maximum evidence and information. The crime scene manager reports directly to the senior investigator and the scientific support coordinator for the management of the crime scene. The management of a murder crime scene by the South African police service should adhere to the following summarised points that are similar to the practises exemplified by Chinese crime scene managers (Barry et al, 2004:98):

- Assess, prioritise, and advise the scientific support coordinator (if appointed) on the need for scientific support services.
- Provide a structured approach, coordinate resources, and disseminate information regarding scene examinations, briefing scene examiners accordingly.
- Ensure that individuals entering the scene wear protective clothing, overshoes, facemasks, and gloves, and verify that they are visibly wearing these items.
- Provide guidance and quality assurance on all scientific matters, encompassing the storage and packaging of exhibits, as well as the release of the scene.
- Document all actions and policy decisions meticulously in an official crime scene manager's logbook.



- Receive instructions from the scientific support coordinator, if appointed, regarding scene examinations, forensic, and other scientific support matters.
  - Guarantee compliance with health and safety legislation and regulations.
  - Brief the scientific support coordinator and senior investigator upon completing the scene examination before its release.
  - Attend to the welfare needs of those present at the scene.
  - In the absence of an appointed coordinator, stand in and fulfil the responsibilities of the scientific support coordinator as well.
  - Take charge of receiving and coordinating all scene examination documents generated during and after the examination.
  - Assume responsibility for all produced photographic albums.
  - In intricate cases involving multiple scenes, it may be necessary to designate several crime scene managers, one for each scene. Consequently, maintain a contamination log in such instances to prevent any miscommunication or arising issues in this regard. This will ensure contamination prevention.
  - In situations involving multiple offenders, it is recommended to utilise different scene examiners for each offender (Barry & Fisher, 2004:98).
- **Russia**

In Russia, the researcher found that meticulous and comprehensive documentation of observations at the crime scene is essential. Failure to complete the documentation of evidence may lead to court challenges, and unsuccessful prosecutions, and may impact the credibility and reputation of first responders (Barry et al, 2004:98). Thorough documentation of any incident, whether criminal or noncriminal, is crucial, as even accidental injuries can result in civil litigation from entities such as insurance companies or equipment manufacturers. Crime scene documentation encompasses notes, photographs, videos, sketches, measurements, or reports, with none serving as a substitute for the other. During documentation, it is crucial to acknowledge that various individuals, such as attorneys, attorneys' investigators, and crime laboratory analysts, may be involved in the case but may not have personally visited and assessed the crime scene to observe the placement of physical evidence.

The primary goal of documentation is to create a lasting record of the scene and provide tangible proof. It serves as the fundamental initial step in the chain of custody (Gardner & Bevel, 2009:40). The best practices in managing a murder crime scene in Russia are summarised as follows (Gardner & Bevel, 2009:40):

- Upon arrival, thoroughly assess and confirm the protection of the scene through a properly managed cordon.
- Initiate a scene examination log to document all activities related to evidence gathering.
- Determine the actions already taken by the police at the scene.
- Identify, search, and secure a common approach path to the scene or deceased, clearly marked with crime scene tape.
- Conduct an initial assessment of the scene and communicate the findings to the crime scene manager.
- Document the initial scene using video, photographic equipment, and/or sketch plans.
- Take necessary actions to secure and preserve physical evidence.
- Before removing the deceased, record its position using suitable means.
- Search for, identify, preserve, and recover all types of contact trace evidence.
- Provide specialist support to forensic scientists and other scientific support personnel at the scene.
- Ensure the integrity and security of the evidence recovered from the scene.
- Document all actions taken and provide appropriate documentation to the crime scene manager.
- Create an indexed album of all photographs taken, available for the crime scene manager and the investigative authority if needed.
- Offer consultation on the submission of forensic evidence for examination (Gardner & Bevel, 2009:40).

#### **4.4 SUMMARY**

The chapter discussed aspects of the national best practices on the management of the murder crime scene by the first police responder such as the issue of utilising forensic science at the murder crime scene. Additionally, international best practices on the management of the murder crime scene by the first police responder were also discussed as benchmarked from other international countries. In order to ensure that a crime scene is controlled and managed well, there are different processes that must be followed after a crime is reported by the public.

These processes involve the following phases: activation, responding, controlling, handing-over, planning, investigation and processing, debriefing, restoring, resealing and the evaluation phase. Depending on the type of crime reported, different role players are summoned, and each plays an important role. The first responder plays an important role in the preliminary investigation of a crime. The preliminary investigation provides the foundation for criminal cases; an inadequate preliminary investigation puts an entire investigation in jeopardy. During the preliminary investigation of a crime, the first responding officer should always keep in mind their safety, the safety of others presents at the scene and the safety of any bystanders. They should determine the nature of the incident and stabilise the situation.

If careful protection, documentation and preservation by the first responders have been undertaken, then the “original” condition of the crime scene will be known and nothing lost or contaminated. The first responder, as defined in the South African Police Service National Instruction 1 (SAPS, 2015:3), refers to the member, irrespective of his or her unit, who arrives at the crime scene first. It is essential that the first responder attends a scene of crime as soon as possible after the complaint has been received while the scene is still fresh. A scene of crime must be visited and cordoned off in an attempt to prevent the loss or contamination of any clues, evidence and exhibits. To achieve the conviction of a perpetrator, it becomes increasingly important to focus on the recovery of physical evidence during the crime scene investigation.

The first responder at a crime scene plays an important role in the whole process until the crime scene is handed over to the relevant designated member. It is imperative that the first responder understands his or her role at a crime scene.

## **CHAPTER FIVE: RESEARCH METHODOLOGY AND DESIGN**

### **5.1 INTRODUCTION**

This chapter illustrates the research methodology, design and approach. The two concepts research design and research methodology need to be clarified firstly, in order to clear the confusion that is often associated with their usage, particularly by emerging researchers. Each of these concepts is presented as a compound word, with the concepts design and methodology attached to the noun research. Research methodology is the scientific method chosen by the researcher for conducting their research using a rigorous, impersonal mode of procedure that is based on the demands of logic and objectivity (Leedy & Ormrod, 2014:74).

The researcher used the methodology to considers the population, sampling frame, approach and technique, sample size, data collection method, and data processing and analysis, as well as strategies to enhance methodological integrity and scientific rigour (Brink & Rensburg, 2023:218). The researcher used research design to ensures that the research problem is addressed effectively and constitutes the blueprint for the methods. The researcher decides the following: Approach, Population and sample, instrument, Data collection procedure (Protocol) and Data analysis plan (Brink & Van Rensburg, 2023:53).

It is appropriate to first answer the question: What is research? A number of definitions of research have been proposed by different scholars and researchers, working in different fields (Brink & Van Rensburg 2023:2). Research is defined as “systematic investigation undertaken in order to discover new facts, get additional information”. The term ‘research ‘attracts such an array of definitions that researchers often accept without considering exactly what researcher mean. According to Brink and Van Rensburg (2023:3) define research as ‘a systematic process of collecting, analysing and interpreting information in order to increase understanding of phenomena of interest’.

Leedy & Ormrod (2010:2) define as a 'systematic inquiry that uses disciplined methods to answer questions or solve problems. In science, research refers to the exploration, discovery and careful study of unexplained phenomena. It entails a systematic and credible way of finding answers to questions, solutions to problems, of generating new ideas or confirming existing knowledge (Harvey & Land, 2021). The ultimate goal of research is to develop and expand knowledge' (Polit & Beck 2021:2). Romon and Nithyol (2023:np) define research as "...something that people undertake in order to find out new things in a systematic way, thereby increasing their knowledge." From the definitions of research provided above, it follows that research is a planned activity, aimed at establishing new facts and information about a particular phenomenon.

The research process involves the identification of a particular problem or area of interest, translating that problem into a research problem, collecting data, analysing the data and reporting the findings of the research (Baru, 2018). The researcher discusses the following concepts: The philosophical worldview, the constructivist worldview, the post-positivist worldview, the paradigmatic worldview, epistemological perspective, research design and methodology, research approach, research design, target population and sampling, sampling procedure, Data collection, research methods, interviews, data analysis, methods to ensure credibility, ethical consideration, university of south Africa code of research ethics, The SAPS code of conduct, The Belmont Report, united nations educational scientific and cultural organisation.

## **5.2 THE PHILOSOPHICAL WORLDVIEW**

In this section, the researcher covered philosophical worldviews. The term 'philosophy' refers to 'worldview' and is described as rational intellectual explorations of truths, or principles of being, knowledge or conduct knowledge or being that describe different viewpoints on what reality entails, which ethical values and principles should guide our police official to practice on how to conduct crime scenes management, and how knowledge is developed in the services (Brink & Van Rensburg, 2023:26).

The researcher uses philosophical inquiry for the purpose to perform the research by using intellectual analysis to clarify meaning to make values manifest, to identify ethics and to study the nature of knowledge (Burns & Grove, 2019). The police service professionals confront many philosophical questions relating to ethics, such as obligations, rights, duties, concepts of rights and wrong, conscience, justice, intention, legislations, policies, criminal procedures, constitutions and responsibility. These questions can be divided into three categories, foundational studies, philosophical analysis and ethical analysis.

The researcher uses the philosophical by considering idea or issue from every possible perspective through exploring the literature, examining conceptual meaning, raising questions, proposing answers and suggesting the implications of those answers. The researcher considered that the research is guided by the questions. As with other qualitative approaches, data collection and analysis occur simultaneously. The data sources for most philosophical studies are written materials and verbally expressed ideas. The researcher often explores and debates these ideas, as well as pertinent questions, answers and consequences with colleagues during the analysis (Brink & Van Rensburg, 2023:129).

The researcher engages in argumentation with members in order to understand on how to manage murder crime scenes. Regardless of whether they formulate analysis of concepts, draw distinctions, discuss assumptions or construct interpretations, researcher uses arguments. Argumentation by analysis, argumentation by interpretation and argumentation by logical structure are philosophers specialised intellectual tool (Brink & Van Rensburg, 2023:129). The philosophical worldview is important in research, and Cresswell (2014:6) indicates that in planning a study, researchers have to think through the philosophical worldview assumption that they bring to the study, the strategy of inquiry that is related to this worldview, and the specific methods or procedures of research that translate the approach into practice. It denotes the assumptions, values and beliefs about the nature of reality, knowledge and methods of obtaining knowledge. While philosophical underpinning of research is one of the three elements of research (philosophical, praxis and ethics) (Brink & Van Rensburg, 2023:26).

The philosophical underpinning entails three foundations: Paradigm, Ontology, epistemology. Philosophical worldviews also referred to as philosophical worldviews or paradigms refer to a basis set of beliefs that guide action (Petersen & Gencel, 2023). Although philosophical ideas remain largely hidden in research, they still influence the practice of research and need to be identified. In deciding on the research philosophy and paradigm used for this research, it was important to start by considering the different types of research philosophies. The types of research philosophy include positivism, pragmatism, realism and interpretivism (Petersen & Gencel, 2023). The term research philosophy refers to a system of beliefs and assumptions about the development of knowledge. Although this sounds rather profound, it is precisely what researchers are doing when embarking on research: Developing knowledge in a particular field.

There are different worldviews that the researcher may opt for relevant to the study which among other, include the Constructivist worldviews, post-positivist worldview, Pragmatic worldview, Epistemological Perspective however, for the purpose of this study, the researcher opted for the Pragmatic worldview. The researcher sees worldviews as a general orientation about the world and the nature of research that a researcher holds. These worldviews are shaped by the discipline area of the researcher, the beliefs of advisers and faculty in a researcher area, and past research experiences. The researcher uses philosophical worldviews to offered the study for the purpose of the research is to indicates the philosophical developments in the crime scene management in the SAPS field and provide a framework is to explore the actions of the first police responders in the management of murder crime scenes.

### **5.2.1 The Constructivist worldview**

Kuper, Reeves, and Levinson (2008:404) assert that most contemporary qualitative researchers adhere to a belief in knowledge referred to as 'constructivism.' Yin (2016:334) defines constructivism as a worldview that sees social reality as a joint product created not only by external conditions but also by the person observing and reporting on these conditions.



Consequently, all social reality, being constructed in this manner, assumes a relativist rather than an absolute nature, in contrast to positivism and post-positivism. According to De Vos, Strydom, Schulze, and Patel (2011:7), research participants are often viewed as passive role-players in the researcher's pursuit of gathering data for their purposes. Salvador (2016:5) posits that in constructivism, the researcher engages with the participants, involving them actively in all phases of the process and creating findings as the engagement progresses. De Vos et al (2011:7) agree, emphasising that participants are partners throughout the research endeavour as they seek an understanding of the world in which they live and work. Creswell (2014:9) maintains that all individuals, within the constructivist framework, seek an understanding of the world they inhabit and operate in.

In this worldview, Salvador (2016:5) proposes the objective of creating “unanimity/commonality in the constructions of emerging and scholarly topics that would mirror the lived experiences of the participants.” To this extent, Constantino (2008:118) posits that constructivist research, being naturalistic, unfolds in settings where a phenomenon naturally occurs. Constructivists commonly employ methodologies such as questionnaire-structured interviews and open-ended questionnaires to discover and understand social phenomena (Salvador, 2016:6).

Patton (2002:21) emphasises that responses to open-ended questions enable a grasp of the world as perceived by the participant. Qualitative researchers, seeking to understand the perceptions, feelings, and knowledge of people, use responses to open-ended questions to construct the meaning of a situation. Creswell (2013:25) suggests that more open-ended questions are preferable, as researchers carefully listen to individuals in the natural circumstances of their lives and generate meaning from the collected field data which is utilised to interact with others. In this research, the researcher aimed to understand the world in which participants live and work, sharing their lived experiences. Consequently, constructivism aligns with the researcher was done in this study.

### **5.2.2 The Post-positivist worldview**

The positivist paradigm of exploring social reality based on the philosophical ideas. The observation and reason are the best means of understanding human behaviour; true knowledge is based on experience of senses and can be obtained by observation and experiment. Creswell (2014:3) defined the post-positivist worldview represents a deterministic philosophy, in which causes probably determine effects or outcomes. Thus, the problems studied by post-positivists reflect the requirements to identify and assess the causes that influence outcomes, such as those found in experiments.

According to Ponterotto (2005:129), post-positivism arose out of discontent with some aspects of the positivist standpoint. Positivists accept an objective, “apprehendable” reality. In contrast, post-positivists acknowledge an objective reality that is only imperfectly “apprehendable” (Ponterotto, 2005:129) and asserts that this view holds that social, intellectual mechanisms are flawed and that life’s phenomena are intractable, therefore one can never fully capture a “true” reality. In the words of Creswell (2014:7), the knowledge that develops through a post-positivist lens is based on careful observation and measurement of objective reality that exists “out there” in the world.

Guba and Lincoln (2005:110) contend that the methodology requires making inquiries in more natural settings through increased use of qualitative techniques. Creswell (2014:7) posits that developing numeric measures of observation and studying the behaviour of individuals becomes paramount to the post positivists. In this research, the study was conducted to collect information on a measuring instrument completed by participants observations may, however, be recorded by the researcher, implying that the post positivist approach may to a lesser extent be appropriate during this study.

### 5.2.3 The Paradigmatic worldview

Before discussing the paradigmatic assumptions of this study, it is important to begin with a discussion of paradigms by defining the concept paradigm, its components, as well as various perspectives. Another position about worldviews comes from the paradigmatic (Gounder, 2012). There are many forms of this philosophy, but for many, paradigmaticism as a worldview arises out of actions, situations, and consequences rather than antecedent conditions (as in post-positivism). There is a concern with applications what works and solutions to problems. Instead of focusing on methods, researchers emphasize the research problem and use all approaches available to understand the problem (Creswell, 2013:15).

As a philosophical underpinning for mixed methods studies. its importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem. Researcher own views, paradigmaticism provides a philosophical basis for research. Gounder (2012), define a paradigm as a world view. It is a basic set of beliefs or assumptions that guides a researcher 's inquiry. This implies that every researcher will approach research with a plethora of interlocking and sometimes contradicting philosophical assumptions and standpoints. Creswell (2013:15) indicates that the research design process begins with philosophical assumptions that the enquirers make when deciding to undertake a study. Researchers bring their own world views, paradigms, or sets of beliefs to the research project, and these inform the conduct and writing of the study.

In concert with Creswell (2013) indicates that in defining one 's paradigmatic perspective as a researcher, the interplay between ontological and epistemological assumptions, meta-theoretical underpinnings, the research questions, and research methodology become prominent. The researcher 's ontological beliefs are about the nature of reality, which is explored through the researcher 's answers to problems such as what is the nature of the world, including social phenomena; if reality is orderly or lawful; the existence of the natural social order; if reality is fixed and stable or constantly changing, and whether it is unitary or multiple; and if reality can be constructed by the individuals involved in the research situation (Creswell, 2013:76).

The researcher 's epistemological beliefs are about what is possible for one to know the relationship of the researcher to what is being researched. Gounder (2012) asserts that:

“Looking at the concept of ontology and epistemology, we can see that they are some kind of “rules of the game,” and we have different rules.....these rules are interconnected within each game. If we assume that knowledge is not one entity but many and it changes, it is reasonable to assume that we have different ways of studying it.....”

The key words pertaining to this methodology are participation, collaboration and engagement. In the interpretive approach the researcher does not stand above or outside, but is a participant observer. According to Goundor (2012), Ontology is the broadest and deepest level, followed by epistemology which is the second level and may be deduced from ontology. Ontology is concerned with the different ways of attaining knowledge which are referred to as methodology (Patil & Giordano, 2010).

Ontological and epistemological aspects concern what is commonly referred to as a person's worldview which has significant influence on the perceived relative importance of the aspects of reality. Two possible worldviews are: objectivistic and constructivist. These different ways of seeing the world have repercussions in most academic areas; yet, none of these views is considered to be superior to the other. Both may be appropriate for some purposes and insufficient or overly complex for other purposes. Also, a person may change his or her view depending on the situation. Each methodological choice consists of several specific methods and within these methods we find several alternatives for data gathering and analysis (Patil & Giordano, 2010).

Research is all about being amazed at the world around us, and the steps we take to understand this world. It concerns how researchers think the social world is constructed or what researchers think the world is (Ontology), and this shapes the way we believe we can know the world. How researchers look at the world (Epistemology) and the methods we use, shape what we can see. The researcher accept that research is concerned with understanding the world and that such understanding is informed by how researchers view the world, what researcher interpret understanding to be, and what researcher see as the purposes of understanding (Goundor, 2012).

On the basis of the submissions above, researcher working assumptions are as follows:

Humans create reality by learning from others, teaching others and reflecting on their own understanding. Social reality can thus be understood from both an external point of view and within levels of individual consciousness (Goundor, 2012). Knowledge is acquired by transactional means, which implies that knowledge can be acquired by interacting with the source in a bi-directional manner. This transactional view implies that knowledge can be viewed as hard, objective and tangible, which prompted me to use quantitative methods for this study. Knowledge can also be created by personal experiences that result in individual cognition. Such experiences require a deeper qualitative approach in order to reveal the personal, subjective and unique nature of translated interactions and intra-actions (Goundor, 2012).

The researcher choosing a paradigm as an important because it allows researcher to start forming research questions. This is useful, even if your questions start off vague (Gournelos, Hammond's, Wilson, 2019:8). Paradigm is the entire sets of beliefs, values, techniques that are shared by members of the police (Kuhn, 2012). Kuhn (2012) who are leaders in the field define a paradigm as a basic set of beliefs or worldview that guides research action or an investigation. Paradigms are thus important because they provide beliefs and dictates, which, for scholars in a particular discipline, influence what should be studied, how it should be studied, and how the results of the study should be interpreted.

The paradigm defines a researcher's philosophical orientation and, as researcher shall see in the conclusion to this paper, this has significant implications for every decision made in the research process, including choice of methodology and methods. The pragmatic worldview arises from actions, situations, and consequences, rather than antecedent conditions. Pragmatism is not committed to any one system of philosophy and reality. Yin (2016:22) suggests that between the original positivist and constructivist worldview extremes, there exists a middle ground that allows for the adoption of different worldviews. This middle ground provides worldviews with features more adaptable for conducting qualitative studies than either the positivist or constructivist extremes.

According to Yin (2016:23), this means that unless the researcher is committed to one of the two extremes as a critical ideological stance, they may adopt a worldview at the midpoint for conducting qualitative research. Yin (2016:23) favours a more moderate worldview and posits that the rise of the pragmatist worldview has been more prominent in this compromised space. According to Creswell (2014:10), paradigmaticism as a worldview opposes antecedent conditions such as those in post-positivism, which emphasise methods rather than focusing on the research problem and the use of all available approaches to understanding the problem. According to McCaslin (2008:2), the central notion of paradigmaticism focuses on the nature of truth. In its simplest explanation, paradigmaticism asserts that truth is found in “what works”, and its relevance to a given situation.

The paradigmaticist perspective suggests that reality is to be revealed and experienced (McCaslin, 2008:2). Creswell (2014:11) contends that paradigmaticism provides a philosophical basis for research where individual researchers have the freedom of choice. This freedom allows researchers to choose the methods, techniques, and procedures of research that best suit their needs and purposes. Paradigmaticism opens the door to multiple methods, different worldviews, various assumptions, and diverse forms of data collection and analysis (Creswell, 2014:11).

A representative model is created by combining various forms of qualitative and quantitative data (Christ, 2013:112). Expressing a paradigmatic philosophical basis for research, the researcher in this study is not bound by a critical ideological commitment. Therefore, in conducting this qualitative research, the researcher assumes a worldview in the middle ground, as suggested by Yin (2016:22). With this freedom of choice, the researcher can select the most suitable methods for data collection and techniques for analysing the data to address the examined issues, ultimately discovering data, and finding the truth in what works, as proposed by (McCaslin, 2008:2).

#### 5.2.4 Epistemological Perspective

The researcher used in this study to deal with different methods of knowing are called epistemology (Kivunja & Kuyini, 2017:26-41). It is the most important study of philosophy that deals with questions such as: how researcher come to know something? Is knowledge acquired or do one need to experience it personally? What is the relationship between the researcher and those who are researched (Kivunja & Kuyini, 2017:26-41). Epistemological assumptions are concerned as to how knowledge can be created and acquired, and transferred (Scotland, 2012:9). It is responsible for knowledge gathering and concerned about developing new knowledge in the form of new models or theories (Grix, 2002:175).

Creswell (2014:5) stated that ontology relates to a central question of whether social entities need to be perceived as objective or subjective. Ontology and epistemology are two different ways of viewing the research philosophy. Epistemology researcher never see force-free behaviour in nature, nor can it be experimentally induced, so what is the source and justification of our knowledge of bodies acting without impressed forces? If force is measured by acceleration, and if acceleration is a function of measures of time, then the magnitude of a supposedly independent force depends upon our metric of time (Creswell, 2014:5). Ontology researcher does not see or experience force apart from its manifestation, so does it have existence? What is mass? What is a measure of mass as distinct from weight? Ontology in business research can be defined as 'the science or study of being' and it deals with the nature of reality (Creswell, 2014:5).

Ontology is a system of belief that reflects an interpretation of an individual about what constitutes a fact. In simple terms, ontology is associated with what we consider as reality. Recent increasing popularity of mixed method methodology has paved a way to detach researchers from the bipolar-disordered extremist assumptions of basic philosophical stances on ontology, epistemology, methodology and methods (Creswell, 2014). Creswell (2014:5) states that the objectivism (or positivism) and subjectivism can be specified as two important aspects of ontology.

Objectivism assumes that social entities exist external to social actors and social phenomena and their meanings have an existence that is independent of social actors. Contrarily, subjectivism (also known as constructionism or interpretivism) perceives those social phenomena are created from perceptions and consequent actions of those social actors (Creswell, 2014:5). Numerous dimensions exist, such as ontological, epistemological, and sociological ones. Ontological and epistemological aspects pertain to what is commonly referred to as a person's worldview, significantly influenced by the perceived relative importance of different facets of reality.

Creswell (2014:5) states that the epistemological dimension aims to adopt a valid knowledge pursuit, striving for results as close to the truth as possible. This pertains to a branch of philosophy that explores the origin, nature, methods, and limits of human knowledge. Epistemology encompasses the study of knowledge, including its nature, sources, limits, and forms. For example, perception is a crucial source of knowledge, memory is a common method for storing and retrieving knowledge, and reasoning and inference are effective ways of extending knowledge. Consequently, many topics within cognitive sciences are covered by the epistemological approach. Essentially, it represents a philosopher's approach to conducting cognitive science (Creswell, 2014:5). Social Constructivist Worldview is a perspective and is typically seen as an approach to qualitative research as pointed by Creswell (2014:3).

Creswell (2014:3) further indicates that social constructivism holds the assumption that individuals seek understanding of the world in which they live and work. The rationale for wanting to opt for a constructivist paradigm rests on the analysis of the role of the first police responders in the management of murder crime scene to understand the theory and practical surrounding this application. This will be described in detail to enhance the role of the first police responders in the management of murder crime scenes.



### 5.3 RESEARCH DESIGN AND METHODOLOGY

The researcher used research methodology as a systematic approach used to conduct research and gather relevant data to answer research questions or investigate a specific problem. This section considers the population, sampling frame, approach and technique, sample size, data collection method, and data processing and analysis, as well as strategies to enhance methodological integrity and scientific rigour (Brink & Van Rensburg, 2023:218). It outlines the techniques, procedures, and tools that researchers use to plan, design, execute, and analyse the study. A well-defined research methodology is crucial for ensuring the validity, reliability, and credibility of research findings (Brink & Van Rensburg, 2023:23). The researcher employed a framework in order to put the abstract, logical structure of meaning, guiding the development of the study and enabling the researcher to link the findings to a knowledge.

The framework helps the researcher to organise the study and provides a context in which the researcher examines a problem and gather analyses data (Brink & Van Rensburg, 2023:26). Here are the key components of research methodology (Roman & Nithya,2023): Research design, research approach, target population, population, sampling procedures, purposive sampling, Data collection methods, Data analysis, Validity and Reliability, Ethical Consideration, Limitation and scope, Conclusion and interpretation (Roman & Nithya, 2023). Leedy & Ormrod, 2014:74) defines research methodology as a theory of how an inquiry should proceed.

It involves analysis of the assumptions, principles and procedures in a particular approach to inquiry. According to Leedy & Ormrod, 2014:74), methodologies explicate and define the kinds of problems that are worth investigating; what constitutes a researchable problem; testable hypotheses; how to frame a problem in such a way that it can be investigated using particular designs and procedures; and how to select and develop appropriate means of collecting data. An empirical research methodology was employed by the researcher as the knowledge obtained from an empirical study is based on experience or observation (Maxfield & Babbie, 2015:7).

The researcher obtained the information from the participants, who have knowledge based on skill and experience in their field. This allowed the researcher to gain a detailed understanding of the topic in question and to categorise the themes of the study to verify the findings. The research methodology is the chosen scientific method employed by the researcher, utilising a rigorous, logical, and objective procedure (Leedy & Ormrod, 2015:74). Generally, several texts used the terms Methodology and Methods interchangeably, however, there is a clear distinction exists between the two. While methodology tells researcher about the overall research approach under a paradigm, Methods helps researcher with the instruments used for the collection and analysis of data (Mackenzie & Knipe, 2006:193-205).

Methods are the techniques and procedures used for collection and analysis of data. The methods should be free from philosophical assumptions and are to be selected based on a research problem under study and kind of sources from which data needs to be collected (Grix, 2002). A methodology is the strategy or plan of action which decides the kinds of methods used (Wahyuni, 2012). Creswell (2018); Burn and Peacock (2019) cited with Wahyuni (2012) methodology is the strategy or action plan that informs the choice and use of particular methods within the context of a particular research paradigm. The term methodology refers to the study design, methods, and procedures employed in a well-planned investigation to find answers.

Examples, include data collection, survey instruments, participants and data analysis. A researcher's methodological approach reflects the underlying ontological and epistemological assumptions and decides the kind of methods to be used in a study (Grix, 2002:175). After deciding ontological and epistemological position about reality, methodology tells us about the procedures of knowledge generation.

Further, it can be said that a methodology is a kind of blueprint to carry out research in a particular paradigm. It guides researchers to choose suitable research methods (Wahyuni, 2012). It acts as an interface between our philosophical assumptions at one end and methods at the other. Unless we decide our methodologies, we cannot go further in our research journey. There are several methodologies with their own merits and demerits that are used in different situations. There is no universal methodology that can be used to solve all research problems (Tuli, 2010).

The choice of methodology depends on the type of paradigm undertaken by the researcher. In the comprehensive research process, the methodology employed by the researcher to acquire data must accurately reflect the research findings. This is crucial not only for ensuring transparency but also to enable future researchers to replicate the methodology for obtaining reliable results in similar research projects. The aspects covered in this chapter include research design, target population and sampling, data collection, data analysis, and the trustworthiness of the data. These aspects are thoroughly discussed to elucidate and define the methodology.

### **5.3.1 Research design**

In this section the researcher focuses on the research design which is a specific framework that the researcher uses to collect data, organise the data, and analyse it for the intended result. It can be considered as a blueprint of those procedures adopted by the researcher for testing the relationship between the dependent variables (what the researcher is interested in) and the independent variables (variables believed to affect the dependant variable) in the study (Maxwell, 2013:64). The researcher employed a research design to encompasses the structured plan and strategic approach crafted to effectively address research questions or issues (Brink & Van Rensburg, 2023:114). This design serves as a comprehensive framework for the entire research endeavour. It delineates the steps the researcher will take, starting from formulating hypotheses and their practical implications, all the way to the ultimate data analysis stage (Roman & Nthiya, 2023:90).

According to Van Wyk (2012:9), the research design envisages what data is required, what methods are going to be used to collect and analyse this data, and how this relates to answering the research question. The research design used by a researcher can be differ depending on the purpose of the study, the research question(s), and the skills of the researcher (De Vos, Strydom, Fouché & Delpport, 2005:268-269). The research design also reflects the purpose of the inquiry, the main types of which are exploration, description, explanation, prediction, evaluation, and history (Van Wyk, 2012:9).

The researcher employed a descriptive design that is use accurately portray first police responders' characteristics or circumstances, and the frequency with which they occur (Brink & Van Rensburg,2023:114). Descriptive design is use in the study where more information is required in a particular field about certain characteristics through the provision of a picture of the phenomenon on certain situations as it occurs naturally. Descriptive designs describe the variables (First police responders) in order to answer the research question, but there is no intention of establishing a cause effect relationship. Descriptive design is use to identify problems with current practice of the first police responders at the murder crime scene, to justify current practice, or the actions of the first police responders to make judgements or determine what other professionals (police officials) in similar situations were doing, or to develop theories (Gray, Grove & Sutherland, 2017; LoBiondo-wood & Haber, 2014).

Descriptive research encompasses a variety of designs that utilise both quantitative and qualitative methods. Descriptive designs are concerned with gathering information from a representative sample of the population. The emphasis in data collection is on structured observation, questionnaires and interviews or survey studies (Brink & Van Rensburg, 2023:114-115). The researcher used descriptive design in this study where more information is required in a crime scene management field characteristics through the provision of a picture of the phenomenon to understand the situation as it occurs naturally. The design describes the first police responders in order to answer the research question, but there is intention of establishing a cause effect relationship (Brink & Van Rensburg, 2023:114). The researcher does not manipulate any variables and makes no effort to determine the relationship between them.

In this study the researcher searches for accurate information about the characteristics of a single sample (participants, group of SAPS members about the frequency of a phenomenon's occurrence. The members identify, and conceptually and operationally define, the variables of interest. The members of SAPS classified opinions, attitudes, needs or facts. The SAPS members described to provide a complete picture of the phenomenon which is the role of the first police responder in the management of murder crime scenes.

Example of an opinion or attitude police official (variable) is the response of the actions among all police officials professionals at different crime scenes. The aim of this research was to explore the actions of the first police responder in the management at the murder crime scene.

Researcher wanted to provide an accurate and valid representation of the factors that are relevant to the research question, i.e. describing the crime scene management at the murder crime scene that the VISPOL members employ to investigate murder crime scenes. Thus, the purpose of inquiry of this research is to produce a description. Leedy and Ormrod (2015:92) state that when one speaks about a general strategy to solve a research problem, one is in fact speaking about a research design:

"The research design provides the overall structure for the procedure the researcher follows, the data the researcher collects, and the data analysis the researcher conducts". According to Wagner, Kawulich & Garner (2012:21), "in social research the design articulates how you are going to conduct your research, for example, which methodology is suitable, methods of data gathering and technique for analysing the facts." Walliman (2011:9) is of the opinion that "research design has a range of research methods that are commonly used to collect and analyse the type of data that is generated by the investigations." Simply put, the research design involves planning. In this light, research methodology is employed to extract meaning from data, and, to some extent, the data to be collected will dictate the research method.

Denscombe (2010:100) explains that a research design explains how the key components of the research project link together, and, further, explains the logic of the research process as it moves from the one phase to the next, showing how the data collection and analysis are consistent in terms of their general philosophy. David and Sutton (2011:204) maintain that the purpose of the research design is to provide a framework for the collection and analysis of the data. Boeijie (2010:19) adds that a research design is composed of the research questions, research purpose, an ethical paragraph, an outline of the overall research strategy, and the specific methods, techniques, and instruments to be used during the study.

From the views of both David and Sutton (2011:204) and Boeijie (2010:19), it can be concluded that a research design provides the framework upon which the research is conducted and enables the researcher to gather evidence that will allow the research questions to be addressed. The researcher applies the term “research design” in this study by the existing literature. Subsequently, the researcher outlines the intended design and approach for this study as it will be employed in the research process. According to Welman and Kruger (2005), a research design is conceived as a strategy outlining how to identify participants, collect information from them, and analyse the resulting data.

Mason (2002) highlights, however, that the research design should not be considered the sole guide to the process, given the fluid and flexible nature of qualitative research methodology. De Vos et al (2011), referencing Babbie (2007), define research design as a collection of choices involving the problem to be studied, the target population, the methodology, and the goal of the study. Each major methodology is associated with a research design that includes case studies, narrative biography, ethnography, phenomenology, and grounded theory. The most suitable worldview for addressing the purpose of this study is the “Paradigmatic Worldview”. Paradigmatic is defined as a research methodology grounded in a mixed method of research, often employed when there is known information, and the research aim to find a solution to a problem.

This paradigmatic worldview methodology is utilised by researchers under such circumstances. An empirical design was used in this research as the focus was on human behaviour, in accordance with the advice given by Mouton (2012:55). Denscombe (2014:18) describes empirical research as: “the getting out of the chair, going out of office and purposefully seeking for the information out there”. In empirical research, it is necessary to get at facts first-hand, at their source, and actively to go about doing certain things to stimulate the production of desired information (Kraska & Neuman, 2012:21). This study took the form of empirical research as the researcher made use of interviews and analysed secondary data sources. The researcher opted to use empirical research, which involved conducting interviews, because she realised that data collected from literature alone would not answer the research questions completely.

The researcher physically conducted interviews in an attempt to find answers to the research questions; this was achieved by using questions in an interview schedule that she drew up on the basis of information obtained from the literature studied. The researcher considered an empirical design to be the best for this study, as the initial investigation revealed a limited amount of information available on the research topic. An empirical study assisted in answering the aim and research questions by knowing and understanding the research problem through the literature review and conducted interviews. The empirical research design use fewer numbers of a sample and apply structured questions.

Empirical research involved dividing the problem into sub-problems, and then collecting data on the sub-problems by means of events and observations (Leedy & Ormrod, 2013:5). Leedy and Ormrod (2013:5), stating that the empirical method is where facts are observed in nature and are the foundation of knowledge. Bless, Higson-Smith and Sithole (2013:3) further state that observation is observed in nature, and what is observable, can constitute knowledge. Empirical research involves the idea of getting of the chair, out of the office and purposely seeking necessary information. This means that the researcher had to go into the field to conduct fieldwork and focus on the personal experiences of the participants in the study.

Leedy and Ormrod (2014:20) stated that in empirical research is research that involves the collection and analysis of new data. In this research, the production of knowledge was important, as there was not much written on the topic under investigation. Bless Higson-Smith and Sithole (2013:8) state that scientific research is scientific since the aim is to know and understand reality. Bless, Higson-Smith and Sithole (2013:8) state further that each step is based on observation, be it when collecting the basic facts, testing an explanation, assessing the value of a prediction, or as the result of an intervention; therefore, the researcher concludes that empirical research tends to focus on the production of data based on real-world observations. The researcher therefore addressed the problem under investigation by exploring new ideas regarding the actions of the first police responder at the management of murder crime scenes. Supporting the empirical design and to help the researcher create new knowledge, the researcher needed an approach that was practical, to improve the situation.

Empirical design was employed, focusing on human behaviour in line with the guidelines directed by (Mouton, 2001:55; Mouton, 2012). Denscombe (2012:18) characterises empirical research as "getting out of the chair, going out of the office, and purposefully looking for information out there." When conducting empirical research, it is essential to gather information directly from the source and to take specific steps to elicit the desired information. This study adopted an empirical research approach, employing interviews and analysing secondary data sources.

The choice of empirical research, involving interviews, was made because the researcher recognised that relying solely on literature would not fully address the research questions. To find the answers, in-person interviews were held using questions from an interview schedule that was created using data gathered from the literature. The strong points of this design, as noted by Mouton (2012:150); Mouton,2012), include high construct validity, providing in-depth insights, and establishing rapport with research subjects. However, limitations include the inability to generalize results as they represent individual views, lack of standardisation in measurements, and potential time-consuming data collection and analysis. The researcher sought to mitigate these limitations through an extensive literature review and by interviewing a representative sample of respondents.

### **5.3.2 Research approach**

In this section, it was advisable that the researcher consider to use of qualitative approach, if the study involves human behaviour. The researcher was concerned to explores the role of first police responders in the management of murder crime scenes, it is the reason to decide to use qualitative approach for this purpose. The researcher interviewed Vispol members and detectives at Tshwane District Policing area under the Tshwane Municipality in the City of Pretoria Police Stations in order to obtain a better understanding of the identified problem. According to Leedy and Ormrod (2010:135), a qualitative study focuses on phenomena that occur in their natural "real world" setting; it involves the study of phenomena in all their complexity. The qualitative approach determines the design used in the study, the sampling method and type of sample, and the overall data-collection and recording procedures.



It further specifies the data analysis steps and the methods used for presenting data and interpreting it, and validating and indicating potential outcome of the study (Creswell, 2014:184). The qualitative approach involves the gathering, interpreting and reporting of information (Gravetter & Forzano, 2012:158). The study covers qualitative research designs. Certain questions cannot be answered using quantitative research, and since many problems researchers face can only be studied in real-life scenarios, experimental designs are simply not possible. In these situations, researcher ask in-depth questions that require alternative methodologies.

Thus, qualitative methodology is used when little is known about phenomenon (the role of the first police responder in the management of murder crime scenes), or when the nature, context and boundaries of the role of the first police responder at the murder crime scenes (phenomenon) are poorly understand or defined (Alveson, Mats & Jargen Sandbery, 2021; Burns & Grove, 2020; Creswell & Creswell, 2018; Streubert & Carpenter, 2011). The researcher provide ethnography in the study as a qualitative approach, ethnography is a qualitative approach which grew out of social anthropology and the study of the culture and customs (society or communities) as a group of people (Brink & Van Rensburg, 2023:126). The focus is thus the social and cultural of a particular group meaning the first police responder action at the murder crime scene (Brink & Van Rensburg, 2023:126).

According to Brink and Van Rensburg (2023:126) stated that ethnography require spending considerable amounts of time in the setting (police officials) or community in order to observe and gather information of, for example, aspects of the actions at the murder crime scenes. An underlying assumption is that police behaviour can only be understand within the crime scene context in which it occurs. This differs from phenomenology, which focuses on the meaning of an experience rather than on the role of culture in shaping the experience (Brink & Van Rensburg, 2023:126). Phenomenological research focuses on how life is experienced. The primary concern is not to explain the causes of things such as murder crime scenes, but what is experienced first-hand by those individuals involved. Phenomenological research is suited for small-scale contextual studies.

The description of experience has the potential of unfolding current events, through the feelings and experiences of people about the events at the murder crime scene. Brink and Van Rensburg (2023:121) stated that various qualitative designs (sometimes referred to as 'qualitative approaches' are used, and there are various schools of thought on specific approaches. This section provides an overview of the assumptions on which qualitative research is based, as well as of typical study designs used to answer in-depth questions. The research approach was used in research design as categories only qualitative, depending on the overall approach to data collection and analysis (Creswell, 2013:12; Mouton, 2001:143). However, there are different designs such as descriptive design, case study, experiment, ethnographic study, phenomenological study or historical study (Brink & Van Rensburg, 2023:53).

Researchers focus on one approach which is a qualitative approach used in different order and varying levels of dominance and order (Brink & Van Rensburg, 2023:53). Researchers refer to this classification as "communities of researchers", since there has been a definite split of researchers into the two camps of qualitative and mixed methods approach. The research approach was used in this study as a mixed methods approach. Mixed Methods can be defined as combining both qualitative and mixed methods approach. According to Brink and Van Rensburg (2023:133) stated that mixed methods research refers to a research strategy that combines alternative research approaches within a single study. A deliberate combination of approaches is used with different underlying assumptions and paradigms.

The aim of mixed methods researchers is to draw on the strengths of both qualitative and quantitative approaches and to limit the weakness in using one single approach. A key feature of mixed methods research is the strength of methodological pluralism that could lead to superior research (Mitchell, 2018). The aim of this approach is to strengthen the findings by either combining, connecting or embedding the different data sets and findings at various stages of the research process (Creswell, 2013:4; Denscombe, 2010:135; Leedy & Ormrod, 2010:144).

Even though literatures study research was traditionally seen as a qualitative approach only (Cresswell, 2013:12; Mouton, 2001:143), and Yin (2016:19) both promote the use of mixed methods in case study research. This means that a richer data analysis and better framework for theory building can be established. This study used the research of approach. Data collection and data analysis were done using only qualitative and mixed method approaches, meaning that the research can be classified under a mixed methods approach. Denscombe (2010:135) states that mixed-method research is normally associated with the research philosophy of pragmatism. The paradox in mixed methods is that qualitative and mixed research approaches are often seen to be at two opposite poles, the first being used in exploratory studies, while the second is mainly used in explanatory studies, thereby following very different processes in research design and methodology (Creswell, 2012:208).

It is therefore not surprising to find that Mixed Methods as a formally accepted approach is only a very recent addition to the research arsenal (Creswell, 2009:204). Three of the issues that should be considered in a mixed methods approach are the timing, weighting, and mixing of the qualitative methods (Creswell 2012:206; Denscombe, 2010:135). From a timing perspective, in the current study the pilot for the multiple-case study strategy was sequential, and used the outputs of the qualitative data to refine the questionnaires, being the qualitative component. The sequential timing was continued for the rest of the multiple literature review, since qualitative data were collected and analysed in sequence. From a weighting perspective, the qualitative data received a higher priority than the quantitative data.

The focus was on the interviews and literatures which resulted in more textual than numeric data being collected, thus the weighting of the qualitative analysis was higher than that of the quantitative analysis. Finally, the literature also refers to how and when the mixing takes place. In other words, how the two methods relate to each other in terms of data collection and analysis. According to the guidance of Creswell (2012:207), the qualitative methods was used, but not necessarily by combining the two sets of data in the same dataset. Secondly, triangulation occurred by comparing the results of the quantitative analysis with the results of the qualitative analysis.

So, the mixing only happened during the analysis and enfolding of literature phases, both on the case and the inter-case level, where findings were being analysed and interpreted. Creswell (2013:213) refers to this as a concurrent triangulation design. The detail of exactly how the timing, weighting and mixing of methods was implemented for data collection and analysis. This means that a richer data analysis and better framework for theory building can be established. This study used the phenomenology research approach, ethnographic research, grounded theory and case study strategy of inquiry. Data collection and data analysis were done using only qualitative approaches, meaning that the research can be classified under a mixed methods approach.

The researcher provides narrative:

Examples 1: Johannesburg another brutal day of cross-examination for Sergeant Thabo Johannes Mosia by advocate Zandile Mshololo, who represents accused number five, revealed to the court that the crime scene was cleaned before police officers arrived at the scene. Advocate Mshololo's evidence in court it was alleged that the crime scene may have been tampered with between the time of the shooting and the time it took Mosia to arrive at the scene. When asked by Mahololo if he investigated the car of the deceased for blood stains or the distance it had travelled on the night he was murdered, Mosia revealed that he neglected to investigate the car of the deceased, which could have been part of the crime scene given that the same car was used to transport the deceased to Botselong Hospital. The spotlight was once again thrown on the police's failure to safeguard the crime scene of the Vosloorus home where soccer star Senzo Meyiwa was gunned down as Sergeant Timothy Mathebula took to the stand at the North Gauteng High Court, in Pretoria, on Wednesday.

In this study, the researcher opted to use a qualitative approach mainly because this it is a multi-method in focus, involving interpretive and naturalistic approach (Creswell, 2014:15).

## **5.4 TARGET POPULATION AND SAMPLING**

In this section, the terms "target population" and "sampling" are used and explained by the researcher. The next sections specify the sample and intended target population that will be used to investigate the given research topic.

### **5.4.1 Target population**

A target population is defined as all individuals or objects the researcher is interested in and to which the study results are applied (Houser, 2014:178). According to Gupta and Guttman (2014:13), the target population is the population about which the researcher intends to make inferences, based on the information contained in a sample of that population. The target population for this research was uniform members who attend to crime when it is reported and experienced detective at SAPS Tshwane District Police Stations. The selected police stations are situated in the SAPS Tshwane District Province of Gauteng uniform members. The researcher chooses this particular police stations as it was cost effective, because the researcher resided in the area, and as it was the station where the problem was identified.

The target population is the specific pool of cases that the researcher wants to study. In this study, the population for the studies was a large pool of cases that the SAPS have investigated. The target population, as the specific pool of cases to be studied, was murder crime scene investigations that have involved the murder scene of murder. To allow every crime scene that meets the criteria a fair chance of being selected, a simple random sampling method was used (Dantzker & Hunter, 2012:112-114). The "target population" is defined by Brink and Van Rensburg, 2023 as an analytical unit that may include people, groups, organisations, or social artefacts. The target population is essentially all individuals or objects of interest to the researcher to which the study results are applied. According to Gupta and Guttman (2014:13), the target population is the group about which the researcher intends to draw inferences, based on the information contained from a smaller sample from that population.

In this study, the specific target population comprises SAPS detectives and uniform members from Tshwane District police stations, including general detectives investigating murders and VISPOL members who attend crime scenes. The reason for Vispol members and detectives specifically being chosen is that members of the are involved in most attending murder crime scene investigations in Tshwane District located in Pretoria. The target pool of members must adhere to the following criteria to be eligible for selection. Vispol members and Detectives use to visit the different crime scenes on daily bases. The selection was made from six police stations in the Tshwane District, namely Pretoria Central police station, Brooklyn Police station, Silverton Police station, Pretoria Moot police station, Mamelodi West police station, and Mamelodi East police station. The choice of these specific police stations was driven by cost-effectiveness, as the researcher resided in the area, and the identified problem was centred around these stations.

#### **5.4.2 Population**

Houser (2014:178) quotes Creswell (2013:142), who defines “population” as “a group of individuals who have the same characteristics”. According to Mouton (2012:134), a population is “a collection of objects, events or individuals having some common characteristics that the researcher is interested in studying”. The ideal population for this study should have been all uniform members in the SAPS, but because of the numbers involved, and the limited time available for this research, the researcher narrowed the population and used a target population. Another reason for exclusion of the above-mentioned personnel is their heterogeneity of training backgrounds. According to Brink and Van Rensburg (2023:140) stated that population is the entire group of persons or objects that is of interest to the researcher, and that meets the criteria they are interested in studying (Burns & Grove, 2011; Polit & Beck, 2022). A population, as defined by Kraska and Neuman (2012:129), is a large pool of cases. from which the research must draw a sample to properly represent the population. Babbie and Mouton (2001:174); Babbie and Mouton (2012) define a population as the aggregation of elements from which the sample is selected. According to Strydom, Delport (2011a:223), the term "population" refers to a particular group of people with unique characteristics which establishes the boundaries for the study units.

De Vos, Strydom, Fouche & Delpont (2011:np) tackle the idea of the population by asking questions like. Who makes up the target population as a whole? Can all the components of the target group be identified? If yes, how can this identification be done? Brink, Van der Walt & Van Rensburg (2018:116) and Welman, and Kruger (2005) perceive the population as all the units of analysis about which the researcher aims to draw specific conclusions. Polit and Beck (2014:450); Bless and Higson-Smith (2000:85) characterise a population as a group of people who are the subject of the research, and about whom the researcher wants to determine certain characteristics.

Polit and Beck (2014: 450); Sekaran and Bougie (2009:262) clarify that a research population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate. The population encompasses the entire collection of units from which the researcher intends to conclude. Creswell (2013:142) is cited to define a population as a group of individuals with the same characteristics. Kraska and Neuman (2012:129); Mouton (2006:134) describes a population as a collection of objects, events, or individuals sharing common characteristics that the researcher is interested in studying. The ideal population for this research would involve all members or individuals in South Africa police services who participating in the crime scene management process, including SAPS uniform members and detectives investigating murders, and those conducting the crime scene process, among others. As Creswell (2014:142) and Welman and Kruger (2002:46) explain, the ideal population in this study was too big and too dispersed throughout South Africa, making it impractical and non-cost-effective to include every member of the study unit in the project.

### **5.4.3 Sampling**

According to Brink and Van Rensburg (2023:139) stated that aim to optimise the use of resources in the investigation, and sampling is one way of doing exactly that. Sampling refers to the process of selecting the sample from, or a portion of, a population to obtain information regarding a phenomenon in a way that represents the study population.

