

**EXPLORING THE VALUE OF PHYSICAL EVIDENCE AT RAPE CRIME
SCENES IN MAMELODI**

By

SIPHIWE JANE UBISI

Submitted in accordance with the requirements

For the degree

MASTER OF ARTS IN CRIMINAL JUSTICE

In the subject

CRIMINAL JUSTICE

At the

UNIVERSITY OF SOUTH AFRICA

SUPERVISOR: MR. MC MARAKALALA

CO-SUPERVISOR: DR. DQ MABUNDA

MAY 2023

DECLARATION

I, **Siphiwe Jane Ubisi**, hereby declare that this dissertation titled: **EXPLORING THE VALUE OF PHYSICAL EVIDENCE AT RAPE CRIME SCENES IN MAMELODI**, submitted to the University of South Africa, for the degree of **MASTER OF ARTS IN CRIMINAL JUSTICE** has not been previously submitted for any degree at this or any other university; that it is my own work in design and execution, and that all material contained herein has been duly acknowledged by means of complete references.



Ubisi SJ

Date: 10 May 2023

DEDICATION

I dedicate this dissertation to my father Magiyagiya Joseph Ubisi, my mother Nthutheya Onnie Nxumalo Ubisi, my partner Oscar Makaringe, my daughter Khululiwe Mfikelelo Makaringe, my two sons Nathan Mfanelo and Nathan Nakekelo and last but not least my late sister Dorcus Lulu Ubisi.

ACKNOWLEDGEMENTS

As I quote **Joshua 1:9** *"be strong and brave! Don't be afraid and don't panic, for I, the LORD your God, am with you in all you do"* the words of our Heavenly Father. I give thanks and rejoice in praise for being a child of God.

I appreciate with gratitude the individuals who have encouraged and supported me throughout the writing of this Dissertation. I would like to take this opportunity to acknowledge their contribution to my success by mentioning their names as a gesture of thankfulness to them.

Over the past four years my academic supervisors from the University of South Africa Dr. Debby Pheiffer University of South Africa, and Dr. Mabunda were professional and motivational I thank you unconditionally.

I would like to express my unreserved thanks to Mr. Marakalala of the University of South Africa who meticulously and with great care and attention to detail advised and motivated me to produce the final product. Your supervision enabled the completion of this thesis in a satisfactory manner.

I thank Captain Azwindini Johannes Muravha who was my commander for his role that aided my studies and reaching this level. To my mentor, Mlondolozzi Bonga Prince Hlengwa, thank you for your guidance, patience, and wisdom throughout my academic journey. Your humility and love for academics have inspired me greatly, which was the engine powering my dedication.

I further wish to thank my mother Nthutheya Onnie Ubisi no amount of words can express my appreciation of you not just in support me as I embark on my studies but also to be a biological sister who is my pillar of strength.

Finally, with love, I affectionately thank my partner Oscar Makaringe and the Ubisi family namely Grace, Glory, Sydwell, Yvonne, Silence, and Theon your support is appreciated

throughout the writing of this dissertation, and without you as my support system, I would not have completed my thesis.

ABSTRACT

Rape is a severe crime in South Africa, and several cases of rape pass through the courts every year. However, many of these cases fail to get convictions due to problems experienced while collecting evidence from the crime scene where the rape occurred. A worrying trend has grown gradually in South Africa, where the first responders to a crime scene are not suitably qualified to collect and handle evidence properly. This raises the prospect of evidence contamination, eventually rendering it inadmissible in court.

One area where rape remains a severe problem is Mamelodi Township in Tshwane. This study investigated the significance of physical evidence rape crime cases and how evidence contamination can be prevented. Using the Mamelodi police cluster as a case study, the researcher used a qualitative approach to analyse the subject, and evidence was gathered from active police officers who deal with rape crimes and forensic scientists who work for the SAPS through semi-structured interviews.

The findings of the study indicate that out of all the rape cases that are reported at Mamelodi Police Station, about 80% of them never end with a conviction due to several problems relating to physical evidence being inadequate or crime scenes being tampered with and evidence getting contaminated. The study results established that even though the SAPS has laid down clear procedures for physical evidence collection, there were challenges relating to adherence to those procedures, which is the main factor contributing to rape case attrition in the Mamelodi area. The study also established that physical evidence is the best form of evidence in a rape crime case, and if it is well handled, a conviction is guaranteed. The study's primary recommendation was that those police officers who collect evidence at rape crime scenes require regular training in evidence collection and crime scene management procedures to minimise evidence contamination at rape crime scenes.

Keywords: Crime scene investigator, crime scene, investigation, perpetrator, physical evidence, rape, victim

LIST OF ABBREVIATIONS

DA	:	Democratic Alliance
DNA	:	Deoxyribonucleic Acid
GBV	:	Gender Based Violence
HIV	:	Human Immuno-deficiency Virus
IPV	:	Intimate Partner Violence
ISS	:	Institute of Security Studies
PCSM	:	Policy on Crime Scene Management
SAECK	:	Sexual Assault Evidence Collection Kit
SAPS	:	South African Police Service
UNODC	:	United Nations Office on Drugs and Crime
WHO	:	World Health Organization

TABLE OF CONTENTS

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	vi
LIST OF ABBREVIATIONS	vii
CHAPTER ONE: GENERAL ORIENTATION OF THE STUDY	1
1.1 INTRODUCTION	1
1.2 RATIONALE OF RESEARCH	1
1.3 RESEARCH AIMS / OBJECTIVES	2
1.4 RESEARCH QUESTIONS	3
1.5 PURPOSE OF RESEARCH	3
1.6 DEMARCATION OF STUDY	4
1.7 DEFINITIONS OF KEY TERMS	4
1.7.1 Crime Scene	4
1.7.2 Physical Evidence	4
1.7.3 Rape	4
1.7.4 Crime Scene Investigator	5
1.7.5 Investigation	5
1.8 RESEARCH METHODOLOGY	5
1.9 RESEARCH DESIGN	6
1.9.1 Research Approach	6
1.9.2 Advantages of the qualitative approach	6
1.9.3 Disadvantages of the qualitative approach	7
1.10 TARGET POPULATION	7

1.11 SAMPLING	8
1.12 DATA COLLECTION	9
1.12.1 Interviews	9
1.12.2 Literature study	10
1.12.3 Utilisation of Questionnaire	10
1.13 DATA ANALYSIS	11
1.13.1 Familiarisation with the data	11
1.13.2 Generating initial codes	11
1.13.3 Generating themes	12
1.13.4 Reviewing themes	12
1.13.5 Defining and naming themes	12
1.13.6 Write-up	12
1.14 METHODS TAKEN TO ENSURE VALIDITY	12
1.14.1 Credibility	12
1.14.2 Transferability	13
1.15 METHODS TAKEN TO ENSURE RELIABILITY	13
1.15.1 Dependability	13
1.15.2 Confirmability	14
1.16 ETHICAL CONSIDERATIONS	14
1.16.1 Protection from harm	14
1.16.2 Informed consent	15
1.16.3 The Right to Privacy	15
1.16.4 Honesty with professional colleagues	15
1.17 PROBLEMS ENCOUNTERED DURING RESEARCH	15
1.18 ORGANISATION OF THE THESIS	15

CHAPTER 2: LITERATURE REVIEW	17
2.1 INTRODUCTION	17
2.2 DEFINITION OF GENDER-BASED VIOLENCE WITH A FOCUS ON RAPE	17
2.3 RAPE STATISTICS IN SOUTH AFRICA	18
2.3.1 Factors motivating the high rate of rape crimes in South Africa	20
2.3.2 Rape Case Attrition	22
2.4 RAPE INVESTIGATIONS AND CHALLENGES FACED BY THE POLICE	23
2.5 THE RAPE CRIME SCENE AND THE IMPORTANCE OF PHYSICAL EVIDENCE	26
2.5.1 The crime scene	26
2.5.2 Physical evidence	27
2.6 THE VALUE OF PHYSICAL EVIDENCE	28
2.6.1 Forensic Services	30
2.6.2 The Process of Gathering Physical Evidence on a Rape Crime Scene	31
2.6.3 Role of the Investigating Officer in the Investigation of Rape Cases	32
2.7 CONCLUSION	34
CHAPTER 3: RESEARCH METHODS	36
3.1 INTRODUCTION	36
3.2 RESEARCH METHODOLOGY	36
3.2.1 Quantitative Research Approach	36
3.2.2 Qualitative Research Approach	37
3.2.3 Mixed Methods Approach	37
3.2.4 Rationale for using a Qualitative Approach	38
3.3 RESEARCH DESIGN	39
3.3.1 Descriptive Research Design	39

3.3.2	Exploratory Research Design	40
3.3.4	Contextual Research Design	40
3.3.5	Rationale for the Adopted Research Design	41
3.4	TARGET POPULATION	42
3.5	SAMPLING METHOD	42
3.5.1	Probability Sampling	42
3.6	TYPES OF PROBABILITY SAMPLING TECHNIQUES	43
3.6.1	Non-probability sampling	43
3.6.2	Rationale for the adopted sampling technique	44
3.6.3	Sample	44
3.6.4	Sample size	44
3.7	DATA COLLECTION	45
3.7.1	Literature study	45
3.7.2	Research Instrument - semi-structured interviews	46
3.7.3	Construction of the Research Instrument	47
3.7.4	Pilot interview/study	47
3.8	DATA ANALYSIS	48
3.8.1	Familiarisation with data	49
3.8.2	Generating initial codes	49
3.8.3	Generating themes	49
3.8.4	Reviewing themes	49
3.8.5	Defining and naming themes	50
3.8.5	Write-up	50
3.9	TRUSTWORTHINESS OF THE STUDY	50
3.9.1	Credibility	50

3.9.2	Triangulation	51
3.9.4	Member checking	51
3.9.5	Transferability	51
3.9.6	Confirmability	52
3.9.7	Dependability	52
3.10	ETHICAL CONSIDERATIONS	52
3.10.1	Ensuring Participants Have Given Informed Consent	53
3.10.2	Ensuring No Harm Comes to Participants	53
3.10.3	Ensuring Confidentiality and Anonymity	54
3.11	CONCLUSION	54
CHAPTER FOUR:	PRESENTATION AND INTERPRETATION OF DATA	55
4.1	INTRODUCTION	55
4.2	DEMOGRAPHIC DETAILS OF THE PARTICIPANTS	55
4.2.1	Gender	55
4.2.2	Age distribution of the respondents	56
4.2.3	Position/ rank of participants in the SAPS	57
4.2.4	Work Experience	58
4.3	THE SIGNIFICANCE OF PHYSICAL EVIDENCE AT RAPE CRIME SCENES	58
		58
4.4	THEMES AND SUBTHEMES	59
4.4.1	Collection of physical evidence at rape crime scenes	59
4.4.2	Physical evidence at rape crime scenes	59
4.4.3	The rape crime scene	60
4.4.4	Collection of physical evidence	61
4.4.5	The value of physical evidence	63

4.4.6	The role of an investigating officer at a rape crime scene	65
4.4.7	The skills an investigating officer needs at a rape crime scene	65
4.4.8	The duties of an investigating officer at a rape crime scene	66
4.9	CRIME SCENE CONTAMINATION	69
4.9.1	Factors in crime scene contamination	69
4.9.2	Preventing evidence contamination	71
4.10	CONCLUSION	73
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS		75
5.1	INTRODUCTION	75
5.2	FINDINGS FROM THE STUDY	75
5.2.1	Findings from the literature review	75
5.2.2	Findings from the primary evidence	79
5.3	CONCLUSIONS	82
5.3.1	Conclusion on objective 1: to analyse the procedures used in the collection of physical evidence and how a rape crime scene can be contaminated in Mamelodi	82
5.3.2	Conclusion on objective 2: to assess the role of the investigating officers and other first responders in ensuring the proper collection of physical evidence at rape crime scenes in Mamelodi	82
5.3.3	Conclusion on Objective 3: to suggest ways in which evidence contamination can be prevented in Mamelodi	83
5.4	RECOMMENDATIONS	83
5.4.1	Regular training in crime scene management	83
5.4.2	Provision of the requisite equipment	84
5.4.3	Recruitment of forensic science experts	84
5.5	AREAS FOR FUTURE STUDY	84

5.6 CONCLUSION	84
LIST OF REFERENCES	86
ANNEXURE A: SOUTH AFRICAN POLICE SERVICE PERMISSION TO CONDUCT RESEARCH	99
ANNEXURE B: UNIVERSITY OF SOUTH AFRICA ETHICAL CLEARANCE CERTIFICATE	101
ANNEXURE C: TURN-IT-IN REPORT	103
ANNEXURE D: EDITOR LETTER	104

CHAPTER ONE: GENERAL ORIENTATION OF THE STUDY

1.1 INTRODUCTION

Compared to other nations, South Africa has an extremely high crime rate. These offences include homicide, carjackings, rape, and other violent felonies. According to recent estimates, violent crimes, including murder and rape, are rising. Africa Check (2018:13) reports that the police registered 40,035 rapes in 2017–18, an increase from 39,828 in 2016–17, or an average of 110 rapes daily. Every time one of these crimes is committed, the offenders leave behind traces of evidence that forensic scientists gather and examine to solve most crimes, including rape. Physical evidence left at crime scenes is a critical component of the investigation process for rape, which is a violent crime; however, this evidence can be contaminated.

Smythe (2016:98) points out that the issue has worsened because rape does not get as much attention as other violent crimes. According to the study by Smythe (2016:98), police officers handling rape cases should receive more training. The study also emphasises how rape victims' suffering makes it difficult for them to appear in court, which results in cases being dropped. The cases are further made weaker by the dearth of forensic experts.

The biggest issue when addressing rape crime scenes is that the offender may be able to escape prosecution. Therefore, this study examines the relevance of physical evidence and how it might aid in rape case investigation.

1.2 RATIONALE OF RESEARCH

In South Africa, rape is a severe crime, and the courts hear several rape cases each year. However, a sizable portion of these cases results in acquittals due to issues encountered during the gathering of evidence from the scene of the rape. According to the DNA Project (a nongovernmental organisation), the first-time responders in South Africa are untrained in the correct gathering and processing of evidence (DNA Project report, 2017:32). This increases the risk that the evidence will be tainted, making it ultimately inadmissible in court (Van Der Westhuizen, 2011:19). At the Mamelodi police station, 547 rape charges against the suspected perpetrators were dropped, while rape offences rose by 80%

between January 1 and December 31, 2015. (South African Police Service, 2015:7). In the Mamelodi region, rape is still a significant issue. About 75 rape cases reported to Mamelodi Police Station were opened, but no suspects were detained because there was insufficient evidence to support an arrest. In other cases, crime scenes were tampered with, and the initial responding police officers tainted vital information (SAPS, 2012:np). According to the DNA Project report (2017:np), if physical evidence is not handled to ensure justice in established processes, its value as evidence is impaired. The police must ensure that all investigators in the investigation department are appropriately trained and knowledgeable on evidence collection at rape crime scenes to avoid disappointing the rape victims. This will help to reduce the withdrawal of cases against the alleged rapists.

Individuals with specific skills, such as forensic accounting, sex crime investigation, undercover investigation, particular language skills, or technology may have an advantage as a selection of investigators may be more focused on a particular attribute of applicants, according to Osterburg and Ward (2011:89). This is because the investigative field has become more specialised. An investigating officer only has one chance to collect physical evidence at a rape crime scene. However, in the majority of cases, this chance is ruined by the crime scene's contamination because the initial responders, such as paramedics, private security guards, and lower-level police officers, are unprepared to ensure that the scenes of rape crimes are well protected in a professional manner (DNA Project report, 2017:np). Suspects are often let off the hook because the evidence was not gathered or was tainted. It is crucial to inform investigators that physical evidence might be utilised as supporting evidence in rape case investigations.

1.3 RESEARCH AIMS / OBJECTIVES

The term "research aim" sometimes refers to a study's primary objective or overarching purpose. Project goals are typically stated in concise, direct sentences (Doody & Bailey, 2016). Therefore, the primary objective of this research project was to investigate the potential significance of physical evidence in rape crime scenes.

The research objectives are the specific accomplishments the researcher hopes to achieve through the study. According to Bhasin (2018:43), research objectives "define the scope of the study". For purposes of this research, the objectives were as follows:

- Analyse the procedures used in the collection of physical evidence and how a rape crime scene can be contaminated in Mamelodi;
- Assess the role of the investigating officers and other first responders in ensuring the proper collection of physical evidence at rape crime scenes in Mamelodi, and
- Suggest ways in which evidence contamination can be prevented in Mamelodi.

1.4 RESEARCH QUESTIONS

These are particular questions, answerable and used to direct the research process (Denscombe, 2012:31). The main question that this study sought to answer was: What is the substantial value of physical evidence at rape crime scenes? The following sub-research topics were created in order to organise and guide this study:

- What procedures are used to collect physical evidence at rape crime scenes in Mamelodi?
- What is the role of investigating officers in ensuring the proper collection of physical evidence contamination at rape crime scenes in Mamelodi?
- How can evidence contamination be prevented in Mamelodi?

1.5 PURPOSE OF RESEARCH

According to Hancock and Algozzine (2016:39), research can serve various goals while achieving a single, clear goal. A thorough research will have a clear objective. Hancock and Algozzine (2016:39) say that research may be exploratory, descriptive, explanatory, or forecasting in character. When doing descriptive research, just one variable is needed to explain the behaviour of a sample population. Finally, exploratory research is carried out to comprehend the impact of specific adjustments to standard operating procedures. It is done to examine the research issues but may not provide a definitive answer

(Bhattacharjee, 2012:109). This study sought to empower SAPS investigating officers, first responders, and any private detectives in the Mamelodi policing cluster with improved knowledge of the significant value of physical evidence in rape cases.

1.6 DEMARCATION OF STUDY

Demarcation refers to separating groups or other things by setting. This research was confined to rape crime scenes in and around the Mamelodi area (which falls under the Tshwane Metropolitan Municipality). In essence, this study covered the area under the Mamelodi police cluster, which includes Eersterust; Boschkop; Garsfontein; Mamelodi East and West; and Silverton police stations.

1.7 DEFINITIONS OF KEY TERMS

In providing answers to the research questions presented earlier, this proposed study was guided by the following theoretical concepts, which assisted the researcher in achieving the purpose of this research.

1.7.1 Crime Scene

The place where a crime occurs is referred to as the "scene of the crime" by Corovic, Christianson, and Bergman (2012:765). Dutelle (2011:601) believes that a crime scene may be defined as any location where evidence that explains events can be located, which lends weight to this claim.

1.7.2 Physical Evidence

According to Dutelle (2011:13), physical evidence may be referred to as particular evidence discovered at a crime scene that is gathered for later presentation and investigation, according to Dutelle (2011:13). Byrd & Sutton (2012:77) define physical evidence as all biological material associated with a specific crime scene whose analysis and scientific evaluation confirms the occurrence of a crime and helps to connect the evidence, the offender, the victim, and the crime scene. This definition is supported by the definition given above.

1.7.3 Rape

Rape is defined as an unlawful sexual act that involves engaging in sexual activity against the victim's will, under duress or the threat of duress, or with a person who is unable to

give informed consent due to their age, status as a minor, mental illness, mental deficiency, intoxication, unconsciousness, or deception (Barstow, 2021:23).

1.7.4 Crime Scene Investigator

According to Shaler (2012:19), a crime scene investigator might be a detective or police officer knowledgeable about and actively engaging in casework or crime scenes. Crime scene investigation is an involved procedure that calls for a particular methodology and perceptiveness from the investigator. According to CrimeSceneInvestigatorEdu.org (2021:np), investigators must be able to reconstruct the crime scene, offer alternative opinions, use definition techniques and scene analysis, and be generally aware of the evidence's linkage principle.

1.7.5 Investigation

According to Orthmann and Hess (2013:19), "investigation" refers to following carefully via patient observation or inquiry, "searching into," "examining and inquiring into with care and precision," "finding out through careful inquisition," "collecting evidence," and "a legal inquiry" (Luckert v. Elridge). Plecas (2017:65) defines an inquiry as an organised and methodical search for the truth. Inquiry and observation are used in this process to obtain both subjective and objective evidence regarding an occurrence or crime.

1.8 RESEARCH METHODOLOGY

The strategies used to conduct research are known as research methodologies. They serve as the researcher's tools of the trade, giving them means to gather, classify, and examine data in order to draw specific findings (Walliman, 2011:7). The three most common research methodologies are quantitative, qualitative, and mixed approaches, according to Barnharm (2015:834). Using a quantitative technique, the researcher foresees the data type needed to respond to the study question. Researchers often use the quantitative technique for research issues requiring numerical data; for questions requiring more detailed information, they typically use the qualitative approach; and for questions requiring both types of information, they typically use the mixed methods approach (Barnham,2015.:840). This study employed the qualitative method, as indicated below.

1.9 RESEARCH DESIGN

Kumar (2014:109) views research design as "a plan through which the researcher will communicate to others regarding what study design is proposed to be used, how the information will be collected, how the sample will be selected, how the information will be analysed and how findings will be communicated". Flick (2011:89) and Ritchie, Lewis, Nicholls, and Ormston (2014:48-70) state that a research design is a plan or complete strategy of how the researcher intends to conduct the research and how he/she will go about addressing the research questions. This study employed an empirical research design. This design describes any research whose findings may be independently confirmed based on empirical data (Bhat, 2019:67). The data from the literature alone did not fully address all of the study questions, so the researcher turned to empirical research. However, interviews were helpful because they provided first-hand information addressing the research issues. In order to physically conduct interviews, the researcher did so to get answers to the study questions. According to the interview schedule, open-ended questions were the research tool employed.

1.9.1 Research Approach

The research approach for this investigation was qualitative. Non-numerical data is how Denscombe (2011:37) defines qualitative data. Interviews, discussions, photographs, and recordings are only a few examples of the interpretative efforts that expose the world regarding research (Denzin & Lincoln, 2011:3).

1.9.2 Advantages of the qualitative approach

Researchers who employ qualitative techniques observe events in their natural habitats to understand them in terms of the meanings that people assign to them (Denzin & Lincoln, 2011:15). Because qualitative research is based on the fundamental principles of observation and interpretation, the researcher was able to grasp and identify the underlying patterns and correlations between the events under study (Flick, 2014:542). Qualitative research also provided some emphasis and flexibility that were not feasible with a methodology focused on numbers. As defined by Cohen, Manion, and Morrison, it is motivated by a perception of what is pertinent and a broad topic (2011:43). Finally, the flexibility of the qualitative research technique allowed for the conduct of this study.

In essence, a thorough and proper subject assessment can be produced using qualitative research methods, and therefore the participants have enough leeway to determine what is consistent for them (Flick, 2011:76).