The researcher focused on all active police officers, encompassing those in uniform (Vispol members) and detectives those involved in specialised operational roles, who have engaged with or are presently engaged with crime scenes within the SAPS. Hence, the criteria for participant inclusion required that individuals must be actively involved in police operations and have experience attending crime scenes within the SAPS. The sample, a subset of the overall population, is subject to investigation by the researcher, and its characteristics will be generalized to the entire population.

Sampling, defined as the act of extracting elements from a population (Christensen, Johnson & Turner, 2011:150), aligns with the perspectives of Fox and Bayat (2007:54) and Leedy and Ormrod (2010:196), who concur that sampling involves drawing elements from the population. The purpose of extracting elements from the population is to create a sample. According to Kumar (2011:164), sampling is the process of selecting a few from the bigger group to become the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group. The researcher understood that a sample is studied in an attempt to understand the population from which it has been drawn.

According to Kumar (2011:193), sampling involves choosing a subset (a sample) from a larger group (the target population) to serve as the foundation for estimating the prevalence of an unknown piece of information, situation, or outcome related to the larger group. In simpler terms, a sample constitutes a subgroup of the population that captures the researcher's interest. Burns and Grove (2011:243 and Terre Blanche, Durrheim (2006:np) define "sampling" as the process of selecting cases for observation and individuals for interviews from the broader population being studied. Additionally, Burns and Grove (2011:244) and Welman, Kruger and Mitchell (2005) differentiate between two forms of sampling: probability and nonprobability sampling. The primary distinction lies in the fact that probability sampling allows the researcher to ascertain the likelihood of any member from the target population being included in the sample, whereas nonprobability sampling does not ensure the specific inclusion of any member from the target population. According to De Vos et al (2011), sampling implies that a small group of participants can represent the views of the total population.



Dantzker and Hunter (2012:112-114) and Champion (2000:172) defines “sampling” as selecting a percentage of persons from the entire class of individuals from whom or about whom information is sought. Welman and Kruger (2001:47), supported by Bless, Higson-Smith, and Sithole (2013:166) as well as Leedy and Ormrod (2015:178-183), identify various sampling techniques. These techniques are probability samples (such as simple random sampling, stratified random sampling, systemic sampling, and cluster sampling) and nonprobability samples (such as comprising accidental or incidental sampling, purposive sampling, quota sampling, and snowball sampling).

## **5.5 SAMPLING PROCEDURE**

The reason for selecting the target population was based on the primary concept that is police officers, regardless of their role at the murder crime scenes. They should be able to carry out their duties safely. Bless Higson-Smith and Sithole (2013:162) elaborate that the researcher will extract a sample, or subset, of a manageable size from the population and assess everyone within the sample. Random selection serves as a fundamental principle aimed at mitigating bias in a sample (Christenson, Johnson & Turner (2011:156); Goddard & Melville, 2005:36). Kumar (2011:193) and Goddard and Melville (2005:36) emphasise that the random selection of a sample must ensure that each member of the population has an equal chance of being included in it.

According to Leedy and Ormrod (2015:178) and Leedy and Ormrod (2001:211), the sample should be thoughtfully chosen so that the researcher can observe all the characteristics of the total population in the same proportion as if the researcher were examining the entire population directly. In essence, the goal is to mirror the features of the total population through this selected sample. Suter (2012:472) and Goddard and Melville (2005:36) outline a process in which the researcher initially assigns numbers to each member of the population. In this study, non-random sampling was employed, specifically to include participants with information-rich backgrounds. Nonprobability sampling is characterised by a methodology that does not provide all individuals in the population with equal chances of being selected (Leedy & Ormrod, 2010:196 and (Goddard & Melville, 2005:36).

The researcher selected six police stations which is in the SAPS Tshwane District in Pretoria North Gauteng Province which are as followed: Pretoria central station, Brooklyn police station, Pretoria Moot police station, Silverton police station, Silverton police station, Mamelodi West police station and Mamelodi East police station. Researchers' choses those stations because it was cost-effective to travel and resided around Pretoria where a researcher can be able to be visit each police station to conduct the interviews further Pretoria area was the area where the problem was identified because there are a lot of murder cases reported in Tshwane District police stations.

The police stations were randomly selected from the SAPS Tshwane District, located in the Tshwane Municipality area, using the simple random selection technique (Leedy & Ormrod, 2015:179; Leedy & Ormrod, 2005:201). Using quadrants of paper with the names of the police stations written on them, the target population was determined by drawing names from the hat. Due to the reasons mentioned in the section on demarcation, the target population for this research was limited to a sample of VISPOL members and detectives employed within the SAPS in the SAPS Tshwane District geographical area. This subpopulation was accessible to the researcher.

The focus is on the Tshwane District Policing Area under the Tshwane Municipality in the City of Pretoria, where members are actively engaged in combatting crime and managing murder crime scenes daily. The SAPS Tshwane District in Pretoria North, Gauteng Province, was the study's primary focus because of the district's high crime rates, which can be attributed to people moving there in search of work from different townships. Moreover, the prevalence of public transport usage which was determined to be the most cost-effective mode of transportation, influenced this selection. Alexander (2019) notes that Pretoria, though the smallest city, boasts the largest population and economy. Permission to conduct this research was granted by the SAPS, as documented in Appendix A. The researcher-initiated contact with unit commanders through telephone conversations to ascertain the availability of members for interviews. Interviews were conducted with members from both the VISPOL and Detectives Components, although not all members participated.

Two sample categories were created, namely Sample A for VISPOL members and Sample B for Detective members. Out of the five members of each police station, a sample of the Detective and VISPOL components were chosen. The researcher did not have access to a list of all the names of each detective and member of VISPOL. The researcher employed a non-random sample method to select five members from the VISPOL component per police station and five from the Detective component, all with varying years of experience, either 10, 15, 20, 25, or 30 years and determined the appropriate sample for this study would be detectives and VISPOL members with ten years or more of experience from various Tshwane District police stations. Only five VISPOL participants were chosen to maintain representativeness, resulting in a sample size of thirty people. The researcher employed a sampling frame as a comprehensive list of the sampling elements in a Target population (Brink & Van Rensburg, 2023:141).

The sample for a study was drawn from it. Lists of populations, such as police official's members of a professional SAPS organisation. Vispol members used to attended crime scenes as first responders for ten years or more, they were deemed to be extremely qualified for this study. To ensure representation, 50% of members with 10 years of experience were selected, resulting in a total of 29 members were interviewed 14 from detective component and 15 from VISPOL component for the study. All these members forming part of both Sample A and Sample B. The researcher employed a representative sample population which are similar to the entire population. The intention was to visit at least a few members from each component unit, with each providing up to fifteen participants. Additionally, five participants were to be obtained from the SAPS Tshwane District office, resulting in a targeted total of 29 members. The total number of members from each component varied based on their availability. Interviews were conducted with police officials ranging from the rank of constables to colonels and questioned about the challenges they encounter when performing their duties at murder crime scenes. The researcher followed a procedure of non-random sampling and random sampling procedures by writing the names of each visible policing member with ten years of experience on separate pieces of standard-sized paper. These papers were then placed in a bowl, shuffled, and drawn out blindly.

This method ensured that each member had an equal opportunity to be selected, thus achieving a fair selection process. The potential bias arising from the researcher being a member of the SAPS was addressed by fostering an environment where participants could express their opinions willingly and without pressure. The researcher maintained a neutral stance during the data collection stage, reporting participants' viewpoints without bias. The participants chosen for this study served as the primary sources of information because these officers are usually sent to crime scenes to carry out investigative duties, they have pertinent information regarding crime scene investigative procedures.

Following this enumeration, the researcher generated a set of unique random numbers matching the size of the population from which the sample was drawn. As emphasised by Goddard and Melville (2005:35), a sample must accurately represent the population being studied, otherwise, no broad conclusions about the population can be drawn from studying the sample. Bless Higson-Smith and Sithole (2013:162) stated that a sample can be thought of as a subset of measurements taken from a population of interest, or it can consist of components from a population that is being considered for possible inclusion in the study. The investigator understands that examining a sample entail attempting to understand the population that the sample was taken from.

Suspects are sometimes acquitted in court due to the improper handling of crime scenes. The efficacy of a case hinges on the management of the crime scene, particularly at the local level of police stations such as in the Tshwane Municipality in the City of Pretoria, encompassing other police stations in the north of the Gauteng Province. This research focused on samples exclusively drawn from the six police stations mentioned earlier. The Mamelodi West SAPS (which is part of the SAPS Tshwane District policing area) was selected first because the researcher was stationed there at the start of this study. A subset of a larger population created using simple random sampling gives every member of the population an equal chance of being chosen for the subset. A sample that is selected using a procedure that guarantees that every potential sample of the required size has an equal chance of being selected, is known as a simple random sample.

The researcher uses simple random sampling which are drawn from the basic probability sampling technique (Brink & Van Rensburg, 2023:143). In the case of probability sampling, the sample is more likely to be representative of the population and to reflect its variations. This it implies that all elements in the population have an equal chance of being included in the sample. Probability sampling, which guarantees an unbiased sample from the target population, was maintained by employing a simple random sampling technique (Henning, Van Rensburg, & Smit. 2013:71; Welman & Kruger, 2002:47). The planned sampling approach was nonprobability sampling, specifically utilising purposive sampling as the chosen technique.

### **5.5.1 Purposive Sampling**

Purposive sampling, also known as “judgemental sampling”, is described as a random selection of samples within the population with the most information on the characteristic of interest (Guarte & Barrios, 2006:277). In order to obtain rich information that would provide answers to the research questions, the researcher used his own judgement in selecting three experienced Vispol Commanders and Detective commanders from SAPS Tshwane District office Station as Sample “C” (Mouton, 2001:69).

The researcher purposefully selected the members of Sample “C” from SAPS Tshwane District office as they were more experienced in investigation and they were all group commanders at the aforesaid offices. Purposive sampling enables the researcher to select participants possessing most of the characteristics and representing attributes that align closely with the study's objectives. Purposive sampling, also known as “judgmental sampling”, involves selectively choosing samples within the population with the most relevant information to the study (Brink & Van Rensburg, 2023:150). The researcher seen the purposive sampling as a common in qualitative research. This sampling technique requires the judgement of the researcher and may lead to bias although it is useful approach when the researcher wants a sample of experts. As the qualitative researcher using this method does not know in advance how many participants are needed, they sample continuously until data saturation.

The advantage of purposive sampling is that it allows the researcher to select the sample based on knowledge of the phenomena being studied (Brink & Van Rensburg, 2023:151). This approach aims to gather useful information that can address the research questions effectively, and in this study, the researcher exercised logical reasoning to select three experienced detective commanders from each police station (Leedy & Ormrod, 2014; Mouton, 2001:69; Mouton, 2012). Additionally, the intentional selection extended to choosing five commissioned officers from each component of the police station, specifically those with significant experience in the investigation who served as detective group commanders at the mentioned police stations.

### **5.5.2 Representativity**

A representative sample accurately mirrors the population, acting as a microcosm of the larger group (Flick, 2011:181; Bryman, 2001:507). This needs to be considered to assess the likelihood that the researcher's findings will be applicable beyond the study's sampling point. According to Leedy and Ormrod (2015:176); Bryman (2001:np), if the researcher conducts a detailed study of a particular institution, group, or individual, they should be able to determine the relevance of the findings beyond that specific context. To ensure representativeness, researchers must carefully select appropriate samples, which may demand considerable effort (Flick, 2011:181).

As Flick (2011:181) suggests, one way to evaluate qualitative research is to find out what steps the researcher took to define or broaden the scope of validity of the empirical results. The generalisability of the results is often tied to the method of sample acquisition. In this instance, the researcher selected samples based on how well they reflected the population, suggesting that the sample's main attributes closely matched those of the population. Leedy and Ormrod (2010:100) state that the participants in a research study must be a representative sample of the population about which the researcher wishes to draw conclusions. The researcher considered visible policing members and detectives from 10 years of experience as an appropriate sample and randomly selected 29 of these members as a representative sample.

The researcher considered them as the most suitable for this study because these members had 10 years of experience in attending crime scenes as first police responders.

## **5.6 DATA COLLECTION**

The researcher employed a data collection method in order to describe the way in which the researcher is going to collect the information. The researcher uses the approach of answering the research questions (Maree, 2016; Brink & Van Rensburg, 2023:157). The researcher carefully considers what information is needed to answer the research question. Data collection methods involve many sources of information that are rich in context, and may include interviews, literatures, documents, observations, questionnaires or scales (Creswell, 2014:120). Data collection is a systematic way of gathering relevant information that helps the researcher to answer the research question and meet the objectives of the study (Maree, 2016:45). Accordingly, Du Plooy, Davis and Bezuidenhout (2014:147) add that data collection is one of the crucial aspects of any research study. The researcher employed a method involving interviews and focus groups with South African police members, including uniform and detective personnel.

This approach involved facilitating focus groups, posing open-ended questions, and enabling participants to share rich and valuable data. This method was considered the most effective way to collect the necessary data for the intended study. During the data collection process, the researcher utilised specific strategies. Field notes were taken during scheduled interviews to collect relevant information. The research strategy, which included a questionnaire, interview schedules, documents, and observation guides, was carefully prepared in advance to ensure the relevance of all formulated questions. To gauge the time frames and effectiveness of the interview schedule, a pilot study was needed. During the pilot study, the anticipated research activities were executed to test the results. The adjustment was made to the interview schedule to plan of execution based on the pilot study's findings.

The researcher conducted the pilot study with the assistance of an identified participant, which included the interview process (Bless Higson-Smith & Sithole, 2013:22; Leedy & Ormrod 2015:99). The entire procedure involved obtaining consent through a signed form, followed by the interview, recording, and transcription of the data. The analysis of the data was then carried out in collaboration with the study supervisor. The satisfactory results of the pilot study paved the way for the researcher to proceed with the actual investigation, incorporating adjustments based on insights gained during the pilot study. In the context of research, “data” refers to the proof or information that investigators gather to address queries. (Bertram & Christiansen, 2014:71). According to Beri (2010:11), the term “data” signifies “facts and statistics collected together for reference or analyses.”

According to Leedy and Ormrod (2015:88), data is a manifestation of elements of reality, rather than the absolute reality that underlies all observed phenomena. The data collection phase involves defining the study's boundaries, gathering information through unstructured or semi-structured observation and interviews, utilising documents, and visual materials, and establishing a protocol for recording material (Creswell, 2014:np). The collection of data constitutes the most time-consuming aspect of research (Brynard & Hanekom, 2014:35). Nonetheless, this work is crucial because, without data, it is hard to increase understanding, explain the "unknown," or add new information to what already exists.

In this study, face-to-face interviews were conducted, utilising the probing technique to elicit more descriptive responses relevant to the questions. Semi-structured interviews and probing were employed to derive in-depth information (Terre Blanche & Durrheim, 2006:281). Dantzker and Hunter (2012:121) highlight that one of the most crucial aspects of the research effort is data collection, as improperly collected or incorrect data can impede or even halt the research process. For this study, an “interview” constitutes a conversation between the researcher and the participant (Bertram & Christiansen, 2014:80). An interview in a research context differs from an everyday conversation in that the researcher is the one setting the agenda and posing the questions.



This involves a focused dialogue, where the researcher has specific information in mind that needs to be obtained from participants and has crafted questions for that purpose. In this study, the researcher utilised semi-structured interviews as a qualitative research method to gather information. Depending on the subject, semi-structured interviews can become more intense as participants tend to become more invested in the discussion, especially if the interview lasts for a significant duration (De Vos et al, 2011:353). Once participants feel comfortable and at ease, the researcher facilitates the interview process, guiding the participants rather than dictating the encounter. The researcher thoroughly studied the interview schedule in advance, allowing for a focused and concentrated interaction with the participants during the interview period.

This interviewing technique aimed to capture a detailed picture of the participants' beliefs, perceptions, or accounts related to the research topic. It is documented that a semi-structured interview generally adheres to the same principles or guidelines as a structured interview (Dantzker & Hunter, 2012:59). The key distinction, however, lies in the interviewer's ability to move beyond the predetermined questions, seeking a more comprehensive understanding of the answers. This is commonly referred to as "probing" for additional details. According to Bertram and Christiansen (2014:76), a semi-structured questionnaire incorporates more open-ended questions compared to a closed questionnaire. Using open-ended questions in semi-structured interviews allows participants to freely express themselves, providing additional information. If participants are not constrained in their responses, this approach leads to the collection of ample amounts of information that broadens the understanding of the study. Open-ended questions, as defined by Creswell (2012:387), are questions without predefined response options, enabling participants to provide their responses. During the data collection process, the researcher distinguished between two types of data: primary and secondary data. Both techniques were utilised to gather information. "Primary data" is frequently regarded as the most reliable, illuminating, and truth-expressing information that can be documented (Leedy & Ormrod, 2015:88). Creswell (2014:np); Blaickie (2009:18) notes that primary data, sometimes referred to as "new data," originates from direct communication between the researcher and the data source and is utilised to address research questions.

The researcher is responsible for the research design, data collection, analysis, and reporting. On the other hand, “secondary data” refers to information collected by individuals, agencies, or institutions other than the researcher (Welman & Kruger, 2015:149). Mouton (2006:142); Mouton (2012) provides examples of secondary data such as newspaper articles, magazines, training manuals, and personal documents such as diaries, autobiographies, reports, and letters. In this study, the researcher chose to utilise both primary and secondary data, incorporating training manuals, SAPS policies, and directives to answer specific research questions. While semi-structured interviews were conducted with a few individuals, the bulk of the research was conducted through a literature study.

Bouma, Ling and Wilkinson (2012:103) highlight that qualitative research draws from prior observations and research on a specific phenomenon that needs further investigation to compile a wealth of information on a limited number of individuals or groups with characteristics. To substantiate the research findings, the researcher compared multiple data sources by employing triangulation (Leedy & Ormrod, 2015:88). Triangulation involves using diverse sources and methods, such as literature reviews, interviews, and observations, to enhance the reliability and validity of the research (Creswell, 2013:251). To enhance the credibility of this investigation, the researcher also employed three different data collection methods to validate the findings.

Data collected from interviews, literature, and documents were combined and analysed to strengthen the reliability of the investigation. As highlighted by De Vos et al. (2011); Mouton (2001:98-105); Mouton (2012), commonly used data collection methods in qualitative research include observations, interviews, literature sources, and document analysis. In this study, the researcher utilised interviews, a literature study, and document analysis as data collection methods. For this research, the decision to review the literature and conduct face-to-face interviews was made, considering it the most practical method for gathering primary data to address the research questions (Creswell, 2014:148).

### 5.6.1 Interviews

In order to gather data that would help to answer the research questions with regard to the problem identified, the researcher conducted structured interviews with selected participants. Interviews are methods of gathering information through oral quiz a set of pre-planned core questions. The researcher made use of a pilot study to test whether the questions were understandable. When a new measurement instrument is developed, it is useful to “test it out” before administering it to the actual sample. The researcher ensured that all questions of the interview schedules were tested on five uniform commanders and five detective commanders at each police station to ensure that the questions were understandable and to test whether they would elicit the desired data and to identify any shortcomings. Where shortcomings were identified, they were corrected before the final interview schedules were drafted.

The interview schedules were tested on people that were not the actual participants in this research. No formal technique was used to select these people; selection depended on the availability of willing members. After the pilot study had been conducted, the tested interview schedules were sent to the researcher’s academic supervisor for reading and approval. Interviews can be very productive since the interviewer can pursue specific issues of concern that may lead to focussed and constructive suggestions (Romon & Nithyol, 2023). The main advantages of interview method of data collection are direct contact with the users often leads to specific, constructive suggestions; they are good at obtaining detailed information; few participants are needed to gather rich and detailed data.

Depending on the need and design, interviews can be unstructured, structured, and semi-structured with individuals, or may be focus-group interviews. An interview as a social encounter where speakers collaborate in producing retrospective and prospective accounts or versions of their past or future actions, experiences, feelings and thoughts. Four types of techniques were used in this study, namely one on one interviews, focus group interviews, literature reviews and observation evaluation (Romon & Nithyol, 2023). One-on-one individual interviews were conducted with 29 participants by means of a semi-structured interview schedule.

According to Leedy and Ormrod (2005:184), with a semi-structured interview schedule the researcher may follow the standard questions, together with tailored questions to get clarification, or to probe a participant's reasoning. The interview schedule was compiled based on the research questions and aims of the study to ensure that it measures what it is supposed to measure. The same schedule was used for Samples which were made up of stations members. The general guidelines for interviewing (such as objectivity, listening skills, eye contact, body language and probing questions) were complied with as explained by (Babbie, 2004:263). The researcher met the participants at their place of work for their convenience. The researcher did not make use of the participants' names, due to possible victimisation numbers were used instead. This also ensured that the language used was simple and understandable. The supervisors also approved the interview questions directed at participants to ensure that they are correct and relevant, and that the research measures what it is supposed to measure.

The participants were informed that if they did not understand the questions, clarification would be given. The researcher asked the participants of Samples probing questions for further clarification to their responses (Leedy & Ormrod 2005:184). South African Police Service Instruction 1/2006 reflects a specific procedure to be followed for members who conduct research. This application was compiled and forwarded to the SAPS head office for approval to conduct the interviews. The approval is attached as Appendix A.

The method of interviewing entails questioning or discussing issues with individuals and can be a more valuable method for collecting data than observation as it is more accessible (Blaxter, Hughes & Tight, 2001:172). Interviews can be highly structured, semi structured, or unstructured. Structured interviews entail the interviewees all being asked the same question, similar a questionnaire, to determine their opinion on a topic. Semi-structured interviews allow for the researcher to be involved in the discussion directly to prompt a more elaborate response or a follow-up question from the respondent's original answer. Unstructured interviews begin with the interviewer having one or two topics to discuss in-depth. The subsequent questions follow from the first question regarding the topic (Blaxter, Hughes & Tight, 2001:172).

Since the aim of the researcher was to gain a comprehensive impression of the participants' experience with action of the first police responder in the management at the murder crime scenes, this study employed the use of semi-structured, face-to-face interviews. These are more personal than a questionnaire and allowed the freedom to pursue a line of questioning while still retaining the objective of the interview and not veering too far off the topic. This type of interviewing also made it possible to clear up any confusion that arose from the questions and, since the researcher could perceive nonverbal cues from respondents, to draw out more reliable responses or ask the respondent to clarify an answer (Dantzker & Hunter, 2012:128). The researcher interviewed all 29 of the respondents individually. The interview schedule is attached as Appendix C.

### **5.6.2 Focus group interviews**

The research used focus group as a technique involving the use of in-depth group interviews in which participants are selected because they are a purposive, although not necessarily representative sampling of a specific population, this group being focused on a given topic. Focus group interview is less structured compared to the three categories of interview discussed above (Brink & Van Rensburg, 2023:170). Focus group interviews include groups of about five to twelve people whose opinions and experiences are requested simultaneously (Brink & Van Rensburg, 2023:170). Grove, Gray, and Burns (2015) indicate that the ideal size for a focus group is five to eight participants, (Stewart & Shamdasani (2015)). The researcher was carefully considering the size of the focus group when planning the study and could be guided by the topic, its sensitivity and the type of participants to be concluded (Brink & Van Rensburg, 2023:170). This is because of the difficulty in bringing structure in a group; however, rich data can emerge through interaction within the group, for example, sensitive issues that could have been missed in individual interviews, may be revealed. In a group, people (members) develop and express ideas they would not have thought about on their own. This type of interview is conducted after a series of individuals.

A representative sample was drawn from the subjects who were interviewed by the researcher by asking simple questions and further, moderating the responses from the group (Romon & Nithyol, 2023). A focus group interview as a carefully planned discussion designed to obtain perceptions in a defined area of interest in a permissive, non-threatening environment. This type of interview will yield both a more diversified array of responses, and afford a more extended basis for designing systematic research into the situation at hand. The focus group interview can be used for a variety of reasons or to achieve a myriad of objectives in research. Focus group interviews can be used to obtain general background information about a topic of interest for generating research hypotheses that can be submitted to further research and testing using more quantitative approaches; to stimulate new ideas and creative concepts; to learn how respondents talk about the phenomenon of interest which may facilitate quantitative research tools; and to interpret previously obtained qualitative results.

Purposive sampling is a commonly used procedure for focus group interviews (Romon & Nithyol, 2023). It is an approach that is frequently used as a method of extending knowledge by deliberately selecting sample participants who are known to be rich sources of data. Another advantage of using purposive sampling for interviews is that individuals who have experienced the phenomenon of interest are invited to participate, contributing a wide range of domain descriptors and construct dimensions. It is important to note, as researcher argue, that it is not usually the aim of a focus group study to achieve consensus on issues but to identify candid perceptions that may differ between participants thus, the homogenous characteristics desired for each group should be based on a desire to promote open discussion support this view by indicating that a sufficient measure of heterogeneity among the participants other characteristics is needed to encourage dynamic group interaction and allow contrasting opinions(Romon & Nithyol, 2023). The researcher also argue that the philosophical underpinning of the focus group methodology is based on the premise that attitudes and perceptions are not developed in isolation but through interaction with other people. Based on this view, a focus group, should ideally consist of 14 to 15 relatively homogenous equals to 29 participants. The focus groups should not be too small to allow the domination of one or two members over the others, and should not be too large and end up being unmanageable.

The size of the group should not deny the participation of other members due to the constraints of time. One -on-one interviews were conducted and followed by focus group interviews. The purpose of this exercise was to assist the researcher in formulating relevant questions for the one-on-one interviews (Romon & Nithyol, 2023).

### **5.6.3 Literature review**

Terre Blanche, Durrheim and Painter (2010:19) state that a literature study is used in the widest range of concepts, and involves the identification and analysis of information resources and/or literature related to a person's research project. The researcher conducted a literature study in order to find answers that related to the identified problem. The researcher used the Pretoria University of South Africa (Unisa) library and Unisa e-resources in an attempt to find literature that was relevant from publishers, community libraries and the internet (Google Scholar, which can be found at [www.google.com](http://www.google.com)) to check under key words relevant to the topic, for previous dissertations and for local and international sources to identify any related research topic. Unfortunately, no literature on the exact topic was found. The researcher broke down the topic into relevant concepts in an attempt to find material related to the topic.

To identify the role of the first police officer at the murder scene, challenges faced by the first responder at the murder scene and best practice for the police responders to manage the murder scene. The researcher reviewed literature that focused on the topics of criminal investigation, the crime scene, crime investigation, crime scene management, first responder, murder, evidence, physical evidence, identification, individualisation and that was expected to give answers to the research questions. The researcher extracted relevant information from the sources and analysed content by comparing data to establish whether different authors' views and findings and recommendations on the same topic agreed or disagreed. Literature was obtained from national and international sources such as books, course material, conference proceedings, theses and dissertations, dictionaries, general government publications, publications of the SAPS, journal articles, newspaper articles and the internet.

The researcher made use of the aims (see 1.4.1) and research questions (see 1.5) to obtain relevant information for this research. All the literature sources that were used in this research were acknowledged by the researcher and a reference list is included in the thesis. When the researcher conducted the preliminary literature review for the research proposal, researcher visited the library at the UNISA main campus in Muckleneuk, Pretoria. The library catalogue as well as the UNISA online catalogue was searched for the research topic. Neither of these sources revealed literature on the same topic as the researcher, so the topic was broken down into concepts, which included crime scene, crime scene management, murder, and criminal investigations, first police responder, evidence physical evidence, identification, and individualisation. By doing this, literature relevant to the study was found. After consultation with members of the stations, literature relevant to the topic was shared with the researcher by the members.

#### **5.6.4 Observational evaluation**

The researcher as a participants observer carried out observation's methods of data collection and evaluations by observing how the members were engaging in topic activities. Observational methods have the advantage of directly evaluating members activities. According to Brink and Van Rensburg (2023:160) stated that observation is a method used for collecting descriptive data on behaviour, events and situation. Researcher seen that observation is useful during crime scene management context because it allows the researcher to observe behaviour as it occurs. To be considered scientific, observation must be made under precisely defined conditions in a systematic and objective manner, with careful record keeping. All observations must be checked and controlled. Observation may be structured or unstructured. Structured observations entail specifying in advance the behaviours or events to be observed and how they will be recorded as well as preparing forms for record keeping (Brink & Van Rensburg, 2023:160-161).



## 5.7 DATA ANALYSIS

A core analysis technique used for the text-type data of transcribed interviews is content analysis, which starts by grouping together answers to the different questions, and continues by systematically reading through them to identify patterns and themes which can be categorised into what are known as coherent categories. This can be done from a predefined category list determined from the literature review, which would match a deductive approach to analysis, which ensures that a new situation matches the existing theory (Leedy & Ormrod, 2010:32). Alternatively, one can use the categories that emerge to build a new model, through an inductive approach to theory building (Leedy & Ormrod, 2010:33). One can develop an inductive approach to qualitative analysis which they called grounded theory (Brink & Van Rensburg, 2023:21).

The principle of this approach was to start with no codes, and as the text was read and reread, codes would emerge. In this way theory could be created from data. Since the data was obtained from a real-life situation, it can be said that the theory was grounded in real-life experiences: therefore, the term “grounded theory” was used (Brink & Van Rensburg 2023:21). Grounded theory has undergone iterative development, which is important since each iteration is linked with a specific research philosophy (Brink & Van Rensburg 2023:21). The original form of grounded theory, as developed by (Brink & Van Rensburg, 2023), was pure in two aspects.

Firstly, there was the clean slate approach to literature and codes, to ensure that the researcher was not contaminated by existing theory. Secondly there was the principle that the truth would emerge from the data, meaning that there was only one real “pre-existing” truth hidden in the data. These two principles are linked to a positivist philosophy. In the evolve theory which was proposed in the 1990s, the concept that a preexisting truth did not exist, and that a truth would emerge from the context and the specific participants, became more accepted (Brink & Van Rensburg, 2023:127). This started leaning towards a more constructivist approach, which was formalised into what is known today as constructivist grounded theory.

A key principle of this approach is that the researcher becomes a co-author who assists in reconstructing meaning from the information provided by the participants. In addition, it is seen as acceptable to have some literature review inputs as a starting point or to stimulate thinking. From an ontological point of view, constructivism is based on the relativist approach, which states that truth exists only relative to a context. From an epistemological point of view, constructivism supports the subjective relationship between the researcher and the participant (Brink & Van Rensburg, 2023:117-118). This fits in with the overall subjectivist-interpretivist paradigm of this researcher, as described earlier in this study. This implies that the truth of the current situation needs to be found relative to the context.

For the purpose of this study, the constructivist grounded theory approach was therefore used for data analysis. As a further level of detail as part of the case study process is propose the creation of a roadmap for the constructivist grounded theory approach. The general roadmap starts with data collection in the form of interviews and collection of relevant documents (“Collect” phase in the case study process). During the interview, additional field notes or memos need to be made, to ensure that any relevant contextual data is also captured (Brink & Van Rensburg, 2023:128).

In this study, for the sake of clarity, the notes made during or just after the interviews are referred to as field notes, while the additional notes made during the coding process are referred to as memos (or memoing). In this way, memos were used to document additional properties of the emerging categories, and helped to keep a link with the original context of the text, so as to ensure that the intent of the participant was accurately represented, in line with recommendations by other researchers. Coding, as described by Brink and Van Rensburg (2023:207), is “the conceptualisation of data by the constant comparison of incident with incident, and incident with concept, in order to develop categories and their properties”. A process is normally followed whereby the coding moves through different and ever greater levels of abstraction to arrive at the underlying theoretical framework. The different steps of coding in a grounded theory approach are described as part of the execution of the study (Brink & Van Rensburg, 2023:127) and forms part of the “Analyse” phase of the case study process.

The cycle of data collection, field notes, coding and memoing is normally repeated as part of the constant comparative method in which similarities and differences are compared across the different interviews and cases (Brink & Van Rensburg, 2023:158) until such time as data saturation is achieved. This is represented by the iteration between “Collect”, “Analyse” and “Share” of the case study process. Data saturation is the exit point at which sorting of information can take place and the final theoretical model can be fully documented (Brink & Van Rensburg 2023:160). This links to the “Shaping Hypotheses” and “Enfolding Literature” stages and finally the “Reaching of Closure” The coding of the text can be done in a manual way, by making notes on printed documents and transferring these to post it notes on walls to give a more visual effect. Coding can also be done programmatically through a tool such as ATLAS.ti. a combination of the two methods.

For the purpose of this study, only ATLAS.ti was used. The detail of how the process was executed is described. Creswell (2013:195) states that the intent of data analysis is to make sense out of text and image data, which involves segmenting and taking apart the data as well as putting it together. Interpretive researcher attempted to derive the data through direct interaction with the phenomenon being studied. An important aspect of data analysis in qualitative case study is the search for meaning through direct interpretation of what researcher observed by himself as well as what researcher experienced and reported the subjects. The data analysis process includes dividing the data into manageable themes, patterns, trends, and relationships (De Vos et al. 2011; Mouton, 2001:108; Mouton, 2012).

Qualitative data analysis is dependent on descriptions for “identification of recurrent patterns or themes and attempting to construct a cohesive representation of the data”. It is the duty of the researcher to find patterns or connections within cases or issues to make a valid interpretation of the matter under study (Tewksbury, 2009:52-53). The content analysis approach was regarded as the most appropriate method of data analysis for this research as it is a systematic and objective process of describing and quantifying phenomena.

The object of content analysis is any kind of recorded communication or written documents which allow the researcher to enhance the understanding of the data. The central tool of any content analysis is a system of categories, with every unit of analysis coded and allocated to one or more categories (Elo & Kyngäs, 2008:108). Deductive content analysis categorises data moving from the general to the specific (Elo & Kyngäs, 2008:109). Leedy and Ormrod (2015:315) describe the five steps of their data-analysis spiral. The researcher applied the steps during the analysis of the collected data. Keeping this and Creswell's (2013) Leedy and Ormrod (2015:315) view in mind, the following steps were taken by the researcher to conduct a data analysis:

For example, the researcher organised the collected data that had been obtained from literature, interviews and documents. Data was broken down into smaller components by grouping together individual or wording similarities and specific points that carried the same meaning. The researcher perused the collected data in order to get an overall impression of what was contained as a whole and wrote down the names that suggested possible categories. Researcher then assessed the whole set of data to establish any applicability or irrelevance of particular items to these categories.

The researcher identified general themes and subthemes and subsequently classified each piece of data accordingly to get a general sense of what the data meant. The researcher integrated and summarised the data by providing explanations for the possible relationships amongst the categories. Different themes were analysed through some viewpoints from both the participants and the literature respectively, on each issue.

Step 1: After all data was collected, the researcher spent much time reading.

the data (interview transcripts) to acquaint himself with it. Notes were made in the margins regarding possible categories.

Step 2: After identifying the problem made by the police responder at the crime scene of murder investigations as the general category of data, each participants transcript was coded and their answers were allocated to a specific category, i.e., the identification phase, the investigation and apprehension phase, and the trial and sentencing phase. The categories were then further broken down into specific role of the first police responders at the murder crime scene and murder investigation and explained in detail employed during the investigation and apprehension phase.

Step 3: The data were then coded and allocated to the same categories as mentioned above and represented in text format for description purposes.

Step 4: Themes and relationships within the data analysed were then examined using the data triangulation method to ensure that the findings were comparable, i.e., that findings from the interviews and findings from the participants. The analysis of the data is embodied in 5.9.

Step 5: The data emerging from the themes and relationships of the findings was utilised to make recommendations for enhancing crime scene management used by the SAPS. These recommendations as well as relevant considerations are represented in 8.3.

The goal of the analysis was to comprehend the various constitutive elements of the data by inspecting the relationships between concepts, constructs, or variables, and identify any patterns or trends that could be isolated (Leedy & Ormrod (2013:158). Mouton (2001:108); Mouton (2012). Data analysis typically involves two steps. First, reducing the vast amount of collected or available data into manageable proportions, and second, identifying patterns and themes within the data (Polit & Beck, 2014:430; Mouton, 1996:161; Mouton, 2012). Additionally, the process of giving the gathered data structure, order, and meaning is referred to as data analysis. (De Vos, Strydom, Fouche & Delpont, 2006:333).

De Vos et al (2011:252) stipulate that after collecting the data, it must be prepared for data entry. According to De Vos et al (2011), different authors frequently take different approaches to the process of qualitative data analysis, highlighting the fact that it should not be seen as a set of inflexible rules, but rather as a flexible framework that can be modified as needed. Instead of being a linear series of steps, the data analysis process is characterised by a spiralling movement that includes multiple distinct steps (Creswell, 2013). Preparation of the data for analysis includes checking and editing collected data and eventually coding them, as outlined by De Vos et al (2011:252). The researcher utilised ATLAS.ti software for data entry and analysis, recognising its utility in qualitative research data analysis.

## **5.8 PROBLEM ENCOUNTERED.**

In this section the researcher attempted self-training on the program, challenges were encountered, leading to the realisation that formal training, preferably at UNISA, would be beneficial. Despite these challenges, the researcher supplemented self-training with online resources such as YouTube to gain extensive knowledge on using the software. Themes, some with subthemes, were identified in the data analysis process. Second problem upon interviewing members of SAPS, different stations it became apparent to the researcher that researcher could not delve into an intricately detailed description of the crime scene management analysis matrix as well as the information contained therein in order to prevent this study from becoming a „What-not-to-do“ guide book for first police responders. This problem did not hinder the main purpose of the study, but only limited the detail allowed for one such crime scene management.

As the criteria set by the researcher for data collection from the members was precise, another problem encountered was that there were fewer than expected crime scene management of crime scene of murder cases that fit the criteria. The researcher could only obtain information that met the benchmarks of the criteria. However, the unique identifying these crime scenes. A final problem encountered by the researcher was language. English was the first language of only six of the 29 participants. Since the study was being conducted in English, it resulted in some participants misunderstanding certain questions. The main question that caused confusion was regarding which crime scene management methods/systems/techniques are currently in place to aid in the investigation of a murder crime scene. The researcher overcame this problem by elaborating in simpler English on what kind of information was needed from the respondent to answer the question.

## **5.9 METHODS TO ENSURE TRUSTWORTHINESS**

Many qualitative researchers argue that the term “validity” may not be directly applicable to interpretive research. However, they recognise that to ensure the value of their work and its learning capacity, some sort of quality control is necessary (Bertram & Christiansen, 2014:188).

Researchers still grapple with the question of how to determine if their research is valuable and offers valuable insights. Schurink, Fouche and De Vos, AS (2011:419) emphasise that all research must adhere to norms reflecting criteria against which the credibility of the study can be evaluated. These norms' reliability, transferability, dependability, and confirmability help determine the study's "truth value," which is its impartiality, consistency, and applicability. In this research, the researcher actively incorporated validation strategies recommended by Creswell (2013:250-253). Creswell (2013:250) discusses the following strategies used by qualitative researchers to ensure reliability in their study: The following sections will identify, discuss, and reflect on the application of these strategies.

## **5.10 CREDIBILITY**

Credibility was ensured by doing the research in such a way that the facts being discussed were accurately explained. The truth value is reflected if the research has established confidence in the findings derived from the information furnished by the participants when they shared their knowledge and personal experiences. Credibility refers to the confidence in the truth of the data and the accurate interpretation thereof. This guideline was followed faithfully (Brink & Van Rensburg, 2023:130). The researcher documented the experience precisely by using written records. The credibility strategies used in the research involved the achievement of the following criteria: Prolonged engagement, Persistent observation, Triangulation, Referential adequacy, Peer debriefing, Member checks, when assessing a qualitative study's strength, its credibility is essential and frequently used in place of internal validity.

A thorough description of the data within the confines of the population and theoretical framework contributes to the study's validity (Brink & Van Rensburg, 2023:130). Therefore, it is essential for the researcher to clearly define the parameters of the study, establishing boundaries around it. In this research, the parameters of the population and theoretical frameworks were clearly outlined in the respective sections, and the collected data is described in detail. This meticulous approach enhances the credibility of the study. According to Schurink et al (2011:419), the most crucial factors are thought to be authenticity and credibility.

This is consistent with the idea that internal validity deals with how closely the results match reality. It explores the question of whether scientists are seeing and measuring what they think they are seeing and measuring. Credibility can be enhanced during both the data collection and data analysis phases. In some instances, enhancing credibility involves having two researchers observe the same situation simultaneously, such as in a classroom. This allows the researchers to compare their experiences and determine if they obtain different results from observing the same object at the same time (Bertram & Christiansen, 2014:188). In this context, credibility pertains to the degree of confidence that the data collected from participants accurately represents the study under investigation (Anney, 2014:276). It aligns with the notion of reliability, which is like internal validity (Sikolia, Biro, Mason & Weiser, 2013:2). Reliability concerns the degree to which the gathered data accurately reflects the various realities of the phenomenon. In this study, similar questions were included in the interview guide for all selected participants. This approach aimed to check their understanding of the problem investigated in the study, ensuring that none of the participants deviated from the interview guide.

This consistency contributes to the credibility of the study. The researcher increases the confidence in the integrity of the findings of a study, (Polit and Beck 2022) mention the following data enhancement strategies. Brink and Van Rensburg (2023:186) used the strategies are organised by phase of the study during data collection the researcher engages in. Brink and Van Rensburg (2023:184) stated that credibility alludes to confidence in the truth of the data and the interpretation thereof. The investigation must be done so that the findings demonstrate credibility. Confidence in the truth can be established through the following techniques:

### **5.10.1 Prolonged engagement**

In order to create beneficial relationships, the researcher spent time with the participants. This was done by meeting and speaking with the participants face-to-face prior to the interview, so that they were at ease to talk freely with the researcher.



It included building a rapport with participants, learning and examining the culture to check for misinformation. The interview lasted on average an hour until the data became saturated (Creswell 2013:250; Brink & Van Rensburg, 2023:184).

### **5.10.2 Persistent observation**

Observation was done prior to and during the interview with the participants. The researcher had to make time for observing the participants' body language and facial expressions (Brink & Van Rensburg, 2023:184). The researcher was alert and aware that the participants might provide untrue information, as some were just introduced to the environment. In view of this their actions had to be consistently assessed in different ways by frequently analysing data for facts. The researcher was cautious of the various influences and searched for data of significance (Babbie & Mouton 2012:277).

### **5.10.3 Triangulation**

The researcher used triangulation as the use of two or more methods of data collection to study a particular phenomenon. The researcher refers to the work of other authors as they indicate that by combining multiple observers, theories, methods, and empirical materials, researchers can hope to overcome the weakness or intrinsic biases and the problems that come from single-method, single observer, and single-theory studies (Brink & Van Rensburg, 2023:184). Often the purposes of triangulation in specific contexts are to obtain confirmation of findings through convergence of different perspectives. The point at which the perspectives converge is seen to represent reality (Brink & Van Rensburg, 2023:184).

Triangulation is viewed as a verification procedure whereby researchers search for convergence among multiple and different sources of information to form themes or categories in a study. It is a system of sorting through the data to find common themes or categories by eliminating overlapping areas. The method of triangulation used in this study to draw conclusions of what constituted the truth about observation at a murder crime scene, was a detailed description of the emergent themes.

The themes were described using thick and rich descriptions (Brink & Van Rensburg, 2023:184). The in vivo quotes were taken directly from the participants' responses to their experiences of observation at a murder crime scene. This process involved obtaining corroborating information from different sources to explain the themes (Creswell 2013:199).

#### **5.10.4 Referential adequacy**

The materials used to document the findings were hand-written notes, later transcribed and saved onto a disc. It offered a record for the research (Brink & Van Rensburg, 2023:185). The hard copies were transcribed and the disc will be kept for five years (Babbie & Mouton 2012:277).

#### **5.10.5 Peer debriefing**

This was done with a peer of the same status and who was outside the environment of the research. The peer has a broad understanding of the nature of the research and with whom the perceptions and analyses could be questioned (Babbie & Mouton 2012:277). The colleague asked difficult questions about meanings, descriptions and methods. After deliberating the various issues regarding the research, a reasoned and objective third-party view was agreed to. This person was not involved in the research process. These peer-reviewed perceptions, insights and analyses added value to the credibility of the research. The deliberation assisted in understanding the underlying meaning of the themes (Brink & Van Rensburg, 2023:184).

#### **5.10.6 Member checks**

The researcher went back to some of the participants. It was critical to establish the intentions of the participants to check for obvious errors and to obtain information voluntarily (Brink & Van Rensburg, 2023:184). This was done to summarise the first step of the data analysis and to assess the overall adequacy of the data (Babbie & Mouton 2012:277; Creswell 2013:252).

Although not exhaustive, the strategies mentioned should guide the researcher to carefully assess the steps taken to enhance the quality of the data (Brink & Van Rensburg, 2023:186).

### **5.11 DEPENDABILITY**

The research findings must furnish its readers with information that, if it were to be repeated with the same or similar participants in the same context, the outcome would be similar. Dependability was also achieved by having independent checking and supervision by the supervisor of this study (Babbie & Mouton 2012:278). Bless et al., (2013:237); Kumar (2011:185) supported by Bless, Higson-Smith & Sithole (2013:237), asserts that “dependability” is a concept used in qualitative research which like reliability. According to Kumar (2011:185), who cited Suter (2012:363), Trochim and Donnelly (2007:149), dependability is the ability to get the same results from repeated observations of the same object. Furthermore, Bless et al (2013:237) advise that the researcher must provide proof that each step has been carefully and thoroughly completed. In this study, the researcher ensured the accurate reporting of information from the literature and the viewpoints of the authors.

Additionally, the responses of each participant to all research questions were faithfully reported. To enhance reliability, the researcher could provide explanations for variations within the study, such as differences between cases (Bertram & Christiansen, 2014:190). This also involves comparing the current study with others in the field and explaining the main differences. Anney (2014:278) defines “dependability” as the stability of findings over time. According to Sikolia et al (2013:3), dependability is the assurance that the data accurately depicts the dynamic circumstances of the phenomenon being studied and that it will hold for a variety of periods, researchers, and analytical methods. To further ensure dependability, an individual who audits the findings and confirms that the grounded theory methodology (GTM) procedures have been followed provides additional validation Kumar (2011:185); (Brown et al 2002:10).

Confirmation of data, known as the audit trail, can be sought from peer researchers, student advisers, or colleagues who examine the detailed chronology of research activities and processes, to assess the reliability of the findings (Bless et al., 2013:np) and (Morrow, 2005:np). In this study, individuals with experience in the research subject (VISPOL members and detective members) were interviewed under the assumption that if the same population could be selected for a similar study, comparable findings could be obtained in a different setting. This contributes to the dependability of the findings.

## **5.12 TRANSFERABILITY**

Transferability refers to the degree to which the findings from the data can be transferred to other settings. A thorough, thick description of the research setting, and the processes observed during the study were presented in the research (Babbie & Mouton 2012:277). The interviews with the participants were recorded verbatim, using hand-written notes. The notes were transcribed verbatim by the researcher and formed thick, rich data for each interview. This thick data will enable others to make a judgment and decide how transferable the findings are to their own settings. In the explanation of the themes the researcher used the exact words used by the participants, by providing the *in vivo codes* from the transcribed interviews (Creswell 2013:85). "Transferability" is an alternative term for external validity or generalisability, which refers to the extent study findings can be used outside of their original context (Babbie & Mouton, 2012:277) cited with (Bless et al., 2013:237) and (Merriman, 1998:np). This involves considering how research findings can be transferred to other settings and populations. This factor supports the concept of "transferability" in qualitative data (Bless et al., 2013:237) cited with (Merriman 1998:np). Bertram and Christiansen (2014:191) argue that through transferability, research can be conducted to an extent that it would also apply to other situations with similar characteristics. Anney (2014:277) refers to transferability as the degree to which the results of qualitative research can be applied to other situations involving different participants. Sikolia et al (2013:2) assert that transferability can be enhanced by providing clear descriptions of the research, the participant's various perceptions and understandings, methodology, interpretation of results, and contributions from peer debriefers.

Transferability is further improved by providing details about the researcher's role as an instrument in the process, as well as participant-researcher interactions (Korstjens and Moser 2018:122); (Morrow, 2005:np). The researcher believes that the findings of this study can be transferred to other settings or studies facing similar problems and offer potential solutions to social issues. In the explanation of the themes the researcher used the exact words used by the participants, by providing the *in vivo codes* from the transcribed interviews (Creswell 2013:85).

### **5.13 CONFORMABILITY**

Conformability refers to the impartiality of the data. Two samples and two different data collection methods were used in collaboration to determine if the conclusions, interpretations. Recommendations can be traced to their sources and if they are supported by the inquiry. Constructing such a trail involves reviewing the raw data, which are the transcribed interviews. The written field notes and documents will be kept available for reviewing (Babbie & Mouton 2012:278-279). Kumar (2011:185) asserts that “confirmability” refers to the degree to which results can be verified or corroborated by others. To determine confirmability, other researchers must be able to obtain similar findings by following a similar research process in a similar context (Bless et al, 2013:237). The researcher presents a critical evaluation of the methodology used to accurately record and detail the literature consulted for this study.

The findings were based on both the literature and the responses of the participants. The researcher remained objective throughout the investigation, and if another researcher were to conduct the study in the same manner, the results would likely align with the findings of the current investigation. Establishing whether different people can confirm the same results is common practice. Bertram and Christiansen (2014:190) suggest that confirmability can be enhanced by making the research process transparent, and providing sufficient details for the reader to check whether they would reach the same or similar conclusions. Anney (2014:279) refers to confirmability as the degree to which the results of an investigation can be confirmed or corroborated by other researchers.

The researcher maintained a neutral stance on the research topic, using bracketing to obtain accurate findings and avoid manipulating the facts obtained from the selected participants.

#### **5.14 ETHICAL CONSIDERATIONS**

Research ethics is being responsible about how researcher do research, and always taking the moral high ground. It is about ensuring that researcher do not seek to obtain answers at all costs; by respecting the rights of those that researcher include in the study. In this regard it is always important to follow the deontological view, which purports that the end will never justify the means (Brink & Van Rensburg, 2023:34). Although there are many ethical elements to take into consideration for empirical studies, the three most important ethical elements applicable to the current study and the collection of primary data are initial permission and voluntary participation; confidentiality and anonymity; and the researcher's objectivity and integrity (Brink & Van Rensburg, 2023:35).

These three elements were important because the case study strategy of inquiry was followed, requiring in-depth analysis of each case, as well as direct interaction of the researcher with the subjects of study through interviews and literature reviews. Pearce (2014:np) stated that Ethical behaviour comes from the values, beliefs, attitudes, and knowledge that guide the judgements of everyone. Everyone in policing must make difficult decisions and complex choices every day of the week. These range from how to talk to a distressed member of the SAPS through to how to allocate scarce resources. The principles underpin and strengthen the existing procedures and regulations for ensuring standards of professional behaviour for both police officers and police staff. This gives the profession and the public the confidence that there is a system in place to respond appropriately if anyone believes that the expectations of the Code of Ethics have not been met (College of policing 2023:np). The principles should also underpin every decision and action across murder crime scene management. They should be used, for example, in day-to-day operations as interventions are planned and debriefed, in the selection of new staff, in educational and development programmes, in annual reviews and in promotion.

The principles must be more than words on a page and must become embedded in the way police professionals think and behave. Creswell (2013: 57) emphasised that prior to conducting a study, it is necessary to obtain college or university approval from the institutional review board for the data collection involved in the study; as well as local permission to gather data from individuals and sites at an early stage in the research. In this study, the researcher applied for and obtained ethical clearance from the University of South Africa - Research Ethics committee, as stipulated in APPENDIX (B) of the UNISA Policy on Research Ethics (Unisa, 2016: 05).

The researcher also obtained permission to conduct a study from the SAPS as stipulated APPENDIX (A) of the UNISA Policy on Research Ethics (Unisa, 2016: 31). (Refer to Appendix (B) When the geographical area of the study required extension, the UNISA Ethics Committee was informed, and permission was granted. New submissions were made to relevant departments and permission was also granted. This delves into the ethical considerations surrounding this study, aiming to elucidate the ethical context in which the research was conducted. "Ethics" pertains to the moral aspects of a course of action, specifically the guidelines and standards of behaviour employed by the researcher throughout the research process.

Researchers stress that ethical issues in the social sciences are intricate and widespread, underscoring the importance of obtaining data without compromising the well-being of individuals. Notably, there exists a specific ethical code in South Africa for researchers within the SAPS (Strydom, 2011:128). Nevertheless, as a police officer, the researcher adheres to the general ethical code advocated by the SAPS as a professional organisation. Approval for this study was granted by the Ethical Committee of UNISA, and the researcher has diligently completed all necessary documentation. Considering these aspects, the fundamental question still arises if this study was indeed ethically executed (Strydom, 2011:115). While conducting the study. Ethics encompasses the branch of philosophy concerned with values governing human conduct, examining the rightness or wrongness of specific actions and the goodness or badness of motives and ends. Herrera (2010:np) and Leedy and Ormrod (2013:104) highlights those ethical issues arise from interactions with others and the environment.

It is closely tied to the concept of morality, guiding what should or should not be done (Denscombe, 2010:174-175). Adhering to UNISA's research ethics policy, the researcher sought permission from the UNISA College of Law Research Ethics Review Committee to conduct the research according to UNISA's guidelines (2012). The researcher's application proved successful, resulting in the issuance of an ethics clearance certificate. The certificate is provided as Appendix B. Furthermore, the researcher presents their findings with complete honesty, avoiding any misrepresentations related to the investigation.

There was a concerted effort to prevent plagiarism, recognised as a form of academic fraud, wherein one presents another author's work as their own (Repanovici, Barbu, & Cristea, 2008:74). Throughout this research, proper credit has been given to authors whose work was utilised, and a comprehensive list of sources has been referenced following the prescribed UNISA referencing method (UNISA, 2004:np) and (UNISA, 2012). This research constitutes the original work of the researcher. As a gesture of professional courtesy, the researcher personally approached the participants in samples A and B to explain the purpose of the interviews.

In looking at the three key elements identified from an ethical perspective in more detail, the first element of permission and voluntary participation had already been considered during the study's design phase. This was done through identifying an individual in the SAPS who could be approached for an in-principal agreement on behalf of the SAPS. These individuals were kept up to date as the research methodology was refined. The final permission by the SAPS to conduct the study in that organisation was obtained in writing. (Refer to Appendix A: Protocol, for the SAPS Permission letter). The fact that the SAPS had given permission for the study to take place did not, however, necessarily indicate voluntary participation of all individuals within the SAPS. Any individual had the right to decline participation, even if the SAPS had given permission for the study. The individual could decide on participation at the point when an interview was requested, or when a questionnaire was distributed. (Refer to Appendix A). Informed consent for interviews (Refer to Appendix D). Participants were assured that their involvement was voluntary, and they were under no obligation to participate in the interview or data collection.



The researcher emphasised that all information shared during the interview would be recorded. Confidentiality was maintained, and participants were assured that any information disclosed would not be divulged to any third party to prevent harm. The researcher adhered to UNISA's research ethics policy (UNISA, 2012:1), focusing on contributing to an ethical and scientific intellectual culture at UNISA and safeguarding the rights and interests of human participants, especially when privacy, dignity, and vulnerability are considerations. This is especially crucial when collecting information that could potentially intrude upon the privacy and dignity of participants, particularly when participants are vulnerable due to factors such as youth, age, poverty, disease, ignorance, or powerlessness. During the data collection and analysis, consideration needs to be given to confidentiality and anonymity (Brink & Van Rensburg2023:35-46). Confidentiality refers to the fact that certain information should not be disclosed, such as trade secrets, information relating to competitive advantage and information that could place the individual at a disadvantage by sharing it. Keeping information anonymous implies that it should not be possible to identify the source of the data. From an anonymity perspective, the names of interviewees were not included in quotes used from the interview, and they were represented in such a way that a specific individual could not be identified. On the questions level, no names were requested, but the answers of each team would be stored together, so that these could be triangulated with responses from the manager's interview and shortened questions.

## **5.15 UNIVERSITY OF SOUTH AFRICA CODE OF RESEARCH ETHICS**

The following sections discuss the aspects outlined in The UNISA Policy on Research Ethics (UNISA, 2012):

- **Essentiality and Relevance**

Before conducting the research, the researcher thoroughly reviewed the existing literature on the subject (or cases currently being researched) and explored available alternatives. Recognising the scarcity of resources in South Africa, the study highlighted the importance of research in advancing knowledge.

To maintain the essentiality and relevance of this study, careful consideration was given to ensuring it stayed within the anticipated scope. The researcher made certain to address all crucial elements in the research process.

- **Voluntary participation**

In addition to all the precautionary measures outlined above, participants were clearly informed that their participation in the research was completely voluntary and that it was only being done for academic and community purposes. No one was compelled to take part in the study.

- **Maximisation of public interest and social justice**

The research was conducted to benefit society and maximise public interest and social justice. Every effort was made to follow the principle outlined by De Vos, Strydom, Fouche & Delport (2011a:64) to disseminate information on the research, its results, and implications to the public in a timely and appropriate format. This study has undeniably contributed to the university and society by enhancing understanding of the role of criminal investigation in response to crime.

- **Competence, ability, and commitment to research**

Both personally and professionally, the researcher was qualified to conduct the study. According to De Vos, Strydom, Fouche, and Delport (2011b:63), good and ethical research requires, above all, a commitment to the relevant subject and to research in general. The researcher was capable and qualified to conduct the study. This study, which aimed to comprehend the function of criminal investigation in the response to crime, undoubtedly benefited the university and society at large.

- **Respect for and protection of participants' rights**

Researchers respect participants' privacy, confidentiality, and autonomy by upholding their rights, dignity, and privacy. Struwig and Stead (2001:67) emphasise that cultural and individual differences, including age, gender, race, ethnicity, religion, language, and socioeconomic status of the participants need to be conscientiously considered. The researcher can attest that no discrimination based on these factors was perpetuated deliberately and ensures that participants were not exposed to procedures or risks unrelated to the research project or its methodology.

Some researchers consider knowledge acquisition as the goal, even at the expense of appropriate participants. The participants for this study, however, were chosen carefully and consideration was given to their safety, as they were treated with the highest level of respect. Autonomy in research necessitates that individual participation be voluntary, specific, and based on informed consent. Coercion, whether direct or indirect, and undue inducements, must be avoided, as they can hinder autonomous decision-making and lead individuals to agree against their better judgment to participate in studies involving risks. Consent from participants should be obtained in writing, and they must be provided with written information that thoroughly outlines the research's methods and purpose (Babbie 2010:71) cited with (Brynard & Hanekom, 2006:86).

Researchers must respect participants' right to refuse participation or to change their decision, withdrawing informed consent at any stage of the research without penalty and without having to provide a reason. The aim of the research investigation should be communicated comprehensively to participants, along with an explanation of the anticipated consequences of the research for the individuals and groups likely to be affected (Brynard & Hanekom, 2006:86). All human subjects involved in a research investigation must be informed of the prospective circumstances, and their signed consent should be obtained, in addition to the approval from the ethics committee. Respect for persons, as argued by De Vos et al (2011:117), entails allowing subjects to choose what shall or shall not happen to them.

Obtaining informed consent implies providing all possible (or at least adequate) information regarding the procedures that will be followed during the interviews. The idea of informed consent formalises voluntary participation and the idea that participants shouldn't suffer harm (Babbie, 2010:64).

- **Respect for cultural differences**

Researchers must acknowledge study participants as distinct individuals and respect traditional notions of sacrosanctity and confidentiality within the context of their local communities. Research should be performed on an identified community, but rather conducted in collaboration with the community in a partnership. In some cases, it might be required to get gatekeepers' consent, in addition to research participants' consent. In this study, all cultural sensitivities were duly respected.

- **Justice, fairness, and objectivity**

The criteria for selecting research participants should be both fair and scientifically sound. Easily accessible individuals or groups should not bear an excessive burden of repeated research. The researcher must prioritise justice, fairness, and objectivity. Risk minimisation and confidentiality are crucial considerations. Researchers must ensure that the tangible benefits to participants or society outweigh potential risks. Participants should only be exposed to risks that are necessary for the research. Risks must be thoroughly assessed, and appropriate precautions taken to minimise and alleviate them. As defined by De Vos et al (2011:119), "confidentiality" encompasses treating information in a classified manner. Accordingly, this study adheres to the requirements of confidentiality and ensures that any possible risks were eliminated or minimised.

- **Non-exploitation**

Research should not involve the exploitation of participants, researchers (including students and junior colleagues), communities, institutions, or vulnerable individuals. The research should bring benefits to the community being studied. Whenever possible, communities should receive feedback on the research conducted. It is essential to note that no participants were exploited in this study.

## **5.16 THE SAPS CODE OF CONDUCT**

A “code of conduct” is defined as a statement of principles and standards guiding the proper behaviour of political office bearers and public officials. This code typically encompasses only a subset of the rules governing a government's public service ethics. It is more specific compared to ethical rules, which include statutes, regulations, and guidelines. A code of conduct serves as a set of principles adopted by an organisation to define its specific values and standards. It entails choosing policies about fundamental ethics in society at large to influence how an organisation defines its course of action, and whether organisation-oriented behaviours are considered acceptable. The SAPS has its own Code of Conduct that requires permission to be obtained for research studies within the organisation and stipulates the regulations that must be abided by during the research process.

Smith, Minnaar and Schnetler (2004:149-150) note that the SAPS has a Code of Conduct guiding all members in terms of standards and moral judgment. Managers and supervisors are responsible for implementing the Code of Conduct in units, departments, and stations. As a government organisation, the SAPS must adhere to prescribed legislation, regulations, and official directives. The SAPS National Instruction 1/2006, highlighted by SAPS, mandates that individual seeking to conduct research must apply for permission. Upon approval, the researcher is informed in writing, provided they sign an undertaking to comply with the approved conditions. Researchers are also urged to follow the governance and protocols of the organisation, especially when granted access to sensitive information.

The researcher obtained permission to conduct research in the SAPS, and the approval letter is attached to the thesis as Appendix A.

## **5.17 THE BELMONT REPORT**

The ethical framework for the protection of human subjects in research was established through the National Research Act (Pub. L. 93-348) on July 12, 1974. This led to the formation of the National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research (Babbie 2010). The Commission's task included identifying fundamental ethical principles for biomedical and behavioural research involving human subjects and developing guidelines to ensure adherence to these principles. In fulfilling its mandate, the Commission addressed key issues, such as determining the boundaries between biomedical and behavioural research and establishing accepted practices in medicine.

The assessment of risk-benefit criteria played a crucial role in determining the appropriateness of research involving human subjects. McFann (2014:np) stated that the Commission also provided guidelines for selecting human subjects to participate in research and outlined the nature and definition of informed consent in various research settings. The Belmont Report, stemming from the Commission's work, highlights three fundamental ethical principles that researchers should uphold in researching human subjects. This includes the principles of respect for persons, beneficence, and justice. These principles serve as the foundation for ethical judgments and guide the conduct of research to ensure the well-being and rights of research participants (McFann,2014:np). The researcher strictly adheres to the ethical principles outlined in the Belmont Report in the following manners:

- **Respect for Persons**

All participants, regardless of gender and race, will be treated with respect as autonomous agents. Individuals with diminished autonomy will receive necessary protection throughout the study.

- **Beneficence**

Participants will receive ethical treatment, which includes actively promoting their well-being in addition to honouring their personal choices and protecting them from harm.

- **Justice**

Justice involves determining who should benefit from and who should bear the burdens of research findings. The selected participants did not receive any incentives, aligning with the principle of equality in distribution.

- **Voluntariness**

The validity of informed consent depends on if it was voluntarily given. Conditions for consent are free from coercion and undue influence.

## **5.18 UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION**

Freed-Taylor (1994:523-532) outlines the importance of researchers being fully cognisant of ethical considerations and adhering to fundamental principles. These ethical considerations include:

- The principal investigator holds responsibility for all project-related procedures and ethical considerations.
- Research should be conducted in a manner that preserves the integrity of the research enterprise.
- Efforts should be made to avoid negative aftereffects that might diminish the potential for future research.
- Researchers must consider the effects of their work, including potential consequences or misuse, on individuals, communities, colleagues, and society at large.
- Researchers should avoid undue intrusion into the lives of individuals or communities under study.

- The welfare of informants is of the highest priority, ensuring the protection of their dignity, privacy, and interests.
- Participants should be offered access to research results presented in a manner and language understandable to them.

The researcher adheres to various ethical codes, including those outlined by the (UNESCO). These codes are interconnected, with a particular emphasis on respecting participants, ensuring confidentiality, and obtaining informed consent.

Understanding ethical do's and don'ts is crucial when conducting research, as emphasised by different reports that reinforce a shared ethical principle.

## **5.19 SUMMARY**

This chapter offered the general orientation of this study as well as the research methodological parameters followed and discussed research methodology. Researcher described the research paradigm, research type, strategy approach as research approach. The study used a constructivist grounded theory framework for the overall approach. Within this framework, the research design consisted of the qualitative approach and mixed methods research approach, in which data was collected through questions, Textual data was collected via interviews and document review, and analysed using the qualitative methods of content analysis and the constant comparative coding method. The mixing of these methods was important in the context of the case study strategy of inquiry, since it provided a more complete picture of the total case, and was used as part of triangulating the findings within.

Finally, paradigmaticism, as the selected research philosophy, is a combination of philosophies which holds the view that it is possible to work with variations in assumptions regarding the nature of reality (ontology), as well as variations in how knowledge can best be reproduced (epistemology) Brink and Van Rensburg (2023) and therefore advocates the mixing of methods in order to support this worldview (Denscombe, 2010; Mouton, 2006). The researcher applied qualitative research approach, research design, data collection, data analysis.



The researcher used the research methods include all the techniques and methods which have been taken for conducting research whereas research methodology is the approach in which research troubles are solved thoroughly. It is a science of studying how research is conducted systematically. In this field the researcher explains himself with the different steps generally taken to study a research problem. Hence, the scientific approach which is adopted for conducting research is called methodology. The research methodology, which refers to a set of guiding principles for the development of specific methods, is connected to the research design (Molenaar, Newell & Lerner, 2014:19).

According to Welman et al. (2005:78), all types of experimental research involve some form of investigation, which means that other researchers are exposed to something that they would not have been subjected to otherwise. The focus was on the research methods which the researcher adopted in achieving the aim of this study. The research problem and the corresponding aim of this study, namely, to explore explore the actions of the first police responders in the management of murder crime scenes were contextualised and data collection and analysis were described.

This chapter concluded with measures incorporated to ensure trustworthiness in this study as well as an illustration of the ethical aspects abided by in this study. In this chapter, detailed discussions are provided on the scientific and academic standards employed in the research. The use of the scientific methods and management of research techniques used to conduct this research were discussed in length. The emphasis is on the research design and methodology, including a presentation of the philosophical framework guiding the study and the ethical considerations applied. Various aspects, such as research design, target population, sampling methods, data collection, data analysis, and the credibility of the data, are thoroughly examined. This section delves into the significance of ethics and explores its dimensions within the study. Kumar (2015:5) states that research is a way of obtaining answers to professional questions adhering to the conventional expectations of scientific procedures. Leedy and Ormrod (2010:10) add that research is a systematic process of collecting, analysing and interpreting information (data), to increase one's understanding of a phenomenon about which one is interested or concerned about.

Methodologies can either be qualitative or quantitative, or more specific for example, grounded theory (Silverman, 2000:79). Creswell (2013:22) is of the opinion that the methodologies used by qualitative researchers are characterised as inductive, emerging, and shaped by the researchers' experience in collecting and analysing data. Qualitative researchers follow logic that is inductive "from the ground up, rather than handed down from the theory or the perspectives of the inquirer" (Creswell, 2013:22). The primary objective is to ensure transparency in the researcher's methodology and to offer a guide for future researchers in the same field to replicate similar methods for obtaining comparable results. The subsequent chapter delves into the presentation of research findings, including emerging themes and the distinct roles of key figures such as the first police responder, detectives, and LCRC SAPS members at murder crime scenes. Additionally, the chapter covers topics such as training for first responders in murder crime situations and the management of evidence at murder scenes.

## **CHAPTER SIX: PRESENTATION AND DISCUSSION OF THE RESEARCH FINDINGS**

### **6.1 INTRODUCTION**

The chapter outlines the findings of the investigation. In this qualitative inquiry, 29 full-time SAPS police officers participated in interviews to explore the responsibilities of the first police responder at a crime scene. Themes were deduced from the data provided by participants and analysed using ATLAS. ti software. The ensuing chapter delves into the identified themes and sub-themes identified during the analysis of the findings. Participants responded to the posed questions, and their perspectives on the role of the first police responder were documented. The participants' viewpoints were rendered through In Vivo coding to articulate a range of ideas about specific themes.

### **6.2 EMERGING THEMES**

The collected data underwent analysis using ATLAS. ti software. Information provided by each participant was analysed, and the software automatically allocated numbers to each participant's information, for example, the first interviewee on the 'theme roles of the first police responder at the murder crime scenes was allocated and discussed in a random order and provide examples of the participant findings, not in chronological order, but based on relevance to the theme discussed in the different sections below. The themes and subthemes discussed randomly related to the role of the first police responder at the murder crime scene. The researcher provides examples of the participant's findings, not in chronological order, but based on relevance to the theme discussed in the different sections below.

The themes discussed during the interviews are as follows:

- Understanding the concept of the crime scene.
- Crime scene management.
- Understanding the first police responder.
- Understanding the roles of the first police responder in the murder crime scene.

The subthemes discussed during the interviews are as follows:

- Role of LCRC Member at the murder crime scene.
- Training for first police responders at the murder crime scene.
- The challenges encountered by the first police responder at the crime scene.
- Best practices on managing murder crime scene by the first police responder.
- Identification of the most suitable practices for the first police responders to manage the murder.
- The utilisation of non-numerical identifiers, as opposed to participant names, to ensure confidentiality between the researcher and the participants.

### **6.3 UNDERSTANDING THE CONCEPT OF THE CRIME SCENE**

This theme revolves around grasping the concept of “the crime scene”, which is the site for recovering physical evidence. It is crucial to investigate the crime scene with precision, systematic, and orderliness to avoid compromising the evidential value of exhibits. The literature highlighted these key points that the researcher wishes to compare with the participants. The crime scene holds paramount significance in the investigation process, serving as the primary source for gathering and collecting information, along with being the site where direct or indirect evidence of a crime, or an alleged crime, can be discovered (Fisher, 2004:54). Various definitions exist for the term “crime scene”, with Van Heerden (1986:217) characterising it as a “field laboratory” where objects of dispute are situated for subsequent laboratory tests.

Marais and Van Rooyen (1990:23) define a crime scene as the location of concealed clues that can contribute to the clarification or detection of the crime, encompassing any place where physical clues related to the crime can be retrieved. The SAPS policy on crime scene management (SAPS, 2009a:2) defines a crime scene as a place, including the surrounding areas, where an alleged offence occurred and where items with evidential value can be collected. The researcher uses italics font as a style of typeface in which the text appears slanted to draw attention to certain words or passages, the font also plays an important role in differentiating some part of a text or because researcher use a direct word from the participants interviews.

- Participants 1.9

*“Participants expressed the view that crime in South Africa encompasses both violent and non-violent offences within the country's jurisdiction. South Africa stands out for its notably high rates of violent crime, consistently holding a reputation for having one of the highest global murder rates when compared to other nations”.*
- Participants 1.3

*“Participants acknowledge that crime in South Africa involves both violent and non-violent incidents occurring within the country. South Africa is distinct for its significantly elevated levels of violent crime, consistently ranking among the countries with the highest global murder rates. Additionally, the country faces heightened occurrences of organised crime compared to its international counterparts”.*
- Participants 1.5

*“Attributions to crime levels include factors such as poverty, issues in public service delivery, and wealth disparity. The Institute for Security Studies underscores that beyond poverty and inequality, social stress stemming from neglectful childhood environments and subsequent lack of guardianship contribute to crime. South Africa's elevated crime rates, along with challenges in recidivism and an overburdened criminal justice system, are deemed a crisis necessitating a radical re-evaluation of approaches to crime and punishment, particularly for young individuals”.*
- Participants 1.8

*“The participants uniformly define a crime scene as the location where a crime transpired or as the site where a crime occurred, and evidence can be retrieved. Furthermore, some participants specify that a crime scene is where a crime happened, evidence can be recovered, or includes the surrounding areas subjected to investigation”.*

- Participants 1.4

*“Responding straightforwardly, participants from both groups characterise a crime scene as the place where a crime unfolded, evidence can be collected, and investigations are conducted. This aligns with the SAPS policy on crime scene management (SAPS, 2009a:2).*

When asked to articulate a definition for a crime scene, all participants concur that it refers to the place where a crime took place. Participants specifically define a crime scene as “a place or area where a crime has been committed”. A comparison with the perspectives of Van Heerden (1986:217) and Marais and Van Rooyen (1990:23) reveals that participants' views restrict the crime scene to the immediate location of the crime. This contrast may potentially result in overlooked information and clues, as a crime scene also encompasses any location where physical evidence related to the crime could be recovered (Marais & Van Rooyen, 1990:23). Gilbert (2010:594) defines a crime scene as a location or place where a suspected crime occurred, while Inman and Rudin (2011:197) assert that a crime scene facilitates criminal investigation by identifying, collecting, analysing, and presenting evidence during a court trial.

The participants' responses align with the literature, indicating their comprehension of a crime scene as discussed in scholarly works. Through a synthesis of reviewed literature, analysed documents, and participant responses, it is evident that a crime scene is a site where criminal activity transpired. Similarly, Gilbert (2007:79), emphasises that a crime scene is a location where a suspected criminal offence occurred. Another participant's opinion coincides with Osterburg and Ward's (2010:91) notion that even though a crime scene is usually a single location, it includes every area people walk through when committing a crime and subsequently, may occasionally involve multiple locations.

- Participants 1.6

*“The participant statements reveal that the policies governing the attendance of the FSL, Biology Unit, and crime scene, do not extend to procedural aspects. There is a provincial policy in Pretoria, called the Victim Identification Centre (VIC) that provides guidelines for experts.*

*This policy, compiled by an expert in June 2013, guides experts in performing BPA functions in line with stipulated procedures. Unfortunately, the expert could not share this document due to its non-national status, and the research area falling under Gauteng Province”.*

One participant provided an example that there is no national instruction policy specifying how and when to engage Blood Pattern Analysis (BPA) experts. Another participant concurred, stating the absence of an NI policy document in the SAPS regarding the call-out of a BPA expert to a crime scene. Detectives lack further instructions or guidelines for summoning BPA experts. The participants agree no NI Policy document, or Standing Order exists within the SAPS concerning the use of BPA analysts for crime scene reconstruction.

The existing policy document stipulates the presence of a forensic expert at the crime scene if called out by the investigating officer and CSM. NI policy documents outlining procedures for summoning BPA experts to crime scenes and the utilisation of these experts is deemed a necessity, especially if there is blood-related evidence at the crime scene. Some other literature highlight that the successful application of BPA demands a combination of geometry, physiology, physics, and logic, requiring extensive training and a solid scientific education (Houck & Siegel, 2010:244).

According to Jackson and Jackson (2011:6), the partial or complete reconstruction of a crime is crucial for corroborating or refuting accounts given by suspects or eyewitnesses, particularly in violent crimes where bloodstain patterns offer vital information. In cases of violent crimes, bloodstain pattern analysis can identify the location of the victim and perpetrator, shed light on the crime scene's staging, and reveal insights into events during the commission of the crime (Saferstein, 2011:378-379). BPA interpretation can provide details such as the direction of blood origin, angle of droplet impact, victim's position during a bloody wound, the movement of a bleeding individual, the minimum number of blows on the victim, and the approximate location of the perpetrator delivering the blows (Saferstein, 2011:378-379).

Notably, the location, distribution, and appearance of bloodstains and spatters are essential for interpreting and reconstructing events, serving as associative evidence that links a suspect with the crime (Lyman, 2013:39).

#### **6.4 CRIME SCENE MANAGEMENT**

This theme crime scene management involves the following process of planning and implementation of measures to take control and secure the crime scene; ensure the integrity and the original of evidence and exhibits; investigate and process the crime scene thoroughly and undisturbed; coordinate and maximise the collection of exhibits; utilise the investigation support resources optimally; record facts and events properly; and ensure that the crime scene remains under police protection for the period determined by the crime scene manager. A crime scene is a location where direct or indirect evidence of a crime, or an alleged crime, can be discovered.

The term encompasses an area where a crime has occurred (Fisher, 2004:54; Swanson, Chameleon & Territo, 2003:35). Recognising the potential of crime scene management to link a suspect to an incident through the identification and recovery of materials left at or taken from the scene has long been acknowledged. Advances in forensic science have expanded the possibilities of interpreting the circumstances surrounding a crime. In numerous murder investigations, multiple scenes may be involved. Various types of scenes exist, and constructing the scene of any crime is crucial, as evidence possession, allocation, and the testimony of police officers and criminal investigators are paramount for successfully clearing a case.

The crime scene serves as tangible proof that a crime has occurred, marking the starting point of a criminal investigation, and containing evidence connecting suspects to the crime. Typically, when a crime is reported the first law enforcement officer arriving at the scene becomes a pivotal figure in the investigation. This officer must safeguard evidence and prevent scene contamination (Gehl & Plesca, 2016).



The role of the first police responder at a crime scene encompasses several general categories, including self-protection, care for the injured, securing and safeguarding the scene, identifying witnesses and suspects, maintaining scene control, establishing contact with headquarters, and preparing notes to document actions and observations for future reference. For example, while setting rigid rules for all crime scenes is challenging, obtaining pertinent information such as the time of the crime report, the officers' arrival time at the scene and the identity of the person who reported the crime is crucial.

- Participants 1.1

Participants, *“explained crime scene management as the protection and securing of physical evidence at the crime scene and participants were of the view that the responsibility of documenting the crime scene is the sole responsibility of the crime scene experts”*. Furthermore, of the opinion that besides the protection of the crime scene, the first responder also must attend to injured persons. Some participants did not understand crime scene management.

In contrast to the literature on the explanation of crime scene management, the feedback obtained from the participant indicates that the participants did not have a comprehensive understanding of what crime scene management entailed. Participants' understanding of crime scene management was rather limited to the protection, securing and packaging of physical evidence, as well as attending to injured persons. It appears that the underutilisation of crime scene experts to process murder scenes is primarily a result of the lack of a comprehensive understanding of all aspects of crime scene management. The underutilisation of crime scene experts in the investigation of murder cases could also be the result of first police responders' lack awareness of the value of utilising all investigation support resources optimally. Researcher-established crime scene management skills are an extremely significant task component of investigation because evidence that originates at the crime scene will provide a picture of events for the court to consider in its deliberations.

- Participants 1.99

Participants, *“indicated that crime scene management is as long as police can follow the procedures by taking notes, securing a crime scene and evidence management”*.

Crime scene management is a crucial skill in investigations as evidence originating from the crime scene forms a vital component for the court's consideration during deliberations. This composite picture includes witness testimony, crime scene photographs, physical exhibits, and the analysis of the crime scene itself, offering a comprehensive understanding of the events in question. Researchers defined management as being able to identify and manage what needs to be done. Management has the requirement which involves five steps such as identification, analysis, allocation, verification, and traceability. Researcher defined management as a process of working with and through others to achieve organisational objectives in a changing environment. In addition, the researchers discovered that management is the process of designing and maintaining an environment in which individuals, working together in groups, efficiently accomplish selected aims. The key aspects of management are getting things done through people in an effective, efficient, and economical manner to achieve the organization's objective.

- Participants 1.92

*“Crime scene management is a multifaceted activity that involves numerous stages and processes. This includes the identification, documentation, collection, preservation, and evaluation of information and evidence at a crime scene”*.

Management is a dynamic system of creating an enabling crime scene manager where the goals of an investigation can be achieved. To achieve these goals, there is a need for different activities to be carried out at the scene of crime. Such activities which are the main functions of management include: Planning, Organising, Directing and Controlling.

- Participants 1.7

*“Participants agree by saying “Yes”, noting that they are investigators, and they used to attend many crime scenes to do crime scene evaluation. The participant continued to say that they regularly attend numerous crime scenes for crime scene evaluation to ascertain the nature of the crime committed. Their objective is to gather direct information and facts systematically, conducting a scientific search for evidence, both directly and indirectly, to identify the commission of the crime and the perpetrator. It is crucial to recognise that the individualisation process commences at the crime scene”.*

It is logical for the crime investigator to initiate the search for direct and indirect information at the crime scene. However, the effective utilisation of the crime scene as an information source is contingent upon appropriate actions taken on-site. Understanding the definition of a crime scene and comprehending what victims can do to ensure the secure preservation of potential evidence for collection by the crime scene investigator, also known as an Investigating Officer, is paramount. A crime scene is defined as the area where a crime occurred. It is the space where physical evidence indicates the involvement of parties. This assertion aligns with Locard’s Principle, advocating that “Every contact leaves a trace”. In other words, when the perpetrator(s) of a crime encounters the scene, they introduce something to the scene and depart with something from the scene (Pepper, 2010:6) and (Trimm, 2003:6).

- Participants 1.10

*“Participants agreed and expressed a belief in the close relationship between uniformed members and detectives, emphasising the first responder’s role in the crime scene management process. Their responsibility includes ensuring the proper protection of the crime scene to prevent contamination, thereby facilitating the processing of crime scenes”.*

- Participants 1.13

*“Participants agree positively, indicating a confident relationship with detectives and other agencies at the crime scene. They engage in discussions to understand the circumstances of the crime.*

*However, challenges arise with LCRC members at the crime scene who show tendencies to rush and sometimes neglect specific physical evidence collection or fail to adhere to procedures outlined in the national instruction policy of 2015”.*

- Participants 1.15

*“Participants responded negatively as they conveyed that they either do not investigate murder cases or lack the expertise to reconstruct murder crime scenes. Consequently, they rely on crime scene experts for reconstruction, highlighting their lack of training in this specific investigative aspect”.*

- Participants 1.18

*“Not everyone attended the orientation for crime scene management, although the majority did. Nevertheless, participants emphasise that they can effectively carry out their duties at the crime scene. Crime prevention training was provided at select police stations, and most participants indicated that they had attended the course”.*

However, a few participants mentioned that despite not attending the course, they were able to perform their duties effectively due to their experience, having been employed in their roles for several years. The researcher can confirm that the SAPS, as a professional organisation, considers this type of training essential. It aids officers in understanding what actions to take when deployed outside their police stations to address complaints.

- Participants 1.20

*“Participants expressed a unanimous need for additional training in crime scene management. Participants pointed out the significance of scene-of-crime management skills as a critical aspect of investigations. Since evidence originating from the crime scene forms a vital component for court deliberations, participants recognise the importance of further training in this area”.*

- Participants 1.17

*“Participants elaborated on learning crucial tasks and protocols related to crime scene management, including notetaking, securing a crime scene, evidence management, and scaling the investigation to the event's scope. These skills, such as understanding critical issues in crime scene management, evidence identification, location, collection, protection, and proper documentation, are deemed essential for officers to effectively incorporate into their investigative toolkit”.*

While these tasks may appear simplistic, ritualistic, and mundane, they constitute the fundamental building blocks of a criminal investigation. Without a solid foundation of proper evidence practices, a case risks collapse in the courtroom. New investigators have ample opportunities on a day-to-day basis to start practising crime scene management protocols on a smaller scale, such as investigating break-ins, entries, and lower-level assaults. Once these skills of crime scene management and evidence management are acquired and integrated into daily practice, they become procedural norms and essential operational habits for professional investigative practice.

The literature highlights that when legal matters involve other sciences or faculties, the law has the authority to seek the opinion of an expert from that field. Although social science research was introduced in criminologists were only utilised by South African courts in the mid-1980s. An expert also called a specialist, is defined as a person with the status of authority on a subject based on special skill, training, or knowledge. This expertise encompasses various scientific domains, including physical sciences (chemistry, physics, forensic science, biology), social sciences (psychology, sociology, economics), and technical sciences (engineering, statistical analysis, or computer science).

## 6.5 UNDERSTANDING THE FIRST POLICE RESPONDER

This theme introduces the definition of the first police responder according to the SAPS. The SAPS National Instruction 1 (SAPS, 2015a:3) defines the first responder as the member, regardless of their unit, who arrives first at the crime scene. Jackson and Jackson (2008:22) support this definition, stating that the first responder is the initial police officer to reach a given incident scene. Palmiotto (2013:97) notes that patrol officers are typically the first to respond when a crime is reported to the police. The patrol officer who arrives first at the crime scene assumes a crucial role in the investigation process. According to Lee et al (2007b:50), first responders to a crime scene encompass police officials, paramedics, and personnel from the fire department. This view is echoed by Fish et al (2011:31), who explains that patrol officers, firefighters, and emergency medical personnel are typically the first to arrive on the scene. They emphasise that all safety concerns are generally addressed before crime investigators enter the area.

- Participants 1.19

*“Both detective and uniformed members among the participants affirmed that the first responder is the initial police official to arrive at the crime scene. The researcher concluded that the participants provided an accurate explanation of the first responder at a crime scene, consistent with the literature and referenced documents, particularly the SAPS National Instruction 1 (SAPS, 2015:3), Jackson and Jackson (2008:22), and Palmiotto (2013:97) as referred to above”.*

- Participants 1.21

*“A first police responder is an individual who visits the crime scene and is capable of effectively protecting and preserving it. typically, al responding officer, typically a police officer, assumes a significant role in the entire crime scene investigation process”.*

- Participants 1.24

*“The participants elaborated on the meaning of “observation” in the context of an investigation. The question allowed participants to provide their answers, and several participants offered more than one response. Their perspectives on observation in terms of investigation included:*

- *Listening to a complainant during an interview and seeking information.*
- *Watching a person or a place for an extended period.*
- *Reflecting upon an incident that occurred.*
- *“Seeing” the injuries of a victim.*
- *Observing an event about to happen for an extended period.*
- *Assessing the emotional state of a victim.*
- *Safeguarding information.*
- *Searching for evidence or clues,*
- *Noting what is visible on a crime scene”.*

The researcher observed that most participants demonstrated a good understanding of the concept of observation. Three participants highlighted observation as involving the search for clues, while another three described it as “what you see on a crime scene”. This observation suggests a potential reason for the limited collection of physical evidence during murder investigations. In summary, the first police responder must possess inherent qualities for successful observation. Training can arguably enhance observation abilities, improve knowledge, broaden experience, and foster an imaginative approach. Here, the researcher adhered to the guidelines outlined by Saferstein (2013:28), who asserts that while observation skills can be developed with sufficient willpower and commitment, latent skills enhance the investigator's ability to detect such evidence. Osterburg and Ward (2010:278) concur, stating that these skills can be developed over time. Lochner and Zinn (2015:42) posit that an investigator will progressively learn to recognise physical evidence as they gain experience. The primary focus of the present study is on the crime of murder.

- Participants 1.28

*“All participants stated reasons for visiting a crime scene including:*

- *Gathering physical evidence from the scene.*
  - *Interviewing eyewitnesses and locating suspects.*
  - *Identifying objects used in the commission of a crime.*
  - *Gaining a clear understanding of what happened at the scene.*
  - *Collecting evidence for investigation purposes.*
  - *Securing and gathering evidence relevant for court purposes.*
  - *Finding clues related to the alleged crime to link suspects.*
  - *Conducting interviews with witnesses to locate suspects and obtain crucial clues.*
  - *Gathering information for statistical purposes”.*
- Participants 1.30

*“All participants emphasised that visiting a crime scene is crucial to gathering evidence for solving a crime and securing a conviction in court, given crime trends and crime patterns in the area”.*

This aligns with documented literature (Osterburg & Ward, 2010:96; Gilbert, 2007:79; Stelfox, 2013:16; Palmiotto, 2013:99; Pepper 2010:1). Palmiotto (2013:99) emphasises the importance of visiting the crime scene while it is still fresh before physical evidence deteriorates. Stelfox (2013:16) highlights that if material is not identifiable during the initial crime scene investigation, it is unlikely to be recoverable later. This is particularly true for most forensic evidence, as it has the potential to degrade if not located quickly after the incident of the crime. One participant, however, did not share a common understanding of the reasons for visiting a crime scene. These participants mentioned that the purpose of visiting a crime scene is to gather information for statistical purposes and to analyse crime trends and patterns in the area. This participant did not grasp the intended purpose of visiting a crime scene, as described in the reviewed literature. Especially in cases where witness accounts serve as important evidence if investigators are unable to identify witnesses during the investigation phase, it is unlikely that the witnesses will become available at a later stage. Even when they do, it can be challenging for courts to assess their validity, due to the time that has elapsed between the events and the witness's account of them (Stelfox, 2013:16).



Pepper (2010:1) asserts that there is only one opportunity for the crime scene investigator to recover forensic evidence from the crime scene. This evidence may be scientific, such as DNA or unique marks on bullets; it may be minute, such as fibres, hairs, or paint flakes, or even obscure items, such as knots. If such evidence is not recovered from the scene initially, a forensic specialist cannot identify its origin or source. The true challenge of the crime scene lies in determining which area of detection to focus on. Crucial evidence that could solve the crime is often present at the scene, and successfully finding this evidence is essential, as tracing clues can help locate the perpetrator of the offence.

Evidence may also assist investigators in determining the type of criminal offence that has occurred. Lastly, evidence may identify the victim if the victim's identity is unknown. Physical evidence can also be recovered on the victim or suspect or within their immediate environment (Gilbert, 2007:79). Osterburg and Ward (2010:96) believe that the reason for searching a crime scene is to find out what happened, how it happened, and when and where it happened. According to Osterburg and Ward (2010:96), there are additional reasons to search a crime scene, such as identifying and personalising the object used in the commission of the crime, determining the psychological profile and motive of the crime, or recognising the perpetrator's MO.

- Participants 1.31

*“Participants agree about the mistakes made by first police responders and detectives at murder crime scenes. Participants made a list of the mistakes as follows:*

- *Poor handling, collection, and packaging of physical evidence, which subsequently contributes to the acquittal of the perpetrator.*
- *Cases often lost due to inadvertent contamination by news media personnel, senior officials, and fellow personnel who move around the scene.*
- *Patrol officers remove weapons and other exhibits from a crime scene and return them after a few days.*
- *Tampering with the crime scene, not cordoning off the area, and leaving physical evidence due to negligence.*

- *Allowing people to walk all over the scene and touch evidence.*
- *Failure to identify and obtain witness statements.*
- *Tampering with physical evidence.*
- *Chasing away sole witnesses and contaminating the crime scene.*
- *Unlawful arrests due to first responders failing to gather relevant information at the scene of the crime.*
- *Failing to interview witnesses.*
- *First responders not cordoning off the scene.*
- *First responders not following procedure and allowing bystanders to tamper with the crime scene.*
- *Tampering with crime scenes and contaminating physical evidence.*
- *Not removing witness statements, not cordoning off the scene, and not protecting physical evidence.*
- *Allowing bystanders and other colleagues, who are not playing any role in the processing of the crime scene, to enter the crime scene.*
- *Not having proper control of the scene and allowing senior officials to walk around the scene.*
- *Failing to interview eyewitnesses and failing to locate and gather evidence”.*

It is emphasised in the SAPS guidelines that preservation of evidence should be a priority for the first responder at the crime scene (SAPS, 2009:344). Thibaut, Lynch, McBride & Walsh (2008:177) even argue that cases can be lost, because people are allowed to walk all over the scene and touch evidence. The researcher established, after comparing data from literature, documents, and the viewpoints of the participants that they all agree regarding the common mistakes made by first responders at crime scenes. When prompted, participants acknowledged that handling mistakes at a crime scene can even lead to bigger problems, including that their actions could be perceived as a cover-up or conspiracy. Mistakes are considered inevitable, but the best approach is to minimise them through proper education and training. Participants emphasised the importance of internal reviews for each crime scene process, allowing for learning from mistakes and seeking ways to improve future investigations. Each crime scene should be treated as a learning experience.

- Participants 1.34  
*“Participants highlighted the importance of training and education to protect physical evidence by circling areas to shield them from contamination. They suggested that every vehicle or patrol vehicle should be equipped with danger tapes to cordon off the scene and cones to protect exhibits”.*
- Participants 1.25  
*“Participants emphasised daily parade reminders about crime scene management. They suggested concentrating efforts at the crime scene, implementing controlled movement or access control for members, and inviting experts to attend the scene of the crime. Additionally, increasing the workforce to assist at the crime scene was recommended”.*
- Participants 1.22  
*“Participants highlighted that training is a key solution to addressing problems at the crime scene. Participants also suggested an increased workforce and subsequent management for non-compliance with crime scene management directives”.*

The literature supports the idea that training and education are essential for enabling first police responders to effectively carry out their duties. Participants echo this sentiment, recognising that a crime scene contains crucial evidence linking suspects to alleged crimes, making it imperative for first police responders to receive relevant training and skills for this purpose (Lee et al, 2007:50; Hawthorne, 2014:np). The researcher concurs with both the literature and the participants' viewpoint that training can offer solutions to identified mistakes and is crucial for empowering all visible police members who serve as first police responders at crime scenes. The participants noted that training and education could help rectify mistakes made by first police responders at the crime scene. Some participants did not provide an answer to this question. However, one participant suggested that increasing the workforce and subsequently managing noncompliance with (CSM) directives could help mitigate mistakes at the crime scene. The advice given by the participants aligns with identified best practices.

If a police officer makes a mistake at a crime scene, they should admit it at the beginning, not attempt to cover it up and be honest about it, reporting it to the person in charge. It is emphasised that if mistakes are fixable, altering the scene should be avoided, as attempts to recreate the scene may introduce subtle and unconscious changes that could impact the investigation's outcome. The researcher expresses hope that improvements in crime scene investigation over the next ten years will eliminate recurring issues from the past.

- Participants 1.23

*“Participants emphasised the importance of documenting evidence at the crime scene. They stress the need to identify and collect evidence during the initial investigation. The collected items are recorded in the police notebook and later transported to the police station. Subsequently, the evidence is handed over to the exhibit room through the exhibit clerk and documented in the exhibit book. Evidence requiring scientific analysis is then transferred to the forensic laboratory”.*

- Participants 1.29

*“The forensic receptionist plays a crucial role in receiving evidence, recording it in a book, and forwarding it to the relevant forensic unit responsible for that type of evidence. Following examination, the analyst returns the evidence to the requesting officer along with the examination report. The case officer then presents the evidence as exhibits in court”.*

Considering existing literature, researchers understand that observing and documenting the crime scene serves the purpose of noting the location of potential evidence. This process helps mentally prepare and outline how the crime scene examination will be conducted. Conditions at the crime scene should be carefully observed, including transient details like lighting, newspapers, doors, and curtains.

- Participants 1.27

*“Participants underscored the significance of recording various factors such as weather, temperature, movement of furniture, and other disturbances made during life-saving efforts. Conditions that could either support or refute claims of suicide or self-defence should also be documented, such as gunshot residue and the position of the firearm in shooting cases”.*

Recognising both the presence and absence of expected items at a crime scene is crucial. For instance, the absence of the victim's belongings like a purse, watch ornaments, or a vehicle. Similarly, objects that seem out of place and potentially left by the perpetrator should be noted. In cases involving vehicles, details such as the license number, key position, gearshift position, meter reading, steering position, and fuel level, as well as the status of lights, should be documented. The researcher recommends employing the oblique lighting technique, especially indoors on hard floors. This technique involves using a suitable flashlight with a strong concentrated beam that moves back and forth over the floor surface. Under normal light conditions, trace evidence and shoe prints might be barely visible or invisible, but this technique can dramatically reveal them. Additionally, both the floor and ceiling should be thoroughly inspected, as valuable evidence such as blood splatter and bullet holes may be present. The use of photography and videography is encouraged to document crime scene conditions effectively. This documentation should begin with a general overview of the crime scene and its surroundings. Wide-angle, close-up (long, middle, and close-up range) shots should be taken to illustrate the shape, size, and position of evidence about the crime scene. This comprehensive visual documentation provides a better perspective on the crime scene layout.

- Participants 1.40

The participants responded in various ways. *“When revisiting the crime scene, it is essential to reconstruct it, particularly if it has been affected by weather conditions. Although physical restoration isn't necessary, documenting the original state is crucial. Like the meticulous documentation of crime scene photographs, including the placement and positions of items, the reconstruction process aims to recreate the sequence of events following the crime.*

*This involves determining the points of entry and exit, ensuring a comprehensive investigation for additional clues. Upon the arrival of the first responder, it is imperative to secure the area to prevent any alterations. The initial attendance marks the starting point for subsequent reconstruction, contributing meaningful information for court proceedings. In cases where experts didn't initially attend, a reconstruction becomes necessary to extract leads crucial for arrest. Some participants displayed varying levels of understanding. While some were unsure about attending the crime scene and addressing its deficiencies, others did not respond to the question. Conversely, certain participants provided insightful answers. For instance, one participant said: "When you take a holistic approach with all information, test the hypothesis to get a meaningful answer, and to prove the hypothesis. We used a scientific method to test this." This emphasises a holistic approach, testing hypotheses rigorously to derive meaningful conclusions using the scientific method. Another participant, specialising in crime scene reconstruction, articulated the discipline's essence by saying: "...in my field crime scene reconstruction is to analyse and evaluate all evidence relating to the crime. Determine the events and sequence in which it happened." Yet another participant defined crime scene reconstruction as a forensic discipline dedicated to identifying objective statements about criminal incidents. They said: "CSR is a forensic discipline that seeks to identify as many objective statements as possible regarding what happened and in what order it happened during a given phenomenon, some incident believed to be criminal in nature." This process involves examining the physical scene, associated evidence, and artefacts, organising events chronologically, and resolving conflicting hypotheses".*

The participants provided a range of answers to the question, with some offering more detailed insights. However, others presented vague responses, indicating a lack of expertise in crime scene reconstruction. Saferstein (2013:151) emphasises the importance of investigators approaching each case without preconceived theories or expectations.

Consequently, to produce a logical reconstruction of the events at the crime scene, the crime scene reconstruction staff should apply the processes of deductive reasoning, inductive reasoning, and falsifiability (Saferstein, 2013:151). This process involves scientifically linking a series of events to provide an understanding of the sequence of actions that left physical evidence behind. Each explanation is developed, linked, and evaluated using a relevant scientific method based on available data. It is crucial for crime scene reconstruction to adhere to scientific methods (Ogle, 2012:5). The reconstruction of a crime scene serves to support the likely sequence of events related to the incident (Saferstein, 2011:376). Additionally, Saferstein (2011:378) emphasises that crime scene reconstruction requires collaboration among medical examiners, criminalists, and law enforcement personnel to recover physical evidence and unravel the events surrounding a crime.

- Participants 1.32

Participants responded with diverse perspectives. *“Some emphasised the need to establish the facts surrounding the crime and gather additional information from the crime scene. Another participant mentioned leaving something uncertain to ensure all clues are obtained. Providing a detailed outline of the crime scene's appearance for the court was mentioned as a crucial step, accompanied by the importance of preventing unauthorised entry to maintain the scene's integrity. However, some participants chose not to respond, possibly due to a lack of clarity on the matter. Highlighting the concern about evidence disturbance during crime scene reconstruction, one participant noted the delicate balance required in this process. Two participants stressed the importance of reconstructing a scene when experts did not initially attend, aiming to uncover leads crucial for making an arrest. This involves addressing what was unclear during the first visit or adding details that were initially overlooked to preserve evidence effectively”.*

The participants responded to the question regarding BPA by outlining its valuable contributions to crime scene reconstruction.