1.9.3 Disadvantages of the qualitative approach

Despite the benefits mentioned above, there are significant limits to qualitative research. First off, according to Maxwell (2012:20), qualitative research methodologies tend to be less sensitive to contextual nuances in favour of experiences and meanings. Second, the outcomes of qualitative methods are not highly valued by policymakers and bureaucrats. When research is requested, stakeholders frequently choose quantitative research, according to (Sallee & Flood, 2012:56). Additionally, qualitative research may overlook the social and cultural contexts of the variables under consideration (Cohen *et al.*, 2011:32). Thirdly, in the context of research methods, smaller sample sizes will have a negative effect on the generalisability of the whole population of the research (Thomson, 2011:80). Last but not least, data interpretation and analysis of qualitative data can also be more difficult (Sallee & Flood, 2021:140). According to Berg and Lune (2012:4), qualitative research is quite a challenging undertaking that takes a considerable amount of time; on the other hand, the data is elusive with stringent analysis requirements.

1.10 TARGET POPULATION

The target population for a research study is the total of elements or units investigated in the study (Gray, 2014:148). This is also echoed by Crano, Brewer & Lac (2015:45), who referred to the population as a group of elements, cases, individuals, objects, or events whose characteristics a researcher intends to investigate. According to Bryman (2012:66), a population is a collection of objects, events, or individuals with similar traits as those sought by the researcher. In the context of this research, the population for the study was made up of police detectives who deal with rape cases from the Mamelodi police cluster and forensic experts. The target participants were 20 police detectives, 5 paramedics (first responders), and 5 forensic experts from SAPS. However, due to the restrictions imposed to curb the Covid 19 pandemic and resource constraints, the researcher managed to interview 13 police detectives and 3 forensic examiners from the

SAPS. In essence, there were 2 samples of participants, one with police detectives and the other with forensic examiners.

1.11 SAMPLING

Sampling refers to the act of acquiring a sample from a targeted population is referred to as sampling (Alvi, 2016:43). It is not possible to assess every aspect of a target population in an inquiry, and this makes it necessary for a smaller group, (smaller in number than the total population) to be selected for the assessment. Sampling is the act, process, or technique of selecting a suitable sample or a representative part of a population to determine the parameters or characteristics of the whole population (Mugo, 2019:23).

Sampling is done to conclude populations, and this is done through inferential statistics, which allows for determining a population's characteristics by directly observing only a portion (or sample) of the population (Mugo, 2019:23).

This study employed a non-probability sampling method since this is a qualitative study. Non-probability sampling as a method is generally applied in research that experimental studies. When selecting elements from the target population, non-probability sampling mainly depends on a researcher's subjective judgment and convenience (Ayhan, 2011:12). The researcher was fully satisfied that nonprobability sampling was suitable to serve the purpose of the study adequately. This method was preferred because it is less costly and requires less effort. However, this type of sampling is prone to systematic errors and inferences drawn from samples are not generalisable to the general population (Alvi, 2016:33).

This study used the purposive sampling technique, which falls under non-probability sampling. In purposive sampling, also known as judgmental, selective, or subjective sampling, the researchers rely on their judgment when choosing members of the population to participate in their study, and these are people who are knowledgeable in the specific subject under investigation (Foley, 2018:54). When one uses purposive sampling, the targeted sample is explicitly chosen because of specific characteristics that fit in with the purposes and intents of the researcher (Alvi, 2016:34). In this case, the

researcher sets a particular criterion and picks their subjects on the basis that they satisfy the conditions set and match the defined criteria. This type of sampling fitted perfectly with this study because it targeted a specific group of people involved with rape crime scene procedures. Gliner, Morgan, and Leech (2011:124) believe that purposive sampling means that the participants are handpicked from the accessible population. The researcher handpicked the participants based on their experience regarding the topic, which sought to explore the significant value of physical evidence at rape crime scenes. As mentioned above, this study's sample comprised 16 participants – 13 police detectives from the Mamelodi police cluster and 3 forensic examiners.

1.12 DATA COLLECTION

This refers to collecting information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes (Paradis, O'Brien, Nimmon, Bandiera & Martimianakis, 2016: 263). It is also referred to as "a systematic approach to gathering and measuring information from diverse sources to understand a specific area of interest" (Ary, Jacobs, Sorensen & Walker, 2013:68). Consistent with a practical research design, this study made use of interviews and a literature review. These allowed the researcher to collect adequate and relevant information to answer the research questions.

1.12.1 Interviews

An interview is a conversation for gathering information. A research interview involves an interviewer, who coordinates the process of the conversation and asks questions, and an interviewee, who responds to those questions (Rahman, 2017:104). Interviews can be conducted face-to-face or over the telephone. In this study, the researcher used semi-structured interviews to allow participants to supply more details and explanations in their own words to answer the research questions. Semi-structured interviews are a method of collecting data that combine both closed and open-ended questions, which allow for a deeper insight as the participant is allowed to give more details about an issue because there are follow-up questions (how, why) that can be asked to clarify issues (Adams & William, 2015:43).

1.12.2 Literature study

A literature review serves as an argument for a research study to be adequately analysed (Paré & Kitsio, 2017:89). A literature review is founded on the understanding that knowledge is an incremental exercise. A literature review can also be described as a critical evaluation of scholarly articles and any other sources of information on a particular subject that is done mainly in response to a research problem under investigation (Arlene, 2014:89). A review also gives a broader analysis of different sources of information that are explored during research and that eventually show how the research fits within a particular discipline (Arlene, 2014:55). Denscombe (2002:76) as cited in Mohala (2018:14) states that the literature review puts the research in context, and to be more precise, it locates the research within the context of the published knowledge that already exists about the area that is being investigated. He further states that the literature review tends to serve four main functions, which are:

- to identify the intellectual origins of the work;
- to show familiarity with existing ideas, information, and practices related to the area;
- to justify the choice of the research topic and approach as necessary and timely; and
- to develop and refine the research questions and objectives (Denscombe, 2002:76).

All the reviewed sources were secondary sources written on the same topic, with the main aim of gathering relevant data, enabling the researcher to identify gaps in these works.

1.12.3 Utilisation of Questionnaire

A semi-structured questionnaire was the preferred instrument for data collection. A semi-structured questionnaire combines closed and open-ended questions to allow the participant to answer questions in more depth. According to Rahman (2017:107), "an open-ended question cannot be answered with a 'yes' or 'no' response, or with a static response." Open-ended questions like how the rape crime scene is contaminated, who is

responsible for securing a rape crime scene, and how long it takes the police to reach a rape crime scene after the case has been reported were part of the questions the researcher used as part of the interview. The participants could explain their answers to questions because of their knowledge and experience of rape crime scenes in Mamelodi.

1.13 DATA ANALYSIS

This study used a thematic data analysis approach. According to Thomson (2011:70), this can be a bottom-up or top-down approach applied to the data when codes and themes are created. This means themes can be created first, then data associated with them is applied, codes can be created first, and then subthemes and themes follow. According to Saunders, Lewis, Thornhill, and Bristow (2019:39), the thematic approach is a flexible and conventional form of data analysis. It gives the researcher the unlimited ability to gain a more profound insight into the various perspectives and ideas from the data collection process (Saunders *et al.*, 2019:63). The researcher paid much attention to noticeable patterns and themes in the data during the analysis process. These patterns and themes in the data allowed the researcher to validate the data and draw conclusions that helped to respond adequately to the research questions. In analysing the data, the following steps were taken:

1.13.1 Familiarisation with the data

The first and most crucial step that the researcher took was to go through the data and familiarise herself with it. According to Nowell, Norris, White, & Moules (2017:154), the most important thing is for the researcher to familiarise themselves with the data before they can analyse it as profoundly as they are supposed to. Following this procedure assisted the researcher in having a better understanding of the data in-depth and the ability to draw out some seemingly hidden insights.

1.13.2 Generating initial codes

After familiarisation with the data, the researcher embarked on the coding process. Data in its raw form does not have a precise meaning, and the process that a researcher engages in to sort and give meaning to the data is called coding (Caulfield, 2019:54).

1.13.3 Generating themes

After coding was done, the next step was to generate themes and sub-themes by combining similar codes. As pointed out by Caulfield (2019:99), themes are much broader than codes, so the researcher can closely look at the codes and combine the ones that are more or less similar to develop themes.

1.13.4 Reviewing themes

The initial themes generated were further assessed and refined to ensure they accurately projected the collected data. A few of the themes were either combined or discarded altogether after review. According to Nowell *et al.*, (2017:139), the review process might lead to some themes being combined or split into different themes.

1.13.5 Defining and naming themes

After all the themes were listed, they were defined and given names. The process of naming the themes and sub-themes helped the researcher to understand the data further.

1.13.6 Write-up

When the coding process has been concluded, the last stage in thematic analysis is the write-up. This presents the created themes and sub-themes coherently and logically so that the readers can easily understand them. In some cases, the write-up will be written in essay format, complete with an introduction, body, and conclusion detailing even the methods used in data collection (Nowell *et al.*, 2017:180). The various themes are aligned according to the research question they respond to, while the conclusion would explain whether the set research questions were adequately answered (Caulfield, 2019:129).

1.14 METHODS TAKEN TO ENSURE VALIDITY

This section gives information on the methods taken to ensure the study's validity. These are anchored in two elements which are credibility and transferability (Bless, Higson-Smith & Sithole, 2013:236).

1.14.1 Credibility

According to Noble and Smith (2015:34), credibility is connected to the idea of internal validity in that it assists in responding to the question, "How congruent are the findings

with reality?" The researcher used analyst triangulation and member checking to ensure the credibility of this study. Two different analysts were used to review the findings of this study to ensure credibility. In a further attempt to enhance credibility, the researcher also shared data, interpretations, and conclusions with participants. This gave the participants a chance to insert corrections where they were needed. This is a process of member checking, which is also a method that ensures credibility in a research study (Koelsch, 2013:78). The researcher discussed her interpretations of the results with a colleague during the process of peer debriefing because she was not part of the inquiry (Buchbinder, 2011:54).

1.14.2 Transferability

This term refers to the extent to which the results of a study may be used in other situations. The researcher tried to offer sufficient data sets and explanations so that other reviewers and readers could decide if the data was transferrable (Bless, Higson-Smith & Sithole, 2013:237). To guarantee transferability for this work, the researcher additionally employed detailed descriptions. The term "thick description" refers to a thorough account of fieldwork in which the researcher makes detailed notes and contextualises the patterns of cultural and social interactions (Buchbinder, 2011:80). This was accomplished by providing as many specifics as possible regarding the study method so that readers and other researchers may have a greater understanding of the overall research.

1.15 METHODS TAKEN TO ENSURE RELIABILITY

The results of the study have to be tested to ensure their reliability, and the following steps were taken to ensure that they were reliable.

1.15.1 Dependability

Dependability is the capacity of a researcher to describe the harmony of internal processes and changing situations in his or her study. Dependability also refers to the ability of research to provide the same findings when repeated under identical conditions. By showing a willingness for other researchers to conduct the study under identical conditions, the researcher demonstrated their openness to the replication procedure and the reliability of the study's findings. The extent to which the same outcomes may be

reproduced using the same methods when a different researcher carries out the same study is discussed by Koelsch (2013:39).

1.15.2 Confirmability

Confirmability is also a method employed to assess a particular study's trustworthiness. If others review the data and specific characteristics of the data are identified, the study would be confirmed as a genuine reflection of the original data (Noble and Smith, 2015:40). This means that a researcher has to rely solely on the raw data collected and the insights gained during interviews to avoid contaminating the data with one's own biases, which can distort the eventual results of the research (Bless *et al*, 2013:237). In the context of this study, the researcher was cautious to guard against any personal views and biases that might have impacted the scientific outcome of the study through reflexivity (Amankwaa, 2016:29). An audit trail was also used in documenting data as a strategy to guarantee conformability. An audit trail is a transparent description of the steps taken from the start of a research project to the development and reporting of findings (Ghafouri & Ofoghi, 2016:1916).

1.16 ETHICAL CONSIDERATIONS

The researcher also followed the rules and guidelines on research ethics set in the UNISA's Policy on Research Ethics (2007:np) and applied for permission from SAPS to conduct this study. According to Golder, Ahmed, Norman, and Booth (2017:88), researchers need to observe certain ethics in collecting and presenting their findings. Gillan and Pickerill (2012:133) also noted that informed consent, the right to privacy, protection from harm, and honesty with professional colleagues are the main categories under which all ethical research issues are categorised.

1.16.1 Protection from harm

The researcher ensured that the participants were not harmed and that the research subjects' personal information was not exposed. The inquiry and the information collected were handled in a way that protected participants from harm. Participants were interviewed in their place of choice in order to guarantee their safety as well.

1.16.2 Informed consent

All participants were given the full details and the extent of the study being undertaken so that when they agreed to take part in it, they did so from an informed position. Additionally, the participants were made aware of their right to withdraw from the study at any point with no consequence because their participation was strictly voluntary. The participants also signed consent forms before participating in this study to confirm that they had given their full consent after they were given all the necessary details about the study.

1.16.3 The Right to Privacy

The researcher also followed procedures that guaranteed the study participants' right to privacy was observed and respected. This included making sure that no personally identifiable information was collected and that all the data was not accessible to third parties. Additionally, the researcher made sure that the research participants had access to the final research findings if it were necessary.

1.16.4 Honesty with professional colleagues

Brewer, Torrissi-Steele, and Wang (2015:169) argued that under no circumstance should the researcher support a particular argument or make an assertion based on falsified or fabricated data. Instead, the researcher undertook to maintain honesty and avoided misleading people when it came to their research findings.

1.17 PROBLEMS ENCOUNTERED DURING RESEARCH

The main problem that was encountered during this research was related to the Covid 19 pandemic. The constant lockdowns made it very difficult to move around, let alone organise meetings with participants to set dates for interviews. It was a difficult period where a lot of changes and shifts had to be made.

1.18 ORGANISATION OF THE THESIS

This research is divided into five chapters.

Chapter 1: General Orientation – This chapter covers the research problem statement, research objectives, research questions, key concepts of this study, research

demarcation, research purpose, the trustworthiness of the study, the value of research, problems encountered during the research, and the organisation of the dissertation.

Chapter 2: Literature Review – This chapter focused on the literature review of the study and available literature that relates to the subject under investigation was explored. The main aim of this chapter was to establish whether previous research has sufficiently dealt with the research question that was posed for this research and this helped to identify the gaps that still exist in this area of study.

Chapter 3: Research methodology – This chapter focused on the research methods that were used in carrying out this study and the reasons for doing so. It covers the research design, sampling methods, data collection instruments, data analysis procedures, and ethical considerations among other relevant aspects.

Chapter 4: Research findings and discussion – In this chapter, the researcher presents the results of the study that were obtained from analyzing the collected empirical data. These results are presented and discussed as themes in relation to the research questions asked at the beginning of the study.

Chapter 5: Conclusion and Recommendations – This chapter discusses the conclusions drawn from the collected data and the literature review. The recommendations that were drawn and identified by the researcher are also presented in this chapter. This chapter marks the end of the study.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This review focuses on defining the concepts of rape, and all its different categories. It also reviews works that have been done by other researchers on many aspects of rape crime. It also focuses on the value of the rape crime scene, the procedures, and the criteria that are followed in the collection of physical evidence, as this is an integral part of rape investigations. Most research points to the fact that the mismanagement of rape crime scenes and the improper management of physical evidence constitute one of the biggest factors negatively impacting the rate of convictions in most rape crimes. There are many factors at play, which make it difficult to improve the rate of convictions.

2.2 DEFINITION OF GENDER-BASED VIOLENCE WITH A FOCUS ON RAPE

Rape is a form of gender-based violence (GBV) and the global definition of this phenomenon provides a basis for its definition in South Africa. The "UN Declaration on the Elimination of Violence against Women" gave a broader definition of GBV (UN Population Fund, 2005:88). This became the internationally recognised definition and standard upon which nation-states defined their local instruments dealing with the phenomenon. In South Africa, rape is described and included in the regular SAPS statistics that are issued under the category of all sexual offences. The World Health Organization (WHO) also adopted a globally recognised definition of sexual violence which is also wide and all-encompassing. In their report on violence in the world in 2007, they described sexual violence as: "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work" (Eileraas, 2011:3). This is a wide and all-encompassing definition.

In 2007, South Africa also updated its definition of rape and sexual violence, and it was gazetted into law the same year. The new definition of rape was defined in Act No. 32, 2007 Criminal Law (Sexual Offences and Related Matters) Amendment Act 2007 and prescribes that: "Chapter 2, part 1- Rape and compelled rape, Rape (3) Any person ("A")

who unlawfully and intentionally commits an act of sexual penetration with a complainant ("B"), without the consent of B, is guilty of the offence of rape." The Act is broader because it takes into account other forms of sexual assault that are also considered rape such as sodomy and penetration by certain objects other than a penis and sodomy (Khumalo, 2007:11).

French (2003:255) described non-consensual sex between people who are familiar with each other as rape including that which occurs during a date involving individuals who know each other. The definition by French(2003:255) further clarifies the term "known person" as a broad term that includes rape committed by a family member, an intimate partner, a friend, or a close relation as long as the sex is non-consensual. This aligns with the description of intimate partner violence (IPV) that was given by the WHO (2012:np) and classifies sexual violence by a former/current boyfriend or spouse as rape. The Prevention of Family Violence Act of 1993 also recognised and criminalised rape within marriage. According to Albertyn, (2011:145) it was not possible to arrest and convict a husband for raping his wife before this Act came into force.

2.3 RAPE STATISTICS IN SOUTH AFRICA

During the 1994/95 period, rape cases that were reported amounted to 44 751 and during the period 2009/10 it was 68 332. This reveals a significant increase in the numbers between 1994/95 and 2008/09 and one of the reasons cited for this increase was the change introduced to the definition of rape by the South African government in 2007 which made it broader (Kane, Berman, 2010:78). 64514 sexual offences were reported in the period between April 2011 to March 2012 in South Africa. According to SAPS (2013:np):

"There were 94.9 rapes per 100 000 of the population during the 2011/12 period. A further increase was noted between April 2012 and March 2013, with statistics indicating a 2.9% increase in 2013 as compared to the previous year. In the period 2010/11, it was noted that 30.8 % of all crimes were contact crimes and of these contact crimes, 10.4% were sexual offences amounting to 66 196 cases. It has been shown that 10% of rapes result in pregnancy."

This trend in rape and sexual assault cases is evidence that this type of crime has become very common in the country. The Mail and Guardian reported that out of every four men in South Africa, one admitted to sexually assaulting a woman at some point in their life (M&G Online, 2012). There are numerous statistics that bear testimony to the fact that rape is a very serious problem for South Africa as a country. According to the United Nations (2012), the available statistics on rape crimes only reflect those cases that are brought to the attention of the police. There are many other cases that go unreported due to several reasons. The latest figures on rape show that the number of rape crimes committed has not gone down since 2012.

According to Africa Check (2018:53), 2017/18 saw the police recording a total of 50,108 sexual offences and indicating an increase from 49,660 in 2016/17. During the same period, crimes that were specifically classified as rape increased from 39,828 in 2016/17 to 40,035 rapes in 2017/18. Furthermore, Africa Check (2018:77) indicates that the definition of rape in South Africa is quite broad and it includes previously neglected acts such as oral penetration and the penetration of a person's mouth with the genital organs of an animal. This shift in the definition of rape crimes has also impacted the number of reported cases with the police estimating that on average, about 110 rapes are committed on a daily basis. On the other hand, figures recorded in the 2017/18 period show a marked decrease in the rate of rape crimes committed per every 100000 people with the number pegged at 70.5 from a previous rate of 71.3 per 100,000 (Africa Check, 2018:77). The Institute for security studies has argued that this decline is not a true reflection of the real situation with regards to rape and sexual assault cases because there are several cases that are not reported to the police.

On top of these depressing figures, it does not get better because recent research has also shown that there is a significant percentage of children who get raped or sexually abused during their childhood on a daily basis. According to Andersen (2018:1), the situation is critical, and he put forward the following statistics: During the period between 2015 to 2018, it was noted that about 41% of the total rape cases committed involved children. This is on top of the 2600 children who were raped and then murdered during

the same period, and this accounted for about 5% of all the murders committed during the same period in the country. According to Andersen (2018:1), these statistics point to a disturbing trend that shows that at least 46 children are raped on a daily basis in the country. In terms of successful convictions, it was indicated by the SAPS that only 21% of these cases of child rape ended with convictions of the perpetrators of these heinous acts. A brief analysis of the period since 2014 shows that rape crimes involving children were on the rise with 15 520 cases reported in the 2014/15 period, while in the 2016/17 period 19 071 cases were reported (Africa Check, 2018:78). There was a slight improvement in the rate of convictions noted during the same period, however, with 6366 convictions in the 2016/7 period up from only 2488 convictions in the 2014/15 period (Andersen, 2018:1). What is concerning about these figures is that the authorities were not aware that child rapes were happening at this magnitude in the country as noted by the Democratic Alliance (DA) shadow minister of police (Andersen, 2018:1).

2.3.1 Factors motivating the high rate of rape crimes in South Africa

Several authors have written extensively on this subject and they have put forward a number of reasons why rape crime is highly prevalent in South Africa. The rape situation is so bad to the extent that it has been pointed out that every woman born in South Africa has a greater chance of getting raped than learning to read, (Gounden, 2016:75). Rape is an issue that is gendered in form because a majority of its victims are young girls and adult women. It also occurs in different environments and contexts due to a variety of factors. For instance, some rape victims are raped by people they know but whom they are not intimate with and these might be neighbors, friends, relatives, and workmates. Rape can also be a result of the power imbalances that exist in society, where some individuals in positions of power can abuse that power by raping women or minors. People in positions of power or influence include teachers, politicians, and even those who are trusted as paragons of virtue such as members of the clergy (Machisa et al., 2017:10). Many other reasons have been put forward by scholars and researchers who have done work on rape crimes over the years. Several factors have been cited as playing a greater role in causing rape and some of these include, drug and alcohol abuse, the country's history of violence, psychological problems suffered when the perpetrators were still

young, cultural norms that objectify women as symbols of sexual gratification for men and patriarchal tendencies which encourage the total subjugation of women by men.

Machisa *et al.*, (2017:10) give further insight into the many reasons that cause rape in South Africa by pointing out that poverty is a major contributor to rape crimes because it creates an environment where men who have nothing productive to do due to unemployment end up getting involved in social gangs that are violent in nature. The risk of escalating rape crimes is also ignited by other social factors like dysfunctional families, hostile attitudes towards women, and feelings of inadequacy in male-female relations. It has also been noted that females who use drugs or drink alcohol, or who feel obliged not to refuse sexual favours from their acquaintances, and those who cannot take a stand against inequitable gender norms are at a higher risk of getting raped (Machisa *et al.*, 2017:10). In the case of children, it has been noted that disability puts them at a higher risk of being sexually abused due to their vulnerable state, especially in situations where they are mentally handicapped. These children are abused by those who are entrusted to take care of them, whether in institutions or in the home environment. The risk is made worse when there is poor supervision or poor childcare arrangements (Machisa *et al.*, 2017:10).