BPA provides information on the impact and directional angle of airborne droplets hitting a target surface, the area of convergence for related stains, the number of cast-off patterns, the minimum blows delivered to a target, and the nature of the force and object creating the stains.

## **6.6 UNDERSTANDING THE ROLES OF THE FIRST POLICE RESPONDER AT THE MURDER CRIME SCENE**

This theme focuses on the pivotal role of the first police responder in murder investigations as described by the participants during the interview. The initial actions of the first police responder significantly impact the subsequent trajectory of the case within the criminal justice system. Typically, the first police responder is the earliest to arrive at the crime scene, and their handling of the initial investigation is crucial. Depending on departmental policies and the available personnel, the first police responder may either independently conduct the entire investigation, assist the primary investigator, or receive assistance from the investigator. Upon being notified of a crime in progress, the first responder promptly proceeds to the crime scene to address any emergencies, including attending to injuries. If the suspect is still present, immediate arrest procedures should be initiated. The urgency of police response is paramount, as delays increase the risk of evidence destruction or contamination.

Additionally, prolonged response times may result in witnesses leaving the scene or discussing the incident among themselves, potentially distorting their accounts of the crime. According to Gehl and Plesca (2016:np) stated that when directed to proceed to a crime scene, the first police responder should adhere to the following steps:

- Determine the circumstances:  
A first police responder must remain observant when exiting their patrol vehicle to respond to a scene, identifying potential witnesses and evidence. This includes locating juvenile witnesses. Assessing the situation, the first police responder aims to comprehend what has transpired.
- Identifying next steps:  
Given the circumstances, the first police responder should consider whether the involvement of a technician, another officer, or an investigator is warranted.



- Evaluate testimonies:  
Attempt to comprehend the motivations of witnesses while assessing the accuracy of their accounts. This involves making decisions on whether to act on the provided testimony and determining if another officer might be more effective with a particular witness. Document findings: Record a comprehensive account of the incident, noting what has occurred and what has been learned.
- Participants 1.39  
*“Participants acknowledged that as the first police responder at a crime scene, their responsibility involves assuming control over the situation. This includes taking prompt and full charge of the crime scene and relocating witnesses, complainants, and bystanders for future questioning. Additionally, the personal details of witnesses, complainants, and individuals present, including police officers on the scene need to be recorded. Furthermore, the first police responders should engage in interviews with complainants, bystanders, and anyone with information shedding light on the case”.*
- Participants 1.41  
*“The first police responder's primary responsibility is to prioritise the care of the injured. This includes taking immediate charge of the scene and receiving first-hand information from the public. The first responder is tasked with identifying and setting up a command centre, assuming the role of the Command Centre Commander until an official commander is designated. Participants emphasised the importance of the first responder securing and protecting the scene during this initial phase. Additionally, the first responder is required to provide a comprehensive situation report to the dispatcher. Subsequently, the dispatcher, consulting the contingency plan, determines the appropriate investigating Unit for the situation”.*
- Participants 1.48  
Participants identified and discussed the following tasks. *“They deemed it necessary to cordon off the crime scene by establishing access control to secure the crime scene and create a command centre.*

*They noted that control should be handed over by transferring control of the scene to the Crime Scene Manager". A first responder should conduct an initial walkthrough. A detailed inspection should be conducted by the CSM, assisted by the IO and the CST to ascertain key aspects of the scene.*

The participants' statements confirm their roles in the crime scene environment. In response to questions about the duties of the first police responder, a majority agree that their responsibilities involve taking charge, protecting, and guarding the crime scene. They emphasise the importance of making preliminary notes before the formal investigation begins. This includes conducting a walkthrough to identify safe routes for investigators and obtaining an overall understanding of the crime scene. Additional tasks include identifying and marking potential physical clues to prevent their destruction or loss, evaluating the crime scene in terms of available resources, and seeking expert assistance when necessary.

- Participant 1.14

*"One participant detailed their participation in the arrest and detention of a suspect, and their involvement in seeking identification from the complainant, visiting the crime scene, and apprehending perpetrators if still present".*

- Participants 1.50

*"Two participants mentioned visiting the scene, cordoning it off, locating witnesses, determining if witnesses are known, and identifying the weapons used in the crime. Additionally, one participant suggested calling an ambulance to assess the condition of the individual, declaring them dead or alive".*

- Participants 1.58

*"The participants indicated several steps when a crime is reported. Participants said that the first police responders must determine if a crime has occurred. The first responders must cordon off the scene by removing bystanders so as not to tamper with the scene.*

*First police responder must interview the victims and summon other relevant personnel to attend to the complaint and coordinating with all role players is essential, considering reaction time and providing feedback. Further actions involve opening a CAS docket, preparing it for a preliminary investigation, and assigning it to an investigator.*

*Participants also mentioned that part of the procedure involves going to the crime scene to ascertain what kind of crime was committed, making any necessary arrests, and carrying out a thorough investigation".* Participants indicated that proper interviews must be conducted with complainants. Participants also said that first responders' crucial steps include identifying the elements of the crime and determining the exact offence location and documenting details in the CAS docket. Specific actions for situations such as an ongoing robbery, include arranging backup, getting in touch with relevant role players, and looking into the crime scene and any items used in it. Obtaining all pertinent statements and conducting a thorough investigation are reiterated. The process includes commencing with a preliminary investigation, allocating the CAS docket to the designated investigating officer, visiting the crime scene, and gathering relevant information to progress the investigation.

The SAPS provides a detailed explanation of the process to be followed when a crime is reported, as outlined in SAPS National Instruction 1 (SAPS, 2015:21). Jackson and Jackson (2008:21) describe a similar process, albeit without dividing it into distinct phases. Despite slight variations in these processes, such differences are considered acceptable, recognising that procedures may vary based on the severity of the reported crime and the unique characteristics of each scene. This theme underscores the crucial role of the first police responder at the crime scene. Additional investigative steps include obtaining and assessing the accuracy of witnesses' statements, deciding on actions based on the statements and evidence discovered at the scene, documenting the actions taken, and lessons learned, and addressing remaining tasks.

This involves conducting raids, surveillance, stakeouts, and undercover assignments, as well as identifying and apprehending suspects. The final step includes testifying in court. The SAPS learner's guide supplements the abovementioned steps by noting that the detective's responsibilities extend to attending post-mortems and assisting the state prosecutor during the trial. The researcher concludes that the first responder's role encompasses fulfilling criminal investigation objectives. While traditionally focused on bringing offenders to justice, investigative practices have evolved to include victim care, community reassurance, intelligence gathering, disrupting criminal networks, and managing a broad spectrum of crime risks as fundamental objectives in the process. The main objectives of criminal investigation are the collection of evidence, in strict accordance with the provisions governing the process, which can serve as evidence before a court of law, through which an accuser's involvement in the commission of a crime can be proved. The participants understand the objectives of criminal investigation are to find out the truth about a crime that took place and arrest suspects. The literature reviewed reveals the objectives of criminal investigation as being to detect crime, locate and identify possible offenders; gather, collect, and process evidence; arrest offenders; recover any items; bring offenders before court; and secure a conviction.

- Participants 1.57

*“Participants have confirmed that “Yes, we do have our role as a detective at the scene of a crime.” Their responsibilities involve gathering crucial information provided by the crime scene, including details about the unlawful nature of the act, MO information, the direction and way the criminal approached and left the scene, identification of the victim, and the identity of the offender and their role in the crime”.*

- Participants 1.55

Participants 1.57 and 1.55 shared a common understanding of the objectives of criminal investigations. It is, however, very important that the other participants expose themselves to the objectives of criminal investigation in a broader sense since their understanding of the objectives is revealed by their answers.

- Participants 1.58

*“Participants stipulated that the first responders should conduct a thorough assessment of the scene; prioritise care for the injured; contact emergency medical personnel promptly; preserve the scene by ensuring minimal interference; methodically document each assessment and action taken at the scene; report these details to superiors and the investigating officer; provide feedback to members of the public or victims involved in the case to keep them informed”.*

Participants 1.57; 1.55, and 1.58 share the same offers about a comprehensive list outlining the roles of the first responder. Detectives should prepare for managing the crime scene by obtaining extensive information about the incident. During travel and arrival, their safety should always be factored in. Thereafter, they should confirm the arrival and onset of their actions with the dispatcher, request backup and emergency services when necessary, and provide care for the injured within their training limitations. If injured persons are mobile, their positions are marked, and their details are obtained. The detective, upon arriving at the crime scene, should take control and evaluate its safety status. They identify the nature of the incident and communicate with the dispatcher.

The detective secures the scene by establishing inner or outer cordons, designates an area for witnesses, and protects evident clues from contamination. They determine access routes, set up a command centre, and professionally relocate witnesses to a designated area. The detective follows procedures for arresting suspects, handling evidence, and managing media interactions. If a secondary scene is identified, all duties are duplicated accordingly. Furthermore, the first responder hands over the scene to the CSM or IO and remains available for the debriefing and evaluation phases. Not all roles were mentioned by participants, for example, walking through the scene, and debriefing about the scene. They demonstrated an understanding of the first responder's responsibilities, closely aligning with those outlined in the literature.

Their recognition of the importance of the first responder's role reflects what is indicated in the SAPS Detectives Learning Programme (SAPS, 2009:388). Other participants also covered most of the roles of the first responder at the crime scene as indicated in the literature and official documents.

## **6.7 ROLE OF LCRC MEMBERS AT THE MURDER CRIME SCENE**

This subtheme focuses on a court may admit a photograph of any article (apart from documents) as evidence under Section 232(1) of the Criminal Procedure Act (CPA) Act No. 51 of 1977, even if the actual article is available to be presented in real life. For instance, photographs of a firearm spent cartridges, and bullet heads found at a crime scene can be presented instead of the actual items. Subsection 20 of the CPA empowers the State to seize any item at a crime scene to obtain evidence for the initiation of a prosecution. This legislative framework mandates Crime Scene Technicians (CSTs) from the Local Criminal Record Centre (LCRC) to document crime scenes and collect exhibits. Omar (2008a:29-30) specifies that the LCRC's function involves managing criminal records and applying advanced techniques to recover physical evidence from crime scenes.

There are 90 LCRCs situated across the nine provinces of South Africa. According to Omar (2008b:30), LCRC members play an important role in collecting evidence from crime scenes, which includes tasks such as taking photographs and retrieving items such as spent cartridges or body fluid samples left at the scene. The SAPS learning guide (SAPS, 2009a:50) expands on this, emphasising that CSTs from the LCRC should focus on reconstructing the chain of events. They are expected to provide a realistic, visual representation of the scene to support the judicial process, searching for, documenting, and collecting physical evidence. Their role also involves identifying the perpetrator(s) and establishing links between the perpetrator(s) and the crime scene. In practical terms, members working in these LCRCs are often referred to as CSTs. The CST is considered an “expert”, depending on their training. In summary, a CST is a specially trained SAPS member who represents the LCRC and takes control of the crime scene. (SAPS, 2009a:55).

In the researcher's experience, a CST is a member of the LCRC who has undergone the required training. This training involves completing an Advanced Crime Scene course within the SAPS. During this course, CSTs receive training in various aspects, including the investigation, processing, photographing, planning drawing, videoing, and reconstructing of crime scenes. The CST is also instructed in the collection and preservation of physical evidence. Upon completing the training and gaining a minimum of two years' experience in crime scene investigation, a member of the LCRC becomes eligible to appear before an adjudication panel. The panel assesses whether the LCRC member meets the minimum requirements in terms of training, knowledge, and experience in crime scene investigation.

- Participants 1.60

*“The responses of the participants indicate a common understanding of the role of CSTs. Their responsibilities include collecting physical evidence and presenting it in court. CSTs are described as aids to detectives, assisting in the documentation of crime scenes through photography, performing primer residue tests, and collecting various types of physical evidence, such as blood, firearms, and fingerprints. Additionally, participants highlighted the importance of photographing the crime scene and forwarding collected physical evidence to the FSL for analysis”.*

- Participants 1.64

*“The participants' responses align with the multifaceted role of CSTs. Their duties involve documenting the crime scene, collecting exhibits, sketching crime scenes, forwarding exhibits to the FSL for analysis, and testifying in court. Participants emphasise the relevance of expertise skills to thoroughly analyse and investigate crime scenes, ensuring proper off cordon-off procedures to prevent contamination”.* Key responsibilities mentioned include collecting physical evidence to establish links between the perpetrator and the crime scene and reconstructing crime scenes for a comprehensive understanding. This underscores the crucial role CSTs play in forensic investigations and legal proceedings.

Both the literature and the participants' responses converge to highlight the pivotal role of CSTs from the LCRC within the SAPS. It can be inferred that CSTs are among the most valuable resources for SAPS detectives. Their expertise is instrumental in positively identifying and linking perpetrators to crime scenes, providing crucial evidence for investigations. Additionally, CSTs serve as invaluable aids to the court by presenting visual representations that depict how crime scenes were documented and recovered. This highlights the significance of their role in the criminal justice process, contributing substantially to both investigative efforts and courtroom proceedings.

- Participants 1.65

*“The participants' responses underscore the comprehensive responsibilities of members of the LCRC. They are tasked with recording crime scenes through photography, video recordings, and sketch plans. Specifically, in cases of sexual assault, the LCRC processes the scene to collect physical evidence such as fingerprints, blood, hair, semen, and saliva. Furthermore, their duties include photographing or videoing scenes of crime, victims, suspects, and property; sketching crime scenes; searching for, collecting, packaging, and preserving physical evidence; detecting and lifting finger and palm prints; storing physical evidence; preventing contamination; forwarding exhibits to the FSL for analysis; preparing statements; presenting evidence in court; reconstructing the chain of events; linking suspects to crime scenes through fingerprint comparisons”.*

From the literature reviews that the learning Guide of (SAPS, 2009a:48) emphasises the crucial role of CSTs and their processing teams as the "eyes and ears of the court" at crime scenes. Effective management by the CST requires a coordinated effort, to allow each expert sufficient time for a professional search. This approach increases the likelihood of discovering high-quality physical evidence, subsequently enhancing the results obtained by analysts at the FSL. The interviews highlighted the perceived importance of forensic science in the process of identifying and linking suspects to crime scenes. Both CSTs and SAPS detectives demonstrate a clear understanding of forensic science and its role in criminal investigation, particularly in the context of identifying and linking suspects in murder cases.



## **6.8 TRAINING FOR FIRST POLICE RESPONDERS ON MURDER CRIME SCENES**

This subtheme focuses on effective law enforcement and requires training in handling crime scenes. Each crime scene should be managed by investigators with specialised training in crime scene management. For scenes involving digital crimes, personnel with expertise in the digital investigation should be assigned, for example (Bulbul, Yavuzcan, & Ozel, 2013:144-256). Professional instructors in the field of property and evidence management must offer specialised training to property officers who oversee evidence management (Latta & Giles, 2010:np). Training serves as a fundamental component in shaping proficient police officers and aligning with broader transformation goals within the police force. It should incorporate modern techniques and investigation principles, focusing on enhancing the quality of crime scene management. This perspective is consistent with Vision 2030, which emphasises the importance of strengthening the capacity and training of detectives and specialised investigators in law enforcement (Faull, 2017:1).

The main idea of the National Development Plan is that by 2030 all its goals must have been achieved, including that of people living safely free of the fear of crime. Crime should be a concern of the community as well. By making the police service professional to link to promote a discipline in the service. Recruitment should attract competent, skilled professionals using a track system one for commissioned officers and one for non-commissioned officers. The overall focus of training for police officers should align with the evolving nature of crimes, especially in areas like murder cases. The crime scene unit ought to have a training plan for both new personnel and new tasks, outlining the required standards of performance, competency, and assessment criteria (Horswell & Elliot, 2012:np). Assessment can be conducted through completed training plans or simulated crime scene investigations. Experienced and competent personnel should be responsible for delivering the training program (Horswell & Elliot, 2012:np).

The training curriculum should encompass a comprehensive manual covering all procedures utilised in casework, along with a code of ethics (Horswell et al, 2012). It must emphasise and evaluate the technical skills and knowledge necessary for effective crime scene investigation. Personnel should demonstrate competence through a competency test before independently handling casework, ensuring the acquisition of requisite skills and knowledge during training (Horswell et al, 2012). Furthermore, training programs may be enhanced through participation in external courses or workshops. This approach ensures a continuous and well-rounded development of skills and expertise in crime scene management.

A continuous education program is crucial to keep investigators up to date on technical advancements (Horswell et al, 2012:np). This program may encompass attendance at conferences, seminars, and courses, participation in webinars, and regular review of scientific literature, offering various avenues for self-learning. Training and competency tests should be well-documented, with records maintained according to the guidelines established by the crime scene unit (Horswell et al, 2012:np). For those involved in processing scenes related to minor or volume crime, such as murder scenes, planned and structured internal training programs delivered by experienced practitioners should be in place. These programs should focus on practical, skills-based training, ideally aligned with defined role profiles and occupational standards. Competence assessments should be conducted of these programs to ensure effective retention of the knowledge gained (Horswell et al, 2012).

- Participants 1.66

*Some participants stated "No, we did not attend any training on crime scene management." They clarified that their training was limited to basic college training and did not include specific crime scene management. Consequently, they acknowledged a lack of knowledge on how to manage murder crime scenes".*

- Participants 1.68

*“These participants indicated their active involvement in murder crime scene investigations to trace the physical evidence at the scene of the crime to assist the detective in collecting evidence at the scene of the crime. However, during the interviews, it was highlighted that while they knowledge, they felt a deficiency in skills related to managing crime scenes effectively”.*

- Participants 1.42

These participants answered: "Yes, we are involved in murder scene investigations", but they added that *“The detective can show us what to do or not to do while we are at the crime scene.”*

Consequently, these initial responders' actions are guided by the detectives who are called to attend the crime scene, who particularly emphasise the importance of not touching any objects present at the scene of the crime. Furthermore, this group of participants have attended some courses, but not all are related to crime scene management, and some did not prove to be very helpful. One participant is quoted as saying:

What, I am trying to say is that, for example, we have attended a course on the investigation of crime, which is related to the scene of crime management. As there are, no investigators in some of the units' police stations did not even attend the scene of crime management in their unit as we only focus on crime prevention and attending complaints. As we are saying, is not work much, if something happens at the scene and it requires the investigators, we make sure that the scene must not be tempered as they need to be investigated, and then we hand it to the investigators.

- Participants 1.49

This participant said: *“Yes, we attended many crime scenes, including murder crime scenes. to must protect the crime scenes be not[sic] contaminated by animals, even human beings by trampling on the physical evidence such as blood or fingerprints.”*

- Participants 1.43

*When participants were questioned about the standard operating procedure the responses varied greatly, as it seemed it was not used for governing the investigation of the crime scene. When asked about their knowledge of any standard operation procedure in place for governing the investigation of a crime scene, participants stated that there was no standard operation procedure specifying a particular person or department to oversee the investigation once a series of murders had been identified. Participants were unsure of the existence of an SOP and stated that SOPs were not utilised by the SAPS in practice”.*

- Participants 1.44

*“The most crucial task for the first police officer at a crime scene is to prevent the destruction or loss of potentially valuable evidence. This evidence is essential for apprehending the criminal responsible for the crime. Police departments should establish policies and procedures for their officers. Participants emphasised the critical role of the first officer at any crime scene, emphasising the importance of recording the time and entering the crime scene correctly”.*

The participants’ statements indicate that uniformed members confine their duties to attending to complaints and opening dockets when they assist detectives at the crime scene. Respondents were questioned about crime scene management training. Given that crime is an everyday reality, effective crime scene management is crucial to ensuring the collection of all available information, increasing the likelihood of arrest and convictions. It is imperative to avoid contamination of a crime scene at all costs.

- Participants 1.45

*“Participants responded negatively, stating that they had only undergone three weeks of basic detective training. Most indicated they had not received training in crime scene management.*

*Although not everyone was required to possess knowledge related to crime scene management, some detectives attended detective courses without specific training in crime scene management. It was noted that the crime scene management course is primarily for managers from the LCRC and not at the station level. However, most uniformed officers and detectives didn't mention attending such courses during the interviews”.*

- Participants 1.31

*“One participant mentioned the usefulness of the crime scene management course. However, they clarified that not attending the crime scene management orientation does not render someone incapable of effectively executing their roles at the crime scene. According to other participants, their experience in handling complaints has also improved their ability to perform their other duties at the crime scene”.*

- Participants 1.47

*“One participant indicated that some of the courses they had attended, such as the investigation course, were not specifically intended for crime scene management, and they did not find them useful in that context”.*

- Participants 1.48

*“The participants indicated that they had attended crime prevention courses rather than courses relevant to detectives or crime scene management. They agree with the researcher that crime scene management courses would be beneficial for them to understand the importance of when they arrive at crime scenes. Their primary responsibilities include patrol, attending complaints, and opening case dockets for reported cases. According to the participants, attending crime scene management courses would provide them with knowledge, skills, and experience to perform their duties effectively”.*

Some participants mentioned that they have been involved in managing murder crime scenes to assist detectives in obtaining witness statements.

However, others indicated that they have not done so, because they are not investigators and believe that the first person arriving at the scene should protect it until detectives arrive. They usually call detectives on standby duties to process the crime scene. The participants' statements suggest that while they understand what needs to be done at a crime scene, they feel they lack knowledge on how to manage it effectively. The literature highlights the introduction of crime scene management training for all members of the SAPS. Additionally, it emphasises the importance of considering private partnerships for specialised training. The Detective Dialogue promotes the urgent need for a joint meeting involving all parliamentary committees and departments in the areas of justice, security, and crime scene management.

- Participants 1.49

*“Detective members should take charge of murder investigations, as emphasised in the literature”.*

From the literature, the researcher established that the Civilian Secretariat for Police also highlights the importance of implementing and enforcing SOPs. According to their guidelines, supervisors and managers are responsible for communicating SOPs to SAPS members, and administrative review measures should be taken if SOP compliance is not met (Civilian Secretariat for Police, 2015b:26). The first police officer arriving at a crime scene plays a crucial role in driving a successful investigation. The crime scene is where most of the physical evidence associated with the crime is obtained, and it requires careful location, documentation, and collection.

- Participants 1.50

*“The participants responded affirmatively, acknowledging shortcomings, and emphasising the need for training for the first police responder. They highlighted the critical role of the initial responder in shaping the success of an investigation involving a distinct crime scene. The primary focus of training is to equip uniformed officers with the necessary skills to protect crime scenes, identify and uncover evidence, assess evidence potential, gather information, and perform crucial functions efficiently.*

*Serving as a first responder holds significant importance, as their actions upon arrival can profoundly impact the case's outcome, making the difference in identifying the responsible party and securing a conviction. Uniformed staff members are typically the first to arrive at a crime scene, and with proper training, they can ensure the scene's integrity. This, in turn, aids forensic staff and detectives in their pursuit of justice for victims. The participants stressed the importance of building on this relationship, considering South Africa's high crime rate and the need for improved conviction rates. They emphasised the significance of training various enforcement staff, including SAPS officers, in crime scene management to ensure the admissibility of evidence in court. Knowledge sharing and empowering all enforcement services through such training were viewed positively by the participants, advocating for more initiatives of this nature”.*

- Participants 1.51

*“The participants strongly emphasised the importance of continuous training through annual refresher courses. They highlighted the necessity for LCRC members to be present at crime scenes and stressed the need for investigators to have video cameras. Furthermore, they advocated for the training of uniformed members in murder scenes, focusing on evidence identification and protection, and logical thinking skills”.*

They emphasised that first responders should follow-up follow up on leads, obtain all witnesses' particulars and statements, attend crime scenes promptly, and encouraged officers to actively search for fingerprints or small items that could link to the perpetrator. Additionally, the participants stressed the role of LCRC in attending scenes, taking photos, and displaying a keen interest in gathering evidence or seeking outside witnesses.

- Participants 1.52

While participants provided numerous recommendations, some did not explicitly mention the development of investigators.

However, other participants, responding to a similar question, highlighted training, workshops, and annual refresher courses as ways for investigators to develop.

Saferstein (2013:28) as well as Osterburg and Ward (2010:9) concur that training is essential to equip individuals with the skills necessary for handling investigations.

- Participants 1.53

Participants pointed out that, to be a successful investigator, one requires the knowledge and skills to investigate.

Saferstein (2013); Saferstein (2011:28); Osterburg & Ward (2010:9) concur that training is essential to equip individuals with the skills necessary for handling investigations. Participants' responses align with Osterburg & Ward (2010:9) when they emphasise two of the three attributes crucial for a person to become a successful investigator. The first corresponding attribute involves the ability to conduct an inquiry, as reflected in the emphasis on logical thinking in their responses. The second attribute involves identifying the skills required to achieve goals, linking to the participants' emphasis on developing investigators' skills. Most responses focus on the development of investigators, while others strongly emphasise improving investigators' skills. In the SAPS, the recurrence of refresher training, referring to the time between training interventions, is an essential aspect. The frequency of refresher training is not formally structured in the SAPS, resulting in individuals having unique profiles regarding this aspect of their career as some individuals may attend refresher courses more frequently than others.

## **6.9 CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER ON THE CRIME SCENES**

This theme addresses the challenges encountered by first police responders in managing murder crime scenes. A crime scene is any physical location that holds potential evidence related to an offense offence, including bodies, vehicles, open-air locations, or any items found at those places.



Crime scene inspection involves using forensic or scientific methods to preserve and collect physical evidence related to unlawful activities. "Investigation", as defined in Section 2 of the Criminal Procedure Act, is the process of uncovering evidence and discovering the truth at the crime scene. This necessitates specific actions to ascertain facts and gather evidence. Investigators employ various methods, such as examining blood, fluids, witness testimonies, prints, residues, digital devices, or other forms of technology, to understand how a crime occurred. The researcher discovered in the articles of Dr Henry Lee, as Dr Lee notes that the same problems have persisted at crime scenes for over 30 years. Despite increased education on evidence collection and crime scene investigation in the last decade, Dr Lee observes that these problems persist. These issues are not unique to a single law enforcement agency but are prevalent in many departments, irrespective of size or location. Dr Henry Lee tries to address some of these recurring problems. The primary issue, which serves as the root cause for many other challenges in crime scene investigation, is the lack of administrative policies specifically addressing specialised operations like crime scene preservation and investigation.

Dr Lee emphasises that chief administrator of law enforcement agencies need to develop and enforce practical rules that facilitate the preservation of crime scenes and enable detectives and crime scene investigators to perform their jobs effectively. A significant challenge in crime scene investigation is the presence of too many non-essential personnel, often including police officers, at the scene. Once the scene is stabilised, and the victim is either removed or declared deceased, all individuals, including police officers, should be promptly cleared from the scene. The area must be secured until detectives and crime scene investigators arrive, and no one, regardless of rank, should enter the scene before their arrival. Having non-essential personnel on the scene, particularly sightseeing police officers, can lead to inadvertent disruptions or create the impression that the crime scene has been compromised. During trials, defence attorneys and the media frequently use the argument that the police contaminated, disrupted, tainted, or mishandled the crime scene. By minimising the presence of non-essential personnel and maintaining control over the scene once stabilised, such claims lose validity.

- Participants 1.54

*“Participants identified several challenges at murder crime scenes, including issues during the initial call and the actions of the first officers at the scene. Quick preservation is crucial for successful evidence recovery, as crime scenes are easily compromised, and evidence can be destroyed by moving items or walking over the area before experts arrive to clear it. Participants showed awareness of Locard’s Principle which states that “every contact leaves a trace,” as they recognised the importance of finding evidence through effective preservation and search techniques”.*

Participants stated that based on their findings, the officers would contact their supervisor and request an SIO to attend the location. The researcher identified another prevalent issue in crime scene investigation, namely the failure to check the floor or ground before entering the scene. Detectives and crime scene investigators should inspect these surfaces to facilitate the preservation of additional evidence that may be present. This practice is essential even if numerous people have already been at the scene. Additionally, inadequate documentation through photographs remains a persistent problem. The crime scene photographer has a singular opportunity to carefully document the crime scene, and it is crucial to capture it, along with the evidence, from multiple angles. The insufficient use of photographs can hinder a thorough understanding of the crime scene and compromise the investigative process.

- Participant 1.58

*“Effective management of personnel at major crime scenes is crucial for the success of an investigation. Major crime scenes typically involve complex issues that may result in misunderstandings and conflicts among different forensic teams. Therefore, establishing clear and efficient management protocols is essential to ensure a coordinated and productive approach to the investigation”.*

- Participants 1.55

*“A coordinated approach to the investigation is crucial and must be agreed upon by all the various experts involved in handling murder crime scenes.*

*Challenges arise from the poor training of the SIO, who serves as the principal decision-maker in the investigation and controls the inquiry with the management team at the murder crime scenes. Inadequate training for the scientific support coordinator, who manages and coordinates various scientific support teams, and the CSC, who should advise the SIO on contamination issues, also to difficulties in managing murder crime scenes effectively. Participants also mentioned challenges related to poor crime scene managers”.*

- Participants 1.56

*“The CSM, who should be an experienced CSI, assumes control of the crime scene and is responsible for overseeing its examination. However, challenges are noted, such as the absence of an exhibit officer at crime scenes. This detective, responsible for keeping evidence secure, typically records, catalogues, and assigns exhibit numbers to each piece of evidence. The lack of experienced police and staff at the scene was also highlighted by the interview participants. Personnel under the control of the scientific support coordinator play a crucial role, and the crime scene investigator is responsible for preserving and collecting evidence. Additionally, dynamic risk assessments are conducted to address health and safety concerns at the crime scene, and the photographer provides a comprehensive visual record for use in trials and post-mortems”.*

The surveyor plays a crucial role in providing detailed maps and plans of the crime scene. The fingerprint laboratory technician is instrumental in recovering prints at the scene, while the fingerprint expert examines prints to aid in identifying individuals associated with the scene. Critical stress debriefing is essential for personnel exposed to upsetting scenes, ensuring they have the opportunity for psychological support. A no-contamination matrix is compiled by the crime scene manager, preventing individuals or vehicles from attending more than one scene to eliminate the risk of cross-contamination. However, challenges are noted, such as poor management of police and forensic experts at the scene, highlighting the need for effective coordination to avoid overlaps in examinations.

Additionally, there is a mention of inadequacies in major crime scene vehicles, as these vehicles often substitute as command posts to allow briefings to be held site on-site. Crime scene vehicles should also be equipped with proper lighting equipment, tarpaulin, plastic tape, and other non-routine equipment needed at an external crime scene. Addressing the challenges of poor instant search, the CSM engages police search advisors (POLSA) trained in systematic search techniques for large areas. A fingertip search is conducted to locate evidence, and CSIs recover and transfer the evidence to the exhibits officer for secure storage until its value to the investigation is determined. The recovery of evidence is guided by an evidence recovery plan outlined by the CSM, ensuring proper steps are taken before any evidence is recovered.

However, challenges with the examination sequence are noted, with a recommendation for a structured approach to prevent the destruction of evidence during the recovery process. Sequencing suggestions include a pictorial record and sketches of item positions, prioritising the recovery of fragile evidence like DNA, fibres, and fingerprints. The significance of the murder scene cannot be overstated; it stands as the most critical crime scene that an officer may be summoned to investigate. Gerberth (2016:np) states that "Due to the nature of the crime, death by violence or unnatural causes, the answer to what happened can only be determined after a careful and intelligent examination of the crime scene."

Furthermore, participants unanimously recognize two significant challenges to physical evidence: contamination and loss of continuity. Contamination poses a threat to the integrity of evidence, leading to unwanted alterations that can impact the reliability of original exhibits or the crime scene. This can occur through the erasure of the original evidence transfer, the dilution of samples, or the introduction of misleading materials onto an exhibit. Just as evidence transfer between a suspect, the crime scene, or the victim can establish a circumstantial connection, contamination has the potential to compromise the analysis of the original evidence transfer, potentially leading the court to reject the analysis and the inferences it might reveal. The researcher has established that contamination can occur in various ways, such as police or other first responders interfering with evidence during a tactical investigative response.

Suspects may also interfere with the crime scene to conceal or remove evidence, while victims or witnesses, through handling evidence, can inadvertently contribute to contamination. Even animals, including pets, can introduce unwanted transfer or removal of evidence through contact or consumption. Weather-related factors, like rain, wind, or snow, may contribute to contamination by diluting or washing away evidence. Additionally, crime scene investigators failing to adhere to proper scene-of-crime management procedures can cause contamination of exhibits or cross-contamination between exhibits during their investigation. According to explanations from all participants, discussions indicated that investigators face the most challenging aspects of their work during the investigation stage. During this phase, investigators strive to determine a motive for the crime, if possible.

The accuracy of this motive is crucial, as it significantly aids in narrowing down the suspect pool. Witness accounts play a pivotal role at this stage and require close examination, evaluating their assistance in constructing a profile for the suspect. From the literature, it was ascertained that in this investigative stage, investigators should ensure that trained experts evaluate all available physical evidence. Elaborating thorough examination of the crime scene has been conducted, investigators need to construct a profile for potential suspects based on the available evidence. Subsequently, investigators should scrutinise the evidence to establish connections between the suspect and the crime. All available evidence must contribute to establishing a nexus between the suspect and the victim concerning time, place, and motive. At this juncture, investigators must be well-versed in the information gathered during the investigation building to build a profile of potential suspects. Investigators should formulate an investigative interview plan so that, when confronting the suspect, they are clear about the direction and purpose of their actions or questions during the arrest stage.

- Participants 1.57

The participants identified challenges such as *"lack of secure storage, destruction of collected evidence due to excess heat, prolonged court cases leading to evidence contamination."*

Furthermore, they also elaborated on the use of shared lockers that cause evidence contamination, inadequately equipped storage facilities, and a shortage of storage packaging materials.

- Participants 1.59

*“Participants noted that proper preservation is crucial for successfully recovering evidence from any crime scene. Crime scenes are vulnerable to compromise, and evidence can be destroyed by walking over or moving items before experts have cleared the area”.*

- Participants 1.70

*“Effective management of personnel at major crime scenes is essential for a successful investigation. Major crime scenes introduce complex challenges that may lead to misunderstandings and conflicts among various forensic teams. A coordinated approach to the investigation is crucial, requiring agreement among all experts involved for proper handling of the case”.*

During the interviews, it became evident that scene of crime investigators faces significant challenges. It is recommended that investigators receive specialised training in handling, packaging, transporting, and storing crime scene materials. Implementing proper transportation strategies is essential to minimise damage, loss, contamination, and exposure of evidence. The researcher discovered that some courts highlight an increasing number of acquittals due to poor, or lacking evidence from crime scene investigators.

Consequent acquittals are linked to tampering with crime scene evidence, failed prosecutions, unpunished offenders, and wrongful convictions. This study aims to identify challenges faced by crime scene investigators and specifically focuses on methods of retrieving and storing evidence, transportation procedures, storage practices, and the correlation between an investigator's training level and their success in criminal investigations. The literature highlights challenges encountered during the collection of criminal evidence at murder scenes, including interference with the evidence.

Issues in crime scene management encompass inappropriate packaging materials, insufficient crime scene kits and tools, challenges in division of labour, inadequate packaging procedures, uncooperative witnesses, lack of modern investigative equipment, unpredictable weather conditions, slow facilitation processes, conflicts with other components, insufficient storage facilities, transportation challenges, and communication issues. Crime scene management has evolved to address contemporary challenges faced by crime scene experts, with notable changes in the recoverable evidence types and the tools used for investigation.

Participants highlighted problems and practices related to on-site crime scene management, including delays in examining the crime scene, lack of communication of specific requirements to experts, and improper utilisation of trained human resources. Legal authorisation and jurisdictional challenges, the availability of physical evidence at the crime scene, expert viewpoints, videography of the crime scene, the role of forensic scientists, and an interdisciplinary approach are all significant factors in the examination and management of crime scenes. The literature underscores the importance of properly handling and preserving crime scenes for investigation and justice administration. The success or failure of a crime investigation hinges on the meticulous examination and preservation of the crime scene. However, the methods employed in crime scene examination are not uniform. They vary based on location, expert perspectives, laboratory practices, topography, jurisdiction, environment, and available resources.

- Participants 1.72

*“Detectives have identified several problems they encounter at crime scenes, with curious onlookers posing a significant challenge. These observers, including eyewitnesses, other police officers, and the public, can leave items at the crime scene that interfere with the technicians' work. In some cases, the presence of onlookers becomes unmanageable, prompting law enforcement and technicians to leave the scene before completing their evidence recording. To address this, popular areas may require increased police presence to control the crime scene perimeter, allowing technicians to work efficiently and safely. Contamination is another critical issue at crime scenes.*

*The fragility of these scenes means that even the presence of police investigators can jeopardise evidence. Careless handling by investigators and other technicians can smear and destroy fingerprints and other crucial pieces of evidence”.*

To minimise potential issues at crime scenes, it is recommended to restrict the number of people present until technician’s complete routine inspections. Crime scene investigators advocate for maintaining a log at all scenes, documenting each investigator's presence, activities, and fingerprints to avoid confusion with other evidence. Accessibility challenges arise when crime scenes are hard to reach, often due to weather conditions and distance. Investigators need to be informed about the distance from the scene so they can prepare with appropriate equipment. In rural crime scenes, factors such as weather and animal activity must be considered, as they can interfere with decomposition times and potentially contribute to the destruction of evidence. In cases where crime scene investigators cannot respond promptly, higher-ranking police officers may order the removal of some evidence. This can pose challenges as the evidence may not be properly collected. to removal, police investigators are required to photograph the evidence, discuss its exact location with detectives, and provide the reason for its removal.

- Participants 1.74

*“Participants unanimously emphasise the challenging working conditions of detectives and crime scene investigators. These professionals operate in diverse environments, both indoors and outdoors. Due to the unpredictable nature of crimes happening at any time, they are often required to work irregular and extended hours, including nights. It's worth noting that many agencies exclusively hire law enforcement officers or agents for crime scene investigator positions, necessitating individuals to meet all the physical requirements associated with the role”.*



- Participants 1.73

*“Crime scene investigators play a crucial role and are expected to possess effective communication skills as they may need to testify in court about their findings. The literature highlights that first responders at crime scenes collect forensic evidence to aid investigators in reconstructing the events of a crime. This evidence can also serve to establish the involvement of a specific suspect. Detectives engage in meticulous and step-by-step work when processing a crime scene”.*

However, they often face challenges upon arriving at a crime scene, making their tasks more complex. Crime scene investigators, as professionals, are responsible for processing and analysing evidence recovered at crime scenes. Crime scene investigators collaborate with other law enforcement professionals to gather information that can help identify perpetrators and reconstruct the events that occurred at the scene. These investigators are employed by law enforcement agencies at various levels, serving either as agency officers or civilians. The process of analysing a crime scene is extensive and involves several steps. CSI personnel must first secure the crime scene to prevent any contamination of evidence. Subsequently, they collaborate with other specialists, including forensic photographers, to meticulously document the condition of the scene and the positioning of evidence. Before analysis, evidence is photographed and mapped to ensure a comprehensive record.

During evidence collection, technicians adhere to protocols, including the use of gloves to preserve the integrity of the chain of evidence. CSI personnel document the crime scene, and meticulously collect, tag, and seal all items, preparing them for transportation to a laboratory facility. However, there may be challenges associated with crime scene investigation procedures. Investigating the crime scene is the initial step in utilising forensic evidence to solve a crime. During this phase of a criminal investigation, items at the scene are recovered, collected, and preliminarily analysed to ascertain how a crime was committed. To achieve this, crime scene investigators must follow procedures that encompass managing the crime scene, securing, surveying, and documenting it, as well as collecting and preserving evidence.

- Participants 1.75

*“Participants explained the significant problems associated with the poor scene-of-crime investigation procedures encountered by detectives or first responders upon arrival at the crime scene. One notable issue is the poor securing of the scene. To ensure the protection of evidence, the first person at the crime scene should promptly secure it with barriers and/or crime scene tape. Additionally, assigning someone to act as a security guard is essential to prevent unauthorised individuals from accessing the location. Another critical challenge is poor management of a crime scene. In every crime scene, numerous individuals are engaged in various tasks. It is crucial for the investigator in charge to effectively manage the logistics of the scene, coordinate personnel, disseminate information to all involved parties, and oversee the technology being employed. This high level of communication is imperative because the actions taken during the scene of crime investigation phase can significantly impact the outcome of a case”.*

- Participants 1.78

*“Participants identified challenges in the crime scene investigation process including poor surveying processes of the scene. This initial phase, which may involve an investigator and a police officer, requires a comprehensive examination of the entire scene to formulate early theories about the crime. Investigators must avoid making hasty decisions during this task, recognising that these initial hypotheses may evolve based on subsequent forensic examinations. Another issue is poor documentation of the scene. Crime scenes are documented through four methods: written notes, photos, videos, and sketches. Each documentation method is essential as it serves as a lasting record of the scene, persisting long after evidence has been handed over to forensic examiners, and the location has been cleaned up”.*

All forms of documentation are equally vital to the case, and none should be overlooked in favour of another. Another challenge identified by participants is poor examination processes of the scene. The search is conducted by investigators based on observations made during the earlier survey of the crime scene.

During this stage of the investigation, the order in which evidence will be collected is established. Collecting evidence is a crucial step in crime scene investigation. The lead investigator at a crime scene appoints one person to collect and preserve all evidence. This ensures a higher likelihood that every item is properly accounted for and that the evidence remains uncontaminated or lost. Each piece of evidence should be handled with care, packaged separately, and marked by the crime scene investigator. Another challenge is poor reconstruction and comprehension of the scene. During the reconstruction phase of crime scene investigation, additional theories about the crime are developed or disregarded based on the recovered evidence. Forensic scientists test the evidence to determine the accuracy of these theories. Once investigators complete their work on a crime scene, the person in charge will release it.

The date and time of the release should be documented by the lead investigator. In some cases, no one will be able to enter the crime scene unless a warrant is obtained. CSIs play a crucial role as the first professionals at the scene of a crime. Their responsibilities include collecting and preserving evidence, conducting interviews with civilians to gather additional information about the crime, and handling administrative duties to present evidence to other law enforcement officers. Researchers, however, have identified various challenges encountered at the scene of murder crimes. A primary issue is the lack of administrative policies dedicated to specialised operations like crime scene preservation and investigation. The chief administrator of a law enforcement agency must establish and enforce effective rules to ensure the proper preservation of the crime scene and enable detectives and crime scene investigators to carry out their duties effectively. One significant challenge in crime scene investigations is the presence of too many non-essential personnel at the scene, often including police officers.

- Participants 1.71

*“Participants emphasised that once the scene has been stabilised, and the victim is either removed from the scene or declared dead at the scene, everyone, including police officers, must exit promptly exit the scene.*

*The scene needs to be secured until the arrival of detectives and crime scene investigators. No one, regardless of rank, should be allowed to enter the scene until the designated investigators arrive. The presence of non-essential personnel can inadvertently disrupt the crime scene or create the impression of disruption, leading to challenges during trials where the defence may argue that the police contaminated or disrupted the crime scene. Eliminating non-essential personnel and maintaining control over the scene helps mitigate these concerns. Another significant issue highlighted is the lack of communication at crime scenes. Effective communication is vital for coordinating actions, disseminating information to all involved parties, and ensuring a seamless investigation process. Addressing communication challenges is essential to prevent misunderstandings and conflicts that may arise among the various forensic teams present at major crime scenes”.*

- Participants 1.76

*“The first responding officers play a crucial role by reporting everything they have observed at the crime scene, including their actions, the actions of paramedics, and any other relevant details. This information must be effectively communicated to detectives and crime scene investigators. Collaborating with coroner or medical examiner's investigators is essential, especially when dealing with a deceased individual. The pathologist conducting the autopsy needs to communicate findings to detectives, crime scene investigators, and forensic scientists in the crime lab. Effective communication is crucial between detectives, crime scene investigators, and forensic scientists to ensure proper analysis of evidence and obtain maximum information for the investigation. Forensic scientists must provide the results of their analyses to detectives for the investigation's completion. Additionally, two-way communication with the district attorney's office is essential for all parties involved in the case. Clear and timely communication among these stakeholders is vital for a comprehensive and successful investigation”.*

From the literature, it is evident that a lack of communication can significantly impede the final disposition of a case. Handling mistakes at a crime scene poses a problem, potentially leading to more significant issues such as perceptions of cover-ups and conspiracies. While mistakes at crime scenes are unavoidable, the emphasis should be on minimizing them through proper education and training. Participants are encouraged to internally analyse each processed crime scene as a learning experience. Acknowledging and learning from mistakes made at the scene is crucial for continuous improvement in crime scene investigations. If a mistake occurs, it is advised to admit it early on and refrain from attempting to cover it up.

Honesty is paramount, and any fixable mistakes should be rectified without altering the scene further. Participants are urged not to recreate the scene if they have unintentionally altered it. Open communication and transparency are essential in maintaining the integrity of crime scene investigations. A crime scene can never be accurately recreated, and any attempt to do so may introduce subtle and unconscious changes that could impact the investigation's outcome. For instance, consider the scenario where an officer accidentally picks up a weapon and moves it before it is photographed. In such cases, it is crucial not to go back and try to recreate the original position of the weapon. Instead, the officer should promptly notify the person processing the scene, and a report should document that the weapon was not photographed in its original position due to being moved before documentation.

The weapon should then be collected. A crime scene investigator must photograph and document the scene as they find it, regardless of any prior movement. Another common problem in crime scene investigations is the failure to check the floor or ground before entering the scene. Detectives and crime scene investigators should inspect the ground using oblique or side lighting to visualise and preserve shoeprints and other evidence. Insufficient photographs taken at a scene is also a recurring issue. The crime scene photographer has only one opportunity to thoroughly document the crime scene, and they should capture it from as many angles as possible.

Considering the cost-effectiveness of film or the increasing use of digital cameras in some departments, adequate documentation is crucial. However, avoid using a digital camera or a point-and-shoot camera for crime scene documentation, as some aspects of crime scene investigation require extremely detailed close-ups. The current generation of digital cameras and the limited flash unit on point-and-shoot cameras may not meet these requirements. Law enforcement agencies should invest in high-quality crime scene cameras and side-mounted flash units, along with providing training on camera usage. By addressing these major problems at crime scenes, law enforcement agencies can enhance their effectiveness, gain increased public confidence, and conduct more robust case investigations. The identification of these problems is straightforward, and with proper leadership, they can be rectified. Learning from past mistakes is crucial. It is hoped that the next decade of crime scene investigation will see significant improvements, eliminating the recurrence of the same old problems from the past 40 years.

- Participants 1.77

*“Participants noted that another challenge in gathering evidence at a crime scene is the size or nature of certain items, which may make it impossible to measure or preserve. A participant from sample B pointed out that some exhibits are too large to be physically moved and brought to court. As mentioned earlier, the entire crime scene, along with the spatial relationships among objects, can be viewed as one extensive exhibit that must be presented to the court. This comprehensive crime scene exhibit can be effectively captured and showcased through video recordings, photographs, crime scene diagrams, or by using samples of smaller exhibits within the scene itself”.*

- Participants 1.79

*“Participants ensured that certain exhibits are perishable and impractical to move and preserve for court presentation. For instance, in a murder case, the evidence of a deceased body would be impractical to physically bring to court. Instead, it is deemed sufficient to rely on photographic evidence and certificates of analysis for pathology samples”.*

- Participants 1.80  
*“Two participants highlighted that some exhibits are transient and cannot be permanently seized and preserved for court presentation. For instance, factors such as ambient room temperature or lighting status at the crime scene need to be preserved through photographs and measurements taken at that specific moment. These documented records can then be presented to the court as photographic evidence and readings by the attending investigator”.*
- Participants 1.82  
*“A participant from sample A highlighted that a crucial consideration in collecting evidence at a crime scene is to ensure that items with the potential for cross-contamination are handled with precautions. Even though forensic experts typically collect physical evidence at major crime scenes, investigators must still comprehend the risks of cross-contamination and take necessary precautions. This becomes especially crucial during the collection of bodily substances, where DNA may be a key component”.*
- Participants 1.85  
*“Two participants emphasised that the advanced nature of DNA analysis means even a minute trace of DNA material can be transferred inadvertently through careless handling from one exhibit to the next. To prevent this cross-contamination, they recommended the practice of handling only one exhibit at a time and placing it into a secure container.”*
- Participants 1.88  
*“Three participants noted the importance of decontaminating the investigator by changing gloves and discarding any items that could have come into contact with previous exhibits. While forensic specialists are typically present for evidence collection, there may be situations where an investigator at the scene must handle multiple exhibits to safeguard the evidence from environmental damage or security threats”.*

- Participants 1.81

*“Several participants highlighted challenges during the search for and identification of physical evidence at the crime scene. In the subsection on the origin stages of evidence, they examined the time frames and alternate crime scene venues where evidence of a crime may be found. They considered the physical evidence that investigators evaluate when determining what might constitute an item of physical evidential value. The challenges identified include how evidence can be searched for, how it should be collected, when it should be collected, and how it should be preserved. These processes pose several challenges that investigators must navigate”.*

- Participants 1.89

*“One participant stated that physical evidence can be transient or time sensitive. In the initial stages of the comprehensive search, investigators must be attentive to physical evidence that requires immediate recording and documentation”.*

- Participants 1.84

*Four participants mentioned that physical evidence can be concealed and may not be easily visible. Upon entering a crime scene initially, it is unrealistic for an investigator to expect immediate visibility of all the physical evidence that requires collection. Physical evidence can take various forms, and its discovery involves a thorough examination of the entire scene. Conducting a big-picture search initially allows investigators not only to identify immediately apparent items but also to survey the crime scene, determining areas where a more detailed search might be productive. These participants provided specific examples of aspects that should be considered.*

For example, if doors or windows are open, locked, or unlocked can be relevant to the time and means of entry or exit from the scene. The lighting condition of the room, whether turned on or off, can hint at the lighting conditions at the time of the crime.



The status of the appliances in use at the scene can reveal information about certain activities. The most recent activation of electronic devices can shorten activity timelines. Temperatures at the crime scene and in the body can be used to determine the time of death and the progression of rigour mortis and decomposition. The collection of evidence commences at the crime scene, as it serves as the domain containing both visible and concealed information. Evidence is categorised into two types: direct and indirect sources of information. Direct information pertains to the realised sensory experiences of individuals. Indirect information, also referred to as mute evidence, comprises physical clues unveiling the circumstances of the events. It includes all matter, in either a solid or liquid state, that aids in the identification of a person, weapon, or vehicle about a crime or victim. This includes information intentionally left at the crime scene by the perpetrator and details about the crime scene that have been transferred to the criminal. Additionally, it involves considerations of the body and the arrangement of objects at the crime scene, along with any supplementary information related to it.

- Participants 1.86

*“All participants stated that cleaning up a murder scene is among the most challenging tasks a homeowner may encounter in their lifetime. Such scenes are frequently contaminated with blood, body fluids, and other biological materials. Furthermore, crime scene clean-up of this nature is complicated by the presence of dangerous pathogens contained within blood and other body fluids”.*

From the literature, it was established that there are typically viruses and bacteria that can exist in blood and body fluids. These viruses and bacteria are capable of infecting people who encounter these biological materials at a murder scene, including a biohazard scene clean-up crew. The most common pathogens that are transmitted by potentially infected blood and body fluids are those that can cause Hepatitis B, Hepatitis C, MRSA, and HIV. Due to the potential for exposure to dangerous viruses and bacteria, appropriate equipment, supplies, and experience are required to clean up murder crime scenes safely and effectively.

This includes the use of appropriate personal protective equipment designed specifically for this type of clean-up when handling deceased individuals. This personal protective equipment must include a mask, gloves, goggles, socks, and other protective garments.

- Participants 1.83

*When participants highlighted the stages of biohazard crime scene clean-up, they mentioned that each clean-up operation for murder scenes involves specific requirements based on the circumstances of the death and other factors. It is important to recognise that there are generally four main phases linked to a thorough and safe biohazard clean-up. These include cleaning and removal of blood, body fluids, and other matter; sanitisation of the homicide scene; deodorisation of the death scene; and restoration of the residence to a fully safe and habitable condition.*

The practicality of interviewing all participants is that homeowners generally lack access to the necessary supplies, materials, and equipment for the intricate process of homicide clean-up. Additionally, they lack the experience required to clean a homicide or any violent crime scene safely and thoroughly. A specialised biohazard remediation company that is equipped for crime scene clean-up provides immediate emergency response, ensuring a quick presence at the murder scene. For the family of a murder victim, seeking a professional homicide clean-up expert with a background in comprehensive support is advisable. Such a specialist can provide valuable assistance and resources that the family may not be aware of, aiding them in coping with the aftermath of a loved one's murder at home. An experienced, compassionate, and committed death clean-up specialist will have the knowledge required to assist the family of a homicide victim in gaining access to these vital resources.

- Participants 1.87

*“Participants responded to factors influencing an investigator's observational capabilities which encompass the gathering of physical evidence, the utilisation of gloves, and the investigator's verbal account. Examination involves scrutinising the victim, witness, suspect, and the scene”.*

- Participants 1.84

*“The first responder should initially ascertain the suspect's identity and determine whether the victim provided consent, and if the act was unlawful. All involved parties should collaborate to aid in this process. The victim is advised not to wash themselves to avoid any potential contamination.”*

- Participants 1.85

*“Participants consider knowledge, dedication, and experience to be pivotal factors. Exhibits that may result in an arrest should be examined. Detailed information regarding the victim's condition is crucial. Assessing the scene is necessary to gauge the probability of the incident by considering the presence of witnesses. Evaluate the investigator's state of mind and procedural steps”.*

Buckwalter (1984:67-143) contends that investigators should possess the skill to observe a crime scene accurately and clearly. During a walkthrough, investigators must meticulously observe the crime scene, noting the positions of individuals who witnessed the crime. Additionally, it is crucial to document the locations of items within the crime scene and observe and record the overall appearance of the scene. The investigator's ability to succinctly record information plays a vital role in justifying investigative considerations and decisions (National Institute of Justice, 1999:17-18). According to Canter and Young (2006:325), the cognitive element is a significant factor influencing decision-making in investigations. These skills and abilities are contingent on the investigator's state of mind, knowledge, and experience gained as a first responder to the police. A pivotal aspect is the dedication of the first police officer to conduct a thorough observation at the crime scene. The responses of the participants align with Buckwalter's (1984:67-143) guidelines, emphasising the necessity for investigators to possess the capability to observe a crime scene precisely.

- Participants 1.90

*“The participants noted that the initial responder's knowledge, understanding, and commitment play a crucial role in facilitating effective observation at a crime scene. Additionally, participants highlighted the significance of the first responder's mental state in ensuring successful observation”.*

In this study, contributors emphasised the necessity for first police responders to possess observational skills, underscoring that it is essential for evaluating the mental and physical condition of both crime victims and perpetrators.

The first responding police officer must employ a consistent method to observe the crime scene for any physical evidence.

The information gathered reveals that, according to at least one participant, the first police responders must provide a statement concerning their observations of any evidence, encompassing physical items like blood, semen, or clothing discovered at the crime scene. Consequently, participants' responses to this inquiry are deemed both valid and impartial, prompting the subsequent discourse on the entity responsible for processing physical evidence at the crime scene. This question was open-ended, allowing participants to furnish their responses without predefined choices. Notably, some participants offered multiple answers.

- Participants 1.92

*“Participants emphasized management skills, as they are essential for ensuring the LCRC unit's prompt attendance at the scene to gather evidence and prevent contamination. Follow-up actions on the scene and leads must be pursued diligently, adhering to the correct protocols. Additionally, possessing common sense, a willingness to follow instructions from the prosecutor, being teachable, and undergoing specific training in evidence collection at murder offence scenes are considered crucial skills for first police responders. Moreover, these responders should be readily available by phone, so that when an incident occurs, they can promptly proceed to the scene.”*

According to Osterburg and Ward (2010:9), training is among the three essential attributes for a person to have knowledge, skills, and thinking to become a successful investigator. However, the first police responder must also be “teachable”, as highlighted by the participants. The researcher concurs with the participants, asserting that first police responders should apply the knowledge gained from training and use common sense during observation (Orthmann & Hess 2013:12).

From the literature, the researcher identified that many people their idea of what an investigator does is based on what they see, hear, and read in the media, movies, TV, and books. Sometimes these depictions characterise people as ranging from dysfunctional violent rebels fighting for justice by their own rules, to book forensic investigators who get the job done clinically using advanced science and technology. Participants agree that good investigation and real-life investigators are unlikely to make a captivating fictional script. The researcher also agrees the participants by saying that professional investigators and competent investigation is about the tedious process of fact-finding and sorting through evidence and information.

All this is about eliminating possibilities, validating events, and recording evidence, all the while engaging in an intentional process of thinking, analysing, and strategically working towards a predetermined goal; not to mention extensive notetaking. Osterburg and Ward (2010:9); Buckwalter (1984:67), supported by the researcher in suggesting that a first police responder should be able to identify tangible evidence and interpret circumstances with fortitude. Osterburg and Ward (2010:9); Orthmann & Hess (2013:12) were align with this perspective, with the latter adding physical fitness as another valuable trait. The researcher underscores that these attributes need to be accompanied by commitment and dedication as well. Drawing from the viewpoints of Osterburg and Ward 2010:10); Buckwalter (1984:143); Saferstein (2011:28), the researcher contends that successful crime scene observation ultimately rests on the investigator's experience. This experience, combined with knowledge, helps mitigate any prejudices the investigator may harbour, ensuring a successful investigation (Osterburg & Ward 2010:10).

- Participants 1.94

*“The investigators indicated various methods for collecting criminal evidence, including the utilisation of media, electronic devices, phones, surveillance, crime scene management, scene mapping, photography, videotaping, sketch drawing, lifting fingerprints, human intelligence, interviewing, bloodstain analysis, instrumentation, and forensics”.*

This aligns with Aitken's (2014:np) perspective, highlighting the prevalence of electronic devices, such as cell phones, iPods, iPads, or PCs, due to recent advancements. These findings underscore the participants' application of diverse evidence-collection methods in their routine investigative practices.

- Participants 1.95

*“The challenges outlined in the investigation of murder crime scenes, as indicated by the participants, include issues related to methods of evidence collection, storage of evidence, and the training of investigators at the crime scene”.*

From the literature, it was discovered that investigators face several challenges, including a primary focus on the collection, transportation, and storage of evidence, along with the training of criminal investigators. Crime scene training encompasses the meticulous processing, documentation, and collection of physical evidence obtained from crime scenes. A thorough crime scene investigation serves as the initial step in determining the “what”, “when”, “where”, and “how” of a crime, as well as identifying those involved. The investigation process is logical, systematic, and organised. Recent developments have compelled investigators to recognise that a well-preserved crime scene contains a wealth of information that can lead to the apprehension of perpetrators. Consequently, crime scene investigation procedures have evolved, with the global embrace of technology. Africa, too, has kept pace with these advancements, establishing professional standards.

The importance of training investigators is underscored, as it is crucial for ensuring the accountability of evidence. Accountability in evidence handling hinges on several crucial elements, including the competence and adherence of individuals involved in harvesting, packaging, recording, transporting, handing over, storing, examining, or otherwise influencing the progress of evidence. This involves utilising packaging containers that allow for easy cleaning and traceability. The use of appropriate and secure evidence storage facilities is vital to ensuring the validity and quality of the evidence, facilitating its retrieval for examination or court purposes.

The establishment of post-evidence managers is crucial, as they play a role in ensuring compliance with packaging, storage, transport, and, ultimately, the disposal or return of evidence in an accountable and appropriate manner. The recent case of Senzo Meyiwa (Newsroom 24, 10 June 2023), highlights challenges faced by South African police detectives in evidence collection, particularly at the crime scene. These challenges stemmed from the insufficient credibility and proficiency of the first police responder during the evidence-gathering process. Transportation of evidence presents another hurdle, as first police responders often lack the necessary skills to handle, and package collected evidence for transportation. Compounding the issue is inadequate storage capacity, as there is a lack of mechanisms to preserve the collected evidence as distinct entities. Furthermore, the challenges extend to the insufficient training of investigators who might interpret evidence inaccurately, document irrelevant associations, and submit materials to the wrong experts for further examination. Therefore, it is crucial to ensure that all crime scene investigators receive proper training emphasising the adoption of modern forensic techniques during the processing of crime scenes. This training typically incorporates the use of cutting-edge technologies, including DNA testing.

- Participants 1.91

*Several questions arose concerning the challenges in handling murder crime scene evidence: “How does legal inflexibility impact law enforcement, contributing to challenges in following strict and sometimes time-consuming crime scene processing procedures?” “In what ways does the necessity for investigators to make swift decisions in delicate cases lead to potential legal issues and negligence?” “Are there instances where legal problems arise when investigators have a personal stake in a case, creating additional complexities in the handling of crime scene evidence?”*

- Participants 1.93

*“Five participants expressed concerns that the effectiveness of murder scene processing is compromised by the loss of neutrality in policing and close ties to court systems. Legal issues related to murder scene processing also create technical barriers between crime scene investigators and legal practitioners.*

*Additionally, participants highlighted the issue where an investigator may secure concrete evidence to convict a criminal, only to face the challenge of the court disregarding it”.*

The literature reveals that a lack of coordination between law enforcement and courts hampers the efficiency of crime scene processing, leading to limitations in delivering justice. Unintended contamination during participant interviews was identified as a concern, as established by the researcher. The inadvertent contamination of murder scenes emerges as a significant problem associated with the handling and processing of murder scenes. It was discovered that law enforcers involved in murder scene investigations often work in scenes hazardous to their health due to direct contact with unsafe materials. Investigators, while processing murder crime scenes, frequently use dangerous chemicals and fingerprint powders, posing potential life-threatening risks if accidentally ingested. Some of these chemicals are carcinogenic, while others may cause long-term health hazards. In addition to the use of powders and chemicals, investigators are also susceptible to various other medical problems and hazards.

Routinely handling biological samples like urine, saliva likelihood of accidents occurring and infecting investigators is quite high, primarily because many lack protective clothing. During the processing of murder scenes, investigators often utilise equipment such as lasers, electrostatic dust lifters, and other electrical appliances, which, if mishandled, can result in electric shocks, eye damage, and even fatalities. Moreover, many law enforcers due to the disturbing scenes they encounter and the demanding working conditions they face. Despite these challenges, murder scene investigators and law enforcement officers are often underappreciated and may take their well-being for granted. It is crucial to emphasise that their health should never be compromised. Police officers bear the responsibility of ensuring community safety by investigating and apprehending individuals suspected of murder crimes. Properly handling these scenes is paramount to ensuring that justice is served. In conclusion, personnel tasked with handling murder crime scenes must possess the essential knowledge and skills required to obtain the necessary evidence crucial for solving any murder case. The significance of science and its techniques is underscored in both criminal and civil laws governing the criminal justice system.



Forensic science, as a framework, has established its value, providing a commanding means for the implementation of the law, and contributing to advancements in the field.

- Participants 1.96

*“All participants oversee all experts involved at a scene ensuring the recovery of evidence in an intact and uncompromised state”.*

- Participants 1.97

*“During crime scene management, it is the investigator's responsibility to identify, collect, preserve, and protect evidence, ensuring its admissibility in court. This process involves locking down the crime scene, establishing perimeters, and managing the path of contamination”.*

Crime scene management refers to the actions taken to recover all available forensic evidence from a crime scene. The primary purpose is to control, preserve, record, and recover evidence from the scene of a crime incident. Should investigators remove evidence from a scene, it is imperative to package and label it correctly to prevent injury and contamination. During forensic analysis, it is crucial to frame questions that are both investigative and not purely scientific. At times, bringing the forensic specialist to the crime scene itself can be beneficial.

- Participants 1.98

*“The participants described that management in a general context involved the act of getting things done and evaluating performance which is known as controlling. Controlling is one important aspect of management that ensures that things are done orderly that is properly”.*

Crime scene management is the term used to describe the process of ensuring that all available forensic evidence is recovered from the crime scene. In less complex situations, these measures can encompass basic safety protocols adhered to, as well as the measures instated by the first police responders to protect the victim.

The literature highlights that effective crime scene management involves thoroughly protecting the scene until everyone involved is satisfied that it has revealed all pertinent information. Leaving the scene unattended and returning later, as seen in the OJ Simpson case, is deemed inexcusable and compromised two-thirds of the presented prosecution case. Ensuring the integrity of the evidence is crucial to prevent defence counsel from dismantling it during trial. While defence attempts are common, nowadays, it is rare for a well-managed crime scene to be compromised (Dehl & Plesca, 2016: 102).

## **6.10 IDENTIFYING THE MOST SUITABLE PRACTICES FOR THE FIRST POLICE RESPONDER TO MANAGE MURDER SCENE**

This theme addresses the most suitable practice to maintain good practice at a murder crime scene, only individuals with a legitimate need and right to be present should be allowed inside. The first police responder is responsible for promptly removing victims and witnesses to establish a secure, uncontaminated scene. It is essential to initiate a crime scene log and uphold its integrity, ensuring that no one enters the crime scene without signing the log. Crime scene management is a crucial skill in investigations, as the evidence originating from the crime scene provides a comprehensive account of events for the court (Gehl & Plesca, 2016:np). The first police responder must be vigilant in noting and securing the crime scene, along with managing evidence. Immediate notification to the nearest police station and security provider is the initial step, and if necessary, backup medical support should be requested in case of injuries. During the incident, if the first police responders are the first on the scene, they should restrict access until the appropriate officials arrive. Prioritising the care of the injured takes precedence over all other activities, with due consideration for the integrity of physical evidence. Prioritising the treatment of the injured is paramount. If the injured person can move safely or on their own, they should relocate to a designated area away from the crime scene. Before doing so, the positions in which they were found should be marked and noted, and the crime scene must be secured. To limit access and movement, first police responders can move all bystanders to a designated area, lock doors or gates, or find other ways to close off the area.

Official police forensic teams, identified by red armbands are the only individuals permitted to move to a crime scene. In case someone needs access to the scene, the person's full details and reason for entry must be recorded. If the route used by the perpetrators is known, alternative access routes for emergency personnel and the police must be identified. Even though not everyone in the room will want to testify, everyone is a potential witness and should be interviewed. Witnesses should be asked to provide their full details or submit statements before leaving the scene. Encouraging them not to discuss the incident among themselves is important to prevent potential influence on their recall. However, it's essential to respect a witness's right to choose not to be involved. They cannot be forced to stay or disclose their names. Regarding suspects, personal safety remains the top priority. In the event of a citizen's arrest, perpetrators must be removed from the scene and secured. Getting police support is essential to keeping offenders away from witnesses or victims.

As stipulated by Wyllie (2011:np), this process should be addressed simultaneously with other essential steps which include:

- Ensuring that witnesses are located and placed in a secure area monitored by a uniformed officer who is away from the media. Witnesses should not be directed to discuss what they saw or heard regarding the incident. Subsequently, all witnesses will need to be interviewed by responding investigators.
- Adequately using barricades or crime scene tape to secure the crime scene. It is best to start with a bigger perimeter because it can always be reduced as the investigation goes on.
- Once a crime scene has been established, assign adequate personnel to the outer perimeter to prevent the compromise or contamination of the scene.
- Securing the murder crime scene, until investigative and crime scene personnel arrive. When investigative personnel arrive, the uniform division should hand over crime scene responsibility to the investigative division.

To ensure accountability, this transition should include a formal conversation that is properly documented. Wyllie (2011:np) summarises the procedures as follows: The bottom line is this, the initial response at a murder scene is hugely important.

If proper actions do not occur the moment the first officer arrives on the scene, it becomes increasingly difficult to gain proper control. The probability of witnesses being missed, or physical evidence being lost or destroyed is greatly increased when first responders lose sight of how critical they are to the successful conclusion of such an important incident. The management of evidence at the crime scene by the first police responder is crucial. Poor documentation and labelling of crime evidence can pose various risks, including physical damage, deterioration, contamination, infection, decomposition, loss, and tampering. Proper labelling and documentation guide how specific evidence must be handled and preserved. Therefore, evidence management, including evidence labelling, must commence at the crime scene. The weakest link in the chain of forensic evidence remains, and will always be, the crime scene investigation in terms of evidence management, assessment, and handling.

Each piece of evidence is crucial to the investigation, and any evidence item initially neglected at the crime scene may be lost forever (Ditrich, 2015:155-159).

- Participants 1.93

*“All participants unanimously agreed that effective measures should be implemented by the first police responder at the crime scene. These measures include the protection of the crime scene, meticulous notetaking, securing the crime scene, managing evidence, and scaling the investigation to match the gravity of the event”.*

Dehl and Plesca (2016) emphasise that scene-of-crime management skills are a crucial component of investigations. Evidence originating at the crime scene plays a pivotal role in providing a comprehensive picture of events for the court's deliberations. This composite picture comprises witness testimony, crime scene photographs, physical exhibits, and their analysis, along with the examination of the crime scene itself.

In discussions with participants, it became evident that effective measures are critical aspects of crime scene management. This includes evidence identification, location, collection, protection, and proper documentation. These skills are considered the most important tools an investigator can learn and incorporate into their investigative toolkit.

- Participants 1.100

*“Participants confirmed various steps of the management process. They stated that photographing the crime scene before removing any evidence is essential for subsequent processes. Similarly, maintaining a detailed log of the chain of custody ensures proper documentation of evidence handling. Collecting various types of evidence, including trace and DNA evidence, is a critical step. Gathering information for reconstructing the crime scene is imperative. Coordination with the pathologist is necessary to arrange the removal of a body if required. If a suspect is arrested, obtaining DNA samples for later comparison to unknown samples is vital. Preserving evidence and transporting it to the relevant FSL for processing should be diligently executed. The CSM member may assist in collecting and processing evidence from the crime scene.*

*However, the ultimate responsibility for the final survey and debriefing of all present members, including the collection of their DNA samples if needed for elimination purposes, lies with the crime scene manager. Throughout every stage of the investigation, an investigation diary must be maintained, documenting all activities”. The CSM is then tasked with restoring the crime scene, ensuring the return of all used equipment, and releasing the premises back to the owner. The final step in crime scene management involves evaluating the process followed and assessing if any improvements can be made (Omar, 2008:67).*

After the completion of the crime scene investigation phases, the investigative phase of the crime commences. The case docket is divided into three sections for convenient access. Section A contains evidence pertinent to the case, including witness statements, search warrants, forensic reports, photographs, and post-mortem reports. Administrative documents and correspondence related to the crime are housed in Section B.

Section C holds the investigation diary details, encompassing the first member report, crime scene particulars such as MO, and details of the victim and suspect. Following registration, the case docket must be forwarded to the crime office, and acknowledgement of receipt by the Crime Office Commander or Detective-Commander is essential. Subsequently, the assigned detective will take charge of the case. While these tasks may appear routine and procedural, they constitute the fundamental groundwork of a criminal investigation. Without a solid foundation of proper evidence practices, the case risks collapsing when presented in court.

There is a significant opportunity for new investigators to practice crime scene management protocols on a smaller scale in daily investigations, such as those involving lower-level crimes. Once these skills in crime scene and evidence management are acquired and integrated into daily practice, they will become the standard procedures and essential operational habits for effective and professional investigative work. Based on the researcher's experience it is evident that constitutionally, the researcher argues that sections 45 and 46 of the Management of Evidence Act of 1872 are important. The court should be able to rely on individuals with technical knowledge of the facts involved when necessary. The researcher found that the court can depend on the authentic testimony of skilled individuals based on scientific techniques. Even evidence initially deemed immaterial can hold weight in court if evaluated by specialists.

- Participants102

*“Participants identified that the best practice involves first identifying the crime scene, and then containing the evidence. The investigator proceeds to inspect and document the scene, gather physical evidence, and finally, preserve, pack, and submit the evidence to forensic experts for examination. With these crucial pieces of evidence, the investigator aims to reconstruct the crime scene. A fundamental aspect of evidence gathering, and preservation is safeguarding the crime scene from impatient bystanders and family members. The investigator should quarantine the site by ensuring that nothing is moved, reorganized, or altered until the investigating officer has recorded all the details.*

*This ensures that relevant evidence remains uncontaminated until the site details have been thoroughly documented and collected”.*

- Participants 1.101

*“Participants noted that a minor change in the crime scene can significantly mislead investigators, making their job challenging. Effective prosecution relies on the accurate collection of physical evidence at the time of its discovery. The safeguarding of the scene begins with the arrival of the first police officer and concludes when the site is no longer under police protection. Preservation of the crime scene and protection of the crime scene investigator is paramount. A security presence, whether civilian or a police officer, should be provided to accompany the investigator, especially when working alone or in cases where the suspect has not been detained. Notetaking at the crime scene is crucial once it is sealed to ensure the accurate recording of evidence. No evidence should be touched or dismantled until it has been carefully labelled in a notebook, its location shown in a sketch, and photos taken. Investigators should strive to gather as much information as possible about the scene. It is undeniable that there is a limited time during which a crime scene remains undisturbed. During this time, the scene must be recorded in its original form before it disappears quickly and accurately. This step is crucial for presenting the investigation before the court of law. The investigation should comprise relevant facts and observations made by the investigator at the crime scene. The discovery of every important element of evidence, along with where and when it was found, should be precisely labelled. These factual details hold significance for defence claims regarding the crime and its reconstruction”.*

Based on the participants’ suggestions, each record label associated with a piece of evidence should include the following details of the crime scene:

- The day and time of the first information report.
- The type of crime.
- The location of the crime scene and a brief description of the area.
- Essential facts about the crime.

- Designations of all officers, observers, investigators, and special staff present at the crime scene.
- Names of the individuals responsible for taking pictures, fingerprints, drafts, and sketches.
- The weather conditions and lighting at the time of recording the scene.
- An overview of the interior and exterior of the crime scene, including the number of rooms, doors, and windows in the relevant buildings.
- The placement and arrangement of evidence.
- The timing of when the recording and examination of the crime scene were completed.

Videotaping the crime scene is considered essential, with a video camera being the primary tool for documenting it. Unlike photographs and sketches, video footage provides unique insights into the crime scene. It is a more widely accepted form of observation to which individuals can readily relate, especially for depicting the layout of the crime scene. Once video recording begins, it should not be stopped to prevent any possibility of cutting or editing the scene. This ensures a more reliable assessment, adding to details that can sometimes be missing from photos.

Photographs of the scene are also indispensable for documenting the crime scene and should be added to the record. While recording the overall scene, photographs should capture the design and three-dimensional relations of various evidence parts, presenting a clear and comprehensive story. An organised sequence of photos may be required to express the scene's narrative clearly, transitioning from general to specific aspects. The last stage in recording the scene is creating a crime scene sketch. The investigator must create a rough sketch on graph paper with squares at the crime scene (but not any other location) to ensure precision. The distance should be exact, with instructions guided by a compass. The sketch should highlight and locate vital elements in the scene, excluding insignificant details. Careful creation of the sketch is essential for an accurate representation, ensuring the information is replicated for admissibility in a court of law. Forensic science involves the preservation, collection, and examination of evidence essential for establishing a case against a criminal in a court of law. The relevance of forensic science to the criminal justice system is evident, as it plays a crucial role in criminal trials.



The legal system recognises the significance of forensic evidence, and the use of scientific techniques ensures a fair and just society. DNA profiling and various other forensic pieces of evidence are widely accepted in courts globally. Consequently, forensic science laboratories have expanded in the past few decades, with special acts enacted to enhance forensic services. These measures aim to ensure more accurate crime detection, leading to increased conviction rates. The implementation of such acts underscores the critical importance of time and quality management in handling crime scenes. Moreover, forensic science plays an immensely significant but often undervalued role in criminal justice and the legal system. As criminal activities have evolved with modern times, incorporating advanced. Looking forward, the government must make amendments, introducing more practical and scientific approaches to investigations, considering the realities of modern crime and technological advancements.

- Participants 1.103

*“The participants' responses varied as some were unfamiliar with the term. A few participants mentioned that, according to them, “Locard’s Principle” means that they must systematically walk around a crime scene to guarantee no evidence is overlooked. One participant characterised it as the preservation of information and clues, emphasising the importance of maintaining the chain of evidence”.*

- Participants 1.105

*“The participants were asked to define “Locard’s Principle” and various responses were provided. One participant inaccurately pointed out that it involves providing feedback to the complainant. Another participant said that it encompasses the gathering of fingerprints, cigarette butts, saliva, or any physical evidence discovered at the crime scene, which can aid in connecting the suspect to the crime. A different participant thought it is associated with the chain of evidence concerning the committed crime and the acquisition of statements from witnesses. Only one participant characterised “Locard’s Principle” as the concept that an exchange takes place as individuals involved in a crime scene both bring and leave something behind”.*

Several participants expressed unfamiliarity with the term “Locard’s Principle”. The researcher subsequently elucidated that its most prevalent application is during fingerprinting. The principle is routinely applied when lifting fingerprints from crime scenes and obtaining fingerprints from suspects for comparison with crime scene prints. As the suspect enters and exits the crime scene, traces of their presence are transferred both from and to the scene. Following the explanation, these participants acknowledged that it was their first encounter with the term “Locard’s Principle”. The researcher observed that some participants' responses lacked alignment with the information derived from analysed documents and literature. It can be inferred that these participants did not possess a clear understanding of Locard's Principle. Only one participant’s explanation aligned with the reviewed literature as they described the concept as encapsulating the theory that “every contact leaves a trace”. Consequently, the researcher deduced that the remaining eleven participants did not grasp the essence of Locard's Principle. This raises concern, especially considering that all participants had over 10 years of experience attending crime scenes as first responders. The possibility of inadequate training was also ruled out, given that 15 participants had received formal police training in first responder and crime scene management.

- Participants 1.104

*“Five participants completed the course aimed at training first responders to the crime scene. Twelve participants underwent training in CSM only, and ten participants attended both first responder to the crime scene and CSM training courses”.*

The concept of “Locard's Principle” is extensively covered in training courses. Regarding the remaining five participants, it can be deduced that their lack of understanding of “Locard's Principle” stems from not having undergone formal training in the mentioned courses (Fish, Miller & Braswell, 2011:110). Locard accurately stated that every contact leaves a trace. This theorem that he developed is also known as “Locard's theory of exchange”.

In practise, three occurrences at the crime scene support by this idea: the perpetrators' traces are left at the scene, the victim can leave traces on them, and both the victim and the scene trace the perpetrators (Fish et al, 2011:110). Fish et al (2011:110) confirm that any item can be considered physical evidence of a crime, and trace evidence can provide crucial leads for investigators. Osterburg and Ward (2010:92) state that criminals inadvertently transfer or take physical evidence to the crime scene during the commission of a crime, which can then be found on objects used in the crime in the form of fingerprints, shoe prints, tool marks, blood spatter, and bullets. The way a SAPS first responder to a crime scene (SAPS, 2013:8) should recount Locard's Principle, is to know that when two objects or people come into contact with one another, a reciprocal transfer of traces occurs.

- Participants 1.106

*“Participants provided various responses regarding the responsibility for processing physical evidence at a crime scene. This included different opinions about the responsibilities of the LCRC investigating officer, first responder, and the duty officer acting as the crime scene manager. However, most participants leaned towards the notion that the investigating officer takes charge of processing physical evidence. Participants also expressed the viewpoint that both the SAPS member and the LCRC member should be responsible for evidence processing due to their specialised training”.*

The participants' views align with the SAPS Policy on Crime Scene Management 2 of 2005. According to this policy the more specific and acceptable stance is that the LCRC member, specifically the crime scene technician, is designated to handle the processing of physical evidence at a crime scene. The investigating officer plays a role in influencing this process by identifying significant physical evidence during the walkthrough with the crime scene technician and the crime scene manager. Effective communication among all involved parties is deemed critical in this regard (SAPS Crime Scene Policy, 2005:14). Additionally, other stakeholders help and maintain communication with the LCRC member to guarantee the comprehensive processing of all evidence.

It is reasonable to infer those participants possess a satisfactory understanding of the individual responsible for processing physical evidence at the crime scene. This comprehension is grounded in the outlined policy referred to above, which serves as the foundational framework for crime scene management within the SAPS.

- Participants 1.107

*“The participants discussed effective measures for handling a murder scene. They noted that it is essential to formulate efficient strategies to enhance the effectiveness of law enforcement in managing murder scenes. Having robust management structures and operations within institutions dealing with crime is imperative to foster optimal performance within the organisation”.*

Consequently, various crime-handling agencies are compelled to adopt several measures effectively, fostering teamwork and collaboration. Addressing challenges in processing and managing murder crime scenes can be alleviated through comprehensive training of individuals involved, imparting better procedures and evidence-handling techniques. Additionally, community engagement and awareness play a crucial role in ensuring that the public is informed about avoiding disruptions at crime scenes and preventing self-contamination. This type of education and training ensures that all individuals engage in activities that deter the disturbance of murder scenes and contamination of evidence.

On the other hand, an alternative approach to this practice involves recognising potential hazards present in crime scenes and implementing mitigation measures for everyone involved. After identifying the challenges, the subsequent step is to formulate a comprehensive plan outlining fundamental approaches to address exposures at murder crime scenes. Literature reveals that many law enforcement officers engaged in murder scene investigations face numerous challenges in handling evidence. They grapple with the understanding that any action taken at the scene can have a destructive impact on the crime scene and the pursuit of justice. At times, scenes are degraded and altered, resulting in the collection of “negative data”, which may, on occasion, be used to wrongly convict innocent individuals.

Inadequate processing of murder scenes can lead to the wrongful conviction of innocent individuals, allowing actual culprits to go free, thereby perpetuating injustice in society. Substantial changes in political and economic conditions have led to increased regulations and state litigation, resulting in the neglect of murder crime scene processing due to stringent procedural formats mandated by the government. Consequently, those conducting investigations often lack proper training, restricting the efficiency of murder scene processes. Murder crime experts, such as CSI personnel, and law enforcement officers, like the police, sometimes face the dilemma of seeking approval from higher authorities and regulatory bodies before conducting murder scene investigations. This dependence compromises their autonomy, especially when curious onlookers gather at the scenes.

- *Participants 1.08*

*“Participants discussed effective measures for evidence management at a murder crime scene and acknowledged the inevitability of contamination as an unfortunate reality for investigators. Any crime scenes are prone to some level of contamination before it becomes an inactive event and law enforcement can secure the location. While life and safety concerns take precedence, the court recognises that certain contamination is beyond the investigator's control. However, this tolerance for managing contamination changes significantly once the crime scene is secured and under control”.*

- *Participants 1.09*

*“Participants mentioned that after the scene has been locked down, crime scene management procedures must still be implemented. Crime scene contamination calls for three effective measures for investigators. These include preventing contamination when possible, controlling ongoing contamination, and documenting the known contamination that has occurred”.*

The researcher described the term "control ongoing contamination" and emphasises the use of the word "control" because investigators cannot eliminate ongoing contamination. Instead, they aim to manage and minimise it. The practice of identifying and documenting known contamination is crucial.

Even if contamination has occurred, identifying, and providing explanations for the contamination can potentially salvage the analysis of exhibits that may have been compromised. During the critical period between locking down the crime scene and obtaining a search warrant, investigators must carefully consider the potential for ongoing contamination. If there are reasonable grounds to believe that evidence of the crime is at risk of being damaged or destroyed due to a threat of contamination, investigators have the authority, under exigent circumstances, to re-enter the crime scene without a warrant. This allows them to take necessary steps to stop or prevent contamination and protect the integrity of the evidence. The researcher has found that the act of entering the crime scene to collect evidence and the process of evidence collection itself constitute forms of contamination. The objective of controlling ongoing contamination is to prevent harm to the forensic integrity of the crime scene and its associated exhibits.

This underscores the importance of scene-of-crime management procedures in the investigative process. Recovering exhibits, the forensic unit should carefully assess on-site conditions to ensure that exhibits can be documented and recovered with minimal disturbance. The sequence in which samples are taken should also be carefully considered. Seized material should be handled in a manner that avoids contamination or degradation. Control materials need to be kept separate from any surfaces, objects, apparel, or persons that could later be linked to those items at the crime scene. The recovery of exhibits and sampling will be case-specific, and reference should be made to organisational SOPs to ensure that the appropriate samples are taken and are truly representative of the material available. Researchers discovered that it noted that first police responders should be guided by these general points:

- The sequence of sampling.
- Identifying the right items to sample.
- How to ensure the samples are representative of their surroundings.
- The minimum amount of material required to obtain meaningful results for interpretative examination.
- The amount and number of separate control samples required.

- Guidance on sampling methods that assure the prevention of cross-contamination.
- The need to preserve material for subsequent analysis by prosecution or defence.

- Participants 1.200

*Participants clarified that the loss of continuity can be avoided by establishing and preserving the validity of evidence through protocols that protect its integrity, much like how contamination can be controlled. For any evidence to be accepted by the court, the judge must be assured that the presented exhibit is the same item taken from the crime scene. Evidence must be presented to establish the "chain of continuity," tracing every exhibit from the crime scene to the courtroom.*

The literature review in Chapter 2 indicated that evidence demonstrating continuity typically comes from the investigator testifying that the exhibit presented is the same one seized at the crime scene. This testimony is reinforced by the investigator displaying their markings on the exhibit or its container. These markings encompass the time, date, and investigator initials, along with a notebook entry indicating the time, date, and place when the item was transported and secured in the main exhibit holding locker. Additionally, this type of evidence is further substantiated by an "Exhibit Log", illustrating the evidence as part of the crime scene, specifying where it was found, by whom, and the supporting initials of anyone else handling the exhibit continuously from the crime scene to the main exhibit locker. Any process involving the removal of the exhibit from the main exhibit locker for examination or analysis must be meticulously tracked and documented, including the initials, time, and date of any other handlers. Any individual who has handled the exhibit must be capable of providing testimony on the stand that substantiates the chain of continuity of the exhibit. These procedures, though simple, are critical. Failure to adhere to them rigorously can lead to the exclusion of exhibits based on lost continuity.

- Participants 1.201

*“Participants highlighted the significance of paying attention to the originating circumstances of evidence. They pointed out that a major dilemma in crime scene management is determining both where the criminal event occurred and the extent of the event. These determinations offer investigators insights into the locations where evidence of the crime may be recovered. This process is often not straightforward, requiring considering multiple locations and different timeframes associated with the criminal incident”.*

- Participants 1.205

*“Participants expressed an understanding that evidence can originate, before, during, or after the crime took place. They also recognised that there could be other locations outside the immediate crime scene area where criminal activities might have occurred, and evidence might be found”.*

Researchers discovered the pre-crime stage, the criminal event stage, and the post-crime stage. The crucial point to remember about the originating stages of evidence is that each of these stages offers possibilities for collecting evidence that could link the suspect to the crime. When considering theory development or creating an investigative plan, each stage of the criminal event should be considered. The “Pre-Crime Stage” is the time frame during which the investigation may find indications of planning or preparation to commit the crime. This may include notes, research, drawings, crime supplies, or pre-crime contact with the victim or accomplices. Sometimes items of pre-crime origin, such as hair and fibres, are later found at the crime scene, creating an opportunity to link the suspect back to the crime.

The “Criminal Event Stage” is when the most interaction occurs between the criminal and the victim or the criminal and the crime scene. It is during these interactions that evidence transfer is most likely to happen. Even meticulous criminals have been known to leave behind traces of their identity, such as fingerprints, shoe prints, glove prints, tire marks, tool impressions, shell casings, hair, fibres, or DNA. The “Post-Crime Stage” occurs when the suspect is leaving the crime scene.



During this departure, suspects have been known to discard items of evidence that can be recovered and examined to establish their identity. This post-crime period is also the stage where the suspect becomes concerned with cleaning up the scene. Despite a suspect's attempts to clean up, evidence transfers from the crime scene are often overlooked. These can range from hair and fibres on clothing to shards of glass on shoes. Evidence with the most value is often discovered after a crime has occurred. These are often identifiable articles of stolen property with unique marks, victim DNA, serial numbers, or sometimes even trophies that the criminal takes as a keepsake. Evidence does not always appear as a fully formed piece of information that immediately connects or infers a suspect's involvement. Instead, it frequently comes together as fragments of facts, timelines, spatial relationships, and evidence transfers between the originating stages of evidence. Slowly circumstantial facts to substantiate the suspect's identity, the crime's fact pattern, opportunity, means, motive, and intent come together.

- Participants 1.206

*“Participants have found that the enhanced value of recovered evidence, physical evidence, and exhibits has at least two levels of investigative value for investigators. At the first level, each physical exhibit possesses a face value represented by what it is and where it exists within the context of the crime scene. For example, a bloody shoeprint found on the floor of a crime scene indicates that someone transferred evidence of blood onto their shoe from a source and walked in a particular direction within the crime scene. These are first-level interpretations of evidence that we can reconstruct based on our own observations”.*

- Participants 1.204

*“All participants agreed that physical exhibits that need to be examined, seized, and documented at any crime scene are a major concern for investigators. As mentioned earlier, one of the significant challenges for investigators is to identify and document all available evidence and information. The participants emphasise that material for recovery needs to be protected from interference or alteration and the possibility of subsequent degradation and contamination.*

*Health and safety issues must also be taken into consideration. Suitable containment is normally achieved through the selection and correct use of approved packaging materials. Packaging materials must be appropriate for the given applications and compliant with organisational SOPs”.*

- Participants 1.209

*“Participants spoke about the precautions that must be taken to ensure the integrity of evidence, reduce the risk of contamination, and minimise degradation. These precautions include sealing containers to prevent accidental loss or contamination, providing adequate protection during transportation and storage to prevent damage or contamination, and checking items at all stages of transfer within the chain of custody to ensure their integrity has not been compromised. All items should be promptly packed and sealed using bags or containers of an appropriate size”.*

- Participants 1.208

*“Participants explained that packages should be sealed in a way that covers all gaps securely. For example, folded bags should be sealed with adhesive tape along all open edges, avoiding stapling. Once sealed, packages should not be reopened outside of the laboratory environment. If, under exceptional circumstances, they are reopened, comprehensive documentation detailing the conditions must be provided”.* This raises important questions about which object will be considered as evidence and deemed important. When the suspect and the fact-pattern are not immediately apparent, participants asked how can an investigator determine which items within the crime scene need to be considered and taken as possible evidence?

- Participants 1.207

*“Participants discussed some general practices that can be followed to collect evidence, but a guiding principle for most experienced investigators is to err on the side of caution.*

*Investigators consider the notation that “more is always better than less” when having to decide what items could possibly become relevant to the investigation”.*

The researcher identified the following items that should be considered for collection at a crime scene:

- Items that a victim might have touched or interacted with.
- Items the suspect might have brought to the crime scene.
- Items that might have been exchanged between the suspect and the victim.
- Items the suspect might have been removed from the crime scene.
- Items the suspect may have discarded while departing the crime scene.

The review confirms that once the crime scene examination has been completed, and the crime scene has been secured and abandoned as an open area, returning to collect forgotten evidence is often not possible. It is better to collect everything that could possibly be relevant or could become relevant. In terms of searching for evidence, once the crime scene has been locked down and secured, the crime scene itself needs to be considered as the first significant exhibit. As the first big exhibit, it needs to be subjected to documentation using photography, video recording, measurements, and diagrams. Within this first big exhibit, other smaller and possibly related exhibits may be discovered. Identifying what items are recovered and where they are found may reveal spatial relationships of interaction, providing evidence to support a sequence of events. This physical evidence becomes the benchmark of known facts that investigators can use to verify the accounts of victims and witnesses, or even the alibi of a potential suspect. Physical evidence at both level one and level two becomes the known facts upon which theories of events may be developed and tested. Any object that shows a spatial relationship to the location, the people, or the times in relation to the criminal event may be deemed evidence.

- Participants 1.203

*“Participants elaborated on how all witnesses should be located and placed in a secure area, away from the media, and monitored by a uniformed officer.*

*Witnesses should be directed not to discuss what they saw or heard related to the incident with each other. Eventually, they will all need to be interviewed by the responding investigators. Officers need to ensure that the crime scene is properly secured with crime scene tape or barricades. Participants noted that cordoning a larger area is always better. A crime scene can always be reduced in size as the investigation progresses. Once a crime scene has been established with an inner and outer perimeter, adequate personnel should be posted on the outer perimeter to ensure that the integrity of the scene is not compromised or contaminated”.*

The murder crime scene should be secured until investigative and crime scene personnel arrive on the scene. Once the investigative personnel arrive, the transition of crime scene responsibility can begin between the uniform division and the investigative division. The transition should involve a formal conversation and should be properly recorded to ensure accountability. All participants support this fact by stating that the initial response at a murder scene is hugely important. If proper actions do not occur the moment the first officer arrives on the scene, it becomes increasingly difficult to gain proper control. The probability of witnesses or physical evidence being lost or destroyed is greatly increased when first responders lose sight of how critical they are to the successful conclusion of such an important incident.

- Participants 1.301

*“Participants state that effective measures during the collection of evidence at the murder crime scene include first securing and isolating the crime scene by removing all unauthorised people and then blocking it off with rope or crime scene tape. Following this, they record the evidence by taking photos and numbering each item”. They highlighted that care must be taken to secure them in their proper bags and containers. Additionally, notes of all evidence collected should be taken. The search for evidence should be thorough and systematic”.*

Protocol requires first responders to collect suspect exhibits such as clothing, nail clippings, hair from the head and pubic area, blood, swabs from sex-related crimes, bullets from the body, and hand swabs from shooting victims.

Participants indicate that it is critical to be able to prove who handled the item and what they did with it in order to ensure its integrity. SOPs must be in place to describe how items and evidence recovered from an incident should be logged and labelled at the time of seizure. The crime scene investigation must be thoroughly documented. Electronic notes, handwritten notes, voice-recorded notes, sketches and diagrams, photographs, and video recordings are all examples of documentation. Concurrent records should be made at the time of seizure, describing the exact locations from where the items were recovered at the scene. It is also helpful to mark the location on a sketch of the scene or person.

- Participants 1.305

*“Participants stated that crime scenes present many possibilities and pieces of evidence that may aid investigators in the apprehension and possibly the conviction of a known or unknown offender. While this evidence is present at a crime scene, it requires specialised training on the part of law enforcement officials to collect, record, and preserve this evidence effectively, efficiently, and accurately”.*

The participants indicate that labelling must be attached to each package at the time of packaging. Although the usage of labels and their legal status may differ, the following basic information must be clearly and directly recorded for every package:

- A unique identifying number/barcode.
  - The name of the person and organisation responsible for collecting and packaging the material.
  - A concise and accurate description of the material.
  - The location or person from where or from whom the material has been seized.
  - The date and time the material was seized.
- Participants 1.304

*“Participants noted that the chain of command is especially vital at each stage of the evidence collection, as evidence can easily be lost and even tampered with. Murder crimes are especially sensitive situations because trained professionals must show empathy for the incident and the victim.*

*The victim may hold the key to a lot of information that will help investigators capture the perpetrator”.*

The scene of the crime should be secured and preserved. They noted that before any evidence can be collected, the scene must be secured from further contamination by establishing a crime scene perimeter and allowing only necessary personnel to enter. The participant added that the scene must be photographed before evidence is collected.

- Participants 1.308

*“Participants explained the importance of putting on gloves and other protective clothing if needed, to ensure the scene was not contaminated. They recommended conducting a systematic search of the area and collecting evidence that is susceptible to the elements first.*

*For instance, hair can be blown away by the wind, and liquid evidence-like blood or seminal fluid may be lost if not collected quickly”.*

- Participants 1.306

*“Participants suggest using cotton swabs or gauze to gather blood evidence that has not dried. Blood and seminal fluid should be allowed to dry completely once collected, then quickly refrigerated. Items containing blood and seminal fluids should be transported in paper bags, not plastic, to prevent moisture and bacteria from forming. Once dried, blood can be collected in its original form by removing part of the surface or by taking the entire dried area. Participants indicate collecting hair, fibres, and thread using tweezers. Each piece of evidence should then be placed individually in a sealed collection bag or container”.*

- Participants 1.307

*“Most participants from sample B specified that dusting for fingerprints using special powder adheres to the oil found on human fingers.*

*Once a print is detected, it can be "lifted" using a special tape. The tape is then placed on a glass slide, marked, and transported in a sealed plastic evidence bag".*

- Participants 1.309

*"Participants suggest picking up larger pieces of evidence (such as firearms or clothing) while wearing plastic gloves to avoid contaminating the evidence. Each piece should then be placed in a separate marked bag or box. Participants state that there are various ways to collect evidence, and the methods depend on the type of evidence being collected. All evidence should be secured and documented as soon as possible using proper collection techniques. One participant mentioned that they had the responsibility of working with hairs and other unknown brown fibrous strands in the lab".*

Almost all crime scenes contain evidence crucial for analysis and future prosecution. Using the appropriate techniques to collect this evidence is of utmost importance. Without employing proper methods, evidence may be lost, overlooked, or contaminated. Moreover, improper collection can result in the evidence being deemed inadmissible at trial. Crime scenes offer numerous possibilities and evidence that can assist investigators in apprehending and potentially convicting known or unknown offenders. Collecting evidence is a crucial aspect of the field of criminology. The evidence can determine whether a person is guilty or not guilty. Proper handling of evidence becomes a priority for anyone involved in a case. The police officials interviewed indicated that service delivery could be improved through training. Participants acknowledged that the first police responder, typically a police officer, plays a crucial role in the entire scene of crime investigation process.

## 6.11 SUMMARY

The results of the interviews conducted with investigators and first police responders are presented in this chapter. The identification of themes and sub-themes revealed that investigators and first police responders frequently attend crime scenes as the initial responders. Several procedures must be followed, and related concepts comprehended, to guarantee efficient control and management of a crime scene. These procedures provide guidelines during murder cases which include crime scene management, the first police responder's role, the detectives' duties, LCRC participation, and the training given to first responders. Furthermore, other crucial stipulations concern the challenges faced by the first police responder at crime scenes, effective measures to be followed, best practices, and evidence management. These processes encompass various steps including the activation, responding, controlling, handing-over, planning, investigation processing, debriefing, restoring, and resealing of evidence. The summoned role players differ based on the reported crime type, with each fulfilling a vital role. The first responder holds a pivotal position in crime scene management. Their role in the investigation lays the foundation for criminal cases, and an inadequate preliminary investigation poses a significant risk to the entire investigative process. It is impossible to overestimate the significance of training for all first responders to crime scenes. For CSM to function properly, strict adherence to the established policies and guidelines is required. The selection of data for research analysis is based on its relevance to the research questions and the identified problems. The research results are interpreted, and an outline of the analysis's conclusions and suggestions is provided in the upcoming chapter.



## **CHAPTER SEVEN: INTERPRETATION OF THE RESEARCH FINDINGS**

### **7.1 INTRODUCTION**

This chapter interprets the research findings, delving into the information gathered from participants and aligning it with emerging themes discussed in the previous chapter. The primary focus here is an in-depth examination of the role of the first police responder in managing murder crime scenes, specifically addressing themes introduced in Chapter 2. The chapter covers the procedures to be followed by the first police responder at a murder crime scene, highlighting common mistakes made by these responders, particularly the premature release of a scene without proper evidence documentation. It further explores the nuanced aspect of evidence management at murder crime scenes, emphasising the significance of reducing errors during crime scene investigations.