Gang violence is also a very big factor that plays a greater role in influencing young men to commit rape. Rape in the gang environment is considered a rite of passage, but it can also be motivated by a number of reasons. Some young men draw sexual gratification from watching their fellow members sexually assaulting a defenseless woman, while in other instances rape is used as a form of punishment against the victim or someone close to them. Research shows that almost 1 in 10 South African men have been part of some gang and were involved in gang rape, and most of those who are involved are younger in age than in any other forms of rape, (Machisa *et al.*, 2017:11). Others have reported that they got involved in gang rape as an experiment as it would have been their first time while others wanted to prove their virility to their peers.

Spousal rape is also very common, and it is motivated by slightly different reasons.

Empirical evidence shows that about 1 in every 5 women has experienced some form of intimate sexual violence in their lives and between 15 – 20 % have admitted to having perpetrated sexual violence against their partner (Mill-Fairweather *et al.*, 2013:1). Intimate rape occurs because of great feelings of entitlement on the part of the male spouse and it only reveals just a small fraction of other violent acts and brutal forms of control (Lochner & Zinn, 2015:13). Some researchers have also discovered that there is evidence that shows that there are also cases of forced intimacy that result in unwanted sexual intercourse in teenage relationships, and most of these go unreported (Lochner & Zinn, 2015:23). Rape within marriage or dating relationships is motivated by a number of individual factors. The underlying driving forces of marital rape are patriarchy and archaic cultural norms which perpetuate the view that women are objects or pieces of property owned by men. Women are supposed to be subservient to the whims of their husbands, which they are supposed to carry out without question, and they have no right to resist or reject their man's sexual advances. Society does not make things any easier as it only serves to perpetuate male dominance, patriarchy, and entitlement. Women are left with no recourse as they are forced to accept this situation as normal, and they are sometimes intimidated to the extent that they cannot report marital rape to the police. Research has also shown that there is a strong correlation between strong patriarchal beliefs in men and their tendency to engage in intimate partner rape (Machisa *et al.*, 2017:11). There are also instances where women are raped by people known to them. These people might be fellow workmates, friends, and superiors at work whom they are not involved with intimately or even close relatives. The perpetrators might be in need of intimacy with the victim or individuals they interact with just as friends. It has been further noted that cases of acquaintance rape usually occur in places where the victim normally interacts with the perpetrator such as bars, hostels, or parties (Hallman, Kenworthy, Diers, Swan & Devnarain, 2015:285).

2.3.2 Rape Case Attrition

This refers to, "the dropping or filtering of cases from the criminal justice system prior to a trial's conclusion," (Hallman *et al.*, 2015: 285). There is a high incidence of attrition in rape cases in South Africa, and this is a culmination of many factors. In a study carried out by Machisa *et al.*, (2017:11), they established that 57% (2283) of the 3952 cases they

investigated resulted in the perpetrators getting arrested, and out of these, 65% were referred for prosecution. Out of these referred cases, prosecutors accepted 34.4% (1362) of them and they were enrolled for trial. Out of the 1362 cases accepted for trial, only 18.5% were actually heard in court and about 8.6 % (340) were finalised with a guilty verdict. Out of the 340 finalised cases, 247(72.6%) resulted in convictions, 20.2% got suspended prison sentences, 4.1% were fined for lesser crimes and 2.4% were referred for correctional supervision (Machisa *et al.*, 2017:11). Out of the 247 who got prison sentences, 29 (11.7%) were sentenced to life in prison, 109 (44.1%) got 10 years, which is the minimum sentence for rape in South Africa, 91 (36.8%) got between 6 and 10 years in prison while 62 (25.1%) got less than 5 years (Machisa *et al.*, 2017:12). A further probe into the cases revealed that age was not a determinant factor in terms in the cases that were finalised. However, the researchers noted that a majority of cases where the victim was familiar with the perpetrator resulted in a guilty verdict more frequently. A survey conducted by Hallman *et al.*, (2012) in the Gauteng province, showed that out of all the rape cases that made it to court, only 6.5% were concluded with a verdict of guilty and these results were comparable to a similar study that used the same methodology in 2003 which showed that about 6.2% of cases that resulted in a guilty verdict. These results indicated that there was no significant improvement in getting justice for rape victims in the 9 years between the two studies.

Another study that was conducted by Hallman *et al.* in 2015 showed that 45% of all reported rape cases reported in Gauteng never went beyond the police to the courts (Hallman *et al.*, 2015:286). It is important to highlight the importance of the role played by the police in the investigation of rape crimes and convicting the perpetrators. The investigation of the cases and the gathering of evidence are key factors in moving a case through the justice system until a conviction is obtained (Van Graan & Budhram, 2015:17). This means that the fate of the rape victim lies squarely in the hands of the police and their ability to gather the necessary evidence to ensure a conviction is obtained.

2.4 RAPE INVESTIGATIONS AND CHALLENGES FACED BY THE POLICE

As has already been pointed out above, the process of investigation is a very important

stage in solving any crime and ensuring that the perpetrators are brought to book. This is even more important in rape crimes because time is paramount. The rate of attrition in rape crimes is directly linked to how efficient the investigations are conducted and how much evidence is gathered (Gordon & Collins, 2013:98). In most cases, there is little evidence to convict someone or the evidence is contaminated because a lot of time passes before all the evidence is put together.

The delays that are normally experienced in efforts to solve most rape cases are a clear testimony of the many challenges that the police encounter in their investigations. The nature of most rape case investigations is that constables normally lead in half of the cases. There are many cases where the police investigation and documentation of physical evidence are found to be deficient. A deficient docket might be missing important details like the names and addresses of the crime victim or other important details relating to the actual crime. Machisa *et al.*, (2017:12) found that in the rape cases they studied, there were numerous irregularities that made it difficult for these cases to proceed to court. Some of the irregularities included the police's failure to record all the details of the victims like residential address, the complainant's signature on the docket, and even phone numbers. Machisa *et al.*, (2017:12) also noticed that the medical examination and sexual assault collection kit (SAECK) was properly collected in 76.7% of adult cases, 57.1% of cases involving 12-17year olds, and 33.8% of cases involving victims under 2 years. The study also noted that in almost half of the cases they studied, the police were not able to attend to the crime scene where the rape occurred and this meant that evidence was not collected properly, which raised the risk of evidence contamination.

It is clear that the supervisory structure within the police force has issues and it's not working as well as it should be, because there is a lack of follow-up on many issues. There are many instances where statements from relevant witnesses are not taken simply because instructions are sometimes not given. Some cases fail because the victim might decide to withdraw their case, which leaves the police with little or no choice but to drop a case. However, there were cases that failed to proceed even though the victim had managed to identify the suspect and this was noticed in 23.7% of dockets without arrests

(Machisa *et al.*, 2017:12). Gordon and Collins (2013:99) also agree with the fact that some issues that lead to the collapse of a rape case have to do with the victim themselves. They point out that reasons that affect the progression of investigations are varied ranging from the inability of the victim to identify the suspect, and fear to speak out, to instances where there is a lack of evidence that there was force used (Gordon & Collins, 2013: 99). There is a serious need for junior officers to be trained in the taking of victim's statements because this has a negative impact on the case once it proceeds to court, without all the necessary details (Hallman *et al.*, 2015:12).

There are two other issues that seem to constitute a barrier in rape investigations, and these are shortages of transport and stress. It seems there is a direct link between the shortage of vehicles and the stress suffered by police officers. Investigating officers reported that the standard allocation of vehicles was an average of 3.5 persons per vehicle, instead of two, and there are cases where even more people than this have to share a vehicle, (Machisa *et al.*, 2017:12). The police were also overwhelmed with huge caseloads, transportation issues, a lack of adequate training to deal with sexual offences and collect evidence from rape crime scenes. All these factors only served to compound the challenges encountered by the police in their efforts to solve rape crimes (Hallman *et al.*, 2015: 12). Besides vehicle shortages and stress from too much work, there are also instances where police officers have negative attitudes towards victims of rape. There is a tendency for older officers to be conservative in some cases and it works against their better judgment and eventually affects the case, (Machisa *et al.*, 2017:13). According to Manyema, Norris, Twine, Kahn & Richter, (2018:98) when the police exhibit negative attitudes towards victims of rape when they report their cases, it discourages the victims to the extent that they end up withdrawing the case and continue to suffer in silence.

Corruption has also been identified as one of the major obstacles which affect the progression of rape cases. According to Hallman *et al.*, (2015:13) "a number of the rape victims interviewed indicated that corruption was involved in the processing of their rape cases and that their dockets had been 'lost' by the police." In cases where the perpetrator is known, there is a high risk of the victim either being pressured or even intimidated not

to make a report to the police. It has been discovered that this is a major aspect that affects the rate of rape case attrition and because it is a more disguised factor, it is also very difficult to detect. The police cannot do much in instances like these because the case does not even reach the police. No amount of training would equip the police to identify such cases. In relation to this, Manyema *et al.*, (2018: 99) state that most rape cases where the perpetrator is known to the victim are very difficult for the police to identify unless the victim brings the case forward themselves. The only way these cases can be identified is through raising awareness in the communities on how to deal with situations of rape as soon as they occur. The communities need to be trained on the risks of protecting perpetrators and the psychological impact this has on the victims themselves. On the other hand, the police need to be conscientised and trained effectively so they can be able to deal with these cases in ways that encourage progress. Improved basic conditions of work and availing of adequate tools would motivate the police to conduct their duties with more positive attitudes.

2.5 THE RAPE CRIME SCENE AND THE IMPORTANCE OF PHYSICAL EVIDENCE

When a crime is committed, the place where the crime takes place is very important because that is where most of the evidence, especially physical evidence, is collected. In rape crimes, the crime scene is where physical evidence linked to the perpetrator can be found and this might be in the form of skin fibers, blood, semen, hairs, and other trace evidence. This evidence is key in investigations because it provides key links in identifying and prosecuting the perpetrators of the crime. When it is collected, physical evidence is used to support statements given by witnesses, the victim, and the suspect as well. It is important for physical evidence to be gathered properly to avoid contamination since it is important in ensuring that a rape crime can be resolved successfully. The following section describes what a crime scene is and emphasises the importance of physical evidence in prosecuting rape crimes.

2.5.1 The crime scene

The above term refers to the actual location where a crime happens, according to Anderson, Rondinelli, and Watkins (2013:25). This definition also aligns with the one put forward by Kalbing (2015:63) who also reiterates the fact that a crime scene is a location

where the majority of the evidence for the crime can be found. The importance of a crime scene cannot be overemphasised as it is the place that bears all the evidence needed to solve the crime. For other scholars, a crime scene goes beyond the place where a crime has occurred to include every place that bears the evidence of the crime (Anderson *et al.*, 2013:25). The SAPS Policy on Crime Scene Management (PCSM) of 2005 also gives a similar definition and it goes further to describe how a crime scene should be managed in order to protect evidence from getting contaminated. The collection of evidence from a rape crime scene is a delicate process that involves a number of careful steps and procedures that need to be adhered to.

Sometimes rape does not happen in a single place, which means all the places where the crime took place have to be considered and factored in. In this case, the crime scene is divided into different zones. The first one is the primary location where the crime began, the second one would be classified in accordance with the evidence found there and the third place would be secondary in nature, (Gounden, 2016:75). It goes without saying how crucial the collection of evidence from a crime scene is. It remains the first and most important step in ensuring a crime is well prepared for presentation in a court of law. A case in point is the Oscar Pistorius case, where the police were roundly criticised for failing to properly conduct their work at the crime scene. As explained by Tolsi (2013:1) the work done by the police forensics team was so bad to the extent the bullet they were looking for was only found by investigators hired by the defense team. In some instances of rape the police a long time to arrest an offender after the case has already been reported. The main problem with rape cases is that the longer it takes to gather and process evidence affects the quality of evidence collected, which has a negative impact on the whole case. As pointed out by Watson (2015:1) despite the police having difficulties accessing rape perpetrators, they also do not have control over the process of collating evidence, which affects the natural flow of an investigation.

2.5.2 Physical evidence

Every activity that happens, be it a crime, accident, natural disaster, armed conflict, or other, leaves traces at the scene. After every incident, there usually is an inquiry that follows and the main objective of this is to ascertain the facts relating to the causes of that

particular event and to understand the sequence of the different steps leading to the incident in question, (Grounded, 2016:76). The traces of physical evidence that remain at a scene of a crime are usually fragile and transient in nature and in order for them to be relied upon, they need to be carefully preserved. It is key, therefore, and incumbent upon the first responders to observe with religious accuracy, the set procedures and guiding principles set to preserve the integrity of evidence. As pointed out by Kalbing (2015:63) the ability of police officers to act professionally when they work on a crime scene has a bearing on the eventual success of rape cases in court.

Physical evidence is defined in different ways that have been put forward over the years by many different researchers and scholars. According to Tolsi (2013:1), real evidence is found at the crime scene and it "speaks for itself." Watson (2015:11) on the other hand stated that there are two main forms of evidence namely physical and testimonial evidence. What he refers to as physical evidence is evidence that is tangible and can be seen, felt, or touched. There are several purposes that are served by physical evidence including giving detectives leads in their investigations, tying the perpetrator or victim to the crime, exonerating a suspect who is wrongly accused, and supporting testimonies that are given by witnesses in court (Watson, 2015:11). According to Ogle (2012:60), physical evidence refers to any physical material that can be linked to a crime that has been committed. All material that is recognised as physical evidence must be seen as adding value to the investigation process. This is key to the whole process of investigations to avoid instances where the wrong individual might be found guilty and convicted. As has already been explained above, all evidence that assists in the solving of a crime that has been committed is found on the crime scene. As explained by Osterburg and Ward (2010:119) physical evidence is any material found at the scene of crime such as clothing, electronic gadgets, vehicle, house, the body of either the victim or suspect, or any other item that can be linked to the victim of the suspect.

2.6 THE VALUE OF PHYSICAL EVIDENCE

All sources of information are very important in an ongoing investigation and they need to be explored and utilised. Physical evidence is important in rape investigations and as

pointed out by the UNODC (2009:np) “physical evidence plays a pivotal and an especially valuable role.” Physical evidence is regarded as the best form of evidence when compared with other sources of information because they suffer from problems of limited reliability. Physical evidence, when it is recognised and properly handled, offers the best prospect for providing objective and reliable information about the incident under investigation, (UNODC, 2009:np).

The reliability of physical evidence is dependent upon its careful recovery and processing. The process of collecting evidence follows a coordinated sequence which is sometimes referred to as the chain of custody (UNODC, 2009:np). If the chronological and careful recording and preservation of evidence is not properly followed, it becomes a weak link in the whole process, and it might lead to attrition of the case. From the beginning to the end of the forensic process, it is crucial to be able to demonstrate every single step undertaken to ensure “traceability” and “continuity” of the evidence from the crime scene to the courtroom, (Maluleke *et al.*, 2019:115).

As already stated above, physical evidence has to be handled properly with extra care, if its value is to be retained. Well-preserved physical evidence has certain advantages because it adds value and weight to a rape case. Physical evidence is tangible evidence that cannot be disputed in a court of law which means it serves to strengthen the prospects of success for the case. Physical evidence does not rely on an individual’s memory like oral testimonies which can be distorted due to lapses in memory. There is also an opportunity for experts in any particular field under which any form of evidence might fall, to come and validate the authenticity of the physical evidence, (Osterburg & Ward 2010:119). Tolsi (2013:2) also alludes to the fact that human testimony cannot be relied upon because humans have a higher propensity to lie under oath and they can also be influenced by other external factors. He further states that physical evidence provides the greatest chance to prove the occurrence of a crime beyond a reasonable doubt. In addition, physical evidence plays an important role in connecting a perpetrator who might be a serial offender, to previous crimes he/she might have committed but never got arrested for them (Ogle, 2012:60). Physical evidence gathered from different sources, is

sorted and put into groups. Ogle (2012:63) states that the major categories of physical evidence are drug evidence, fingerprints, toxicology evidence, evidence caused by firearms, biological evidence, and document evidence.

2.6.1 Forensic Services

The scientific study and evaluation of evidence found at a crime scene are referred to as forensic sciences or services (Maluleke, Mokoena & Olofintuyi, 2019:115). According to Johnson, Peterson, Sommers, and Baskin (2012:202), there should be the application of scientific know-how to a problem that is legal in nature, for a process to be referred to as forensic. Moreover, in times when physical evidence has to be assessed, scientific knowledge becomes necessary. Julian, Kelty, and Robertson (2012:28) also concur with the above description and state that forensic services are a key component in the collection and examination of tangible evidence that can prove whether a suspect is linked to a crime or not.

Physical evidence gathered at crime scenes is very key in the arrest of crime perpetrators as has already been pointed out above. The main element forensic investigators are interested in when gathering evidence on a crime scene is referred to as Deoxyribonucleic Acid (DNA) evidence and it can be found on clothing, bodily fluids (semen, saliva, sweat, blood), fingerprints, tissue, skin cells, and hair roots, among other things (Maluleke *et al.*, 2019:116). DNA is a unique biological imprint that differs for everyone, and it is used to identify anyone responsible for committing a crime if physical evidence collected bears their DNA. The role of forensic science services starts at the crime scene with the recognition and recovery of physical evidence. It then moves ahead to the next stage where it is assessed and evaluated in a science laboratory before it can be taken and presented in court as evidence. It is paramount for first responders and all other personnel who work at a crime scene to have a clear understanding of crime scene procedures, because their actions may either make or break a case. However, a significant number of these cases fail to get convictions as a result of problems experienced during the collection of evidence from a crime scene where rape has occurred. According to the DNA project, in South Africa (2017:np), there is a worrying trend where the first responders to a crime scene are not qualified in the management of a crime scene in

order to prevent the contamination of physical evidence. This raises the prospect of evidence contamination which eventually renders it inadmissible in court, (Van Der Westhuizen, 2011:45). Other scholars acknowledge that the role played by all first responders to a crime scene is very crucial to the whole investigation process. They bear a very important responsibility which is the preservation of a crime scene's integrity and all the evidence found in it. They are also required to document all important aspects of the crime scene and the activities that occur on it. Since most first responders are not forensic personnel, their training in the basics of evidence preservation on a crime scene is very crucial.

2.6.2 The Process of Gathering Physical Evidence on a Rape Crime Scene

There is a certain level of organisation that is expected when the process of gathering evidence at a rape crime scene begins. This is the reason why everyone involved in this process should be aware of what needs to be done and also be aware of the correct sequence of steps that should be taken. When a rape crime has occurred, the foremost thing is for the site to be secured to avoid contamination of evidence. The crime scene has to be evaluated properly as part of preparing for the work that should be done on the crime scene.

The UNODC (2009:np) presents the important steps that have to be followed by everyone who has a role to play at a crime scene. These steps include the initial crime scene evaluation before any forensic work can be conducted, the coordination of all aspects of the investigation such as evidence collection, interviewing of the victim and other witnesses, and delegation of tasks that have to be done on the scene. According to the UNODC (2009:np), the lead investigator is the one charged with coordinating all the tasks that should be carried out at the scene, assigning different roles to his/her team, and controlling access to the crime scene.

The most important step that the first officer responding to a crime is to secure the scene and prevent anyone from entering and disturbing evidence. The area is cordoned off and the investigating officer will take over upon his arrival from whoever has been manning the crime scene and protecting the evidence. The investigating officer has to be briefed

and brought up to date by the first responders before he also delves into his investigation. This is the primary phase in the investigation before the careful collection, documentation, and preservation of evidence can take place (SAPS Crime Scene Policy, 2005:np). The policy further gives prominence to the careful search for every organic and non-organic material found on the crime scene which might include traces of blood, skin, hair, clothing, and other items.

There are a number of things that an investigator should direct their attention to as soon as they enter a crime scene including ascertaining the location of all clues and their specific order. After the initial identification of all the clues on the scene, it is the investigator's duty to place visible marks on every spot where the clues are located without tempering with them and this is done to cover for situations where the clues might be shifted due to unforeseen circumstances. Photographers are also called up to the crime scene in order to take photos of the crime scene as this helps to capture certain clues that might not be identified immediately. These are quickly dispatched to the laboratory for analysis as well and this method is adopted to individualise the material picked from the crime scene, (Gribaldo, 2019:283).

2.6.3 Role of the Investigating Officer in the Investigation of Rape Cases

The investigating officer is the most important person in the investigation as he/she is the one responsible for everything to do with the crime he presides over. One of his/her main duties is the identification of all the physical evidence collected from a rape crime scene. According to Gribaldo (2019:283), the integrity of physical evidence has to be preserved right up to the time when it is eventually presented in court. In order to maintain this integrity, the investigating officer has to keep a record of all his/her observations. Ogle (2012:63) states that part of the officer's observations might be things like noticing scratch marks on windows or doors, blood at the scene, and even an open window. The quality of such a record, according to observations by Ogle (2012:63) should be such that it is admissible as evidence that an investigator can use in their testimony in court.

The SAPS Policy on Crime Scene Management (2005:42) describes the important steps that are supposed to be adhered to by members of the police attending a crime scene.

The most important task that an investigator is charged with is the identification and collection of all physical evidence on the crime scene, according to the stipulations of the Policy. The investigator is also charged with the responsibility of maintaining the integrity of such evidence and/or information. Seelinger, Silverberg, and Mejia, (2011:67) also agree with the stipulation of the policy, that the investigating officer is the one who identifies potential evidence at a rape crime scene. The Crime Scene Management Policy (2005:78) also defines the initial role played by the investigator, crime scene manager, and forensic technician which is to conduct a walkthrough of the crime scene and make an evaluation of all the physical evidence that can be identified and located. The duty of pinpointing all the physical evidence lies with the investigating officer for the benefit of his counterparts since it comes in different forms and the trained eye of the investigator is an important asset in this instance. The best way to proceed with the investigation will then be indicated.

As already stated above, the location and identification of physical evidence at rape crime scenes, together with locating and discovering evidence that is missing from the scene presents a big challenge to investigators. Many a time, locating and identifying key evidence at a rape crime scene is not easy and in most cases most of the evidence is microscopic (Seelinger *et al.*, 2011:12). Trying to reconstruct the sequence of events at a crime scene can be a daunting task or impossible depending on the amount of evidence gathered and analysed. According to the UNODC (2009:np), it is important for all the physical evidence to be identified at a crime scene from the initial observation that is done by the police investigators. These initial observations should consider the context of the case, the nature of the crime that has been committed as well as the key characteristics of the crime scene itself. Once all the evidence has been identified, the next important step for the investigators is to come up with a search strategy that is methodical and systematic, taking into account the various forms of evidence that would have been identified (UNODC,2009:np). As the process of gathering evidence happens, the investigators should never lose sight of the most important goal of this exercise which is to preserve the evidence and its integrity. It is also vitally important to note that recording and preserving physical evidence is a very key part of the process of investigating and

prosecuting a rape crime. Choosing what is important and what adds value to the case is a difficult task and it is an integral part of the investigation. It has to be conducted carefully bearing in mind that any mistakes have a negative bearing on the whole case altogether (Maluleke et al., 2019:116). The most sensible thing to do in instances where evidence is difficult to identify is to gather as much evidence from the scene as possible, then identification can be done at a later stage, rather than relying on insufficient evidence which might mislead the investigators. Overall, evidence identification and recovery are an exercise that can only be carried out by well-trained and experienced personnel to avoid mistakes that can disturb the whole case. It also requires a good understanding of what can be done on the various types of physical evidence in a forensic laboratory as well as the information that can be obtained.

2.7 CONCLUSION

Rape is a crime that is very common in South Africa and it continues to be on the rise. Most rape crimes are committed against women and young girls and the perpetrators are known to the victims in more than half of the cases reported, while other cases were committed by strangers. It is quite concerning that a majority of the cases that are reported do not end with the conviction of the offenders. This is due to a variety of reasons, chief among them being the handling of physical evidence. Even though there are clearly stipulated procedures and steps that should be taken in the process of gathering evidence on a rape crime scene, this does not happen very often. There are several instances where the first responders are not well versed in the initial steps that should be taken to secure a rape crime scene and protect evidence from contamination. There are also examples where the police take a lot of time than is necessary to attend to the crime scene, and with the time-sensitive nature of physical evidence at a rape crime scene, it becomes very difficult to use.

There is also evidence that has been discovered by a number of researchers that shows that there are some police officers who have a negative view of rape victims. They subscribe to traditional and patriarchal notions which prevent them from giving due attention to rape cases in general. Many victims are sometimes convinced not to report

their cases where the perpetrator is known to them. They might be encouraged to do so by being offered money or intimidated. The police are also not fully equipped to respond to rape crimes on time and this affects the quality of their work. It has also been discovered that police officers are overwhelmed due to the amount of work they are supposed to do, and they end up with high levels of stress and not being able to do their work. All these factors culminate in a situation where the rate of attrition continues to rise. There are many issues at play that lead to rape cases having low conviction rates, but the management of crime scenes and handling of physical evidence have a greater impact on whether a case will succeed or not. Many cases have made it to court only to be struck from the register or thrown out for either lack of evidence or because the evidence was not processed properly and got contaminated. The importance of the crime scene and physical evidence in relation to rape crimes can never be overemphasised.

CHAPTER 3: RESEARCH METHODS

3.1 INTRODUCTION

This chapter presents the methodology that was used in this study. The key elements of the methodology adopted and used in this study are explained in detail throughout this chapter. These key elements of the methodology include sampling techniques, data collection, research approach, research design, and ethical considerations. The research methodology chosen for this study was considered suitable to achieve the objectives and the aim of the study which was to explore how physical evidence at rape crime scenes can be of significant value. It is hoped that the details presented in this chapter would go a long way in ascertaining the trustworthiness of the study and its results.

3.2 RESEARCH METHODOLOGY

In general terms, research methodology refers to all the actions and methods adopted and used by researchers to conduct research (Sileyew, 2019:67). In order for research to be scientific, it should follow a defined path where certain scientific methods are applied right from the beginning of a study with the formulation of the research objectives, identification of the problem right up the collection of data and its analysis. It is the purpose of this chapter to present more details on the methods that were used to put this research together and to justify why these particular methods were preferred over others. There are a number of available research methods that can be used in research, but the three main ones are quantitative, qualitative, and mixed methods.

3.2.1 Quantitative Research Approach

According to Saunders, Lewis, and Thornhill (2016:162) a quantitative research method is one that uses numerical data such as numbers, percentages, and statistics to analyse different phenomena under investigation. The quantitative method is normally deductive in nature, especially in the development of a theory. However, in cases where a theory already exists from available statistical data, the quantitative method can also be inductive and can be used with realist and pragmatist reasoning. Graphs and statistics are used to investigate and establish relations between selected variables depending on the context of the subject under research. It is possible for quantitative research to employ a “mono

method quantitative study” like a questionnaire and a suitable method of analysis (Saunders et al., 2016:162).

3.2.2 Qualitative Research Approach

Qualitative research is described as a repetitive process in which a researcher seeks a deeper understanding of a particular subject by drawing conclusions based on his or her closer interactions with subjects under investigation (Aspers, Corte, 2019:140). The qualitative approach is a logical process that is flexible enough to allow the researcher enough leeway to draw information and use it to make certain inferences from their close interactions with research participants. Mohajan (2018:30) defines qualitative research as a form of “social action” that deeply interrogates and investigates the various experiences that people encounter in their communities on a day-to-day basis. There are several ways that are used in qualitative research to collect information and these include open-ended questionnaires, diaries, observations, journals, and interviews. Qualitative research usually attempts to answer the why and how questions of the subject being studied and this makes it exploratory in nature (Mohajan, 2018:30). This type of research helps to give a deeper understanding of the different social relations that exist in the world (Aspers, Corte, 2019:141). The nature of qualitative research has also been described as inductive, with a researcher aiming to explore deeper insights into any given situation (Levitt, Motulsky, Wertz, Morrow & Ponterotto, 2017:10).

According to Mohajan (2018:31) quantitative research serves a number of important purposes that include effecting improvements in the design and interpretation of traditional surveys. It also opens avenues for the creation of new knowledge since it ventures into previously unexplored areas and subjects. Qualitative research also focuses on exposing profound and intricate details of any social phenomenon in order to capture their underlying dynamics, which is in stark contrast to an external perspective that is superficial in nature. According to Mohajan (2018:31) qualitative research also helps to understand “complex phenomena that are difficult or impossible to capture using quantitative research.”

3.2.3 Mixed Methods Approach

The mixed methods approach is a combination of both qualitative and quantitative

methods (Creswell & Plano Clark, 2011: 203). The main advantage of this method is that it draws on the strengths of both methods to give a thorough analysis of any given phenomenon and it allows researchers to reveal all factors that lie beyond the grasp of the set research questions. It is important to note that the mixed method approach depends on the ability of the researcher to connect different forms of data that are collected simultaneously (Andrew & Halcomb, 2012:149). The different forms of data have to be integrated as the researcher seeks to analyse the data through a diverse lens which eventually creates a panoramic view of his/her research landscape (Creswell & Plano Clark, 2011:203). Furthermore, the use of mixed methods is warranted in situations where neither quantitative nor qualitative methods cannot fulfill the requirements of a study's objectives and research questions (Wisdom & Creswell, 2013:25). Despite providing a more complete analysis of data and a deeper insight into the phenomenon under study, the mixed method approach also exposes the connection and contradictions that exist between the two research methods.

3.2.4 Rationale for using a Qualitative Approach

Since the researcher sought to provide a more independent analysis and present a deeper insight into the subject under study, the qualitative approach was preferred. This was mainly motivated by the fact that seasoned researchers have proved beyond doubt that qualitative research methods are best suited in instances where the researcher intends to give a more complex and deeper insight into the different social relations of the subjects under investigation without including the subjective perspectives of the researcher (Napolitano, 2019:45). Secondly, the subject centered on the experiences of those individuals charged with the collection of physical evidence from rape crime scenes and their experiences as first responders to crime scenes. The qualitative approach, in this case, was the most appropriate research method because it enabled the researcher to draw out the experiences of the participants in their settings as first responders. Denzin (2017:12), confirmed the appropriateness of the qualitative method when analyzing human experiences by arguing that this method combines a broader range of research methods, epistemological viewpoints, and interpretative techniques to get an understanding of human experiences. This means that any language assessment cannot be separated from the values, culture, and context where it is used. Thirdly, qualitative

methods rely on certain approaches such as interpretivism research that is applied in cases that seek to understand different events, meanings, and people's different voices (Rahman, 2017:105). A combination of these events and different voices results in the creation of great sources of knowledge. Lastly, qualitative research provides the researcher with the ability to peel off the several layers of the participants' inner experiences and to interpret them in a way that shapes the meanings of these deeper experiences through their culture (Timonen, Foley, Conlon, 2018:04). A case in point is the assessment of written assignments, which employs terms like "satisfactory" or "good" that are used by the markers, to analyse the assignments. One can carry out an investigation into the meanings of "satisfactory" or "good" in the context of that particular exam (Rahman, 2017:105). The qualitative approach in this respect can assist in understanding the markers' working assumption about what is to be assessed, and the meaning of the score or grade.

3.3 RESEARCH DESIGN

This research is an empirical study and it used exploratory and contextual research designs. According to McCombes (2019:23), a research design as a plan provides guidance to the researcher on the methods and procedures to use in collecting and analyzing data. In other words, a research design is a framework that helps a researcher acquire a better understanding of the subject he/she is studying, and how and why they are studying it. A research design also assists the researcher to integrate their observations with the rest of their data for purposes of analysis. In the context of this study, the research design played an important part in helping the researcher understand all the issues that contribute to the contamination of physical evidence at rape crime scenes since a design also helps the researcher to develop an in-depth insight into social or human problems.

3.3.1 Descriptive Research Design

A descriptive research design is one that is focused on detailed descriptions of functions and characteristics while also remaining well-structured and strict (Surbhi, 2017:68). This type of design can be used in different types of research that is usually related to particular functions, predictions or features of individuals or groups of people. The sampling

technique that is used in descriptive designs is probability sampling and it uses a pre-planned design for data analysis. According to Surbhi (2017:70), the main focus of descriptive research is on the accuracy of details concerning the subject being researched while the researcher has to know the exact variables they want to measure and how they intend to do so. Examples of methods where the descriptive research design is suitable include observations, interviews, surveys, and qualitative analysis of secondary data.

3.3.2 Exploratory Research Design

This design was deemed suitable for this study to achieve and meet its purpose. The exploratory research design is mainly used where the research subject or area is relatively new with very little research having been conducted on it. In the context of this study, the main objective was to investigate the relationship between physical evidence and the rate of convictions for rape cases in South Africa. It is beyond doubt that rape is a very common subject and there is a very large body of literature on this topic. Despite the prominence, that rape has enjoyed as a subject of scholarly research, South Africa has experienced a significant rate of rape case attrition, with a majority of cases either failing to reach the courts or failing to result in the conviction of the perpetrators due to insufficient evidence. Despite this worrying trend, little research has been conducted to investigate and establish the relationship that exists between physical evidence and the rate at which rape cases end with convictions. The researcher her own determination that the circumstances around the subject made it suitable for the exploratory research design. This was strengthened by the assertion made by Korstjens and Moser (2018:120) which described the exploratory design as a design that is used to investigate subject areas that have not been thoroughly researched before.

3.3.4 Contextual Research Design

Contextual research is part of field study methods and is used when exploring the context of usage of a product or service, or the cultural context. It is relevant in situations where there are certain tasks that need to be observed to gain an understanding of the users' requirements and goals (Duda, Warburton, Black, 2020:45). This design is usually utilised in the initial phases of a previously unexplored subject or phenomenon because the collected data is crucial in shaping design choices in those initial stages (Malpass,

2018:01). This method was developed by Beyer and Holtzblatt (2017:30) as a way to resolve the drawbacks of other qualitative-research methodologies such as surveys and interviews (Duda *et al.*, 2020:46). This design mainly depends on the users' capability to provide a precise account of an event or process they are not directly involved at the moment of inquiry. People have a tendency to summarise details when they are asked about an important event, activity, or process they were involved in thereby leaving out crucial details that might be required. The net result of this is that the researcher is given only a superficial version of the subject or event under investigation (Surbhi, 2017:75). The participants for this study were carefully chosen on the basis of their experience in dealing with rape crimes and the collection of physical evidence from crime scenes. It was envisaged that due to their extensive experience in their work, they would be able to draw on that vast wealth of experience to provide data that was adequate and the insights made by the researcher during interviews were important in shaping the contextual direction of the study. This in turn made the contextual research design a relevant design for this study as well.

3.3.5 Rationale for the Adopted Research Design

The appropriateness of the exploratory research design for this study was determined by the fact that this design equipped the researcher with the ability to investigate in depth the experiences, motivations, and thoughts of the participants. Since the subject under inquiry centered around exposing the impact of physical evidence on the overall outcomes of rape cases, the experiences, thoughts, and actions of the participants were very key in answering the set research questions. As result, it was very important to adopt and use a research design that could afford the researcher to achieve this, hence the exploratory design was deemed the most suitable. The exploratory design enabled the researcher to gain an in-depth comprehension of the various experiences and thoughts of the participants, and this was a key factor in deciding on the design (Zikmund, Babin, Carr & Griffin, 2013:55). Hence this study relied on those thoughts, perceptions, and narratives instead of numbers for its data, which is characteristic of a qualitative research design (Blumberg, Cooper and Schindler, 2011:12).

3.4 TARGET POPULATION

This term refers to a group of people that are of great interest to a researcher and whose characteristics and way of life the researcher intends to investigate (Sekaran & Bougie, 2016:240). According to Etikan and Bala (2017:215), when a researcher sets out to conduct research, they already have preconceived notions about the characteristics they would like to investigate, which means they go out in search of those particular characteristics. Any group of people who satisfy the conditions and characteristics being looked for by the researcher becomes the target population. For the purposes of this research, the population for the study was made up of police detectives who deal with rape cases from the Mamelodi police cluster, and other first responders to crime scenes like forensic experts. A total number of 13 police detectives were interviewed even though the initial target number was 20 police detectives. There were challenges relating to the Covid 19 pandemic together with work and personal arrangements that made it impossible to reach the total number of police detectives initially targeted. Three (3) forensic examiners from SAPS were also interviewed due to their experience and relevance on crime scene response in their different capacities.

3.5 SAMPLING METHOD

Taherdoost (2016:18) defines sampling as a method that enables a researcher to select participants for a study that he or she intends to conduct. Since it is not practical to carry out research that involves the entire population of interest, only a certain portion of the population is chosen to represent the entire population and this process is described as sampling (Taherdoost, 2016:18). Saunders et al., (2016:274) also reiterate that it is next to impossible to gather data from an entire population due to factors like time, access, limited budgets and the sheer size of the population. Sampling methods, come in two forms which are probability and non-probability sampling methods. This study used purposive sampling which is a variant of non-probability sampling.

3.5.1 Probability Sampling

The defining principle of probability sampling is its random nature which means all elements or characters under consideration have an equal chance of being selected (Saunders et al., 2016:275). Probability sampling is linked to the use of surveys or

experiments (Saunders et al., 2016:275). this sampling method is connected to the use of a survey or an experiment strategy.

3.6 TYPES OF PROBABILITY SAMPLING TECHNIQUES

- Simple random sampling – everyone in the population of interest has an equal opportunity of being chosen.
- Stratified random sampling – the first step of this method is dividing a targeted population into groups and then simple random sampling is applied to each group to come up with the final sample.
- Systematic random sampling- in this method a sample is selected by setting up elements in a particular order. The elements are then chosen at a regular interval (e.g. at every 5th element). It is a simple method that requires minimum effort but it has a very low margin of error.
- Cluster sampling – in this method the population is divided through the creation of different clusters which are normally created based on geographic boundaries. Random sampling is then applied on each cluster to select the final sample (Alvi, 2016:32). This method is similar to stratified sampling.

3.6.1 Non-probability sampling

Non-probability sampling is defined as a sampling technique where the researcher actively chooses samples from their population of interest (Sekaran and Bougie, 2016:253). Unlike probability sampling, this method is easy, cheaper more convenient. It is important to note that when non-probability sampling is used there is no randomness of selection and this method is normally used when the researcher has no intentions of generalising the results of their research (Trochim & Donnelly, 2008:58). The following are examples of non-probability sampling techniques as indicated by (Lund Research, 2012:1):

- Quota sampling - the main objective of this technique is to end up with a sample stratum that is closely related to the population being under investigation.
- Convenience sampling - the sample is chosen based on their availability or accessibility to the researcher.

- Purposive sampling -In this technique, the researcher selects a sample based on their ability to fulfill a certain purpose.
- Snowball sampling - The initial participants are purposively chosen if they meet the set criteria for inclusion. The selected participants would then suggest other prospective participants through referrals and the process continues in this manner until the sample is complete.

The main factors that influenced the choice of the sampling technique used in this study were time constraints and the perceived costs of retrieving lists or collecting data from an entire population which was not practical. As a point of departure, this study was confined to the Mamelodi policing cluster and the sample was drawn from specific police detectives who investigate rape and sexual assault cases and forensic scientists (Saunders *et al.*, 2012:106). Purposive sampling was selected for this study.

3.6.2 Rationale for the adopted sampling technique

Due to the various duties that are carried out by the police and their constantly busy schedule, purposive sampling was preferred in order to collect data from relevant detectives who were experienced in rape crimes, which was the focus of the study because the police department is a vast organisation with different departments and roles. The data required for the study was specific and not generalised which meant that it had to be drawn from officers who had the relevant experience and technical knowledge. As a result of this, the researcher decided to use a sub-type of purposive sampling known as homogenous sampling which suited the purpose of the study.

3.6.3 Sample

The sample is a selected portion of participants drawn from the target population for the purpose of taking part in a research study (Neuman, 2014:241). The sample selected for this study was made up of police officers with experience in rape case investigations and forensic technicians with training in the collection of physical evidence from rape crime scenes within the Mamelodi police cluster in Pretoria. It was envisaged that this sample was suitable to fulfill the purposes of the study.

3.6.4 Sample size

The sample size in qualitative research is not set when the study begins but it depends

on whether the data gathered has reached a point where no new inferences can be drawn, which is referred to as the point of data saturation (Etiken & Bala, 2017:216). Saunders *et al.*, (2017:258) also explain that the point of data saturation is regarded as the point at which no new codes can be generated. This study initially targeted a sample size of 30 participants, comprising 20 police detectives, 5 first responders, and 5 forensic investigators/scientists, but in the end, only 13 police detectives and 3 forensic examiners were able to take part in the research. In this case, the point of data saturation was reached at 16 participants.

3.7 DATA COLLECTION

This is a process of collecting information from all the relevant sources to find answers to the research problem, test the hypothesis and evaluate the outcomes (Paradis, O'Brien, Nimmon, Bandiera & Martimianakis, 2016:263). It is also referred to as “a systematic approach to gathering and measuring information from diverse sources to understand a specific area of interest,” (Harrell & Bradley; 2009:84). Consistent with an empirical research design, this study made use of interviews and literature review. These allowed the researcher to collect adequate and relevant information to answer the research questions.

3.7.1 Literature study

A literature review serves as an argument for a research study to be properly analysed (Paré & Kitsio, 2017:290). The idea of a literature review is founded on the understanding that knowledge is an incremental exercise. It is also a survey of books, scholarly articles, and any other sources relevant to a particular issue, area of research, or theory, and by so doing, provides a description, summary, and critical evaluation of these works in relation to the research problem being investigated (Arlene, 2014:119).

Literature reviews are designed to provide an overview of sources one has explored while researching a topic and to prove to readers how the research fits within a larger field of study (Arlene, 2014:119). Denscombe (2002:50) (as cited in Mohala, 2018:14) states that the literature review puts the research in context, and to be more precise, it locates the research within the context of the published knowledge that already exists about the area

that is being investigated. He further states that the literature review tends to serve four main functions, which are:

- To identify the intellectual origins of the work;
- To show familiarity with existing ideas, information, and practices related to the area;
- To justify the choice of the research topic and approach as necessary and timely; and
- Develop and refine the research questions and objectives of the research (Denscombe, 2002:50).

All the sources that were reviewed were secondary sources which were done either on the same topic or related topics, with the main aim of gathering relevant data which enabled the researcher to identify gaps that were still found in work that had been done previously.

3.7.2 Research Instrument - semi-structured interviews

The main tool that is used to collect and analyse data in research is referred to as the research instrument (Taherdoost, 2016:20). Semi-structured individual interviews were the preferred instrument that was used to gather data for this study. Semi Structured Interviews are a combination of structured and unstructured interviews and they contain some predetermined questions that are flexible together with other questions that are open-ended. This is meant to give the participant enough room to answer the questions in the best way they can without limitations. The open-ended nature of semi-structured interviews gives the interviewer enough leeway to probe deeper for more information by asking follow-up questions. This instrument is supported by Creswell (2012:78) who posited that follow-up questions are posed with the aim to exhaust all the pertinent points that make it easier to understand the full context of the subject at hand. One of the reasons why the researcher settled for this research instrument was the flexibility it offers both the interviewer and the participant making room for the uncovering of even the most intricate and hidden details.

3.7.3 Construction of the Research Instrument

Since semi-structured interviews contain two types of questions, they are conducted with the aid of a research schedule which is a document that contains additional questions that help to guide the researcher to stay focused without straying from the main subject of research (Dejonckheere & Vaughn, 2018:05). This was also echoed by Balum (2016:02) who defined an interview schedule as a document that serves the purpose of guiding the researcher during the course of an interview. In the context of this study, the research schedule that was used contained probing questions that were open-ended and aligned with the objectives of the study. The schedule guided the researcher and allowed her to draw out deeper insights that helped to answer the set research questions and objectives in a more satisfactory manner. The researcher intended to draw out as much relevant detail as possible in order to fulfill the requirements of the study. There were 10 main questions that the researcher formulated, and most had follow-up questions. These questions aimed to establish whether there were clear procedures that are followed when evidence is collected at rape crime scenes and whether all the first-time responders were aware of them.

The questions were also aimed at probing the ways through which evidence contamination occurred and whether these could be prevented. The method allowed the researcher to gather open-ended data and analyse the participants' experiences in collecting physical evidence at rape crime scenes (Croxson, Ashdown & Hobbs, 2017:139). Semi-structured interviews were more effective because they enabled more personal interaction between the researcher and the participants. An added advantage was the fact that the questions were not many, and this allowed the participants more time to give their responses without getting tired or even bored. During the interviews, the researcher was also able to take personal notes, which were very helpful in adding certain aspects of the interviews that were hidden.

3.7.4 Pilot interview/study

A pilot study was carried out to evaluate the efficiency of the interview guide and the data collection procedure in advance of the main research. A distinct but comparable sample was chosen for this initial examination in order to guarantee that the pilot study

accurately mirrored the conditions of the main study. Police detectives and forensic experts who were not involved in the main study but had significant expertise with rape cases in Mamelodi or comparable contexts were purposefully chosen for a small sample by the researcher. With this strategy, it was guaranteed that the pilot study would offer insightful information about the data collection procedure without affecting the findings of the primary study.

Five people in total—three police detectives and two forensic experts—participated in the pilot project. This amount was thought to be adequate for the pilot study's manageable and narrow scope while evaluating the interview guide and data gathering technique. By choosing a small sample for the pilot project, the researcher may concentrate on improving the research instruments and methodologies, making the data gathering process for the main study more efficient and streamlined.

The researcher first chose eligible volunteers based on their background and relevance to the research topic in order to create the pilot study sample. The researcher then got in touch with these people, gave them the rundown on the pilot project, and asked for their permission to take part. After obtaining consent, the researcher scheduled the interviews and carried them out according to the same semi-structured protocol as the primary study.