The discussion extends to the training of first police responders for murder crime scenes, with an emphasis on empowering them to effectively manage these critical situations. The chapter also touches upon strategies for improving the first police responder's proficiency in handling crime scenes. Criminal investigation is portrayed as a multifaceted, requiring officers to have problem solving skills which include making rapid, critical decisions in dynamic environments with limited information, sometimes involving life-and-death scenarios. After a criminal event has taken place, first police responders are expected to preserve crime scenes, collect evidence, and develop investigative plans to establish reasonable grounds for identifying and apprehending those responsible for the crime. Another frequent error is the failure to complete a neighbourhood witnesses canvass that extends for at least two blocks, resulting in incomplete information about possible contacts in the area. This includes the failure to use official Canvass Control Sheets to ensure that everyone contacted is documented or neglecting to execute follow-up visits to gather all possible witness information. Investigative information should also be provided to the canvassers during these interviews, and often this step is overlooked. Potential witnesses are sometimes overlooked because the canvass only includes one sweep, and some may be absent during that time.

## 7.2 THE CRIME SCENES

This section emphasises that a crime scene transcends being merely the location of a crime, as it functions as a repository of crucial hidden clues necessary for understanding and uncovering the crime. Furthermore, it can be regarded as a field laboratory where objects in question can be identified for subsequent laboratory tests. Crime scenes are broadly classified into two types: primary and secondary crime scenes. Various definitions exist for the term "crime scene." It is often characterised as a "field laboratory," highlighting its function in identifying objects that will undergo laboratory testing later. Fundamentally, a crime scene encompasses any physical location that might yield potential evidence for investigators, including a person's body, different buildings, vehicles, outdoor spaces, or objects located within these areas.

The expression "crime scene examination" pertains to the forensic or scientific methods employed to preserve and collect physical evidence related to a crime. As per the Guide for Law Enforcement by the US Department of Justice of 2013, a crime scene is broadly characterised as any location linked to a committed crime, containing physical evidence crucial for a criminal investigation. Crime scenes encompass not only physical locations but also any person, place, or object associated with the criminal activities that transpired. In essence, a crime scene is the immediate area and its surroundings where a crime took place. It serves as a crucial source of clues to aid in solving the committed crime. It is the responsibility of CSI and law enforcement to gather evidence from the crime scene. The crime scene can be the actual location where the crime occurred or any area containing evidence linked to the crime.

In simpler terms, a crime scene is any location associated with a committed crime. Such scenes hold physical evidence vital for a criminal investigation. The term "crime scene" is a noun, specifically referring to the location where an illegal act occurred. It also extends to an area from which trained law enforcement personnel. Forensic scientists retrieve most of the physical evidence. Crucially, a crime scene does not have to be the precise location of the offence, as it can include any area that is pertinent to the investigation as well.

### **7.3 THE PROCESS TO BE FOLLOWED AT THE MURDER CRIME SCENE BY THE FIRST POLICE RESPONDER**

The section delves into the role of the first police responder at the murder crime scene, focusing on their arrival and duties. Participants in the study agree that certain protocols need to be followed, such as safeguarding and protecting the crime scene, taking preliminary notes prior to the start of the investigation, and surveying the area to determine safe routes for investigators. It is crucial to assess the overall crime scene, identify and mark potential physical clues to prevent their destruction or loss, and evaluate available workforce and equipment, summoning expert assistance if necessary. There are no strict rules dictating how the first police responder should manage the crime scene.

First police responders can use their knowledge base and common sense to supplement the experiences they have gained from working on cases in the past (Marais & Van Rooyen, 1993:13). At the crime scene, the first police responder's role is crucial, and frequently regarded as the person who can make or break the investigation. The journey from the crime's commission to its successful conviction starts when a first police responder shows up at the scene. Therefore, the way the first police responder manages the scene holds significant importance for a successful investigation. Upon arrival, the first officer must swiftly address various tasks. Ensuring the safety and well-being of all individuals present is a priority by eliminating any threats to oneself or others and providing proper first aid to victims (Marais & Van Rooyen, 1993:13). The officer also takes steps to remove additional threats that may jeopardize the affected victims. If the victim is still alive, attempting to obtain a dying declaration becomes necessary. Once the immediate needs of the individuals at the scene are addressed, the officer proceeds to secure the evidence. The first police responder takes measures to preserve the evidence. They should proceed to establish a perimeter and clear all individuals from within the identified boundaries. While relocating individuals, the officer must ensure that they do not disturb any potential evidence (Fisher, Miller & Braswell, 2011:41).

One effective approach is to establish a designated entry and exit point within the perimeter, to distinguish the routes suspects and victims are likely to follow. The first police responder also ensures that only essential personnel have access to the scene, while non-essentials are prohibited to enter. When cordoning off the scene, it is crucial to first determine where the boundaries should be. All areas where the crime occurred, as well as any other relevant areas for the investigation should be included in the perimeter. The first police responder must diligently document as much information as possible. Despite the difficulties brought on by the chaotic scene of the crime, which may involve injuries or fatalities, accurate recording of the details is crucial. Through interviewing the participants, the researcher learned that there was a lack of understanding regarding the procedures involved in crime scene investigation as well as the idea of "crime scene management" as it has been defined in the literature. It appears that participants only see it as a process of gathering and collecting evidence from the crime scene. However, a crime scene investigation should include more than just collecting evidence, as it should also include detailed documentation and analysis of the evidence.

#### **7.4 MISTAKES MADE BY THE FIRST POLICE RESPONDER AT THE CRIME SCENE**

The findings in this section highlight the management of a murder crime scene as a complex process involving various police department members and multiple forensic disciplines working together to solve the case. The researcher found multiple instances in which first police responders made errors during scene processing that led to the offender's acquittal. Among these mistakes are the unintentional manipulation of the scene and tangible evidence by other participants, members of the media, and medical professionals, who change it from its initial state. Swart (2021:np; Marais & Van Rooyen, 1993:33) provides a summary of the most common mistakes made by first police responders at the crime scene. These include:

- Unnecessary handling of objects.
- Unnecessary moving of objects.
- Trampling over "imprinted evidence" such as vehicle tracks and footprints.
- Unnecessary deposits of cigarette butts and matches by officers who smoke.

- Eating and drinking on the scene.
- Washing hands and using toilets on the scene.
- Poor handling of exhibits.
- Inadequate collection and packaging of physical evidence.
- Insufficient record-keeping.
- Failure to secure the scene by taking control of the situation.
- Inadequate cordoning off the perimeter.
- Unauthorised senior officers strolling around.

According to Geberth (2015:30) first police responders should rather focus their attention on observing the crime scene and taking notes of activities in and around the scene. First police responders also exhibited failure to complete a neighbourhood canvass that extends for at least two blocks. Often the information obtained from a canvass is insufficient as it excludes vital information regarding the details all potential contacts who may work, live, or frequent the area. These mistakes occur as first police responders often neglect to use the appropriate Canvass Control Sheets to ensure everyone is contacted during an area canvass.

This consequently results in a failure to work as a cohesive team, overlooking possible witnesses because of a single sweep during canvassing when some may be absent, failing to follow up for additional witness information, and not giving investigative information to canvassers. The first police responder and detective, who establish the tone for coordination, as well as other team members like the detective division, coroner or medical examiner, crime scene technicians, district attorney, and ambulance staff, all need to work together effectively. An additional risk is command interference or inappropriate action (Geberth, 2015:np). The unnecessary handling of objects on the crime scene is a significant mistake, as it can disturb potential fingerprints left by the offender. For example, handling a glass can leave fingerprints behind. Additional mistakes include trampling on crucial foot and vehicle prints, leaving cigarette butts and burnt matches after smoking at the scene, inadvertently moving furniture and objects, utilising washbasins, toilets, and towels, and combing hair at the crime scene which leaves additional physical debris that could be confused with evidence (Marais & Van Rooyen, 1993:13).

It is imperative that nobody be allowed to eat, smoke, or use toilet facilities at the crime scene. If a situation arises where the toilet must be used, it should first be examined for fingerprints, hair, blood, or other body fluids. Mistakes made by the first police responder at the murder crime scene include a multitude of things that can go wrong, in addition to dealing with the sudden or violent nature of death. These may involve failure to correctly identify the scene or determine the probability of a crime, failure to contain the crime scene, accidental contamination of the crime scene, and failure to capture sufficient evidence, such as photographs.

- **Releasing the scene without proper documentation of evidence**

This section discusses the findings where participants noted that first police responders release crime scenes without proper documentation of evidence, indicating inadequate procedures during crime scene processing. There is often a failure to recognise when certain emergencies require legal investigation, or emergency medical responders may dissolve the situation without gathering enough information first. Conversely, in situations where the emergency event is deemed as a probable result of a crime, emergency responders may not document crucial evidence adequately.

For instance, during the Senzo Meyiwa (News 24, 19 September 2023) case, a police investigator released the crime scene without securing proper documentation of evidence. Often these types of mistakes are committed by emergency medicine professionals who are untrained and lack essential skills of knowledge. According to Lee et al (2007:50), it is confirmed that while processing a crime scene, first police responders to a crime scene inadvertently tamper with the scene and physical evidence, altering it from its original condition in numerous cases. The participants observed that when the crime scene is contaminated by the presence of unnecessary personnel, there is a risk of losing crucial microscopic evidence. Importantly, once the crime scene is damaged, it is often irreparable. The participants provided examples during the interviews of various mistakes committed prohibiting the protection of the crime scene, such as:

- Failing to remove family members and/or others from the location.

- Failing to isolate and secure the crime scene and prevent unauthorised entry.
- Failing to prevent other police officers from unnecessarily going into the crime scene.
- Failure to prevent unauthorised supervisors from unnecessarily going into the crime scene.
- Failure to declare conditions in the crime scene which require protection.
- Failure to isolate the body and the immediate surrounding area from further contamination.
- Failing to safeguard any evidence present at the crime scene.
- Failure to establish a clear pathway to and from the body.

Since any item can and may constitute physical evidence, it is therefore imperative that nothing be touched or moved at the scene before the arrival of investigators. The participants identified these mistakes as the result of negligence by first police responders, fellow officers, media personnel, and medical personnel who inadvertently tamper with the scene and physical evidence, changing the scene from its original condition. Poor handling of exhibits, poor collection and packaging of physical evidence, poor record keeping, and failing to take proper control of the scene by cordoning it off were also listed as mistakes observed by the participants. These findings align with the common mistakes that have been indicated in the literature. According to Hawthorne (1999:2), there are countless examples of cases in which evidence is not collected and preserved improperly at the scene of a crime. Such mistakes such as poor handling, inadequate collection, and incorrect packaging of physical evidence subsequently contribute to the acquittal of the perpetrator.

- **Evidence management at the murder crime scenes**

This study's findings suggest that poorly and imperfectly managed crime scenes can lead to a reduction in the quality of evidence, increasing the risk of fruitless investigations and unjust verdicts. Crime scene management is emphasised as a crucial factor that significantly influences the quality and quantity of information available for investigation and eventual court proceedings.

It is observed that many officers may not fully grasp the importance of crime scene documentation, which results in the loss of vital information (Fisher & Fisher, 2012:20). Another critical aspect in crime scene investigation is an accord of time, place, and action. Weyermann and Ribaux (2012:68-78) explain that criminal investigations should aim to establish this connection between these factors by demonstrating what a suspect was doing when they were present at the crime scene at a specific time. There is a shared concern among those involved in evidence management at crime scenes that even when research in this area has been conducted, it has not been implemented to influence management practice effectively. This concern is particularly alarming, given that the core value of crime scene management lies in its potential to influence and benefit both crime scene practices and broader management practices. Empirical research confirms the existence of this concern (Creswell, 2013:np).

To contribute to a possible solution, this study entailed a comprehensive review of relevant literature to gain an understanding of the concepts, processes, procedures, and policies associated with the management of crime scene evidence. Other mistakes first police responders make when attempting to officiate an arrest or conduct a search, include fabricating or exaggerating facts to establish probable cause for issuing a warrant, failing specificity in the items to be seized, searching for items beyond the scope of the warrant, seizing items not covered by the warrant, serving the warrant outside of its authorised hours, and serving the warrant on the wrong person or location. A first responder is defined as "a person trained in emergency procedures and prepared to move quickly to the scene of an incident or disaster" (Swart, 2021:np).

Mistakes can be made during interactions with a crime scene, especially when confronted with the dangers of the unexpected. A single mistake at this stage may result in an unsuccessful prosecution or a civil liability claim against the first police responder or the institution they represent (Swart, 2021:np). The officer who responds first to the scene has the responsibility to protect the public and the crime scene and control the changes made to the crime scene to the best of their ability. Their first responsibility, after ensuring that they themselves do not administer unnecessary changes to the scene, is public safety. This involves ensuring the safety of both the officer and the citizens.



To achieve this, it is crucial for the first responder to park a distance away from the scene. This is done to ensure that if there is still a suspect at the scene, the presence of an officer will not be obvious and will not exacerbate the situation. For public safety reasons, the first responder must conduct a search of the scene for a potential suspect that could pose a safety risk, even though this search might mean that the first police responder leaves some traces of their presence (Swart, 2021:np). However, the first police responder should attempt to keep their disruption of the scene to a minimum, with the first responder limiting what they touch and where they go. Once the scene is deemed safe, the officer must secure the scene. First, they must rope off a large area around the scene to set a perimeter.

Then, they should keep everyone, except authorised personnel, away from the scene. They should control that only authorised persons are allowed entry to the crime scene. Two factors that could potentially change the crime scene, however, are people and the weather. People can be controlled by keeping everyone who is not law enforcement away from the scene. Conversely, it is essential to maintain a log of authorised personnel who do enter the scene. This log should include the name of each person, the entry and exit date and time, the reason for entry. Additionally, this log should also be used to record any additional evidence left inside the scene.

This log serves as a record to show that the person entered the crime scene for a particular reason, and that they were rightfully there after being approved for entry by the first responder. This is important should these records be called for examination in court as additional evidence. The final task of a first police responder is to interview and question potential witnesses and potential suspects. It is important to note that a first police responder should not conduct lengthy interviews, seeing as this type of extended questioning should be left for follow-up officers and the first police responder should remain focused on primary duty to secure and protect the scene and the people (Swart, 2021:np). Since a crowd is typically attracted to attend a scene of any nature, the first police responder should administer great care to remain calm when the status of the victims is unknown, and witnesses are ready to disperse at the first opportunity.

On arrival, the first police responder must adopt a strict, but respectful attitude and follow the basic scene management approach. This systematic approach will place the first responder in control to focus on the task at hand and create a reassuring atmosphere for the people directly involved with the scene (Swart, 2021:np).

- **Empowerment of the first police responders to manage the crime scene.**

Improving how murder investigations are investigated is a top priority. A key objective is to find and allocate resources to identify and improve core competencies for law enforcement, particularly for combating violent crime. First police responders are actively working toward achieving this goal through initiatives like the Murder Investigations Enhancement Training and Technical Assistance Project. This project represents a significant step forward in raising clearance rates and improving the investigation of murder cases. It was determined during the interviews that continued training of police officials is crucial for both the organisation and its members. Most participants mentioned that they attended a training program called the Crime Scene Training, indicating a willingness to expand their knowledge based and improve their skills by empowering themselves through additional training.

It was also noted that during orientation when they join the unit, new officers receive practical training regarding matters related to crime scenes. This training equips members knowledge needed to identify and manage crime scenes effectively. However, some participants indicated that they had not attended any training specifically related to murder crime scenes, but they have attended other courses that are related to crime scene investigation. In-service training is also considered valuable by members. Some mentioned that even without attending a specific course, they were able to carry out their duties effectively due to their experience and learning from others. Investigating murder demands extensive experience and skilful detective work. Detectives are dispatched to the scene to initiate the investigation process, predominantly dealing with violent crimes like murder and rape (Eck & Rossmo, 2019: 605). Throughout the investigation, from crime scene construction to the official conclusion of the case, crime scene investigators are exposed to traumatic incidents. (Eck & Rossmo, 2019:605; Steyn & Klopper, 2020:287).

This exposure to trauma makes occupational stress inevitable among murder detectives (Cronje & Vilakazi, 2020:526). Seeing as murder is one of the most violent types of crimes, and occurs in various settings, presenting numerous challenges for officers investigating murder cases. Murder is one of the most violent types of crimes and can occur in a variety of settings, which in turn poses a variety of challenges onto officers investigating murder cases. Many studies on police occupational stress are quantitative (Chikwem, 2017:np; Civilotti et al, 2021:np). In contrast, this study takes a qualitative approach, aiming to understand the lived experiences of murder detectives as it relates to occupational stress. This study aims to contribute to the improvement of SAPS support structures by providing in-depth insights into the experiences of first police responders regarding occupational stress and trauma as contributing factors. One participant in the study emphasised that the first police responder arriving at a crime scene must recognise the importance of preventing or controlling any changes in the crime scene. Even when beginning at the crime scene, SAPS officers start to face immediate difficulties collecting evidence. One of the contributing factors includes the credibility and proficiency of technicians responsible for gathering evidence. Investigators also encounter issues with transportation and lacking adequate skills for handling and packaging collected evidence. In addition, inadequate storage capacity presents difficulties because there are insufficient mechanisms to maintain gathered evidence as distinct entities.

The insufficient training of investigators poses a noteworthy obstacle as well, as it affects their capacity to accurately interpret evidence, record pertinent associations, and submit them for additional examination by qualified experts (Nyakundi, 2015:60). Addressing these challenges requires comprehensive training for all crime scene responders, identifying the need to adopt modern forensic methods. Utilising cutting-edge technologies like DNA testing should be part of the training presented to first police responders (Gianelli, 2013:100). Two crucial factors that can significantly alter a crime scene are people and weather. Among these, the presence of people is more controllable by officers. It is imperative that officers take measures to avoid introducing changes to the crime scene. Parking the patrol car away from the crime scene is one such measure.

This helps prevent any impact on evidence left by the suspect and avoids alerting a potential suspect still present at the scene. Officer and citizen safety is a primary concern when entering a potential crime scene, even if it means compromising some evidence. During a search for a perpetrator, officers may unavoidably leave trace evidence at the crime scene. Therefore, officers should minimize touching objects and areas at the scene while conducting a search (Gehl & Plesca, 2019:102). Once it is determined that the scene is not dangerous, officers should cordon off any area likely to contain evidence from the crime. This can be achieved using crime-scene tape and by assigning one or two officers to strategic positions. Unauthorised personnel, including other police officers, should not enter the scene. When securing the scene, officers must exercise care to observe and avoid disturbing any potential evidence.

## **7.5 PRESENT CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER AT THE SCENE OF CRIME**

Political pressure and work stress these are the two factors stood out prominently and were shared among the respondents. Nearly all respondents highlighted that the stress resulting from continuous work diminishes their effectiveness. These officers fulfil their duties whenever required, regardless of the time whether day or night. Solving crimes involves the systematic work of police officers, conducting thorough investigations, and collecting facts. Additionally, criminalists and forensic experts play a crucial role by extensively testing the evidence. However, all these efforts might be in vain if the evidential items collected from the crime scene are not handled in a manner that adheres to the protocols, rendering them inadmissible in court. To avoid this, evidential rules must be observed at each stage of the evidence processing. The management of evidence by police officers is a critical function in the criminal justice process. Its effective and efficient operation is also essential for an agency's service quality and value to the community. Over time, the management of this function has become increasingly complex, influenced by factors such as legislative obligations, the inefficient protection and preservation of evidence material, and maintaining the chain of custody. Failure to manage evidence adequately can impact the successful prosecution of criminals, leading to agency liability or a loss of public confidence.

Automating the handling of evidence offers several advantages, including increased accuracy by reducing human errors, minimising the likelihood of illegal manipulation of evidence, and providing real-time access to data. Adopting effective information systems that leverage technology is a recommended approach to ensure accountability and integrity in institutions providing these types of services to the public. However, if crime evidence is not well-documented and labelled, it may pose the following challenges:

- Physical damage, deterioration, contamination, infection, decomposition, loss, and tampering with the exhibits.
- Improper labelling and documentation cause evidence to be mishandled and incorrectly stored.
- Poorly managed crime scenes can result in reduced quality of evidence being collected, increasing the risk of fruitless investigations and/or unjust verdicts.
- Poorly managed crime scenes deteriorate the quality and quantity of information available for investigation and, eventually, for court.
- Many officers fail to appreciate the importance of crime scene documentation and vital information is not notated.
- Improper criminal investigations cannot determine what a suspect was doing was at the crime scene at a certain time.
- Some crime scene investigators are not proficient in gathering specimens from the scene or utilising them to formulate theories regarding people, objects, and activities.
- Lack of appropriate tools for maintaining the chain of custody.
- Lack of standardised procedures on evidence management.
- Lack of a chain of custody forms, which cause officers to use unofficial handwritten handover certificates in their official pocketbooks.

## 7.6 THE DEVELOPMENT OF INVESTIGATIVE PRACTICE AT THE CRIME SCENE

Notetaking strategies generally advise to start from a broad viewpoint and gradually progressing from the general to more specific observations. However, first police responders often overlook creating a factual perspective, neglecting this crucial starting point of an investigation. Broader facts serve as the foundation for a mental map of events, forming the basis for offense recognition and the development of reasonable grounds for action. It is imperative to document the identities of individuals encountered and the methods used to verify their identity, such as obtaining a witness's photo, driver's license, or ID. All statements made by witnesses and victims should be recorded to accurately convey the information. Since it might not be possible to capture every statement verbatim in notes, it is usually not required. (Gehl & Plesca, 2016:102). Reiner (2000:1) points out that police officers frequently take for granted the ideas and tasks they carry out because they have grown accustomed to them over time. While it is evident now that the police service is responsible for conducting criminal investigations and developing investigative practices, this was not always the case. Surprisingly, there is no comprehensive history of the development of investigative practice in the SAPS.

Even though technology now enables the digital recording of verbatim accounts provided by witnesses or victims, solely recording a statement digitally is insufficient, as statements frequently play a vital role in establishing reasonable grounds for belief and subsequent action. By documenting the essential information being communicated, one can create a written record of the facts considered when forming reasonable grounds for belief. When dealing with a person who is a suspect or has the potential to become one, it is essential to make every effort to record precisely any statements made by that individual. Suspects may attempt to blend in at the crime scene, posing as witnesses or victims. Recording their initial statements accurately can yield evidence of guilt, exposing false or incriminating statements. Each detective holds the personal responsibility to document their subjective perception and recollection of the unfolding events.

When detectives work together to develop a consensus account of what happened and then write notes that document those facts, the notes cease to be an investigator's personal recollection (Gehl & Plesca, 2019:102). As a result, the statements could be forced to represent a group account of what happened to replicate evidence that does not accurately capture the facts as each investigator saw them. (Marais, 1992:13). Crime scene management is an organised, methodical, and logical process that begins at the crime scene and goes beyond simple physical evidence search. This procedure entails keeping the scene under control and safeguarding it, evaluating it, and touring it, recording it with notes, pictures, and sketches, looking for and gathering evidence, releasing the scene, and lastly evaluating and interpreting the evidence considering case management.

## **7.7 SUMMARY**

The research findings are interpreted in this chapter, which also covers themes that surfaced in the interviews, and were supported by participant responses during the interviews, and the literature reviewed in earlier chapters. The researcher's interpretation of the findings indicates an existing issue concerning the role of the first police responder in managing murder crime scenes. Reports of serious crimes are on the rise, and criminal activities have become more advanced, with new trends emerging regularly (Travis & Edwards, 2015:np). During the investigation of these crimes, visiting the crime scene is essential to protect physical evidence. Farrall and Calverley (2015:100) assert that information is collected from the scene by technicians to help the police accurately identify both suspects and victims.

This process requires a high degree of accuracy, making the processing of a crime scene a critical aspect of effective criminal investigation (Herbig & Warchol, 2011:12). The findings also highlight some mistakes that contribute to the commission of crimes. The challenges faced by first police responders when managing murder crime scenes were discussed, and the literature reviews cited to support the participant responses. The recommendations based on the aspects discussed in this chapter are presented in the next chapter.

## **CHAPTER EIGHT: SUMMARY, RECOMMENDATIONS, AND CONCLUSION**

### **8.1 INTRODUCTION**

This chapter provides an overview of the thesis, encompassing Chapters 1 through 7. The recommendations are derived from the analysis and interpretation of the research findings discussed in Chapter 7, which form the basis for the following conclusion of the study. The analysis aims to tackle challenges faced by the first police responder at crime scenes directly. The recommendations are formulated with the intention to improve the management skills of the first police responder at crime scenes.

### **8.2 SUMMARY**

In Chapter 1, Section 1.1 initiates with an introduction, elucidating the exploration into the management of murder crime scenes by the first police responder. Following this, Section 1.2 outlines the background of the study. In Section 1.3, the problem statement is discussed the problem of certain members' low self-esteem, lack of drive to perform well, indifference, and general bad attitudes, all of which lead to inadequate police services. Aiming to underscore the study's significance. Section 1.4 presents the research aim and objectives to explain the inspiration behind the researcher's undertaking of the study. The study aims to investigate the actions of first responding police officers in managing a murder crime scene. The objectives include examining the role of the first police responder at a murder crime scene, identifying challenges encountered by the first police responder, and determining best practices in managing a murder crime scene. Section 1.5 identifies the research questions the study addressed, while Section 1.6 delves into the key theoretical concepts. Finally, Section 1.7 concludes by determining the value of the study. In Chapter 2, a literature review is presented regarding the role of the first police responder in the management of murder crime scenes. Section 2.1 serves as an introduction to the chapter, specifying that the discussion revolves around the first police responder in the management of murder crime scenes, as indicated by the study's title. Section 2.2 provides an overview of the existing literature that discusses murder crime scenes, while Section 2.3 presents the literature depicting the legal framework concerning crime scenes.



Section 2.4 covers theoretical concepts as identified in the relevant literature, and Section 2.5 details how previous authors have addressed the roles of the first police responders at murder crime scenes in existing literature. Moving on to Chapter 3, which focuses on the identified challenges faced by the first police responder at murder crime scenes. Section 3.1 serves as the introduction, followed by a discussion of common challenges encountered by the first police responder at crime scenes in Section 3.2, which focuses on an overview of the background and challenges confronted by first responders at crime scenes. In Chapter 4, the focus centres on identifying best practices for the first police responders to manage a murder crime scene, with Section 4.1 serving as the chapter introduction. Section 4.2 outlines national best practices for the management of murder crime scenes by the first police responder, while Section 4.7 delves into international best practices in this regard.

Moving on to Chapter 5, which outlines the methodology employed in the study, Section 5.1 introduces the chapter. Subsequent sections cover the philosophical worldview (Section 5.2), research methodology (Section 5.3), qualitative research approach (Section 5.4), research design (Section 5.5), target population and sampling of the target population (Section 5.6). Additionally, Section 5.7 covers sampling procedures, Section 5.8 addresses data collection, Section 5.9 discusses data analysis, Section 5.10 outlines methods to ensure trustworthiness, and Section 5.11 explores ethical considerations. Chapter 6 delves into the presentation and discussion of research findings based on participants' responses during their interviews, utilising In Vivo coding. Section 6.1 introduces the chapter, while Section 6.2 provides an overview of emerging themes and subthemes. For example, understanding the concept of the crime scene; crime scene management; understanding the first police responder; understanding the roles of the first police responder in the murder crime scene. Subthemes: Role of LCRC Member at the murder crime scene; Training for first police responder at the murder crime scene. The challenges encountered by the first police responder at the crime scene and best practices on managing murder crime scene by the first police responder. Identification of the most suitable practices for the first police responders to manage the murder. The utilisation of these non-numerical identifiers, as opposed to participant names, ensures confidentiality between the researcher and the participants.

Chapter 7 interprets the research findings, offering a detailed overview of the first police responder's role in managing murder crime scenes. The participants' views are interpreted, and this interpretation aligns with the existing literature.

### **8.3 RECOMMENDATIONS**

The previous chapter analysed the research findings, incorporating participants' perspectives. Recommendations are formulated based on their understanding of the first police responder's role in the management of murder crime scenes. These recommendations are partially grounded in the literature discussed in this study and are also informed by the information gathered from participants during the interviews. Findings of this study, as illustrated in chapter two, call for recommendations on how to explore on the first police responders in the management at the murder crime scenes. How to follow proper procedures that should during crime scene management of murder scenes to improve the understanding of crime scene management procedures at murder crime scenes, as well as best practices to follow at murder crime scenes. These recommendations are centred on the answers received from participants, and are focused on an explores in the management at the murder crime scenes.

The research indicates that sufficient SAPS regulatory policies and procedures exist that provide clear guidance to crime scene experts and investigating officers on how to efficiently manage a murder crime scene. however, participants 'understanding of crime scene management was limited to certain aspects of crime scene management. The underutilisation of crime scene experts to process murder scenes is further identified as a shortcoming. Although the majority of participants were familiar with the required procedures to manage a crime scene, the execution of these procedures was often not performed by the responsible crime scene experts or not done to the satisfaction of investigating officers. The action taken by first police responders is thus not realised among the majority crime scene managers and investigating officers, with a explores impact to efficient crime scene management in the SAPS members while executing their duties at the crime scenes. Established from the findings of this study, recommendations on crime scene management are presented below.

- **Recommendation on crime scene management**

The first police responders and investigating officers in SAPS Tshwane District Pretoria should continuously be sensitised on the contents of SAPS National Instruction 1 of 2015 by means of training interventions. This will empower these first police responders and investigators with essential knowledge and skills regarding the efficient planning and implementation of crime scene management processes.

As a result, these individuals 'understanding of crime scene management would be enhanced. Crime scene managers and investigators should become increasingly acquainted with the procedures to:

- 7 Take control and secure the crime scene;
- 8 Ensure the integrity and the originality of evidence and exhibits; explore and process the crime scene comprehensively and undisturbed;
- 9 Coordinate and maximise the collection of exhibits;
- 10 Utilise investigation support resources, such as crime scene managers, optimally;
- 11 Record facts and events properly; and
- 12 Guarantee that the crime scene remains under police guard for the period determined by the crime scene manager.

- **Recommendations on crime scene processing**

The first police responder of SAPS Tshwane District should become increasingly familiar with the required SAPS procedures to manage murder crime scenes efficiently. These first police responders should follow the correct procedures to manage a murder scene in order to correctly recognise physical evidence, document its locality through sketches and photographs, gather it, and mark and package it. Crime scene managers should ensure that the chain of custody is maintained during all stages of handling the evidence. In addition, a competence assessment should be performed among first police responders at the SAPS Tshwane District, to determine the challenges and limitations experienced during the management of murder scenes. Based on the outcome of this competence assessment, a tactical competence enhancement strategy should be implemented.

- **Recommendations on understanding the concept of crime scene.**

Recommendations about the term "crime scene" propose a broader definition that encompasses the location of the incident, so that it includes areas where associated actions occurred before or after the crime. Defining a crime scene involves considering it as an area or location believed to contain evidence linked to activities associated with a specific crime. This definition can be broadened to include individuals or objects, such as vehicles. The practices and procedures to be followed for maximising the potential for evidence are applicable not only to physical locations but also to individuals. It is also advised to consider suspects and victims who are being examined as locations where forensic and/or medical evidence from the crime scene can be recovered.

The crime scene phase is delineated into 11 sequential steps, encompassing a range of activities. These steps include handling the deceased, capturing photographs of the scene, documenting comprehensive observations, creating a scene sketch, performing initial checks, releasing the body, gathering items of evidence, conducting second and third rechecks of the scene, and examining areas beyond the immediate scene. This structured approach ensures a thorough and systematic process in managing and investigating the crime scene (Singh, 2018:55).

The importance lies in utilising the crime scene as a field laboratory, aiming to identify objects of dispute that will undergo laboratory tests at a later stage. It is considered the point of concealed clues pivotal for elucidating or detecting the crime, extending beyond the immediate incident location. Although participants commonly characterise the crime scene as "a place or area where a crime has been committed," there is a shared inclination to confine the definition solely to the immediate site of the crime. This restrictive view might lead to overlooking valuable information and clues present in other areas. Consequently, it is advisable to recognise that a crime scene encompasses any locality or place where physical evidence related to the crime can be recovered. This broader perspective ensures a more comprehensive approach to evidence recovery and investigative processes.

The term "scene of crime" or "place of occurrence" is described as the actual site or location where the incident occurred. Typically, police personnel are the first to arrive at the crime scene and initiate the investigation process. Consideration is given to expanding the understanding of a crime scene beyond the immediate location of the incident, ensuring a more comprehensive approach to evidence recovery and investigative processes. The police personnel initially responding to the crime scene are referred to as the first police responder. This individual plays a crucial role in safeguarding both the crime scene and its associated evidence. The success of the entire investigation relies on the first responding officer's ability to effectively identify, isolate, and secure the evidence. Achieving this involves establishing a restricted boundary around the crime scene, typically using crime scene tape, rope, or barriers, to prevent the destruction of evidence.

Following the securement of the crime scene, the first police responders must uphold these restrictions, prohibiting entry by non-essential individuals. Study participants grasp that a crime scene is a site where direct or indirect evidence of a crime or alleged crime can be recovered, typically associating the term with the area where the crime occurred. Stelfox (2013:126) highlights that a crime scene can manifest in varied forms, including locations used to plan the crime. This expansive perspective underscores the importance of including areas beyond the immediate incident site in crime scene investigations. It emphasises the necessity of considering spaces where planning or other relevant activities related to the crime may have occurred.

Crime scenes include a variety of locations, including encounters between a victim and an offender, the sites of the offender's attacks on the victim, locations where the offender detained the victim, as well as vehicles or conveyances used in the crime, the deposition site of a body or weapon in the case of murder, areas used for cleaning or discarding materials related to the offence, routes to and from any scene, and places associated with the victim. As well as places associated with individuals involved in the crime in any way, including areas where witnesses, victims, and suspects can be found, including their homes, workplaces, and vehicles. Traditionally, evidence at a crime scene has been understood in a physical form, such as blood, fingerprints, or footwear marks.

However, contemporary considerations include evidence in virtual forms associated with devices like computers or mobile phones. Recognising this broader spectrum of evidence ensures that investigative practices remain relevant and effective in the evolving landscape of crime and technology. The concept of "virtual evidence" is introduced, expanding beyond traditional physical evidence. Acknowledging the existence of virtual evidence alongside physical evidence broadens the definition of a crime scene from an area, location, person, or object to include "virtual scenes." This extension encompasses spaces like the internet and communications networks, recognising that crimes and pertinent activities can transcend physical boundaries and leave traces in the digital realm.

- **Recommendation regarding crime scene management**

In line with SAPS National Instruction 1 of 2015, crime scene management involves planning and executing measures. Nevertheless, participant feedback indicates a restricted understanding of crime scene management, especially when compared to existing literature. Participants appear to concentrate on safeguarding, securing, and packaging physical evidence, as well as attending to injured individuals. The observed underutilisation of crime scene experts in handling murder scenes may result from an incomplete grasp of all aspects of crime scene management. Moreover, investigators might not fully recognise the importance of maximising the use of all available investigative support resources.

- **Recommendations for reducing mistakes at the crime scene.**

Thibault, Lynch, McBride & Walsh (2008:178) contend that management ought to publicly acknowledge the positive contributions of both uniformed police officers and their detective counterparts in successful cases. The authors propose that recognising officers' contributions can boost their positivity and effectiveness as employees. Nonetheless, patrol officers, with limited investigative training, find it challenging to allocate time to investigations as they prioritise visible policing and patrols for effective police coverage as a preventive measure (Thibault et al, 2008:178).

Lee et al (2007:50) assert the belief that any disturbance to the crime scene might impede establishing a link with the suspect. They emphasise the necessity of training, education, and experience for any potential first responder. This viewpoint aligns with Hawthorne (1999:2), who advocates for advanced training to prevent incidents leading to suspects' acquittals. When securing the scene transitions to a strategic investigative response, it is common to still find first responders and people such as witnesses, victims, or the arrested suspect still at the crime scene, even after the active event has ended. These individuals have participated in various activities at the crime scene and subsequently potentially contaminating it. Securing the crime scene entails halting all ongoing activities inside it, and everyone is required to vacate the crime scene to a location some distance away. Once everyone has been removed from the crime scene, a physical barrier, typically police tape, is placed around the outer edges, establishing what is known as a crime scene perimeter. This process of defining the borders of the crime scene with tape is referred to as "establishing a crime scene perimeter", and the overall process of isolating the crime scene within this perimeter is termed "securing the crime scene".

- **Recommendations regarding the actions of the first police responder on the crime scene**

To enhance the skills, knowledge, and understanding of first police responders, additional training and intervention are recommended to address identified shortcomings:

- **Crime Reporting Procedures:**  
Training should cover the correct processes to follow when reporting a crime.
- **Preliminary Investigation Basics:**  
First police responders need a solid understanding of the fundamental considerations in the preliminary investigation of a crime.
- **Common Mistakes and Remedies:**  
Identifying and rectifying the primary mistakes made by first police responders at crime scenes is crucial for improvement.

One of the key and essential actions taken by first police responders at the scene is notetaking. This process serves multiple purposes, ensuring that entries are accessible for all cases and readily available when needed by investigators or the court. Notes should encompass various details, including the time and date of the case, the source of information, and instructions for preserving the scene. Additionally, the composition of the investigation team, the responsible officials present, and the time of arrival at the scene are recorded from the outset of the case. It is imperative to observe and document all actions taken during the inquiry, from the examination of the crime scene to its conclusion.

The roles of the first responder at the crime scene, as identified by participants, documents, and literature, including assessing, securing the crime scene, attending to the injured, arresting suspects, identifying witnesses, preserving the scene, handling evidence according to prescribed procedures, documenting actions taken, reporting to superiors, providing feedback, and handing over the scene to relevant personnel (Osterburg & Ward, 2010:97; Palmiotto, 2013:4; Pena, 2000:57; Lee et al, 2007:51; Jackson & Jackson, 2008:22). To enhance the performance of first police responders, it is crucial to clearly distinguish and understand the objectives and purpose of criminal investigation, Locard's Principle, and the processes to follow when a crime is reported. This research underscores the need for concentrated knowledge in these areas, as some participants exhibited a lack of understanding. Strict measures should be implemented to ensure absolute compliance with official directives regarding the role of the first police responder, thereby preventing common mistakes made at crime scenes. Frequently, non-compliance with directives is associated with a lack of command and control from relevant commanders. Implementing the recommended measures from this study to address these identified shortcomings has the potential to significantly enhance the investigation process, ultimately resulting in more successful prosecutions of offenders.



- **Recommendations for the first police responder's documentation of the crime scene**

First police responders ought to record the following details in their notes regarding the crime scene:

- The time and date the police are notified about the case.
- Nature of the offence.
- The scene's description and location.
- Name of the person placing or ordering the location viewing request.
- The identities of every individual engaged, including the responding law enforcement officers, witnesses, investigators, and speciality personnel.
- Names of the officers who took pictures, made sketches, took fingerprints, and looked for and collected tangible evidence.
- Conditions of the lighting and atmosphere during the inspection.
- The first account of what happened, including the victim's state when the investigation team arrived.
- The location of any traces or evidence material discovered, the discoverer's information, and the outcomes of searches for fingerprints and trace evidence.
- A precise description of the location, any houses, or buildings nearby, the best places to enter and exit, the layout of the house, including the number of rooms and windows, and the features of the surrounding area, such as the land, planted field, muddy ground, and paved surfaces.
- The moment the scene analysis was finished.

These notes should not contain conclusions but should focus on capturing observable details.

- **Recommendations for the first police responder's examination of the crime scene**

Before the initial police responders commence their examination of the crime scene, they must observe and amass as much information as possible. Once again, a deliberate and systematic approach is recommended. The purpose of gathering information is to prevent the destruction of valuable and fragile evidence, such as shoeprints and trace evidence. Once all pertinent information is collected, a conceptual plan should be formulated regarding how the crime scene will be analysed. Thorough notes and relevant times should be recorded for every aspect of the crime scene investigation. The examination of the scene typically commences with a walkthrough of the area along the "trail" of the crime, which signifies the area where all apparent actions associated with the crime occurred. This trail is usually marked by the presence of physical evidence, including the point of entry, the location of the crime, areas where a suspect may have cleaned up, and the point of exit. In certain situations, the walkthrough may become secondary if potential evidence is at risk of being destroyed. In such cases, this evidence should be promptly preserved or documented and collected. First responders play a pivotal role in any criminal investigation, and the initial officer at the scene shoulders various responsibilities, including establishing the perimeter of the crime scene, determining points of suspect entry and exit, and restricting unauthorised access.

- **Mapping of the crime scene**

Merely relying on photographs is insufficient for rectifying the scene. To enhance the accuracy and visual representation of the scene, the first police responder should possess a sketch. Sketches and photographs complement each other to portray the scene effectively and accurately. This provides a visual outline which serves to clarify the scene's appearance, facilitating easy comprehension of the surroundings. The crime scene investigator must create a well-executed outline that is easily understandable. The individual compiling the sketch need not necessarily be a skilled painter or designer.

However, everything within the outline should be clear even to those who were not present at the scene. Hence, the first police responder should produce a simple, comprehensible drawing that accurately presents the scene's appearance. Unlike photographs that capture even unwanted objects, which cannot be excluded without interference, drawings focus solely on the essential elements that require presentation. Sketches prove invaluable, aiding investigators, courts, and others in recollecting details. Moreover, they often function more efficiently than photos to portray the scene's different elements, like the positions of nearby cars. There are two types of drawings: general and detailed. Generalised sketches are created on-site, employing freehand techniques and include relevant accompanying features and measurements. Detailed sketches, encompassing additional intricacies. Both these types of sketches find a place to be stored in the case file. All sketches are executed at a 90-degree angle to represent the scene two-dimensionally, as opposed to three-dimensional sketches made from different angles in specific scenarios (like sketches of mass graves or a well). Augmenting the evidence with annotations, sketches, and photographs gives you a more complete picture of the scene.

- **Crime scene preservation**

All scenes, whether indoor, outdoor, or involving vehicles, should be safeguarded at the earliest opportunity to minimise the risk of material loss, post-incident movement, or contamination. This study places particular emphasis on procedures for evidence preservation and contamination avoidance. Guidance is provided to aid individuals in managing specific risks associated with crime scene examinations. The advice is geared toward ensuring that actions taken by anyone at the incident scene, including those responsible for collecting samples from victims or suspects, do not lead to the loss, degradation, or contamination of forensic evidence. Preserving the crime scene is of utmost importance and must be considered from the moment an incident is reported. The first police responder bears the responsibility of ensuring that the scene is preserved to the greatest possible extent, providing crime scene examiners with the maximum opportunity for forensic recovery. Every individual attending the crime scene is obligated to ensure that their actions do not compromise the retrieval of forensic evidence.

Measures for scene preservation should, at a minimum, encompass the following:

- The removal of non-essential personnel from the scene.
- Control entry to the scene with a logbook.
- Establish cordons around the crime scene and other areas with potential forensic yield.
- Creation and utilisation of a shared approach path.
- Use of appropriate protective clothing.

Anti-contamination measures ought to cover all possible scenarios by assuming that any type of trace evidence could become contaminated. Steps are required to minimise the possibility of cross-contamination before the safe packaging of materials at the crime scene can commence. Arguably, the most crucial individual at a crime scene is the first police responder. The first officer to arrive often plays a pivotal role in the fate of a crime scene. The way he/she handles the crime scene initially can significantly impact the overall investigation. The journey from crime to conviction starts with the arrival of the first police responder. The first officer at the scene must delicately balance their actions. While CSIs desire a preliminary understanding of the incident upon arrival, they also want to avoid any disruption of the crime scene. Even with limited knowledge of evidence and its preservation, the first police responder can still effectively protect, preserve, and, in some instances, collect evidence. The officer must comprehend the significance of preventing or controlling any alterations in the crime scene.

- **Avoid contamination of evidence**

Due to the sensitivity of DNA evidence, even a minute sample can serve as crucial evidence. Therefore, heightened attention is imperative in addressing contamination concerns during the collection and preservation of DNA evidence for analysis. The integrity of biological samples holds significant importance in forensic casework (McClintock, 2014:np), especially when dealing with trace evidence where the risk of biological contamination from another source is considerable.

To prevent contamination during sample collection for DNA analysis, several precautions should be observed. These include wearing full protective suits, face masks, and disposable hand gloves before handling any evidence, with a change of gloves between handling different items. The use of disposable instruments or thorough cleaning before and after handling each sample is recommended. Additionally, caution should be exercised to avoid touching areas where DNA may be present. The following guidelines to deal with DNA evidence to avoid contamination (Butler, 2005:10):

- Avoid talking, sneezing, or coughing over evidence.
- Refrain from touching the face, nose, and mouth during the collection and packaging of evidence.
- Ensure thorough air-drying of the evidence before packaging.
- Place evidence in new paper bags or envelopes, avoid the use of plastic bags, and abstain from using staples.
- Always avoid contact between samples from the victim and the suspect.
- Package each piece of evidence separately in paper bags, without the use of plastic bags.
- Never reuse packaging.

The Forensic Science Regulator Guidance defines contamination as "the introduction of DNA, or biological material containing DNA, to an exhibit at or after the point when a controlled forensic process starts." This differentiation clearly distinguishes contamination from background DNA that may be deposited before the investigation and is subsequently unrelated to the crime. Contamination poses two key challenges in forensic investigations. First, it may erroneously link an innocent individual to a crime, and second, a contaminated crime scene can result in valid evidence being deemed inadmissible, potentially preventing charges against a guilty individual. Any physical contact has the potential to transfer DNA, such as through skin cells, hair, or saliva. Despite significant advancements in DNA sequencing technology, the handling of evidence has not seen commensurate changes. Hence, it is crucial to exercise great care in forensic investigations, minimising contact with evidence as much as possible and adhering strictly to established protocols. Detecting and rectifying contamination after the fact is a complex process.

One primary method involves maintaining databases containing the DNA profiles of individuals with a high risk of causing contamination. While this aids in identifying contamination, the preferred approach is still to reduce contamination from occurring initially. To diminish contamination, several measures should be taken, including minimising direct contact with exhibits using barrier clothing, restricting the number of individuals handling exhibits, regularly cleaning and sterilizing equipment between uses, and conducting tests for contamination on equipment and consumables before use. Strategy must be drafted for each serious scene, encompassing a comprehensive anti-contamination plan tailored to that specific scene.

This plan should address methods to minimise contamination from staff, limit the number of staff involved to prevent cross-transfer between scenes and enforce scene control to restrict access for other individuals. One of the crucial steps in reducing contamination, as mentioned in the previous paragraph, is the use of barrier clothing to prevent direct contact between individuals working on a scene and the exhibits. The clothing necessary at crime scenes may comprise a facemask, hair cover, two pairs of gloves, and suit over, and overshoes. Of these, facemasks and gloves are deemed the most crucial items of barrier clothing, seeing as the mouth and hands are the primary sources of contamination. Similarly, protective clothing is essential in the laboratory, usually consisting of a laboratory coat that covers the neck, arms, and wrists, along with two pairs of gloves, a facemask, and a hair cover.

- **Recommendations regarding increasing forensic science methods at the scene of crime.**

In South Africa, the use of DNA evidence and advancements in crime scene investigation practices, notably in cases involving individuals like Senzo Meyiwa and Oscar Pistorius, has grown (Newsroom 24, 23 May 2022). However, this increased application has prompted a reassessment of convictions, resulting in many being reviewed and overturned. South Africa is currently grappling with a noticeable trend of wrongful convictions, indicating limitations in forensic science methodologies and some forensic analysts.

Efforts to tackle these challenges involve intensified scientific scrutiny, enhanced quality control within laboratories, and raised professional standards for employing scientists in forensic science. While these measures have brought about improvements, the ongoing concern in South Africa persists over the lack of oversight in forensic science (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np). Despite variations in scope and focus among these reports, they uniformly underscore the significant challenges faced by forensic science on both local and global scales. A consensus emerges from these reports, emphasizing the necessity for substantial changes in funding and governance to ensure the survival and positive progression of forensic science, a sentiment highlighted in the England and Wales annual reports for 2015, and 2018-2019 (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np).

The literature reflects a growing agreement among researchers that there is a global crisis in forensic science, extending its impact even to countries like South Africa (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np). While limited resources undeniably contribute to the crisis, the contested identity of forensic science also plays a significant role in South Africa. Establishing a consensus on the identity of forensic science, defining what it “is”, and, importantly, what it is “for”, is crucial. A unified and coherent identity, developed collaboratively and accepted across the entire justice system, is essential for understanding the various aspects of the crisis and articulating effective solutions. The extent to which forensic science is perceived as a coherent, interdisciplinary, yet unified discipline will determine its development, its ability to address challenges, and its success in overcoming the current crisis.

The most recent inquiry by the House of Lords, as highlighted in their England and Wales annual report for 2017-2019, was distinctive in its broad scope, addressing the entire ecosystem of forensic science from crime scene to court (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np). In this endeavour, voices from diverse domains, including the police, advocates, judiciary, scientists, researchers, government ministries, and policymakers, were brought together (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np). Although the focus of the inquiry was on South Africa, significant themes emerged, shedding light on the current lack of oversight, accountability, and responsibility in forensic science.

The inquiry emphasised the impact of the instability and unsustainability of the market for forensic science provision, coupled with challenges related to establishing, achieving, and enabling quality standards. Moreover, the inquiry delved into how forensic science techniques are utilised and understood within the justice system and its role in supporting technological advancements and continued foundational research. These challenges have repercussions at various stages of the forensic science process (Morgan, 2017:np; Roux, Crispino, & Ribaux, 2012:np).