The researcher evaluated the participant input after the pilot study interviews were finished to determine any areas that may have been improved in the interview guide and data collection procedure. The researcher made the appropriate adjustments based on this analysis to make sure that the primary study would be more successful in fulfilling the research objectives.

3.8 DATA ANALYSIS

The analysis of data is a very important step in the research process and because it is a very important task, the research engaged the services of an independent coder to ensure that any personal bias that might influence the exercise was limited as much as possible. The collected data were analysed using a thematic approach while the codes and themes were identified using a bottom-up strategy. The bottom-up approach was favoured because of its flexibility, which allowed the researcher to gain insight into

different perceptions and views. This process was laborious and painstaking due to the number of times the process had to be repeated and verified by both the independent coder and the researcher to ensure that the analysis was not superficial. The following steps were taken in the data analysis process.

3.8.1 Familiarisation with data

The first and foremost step that was taken soon after the data was collected was transcription since the data was in the form of recordings and it had to be converted to text format to be analysed. The researcher then went through the transcripts and the recordings several times to correct any mistakes and make additions where omissions had been made. According to Norris, Hecker, Rabatach, Noseworthy, and White, (2017:07) raw data has to provide an audit trail and a benchmark that can be used to check the adequacy of the data. After transcription, the researcher went through the transcription again to familiarise herself with the data before analyzing it and this entailed the reading of each transcript. Familiarisation is deemed a necessary step before data can be analysed because strengthens the authenticity of the analysis and its results as well (Nowell, Norris, White & Moules, 2017:09).

3.8.2 Generating initial codes

The next step after the process of familiarisation, was the actual generation of codes. According to Caulfield (2019:34), the generation of codes from raw data serves the purpose of giving meaning to the data. The researcher together with the independent coder spent a significant amount of time working on the codes and refining them until they were satisfied that no new codes could be drawn from the data.

3.8.3 Generating themes

Themes are broader categories of analysed data and they combine two or more codes that are related. The themes were created as a result of further analysis where codes were put into broader categories and they were grouped on the basis of their similarities.

3.8.4 Reviewing themes

As the researcher engaged in the generation of themes, one thing she was aware of constantly was the fact that all the themes were supposed to give a true reflection of the

data. As a result, the process was repetitive and thorough to ensure that the final themes captured all the important aspects of the data without any shift that might be caused by the researcher's own personal ideas. The themes were reviewed continuously throughout the data analysis process and this resulted in some being renamed, merged, or deleted if they did not clearly reflect the data.

3.8.5 Defining and naming themes

After all the themes had been refined, their names were also reviewed and refined to make them more meaningful.

3.8.5 Write-up

The last step that was embarked on in the data analysis exercise was the write-up, which is a presentation of the results of the analysis. The write-up has to be written in a coherent and logical manner to make it easier for readers to understand the results and what they mean (Nowell *et al.*, 2017:10). The write-up for this study captured all the themes that were finalised and presented them in a logical order in relation to the study's objectives. The last section is the conclusion to this write up which explains whether the research question was answered or not (Caulfield, 2019:76).

3.9 TRUSTWORTHINESS OF THE STUDY

The trustworthiness of a qualitative study is very important because it proves the scientific adequacy and logical accuracy of the study. According to Korsjens and Moser (2018:122), the trustworthiness of a study goes a long way to show that there was strict adherence to expected norms and methods of research which are the hallmark of scientific research. There are four standards that make up the trustworthiness of the study and these are credibility, dependability, transferability, and conformability are related to the concepts of validity and reliability in quantitative studies.

3.9.1 Credibility

Credibility is a measure of the correctness and accuracy of the results in a qualitative study (Carlisle, 2017:945). It is a way of proving the authenticity and veracity of the study because it reflects the link that exists between the findings and the data. There are a few ways that can be used to ensure the credibility of a study including prolonged engagement

with the collected data, triangulation, peer briefing, and member checks. Two techniques were used in this study to ensure its credibility which is triangulation and member checking. One of the key factors that establish the trustworthiness of a qualitative research study.

3.9.2 Triangulation

This refers to the use of multiple sources of data and research methods in order to understand a subject under investigation (Caulfield, 2019:39). It is considered a qualitative technique used to consolidate the validity of a study through the use of information from different sources. In the context of this study, analyst triangulation was used, where an independent analyst was used to assess the results of the study and he identified areas that needed clarity. This helped to improve the credibility of the study because it enabled the incorporation of new insights that added value to the whole study.

3.9.4 Member checking

The researcher also used another technique called member checking. A few participants who were accessible were given the opportunity to go through the results of the study and share their views and validate them. As pointed out by Carlisle, (2017:947) member checking is one of the many techniques that are available for exploring the credibility of the findings of a study. The general views of the few participants who participated in this process were that the results resonated with the experiences they shared with the researcher during data collection.

3.9.5 Transferability

Transferability is a standard that is similar to external validity or the generalisability of a quantitative study (Korstjens & Moser, 2018:123). It is established when a researcher provides enough evidence that proves that the research can be applied to other contexts and situations. The researcher used thick descriptions to ensure that the results of this study are transferable. These ensured that enough details were provided including deeper insights into the subject that were investigated. It is envisaged that other researchers can be able to recreate the research environment to determine the transferability of this study.

3.9.6 Confirmability

This term refers to what is regarded as the last step that should prove the trustworthiness of a qualitative study's findings (Sarvimaki, 2017:28). It is linked to how confident a researcher is in the findings of their study based on the views of the participants instead of researcher biases. Korstjens and Moser (2018:123) have cautioned researchers to guard against letting their own biases contaminate the results of their research and ensure that they are purely based on the collected data. In relation to this study, the researcher pursued all possible avenues to ensure that her own personal views did not affect the results to a greater extent. To this end, a certain level of reflexivity was applied with the researcher's acknowledgment of the influence of their own experiences and beliefs on the research process even though they were limited. An audit trail was also used to improve the confirmability of the study as well.

3.9.7 Dependability

Dependability is the degree to which the results of a study can be replicated by a different researcher if they used the same methodology (Shenton, 2011:64). If the research was conducted in accordance with all the research procedures as directed by the original author, then the results are expected to be the same. In an effort to encourage dependability in this study, a record of the data was kept together with a record of the consensus meetings held with the independent coder. The researcher is also open to other researchers replicating this study to prove its dependability.

3.10 ETHICAL CONSIDERATIONS

The researcher followed the rules and guidelines on research ethics as prescribed in UNISA's Policy on Research Ethics (2007:np) and applied for permission from SAPS to conduct this study. According to Denscombe (2008:134), researchers need to observe certain ethics in the collection and presentation of their findings. According to Leedy and Ormrod (2010:102), there are four categories or groups into which all ethical principles fall and these are informed consent, honesty with professional colleagues, protection from harm, and the right to privacy.

3.10.1 Ensuring Participants Have Given Informed Consent

One of the most important ethical considerations in research is informed consent. Gathering information about an individual without their knowledge and permission is regarded as unethical and doing so has the effect of jeopardising the whole study (Sekaran & Bougie, 2016:14). It is a common rule that when one intends to gather data from human subjects, they need to provide sufficient details about the study and then request for their permission to collect information from them. All the participants in this study were given all the information concerning this study and they were also assured that their participation was strictly on a voluntary basis and they retained their full rights to withdraw at any moment if they decided to participate. They were given consent forms which they went through before signing them and the researcher was available telephonically to respond to any arising issues before the prospective participants signed the consent forms, granting the permission for data collection to be conducted. The researcher ensured that all the participants were aware of the purpose of the study and how the information they were asked to give was going to be used before the interviews were conducted.

3.10.2 Ensuring No Harm Comes to Participants

In the course of the research, participants might be exposed to situations or details that might cause them a great deal of harm either emotionally or physically. Showkat and Parveen (2017:17) made the point that human participants are supposed to be protected from any form of harm during data collection. Sekeran and Bougie (2016:15) also stressed that everyone was bound by ethical issues during the course of research whether the researcher or participants themselves. The researcher pursued all the stipulated procedures aimed at protecting the participants including conducting a pilot study that tested the appropriateness of the questions among other things. Since the research was conducted during the Covid 19 pandemic, most interviews were conducted online and telephonically, in compliance with the set-out Covid 19 protocols that discouraged face-to-face interactions at the time. Fortunately, no adverse report was received from any of the participants as a result of their participation in this study.

3.10.3 Ensuring Confidentiality and Anonymity

The participants were reassured that their right to privacy would be maintained throughout the course of this study and no names of the participants or any other information that might expose their identity was used or shared with third parties to maintain the confidentiality of all the participants. All transcripts and field notes were kept in a very secure location with the researcher being the only individual with access to them.

3.11 CONCLUSION

This chapter presented the methodology that was used to conduct this research and the reasons why certain methods were preferred over others. The areas covered in this chapter included research design, sampling techniques, data analysis, data collection instruments, the trustworthiness of the study, and ethical considerations. The next chapter will present the findings of this research study.

CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF DATA

4.1 INTRODUCTION

The last chapter presented the various methods that were used to conduct this study and the reasons for the choices made. This chapter presents the research findings that were obtained after a thematic analysis was used to analyse the data and add meaning to it. The objective and aim of this study were to explore how physical evidence at rape crime scenes can be of significant value. The following sections describe the various themes and subthemes that were drawn from the collected data in relation to the set objectives of the study and the last section concludes the chapter.

4.2 DEMOGRAPHIC DETAILS OF THE PARTICIPANTS

The demographic details of the participants such as age and gender are presented in this section.

4.2.1 Gender

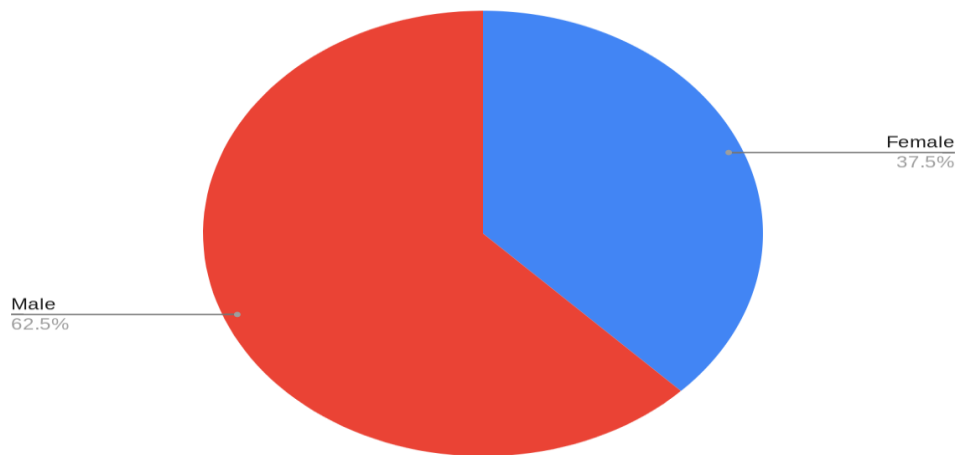


Figure 4.1 Gender of participants.

Source: Author's own analysis of collected data.

Figure 4.1 shows that 35.7% of the female participants took part in the study while male participants constituted 62.5% of all the participants. There is a clear gender imbalance among the study participants, but this was beyond the researcher's control because the number of female officers who deal with rape crimes in the Mamelodi area is very low and it was not possible to access most of them due to different commitments they had while

others were unwilling to participate in the study. The researcher is well aware that this might negatively impact the balance in terms of the views proffered where male perspectives might be dominant, so this is acknowledged as one of the shortcomings of this study.

4.2.2 Age distribution of the respondents

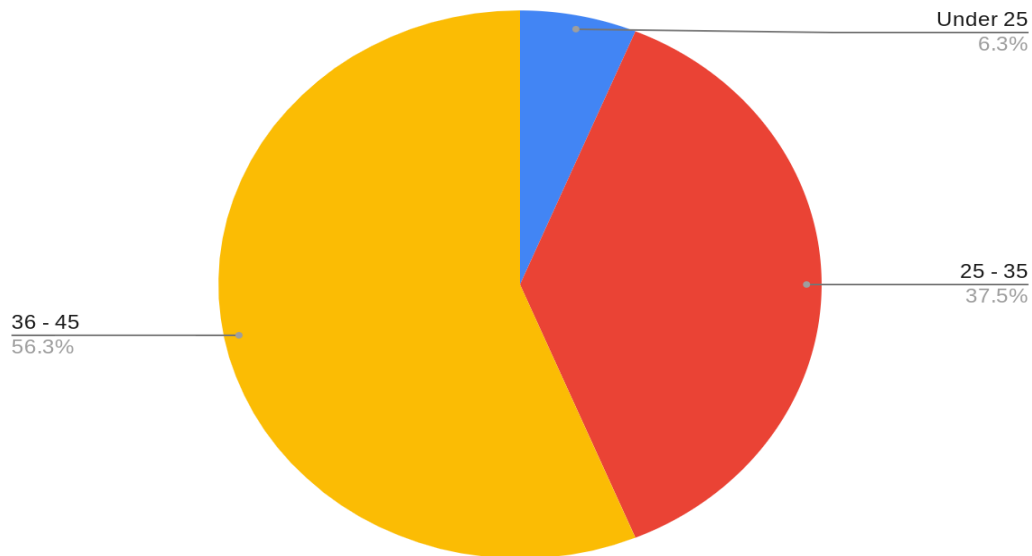


Figure 4.2 Age distribution of the Participants.

Source: Author's own analysis of collected data.

The age distribution of the participants who took part in this study is shown in figure 4.2 above. The chart indicates that a majority of the participants fell into the 36 - 45 age group (56.3%) and the 25 - 36 age group 37.5% of participants while the under 25s had the lowest percentage at 6.3%. This shows that most participants were middle-aged with considerable experience in their work, and it was envisaged that the study could benefit more from their experience in dealing with rape crimes.

4.2.3 Position/ rank of participants in the SAPS

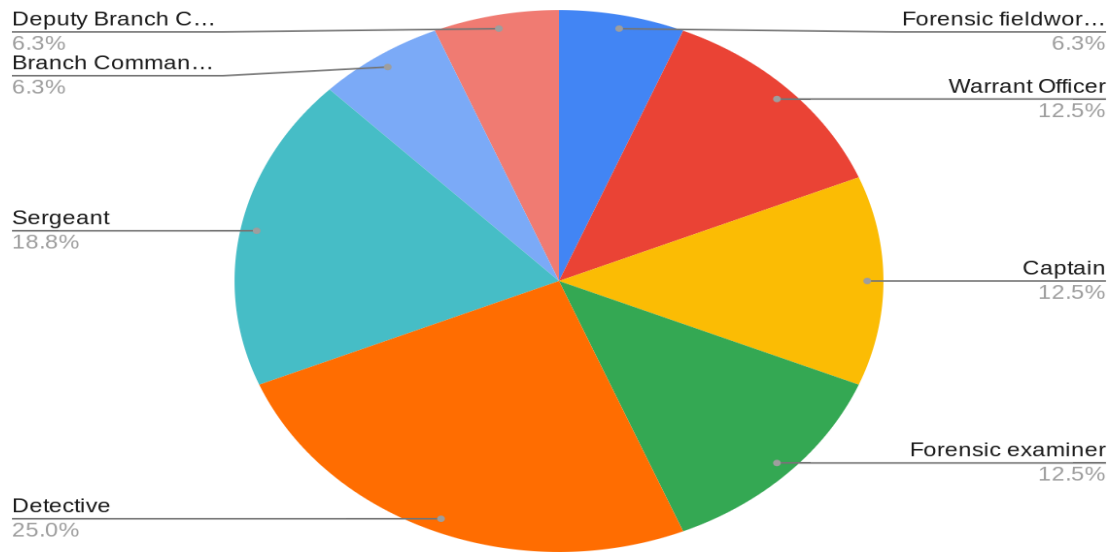


Figure 4.3 Position/ rank of participants in the SAPS.

Source: Author's own analysis of collected data.

Figure 4.3 shows the various positions or ranks occupied by the participants and there was a fair distribution of positions from the bottom to the top. A deliberate emphasis was put on people who attend crime scenes like detectives who were in the majority at 25% of all the participants. Field supervisors like sergeants were also represented in the sample and they constituted 18.8% while captains were 12.5% of the sample. Forensic examiners who were part of the sample were 12.5% which was a fair representation considering that there are not many in the SAPS. Management was also represented in the sample with branch commanders and deputy commanders who were both 6.3% of the sample. The inclusion of police managers was very important since they are responsible for ensuring that crime trends are controlled and kept at a minimum through deploying various strategies in their areas of jurisdiction. With this mixture of experience and expertise, the researcher envisaged gathering data that was more balanced and reliable in responding to the set of research questions.

4.2.4 Work Experience

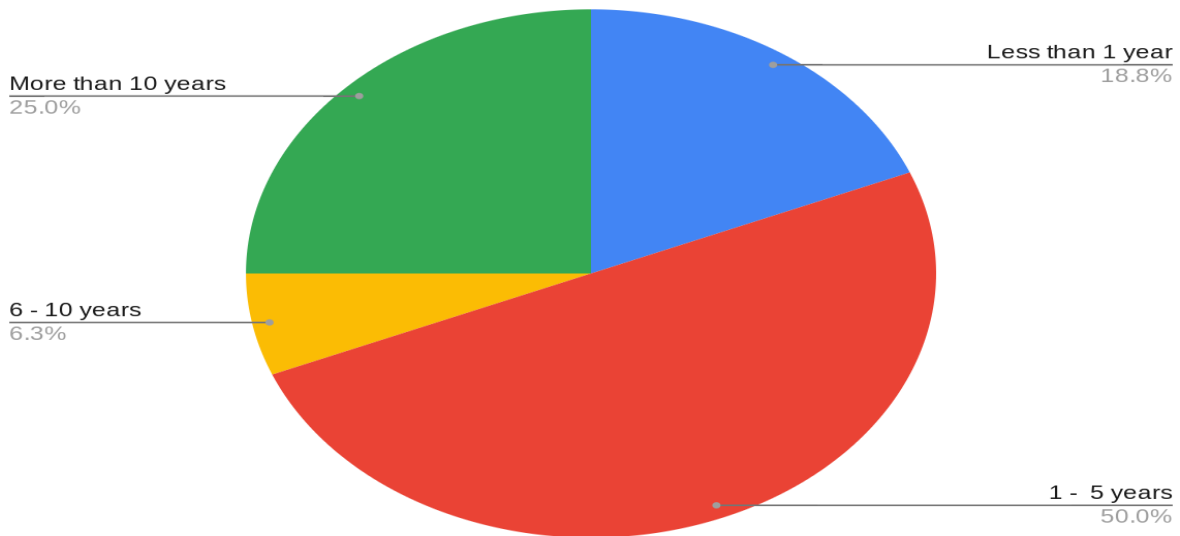


Figure 4.4 Work Experience in current position.

Source: Author's own analysis from collected data.

Figure 4.4 shows the information on the work experience of the participants and this covered the period served in the current positions occupied by the participants. A majority of the participants (50%) indicated that they had been in their current positions for between 1 to 5 years while the smallest number (6.3%) fell in the 6-10 years period. 18.8% of the participants had been in their current position for less than a year while those who had served for more than 10 years constituted 25% of the participants who took part in the study. The researcher was convinced that the level of work experience among the participants was adequate for them to give evidence that was reliable due to their understanding of their roles in gathering evidence at rape crime scenes. It was also assumed that those who had less than one (1) year of experience in their current positions, would have gained relevant experience from their previous positions since they were not new to the force. In essence, the work experience of the participants was considered an important aspect since it gave participants a deeper understanding of their work and the challenges that affected them.

4.3 THE SIGNIFICANCE OF PHYSICAL EVIDENCE AT RAPE CRIME SCENES

This study used a thematic data analysis approach. The researcher paid much attention to noticeable patterns and themes in the data during the analysis process. These patterns

and themes that were present in the data allowed the researcher to validate the data and draw conclusions that helped to answer the set of research questions. This section presents the different themes that were identified in the data that was collected.

4.4 THEMES AND SUBTHEMES

4.4.1 Collection of physical evidence at rape crime scenes

A thorough process of data analysis yielded this main theme and a further review of this theme resulted in a few sub-themes as well (Caulfield, 2019:np). The subthemes that emerged were the following:

- Physical evidence at rape crime scenes;
- Rape crime scene;
- Collection of physical evidence;
- The value of physical evidence.

4.4.2 Physical evidence at rape crime scenes

In order to gain a better insight into rape crime scene procedures, the researcher posed questions that related to the participants' understanding of physical evidence at a rape crime scene and their descriptions were not very different. Participant 16 explained physical evidence as *“any material object that plays a role in the commission of a crime.”* According to participant 1, physical evidence referred to *“Any item which is found in a crime scene which was not present before the commission of the crime that can be used to prove that a crime happened.”* Similarly, Participant 12 described physical evidence as *“anything that tends to prove or disprove a point under investigation or consideration.”* The common aspect of a majority of the responses that were given by the participants was the fact that physical evidence was anything tangible that could connect the crime to its perpetrator.

The same trend was also witnessed when participants were asked to give any specific examples of physical evidence that is normally found at crime scenes where rape had occurred. The participants also gave similar answers, and the frequency of some items reassured the researcher about the validity of the responses. According to Participant 1, examples of physical evidence included items such as *“fingerprints, touch DNA,*

condoms, clothing, fiber, hair, blood.” Similarly, Participant 12 gave a list of items that included *“body fluids e.g., blood, semen, vaginal fluids, condom rap and closed condom.”* Accordingly, participant 4 explained that examples of physical evidence that were usually found at a rape crime scene were *“anything tangible that links the crime and the victim and /or the perpetrator and the victim like a used condom, blood stains on the bed sheets.”* The responses that were provided by the participants were in agreement with descriptions of physical evidence that were found in the literature that was reviewed in chapter 2.

As explained by Osterburg and Ward (2010:119) physical evidence is any material found at the scene of the crime that can be in different forms like pieces of clothing, a suspect’s weapon, a victim’s house, electronic gadgets under the suspect or the victim’s control, etc. The descriptions that were given by the participants also confirmed what Ogle (2012:60) said about physical evidence, which he referred to as an object of a material nature that is linked to the crime that has been committed. All material that is recognised as physical evidence must be seen as adding value to the investigation process.

The participants also viewed physical evidence as any form of physical proof which confirms the commission of a crime and in this case rape. According to Watson (2015:01), physical evidence serves a number of purposes, including linking a suspect to the crime and providing investigative leads among other things. After going through the empirical data and then comparing it with secondary literature, the researcher was able to ascertain that the collected data on physical evidence confirmed what was already noted by the available literature because there wasn't much variation between the two sources of evidence.