For example, the existing forensic science market in England and Wales significantly shapes the selection of materials collected from a crime scene and those that should be overlooked. This market determines the tests that are commissioned and those that are not, dictates the procedures for conducting these tests, and influences how the findings are ultimately reported.

The understanding of science in court may also influence the weight assigned to scientific evidence in a case. These difficulties are highlighted by the type of requests for extra materials, like digital evidence from a tablet device, and the deadlines for preparing these materials for court, as stated in the England and Wales annual report for 2017–2019 (Morgan, 2017: np; Roux, Crispino, & Ribaux, 2012:np). It is evident that these challenges are systemic issues that demand attention for the development of forensic sciences and its ability to contribute effectively to the delivery of justice. Two pivotal factors have exacerbated these challenges and arguably driven the system to a crisis point, as highlighted in the Annual report for 2017-2019 (Roux, Crispino & Ribaux, 2012). The primary factor contributing to the crisis is the scarcity of resources and consecutive funding cuts experienced across the entire sector in South African police services, affecting not only policing and the courts but also forensic service provision and research (England and Wales Annual report, 2017-2018 (Chalkley, 2008:np; Smith & Cape, 2017:np). The second factor that has come to the fore is that the crisis conditions are, at least in part, attributed to the loosely or even undefined nature of the identity of forensic science discipline. A contested identity of forensic science leads to varying assumptions about its essence, purpose, and role.



This divergence can result in different sectors and stakeholders holding contrasting views on what the crisis entails, its constituents, and therefore the most effective solutions. After all, without a consensus on the diagnosis, reaching an agreement on the best treatment becomes challenging.

- **Recommendations regarding the first police responder**

This study recommends that any police officer closest to the crime scene or most readily available to reach it should proceed to validate information on the crime incident. It is stressed that any police officer, regardless of rank, arriving first at a crime scene should serve as the first police responder. In this context, the term "first police responder" encompasses a diverse group of individuals crucial from the earliest stages of managing the incident and caring for people injured or active shooter incident. It is essential to note that the term "first police responder" does not imply a formal credential, certification, limitation, or capacity. First police responders may include bystanders, law enforcement, and EMS and fire personnel. EMS and fire personnel typically adhere to the traditional scopes of practice outlined in the National Highway Traffic Safety Administration's National Scope of Practice Model.

The initial officer arriving at a crime scene, commonly known as the "first responder," takes on the responsibility of securing and preserving the scene. A first police responder could be an armed response officer, a member of SAPS, or even a participant in the local neighbourhood watch. Upon reaching the scene, their duties include identifying the nature of the crime, determining the presence of any suspects, and assessing whether there is a victim in need of medical assistance. If medical aid is necessary, they promptly contact the relevant services and authorities. The first responder also plays a crucial role in demarcating and securing the area to preserve the scene and minimise evidence contamination. Additionally, they document all evidence and compile a comprehensive report, noting key observations such as the type of crime, response times, point of entry, and any arrests made.

The “first responder”, as defined in the SAPS National Instruction 1 (SAPS, 2015:3), is a member, regardless of unit, who arrives first at the crime scene. This individual, the first officer to arrive at the scene, assumes responsibility for all immediate actions at the crime scene. The first officer attending holds the crucial role of implementing initial measures at the crime scene, and their actions significantly impact the subsequent examination and recovery of available evidence. It is imperative that all officers understand the significance of scene preservation and take necessary actions to prevent compromising any subsequent scene examinations. The first officer's responsibility concludes when the officer officially in charge of the crime scene investigation takes over, also known as the “first intervener”. The initial officer attending is accountable for practices such as averting and terminating dangerous attacks, providing initial general assistance, administering first aid, requesting necessary assistance, including forensics assistance, and safeguarding the crime scene area to prevent contamination. The initial police officer arriving at a crime scene plays a pivotal role in a successful crime scene investigation.

The crime scene serves as the primary location where most physical evidence related to the crime is acquired. The officer's primary responsibility is to prevent the destruction or devaluation of potential evidence, which is crucial for the apprehension of the perpetrator. Police departments should establish policies and procedures to guide their officers in this process. The officer, upon arrival, needs to record the time and enter the crime scene methodically. A quick and cautious assessment of the overall scene is essential. The officer's notes should encompass details about doors, windows, lights, shades, odours, signs of activity, and any elements that swiftly convey the scene's characteristics. The primary responsibility of the first officer on the scene is to safeguard the integrity of the area. This entails restricting access to individuals not directly involved in the investigation. The perimeter should be cordoned off using crime scene tape, rope, or barricades, and a documented list should be maintained for anyone entering or leaving. Preservation of evidence is critical, and it should remain untouched for the arrival of crime scene technicians or investigators. While awaiting the investigative team, the first officer should consistently:

- Record the names of witnesses and all individuals present at the scene.
- Document who was at the scene upon the officer's arrival.

- Establish the basic facts surrounding the incident.

In addition to ensuring that witnesses are under the supervision of a uniformed officer and that they are in a secure location away from the media, the first police responder should take appropriate action to prevent witnesses from discussing what they heard or saw during the incident. The first police responder should ensure that all witnesses are eventually interviewed by the responding investigators. The first police responder should keep all suspects and witnesses separated, instructing them not to discuss the events or compare their experiences. They should also avoid discussing the crime scene with witnesses or bystanders, but actively listen, as officers may pick up subtle clues through attentive listening. Furthermore, they should safeguard evidence that could be at risk of destruction, especially considering weather conditions that can pose challenges for crime scenes. In certain situations, expanding the crime scene area may be necessary as an added precaution. The first police responder should secure the crime scene properly using crime scene tape or barricades, and initially establish a larger perimeter, which can be reduced as the investigation progresses.

Once the crime scene's inner and outer perimeters are established, the first police responder should assign sufficient personnel to the outer perimeter to prevent compromise or contamination of the scene's integrity. The murder crime scene should be posted and secured until more investigative and crime scene personnel arrive. Upon the arrival of investigative personnel, the transition of crime scene responsibility should commence between the uniform division and the investigative division. This transition should involve a formal conversation, properly recorded to ensure accountability. The critical importance of the initial response at a murder scene cannot be overstated. Failure to take proper actions the moment the first officer arrives makes it increasingly difficult to gain control, leading to a higher probability of missed witnesses or the loss or destruction of physical evidence. First police responders play a crucial role in the successful resolution of such significant incidents.

- **Recommendations on the role of the first police responder at the murder crime scene.**

The first police responder can significantly impact the efficiency and effectiveness of subsequent forensic activity. Efficiency is influenced as call handlers gather information about the extent of “visible” forensic evidence left at the scene, which can include the presence or absence of blood, cigarette butts, and shoe marks. This information aids in more effectively targeting resources and establishing screening processes to be used in scenes with higher evidential value at a later stage. First police responders are also well-positioned to advise victims or witnesses on actions necessary to preserve the crime scene, minimising disturbance, and contamination. This enhances the subsequent availability of forensic material. Their guidance is crucial for optimising forensic outcomes in the investigative process. This has the potential to enhance the effectiveness of crime scene examinations. Despite the crucial role call handlers play in this context, there is limited research on their role in crime scene preservation, resource deployment, or the types of information collected. Additionally, research is scarce on preservation advice “scripts” that can maximise downstream forensic opportunities. The study highlights the first police responder's role in managing murder scenes of crime. The project aims to improve CSE allocation by providing call-handling staff with forensic awareness training.

The objective is to enhance the tasking of CSEs for murder and vehicle crime scenes. While the study explored the role of the first police responder in managing murder crime scenes. The initial responsibility of the police officer is to preserve the integrity of the crime scene and its evidence. The police officer is tasked with the early documentation of the crime scene and all its evidence. In many cases, as first police responders are typically non-forensic personnel, receiving adequate training on evidence handling at the SOC is crucial to carry out these activities successfully. The first police responder must perform basic recovery procedures before the arrival of crime scene investigators to prevent evidence from being lost or contaminated. In situations where there is no immediate prospect for crime scene processing by investigators, the responsibilities of the first responding officer might need to extend beyond preservation and documentation upon arrival at the crime scene.

As part of the first police responders' responsibilities to protect the scene, they must adhere to several procedures. The first police responder on the scene is responsible for securing the initial point of the incident and extending the area of protection towards the perimeter. For instance, after securing the room where a crime occurred, the officer should broaden coverage to include the entire building or surrounding area. Crime scenes can be secured using police officers, barricades, ropes, banner guards used to define the protected area, or signs to control access. Access to crime scenes should be restricted to authorised personnel only. Officers not needed for a specific purpose should refrain from entering the scene. This policy applies to officers from other police agencies, civilians, family members of victims, and university staff. Crime detection remains a priority for the first police responder's arrival at the scene of the crime, the first police responder must determine if the reported incident constitutes a specific crime or necessitates further investigation. It is critical not to enter the crime scene too quickly, as an armed suspect may still be present. Entering too hastily can unintentionally lead to the destruction or contamination of potential evidence. While en route, the officer must swiftly decide on the most careful approach to the scene, to minimise any impact on potential evidence and avoid alerting the potential suspect.

A primary responsibility of the officer at the crime scene is to aid the victim, including administering first aid, calling for an ambulance, and other relevant measures. In the unfortunate event that the victim is deceased, it is crucial not to disturb the body. The officer's approach to the injured person should be carefully chosen to preserve any physical evidence in the vicinity, ensuring it remains untouched and protected. Additionally, it is important to identify possible suspects at the crime scene. The first police responder plays a pivotal role in ensuring that potential suspects are identified and located. The responsible officer must also take charge of recording and processing evidence while adhering to all constitutional considerations. Protecting the integrity of physical evidence is paramount, and the first responder accomplishes this by locating, securing, and safeguarding the evidence against tampering and contamination, often by cordoning off the crime scene.

- **Recommendation regarding encountering challenges at the crime scene**

Investigating officers who participated in this study reported encountering varying levels of diverse barriers and challenges during their policing work. While almost all responders share common barriers, few exceptions exist, which this study excludes. Common barriers to crime scene investigation encompass crime scene contamination, inadequate training and workforce, insufficient equipment and logistic support, manual recording and storage practices, limitations imposed by laws, and prolonged evidence analysis periods.

- **Recommendations regarding the developing investigative practices at murder crime scenes**

Upon arriving at the crime scene, the crime scene investigator is tasked to consider the following:

- Take over the responsibilities of the crime scene from the first police responder.
- Record essential details, such as the time and date of arrival, location of the scene, weather conditions, lighting conditions, wind direction, and visibility.
- Photograph/Video the entire scene for detailed procedures for taking photographs.
- Take safety measures before entering the crime scene, by putting on surgical gloves and/or surgical shoes, plastic suits, face masks, and hairnets.
- Assess of victim's status. In murder cases, for example, before touching any objects, assess whether the victim is alive or deceased.
  - If the victim is alive, gather information from the victim while simultaneously arranging for medical assistance if needed.
  - If the victim is deceased, mark, sketch, and photograph the relative position. Only a coroner or medical examiner should remove the body unless unusual circumstances justify immediate removal.
- Prioritise the preservation of life.
- Consider and document contamination risks.
- Take notes of the names of all persons present at the scene.

- Identify the extent of the scene and set cordons:
  - Determine the boundaries of the crime scene.
  - Establish cordons to prevent access by unauthorised individuals.
  - Protect the scene against potential loss or damage to evidence, including adverse weather conditions.
- Communicate the situation:
  - Inform the control centre about the full situation at the scene.
  - Request specialist support and the presence of a supervisor.
- Log the scene:
  - Record all persons, including police and other agencies outside the cordon, along with details of attending vehicles.
  - Document the date and time of arrival and departure, along with reasons for visits.
  - Record any initial actions taken to preserve the integrity of evidence.
- Ensure completion of actions:
  - Confirm that the actions assigned to the first police responder have been completed.
- Review and/or implement cordons:
  - Adjust cordons as necessary, ensuring they are initially set larger and can be reduced later if needed.
- Protect the scene:
  - Take emergency measures to preserve physical evidence if there is a risk of damage or destruction, whether due to weather conditions or other factors.
- Establish a rendezvous point:
  - Set up a designated meeting point at the outer cordon.
  - Communicate the rendezvous point to all staff for reporting upon arrival at the scene.
- Assessment of crime scene:
  - Evaluate the crime scene for potential forensic materials.
  - Recognise that the approach to crime scene assessment and physical evidence retrieval can vary between countries and police organisations.

- **Collection procedures in the field**

The literature strongly emphasises that the collection, proper documentation, preservation, and submission of physical evidence to forensic laboratories are crucial components of any investigation. The crime scene serves as the initial point for a criminal investigation, and evidence found there plays a pivotal role in various aspects of the investigative process, including the development or elimination of suspects, the establishment of investigative leads, and substantiation or refutation of theories related to the crime. The first police responder or the crime scene technician is equipped to gather, identify, and package the evidence to maintain its form and value. Ensuring the chain of custody for the evidence is upheld in the process is crucial.

Physical evidence encompasses anything found at the crime scene that assists in establishing the truth or providing proof of a fact. This includes items left by the suspect or any tool used to commit the crime. The proper gathering, preservation, and documentation of physical evidence discovered at the crime scene often serve as determining factors when a criminal case is presented before a judge. It is crucial, therefore, that officers and crime scene technicians exercise meticulous care and adhere to procedures when processing crime scenes to prevent any alteration of evidence and avoid contamination or destruction of items. The “Locard Principle”, formulated by French scientist Edmond Locard, posits that every contact leaves a trace (Bowen & Schneider, 2014:np).

Physical evidence encountered during a crime scene investigation serves multiple purposes. It may form part of the *corpus delicti* at the crime scene, establish the offender's identity, or enable investigators to track the suspect. According to Lee, Palmbach, and Miller (2011:np) and Hawthorne (2014:np), an investigator can adeptly grasp both the concepts and techniques of effective investigations. Research by Houlden and Stevenson (2016) and Farrall and Calverley (2015:np) underscores that evidence should be collected in a manner that preserves its nature and quality without compromise. Houlden and Stevenson (2016:np) emphasise that service providers must ensure that the evidence presented for proof accurately reflects the collected evidence”



- **Recommendation regarding the empowerment of first police responder**

Murder is defined as the "unlawful and intentional killing of a human being" (SAPS: np) and represents a heinous and violent form of crime. Addressing murder is one of the most challenging tasks for the SAPS. This study focused on the first police responder's role in managing murder crime scenes. It also uncovered how the management of a murder crime scene contributes to occupational stress among murder detectives in SAPS, specifically in the Gauteng Province. The overarching goal was to explore the actions of the first police responders at murder crime scenes and deduce how their involvement in such situations impacts their mental health and well-being.

- **Increased training for police focusing on the role of the first police responder in the management of murder crime scene.**

Police training in the responsibilities of the first police responder is crucial for the effective management of murder crime scenes. Adhering to trained procedures increases the likelihood of interpreting evidence correctly and resolving cases successfully (Lee, Palmbach & Miller, 2001). Law enforcement must understand that scientific disciplines operate independently of the police organisation, with distinct organisational goals and procedures.

Nonetheless, understanding the potential use of forensic evidence in investigations is required for successful collaboration (Ramsay, 1987:np). To make informed judgments about the value of forensic science at a crime scene, police must first appreciate its potential and actively engage in collaborative efforts. Training for detectives should be mandatory, consistent, and focused on equipping them with the necessary skills and techniques for conducting effective murder investigations. It is recommended that training be provided shortly after a detective is assigned to the homicide unit. All murder detectives, regardless of prior training, should undergo basic investigations. If not received before joining the murder unit, it should be provided as soon as possible afterwards.

Topics covered in training for newly assigned homicide detectives should encompass advanced interview and interrogation techniques, updates on legal requirements for searches and seizures, advanced forensics and evidence collection, advanced computer and cell phone forensics, and guidance on preparing homicide cases for court. Additionally, detectives should be educated on steps to prevent potential wrongful convictions, including proper recording of witness statements and the assessment and utilisation of eyewitness testimony and other evidence. Investigative training for murder detectives should extend to handling specific case types, including officer-involved shootings, child deaths, in-custody deaths, mass casualty scenes, infant deaths, and arson deaths.

Best practices for murder investigations should be a focal point of advanced training for new homicide unit detectives, ideally conducted within their first year in the unit. Continuous training should cover evolving topics such as technology, forensic analysis, legal standards, and requirements, as well as policies and protocols of other agency units and external entities involved in homicide investigations. Ongoing education should include refresher courses for previously received training. To aid detectives in preparing homicide cases for prosecution, collaborative efforts between police agencies and prosecutor's offices should offer training on search warrant and arrest warrant applications, case documentation, proper report writing, and legal updates.

- **Training of the first police responder for murder crime scene**

It is crucial for first police responders, especially those in a murder unit, to undergo consistent, formal, and comprehensive investigative training. This training should be provided to both new and seasoned investigators. This section emphasises that crime scene training encompasses the meticulous processing, documentation, and collection of physical evidence obtained from crime scenes. A proficient crime scene responder plays a vital role in uncovering the “what”, “when”, “where”, and “how” of a crime and identifying those involved (Julian, Kelty & Robertson, 2012:95). According to Hess and Orthmann (2016:80), crime scene investigation is a logical, systematic, and organised process.

These advancements compel investigators to recognise that a well-preserved and thoroughly investigated crime scene contains a tremendous amount of information capable of leading to the arrest of the perpetrators. The crime scene investigation procedure has evolved with the global embrace of technology, and Africa has actively participated by establishing professional standards. Training for the first police responder is crucial for ensuring evidence accountability (Hermont & Kennedy, 2014:87). Accountability relies on several key elements, including the competence and compliance of those involved in harvesting, packaging, recording, transporting, handing over, storing, examining, or influencing the progression of evidence from the scene of the crime to the court. When using packaging containers for forensically compliant evidence, it makes accounting and traceability easier. (Turvey, 2015:40).

Likewise, it is crucial to employ suitable and secure evidence storage facilities to ensure the validity and quality of evidence, facilitating its retrieval for examination or court purposes. The introduction of a dedicated evidence manager in the process ensures compliance with packaging, storage, transport, and, ultimately, the disposal or return of evidence in an accountable and appropriate manner. The organisation conducts training sessions for its members, imparting the necessary knowledge and skills. Interviews underscored that both VISPOL and detectives' components provide training to their members as part of their development.

Moreover, it was emphasised that upon completing the course, members demonstrate proficiency in following the steps and procedures at a crime scene. Indeed, training serves as a foundational element within the best practices model, occurring both before incidents and through continuous sessions that align with advancing scientific knowledge and technologies. The pivotal role of the police laboratory in educating investigators on recognising physical evidence, comprehending its collection, preservation, and ensuring its proper delivery to laboratory investigators. However, the SAPS exhibits fragmented practices and guidelines for collecting and analysing forensic evidence. Notably, even police officers without scientific training or credentials may participate in certain forensic analyses (National Research Council, 2009 and National Academies of science, 2009). The procedures for collecting and preserving evidence at crime scenes in South Africa lack a unified standard.

Tasks are often carried out by civilians trained in forensics, first police responders, or sworn officers with some forensics training. The intrinsic variability of these guidelines, which are supposed to be tailored to distinct situations, may give rise to procedural difficulties at certain crime scenes (Lee, Palmbach & Miller, 2001:71). Consequently, there is a critical need for a standardised, yet flexible, crime scene processing methodology. The current disparity between local and national law enforcement agencies and crime laboratories contributes to variations in training practices. The quality of crime lab analyses suffers when standard operating procedures and adequate training are lacking (National Research Council of the (National Academies of science, 2009). The quality of evidence gathered by law enforcement officials has a big impact on lab practices and, in turn, how future legal proceedings turn out. Evidence must be collected correctly at the scene of the crime for it to be analysed, seeing as the state of the evidence when it enters the lab determines its analytical potential (Almond, 2006:np).

There is a growing divide between laboratories and crime scenes as well as between investigative work and forensic laboratory procedures, due to the specialisation and complexity of forensic laboratory processes. Returning to assertion that perhaps the most crucial role of police crime laboratories is to educate police investigators in the identification and application of physical evidence in criminal investigations, it is recommended that there should be cross-training of police officers across various organisations involved. First police responders should be obliged to attend this type of training to maximise the utilisation of forensic science, seeing as integration and collaboration are part of the SAPS values for all members (Horvath & Meesig, 1996:45).

Consequently, training for members of various SAPS units that process crime scenes and analyse forensic evidence, ought to emphasise goal-sharing and provide definitions of the various roles that members of the SAPS play in forensic investigations. Members involved in an investigation must possess an understanding gained through training, fostering cooperation among agencies to achieve the goals of each section within the organisation effectively. Police and crime laboratories share common organisational goals, even though their methods may differ.

The prevalent police investigation model revolves around collecting and scrutinizing evidence until investigators identify a primary suspect. With efficiency in mind, the investigation gives priority to evidence that backs up the first police responder's initial determination about the offender. In contrast, scientists follow a continuous process of observing, testing, and refining their knowledge to minimise errors and maintain objectivity. Peer sharing validates experimental results, highlighting the dependability of novel techniques. Conversely, crime laboratory analysts also need to understand the current police investigation models to fully appreciate the importance of physical evidence analysis within the framework of procedures and ASCLD-accredited crime laboratories. Comprehending the various organisational models promotes respect for the goals of each agency's members.

This mutual understanding seeks to diminish the rapport among individuals participating in the same forensic investigation but affiliated with different organisations. Interview study participants anticipate that having this common understanding will help to moderate expectations and acknowledge each organisation's limitations in terms of what it can contribute to the forensic process. As a result, it should mitigate any unrealistic expectations that one agency might hold regarding the capabilities of another. To commence this training, particularly before crime scene processing or forensic evidence analysis, an emphasis should be placed on enhancing police training. This training would focus on the role and significance of forensic evidence in criminal investigations.

In line with the suggestion by Harvath and Messig (1996:49), collaborative training for the police should concentrate on imparting knowledge about the value, utility, and limitations of forensic science. The responsibility for conducting this training lies with the members of the SAPS crime laboratory. It was established best practice models for police officers responding to a crime scene. However, the research did not specify the entity responsible for training police in these best practices, and the precise number of forensic disciplines involved in an investigation is not clearly defined. Managing multiple scientific disciplines presents a challenge for local law enforcement, necessitating a shared understanding of terminology and accepted practices within each discipline for effective communication.

The literature emphasises the importance of training and education to enable first police responders to perform their duties effectively. Interviewed participants also agree with this idea that since a crime scene contains evidence that can be used to connect suspects to reported crimes and obtain convictions, first police responders need to obtain the necessary training and skills (Lee et al, 2007:50; Hawthorne, 1999:2). The researcher aligns with the literature and participants' perspective that training would empower all visible policing members attending crime scenes as first police responders.

- **Recommendations on crime scene policy management**

The following recommendations are offered with a view to constructively assisting the South African Police Services. Policy 2 of 2015 is clearly intended for an ideal police service and is unrealistic in the South African situation, for two reasons. Firstly, it is aimed almost exclusively at serious crimes and does not consider the management of less serious crimes. Secondly, the shortage of expert staff makes adherence policy to the impossible. Researchers urge SAPS management to realign Policy 2 to the country's de facto realities. The role of detectives in collecting evidence at crime scenes needs to be clarified by SAPS management. Expertise is required to process a crime scene and detectives should not be undertaking this task. If the service continues to allow detectives to collect physical evidence, policies and national instructions should clearly reflect this, and extensive training in this regard must be provided. Human resource shortages within the detective service, laboratories and LCRCs have been an ongoing issue for many years. Low salaries and skills retention of scientists at LCRCs and labs, while having improved slightly since 2007, have not been addressed to any convincing extent.

Given the speciality of detectives' and technicians' jobs, more attractive remuneration packages are needed to attract and retain suitable people. The training back-log of first police responders must be addressed, and more importantly, new detectives must be provided with regular mentoring by senior detectives. SAPS detectives, laboratory staff and prosecutors should meet on a regular basis to iron out issues of concern in the crime scene process. While Policy 2 addresses this through a 'debriefing phase', in practice this is not done.

In the same vein, new policies should be written in conjunction with the relevant criminal justice system departments and with other SAPS divisions, especially when there is an overlap in functions and responsibilities. Station Commanders must ensure that dockets are inspected regularly to ensure high quality investigation and detection. Commanders also need to address the lack of coordination among station members and ensure that members talk to each other and share vital information. In addition, Commanders should undertake audits of cases lost in court because of poor investigations to measure the performance of station members and detectives. The SAPS must begin using the existing oversight and accountability structures of Provincial and Divisional Commissioners, as well as the National Inspectorate and the provincial and national Departments of Community Safety, to address internal operational and organisational issues.

- **Policies and procedures for murder scenes**

Successful murder units are guided by written policies and procedures that offer clear, comprehensive, and up-to-date directives for conducting effective murder investigations. Police agencies need to regularly update their standard operating policies and procedures (SOPs) governing homicide investigations. The revised SOPs should incorporate a detailed, systematic account of actions to be taken at each stage of the investigation process. Additionally, mechanisms should be in place to ensure proper supervision of murder unit personnel and hold them accountable for their performance. Policy changes should go beyond the murder unit though and involve a department-wide review and update of written policies for all units conducting murder-related crime scene investigations. The initial step in fostering effective murder investigations involves establishing robust written policies. These policies are crucial for ensuring that detectives understand their duties and responsibilities, preventing oversight of essential investigative steps. Case assignments, crime scene responses, evidence collection and submission, reporting and documentation, case reviews, and other crucial elements of a murder investigation should all be governed by a set of standard protocols in an efficient murder unit. Written policies need to align with current best practices for homicide investigations and address factors associated with case clearance.

Agencies must modify model policies to fit their own needs and resources, even though it can be helpful to consult policies from agencies with established effective investigative practices. In formulating policies, it can be beneficial for agency leaders to solicit input from murder detectives and leaders of units involved homicide investigations. This approach ensures that policies align with the practicalities of field investigations, and involving detectives and other personnel in the process promotes internal procedural justice. In essence, the police are the main body in charge of enforcing the law, safeguarding property, and upholding public order. In South Africa, the ability to investigate crimes is institutionalised within the police. Whereas in some other countries, certain functions may be attributed to independent agencies outside the police which function as specialised units. For example, in certain countries, there might be specialised units within or outside of the police hierarchy that oversee looking into financial crime or kinds of homicide.

- **Murder units at station level.**

In numerous police agencies, murder detectives have the responsibility of investigating various incidents beyond homicides. The scope of cases falling under the purview of a murder unit includes suspicious deaths, suicides, child fatalities, fatal drug overdoses, accidental deaths, life-threatening assaults, kidnappings, in-custody deaths, and instances of lethal force by police officers. Murder detectives are also tasked with administrative duties such as answering phones, transcribing reports and statements, and filing, and drafting subpoenas. Moreover, some police agencies lack a dedicated unit for tracking down suspects and witnesses, requiring homicide detectives to fulfil this role. These additional administrative tasks contribute to the workload of an understaffed murder unit, diverting detectives' time away from actively investigating murder cases.



- **Adherence to policies**

If staff members are not held responsible for adhering to the policies or trained on them, then even the best policies may be ineffective. All policies governing the murder unit should be made available to personnel upon joining the unit, and supervisors should review these policies. Policy requirements should form the basis for evaluating detectives' performance to ensure thorough and consistent investigation of cases. A department-wide focus on improving murder clearances is required because murder investigations involve personnel from multiple departments within a police agency.

This includes patrol officers, crime analysts, forensic technicians, and detectives from other units. This means that policies and procedures must be updated and revised regularly. This applies not only to the murder unit but also to any other unit involved in murder investigations. The endeavour to update these policies should be a coordinated and collaborative effort across the entire department. Police agencies need to ensure that all written standard SOPs governing murder investigations are regularly updated to offer clear and comprehensive guidance on the duties and responsibilities of murder unit personnel. Recommendations about all written general orders, policies, SOPs, and other guidance governing the homicide unit should align with current best practices for murder investigations. In the process of developing policies, police departments should refer to research-based practice guides and consult with police agencies that have demonstrated successful investigative practices.

- **Revision of policy content**

Policies should include comprehensive and in-depth instructions on a range of subjects, such as the roles and responsibilities of detectives, the hiring and managing of detectives, training procedures, performance reviews, and other forms of accountability. Additionally, policies should outline the specific steps to be taken during each stage of the investigative process. Police agencies are advised to review their existing written policies and procedures for every unit involved in murder investigations.

Where necessary, these policies should be drafted or updated to ensure alignment with current best practices. Specific policy recommendations for different units. The commander leaders should assemble a team to assist in the development of murder investigation policies. The team's role would involve providing input on policy changes, sharing ideas to strengthen the investigation process, and discussing strategies and next steps for policy implementation. The updated policies and procedures should align with the current best practices for murder investigations, incorporating the guidance provided in this study. In the process of policy development, police departments are encouraged to refer to research-based practice guides and seek input from police agencies with proven success in investigative practices.

New investigators in all investigative units should undergo mandatory training in fundamental investigation skills and techniques. This includes instruction on case management and documentation, crime scene management, report writing, interview and interrogation skills, basic forensics, evidence collection (including digital evidence), managing witnesses, the use of technology, legal requirements, and adherence to departmental policies and procedures. Detectives in the murder unit should receive training both upon joining the unit and consistently throughout their tenure. This specialised training should cover advanced investigative techniques specific to death investigations.

Murder unit detectives should undergo additional training on conducting death investigations, constitutional law, advanced forensics and evidence collection, crime analysis, best practices for murder investigations, and methods for looking into cases that murder detectives handle, like child fatalities or shootings in which officers are involved. This training should occur in addition to the basic investigative skills that are taught to all new detectives. Advanced training should incorporate the latest information on innovative techniques and technologies, especially focusing on tools such as digital evidence and crime analysis. It is imperative that all first responders, especially those involved in investigating murder cases, possess the knowledge and skills necessary to conduct thorough investigations. SASP must guarantee that detectives acquire these tools through comprehensive formal investigations training, complemented by robust on-the-job training.

All new detectives assigned to any investigative unit, not solely the murder unit, should undergo basic investigations training. This foundational training equips detectives with the essential knowledge and skills required for general investigations, ensuring that detectives selected for a homicide unit are well-versed in basic investigative techniques. The training program should include preparation for the following aspects:

- Departmental policies and procedures.
- Investigative techniques.
- Case management.
- Case documentation.
- Interrogations and interviews.
- Report writing.
- Databases.
- Other necessary technology and equipment.
- Basic forensics.
- Legal requirements for obtaining warrants.
- Courtroom testimony procedure.
- All other investigative responsibilities relevant to all types of crimes.

Detectives newly assigned to a murder unit should undergo additional formal training specifically tailored for conducting homicide investigations. This specialised training should incorporate courses covering topics such as death investigations, advanced interview and interrogation techniques, advanced evidence collection and forensics, case preparation for court, and best practices for conducting homicide investigations. It may also prove beneficial if the training for newly assigned homicide detectives includes refresher courses on basic investigation techniques, particularly if investigations training has not been consistently provided to new detectives. Beyond the initial training upon joining a murder unit, murder detectives should undergo regular and ongoing training. This continuous training should encompass legal updates, emerging technologies, new policies and procedures, and specialised courses such as the recovery of digital evidence. It is crucial that this training is mandatory, consistent for all detectives, and centred on building the skills and techniques necessary for conducting effective investigations.

- **Awareness and communication**

This recommendation compiles research results on the use of tangible evidence in large-scale criminal investigations that have received attention in the literature but may not neatly fit into stages of the investigation process. Awareness of efficient murder scene processing should be created constantly among crime scene investigators and support units as SAPS Tshwane District. Crime scene managers should implement strategies to improve the processing of murder scenes. Communication between first police responders and role players should be improved to facilitate better relationships and cooperation between them. Moreover, it is recommended that constant communication and consultative decision-making between first police responders and detectives should be put into practice to improve crime scene management. The focus is on research addressing the human aspect of crime scene management about volume crime investigations. Based mostly on research conducted in the United States, Horvath and Meesig (1996: 49) conclude that investigators typically see cases in the framework of their expertise.

They frequently prioritise the human element of investigations as it is an area, they have more control over, despite their lack of training and understanding of scientific analyses and tangible evidence (Coupe & Griffiths, 1996:np). Police agency leaders should prioritise enhancing cross-agency communication and collaboration, emphasising the significance of adopting a team approach to prevent and solve crimes. This message should be reinforced in written policies and training materials. To facilitate effective collaboration, police agencies should contemplate establishing murder investigation teams for each case. These teams should be led by the primary murder detective assigned to the case and include other investigators, a crime analyst, and the crime scene technician who worked on the scene. Additionally, the team should involve the prosecutor assigned to the case and a designated representative from the patrol unit, the medical examiner's office, the district detective unit, and any other relevant units associated with the case.

- **Strengthen information-sharing processes.**

Police departments should implement measures to enhance the flow of information across all units within the department. This involves organising regular training briefings where members of different units can inform one another about their policies, protocols, capabilities, and missions. Additionally, steps should be taken to conduct regular cross-agency crime briefings and in-person meetings aimed at discussing specific cases and overall crime trends. These initiatives are crucial for fostering effective communication and collaboration among various units within the police department. Also, the murder unit ought to regularly (possibly quarterly) brief command officials on the status of murder investigations and any challenges the detectives are having with their investigations.

This practice ensures that the agency remains informed about ongoing investigations and allows leaders to identify necessary resources for improving the investigative process. First police responders find themselves day or night, in various weather conditions, ranging from murders and robberies to other criminal incidents. These scenes occur in different locations, encompassing high-density population areas to less deprived ones. For most officers, encountering a murder crime scene is not an everyday occurrence. Unlike routine police activities (which often involve automatic reactions or handling called-for-services) the officer responding to a murder crime scene must navigate a situation that falls between these extremes. To guide first police responders, the acronym “ADAPT” is used to recall the basic five-step approach, as each letter starts with a process that needs to be followed at the crime scene:

- **A**rrest the perpetrator (if possible).
- **D**etain and identify witnesses and/or suspects for follow-up investigators.
- **A**ssess the crime scene.
- **P**rotect the crime scene.
- **T**ake notes.

All death inquiries should be treated as murder investigations, and the scene should be handled as a crime scene until proven otherwise by the facts.

Researchers recommend assigning an investigator to every unattended death case. Certain agencies have made the mistake of giving patrol officers basic death investigations, believing that the kinds of death that transpired in a specific incident is not typically associated with criminal activity does not need the attention of specialised investigators. Contrary to this assumption, these cases may indeed be homicides, staged to appear as suicides, accidents, or natural causes. In vague death situations, there is a risk of significant errors if it is initially misidentified. If the death is later determined to in fact be a murder, valuable evidence may have been lost or contaminated, because the scene was not treated as a murder case.

This includes critical interviews, interrogations, crime scene documentation, and photographs that become irretrievable. Moreover, to acquire expertise in determining the time of death and assessing morphologic post-mortem changes that arise during the post-mortem phase, investigators require regular and ongoing training, as well as refresher courses for seasoned officers. The practical approach to murder investigations dictates that death investigations require ongoing training to minimise the possibility of missing crucial clues or evidence due to scene alterations or staging designed to misdirect the investigation.

The term "CSI criminals" is used by researchers to describe offenders who implement tips from popular crime series to potentially manipulate investigations. The death investigation typically commences at the point where the body is initially discovered, referred to as the primary crime scene. The term "primary crime scene" underscores the importance of this location and the immediate focus of responding police officials on this forensically crucial area in death investigations. The reason for initiating the murder investigation at the primary crime scene is twofold. First, the person who finds the body is either a witness to the crime, or the victim in certain cases, and typically call the police to this location. Second, the location of the body offers a plethora of tangible evidence, and functions as a central investigation point in homicide cases. From an investigative standpoint, the body, and its surroundings, inclusive of associative evidence and other factors unique to any specific crime, offer the professional murder investigator substantial information upon which to base their case.

For instance, a thorough examination of the scene may unveil the identity of the victim, the approximate time of death, and crucial evidence or clues to the circumstances surrounding the death. There is a principle in homicide investigation that involves a theoretical exchange between two objects that have been in contact with each other. This theory of transfer or exchange is based on the following facts: the perpetrator will take away traces of the victim and the scene; the victim will retain traces of the perpetrator and may leave traces of themselves on the perpetrator; the perpetrator will leave behind traces of themselves at the scene. It is crucial to emphasise that anything and everything may eventually become evidence. The range of items that may constitute physical and/or testimonial evidence is as extensive as the number, type, and causes of murder itself. Whether it is the spontaneous statements of the suspect murderer at the scene or a critical piece of trace evidence, the fact remains that where the body was recovered (the primary crime scene) is the logical and proper starting point for the death investigation.

- **Recommendations for the first police responder's best practices at the crime scene**

In this section of recommendations, the steps discussed in this section below should be considered as best practices for the first police responder upon arriving at the crime scene. Given the precise and critical nature of crime scene management, it is highly desirable to demonstrate effective quality control and quality assurance measures. Research aims to promote consistent and reliable evidence throughout the management process, from the scene of the incident to the court. All SAPS personnel who handle crime scenes are expected to follow and fulfil these stipulated management processes.

- **Take command of the scene**

There should be a well-defined system of roles, responsibilities, and procedures to ensure that command of personnel and resources is funnelled through a single entity.

It is imperative to always designate an incident commander, regardless of the size and nature of the incident. In some instances, the incident commander may be a first-line supervisor, who must be prepared to manage and direct officials who outrank them. Establishing a command post is essential, and it should be staged at a safe distance away from the incident scene. In large-scale incidents that may require the response of multiple agencies or jurisdictions, it is advisable to consider unifying the command so that all agency commanders can coordinate the incident response effectively. Displaying confidence in this role is crucial. When first-line supervisors project confidence, they instil confidence in their officers. Officers are more likely to follow orders from a confident first-line supervisor, contributing to a more decisive response. Being the supervisor is a key aspect. First-line supervisors need to focus on the big picture of an incident, gathering intelligence, and delegating smaller tasks. They cannot operate as both a first police responder and a supervisor simultaneously. This supervisory mind set is different from that of an officer, and some supervisors may find it challenging to make the transition.

- **Be in control.**

First police responders must consistently maintain control over themselves during rapidly evolving, stressful, and emotionally taxing critical incidents. There is an observed "emotional contagion" in critical incidents when first police responders remain calm and composed, those they are following their example are more likely to follow suit. Being composed during chaotic situations also contributes to instilling confidence in responding officers, who often seek guidance on how to react. First police responders need to ensure that the actions of those under their command are controlled and focused on the mission or task at hand. If officers are resorting to excessive force, engaging in behaviour that puts fellow officers or bystanders at risk, or compromising the overall police response to the incident, first police responders have a duty to intervene and remove those officers from the incident.



- **Communicate**

First police responders must engage in clear and calm communication with their officers, both directly and over the radio. Clear communication is pivotal for promoting efficiency and teamwork and can significantly aid in decision-making. In chaotic situations, effective communication becomes even more crucial as it can allow for the sharing of experiences and best practices among team members. It is essential to be explicit when issuing directions, ensuring that all officers, not just a few, comprehend the instructions they are expected to follow. Amidst the chaos of a scene, orders can be easily misunderstood, so first police responders should speak clearly and directly to their officers, using their names when giving commands. For example, they could say, “Officer [Name], watch that door,” or “Officer [Name], stand by this evidence/weapon,” or “Officer [Name], go with the ambulance to the hospital.” Additionally, there should be a designated common radio channel for the incident, kept clear of non-incident communication. Failure to maintain this clarity can result in agencies or individuals not being fully aware or understanding of the actions being conducted. As the incident commander, the first police responder holds the responsibility of communicating updates to agency leaders, command centres, and other relevant entities.

- **Containment**

The first police responder should ensure the safety of the scene by establishing perimeters and zones, categorised as hot, warm, and cold. They should take control of entry and exit points. Furthermore, it is best to contemplate the potential for sudden, unexpected events during an incident and strategies on how to respond without causing undue disruption or compromising the overall mission.

- **Cordons and scene protection**

The first police responder should establish cordons effectively and position them strategically as a primary measure against contamination.

The first police responder should take responsibility for both the scene cordon and the scene log. The Crime Scene Investigator (CSI)/SOC Officer (SOCO) should act if there is a chance that evidence or forensic opportunities could potentially be lost or contaminated. Adequacy is another thing that the Crime Scene Manager (CSM) should guarantee, and officers in charge of the cordon need to be aware of their responsibilities. If possible, the first police responder should limit entry to the scene to one point and create a shared path of approach. One example of good scene management is the use of scene entry tents. The inside of these tents can be sectioned for different functions, including a section where personal protective equipment (PPE) can be put on and taken off, as well as packaged and disposed of. It is the CSM's responsibility to make sure that only the bare minimum of people is admitted conducting an efficient scene examination.

- **Minimum preventative effective measures**

It is also their responsibility to oversee the gathering of different items that need to be connected in the same case effectively. Distinct staff members should be assigned to gather information from each suspect and victim and whenever the first police responder interviews or transfers suspects, they should use different rooms, cars, and officers. The first police responder should ensure that recovered items or materials are not mixed up or transported with other items or materials to prevent cross-contamination caused by local environmental conditions. Once a material has been recovered, packaged, and sealed, it should not be opened again unless under controlled conditions. If attending or examining multiple scenes is unavoidable, an officer should first thoroughly decontaminate themselves and replace their PPE. To reduce the risk of contamination, all items related to one person or scene should be examined before moving on to items related to other people or scenes.

- **Protecting the evidence**

The first police responder must make every effort to shield the crime scene from pedestrian or vehicle traffic and the impact of weather-related elements.

It is crucial to restrict access to the area to prevent unauthorised individuals from entering, ensuring the preservation of a pristine crime scene, and avoiding accusations of tampering or contamination caused by improper procedures. Unauthorised individuals include bystanders, family members, and members of any law enforcement body, including supervisory or city government personnel. While district attorneys and prosecuting lawyers are often called to crime scenes as a matter of courtesy or city government policy, it is of utmost importance to limit access strictly to those essential for examining or gathering evidence. Achieving this restriction can be challenging, as high-ranking police officers and other local government officials may see it as their right to visit and enter crime scenes. Local law enforcement should not condone or support such activities, though enforcing this stance is more difficult said than done.

Crime scene investigators must be familiar with the protocol and policies of the law enforcement department they collaborate with to avoid complications that can arise from such situations. The crime scene, where there is the greatest margin of error, is where the outcome of a criminal case can already be predicted. It is the crucial point at which inappropriate practices or protocol breaches in the gathering and retrieval of evidence come under close examination, not only right away but also possibly months or even years later when the matter is brought to trial. Following proper procedures is essential from the moment a crime scene investigator arrives at the scene until it is cleared. Correct task execution can mean the difference between a favourable outcome and a successful resolution, which includes apprehending the suspect. Typically, the first person to arrive at any crime scene is a uniformed officer. It falls upon that officer, as the first police responders to serve as the initial protector of the scene, using barrier tape or simply closing doors to keep onlookers or family members out of a house or building.

- **Evidence collection**

In a court of law, evidence from a crime scene has a significant impact on the perceptions of law enforcement personnel, lawyers, judges, and juries. The tangible and physical evidence, such as photographs, fingerprints, hairs, blood, and fibres, can often precisely indicate to the guilty party.

However, if this evidence is not properly gathered from the crime scene, it may raise questions about the validity of the entire case against a suspect and become inadmissible. Additionally, it may harm the reputation of the law enforcement agency in question. Physical evidence serves a crucial role in establishing the guilt or innocence of a suspect and verifying or refuting statements, alibis, and motivations for any crime. Moreover, investigating physical evidence aids in reconstructing the crime scene, providing investigators with a clearer understanding of the events and the reasons behind them. For any evidence to be admissible in a court of law, it must be collected according to legal procedures and accepted protocols.

Experts in forensic investigations stress that all evidence must be recognised, relevant, and comply with legal requirements for gathering data, and show that the chain of custody procedure has been followed for it to be considered for use in court. Thus, it is essential to mark all evidence to indicate its original location at the crime scene. This can be achieved by making notations on the collection container or tube, as well as in the crime scene investigator's notes and evidence log. Additionally, the name of the officer who collected the evidence, along with the date, time, and assigned case number, must be recorded, as well as a brief description of the evidence is also a requirement. The sources consulted demonstrate that there are many different types of evidence, such as firearms, knives, biological samples like blood, or commonplace objects like bank statements or receipts.

Additional forms of evidence include fibres, gun residue, images or videos, and fingerprints. Forensic scientists analyse evidence like this to explain the occurrence of a crime and the instruments involved. Collecting evidence accurately and promptly is crucial for law enforcement to comprehend the events at the crime scene, ultimately contributing to the successful completion of an investigation. Only personnel with the appropriate knowledge and training must undertake the collection of evidence. This group comprises first police responders, crime scene investigators, and other specialised individuals. Different types of evidence may require distinct methods of collection or specific containers. For example, biological samples may be best suited for paper containers like bags, envelopes, or boxes.

These containers facilitate the ongoing drying process for evidence that is not entirely dry, safeguarding the samples from deterioration. Properly collecting evidence reduces the risk of damage or contamination to the gathered items. The advancement of forensics has significantly enhanced crime-solving capabilities. When first police responders attend crime scenes, they are expected to collaborate with individuals possessing diverse expertise and tools for evidence collection. Trace evidence is a crucial component of crime scene processing and can include a variety of materials, including hairs, soil, fingerprints, footprints, shoe prints, glass fragments, carpet fibres, and similar items. The instruments and methods technicians must use to collect these trace samples depend on the particulars of the crime scene. For example, forensic investigators use various tools and methods, such as grey or black magnetic powder to lift fingerprints.

DNA and other body fluids or hair samples are also collected for subsequent examination in a laboratory, while shoe and tyre prints can be captured using dental stones. Electronics are seized for examination by technical experts to uncover additional evidence, and any documents found in the area are also taken for further examination. Weapons and ammunition are gathered to match ballistics and wounds, and to match the tool marks to a weapon, photographs of the marks are taken. Any other trace evidence left behind by a perpetrator or transferred to the perpetrator is carefully collected. Furthermore, officers conduct interviews with both witnesses and victims to gather information and establish a timeline of events.

Chromatography is a scientific technique used to separate mixtures and identify the original compounds in them. It can be used to determine whether a person was poisoned or died naturally. This procedure is used for separating compounds and can be adjusted to the type of evidence collected, for example as thin layer chromatography, gas chromatography, or paper chromatography. Fingerprints, including palm prints and footprints, serve as another crucial type of evidence that can link individuals to crime scenes. When investigators arrive at the crime scene, one of their priorities should be to gather fingerprints. Photographs of the prints are acceptable if the prints are not able to be lifted. Because fingernails have unique characteristics such as striations, they are also gathered as evidence.

For processing, they ought to be gathered with care, put in a paper packet, and then sealed in a paper envelope with the proper labelling.

- **Isolate and preserve the body of the victim and surrounding area.**

In more complex situations where large areas need to be secured, officers must exercise discretion and prioritise the containment of the most vital area of the crime scene until additional assistance arrives. To achieve this, an officer or crime scene investigator should commence at the immediate vicinity or location of a victim or body and expand outward from there. A suspect's clothes, hands, and shoes, any weapons or other physical evidence, the scene of the assault, the location from which a body was moved, a vehicle thought to have been used in the crime, a point of forced entry, a potential escape route, and a suspect's residence are among the other critical areas of a crime scene that need to be secured. Given the unique nature of each situation, law enforcement personnel and crime scene investigators consistently encounter obstacles and challenges while striving to protect and preserve a crime scene.

Challenges could come from things like bad weather, throngs of people, crises like explosions, fires, and natural disasters, as well as the steps involved in subduing and capturing a suspect. It is not uncommon for family members to contaminate crime scenes unintentionally by attempting to move or cover the victim from prying eyes or cleaning up scattered or broken furniture. The initial crime scene investigator or supervisor should be the first to designate a "safe route" leading to a victim to prevent any scene contamination. All personnel entering or leaving the crime scene must adhere to this route to avoid leaving footprints or fingerprints in areas that still need processing. Implementing crime scene control procedures is a fundamental requirement and a necessity when approaching any crime scene and requires the application of common sense. Additionally, established procedures and protocols to secure the scene and preserve the integrity of any existing evidence need to be followed. Maintaining the integrity of the crime scene is crucial, and during the initial assessment, the crime scene investigator should thoroughly evaluate consistencies and inconsistencies that may be relevant to the ongoing investigation.

Special consideration is necessary for any additional crime scenes, especially in cases where a victim has been discarded. Subsequently, evidence must be photographed and collected using rigorous and approved methods to ensure preservation and prevent contamination. Strict enforcement of the chain of custody for evidence is essential throughout the collection phase.

- **Improving crime scene reconstruction**

Crime scene reconstruction is a multifaceted process that involves gathering information from the scene, including where evidence was found, how blood spatter was interpreted, and possible body positions and movements. This information is then entered into a computer to create three-dimensional videos that show the most likely course of events. The reconstruction of any crime scene necessitates a thorough examination and interpretation of the gathered physical evidence. The Association for Crime Scene Reconstruction defines crime scene reconstruction as essentially, crime scene reconstruction aims to answer the questions of “what” happened and “how” it happened. While the true motives and actions may only be known to the victim and the perpetrator, crime scene reconstruction can often provide insights into one or both questions. Although human logic is crucial to the reconstruction process, proper analysis of physical evidence and other facts collected during the investigation plays a significant role as well. The crime scene investigator may put forth a theory regarding what transpired following the identification, collection, and analysis of the evidence. Tests based on the analysis of the data are required to support or contradict this hypothesis.

- **Chain of custody**

Once evidence has been collected from the crime scene, it is appropriately placed in designated containers and then labelled or tagged. The tag serves to identify the specific scene from which the evidence originated and establishes the "chain of custody." The chain of custody refers to the order in which individuals involved in the case's investigation should handle the evidence.

This sequence is crucial for the investigation, ensuring the physical security of all evidence associated with the case. Various identifiers are needed to establish a comprehensive chain of custody. These consist of:

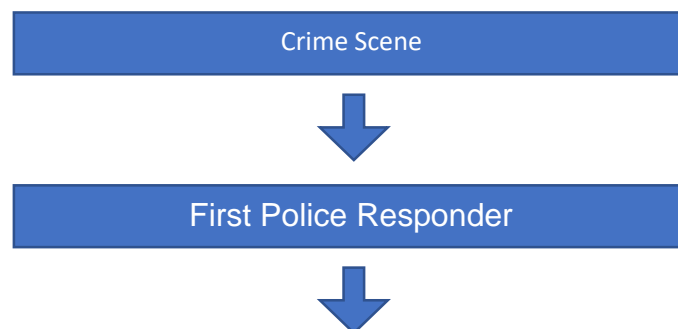
- Initials or names of the person who collected the evidence and all subsequent individuals who have handled or will handle the evidence.
- The date of collection and any subsequent transfers.
- The name of the agency, case number, and type of crime.
- Voucher or property clerk number.
- The names of the victim or suspect.
- Details on where the item is being stored.
- A summary of what the item is.

Maintaining a detailed and accurate chain of custody is essential for preserving the integrity and reliability of the evidence throughout the investigation.

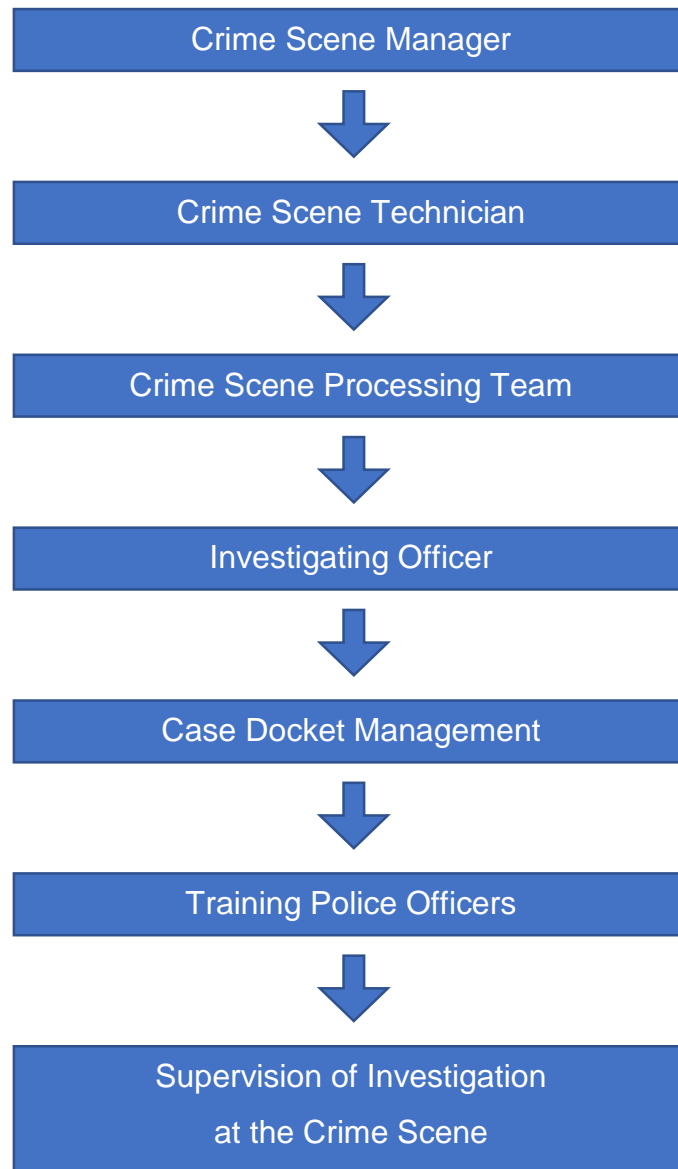
#### **8.4 PROPOSED CRIME SCENE MODEL OF THE ROLE PLAYERS**

Various models outline the roles played by different stakeholders in the crime scene. Each model aims to define the actions required when managing a crime scene environment. These models include the crime scene, first police responder, crime scene manager, crime scene technician, crime scene processing team, investigating officers, case management, training police officers, and supervision of the investigation at the crime scene. Within the crime scene model, relevant individuals control the crime scene by performing crucial functions. The primary emphasis of this model is on enhancing the efficiency of the overall crime scene process.

**Figure 8.4.1: Crime scene model of the role players**







The crime scene control model operates on the premise that role players should effectively manage the crime scene to prevent evidence tampering and preserve objects found on the scene. Advocates of this model assume that if the police invest time and effort in controlling the crime scene, and the first police responder formally takes control upon arrival to protect the scene, it contributes to overall scene preservation. The model for improvement, as developed by associates in process improvement (Marais & Van Rooyen, 1993:np), serves as a straightforward yet impactful tool for expediting improvement efforts. It is not intended to replace existing change models but rather to enhance the pace of improvement.

This model has been successfully employed by numerous international healthcare organisations in various countries to enhance different crime scene care processes and outcomes (Marais & Van Rooyen, 1993:np). The composition of a process improvement team is crucial for successful improvement efforts, and teams can be tailored to meet specific organisational needs. While all crimes differ to some extent and require varied investigative techniques, most follow a series of standard stages represented by the role players in the model. According to the Policy on Crime Scene Management as discussed below:

- **Crime scene**

A crime scene is defined as “a place where a crime has occurred” (Marais, 1992:np). It serves as a critical site for investigations, acting as the primary source for the gathering and collection of information, as well as the retrieval of direct or indirect evidence related to a committed or alleged crime. The SAPS Policy on Crime Scene Management 2 of 2005 delineates a crime scene as the site where an alleged offence occurred, encompassing areas where potential evidence may be found. According to this policy, the management of a crime scene is essential to secure it, guarantee the integrity and originality of evidence, and facilitate a thorough and undisturbed investigation. The crime scene stands as the primary location for discovering evidence and information right from the outset of an investigation. Proper and comprehensive processing of the crime scene's evidence emerges as a crucial aspect of cases such as rape, playing a pivotal role in connecting the perpetrator to the victim (Fisher, 2004:54).

- **First police responder**

The actions of the first police responder at a crime scene plays a crucial role in the subsequent criminal investigation and the successful prosecution of offenders. The first police responder must assert control, safeguard the crime scene, and assess its parameters, while also establishing a command centre. Additional responsibilities include identifying witnesses and gathering information on potential suspects.

Upon arriving at the crime scene, the first police responder must effectively secure and cordon off the area to prevent any compromise of the evidence to be collected. Subsequently, when the investigator arrives, a comprehensive handover of the scene occurs, with the initial responder providing a detailed explanation of the situation. This phase is preliminary, and arrangements should be made for a meticulous, systematic, and thorough search, as outlined in the (SAPS Crime Scene management Policy, 2005:8-13).

- **Crime scene manager**

The Crime Scene Manager (CSM) is tasked with assuming full control of the scene following the initial actions of the first police responder. This involves obtaining a comprehensive situation report (SITREP) from the first police responder and conducting a walkthrough of the crime scene for evaluation purposes. The CSM must then define the investigation goals, identify required resources and role players, and ensure that the CSM report is continually updated.

- **Crime scene technician**

As per the SAPS Policy on Crime Scene Management 2 of 2005, the Crime Scene Technician (CST) is designated by the Local Criminal Record Centre (LCRC) to identify, document, safeguard, and process potential physical evidence at a crime scene. However, the technician needs to conduct a walkthrough alongside both the CSM and the Investigating Officer (IO) to assess the crime scene and discuss the subsequent steps. The CST is responsible for processing the physical evidence on the crime scene, including identification, documentation, and protection of potential physical evidence. This involves initiating and coordinating a crime scene processing team, ensuring the scene is documented before any alterations, and authorising the removal of the corpse in a death investigation. The first step in gathering physical evidence is identifying concrete clues at the crime scene, as noted by Lochner and Zinn (2015:41).

They add that as soon as investigators arrive at the crime scene, they should begin looking for tangible clues that may be used as evidence in court. For example, they may find physical evidence connected to a murder case. According to the Crime Scene Management Policy, the CST, CSM, and IO are required to conduct a walkthrough to assess the crime scene and plan the next steps. Effective collaboration requires all role players to communicate clearly with one another.

- **Crime scene processing team**

The Crime Scene Processing Team records all physical evidence prior to its collection, processing all physical evidence, processing it all, and making sure the integrity of the items gathered is preserved. They also take all necessary safety precautions during the collection process. Furthermore, they are required to log and handle all evidence by guidelines for exhibit collection. The collection of physical evidence involves a scientific process, as highlighted by Osterburg & Ward (2010:22). Forensic science, as explained by Osterburg and Ward (2010:np), encompasses the scientific examination of physical evidence to identify substances, objects, or instruments. Additionally, it can establish connections between the physical evidence, the victim, the suspect, and the potential crime scene. Osterburg and Ward (2010:22) also note that the examination of physical evidence can aid in reconstructing how the crime was committed.

- **The investigating officers**

The crime scene management serves as the foundational framework for crime scene management within the SAPS organisation. This policy outlines crucial procedures to be followed by police members when dealing with a crime scene. According to the Crime Scene Management Policy, the investigator's responsibility is to collect physical evidence and information at a crime scene, which can be used to preserve the integrity of potential physical evidence (SAPS Crime Scene management Policy 2005:14).

This policy aligns with the perspective of Prinsloo (1996:16), who also stipulates that identifying potential evidence at a crime scene is among the investigator's responsibilities. The importance of maintaining the integrity and continued possession of the evidence until it is presented in court is emphasised. Making thorough notes of all observed elements, such as an open window, scratches on doors or windows, and even blood at the scene is another duty of the IO, according to Ogle (2012:52). Ogle (2012:52) accentuates how the quality of the documentation must be high enough for a court of law to accept the investigator's testimony as evidence. The IO is tasked with completing all necessary documentation for opening a case, managing the investigation team to gather information, and maintaining the investigation diary of the case docket.

- **Case docket management**

According to Jackson and Jackson (2004:12), a first police responder at a crime scene ought to pose important queries to obtain crucial details regarding the crime, its perpetrator, witnesses, victim, and motive. "What", "when", "who", "where", "why", and "how" are the important questions. As the IO is identified as the principal investigator in a case, he/she bears the responsibility of maintaining the case docket (Adams et al, 2000:45). This fact is also mentioned by Marais and Van Rooyen (1990:187), who concur that the SAPS investigator should use a case docket or file (SAP 3).

There are widely recognised investigative principles within the police force that highlight the value of community cooperation and support. These guidelines emphasise that the use of legal authority must be reasonable about the crime being investigated and must not be oppressive. Investigations must be transparent, and everyone involved, either victims, witnesses, or suspects, should be kept up to date on case developments. To comply with the provisions of the Equality Act 2010, investigators are urged to take reasonable steps to understand the specific needs of individuals, taking into consideration factors such as protected identities. Investigators are obligated to pay particular attention to vulnerable individuals and to uphold professional ethics, especially when collaborating with those supporting suspects.

These guiding concepts aid in the facilitation of high-calibre investigations, as do an organised investigative process and mindset. For this purpose, it is important to keep careful records of all relevant information about the investigation, such as statements, pictures, and paperwork (Joubert, 2013:43). Each statement, photo, or document must be arranged chronologically and marked with a unique index number at the top. The outer cover of a case docket serves as the file's title page, as explained by Marais and Van Rooyen (1990:187). The title page also displays important details like the case number, reporting date, type of crime, investigator's surname, and complainant or victim details. Van Rooyen (2012:53) points out that detectives need to make sure every detail is clear in their investigations and case presentations so that prosecutors can comprehend them. Joubert (2001:43) draws attention to the prosecutor's dependence on these case docket data when making prosecution choices.

Even when someone is charged, there are still a lot of tasks for investigators to complete, such as suspended lines of investigation must be completed, and all prosecution materials must follow an evidentiary format. Any material obtained that is not going to be used in prosecution needs to be properly documented and sent to the National Director of Public Prosecutions. The NDPP oversees reviewing the material and providing the defence with any pertinent information. Prosecutors might ask for more questions to be answered during case preparation, and defence suggestions might inspire additional research. Furthermore, exhibits must be properly labelled and stored, and efficient management of victims and witnesses through the court system is crucial throughout this process.

Investigators may manage the media both before and during the trial in high-profile cases. Following the trial, witnesses may need continuing care, exhibits should be disposed of, and information gleaned from the case should be shared. Blount (ed.) (2003:12) and Genge (2002:5–10) both agree that a crime scene should be turned over to a crime scene investigator or technician once the first officer has finished their duties there. It is often stated that there are two approaches to criminal investigation: the reactive approach, which centres on investigating individual crimes reported to the police, and the proactive approach, which revolves around investigating individuals suspected of committing crimes. The distinction between these two investigation approaches lies in both the starting point and the techniques used to gather material.

Reactive investigations usually commence with the report or discovery of a crime. Subsequently, the focus is on identifying material from crime scenes, victims, witnesses, and other sources to pinpoint suspects and accumulate sufficient evidence for prosecution. On the other hand, proactive investigations begin with the identification through intelligence analysis, of individuals whom investigators believe are involved in criminal activities. For instance, first police responders are advised to establish clear objectives to provide structure to the gathered material for their evaluation by using the “5WH formula” which entails asking the questions: Who? What? When? Where? Why? How? The 5WH formula forms the basis of all the information that the case docket needs to contain as well and can be customised to this process of establishing the objectives of a murder crime, as follows (Marais & Van Rooyen, 1993:37):

- Who is relevant to the investigation, including victims, witnesses, and suspects?
- Who deals with information regarding those people involved in the crime?
- Where did the offence take place, and are there any other relevant locations?
- What aspects pertain to property, objects and articles that are involved?
- Where did the crime occur? (Although in some situations this might be immediately apparent, investigators might need to piece together the information by tracking down witnesses, speaking with victims and suspects, gathering intelligence, or formulating logical theories).

“Where” pertains to the geographic location of, for example, the crime scene, stolen property, and physical clues.

- When did the offence and other significant events take place? “When” refers to the dates and times of the offence.
- Why was this offence committed in this location against this victim at this time?
- How was the offence committed? “How” represents the “trademarks” or peculiar habits (*modus operandi*) that the suspected offender applied during the commission of the crime (Marais & Van Rooyen, 1993:37)

In general, these guidelines advise documenting the most important details and avoiding repetition. The final stage of the crime scene investigation process, as highlighted by Gardner (2005:348), involves the analysis and interpretation of evidence.

The application of scientific techniques, the analysis of tangible evidence, and its correlation with the scene and other pieces of evidence are the definition of this final stage (Gardner, 2005:349). To guarantee the accuracy of the investigation's findings, physical evidence must be kept consistent even after it is removed from the scene of the crime. Physical evidence needs to be handled carefully to maintain its integrity and make sure it gets to the forensic science lab clean and undamaged. To gather precise and contextually relevant information, the forensic scientist carefully inspects all pertinent physical evidence found at the crime scene during this phase (Gardner, 2005:347).

- **Training police officials**

In the SAPS, the interval between refresher training interventions is referred to as the "recurrence of refresher training." The indicator used for the currency of training is determined by the time elapsed, measured in weeks, months, or even years. The SAPS lacks a formal structure to guide the frequency of refresher training, resulting in everyone having a unique profile regarding this aspect of their career. Some individuals may attend refresher courses once or twice a year, while others may have attended only one refresher course in a twenty-year career.

Training for the role of a crime scene technician should be intensive and equip individuals with the necessary knowledge and skills to:

- Correctly and thoroughly process a crime scene.
- Accurately record and visually represent the crime scene.
- Assist investigating officers in reconstructing the event and identifying role-players.
- Administer all related actions correctly.
- Present all findings accurately in court.

The training procedure for crime scene technicians in the SAPS is outlined by SAPS Policy 4 of 2003. Recruits are required to complete the Basic Police Training Course and attend a two-week in-service induction program, where they are exposed to the crime scene environment, organisational culture, and operational procedures.



Following this, recruits undergo a 10-week advanced crime scene course. Upon successful completion, they qualify as crime scene technicians and can commence their duties at crime scenes. Upon completion of the advanced crime scene course, individuals appointed as crime scene technicians are expected to work at crime scenes and gain a year's practical experience, which includes close supervision and regular assessments by the crime scene commander. Failure to complete this course and the accompanying one-year practical training disqualifies individuals from investigating cases or handling dockets. A crime scene technician must then complete a two-week forensic training course.

Apart from the requirement to finish the advanced crime scene course's one-year practical training, there is no clear start date for this training. The goal of the forensic training program is to instruct technicians on interacting with the forensic science laboratory and developing the skills to recognise, collect, preserve, pack, and dispatch crime exhibits for forensic analysis. The program also covers fingerprint assessment. Trainee technicians failing to meet the required competency level are granted one additional opportunity for reassessment. If unsuccessful, they must repeat the course.

After qualifying, crime scene technicians are mandated to attend a refresher course every five years. Regular reviews of training procedures are also conducted to align with the latest knowledge and scientific advancements at both local and international levels. All scene-of-crime investigation officers must possess a clear understanding of their duties and responsibilities, adhering to a code of ethics, professional practice, and conduct. These are the minimum education and training requirements for personnel conducting crime scene investigations. It is expected of those who attend and process a crime scene to possess the necessary abilities, know-how, and expertise to guarantee that they are knowledgeable about the incident's circumstances that could facilitate an investigation. Accurate records, including notes and photographs, should be taken throughout the process, and appropriate items such as contact traces and physical evidence must be located, collected, recovered, preserved, stored, and/or submitted for testing.

Crime scene investigators must wear appropriate PPE to minimise the potential for contamination and loss of evidence, ensuring both individual protection and the integrity of the scene and collected items. The required skills and knowledge will differ based on the complexity of the crime scene being examined. For more complex crimes, reports should undergo peer review by competent personnel before issuance. Personnel should possess education, skills, and abilities commensurate with their responsibilities. To process scenes of serious or complex crimes, like homicides, crime scene investigators may need to complete postsecondary education in a relevant field. The education and training outcomes for CSIs should empower them to attend to the following responsibilities (Hermont & Kennedy, 2014:87):

- Communicate effectively in a forensic science environment.
- Manage complex forensic investigations.
- Examine crime scenes.
- Record incident scenes and evidence.
- Use and maintain specialist forensic equipment.
- Apply the relevant scientific processes to scene investigations.
- Comply with quality systems.
- Apply case management systems.
- Coordinate forensic evidence analysis.
- Prepare and present written and verbal specialist forensic evidence to stakeholders, including the court (Hermont & Kennedy, 2014:87).
- **Supervision of investigation at the crime scene**

Commanding officers or supervisors ought to frequent crime scenes to supervise investigations, particularly in cases involving horrific crimes. In cases that are significant or complex, commanders might even need to conduct their investigations. A commanding police officer oversees surveying the scene and speaking with every witness after arriving at the crime scene. After carefully examining the case, the commander decides what evidence needs to be and discusses the existing evidence. Under their supervision, they make sure case diaries are written promptly and accurately. Commanders usually accompany the investigating officer to the scene of the incident and remain there to supervise the investigation until it is almost concluded.

The commanding police officer, the first police responder, the investigating officers, and other relevant parties should stay at the crime scene until the case is resolved, especially in circumstances where conclusive evidence is elusive. This presence is maintained even after sustained and vigorous efforts, and a decision may be made to transfer further investigation to local officers due to time constraints. If necessary, though, the commanders should quickly return to supervision. When the commander of the crime scene is overseeing an investigation and learns of another horrific crime, the commander must determine whether the second case requires immediate attention. If the commander feels that moving to oversee the second case right away is required, the commander should provide the other stakeholders with specific instructions regarding the lines of further investigation to pursue before leaving. After finishing the supervision of the investigation of the second case, the commander should, if necessary, return to the supervision of the first case. On the other hand, the commander should continue supervising the first case's investigation and move on to the second case's supervision once the first case's investigation is concluded, should he/she deduce that the initial case warrants more attention.

## **8.5 LIMITATIONS OF THE STUDY**

The study's limitations are delineated here to shed light on the challenges faced by the researcher that could have impacted the study's quality. The expansive scope of the SAPS Tshwane District posed a hindrance as the researcher had to personally travel between stations to distribute questionnaires and explain the research. Additionally, conducting semi-structured interviews with members proved challenging as some indicated they were too busy with their duties, and others were unapproachable. Some participants refused to complete the questionnaire, adding to the time-consuming nature of the research. Furthermore, several SAPS commanders were rarely available for scheduled appointments, leading to numerous rescheduled meetings. Some commanders flatly refused to cooperate, while others were reluctant, citing a lack of time. Some police stations lacked trained detectives and uniformed members in crime scene management, and other designated members with an understanding of crime scene management were absent.

Certain SAPS members in charge were also unwilling to allow the researcher to scrutinize specific crime scene management practices and answer interview questionnaires.

## **8.6 FURTHER RESEARCH**

Further research areas have been identified by the study that may be useful to SAPS personnel when they are on the scene of a crime. These areas include the methods employed in the collection of criminal evidence, packaging practices at crime scenes, challenges associated with crime scene investigation, evidence management and control processes, evidence preservation, crime scene documentation, chain-of-custody procedures, evidence handling, processing of crime scenes, and investigator's level of skill training. Physical evidence forms a critical component as it encompasses objects that can establish or refute the occurrence of a crime or connect a crime to its perpetrator or victim. Forensic science commences at the crime scene when investigators must identify evidence for laboratory testing and ensure its proper preservation. The primary responsibility of the first police responder is to secure the crime scene. Once secured, relevant investigators document the scene through photography, sketches, and notes. It is advised to conduct a preliminary investigation of the scene as the offender left it before moving forward with gathering physical evidence.

## **8.7 CONCLUSION**

The research presented in this study pointed to explores the actions of the first police responder in management at the murder crime scenes. An exploration of the first police responder in the management at murder crime scene is presented and acknowledged by the results of this study. The actions of the first responder at a scene of crime always play an important role in criminal investigation and successful prosecution of offenders. This research was aimed exploration of first police responder in the management at murder crime scene. The reviewed literature presented the importance of the crime scene management.

However, the results of the interviews conducted proposed that first police responders at SAPS Tshwane District policing experience shortcomings with regard to efficiently managing murder scenes. The research question, namely:

- What are the roles of the first police officer at the murder scene?
- What are the challenges faced by the first responder at the murder scene?
- What is the best practice for the police responders to manage the murder scenes?

Was adequately addressed. Should the SAPS Tshwane District implement the suggested recommendations made in this study, management of murder crime scenes would be more efficiently processed. Proper management of the crime scene is crucial in murder crime scenes and during crime scene management. Crime scene management always starts with the first police responders at the crime scene, who should preserve lives, remove suspects, identify witnesses, and act according to the knowledge that a less disturbed crime scene assists the court of law to reach the correct decision pertaining a criminal case. All stages of crime scene management, which are control; handing over to crime scene manager and technician; planning; investigation and processing; debriefing; restoring; releasing, and evaluation, should be thoroughly explored to ensure that the crime scene is secured and thoroughly searched, and that evidence is correctly identified, collected and packaged.

Cordoning off the crime scene is the responsibility of the first police responders, but it is the investigating teams' responsibility to ensure that the crime scene remains cordoned. This shows that every role player in the SAPS organisation (Department) should ensure that the integrity of the crime scene is maintained. The crime scene processing team should ensure that every member entering the crime scene wears PPE to avoid further contamination and to protect the members against certain diseases. During crime scene management, the crime scene must be documented through videography, photography, sketches, filling of scene reports (Crime scene statement report). The crime scene should be captured as found and re-photographed with exhibits markers. Overall, medium range and close-up photographs of the exhibits should be taken. Detectives should consider everything at the crime scene as important and should take photographs of everything since it might come in question in court after an extended period.

Physical evidence should be collected, labelled and packaged, and continuity of possession should be maintained according to legal directives in order to sustain the exhibit's evidential value. Continuous training and communication among role players are emphasised, as criminal investigation involves more than one unit. The locard principle states that every contact leaves a trace. Murder crime scenes bear a great deal of trace evidence, such as DNA, ballistic and imprint evidence, bite marks, tool marks, and blood spatters. Imprint evidence can be the result of hands pressed against an object, shoe imprints, footprints, marks caused by gloves and tyre tracks. Depending on the surface, tyre tracks and shoeprints can be cast in order to capture the image, but this should never be done with fingerprints, as the practice will jeopardise the integrity of this finger-palm-or footprint.

Policies, standard operating procedures and legislation that regulate the collection, packaging and analysis of evidence should always be followed, as evidence collected from the crime scene is for court purposes and must not be tampered with during the investigation. DNA can be found in blood, semen, saliva, dandruff, clothing, cigarette butts, drinking vessels, food, urine, vomit and faeces. Crime scene examiners are encouraged to use an UV Light to examine dead bodies for bite marks that should be swabbed for DNA, since they may contain saliva, and be photographed with a scale of reference. Ballistic evidence includes firearms, spent cartridges, fired bullets and gunshot residue.

Firearms, spent cartridges and fired bullets should be swabbed for DNA, packaged separately, and sent to the forensic laboratory for firing pin analysis, imperfections on breech, grooves inside the barrel scratch the bullet in a unique way, ejector mechanism marks, and gunshot residue which can spray on the hands and clothes of the shooter, linking the shooter to the gun. Crime scene investigators should be in a position to differentiate between kits to be used to package DNA evidence, including touch DNA, as kits are specific. Physical evidence should be collected, labelled and packaged, and continuity of possession should be maintained according to legal directives in order to sustain the exhibit's evidential value. Continuous training and communication among role players are emphasised, as criminal investigation involves more than one unit.

The themes explored in the chapters have been synthesised to analyse potential improvements in the future concerning the first police responder's role in managing murder crime scenes. These improvements could manifest qualitatively, such as changes in the treatment of murder crime scenes or the presentation of evidence in courts. Alternatively, they might be quantitative, leading to an increased number of detections or reduced costs in complex investigations like murder cases. The examination of these potential improvements is tied to factors identified as crucial in solving crimes, as discussed in previous chapters. Crime can take many different forms, but it always involves actions that are forbidden by law. The crime scene is regarded by many as the most important part of any criminal investigation.

Accurate and equitable justice outcomes and the production of high-quality evidence depends on the proficient and efficient processing of crime scenes. The abilities of crime scene first police responders, their dispositions, and expertise can greatly influence how strong or weak a criminal investigation can be. Within the framework of crime scene management, the study concentrated on the professionalism, abilities, and characteristics of crime scene first police responders. The basic belief that safeguarding human life is crucial is at the centre of policing. Police departments must take all reasonable measures to lower the number of killings, thoroughly investigate murder cases, and apprehend those responsible for them, especially given the rising murder rates in many cities, suburbs, and small towns. Everywhere in the country, murder units face similar obstacles in carrying out their duties.

To guarantee that a crime is reconstructed using scientific evidence rather than conjecture, effective management during a crime scene investigation is crucial. Maintaining this standard necessitates objectivity in gathering evidence, which includes witness accounts, photos taken at the crime scene, tangible exhibits, on-site examination of the exhibits, and examination of the actual crime scene itself. This impartial approach ensures that the evidence is presented in a manner that can be accepted beyond a reasonable doubt in court. Murder prevention and investigation must be the department's top priorities in law enforcement. A vital first step in proving a commitment to this goal is putting the recommendations described in this study into action.

This commitment should be evident through the provision of policies, training, staffing, and other resources required for agency personnel to conduct thorough murder investigations and better serve the community. Improving first police responder's comprehension of appropriate crime scene management strategies in murder cases is an immediate challenge facing SAPS management. The interviews used as case studies from the Tshwane District of South Africa's Gauteng Province draw attention to certain deficiencies in the work of murder investigators and underscore the need for improvement. The interviews highlight a challenge in crime scene investigation, particularly in the investigation of murders. The most common challenge found is a frequent lack of crucial components, including tangible evidence, pictures from the crime scene, notes, sketches, and video recordings. The results show that crime scenes are frequently not visited or sufficiently processed by murder investigators.

Consequently, the researcher emphasises the significant benefits investigators can gain from applying proper crime scene investigation techniques, considering the pivotal role of the crime scene in murder investigations. First police responders have a critical window of time after being dispatched to an incident to collect and assess data and evidence. It is a common misconception, particularly among inexperienced investigators, to believe that all pertinent information and evidence will be immediately visible at the scene. This misconception leads to overlooking the identification and collection of available information and evidence. It can be surprising to new investigators that some important information can be difficult to find and may only be present in secondary source locations, which necessitate further and prolonged investigation. During the information and evidence collection process, there is no place for complacency. To access secondary source locations actively, investigators need to remain vigilant. It is imperative to proactively gather, document, and safeguard event-related data and evidence in a way that facilitates future analysis, interpretation, and legal presentation.



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## APPENDIX A - PERMISSION LETTER FROM THE SAPS

*South African Police Service*



*Suid-Afrikaanse Polisie*

Privaatsak Private Bag X94	Pretoria 0001	Faks No. Fax No.	(012) 393 2128
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Your reference/U verwysing:

My reference/My verwysing: 3/34/2

Enquiries/Navrae: Lt Col (Dr) Smit  
Tel: (012) 393 4333  
AC SJ Thenga  
Email: ThengaS@saps.gov.za

THE HEAD: RESEARCH  
SOUTH AFRICAN POLICE SERVICE  
PRETORIA  
0001

**APPROVED**

Mr P Sechabe  
UNIVERSITY OF SOUTH AFRICA

**RE: PERMISSION TO CONDUCT RESEARCH IN THE SOUTH AFRICAN POLICE SERVICE:  
UNIVERSITY OF SOUTH AFRICA: DOCTOR OF PHILOSOPHY IN CRIMINAL JUSTICE:  
EXPLORATION OF THE FIRST RESPONDER AT THE MANAGEMENT OF MURDER CRIME  
SCENE: RESEARCHER: P SECHABE**

1. The above subject matter refers.
2. You are hereby granted approval for your research study on the above mentioned topic in terms of National Instruction 4 of 2022.
3. Further arrangements regarding the research study may be made with the following office:
4. The Provincial Commissioner: Gauteng:
  - **Contact Person:** Colonel NS Peters
  - **Contact Details:** (011) 547 9129
  - **Email Address :** [PetersNS@saps.gov.za](mailto:PetersNS@saps.gov.za)
  - **Contact Person:** Captain VJ Nevumbani
  - **Contact Details:** (011) 547 9129
  - **Email Address :** [Nevumbanivi@saps.gov.za](mailto:Nevumbanivi@saps.gov.za)
5. Kindly adhere to paragraph 8 of our attached letter signed on the **2022-02-23** with the same above reference number.

  
MAJOR GENERAL  
THE HEAD: RESEARCH  
DR PR VUMA

Date: 2022/04/05



Privaatsak/Private Bag X 94

Reference:	3/34/2
Enquiries:	Lt Col (Dr) Smit AC SJ Thenga
Telephone:	(012) 393 3444 082 778 8629
Email	<a href="mailto:LindieSmit@saps.gov.za">LindieSmit@saps.gov.za</a> <a href="mailto:ThengaS@saps.gov.za">ThengaS@saps.gov.za</a>

THE HEAD: RESEARCH  
SOUTH AFRICAN POLICE SERVICE  
PRETORIA  
0001

The Provincial Commissioner  
**GAUTENG**

**PERMISSION TO CONDUCT RESEARCH IN THE SOUTH AFRICAN POLICE SERVICE: UNIVERSITY OF SOUTH AFRICA: DOCTOR OF PHILOSOPHY IN CRIMINAL JUSTICE: EXPLORATION OF THE FIRST RESPONDER AT THE MANAGEMENT OF MURDER CRIME SCENE: RESEARCHER: P SECHABE**

1. Regarding the abovementioned heading refers.
2. The researcher, P Sechabe, is conducting a study topic/titled: ***"Exploration of the first responder at the management of murder crime scene"*** and requests permission to conduct research the SAPS.
3. The research proposal was perused by the Component: Research according to National Instruction 4 of 2022. Therefore, this office recommends that the research study be permitted, subject to the final comments and further arrangements by the office of the South African Police Service (SAPS) Provincial Commissioner: Gauteng.
4. The primary objective of the study is ***"To identify the role and challenges by first responder at the management of murder crime scene"***. Furthermore, the researcher selected to conduct a qualitative research study to collect data from participants by utilise questionnaire interview schedules via e-mail.
5. The researcher, P Sechabe, intends to collect data by approaching approximately thirty (30) to fifty (50) participants from the Province Gauteng. The researcher selected six (6) police stations as follow: SAPS Brooklyn, Pretoria Moot, Mamelodi, Mamelodi East, Silverton and Pretoria Central. The researcher would be used a structured questionnaire that would be definite, concrete and predetermined questions in line with the proposed topic/title.

**PERMISSION TO CONDUCT RESEARCH IN THE SOUTH AFRICAN POLICE SERVICE: UNIVERSITY OF SOUTH AFRICA: DOCTOR OF PHILOSOPHY IN CRIMINAL JUSTICE: EXPLORATION OF THE FIRST RESPONDER AT THE MANAGEMENT OF MURDER CRIME SCENE: RESEARCHER: P SECHABE**

6. This office hereby requests your support on the condition that your office agrees with our recommendations and confirm the proposed official research is viable. Additionally, your office has the authority to set terms and conditions for the researcher to comply with set standards to be followed during the research study process and does not harm the SAPS' image.
7. Kindly find the relevant documents of the requested application topic/titled ***"Exploration of the first responder at the management of murder crime scene"*** for your consideration:
  - Annexure A:** Application to conduct research;
  - Annexure B:** Research proposal;
  - Annexure C:** Signed undertaking; and
  - Annexure D:** Research approval from UNIVERSITY OF SOUTH AFRICA.
8. The researcher will conduct the research at his/her own expense.
- 8.1 The researcher will conduct the research without the disruption of the duties of the participating members of the Service. **In addition, the researcher must communicate and make prior arrangements with the respective commanders of the participating members of the study.**
- 8.2 The researcher, P Sechabe, should bear in mind that participation in the questionnaire interview schedules must be voluntary.
- 8.3 Information will at all times be treated as strictly confidential.
- 8.4 The researcher, P Sechabe, will donate an electronic copy of the final research work/report to the Service to be placed on the SAPS internal website (INTRANET).
- 8.5 The researcher, P Sechabe, will ensure that the research report complies with all conditions for the approval of research.
9. Should your office be in agreement with this research request and to facilitate smooth coordination between your office and the researcher, the following information is kindly requested to be forwarded to our office within **21 days** after receipt of this letter.

**PERMISSION TO CONDUCT RESEARCH IN THE SOUTH AFRICAN POLICE SERVICE: UNIVERSITY OF SOUTH AFRICA: DOCTOR OF PHILOSOPHY IN CRIMINAL JUSTICE: EXPLORATION OF THE FIRST RESPONDER AT THE MANAGEMENT OF MURDER CRIME SCENE: RESEARCHER: P SECHABE**

- **Signed Certificate/Letter:** Confirm the proposed research request is viable;
  - **Contact person:** Rank, Initials and Surname; and
  - **Contact details:** Telephone number and email address.
10. Your cooperation will be highly appreciated.



**MAJOR GENERAL**

**THE HEAD: RESEARCH  
DR PR VUMA**

Date: *2022-02-23*

## APPENDIX B - PERMISSION LETTER FROM UNISA



### UNISA 2021 ETHICS REVIEW COMMITTEE

Date: 2021:09:17

ERC Reference No.: ST63

Name: MP Sechabe

Dear Mr Maimele Piet Sechabe

**Decision: Ethics Approval from  
2021:09:17 to 2024:09:17**

**Researcher:** Mr Maimele Piet Sechabe

**Supervisor:** Dr AV Madzivhandila

*Exploration of the first police responder of the management murder crime scene in Gauteng Province, South Africa*

**Qualification:** PhD in Criminal Justice

Thank you for the application for research ethics clearance by the Unisa 2021 Ethics Review Committee for the above mentioned research. Ethics approval is granted for 3 years.

*The low risk application was reviewed by the CLAW Ethics Review Committee on 17 September 2021 in compliance with the Unisa Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

- 1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.**
2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.



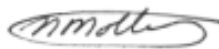
University of South Africa  
Pretter Street, Muckleneuk Ridge, City of Tshwane  
PO Box 392, UNISA 0003 South Africa  
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150  
[www.unisa.ac.za](http://www.unisa.ac.za)

3. Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the CLAW Committee.
4. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
5. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing, accompanied by a progress report.
6. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003.
7. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
8. No field work activities may continue after the expiry date **2024:09:17**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

*Note:*

*The reference number ST63-2021 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,



Prof N Mollema  
Acting Chair of CLAW ERC  
E-mail: [mollen@unisa.ac.za](mailto:mollen@unisa.ac.za)  
Tel: (012) 429-8384



Prof OJ Kole  
Acting Executive Dean: CLAW  
E-mail: [koleoj@unisa.ac.za](mailto:koleoj@unisa.ac.za)  
Tel: (012) 429-8305

## **APPENDIX C - SEMI-STRUCTURED QUESTIONS FOR ALL PARTICIPANTS**

### **SECTION A**

#### **1. INTRODUCTION**

I am a University of South Africa (Unisa) student doing my Doctorial of Philosophy in criminal justice. The interview schedule is part of my research thesis. In terms of National Instruction 1/2006, I have received authorisation from the South African Police Service (SAPS) to undertake this research. The Research Ethics Committee of the College of Law at Unisa has also approved this research.

#### **2. THE AIM OF THE STUDY**

To explores the actions of the first police responder officer in the management of a murder crime scene.

#### **3. OBJECTIVES OF THE STUDY**

The objective of this research are as follows: To identify the role of the first police responder in the management of murder crime scene, to establish challenges encountered by the first police responder in the management of murder crime scene and identify effective measures can followed in the management at the murder crime scene by the first police responder. Both detective and VISPOL (uniform members) are included in this research.

#### **4. INFORMATION AND INSTRUCTIONS**

- 1) Please note that the participation in this study is voluntary.
- 2) Your name and identity are not required, and all information will be treating confidentially.
- 3) It should take approximately one hour to answer the questions in the schedule.
- 4) Kindly provide answers to the questions as much as you can and to the best of your knowledge.
- 5) When answering the questions, it is important to give your own opinion.
- 6) Additional questions to clarify answers will be using where applicable.



- 7) Further, note that you have a right to refuse answering a question if you are not comfortable with it.
- 8) Your contribution will be of significant value and highly appreciated.

**SECTION B**

**PLEASE MAKE A CROSS OR A TICK IN APPROPRIATE BOX WHEN YOU ANSWER THE QUESTIONNAIRES IN SECTION B. SOME OF THE QUESTIONS AFTER MAKING A CROSS-OR TICKS YOU ELABORATE ON YOUR ANSWERS.**

**BIOGRAPHICAL INFORMATION**

1. What is your rank?

Constable	Sergeant	Warrant officer	Captain	Lt Colonel	Colone

2. What is your age?

3. What is your gender?

4. What is your components are your working at?

5. Which section/Station of the SAPS are you employed?

Mamelodi east police station	Mamelodi west police station	Silverton police station	Brooklyn police station	Pretoria central police station	Pretoria Moot police station

--	--	--	--	--	--

6. Which district are you falling in?

Tshwane SAPS District	Sedibeng SAPS District	Ekhuruleng SAPS District	Johannesburg SAPS District	West Rand SAPS District

7. How many years of service do you have in the SAPS?

5 to 10 years	10 to 15 years	15 to 20 years	20 to 25 years	25 to 30 years

8. For how long have you been a VISPOL policing component member in South African Police Service?

5 to 10 years	10 to 15 years	15 to 20 years	20 to 25 years	25 to 30 years

9. For how long have been a detective component in South African Police Service?

5 to 10 years	10 to 15 years	15 to 20 years	20 to 25 years	25 to 30 years

10. What is your highest qualification?

Grade 12	Diploma	Degree	Masters

11. Have you ever been involved in the management of murder crime scene?

Yes	No

12. How many murders of crime scene cases have been involved in investigation.


13. Do you have any qualification in forensic investigation related course? If Yes or No  
Please elaborate

Yes	No

.....

.....

.....

.....

14. Did you undergo any training with regarding to the following fields?

i. First responder to crime scene

Yes	No

Please elaborate why.

.....

.....

.....

.....

ii. Crime scene Management

Yes	No

Please elaborate why.

.....

.....

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.....  
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.....  
.....

15. Did you undergo basic detective training?

Yes	No

Please elaborate why.

.....  
.....  
.....  
.....

16. Did you receive specific training to investigate murder cases?

Yes	No

17. Do you investigate murders/reconstruct murder crime scenes?

Yes	No

18. Have you ever been involved in a murder investigation?

Yes	No

19. How many murder cases have been involved in investigation?


20. Have you been involved in the management of murder crime scene?

Yes	No

21. Do you believe that the first police responder has a role in the scene of crime management process?

Yes	No

22. Do you believe as a first police responder has a good relationship with the detective or other agencies at the crime scene?

Yes	No

Please elaborate Yes or No

.....

.....

.....

.....

23. Do you have a role on the scene of crime as the first responder?

yes	no
-----	----

Please elaborate your answer.

.....

.....

.....

24. You as a detective. Do you have any role played on the crime scene?

yes	no
-----	----

Please elaborate your answer

.....  
.....  
.....

## **SECTION C: THE ROLE OF THE FIRST POLICE RESPONDER IN THE MANAGEMENT OF MURDER CRIME SCENES**

1. What are the standards operational procedural process that must be follow when a crime is reporting?
2. From your understanding, what is the role of the police responder at the murder crime scene?
3. From your understanding, what is the role of the SAPS detective in murder Investigations?
4. From your understanding, what is the role of the LCRC personnel in murder Investigations?
5. What are the reasons for the first police responded to visit murder crime scene?
6. Based on your experience, what is the meaning of first responder?
7. According to your experience, what are the roles of the first police responder at the murder crime scene?
8. Explain the “big picture” that a first police responder should keep in mind when arriving on the murder crime scene.
9. Who should and should not be allowed to enter a murder crime scene, and what procedure should be used for authorised responders and why?
10. Why it is important to protect and control the crime scene?
11. Who is in-charge of the investigation once a murder scene of crime has been identify?
12. Although no two-crime scenes are exactly alike, name the general procedures for the initial assessment of a murder crime scene.
13. Why it is important for the first responder to record the times associated with a crime scene investigation?
14. When is it appropriate for the first police responding officer to move a piece of evidence?
15. According to your experience, there is only shortcoming in the current management procedure in the murder scene of crime regarding observation.
16. What is a crime scene?
17. What does the National Instruction Policy document 2/2005 state regarding calling out an expert to your crime scene?
18. What is the meaning of observation?

19. What is the main mistake made by the first police responder at the crime scene?
20. What can be made to solve each of the above-identified mistakes?
21. At what point do you start evidence documentation at the scene of crime?
22. What is your understanding of the reconstruction of crime scene?
23. What is the purpose for reconstructing crime scene?



## **SECTION D: THE CHALLENGES ENCOUNTERED BY THE FIRST POLICE RESPONDER IN THE MANAGEMENT OF MURDER CRIME SCENE**

1. What are the challenges encountered by the first police responder in the management of murder crime scene?
2. What are the challenges that the detectives are facing while collecting criminal evidence at the scene of crime?
3. What are the challenges factors contributing to the first police responder ability to conduct observation at the murder scene of crime?
4. What are the different methods can be using to collect evidence at the scene of crime?

## **SECTION E: THE BEST PRACTICES CAN BE FOLLOW BY THE FIRST POLICE RESPONDER AT CRIME SCENES**

1. What is the process to be follow when a crime is reporting?
2. What are effective measures to be follow by the first police responder in the management of murder crime scene?
3. According to your knowledge who effectively can put measures on the responsibility to process the crime scene for physical evidence.
4. What are the effective measures to handle murder crime scene?
5. What is the meaning of the "Locard Principles"?
6. What are the best effective measures to manage evidence at the murder crime scene?
7. What is the step should be address during the crime scene processing?

## **APPENDIX D - INFORMED CONSENT FORM**

Affiliation: **UNISA**

Researcher: **M.P SECHABE**

Cell phone: **0725702941**

E-MAIL: **Koketsosechabe@gmail.com**

Title of Study: **EXPLORATION OF THE FIRST POLICE RESPONDER IN THE MANAGEMENT OF MURDER CRIME SCENES**

Purpose of Study:

(Discuss the purpose of the study)

Explores the action of first police responder in the management of murder crime scenes

- **Procedures**

The researcher will be conducting an interview with the help of an interview schedule. The researcher may also make use of a face-to-face interview and semi-structure interview to obtain information from the participants and record conversations on the transcript. The interviews will not be longer than three hours, but may end sooner by natural process or on request of the participant or researcher, depending on the circumstances.

- **Risks and Discomforts**

The respondent may become tired or feel emotional discomfort, at which point a break may be request or the interview may be postpone to a later date or terminated, if so desired. The researcher will make every effort to ensure the comfort and minimize the risks for the respondent.

- **Benefits**

It is my hope that the participants partaking in this study will feel the satisfaction of contributing to solving a social problem and facilitating illumination of the problem for those studying the phenomena, which may help others in the future. The participants could assist by providing insight into the problem, which could stimulate further.

Research, and thus be of even greater help in the future. On a personal level, it is the hope of the researcher that the participants will obtain personal satisfaction once they have discussed certain issues with the researcher and thus gained personal insights that were absent prior to the interview.

- **Participants Rights**

Participation in this study is voluntary and may be withdrawn at any time without negative consequences for the participant. All information treated as confidential and the researcher guarantees the anonymity of the participants. The data will be destroyed should the participant wish to withdraw. The researcher and her study leader are the only individuals who will have access to raw data from interviews, and hereby ensure that data will be treated as stipulated above

Right of access to researcher

Participants are free to contact the researcher at the telephone number as stipulated on this form, at a reasonable hour, in connection with interview particulars if they so wish.

**THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY.**

I, the undersigned, agree to participate in this study voluntarily without duress.

Signed at Pretoria on this 16 day of June 2023



Signature:

(Print Name **Maimele Piet Sechabe**)

## APPENDIX E - PROFILE OF PARTICIPANTS

Serial number	Date of interview	District	Station	Component	Rank	Length of service	Gender	Age	Qualifications
1	5/11/2022	Tshwane district	Brooklyn	VISPOL	Constable	10	Female	30	Grade 12
2	10/11/2022	Tshwane district	Brooklyn	VISPOL	Constable	15	Male	29	Grade 12
3	13/11/2022	Tshwane district	Brooklyn	Detective	Sergeant	16	Female	30	Grade 12
4	18/11/2022	Tshwane district	Brooklyn	Detective	Sergeant	17	Male	32	Grade 12
5	20/11/2022	Tshwane district	Brooklyn	Detective	Warrant officer	18	Female	40	Degree
6	25/11/2022	Tshwane district	Pretoria central	Detective	Warrant officer	19	Male	41	Grade 12
7	28/11/2022	Tshwane district	Pretoria central	Detective	Sergeant	18	Female	31	Diploma
8	30/11/2022	Tshwane district	Pretoria central	VISPOL	Warrant officer	19	Male	45	Diploma
9	1/12/2022	Tshwane district	Pretoria moot	VISPOL	Warrant officer	20	Female	46	Grade 12
10	5/12/2022	Tshwane district	Pretoria moot	VISPOL	Sergeant	17	Male	48	Diploma
11	8/12/2022	Tshwane district	Pretoria moot	Detective	Lt colonel	25	Male	50	Grade 12
12	10/12/2022	Tshwane district	Pretoria moot	Detective	Lt colonel	26	Female	55	Grade 12
13	12/12/2022	Tshwane district	Silverton	Detective	Warrant officer	27	Male	55	Grade 12
14	14/12/2022	Tshwane district	Silverton	VISPOL	Captain	30	Male	57	Grade 12
15	16/12/2022	Tshwane district	Silverton	VISPOL	Captain	21	Male	50	diploma
16	18/12/2022	Tshwane district	Silverton	Detective	colonel	35	Female	55	diploma
17	20/12/2022	Tshwane district	Silverton	Detective	Lt colonel	24	Male	55	Grade 12
18	23/12/2022	Tshwane district	Silverton	Detective	Lt colonel	25	Male	58	Grade 12
19	25/12/2022	Tshwane district	Mamelodi	VISPOL	Captain	26	Female	58	diploma
20	27/12/2022	Tshwane district	Mamelodi	VISPOL	Sergeant	19	Female	49	Grade 12
21	29/12/2022	Tshwane district	Mamelodi	VISPOL	Sergeant	20	Male	49	Grade 12
22	2/01/2023	Tshwane district	Mamelodi	Detective	Warrant officer	29	Male	50	Degree
23	5/01/2023	Tshwane district	Mamelodi	Detective	Warrant officer	30	Female	51	Degree
24	10/01/2023	Tshwane district	Mamelodi	Detective	Sergeant	26	Male	48	Grade 12
25	15/01/2023	Tshwane district	Mamelodi East	VISPOL	Sergeant	27	Female	49	Grade 12
26	20/01/2023	Tshwane district	Mamelodi East	VISPOL	Constable	16	Female	42	Grade 12
27	01/02/2023	Tshwane district	Mamelodi East	Detective	Sergeant	15	Male	45	Grade 12
28	05/02/2023	Tshwane district	Mamelodi east	Detective	Constable	16	Male	38	Grade 12
29	29/02/2023	Tshwane district	Mamelodi east	Detective	Sergeant	18	Female	40	Grade 12

# APPENDIX F - ATLAS.Ti ANALYSIS NETWORK LINKS