4.4.3 The rape crime scene

Participants were also asked to describe a rape crime scene according to their own understanding from their own experience and they gave the following responses: Participant 9 described a crime scene as *“a place where a rape scene occurred, the human body and a place itself,”* and according to participant 3, a crime scene was *“a place where the rape act of offense was committed.”* Other participants described a crime scene not only as a fixed geographical location but as any place where evidence of a

crime is found. This was stated by Participant 11, who responded as follows: *“a crime scene, maybe the victim’s body or movable objects such as motor vehicles...”* Similarly, Participant 2 referred to a crime scene as *“any place where evidence can be found.”* The descriptions provided by the participants revealed that a crime scene can take different forms from a fixed place, and movable objects to even the physical body of either the victim or perpetrators themselves. The gathered evidence also confirmed what was earlier found in the reviewed literature as well. Kalbing (2015:63) described a crime scene as a place where physical evidence that proves the occurrence of a crime is found. Furthermore, according to Anderson et al., (2013:25), a crime scene refers to the place a crime actually happened. In the literature reviewed it was also established that a crime scene does not only refer to a single fixed place but to other movable items and different locations as well depending on whether evidence of the committed crime is found in those locations.

Gounden, (2016:75) stated that in cases where a crime did not happen in a single place, the different crime scenes would be classified for easier identification with the first one being the primary location where the crime began. The second one would be classified in accordance with the evidence found there and the third place would be secondary in nature. In essence, the evidence that was collected was in agreement with the available literature that was reviewed earlier.

4.4.4 Collection of physical evidence

It is common practice that when a crime is committed the police quickly attend to the scene in order to secure it and ensure that all the necessary physical evidence is not lost (Gounden, 2016:75). There is also a manner in which this evidence should be collected to protect its value and participants were asked to explain the special procedures that are normally followed when physical evidence is gathered (Kalbing, 2015). Participant 13 explained that it was important for the individuals collecting the evidence to *“always wear gloves to prevent contamination, mark the exhibits and exhibits must be packed separately.”* Participant 15 stated that one had to *“make sure the scene of the crime has been secured, wear protective gear to prevent contamination of evidence.”* Similarly, Participant 8 gave an identical explanation that was more detailed: *The first step was to*

secure a crime scene, not tamper with a crime scene, decide on a method of search, wear a proper PEP kit with disposable gloves, package all the exhibit separately, mark each and every exhibit, write a station and reference number of each and every exhibit, book the exhibits at a register, hand over a crime scene after processing. Participant 5 also talked about the importance of taking photographs on the crime scene among the other steps that are taken to secure physical evidence on the scene of the crime: *“Securing crime scenes. Wearing PPE, and identifying evidence need to be collected. Taking photographs of evidence before collection and after collection documents the exhibits. Marking of exhibits, collection, sealing of evidence, registering of exhibits to the sap13. Safekeeping and transporting of exhibits to your office and to the Forensic Science Laboratory (FSL).”*

The participants also explained that when collecting evidence, they also relied on the Locard principle which denotes that no perpetrator leaves without a trace, hence the importance of securing the crime scene in order to safeguard any shred of physical evidence that might have been left. When asked about the Locard principle, participant 15 explained that it referred to the idea that *“the suspect brings something on the scene and leaves with something from the scene.”* The participants demonstrated that they were aware of the various procedures and steps that are normally taken when physical evidence is gathered from the crime scene. This is in line with set standards as described by Zinn & Dintwe, (2015:21) who emphasise the importance of initial observations as an investigator enters a rape crime scene for the first time. It is of crucial importance to take into account such things as the context of the case, the nature of the incident, and the physical characteristics of any surface that might bear physical evidence. According to Layman (2013:43), every finer detail is important in the collection of physical evidence, and a search strategy that is clear and concise is required and it should include such details as defining a single route that should be used by everyone working on the scene. The gathering of evidence at a crime scene should be both flexible and methodical (Zinn & Dintwe, 2015:21).

Furthermore, the UNODC (2009:np) has also explained the basic testing procedures that

should be followed to identify physical evidence, e.g., marking every position where evidence is found with white powder and labeling each piece of evidence. Gribaldo (2019:283) explained the importance of photographs on the scene, which is an aspect that was also identified by the participants. According to Gribaldo, photographers have a crucial role to play at the crime scene because they capture images of the crime scene and the identified clues immediately. The photos they take are dispatched to the laboratory for analysis as well and this method is adopted to individualise the material picked from the crime scene,” (Gribaldo, 2019:283). The participants showed a great deal of knowledge and awareness of the set procedures that are used when investigators are gathering physical evidence at a crime scene. These procedures are also described in the literature that was reviewed and this meant that the evidence that was gathered was in line with set standards and procedures.

4.4.5 The value of physical evidence

One of the most important aspects of ensuring that rape cases end with a conviction is physical evidence. The participants were asked to give their views on the importance of physical evidence in rape crimes and why they considered it to be of value. According to Participant 1, physical evidence is of great value, especially in cases where there are no witnesses to the case. Participant 1 noted that: *“The value is very important because it is the only link, between the suspect and the victim in most cases. This means that it has to be gathered in ways that will preserve its integrity. However, its value is determined by the court of law”*.

Other participants also cited the importance of physical evidence in connecting the crime to the perpetrator. In most cases, traces of DNA that are unique to a particular person, are used to remove any doubt about a suspect’s link to a crime. Participant 8 noted the importance of physical evidence such as DNA: *“The physical evidence that is collected after a rape has been committed like semen, blood or strands of hair are important because they contain the DNA of the perpetrator of the crime. This makes it easier for the suspect to be identified and be linked to the crime. This is even more important than testimony from human witnesses who might sometimes give information that is not accurate.”* Other Participants also supported this view. Participant 13 said that the

purpose of physical evidence is to “*connect the suspect to the crime scene.*” The same information was shared by participant 9 who also indicated that physical evidence was used to “*link the suspect with the crime scene.*” Participant 3 responded by highlighting the fact that physical evidence increased the likelihood of a suspect being convicted: “*The prospect of prosecution and conviction of the perpetrator is very high when there is physical evidence to support the case. That is why it is very important for there to be as much physical evidence as possible.*” Similarly, Participant 16 explained that the “*availability of physical evidence goes a long way in solving cases of rape.*”

It can be ascertained from the gathered data that the value of physical evidence can never be overemphasised in rape cases. In many instances when rape occurs, it is sometimes difficult to identify the perpetrator when it has been committed by a stranger. This makes it absolutely necessary for any shred of physical evidence left by the perpetrator to be collected to ensure that they are identified, traced, and arrested. The reviewed literature also confirms the value of physical evidence. All sources of information are very important in an ongoing investigation, and they need to be explored and utilised. According to UNODC (2009), physical evidence plays a very important role in rape investigations. Physical evidence is regarded as the best form of evidence when compared with other sources of information because other sources suffer from problems of limited reliability.

The UNODC (2009:np) further explains that physical evidence is more valuable to solving a crime when it is properly handled and preserved. Osterburg and Ward (2010:119) have argued that physical evidence is difficult to dispute in a court of law because it is both tangible and accurate. Physical evidence does not rely on an individual’s memory like oral testimonies which can be distorted due to lapses in memory. Furthermore, human testimony is sometimes compromised especially when it comes from a witness who is not credible. Tolsi (2013:98) also alludes to the fact that human testimony cannot be relied upon because humans have a higher propensity to lie under oath and they can also be influenced by other external factors. The value of physical evidence is confirmed both in the literature and the collected data.

4.4.6 The role of an investigating officer at a rape crime scene

The researcher also analysed data that specifically described the role played by investigating officers who attend crime scenes and the following subthemes emerged:

- The skills an investigating officer needs on a rape crime scene;
- The duties of an investigating officer at a rape crime scene;

4.4.7 The skills an investigating officer needs at a rape crime scene

There are certain skills that an officer working on a rape crime scene should have in order to properly extract the necessary physical evidence. The researcher asked the participants about these skills to understand what they are supposed to be. Some of the common skills that most participants made mentioned included interviewing skills, crime scene handling, and knowledge of forensic evidence. According to Participant 9, an officer handling a rape crime scene should *“know how to handle a crime scene and have investigation skills, interview skills, statement taking.”* Similarly, Participants 8 and 2 also shared the same information. Furthermore, participant 14 explained that an officer handling a rape crime scene should have *“taken an FCS course in order to understand how to handle physical evidence that is collected and how this should be managed.”* Similarly, Participant 4 echoed the same sentiments and stated: *“One must have knowledge on how to handle a crime scene and be aware that rape cases are very sensitive which require a degree of empathy, especially when dealing with the victim. One must also have undergone an advanced crime scene course and DNA collection training.”*

Participant 15 emphasised the importance of good communication skills: *“an officer should have good communication skills, have the necessary knowledge about investigation.”* What stood out in most of the responses given by the participants was the fact that investing officers in a rape case should be knowledgeable about the collection of sensitive materials such as DNA, conducting interviews, and understanding crime scene procedures. According to the reviewed literature, the investigating officer is the most important person who has the responsibility to ensure the proper handling of all the evidence that has to be presented in court. This then follows that they have to be properly trained for the job and have the requisite experience to avoid mistakes that might compromise the entire case. According to Ogle (2012:63), the observations that are made

by the investigating officer are essential and the quality of observations should be such that they can also be admitted as part of the evidence by a court of law when the investigator is called upon to give his/her own testimony. Maintaining the integrity of physical evidence until such a time it is presented in court is a very important aspect in rape crime investigations (Gribaldo, 2019:283).

The other important point that was highlighted in the literature is the importance of relevant training for those charged with collecting physical evidence from a rape crime scene. (Maluleke et al., 2019:116) points out that evidence identification and recovery is an exercise that can only be carried out by well-trained and experienced personnel to avoid mistakes that can disturb the whole case. It also requires a good understanding of what can be done on the various types of physical evidence in a forensic laboratory as well as the information that can be obtained. The empirical evidence gathered also showed the importance of proper training and experience for officers who are given the responsibility to handle rape crime scenes because managing physical evidence is a delicate exercise that requires extreme caution. The evidence also shows that the police encounter a number of challenges in their efforts to identify and locate physical evidence on rape crime scenes, especially in instances where the crime scene has already been disturbed. Many a time, locating and identifying key evidence at a rape crime scene is not easy and, in most cases, most of the evidence is microscopic (Seelinger et al., 2011:01).

4.4.8 The duties of an investigating officer at a rape crime scene

This sub-theme also emerged, and it centered around the issue of the kind of duties that are supposed to be carried out when investigators or crime scene experts are working on a scene where rape has been committed. More often than not, officers have been accused of not being fully prepared to handle issues relating to the collection of evidence (Machisa et al., 2017:12). In order to understand whether investigating officers were aware of their duties, the researcher inquired about the specific duties expected of officers who attend rape crime scenes. Participant 4 described the steps that are normally taken when officers arrive at the scene of the crime: *“The first step is to identify the scene of the crime, obtain victim statements, witness statements and complainant statements, and send the victim for medical examination along with a rape kit. After the examination, take*

the rape kit to the Forensic laboratory. Arrest the suspect.” Participant 4 also explained that there are basic requirements that are also required before entering the scene:

- *they should always wear gloves;*
- *they should wear proper PPE gear;*
- *use exhibit bags when collecting evidence;*
- *no food is allowed at the crime scene;*
- *if you feel like you are nauseous you should not be around the crime scene.*

These are crucial steps that should be observed to ensure that the evidence is properly handled, and it is the duty of every officer attending a crime scene. The way a victim is treated was also important and according to participant 16, it was the duty of the investigating officer to *“ensure that the victim gets medical attention, does not bathe, change clothes or douche before evidence is taken.”*

Similarly, Participant 14 explained that it was important to *“protect the scene of the crime, help victims with medical examination, collect any possible evidence and arrange for counseling for victims.”* The officer had to *“take all possible measures to avoid contamination of the scene, be friendly and offer any possible support.”* Participant 8 described the duties of an investigating officer at a rape crime scene as follows: *To ensure that a crime scene is well protected, ensure that all the experts are summoned to the crime scene, support and victim, and ensure that a victim has been taken to the doctor, obtain all relevant statements including chain statements. Protect a crime scene and ensure that crime scene is not decontaminated.*

On securing the evidence and the crime scene, Participant 8 indicated that one should *“wear a PPE kit, collect and pack the exhibit separately, mark all the exhibits, and take the exhibit to the forensic for DNA evidence to link the suspect.”* The protection of the victim of rape was also identified as the most essential duty that was required to be observed by officers responsible for a rape case. Participant 3 noted that after taking steps to secure the crime scene it was also essential to ensure that the victim is given due attention and support: *“To be impartial at the same time cooperation is needed between the victim and investigating officer. Support in terms of updates and communication with the victim. Obtain statements from the victim, complainant, and*

witnesses with respect. Leave your details for the victim to communicate with you. The court proceedings put the victim at ease by making her understand the whole process and what is expected from her during the trial. Find out her availability and her status of mind and communicate with Juris for further assistance including professional social workers for intervention. Provide assistance where means of transport to attend court is difficult or not possible. Lastly, do not delay the investigation.

Participant 11 also reiterated the importance of handling the victim with care when obtaining evidence and observed that it was important to: *“arrange for relevant parties to assist victims such as probation officers and forensic social workers, to listen carefully to avoid asking the victim the same question over and over.”* What can be deduced from the data is the fact that investigating officers are supposed to carry out very important duties that include securing the crime scene and ensuring that all the necessary evidence is gathered and quickly dispatched to the relevant experts for analysis. Officers are also required to provide the necessary support to the victim of rape including guaranteeing their safety, facilitating their medical examination, counseling, and constantly communicating with them.

The reviewed literature also showed that there are specific duties that officers attending a rape crime scene need to observe. The SAPS National Instruction 1 of 2015 (South African Police Service, 2015) stipulates that when attending to a crime, the first officer is expected to protect the scene from unauthorised individuals who might disturb the evidence. The area is cordoned off and the investigating officer will take over upon his/her arrival from whoever has been manning the crime scene and protecting the evidence. The investigating officer has to be briefed and brought up to date by the first responders before he/she also delves into his/her investigation. This is the primary phase in the investigation before the careful collection, documentation, and preservation of evidence can take place. Furthermore, the UNODC (2009:np) states that there should be clear organisation and coordination of duties that need to be carried out by the responsible officers. The duties include clearly assigning roles by the lead investigator, managing access to the scene, and ensuring that all specialised experts conduct their work unhindered (UNODC,2009:np).

4.9 CRIME SCENE CONTAMINATION

Further analysis of the collected data yielded this main theme on crime scene contamination. A number of codes emerged which were then combined after further analysis and coding to give the following sub-themes.

4.9.1 Factors in crime scene contamination

The contamination of a crime scene is one of the factors that normally result in rape cases failing to get a conviction because when physical evidence is compromised it loses its value to the extent that it becomes inadmissible in a court of law. Understanding the perspective of the participants on the issue of contamination was also a key part of this study. Participants were asked to explain how a crime scene becomes contaminated and they gave their views that did not have a large degree of variation. Participant 10 gave the following response on the factors that lead to crime scene contamination: *“Contamination occurs by allowing officers that are not wearing protective personal equipment moving all over the scene, only crime scene investigators trained to deal with such must be permitted at the crime scene, the first responders must just secure the crime scene and wait for those with necessary skills and equipment to come access to the crime scene.”*

Participant 10 also referred to *“Members not wearing fully Protective personal equipment such as gloves, face mask, not secure crime scene by first responders”* as one of the factors that led to a rape crime scene being contaminated. Similarly, Participant 1 also indicated that handling physical evidence on a rape crime scene required suitable attire to protect evidence from being contaminated. Participant 1 also showed that having too many people on a crime scene was also a factor that could compromise evidence due to the fact that some of them might not have the knowledge of handling crime scenes. The issue of putting on full PPE was also raised by Participant 9 who also identified it as important. Participant 9 said contamination could be caused by: *“touching the crime scene without wearing the disposable gloves, removing the physical exhibit from the original position, by allowing a victim to bathe or dispose of the clothes she was wearing during the commission of the crime. Enter a crime scene without proper protective clothing or equipment.”* Participant 13 also shared the same sentiments on contamination by saying

the following: *“Touching exhibits without wearing gloves and entering crime scenes without wearing protective gear. Not securing the crime scene.”*

The participants were also in agreement on the need to manage a rape crime scene and control access by ensuring that only individuals with permission to enter and work on the scene are the only ones allowed. Large numbers of people who are unauthorised to be at the scene of crime increase the risk of contaminating evidence. According to Participant 2, the risk of evidence contamination increased by *“allowing people to enter the crime scene or advising the victim to bathe. Evidence loses its value.”* Similarly, Participant 5 shared the same concerns: *“Evidence is contaminated by not securing the scene and letting every person enter the scene by physically touching evidence without wearing PPE. By not constantly changing gloves when touching new evidence. One of the biggest factors causing contamination is lack of understanding and pure negligence.”*

The deduction made from the data gathered from the participants concerning the contamination of both the crime scene and the physical evidence itself is that high levels of negligence, uncontrolled access to the crime scene, handling of evidence by unqualified individuals, and handling evidence without the required PPE are the major reasons that can contaminate physical evidence on a crime scene. The issue of properly handling physical evidence at a crime scene is also reiterated in the literature that was reviewed. As noted in the literature, after every incident, there is an inquiry that follows and the reason for this is to establish facts relating to the causes of that particular event and to understand the sequence of the different steps leading to the incident in question (Grounded, 2016:76). The traces that remain behind at the scene of the crime are usually fragile and transient in nature and in order for them to be relied upon, they need to be carefully preserved. It is key, therefore, and incumbent upon the first responders to observe with religious accuracy, the set procedures and guiding principles set to preserve the integrity of evidence. As pointed out by Kalbing (2015:63), *“acting with care and professionalism throughout the crime scene investigation process is critical for the admissibility of evidence for court purposes as well as for human rights inquiries and humanitarian action.”* Available literature also shows that the value of collected evidence relies on how it is handled and if the correct procedures of collecting and documenting it

are not followed, it would be rendered inadmissible. According to SAPS (2017:np), the reliability of physical evidence is dependent upon its careful recovery and processing. The process of collecting evidence follows a coordinated sequence which is sometimes referred to as the chain of custody. If the chronological and careful recording and preservation of evidence is not properly followed, it becomes a weak link in the whole process, and it might lead to attrition of the case (SAPS, 2017:np). Traceability and continuity of evidence because all the steps taken from the collection of the evidence to the courtroom have to be described precisely (*Maluleke et al.*, 2019: 115). After going through all the data and comparing it with the reviewed literature, it was established that the gathered data confirmed what was also stated by available literature and this validated this study.

4.9.2 Preventing evidence contamination

The participants were also asked about how contamination of rape crime scenes and physical evidence could be prevented and most of them indicated that it was key to follow the set procedures on how to manage a rape crime scene. For the participants, physical evidence was a very important part of rape investigations and it determined whether the case could end with a conviction or not. As such, they noted that the delicate process of gathering evidence required a certain level of expertise and experience with everything done precisely with no mistakes. Participant 12 gave an outline of the steps that are supposed to be taken when handling evidence at a rape crime scene: *1. "Protect and cordon the crime scene. 2. By taking instruction from a first responder or crime scene manager. 3. By not crowding the scene and by not touching or moving things at the crime scene unnecessary. 4. By wearing the crime scene equipment at the scene. 5 By using proper search methods to search for evidence at the crime scene."*

Similarly, participant 15 also highlighted the importance of securing the crime scene before it was disturbed: *"To make sure that the scene is secured at all times right from the time the crime was committed until such a time when all the necessary evidence has been gathered. Usually, if the crime scene is not attended to on time, unauthorised individuals might enter and disturb critical evidence, which makes it important that the area is quickly cordoned off.* Participant 6 also pointed out the importance of protecting

the crime scene by *“cordoning it off from unnecessary access by a lot of people who are not supposed to be there.”* Besides securing the crime scene, the participants also emphasised the need for swift action due to the sensitivity of some of the critical evidence. Participant 14 pointed out that: *“Swift action was required immediately, and all the necessary people had to be called to the crime scene in the shortest possible time. In cases of rape, some victims are not aware of the immediate steps that have to be taken after the crime has happened. This results in them engaging in actions that might destroy evidence such as taking a bath or washing clothing. A quick response ensures that experts get to the scene on time and prevent this by advising and guiding the victim of the rape to secure the evidence.”*

Ensuring that all individuals attending a crime scene have the required attire and equipment was also cited as one of the key issues that go a long way in preventing the contamination of crucial evidence. Participant 10 stated that the *“wearing of protective personal equipment when examining the crime scene was a requirement. Handling of evidence without these was a factor in compromising the gathered evidence.”* Participant 1 also supported the idea of having the correct equipment when attending a crime scene by all responsible personnel. Participant 1 also raised an important point regarding communication between the other first responders and the investigating officers: *“When the investigating officers get to the crime scene, they need to communicate with the first responders in order to get important details about the crime scene and to establish if nothing has been disturbed.”*

It can be deduced that the participants were aware of the important steps that need to be taken when the police and other first responders attend a crime scene. The reviewed literature also confirmed that the crime scene had to be secured before any work was done on it to avoid compromising any traces of evidence that might have been left by the perpetrator of the crime. Physical evidence was an integral part of rape crime investigations and it required high levels of caution to secure it. As pointed out by Tolsi (2013:02), physical evidence is a solid form of proof that is beyond dispute, and its availability is important in determining the eventual outcome of a crime in court. This places a huge responsibility on the shoulders of all first responders to secure a crime

scene and safeguard all physical evidence. According to *Julian et al.*, (2012:30): “*the first responder(s) be they law enforcement officers, human rights officers or anyone else, play a critical role in the entire crime scene investigation process. Their initial responsibilities are to preserve the integrity of the scene and the evidence. Furthermore, they are responsible for the early documentation of the crime scene, its evidence, and all activities at the scene. As in the majority of cases, first responders are non-forensic personnel, and adequate training to carry out these tasks is critical.*”

The SAPS National Instruction 1 of 2015 (SAPS, 2015) stipulates that when the first officer attends a crime scene, their foremost task is protecting the scene from intruders and unauthorised individuals who can disturb the evidence. The area is cordoned off and the investigating officer will take over upon his arrival from whoever has been manning the crime scene and protecting the evidence. This also tallies with the responses that were shared by the participants which confirm the evidence they provided as genuine proof that applies to the handling of crime scenes.

4.10 CONCLUSION

This chapter presented the results of the study that emerged after the collected empirical data was analysed using the thematic data analysis approach. There were three main themes that emerged on the importance of physical evidence in rape crimes, the role played by the police in the management of crime scenes, and crime scene contamination. These themes were linked to the main objectives of the study which guided the empirical data that was collected and used to respond to the study’s main research questions. The main deductions made from the empirical data were that physical evidence plays an indispensable role in resolving cases but only when it is properly collected, stored, and preserved to maintain its integrity. The findings also indicated that first responders have the important task of securing the crime scene from unnecessary disturbances from unauthorised individuals. The findings also revealed that investigating officers charged with the management of crime scenes need to have the requisite competencies and experience to adhere to the laid down procedures of evidence collection to avoid the contamination of the evidence. Lastly, the collected empirical evidence confirmed and

was in agreement with the evidence from available literature on the same subject. The next chapter is the conclusion of the study.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The last chapter presented the findings of the study after the collected data was analysed. This chapter briefly discusses the empirical findings and compares them to the evidence from available literature on the same subject. First, the study presents the findings from the empirical evidence that was collected using a qualitative research methodology. The overall findings from the empirical data showed that physical evidence is an integral part of rape crimes, and it plays a very significant role in getting a conviction. What makes physical evidence stand out among other forms of evidence is the fact that it is a hundred percent reliable. The study also discusses recommendations that might assist the responsible entities in the proper management and preservation of the physical evidence collected from rape crime scenes. It is envisaged that these recommendations will contribute to the proper handling of physical evidence, which might improve the outcomes of rape cases in the near future.

5.2 FINDINGS FROM THE STUDY

This section presents the results from both the literature review and the analysed empirical data.

5.2.1 Findings from the literature review

Available research confirms that rape crime is a huge problem in South Africa. According to Gounden (2016:23), the rape situation is so bad to the extent that it has been pointed out that every woman born in South Africa has a greater chance of getting raped than learning to read. Rape is also a gendered issue because most rape victims are young girls and adult women, with the number of male victims quite insignificant (Gounden, 2016:23). Rape also occurs in different environments and contexts due to a variety of factors. For example, there are numerous cases of rape that are committed by people who are well known to the victims including family members, friends, workmates, lovers, and spouses (Machisa *et al.*, 2017:1). Other people who hold power and influence over the victims including superiors at work, teachers, politicians and members of the clergy can sometimes abuse that power to rape and sexually abuse the same people they are

supposed to protect. Rape is also perpetrated by strangers and sometimes by younger people, especially during the commission of other crimes,” (Machisa *et al.*, 2017:1).

Research has also identified several reasons that motivate rape crimes in South Africa. These include drug and alcohol abuse, the country’s history of violence, psychological problems suffered when the perpetrators were still young, cultural norms that objectify women as symbols of sexual gratification for men, and patriarchal tendencies which encourage the total subjugation of women by men (Machisa *et al.*, 2017:1). Poverty has been identified as one of the major social factors that motivate the commission of rape because most young men who find nothing to do due to unemployment can find themselves in social gangs where interpersonal violence is the norm (Smythe, 2015: 14; Machisa *et al.*, 2017: 1). People who grow up in hostile environments where they were sexually abused or where their families were dysfunctional are more likely to become perpetrators of rape and sexual abuse themselves due to strong feelings of inadequacy when they enter male-female relationships (Machisa *et al.*, 2017:1). All these reasons and more have been identified as the major drivers of rape crime in South Africa.

Another major finding that emerged from the literature review is the fact that there is a high incidence of attrition in rape cases in South Africa, and this is a culmination of many factors (Hallman *et al.*, 2015:280). Two separate studies carried out in the Gauteng Province showed that there was only a slight improvement in the number of rape cases that were concluded successfully, from 6.2% of all rapes cases in the province in 2003 to 6.5% in 2012 (Hallman *et al.*, 2015; Machisa *et al.*, 2017). Furthermore, it was established that about 45% of reported rape cases in the same province never proceed beyond the police to the courts (Hallman *et al.*, 2015:281). The reasons for the high incidence of attrition in rape cases have been attributed to a number of factors and some of them relate to the laid down procedures of rape crime scene management and the role played by the investigating officers.

A major finding that also emerged from the review of literature is that the SAPS does have laid down procedures on how to handle and manage evidence collection from rape crime

scenes. This points to the fact that the problem does not lie with the absence of procedures but rather a failure to strictly adhere to them. The SAPS National Instruction 1 of 2015 (SAPS, 2015:np) states that the first officer to attend to a scene of a crime should first ensure that it is protected from unauthorised entry to safeguard the value of physical evidence. The area is cordoned off and the investigating officer will take over upon his/her arrival from whoever has been manning the crime scene and protecting the evidence. The investigating officer has to be briefed and brought up to date by the first responders before he/she also delves into his/her investigation (SAPS, 2015:np).

Additionally, the United Nations Office on Drugs (UNODC, 2009:np) states that there should be clear organisation and coordination of duties that need to be carried out by the responsible officers. The officers attending a crime scene should be organised and have clear individual roles to avoid any confusion and unwarranted mistakes with the leading investigating officer coordinating all the tasks until everything is complete. The police have to work seamlessly with other experts charged with such responsibilities as photography and forensic assessments (UNODC, 2009:np).

In this case, the literature confirmed that there are set procedures that needed to be followed when managing crime scenes for crimes such as rape to avoid the contamination of physical evidence. Despite these laid down procedures, there are many instances where physical evidence is contaminated, which means it cannot be used in court to obtain a conviction. The next important step in investigating evidence contamination was to analyse the role played by investigating officers. Another major finding yielded by the review of available literature was the fact that investigating officers play a crucial role in managing a rape crime scene and the collection of physical evidence (Ogle, 2012:84). One of his/her main duty is the identification of all the physical evidence collected from a rape crime scene. According to Gribaldo (2019:18), the traceability of forensic evidence from the crime scene right up to the courts was very important and it was only possible in situations where recordkeeping was executed accurately. Noticing tiny bits like a cracked window, or a blood spot on a door are all part of the duties that an alert investigating officer should carry out in solving rape cases, according to Ogle (2012:84). The

importance of the role played by the investigating officer is beyond any doubt when it comes to the collection of evidence at a rape crime scene (Julian *et al.*, 2012:30). It was however noted that at times some investigating officers are sent to oversee the collection of physical evidence lack the requisite expertise and practical experience to undertake such a delicate task. According to the DNA project (2017:np), in South Africa, there is a worrying trend where the first responders to a crime scene are not qualified in the proper collection and handling of evidence. This unfortunately causes a significant number of these cases to be unsuccessful in court, as a result of the problems experienced during the collection of evidence.

Available literature also confirmed the importance of physical evidence in rape crimes. The UNODC (2009:np) has stated that physical evidence is indispensable in cases of rape. Physical evidence is regarded as the best form of evidence when compared with other sources of information because other sources suffer from problems of limited reliability. Its importance and integrity are however dependent upon the way it is handled and collected. When physical evidence is recognised and properly handled, the contribution it makes to the success of any given case of rape is very significant (Maluleke *et al.*, 2019:54). Well-preserved physical evidence has certain advantages because it adds value and weight to a rape case. The integrity of physical evidence when maintained is very crucial to the extent that it is indisputable. It also emerged that the weakest link in the adjudication of rape cases was the contamination of physical evidence, which is the most reliable and important evidence. This contamination was said to emanate from poor management of rape crime scenes and the improper handling of physical evidence (Maluleke *et al.*, 2019:55).

Several reasons have been identified that make it difficult to improve the rate of convictions in rape cases. Locating and identifying physical evidence at rape crime scenes, together with locating and discovering evidence that is missing from the scene presents a big challenge to investigators. For instance, locating and identifying key evidence at a rape crime scene is not easy and, in most cases, most of the evidence is microscopic (Seelinger *et al.*, 2011:1). Trying to reconstruct the sequence of events at a

crime scene can be a daunting task or impossible depending on the amount of evidence gathered and analysed. As observed by Maluleke *et al.*, (2019:55) choosing what is important and what adds value to the case is a difficult task and it is an integral part of the investigation. It has to be conducted carefully bearing in mind that any mistakes have a negative bearing on the whole case altogether (Maluleke *et al.*, 2019:55). The most sensible thing to do in instances where evidence is difficult to identify is to gather as much evidence from the scene as possible, then identification can be done at a later stage, rather than relying on insufficient evidence which might mislead the investigators (Seelinger *et al.*, 2011:1).

Overall findings from the literature review revealed that physical evidence remains the most reliable and important form of evidence in rape crimes in South Africa. It was also established that there is a high incidence of rape case attrition as a result of the contamination of physical evidence in most cases. In turn contamination of evidence is exacerbated by the mismanagement of evidence collection at rape crime scenes and improperly handling of the collected physical evidence. In order to maintain the integrity of physical evidence in rape crime cases, evidence identification and recovery should only be carried out by well-trained and experienced personnel to avoid mistakes that can disturb the whole case. It also requires a deep understanding of how all the collected evidence can be used and the kind of information that can be drawn from it.

5.2.2 Findings from the primary evidence

Evidence that was gathered from primary sources provided a number of insights were made that helped to respond to the research objectives and questions raised at the beginning of the study.

Findings from objective 1: to analyse the procedures used in the collection of physical evidence and how a rape crime scene can be contaminated in Mamelodi.

The gathered primary evidence showed that a majority of officers tasked with collecting and handling physical evidence at a rape crime scene were aware of the set procedures that have to be followed to maintain its value in order for it to be admissible in a court of law. The Locard principle was mentioned by the participants which is a principle that denotes that no perpetrator leaves without a trace, hence the importance of securing the

crime scene in order to safeguard any shred of physical evidence that might have been left. It also emerged from the primary evidence that anyone working at a rape crime scene should be properly dressed in protective clothing that would help to protect all the evidence that is collected. Additional details like the taking of photographs, marking of exhibits, and properly sealing of evidence in special envelopes and containers before they are labeled and transported for analysis in a forensic laboratory, were also revealed. In terms of contamination, the primary evidence indicated that evidence can easily be contaminated if collection procedures are not followed.

A lack of PEP, the handling of evidence by inexperienced individuals, and the failure to restrict unauthorised people from entering the crime scene are some of the details that emerged. Securing the crime was one of the first and most important steps that had to be taken at a rape crime scene before any evidence was collected, and a failure to do this was a major factor that compromised physical evidence. Most participants demonstrated an awareness of all the relevant procedures that needed to be observed when evidence is collected from a rape crime scene. The primary evidence also indicated that participants knew the various ways through which physical evidence could be contaminated. Overall, what emerged from the primary evidence in relation to the contamination of physical evidence was the fact that evidence was contaminated not necessarily because of a lack of understanding of the set procedures but from just a wanton disregard for these procedures.

Objective 2: to assess the role of the investigating officers and other first responders in ensuring the proper collection of physical evidence at rape crime scenes in Mamelodi.

The key finding in relation to the second objective was that the investigating officer's role at a rape crime scene was very important and maintaining the value of physical evidence was one of their key responsibilities. In order for the investigating officer to be able to carry out all the duties required of him at a rape crime scene, there are certain skills and competencies he or she must have. These emerged from the data and they included interviewing skills, good communication skills, crime scene handling, and knowledge of

forensic evidence. What also stood out from the primary data was the fact that an investigating officer in a rape case should be conversant with technical terms such as DNA, which is a critical physical evidence component. This meant that officers who were responsible for managing rape crime scenes should have undertaken courses in FCS. Overall, the primary data revealed that the role of the investigating officer was very important, and it had to be done by an individual with the requisite competencies and qualifications. The way in which an investigating officer handled this role determined the success or failure of a rape case to a very large extent.

Objective 3: to suggest ways in which evidence contamination can be prevented in Mamelodi.

The major finding from primary evidence in relation to the contamination of physical evidence at a rape crime scene was that contamination occurred mainly because the set procedures were not properly followed. The most important steps that emerged from the collected data included securing a crime scene as soon as rape occurs. This was an important step because many unauthorised personnel entering the crime scene would only work to destroy the physical evidence left by the perpetrators. It also emerged from the data that the collected evidence was supposed to be properly handled and swiftly dispatched to forensic analysis, while officers also had to attend to the victim by providing the necessary support to them. In essence, the primary data that was collected and analysed revealed that physical evidence remained the most valuable form of evidence in rape cases, and it retains its value when it is properly collected and stored. There are set procedures that have to be followed in order to secure its value but if these are not adhered to, there is a high chance that the evidence would be contaminated and once that happens it becomes inadmissible in court. The data also showed that the investigating officer plays an important role in the collection of evidence at a rape crime scene. However, they need to have certain skills in order to handle the task properly. There is a high incidence of rape case attrition in South Africa, and this is attributed to the contamination of physical evidence.

5.3 CONCLUSIONS

5.3.1 Conclusion on objective 1: to analyse the procedures used in the collection of physical evidence and how a rape crime scene can be contaminated in Mamelodi

From the primary data, it was deduced that most of the participants who took part in the study were aware of the procedures that were supposed to be followed when collecting evidence at a rape crime scene. These included the wearing of PPE, securing the crime scene, following a well-defined strategy in collecting the evidence, identification of the types of evidence available on the scene, properly marking the evidence, sealing it off in suitable containers, and quickly dispatching it to the forensic laboratory for analysis. These were also confirmed by available literature which states that when responding to a crime, the first officer is expected to secure the scene and prevent anyone from entering and disturbing evidence (SAPS, 2015:np). The area is cordoned off and the investigating officer will take over upon his/her arrival from whoever has been manning the crime scene and protecting the evidence (SAPS, 2015:np). The first objective was therefore achieved.

5.3.2 Conclusion on objective 2: to assess the role of the investigating officers and other first responders in ensuring the proper collection of physical evidence at rape crime scenes in Mamelodi

According to the primary data that was collected, the role of the investigating officer in rape cases is a very important one. The investigating officer is charged with the responsibility to gather all the physical evidence that is available, control the scene of the crime and ensure that all the set procedures in gathering evidence are adhered to. The investigating officer also has the responsibility to attend to the needs of the victim including facilitation of counseling and providing as much information about the case as possible. The success or failure of any rape case in terms of getting a conviction lies to a large extent with the investigating officer, depending on how he or she handles the evidence and the case. This is also noted in the available literature, with Machisa *et al.*, (2017:1) stating that police officers carry much responsibility in rape cases among others, yet there are times when they have been inadequately prepared to deal with a case at hand. This confirms the fact that investigating officers are an integral part of rape case investigations, and despite the shortcomings they face, the role they play is crucial. The second objective was also achieved.

5.3.3 Conclusion on Objective 3: to suggest ways in which evidence contamination can be prevented in Mamelodi

After going through the primary evidence gathered for this study, it was concluded that there are a number of things that can be done to avoid the contamination of physical evidence. The first important step is to ensure that when police officers are deployed to deal with a case of rape, they need to have all the required or relevant equipment. Rape cases should also be presided over by officers who have the right qualifications and experience in the management of rape crime scenes so that they would be able to collect physical evidence in the manner prescribed in the set regulations. Available literature has identified the lack of experience and equipment as the major shortcomings that impact rape crime investigations. Gordon and Collins (2013:94) indicated that the rate of attrition in rape crimes was directly linked to how efficient the investigations were conducted and how much evidence was gathered but in the South African context, there were numerous instances where there was little evidence to convict someone or the evidence would be contaminated because of the length of time it took to collect and process it. There are many cases where the police investigation and documentation of physical evidence are found to be deficient. A deficient docket might be missing important details like names and addresses of the crime victim or other important details relating to the actual crime (Machisa *et al.*, 2017:1). This confirms the fact that the responsibility to ensure a rape case is properly handled lies with the police, therefore, any measures to improve conviction rates in rape cases have to be targeted at the police. In terms of identifying ways to prevent the contamination of physical evidence, objective 3 was achieved.

5.4 RECOMMENDATIONS

5.4.1 Regular training in crime scene management

It was noted in this study that evidence in rape crimes is contaminated not because officers do not know the procedures that should be followed. Rather the problem is due to inexperience or lack of knowledge on how to manage a crime scene and oversee the collection of physical evidence. It is recommended that all officers charged with the responsibility of managing crime scenes should be trained regularly on the basics of crime scene management and evidence collection.

5.4.2 Provision of the requisite equipment

The other problem that was identified in this study was the lack of equipment, which leads to delays in securing crime scenes and collecting physical evidence. Physical evidence is normally delicate and time-specific, which means that the process of gathering it should be done timeously. It is recommended that all the relevant resources that are needed for the collection of evidence at rape crime scenes should be made available on time to avoid unnecessary delays.

5.4.3 Recruitment of forensic science experts

One of the major shortcomings identified during the course of this study was the fact that there are few forensic science experts, which means it takes a significant amount of time for physical evidence to be analysed and this sometimes leads to the evidence getting contaminated or it expires. The SAPS needs to recruit more forensic science experts to reduce the time it takes for physical evidence to be analysed and processed. It is recommended that the SAPS sponsor a number of students studying forensic science whom they can recruit once they complete their courses.

5.5 AREAS FOR FUTURE STUDY

This study used a qualitative approach to investigate the contamination of physical evidence and how this impacts conviction rates. A mixed-methods approach to investigating the same subject with a much wider scope is encouraged for future studies to give more insights that could be generalised.

5.6 CONCLUSION

This study set out to investigate the set procedures for the collection of physical evidence in rape cases and the contamination of physical evidence which renders it unsuitable for use in a court of law. The study also aimed at investigating the role of investigating officers in rape crimes. A qualitative approach was used in the collection and analysis of empirical data. The results from the empirical data and the review of the literature revealed that the success or failure of a rape case depended largely on how physical evidence is collected and handled. Physical evidence is the most reliable form of evidence in cases of rape

when compared with other types of evidence that are subject to manipulation. Both primary evidence and available literature also revealed that factors like lack of experience and qualifications in crime scene management all contribute to some extent to evidence contamination. The study also revealed that there are set procedures that should be followed when managing a rape crime scene and collecting physical evidence and a failure to adhere to these procedures can also lead to evidence contamination. Overall, the insights that emerged from the primary data were confirmed by the available literature, which meant that the set objectives of this study at the beginning were achieved. The results were presented in this chapter together with a few recommendations.

LIST OF REFERENCES

- Adams, W.C., William, C. 2015. *Conducting semi-structured interviews*. Available at: <http://www.10.1002/9781119171386.ch19> [accessed on: 12 August 2019].
- Africa Check, 2018. Factsheet: South Africa's crime statistics for 2017/18 available @ <https://africacheck.org/factsheets/factsheet-south-africas-crime-statistics-for-2017-18/> [accessed 20 July 2019].
- Albertyn, C. 2011. Law, gender, and inequality in South Africa. *Oxford Development Studies*, 39(02): 139 – 162.
- Alvi, M.H. 2016. *A Manual for Selecting Sampling Techniques in Research*. Available at: https://www.researchgate.net/publication/303941309_A_Manual [accessed on 5 October 2021].
- Amankwaa, L. 2016. Creating protocols for trustworthiness in qualitative research. *Journal of cultural diversity*, 23(3).
- Andersen, N, 2018. "Shocking stats reveal 41% of rapes in SA are against children." Available @ <https://www.thesouthafrican.com/news/rape-statistics-41-children/> [Accessed 10 July 2019]
- Anderson, G., Rondinelli, V. & Watkins, K. 2013. *Evidence and Investigation: From the Crime Scene to the Courtroom*. Toronto: Edmond Montgomery.
- Andrew S., Halcomb EJ.2012. Mixed method research. In: Borbasi S., Jackson D. eds. *Navigating the maze of research: enhancing nursing & midwifery practice*. 3rd ed. Marrickville, New South Wales: BMJ Publishing Group.
- Arlene, F. 2014. *Conducting research literature reviews: From the Internet to paper*. Fourth edition. Thousand Oaks, CA: SAGE. Available at: <https://libguides.usc.edu/writingguide/literaturereview> [accessed on: 5 June 2019].
- Ary, D., Jacobs, L., Sorensen, C., & Walker, D. 2013. *Introduction to research in education*. Boston, USA: Cengage Learning.

- Aspers, P., Corte, U. 2019. What is Qualitative in Qualitative Research? *Qual Sociol* 42, 139–160. Available at: <https://doi.org/10.1007/s11133-019-9413> [accessed on 23 October 2021].
- Ayhan H.Ö. 2011. *Non-probability sampling survey methods*. In: M. Lovric (ed) *International Encyclopedia of Statistical Science*. Springer, Berlin, Heidelberg. Available at: <https://link.springer.com/referenceworkentry> [accessed on: 5 June 2019].
- Balu, R. 2016. Questionnaire and interview schedule. Available at: <https://www.slideshare.net/ranjanibalu94/questionnaire> [accessed on 19 July 2020].
- Barnham, C. 2015. Quantitative and qualitative research: Perceptual foundations. *International Journal of Market Research*, 57(6), 837-854.
- Barstow, A.L. .2021. *Rape*. *Encyclopedia Britannica*. <https://www.britannica.com/topic/rape-crime> [accessed on 12 December 2021].
- Bhasin, H. 2018. *Research objectives*. Available at: <https://www.marketing91.com/research-objectives> [accessed on: 6 August 2019].
- Bhattacharjee. A. 2012. *Social Science Research: Principles, Methods and Practices*. Textbook Collections. Available at: http://scholarcommons.ufs/oa_textbook/3 [accessed on: 4 March 2019].
- Bhat, A, 2019. Empirical Research: Definition, Methods, Types and Examples. Available at: <http://www.questionpro.com> [accessed on: 1 June 2019].
- Berg, B. L., & Lune, H. 2012. *Qualitative research methods for the social sciences*. 8th edition. London, UK: Pearson.
- Bless, C., Higson-Smith, C & Sithole, S.L. 2013. *Fundamentals of social research methods: An African perspective*. 5th edition. Kenwyn, SA: Juta & Company.

- Blumberg, B., Cooper, D.R., Schindler, P.S. 2011. *Business Research Methods*. 3rd edition. McGraw-Hill, maidenhead, UK.
- Brewer, E. W., Torrissi-Steele, G., & Wang, V. X. 2015. Survey research: Methods, issues and the future. *International Journal of Adult Vocational Education and Technology*, 6(4), 46-64.
- Bryman, A. 2012. *Social research methods*. New York, USA: Oxford University Press.
- Buchbinder, E. 2011. Beyond checking: Experiences of the validation interview. Qualitative. *Social Work*, 10(1), 106–122. doi:10.177/1473325010370189 [accessed on 5 April 2021].
- Byrd. J.H & Sutton. L.K. 2012. *Defining a Crime Scene and Physical Evidence Collection*, Available at: <https://doi.org/10.1002/9781119953142.ch4>, [accessed on: 4 March 2019].
- Caulfield, J. (2019). How to Do Thematic Analysis. Available at: <https://www.scribbr.com/methodology/thematic-analysis/> [accessed on 3 March 2022].
- Carlisle, J.B. 2017. Data fabrication and other reasons for non-random sampling in 5087 randomised, controlled trials in anaesthetic and general medical journals. *Anaesthesia* 72:944–952.
- Cohen, L., Manion, L., & Morrison, K. 2011. *Research methods in education* (7th ed.). London, UK: Routledge.
- Corovic, J., Christianson, S. Å., & Bergman, L. R. 2012. From Crime scene actions in stranger rape to prediction of rapist type: Single-Victim or serial rapist? *Behavioral sciences & the law*, 30(6), 764-781.
- Crano, W. D., Brewer, M. B., & Lac, A. 2015. *Principles and methods of social research* (3rd ed.). London and New York, NY: Routledge.

- Creswell, J. W and Plano Clark, V. L. 2011. *Designing and conducting mixed methods research*. Thousand Oaks, California: BMJ Publishing Group.
- Creswell, J.W. 2012. *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Boston, MA: Pearson.
- Croxson, C.H., Ashdown, H.F., Hobbs, F.R. 2017. GPs' perceptions of workload in England: a qualitative interview study. *Br J Gen Pract.* 67(655): e138-e147. doi: 10.3399/bjgp17X688849. [Accessed on 2 October 2021].
- DeJonckheere, M., Vaughn, L.M. 2018. Semi Structured interviewing in primary care research: a balance of relationship and rigour. Available at: <https://fmch.bmj.com/content/fmch/7/2/e000057.full.pdf> [accessed on 20 October 2021].
- Denscombe, M. 2011. *Ground rules for good research*. Philadelphia, USA: Open University Press.
- Denscombe, M. 2012. *Research Proposals: A Practical Guide*. London, UK: McGraw-Hill.
- Denzin, N.K, 2017. Critical Qualitative Inquiry. *Qualitative Inquiry.* 23(1):8-16. doi:[10.1177/1077800416681864](https://doi.org/10.1177/1077800416681864) [accessed on 24 May 2021].
- Denzin, N. K. & Lincoln, Y. S. 2011. *The SAGE Handbook of Qualitative Research*. London, UK: Sage.
- DNA Project 2017. Fighting Crime with Science. Available at: <https://dnaproject.co.za/rape> [Accessed on 20 July 2019].
- Doody, O., & Bailey, M. E. 2016. Setting a research question, aim and objective. *Nurse researcher*, 23(4).
- Duda, S., Warburton C., & Black. N. 2020. Contextual Research. In: Kurosu M. (eds) Human-Computer Interaction. Design and User Experience. HCII 2020. Lecture Notes in Computer Science, vol 12181. Springer, Cham. https://doi.org/10.1007/978-3-030-49059-1_3 [accessed on 24 May 2021].

- Dutelle, J. 2011. *Criminal investigation*. 7th edition. New Jersey, USA: Pearson.
- Eileraas, K. 2011. "Rape, Legal Definitions of." *Encyclopedia of Women in Today's World*. Ed. Mary Zeiss Stange, Carol K. Oyster, and Jane E. Sloan. Thousand Oaks, CA: SAGE.
- Enago Academy, 2020. Why is a pilot study important in research? Available at: <https://www.enago.com/academy/pilot-study-defines-a-good-research-design/> [accessed on 30 October 2021].
- Etikan, I., Bala, K. 2017. Sampling and sampling methods. *Biom Biostat Int J*. 5(6):215-217.
- Flick, U. 2014. *An introduction to qualitative research* (5th ed.). London, UK: Sage Publications Ltd.
- Flick, U.W.E. 2011. *Introducing research methodology*. London,UK: Sage.
- Foley, B. 2018. *What is purposive sampling?* Available at: <https://www.surveygizmo.com/resources> [accessed on: 6 August 2019].
- Fraser, J., Fahlman, D., Arscott, J., & Guillot, I. 2018. Pilot testing for feasibility in a study of student retention and attrition in online undergraduate programs. *The International Review of Research in Open and Distributed Learning*, 19(1) Available at: <https://doi.org/10.19173/irrodl.v19i1.3326> [accessed on 20 October 2021].
- French, S.L. 2003. Reflections on healing: Framing strategies utilized by acquaintance rape survivors. *Journal of Applied Communication Research*, 31(4): 209 – 319.
- Gardner, R.M. 2005. *Practical Crime Scene Processing and Investigation*. Washington DC: CRC.
- Ghafouri, R., & Ofoghi, S. 2016. Trustworth and rigor in qualitative research. *International Journal of Advanced Biotechnology and Research*, 7(4), 1914-1922.

- Gillan, K., & Pickerill, J. 2012. The difficult and hopeful ethics of research on, and with, social movements. *Social Movement Studies*, 11(2), 133-143.
- Gliner, J.A., Morgan, G.A. & Leech, N.L. 2011. *Research Method in Applied Settings: An Integrated Approach to Design and Analysis*. 2nd edition. New York, USA: Tylor and Francis Group.
- Golder, S., Ahmed, S., Norman, G., & Booth, A. 2017. Attitudes toward the ethics of research using social media: a systematic review. *Journal of medical internet research*, 19(6), e7082.
- Gordon, S. F., & Collins, A. 2013. We face rape. We face all things: Understandings of gender-based violence amongst female students at a South African university. *African Safety Promotions Journal*, 11(2), 93–106.
- Gounden, M, 2016. Observing a Rape Crime Scene with the Intent to Identify Evidence. Masters dissertation available at: <https://www.uir.unisa.ca.za> [accessed on 15 June 2019].
- Gray, D.E. 2014. *Doing research in the real world*. Third edition. London, UK: Sage.
- Gribaldo, A. 2019. *Burden of Intimate Partner Violence: Evidence, Experience, and Persuasion*, Political and Legal Anthropology Review.
- Hallman, K. K., Kenworthy, N. J., Diers, J., Swan, N., & Devnarain, B. 2015. The shrinking world of girls at puberty: Violence and gender-divergent access to the public sphere among adolescents in South Africa. *Global Public Health*, 10(3), 279–295.
- Hancock, D.R & Algozzine, B. 2016. *Doing Case Study Research: A Practical Guide for Beginning Researchers*. 3rd edition. New York: Teachers College Press.
- Harrell, M.C., Bradley, M.A. 2009. Data Collection Methods Semi-Structured Interviews and Focus Groups. Available at: <https://apps.dtic.mil/dtic/tr/fulltext/u2> [accessed on: 29 July 2019].

- Jewkes, R. 2017. "Rape Justice In South Africa: A Retrospective Study Of The Investigation, Prosecution And Adjudication Of Reported Rape Cases From 2012." Pretoria, South Africa. Gender and Health Research Unit, South African Medical Research Council. <http://www.mrc.ac.za/sites/default/files/files/2017-10-30/RAPSSAreport.pdf> [Accessed 25 July 2019].
- Johnson, D., Peterson, J., Sommers, I., & Baskin, D. 2012. Use of Forensic science in investigating crimes of sexual violence. *Violence Against Women*, 18(2), 193-222. doi: 10.1177/1077801212440157.
- Julian, R., Kelty, S., & Robertson, J. 2012. Get it right the first time: Critical issues at the crime scene. *Current Issues in Criminal Justice*, 24(1), 25-38.
- Kane-Berman, J. (ed) 2010. South Africa Survey 2009/2010 SA Institute of Race Relations, 2010: 647 Johannesburg, South Africa.
- Kalbing, N. 2015. The gender of crime and punishment in southern Africa: The death penalty for violence against African women in Natal and southwest Africa, 1845-1954. Available at: <https://repository.upenn.edu/dissertations/AAI3722750> [accessed on 2 February, 2022].
- Koelsch, L. 2013. Reconceptualizing the Member Check Interview. *International Journal of Qualitative Methods*. 12. 168-179. 10.1177/160940691301200105.
- Korstjens, I & Moser, A. 2018. Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24:1, 120- 124, DOI: 10.1080/13814788.2017.1375092 [accessed on 28 September 2020].
- Khumalo, G. 2007. Sex crimes bill partly enacted. Available at: <http://www.southafrica.info/services/rights/sexual-offences-bill3.htm> [accessed on 12 March 2022].
- Kumar, R. 2014. *Research Methodology*. London: Sage.
- Layman, M.D. 2013. *Criminal investigation*. Boston, Mass.: Pearson.

- Leedy, P.D. & Ormrod, J.E. 2010. *Practical Research: planning and Design*. New Jersey: Pearson.
- Levitt, H.M., Motulsky, S.L., Wertz, F.J., Morrow, S.L., & Ponterotto, J.G. 2017. Recommendations for designing and reviewing qualitative research in psychology: promoting methodological integrity. *Qualitative Psychology*, 4(1), 2–22.
- Lietz, C.A., Langer. C.L. & Furman. R. 2006. Establishing Trustworthiness in Qualitative Research in Social Work: Implications from a Study Regarding Spirituality. *Qualitative Social Work*, 5:441-458.
- Lochner, H. & Zinn, R. 2015. Crime scene investigation. Cape Town: Juta.
- Longman Dictionary for Contemporary English.1999. Available at: <https://www.ldoceonline.com/> [accessed on: 7 June 2019].
- LundResearchLtd.2012.Convenience sampling. Available at: https://www.betterevaluation.org/en/resources/overview/convenience_sampling [accessed on 12 October 2021].
- Machisa, M., Jina, R., Labuschagne, G., Vetten, L., Loots, L., Swemmer, S. & Meyersfeld, B. 2009. MRC: Quarter of men in South Africa admit rape, in the Mail and Guardian online. Available at: <http://www.mg.co.za> [accessed on 25 July 2019].
- Mail & Guardian. 2012. SCA ruling of Sexual Offences Act welcomed. Available at: <https://mg.co.za/article/2012-06-15-radebe-welcomes-sca-ruling/> [accessed on 12 March 2022].
- Malpass, C. 2018. Everything you need to know about contextual research. Available at: <https://uxdesignn.cc/everything-you-need-to-know-about-contextual-research-8bb806464d0c> [accessed on 28 June 2020].
- Maluleke, W., Mokwena, R.J & Olofonbiyi, S. A. 2019. An Evaluative Study On Criminalistics: Stock Theft Scenes. *International Journal of Business And Management Studies*, 11, (1).
- Manyema, M., Norris, S.A., Said-Mohamed, R., Tollman, S.T., Twine, R., Kahn, K., & Richter, L.M. 2018. The associations between interpersonal violence and

- psychological distress among rural and urban young women in South Africa. *Health & Place*, 51, 97–106.
- Maxwell, J. A. 2012. *Qualitative research design: An interactive approach*. London: Sage.
- McCombes, S. 2019. Understanding different sampling methods. Available at: <https://www.scribbr.com/methodology/sampling-methods/> [accessed on 27 June 2020].
- Mills-Fairweather C, Gruber, Z., Dartnall E., Mathews S., Abrahams N. & Nduna, M, 2013. Study on Violence Against Women in South Africa. Know your epidemic. Know your response.
- Mohajan, H.K. 2018. Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, 7 (01), pp. 23-48.
- Mohala, C. K. 2018. *An evaluation of the guidelines for the seizure of electronic devices*. Unpublished MA dissertation, Pretoria, University of South Africa.
- Mugo, F W.2019. Sampling research. Available at: www.indiana.edu/~educy520/sec5982/week_2/mugo02sampling.pdf [accessed on: 7 June 2019].
- Napolitano, S. 2019. Advantages and disadvantages of quantitative and qualitative research. Available at: <https://www.medicinanarrativa.eu/advantages-and-disadvantages-of-quantitative-and-qualitative-research> [accessed on 24 May 2021].
- Neuman, W. 2014. Social Research Methods Qualitative and Quantitative Approaches. *Open Journal of Philosophy*. 3 (4).
- Noble, H & Smith, J. 2015. Issues of validity and reliability in qualitative research. *Evidence based nursing*, 18: 34-35.
- Norris, J. M., Hecker, K. G., Rabatach, L., Noseworthy, T. W & White, D. E. 2017. Development and psychometric testing of the clinical networks engagement tool. *PLoS One*, doi:10.1371/journal.pone.017405.[accessed on 4 May 2021].

- Nowell, L.S., Norris, J.M., White, D.E., & Moules, N.J. 2017. Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*. 16(10).
- Ogle, R.R. 2012. *Crime Scene Investigation and Reconstruction* (3rd edition). New Jersey: Pearson Education.
- Orthmann, C. & Hess, K.M. 2013. *Criminal Investigation*. 3rd edition. New York: Delmar Cengage Learning.
- Osterburg, J.W. & Ward, R.H. 2010. *Criminal Investigation: A Method for Reconstructing the Past*. New Providence, NJ: LexisNexis.
- Paradis, E., O'Brien, B., Nimmon, L., Bandiera, G & Martimianakis, M.A. 2016. Design selection of data collection methods. *Journal of graduate medical education*. 8(2): 263-264.
- Paré, G., Kitsiou, S. 2017. *Methods for literature reviews*. In: F, Lau and C, Kuziemyk (eds). *Handbook of eHealth Evaluation: An Evidence-based Approach* [Internet]. Victoria (BC): University of Victoria. Available at: <https://www.ncbi.nlm.nih.gov/books/NBK481583/> [accessed August 12 2019].
- Pleacas, D. 2017. Introduction to Criminal investigation: processes, practices and thinking. Available at: <https://open.umn.edu/opentextbooks/textbooks/498> [accessed on 18 December 2021].
- Rahman, S. 2017. The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language “Testing and Assessment” Research: A Literature Review. *Journal of Education and Learning*, 6(1). Available at: <https://files.eric.ed.gov/fulltext/EJ1120221.pdf> [accessed on 25 September 2021].
- Ritchie, J., Lewis, J., Nicholls, C.M. & Ormston, R. 2014. *Qualitative research practice: A guide for social science students and researchers*. London: Sage.
- Sallee, M. W., & Flood, J. T. 2012. Using qualitative research to bridge research, policy, and practice. *Theory into Practice*, 51(2), 137-144.

- Saunders, M., Lewis, P. and Thornhill, A. 2016. *Research methods for business students*. 7th Edition, Pearson, Harlow.
- Sarvimäki, M. 2017. Labor market integration of refugees in Finland. *Nordic economic policy review*. 7 (1), 91–114.
- Sekaran, U. and Bougie, R. 2016. *Research methods for business: A skill-building approach*. 7th Edition, Wiley & Sons, West Sussex.
- Seelinger, K.T., Silverberg, H. & Mejia, R. 2011. The investigation and prosecution of sexual violence: Sexual violence & accountability project working paper series. Available at: <https://www.usip.org/sites/default/files/missing-peace/seelinger-the-investigation.pdf> [accessed on 02 February 2022].
- Shaler, P.J. 2012. *Principles of evidence*. 3rd edition. Amsterdam: Elsevier Press.
- Shenton, A.K. 2004. *Strategies for Ensuring Trustworthiness in Qualitative Research Projects*. *Education for Information*, 22:63-75.
- Showkat, N., Parveen, H. 2017. *Non-probability and probability sampling chapter*. Aligarh Muslim University.
- Sileyew, K.J. 2019. *Research design and methodology*. Available at: <https://www.intechopen.com/chapters/68505> [accessed on 12 October 2021].
- Smythe, D. 2015. *Rape unresolved: Policing sexual offences in South Africa*: Juta and Company Ltd.
- South Africa. 2007. *Sexual Offences and Related Matters Amendment Act 32 of 2007*. Pretoria: Government Printer.
- South African Police Service. 2015. *SAPS National Instruction 1 of 2015*. Pretoria: SAPS.
- South African Police Service. 2017. *Forensic manual for detectives*. Pretoria: SAPS.
- Surbhi, S. 2017. Differences between exploratory and descriptive research. Available at: <https://keydifferences.com/difference-between-exploratory-and-descriptive-research.html> [accessed on 3 October 2021].
- Taherdoost, H. 2016. Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)*, 5, 18-27.

- The CrimeSceneInvestigatorEdu.org .2021. What is a CSI- Crime Scene Investigator?
Available at: <https://www.crimesceneinvestigatoredu.org/what-is-a-csi/> [accessed on 15 December 2021].
- Timonen V, Foley G & Conlon, C. 2018. Challenges When Using Grounded Theory: A Pragmatic Introduction to Doing GT Research. *International Journal of Qualitative Methods*. doi:[10.1177/1609406918758086](https://doi.org/10.1177/1609406918758086) [accessed on 24 August 2021].
- Tolsi, N. 2013. SAPS give Pistorius's defence the lead. Mail and Guardian [online], 21 February. Available at: <http://www.theguardian.co.za> (accessed on 23 July 2019).
- Trochim, W.M.K. & Donnelly, J.P. 2008. The Research Methods Knowledge Base. 3rd Edition, Atomic Dog, Mason, 56-65.
- United Nations Population Fund 2005. State of World Population. Available @ www.unfpa.org [Accessed 20 July 2019].
- UNODC, 2009. Crime Scene and Physical Evidence Awareness for Non-Forensic Personnel. Available at: <https://www.unodc.org/> [accessed on 15 July 2019].
- University of South Africa. 2007. *Policy on research ethics*. Pretoria: University of South Africa.
- Van Der Westhuizen, S. 2011. *Managing Investigative Unit*. 2nd edition. Springfield: Thomas Publisher.
- Van Graan, J. & Budhram, T. 2015. Forensic investigation of crime, regularities, and transgressions. In *Forensic investigation legislation principles and investigative practice*. Edited by R.J. Zinn & S.I. Dintwe. Cape Town: Juta.
- Watson, J. 2015. Rape: Police usually fail victims. Mail and Guardian [online]. Available at: <http://www.theguardian.co.za> [Accessed on 23 July 2019].
- Wisdom, J. & Creswell, J.W. 2013. *Mixed methods: integrating quantitative and qualitative data collection and analysis while studying patient-centered medical home models*. Rockville, MD: BMJ Publishing Group.
- World Health Organization, 2007. Sexual Violence Research Initiative (SVRI).
Rape: How women, The Community, and The Health Sector Respond.
Switzerland: WHO.


World Health Organization. 2012. Understanding and addressing violence against women. Available at:

https://apps.who.int/iris/bitstream/handle/10665/77432/WHO_RHR_12.36_eng.pdf [accessed on 2 February, 2022].

Zikmund, W., Babin, B., Carr, J. & Griffin, M., 2013. Business research methods. 9th ed. Mason, OH: South-Western Publishers.

Zinn, R. & Dintwe, S. 2015. *Legislative principles and investigative practice*. Cape Town: Juta.

ANNEXURE A: SOUTH AFRICAN POLICE SERVICE PERMISSION TO CONDUCT RESEARCH

<i>South African Police Service</i>		<i>Suid-Afrikaanse Polisie</i>	
Privaatsak Private Bag X94	Pretoria 0001	Faks No. Fax No.	(012) 334 3518
Your reference/U verwysing:		THE HEAD: RESEARCH SOUTH AFRICAN POLICE SERVICE PRETORIA 0001	
My reference/My verwysing: 3/34/2			
Enquiries/Navrae:	Lt Col Joubert AC Thenga (012) 393 3118 JoubertG@saps.gov.za		
Tel:			
Email:			
Ms SJ Ubisi UNIVERSITY OF SOUTH AFRICA			
RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: EXPLORING THE COLLECTION OF PHYSICAL EVIDENCE AT RAPE CRIME SCENES IN MAMELODI: UNIVERSITY OF SOUTH AFRICA: MASTERS DEGREE: RESEARCHER: SJ UBISI			
The above subject matter refers.			
You are hereby granted approval for your research study on the above mentioned topic in terms of National Instruction 1 of 2006.			
Further arrangements regarding the research study may be made with the following offices:			
The Provincial Commissioner: Gauteng:			
<ul style="list-style-type: none">▪ Contact Person: Col Peters▪ Contact Details: (011) 547 9131▪ Email Address : petersNS@saps.gov.za▪ Contact Person: Capt Nevumbani▪ Contact Details: (011) 547 9131▪ Email Address : nevumbanivj@saps.gov.za			
The Divisional Commissioner: Detective and Forensic Service:			
<ul style="list-style-type: none">▪ Contact Person: Col O Olivier▪ Contact Details: 082 947 8758▪ Email Address: OlivierOtis@saps.gov.za			

RE: PERMISSION TO CONDUCT RESEARCH IN SAPS: EXPLORING THE COLLECTION OF PHYSICAL EVIDENCE AT RAPE CRIME SCENES IN MAMELODI: UNIVERSITY OF SOUTH AFRICA: MASTERS DEGREE: RESEARCHER: SJ UBISI

Kindly adhere to paragraph 6 of our attached letter signed on the 2021-04-23 with the same above reference number.



MAJOR GENERAL

**THE HEAD: RESEARCH
DR PR VUMA**

DATE: 2021-08-11

ANNEXURE B: UNIVERSITY OF SOUTH AFRICA ETHICAL CLEARANCE CERTIFICATE



UNISA 2021 ETHICS REVIEW COMMITTEE

Date: 2021:10:19

ERC Reference No.: ST68

Dear Ms Sipiwe Jane Ubisi

Name: SJ Ubisi

**Decision: Ethics Approval from
2021:10:19 to 2024:10:19**

Researcher: Ms Sipiwe Jane Ubisi

Supervisor: Dr DC Pheiffer

Exploring the collection of physical evidence at rape crime scenes in Mamelodi

Qualification: MA 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 19 October 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.



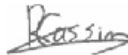
University of South Africa
Pretter Street, Makhlenek Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

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 **2024:10:19**. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number ST68-2021 should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.

Yours sincerely,



Prof R Cassim
Chair of CLAW ERC
E-mail: cassir@unisa.ac.za
Tel: (012) 429-6780



Prof OJ Kole
Acting Executive Dean: CLAW
E-mail: koleoj@unisa.ac.za
Tel: (012) 429-8305

ANNEXURE C: TURN-IT-IN REPORT

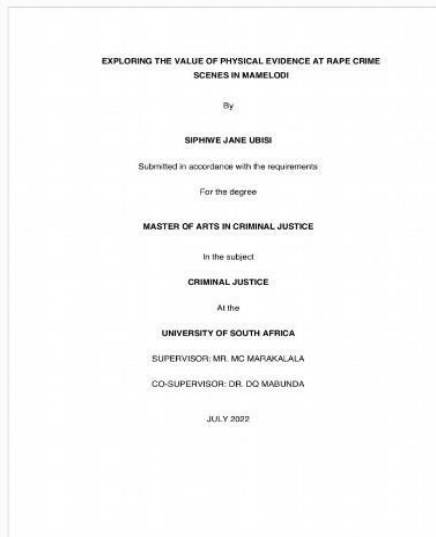


Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

Submission author: Siphwe Jane Ubisi
Assignment title: Revision 3
Submission title: Edited Document 2
File name: EDITED-UBISI_1.pdf
File size: 1.25M
Page count: 116
Word count: 35,224
Character count: 182,175
Submission date: 24-Oct-2022 06:27PM (UTC+0200)
Submission ID: 1934100176



ANNEXURE D: EDITOR LETTER

PINNACLE RESEARCH CONSULTANTS (PVT) LTD



Reg: 2014/142678/07

91 Fleet Street

East London 5601

Cell: 0658687861

Email: gblackwave@gmail.com

14 October 2022

Dear,

This letter serves to confirm that we proofread and edited your Master's dissertation with the following title: *Exploring the value of physical evidence at rape crime scenes in Mamelodi.*

Your work was independently proofread for grammar and spelling mistakes by an editor. The Corel WordPerfect Version 7 application was also used to run a spelling, grammar, style, and contextual search to make sure we eliminated as many errors as possible.

We sincerely hope you were satisfied with our work. Please do not hesitate to contact us if you have any queries or need any clarification.

Kind Regards



Gilbert Pindano (LLM, PhD)

Academic Research Consultant