THE EVALUATION OF EMERGENCY MENTAL HEALTH PRACTICES IN THE TREATMENT OF MENTAL HEALTH PATIENTS AT EMERGENCY SCENES IN SOUTH AFRICA

by

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I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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19 February 2022

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Dedication

To Monsignor Vincent Hill, a Catholic Priest, little did I know that the seed sown one Sunday afternoon many years ago, would become the driving passion in my life – a passion to find a way to make a difference in the lives of the mental health patient

Acknowledgements

I would like to thank:

- Alida, my unofficial supervisor who supported me during those difficult days.
- my participants for sharing part of their world with me.
- the Emergency Medical Services companies for allowing me to conduct the study within its structures.
- Helena and Willem for their guidance and positive approach towards my studies.

I'm a medic, but nobody taught me how…

"I'm a medic, but nobody taught me how to sit an 86-year-old gentleman down to tell him his wife of 65 years has died in her sleep.

Nobody taught me how to watch as the desire for life leaves his eyes the moment, I break the earth-shattering news that would change his life forever.

Nobody taught me how to accept a torrent of abuse from a complete stranger, just because they have been drinking all day and want a lift home.

Nobody taught me how to reason with the aggressive patient I've just met; overdosed but needing my help to breathe.

Nobody taught me how to talk to someone so depressed that they have just slit their own wrists, panicked, and called for help.

Nobody taught me how to respond when they turned to me and said, "I can't even get suicide right".

Nobody taught me how to bite my tongue when I went 2 hours over the end of my shift for someone who'd been 'generally unwell' for 24 hours.

Nobody taught me how to accept that I would miss out on things other people take for granted; birthdays, Christmas day, meals at normal times of the day, sleep.

Nobody taught me how to hold hands with a dying person as they take their last breath, how to hold back the tears because it's not my grief.

Nobody taught be how to keep a straight face whilst a young man explains exactly what happened to the end of his hoover.

Nobody taught me how to act when a patient pulls a knife on me.

Being a medic is so much more than swooping in and saving lives; it's about dealing with the most unique, challenging experiences and just going home at the end of the shift, being asked 'how was your day' and replying, 'fine thanks'.

Being a medic is about constantly giving a bit of yourself to every patient, because although it's our 5th patient of the day and we can't remember their name, it's their first ambulance, their loved one, their experience.

It's about the bits that nobody taught me how…

It's about providing pain relief and reassurance to a 90-year-old lady who's fallen and hurt her hip, and despite all the pain she turns and says: "Thank you, how are you?"

It's about a hug that you give someone on Christmas Day because they haven't spoken to anyone for days, they have no relatives or companions, but you've brightened up their day.

It’s about climbing in the car next to someone and saying: ‘Don’t worry, we’ll have you out of here in just a moment’.

It’s about everything that we do that the media doesn’t publicise.

It’s about knowing that we couldn’t attend to the dying man because we were dealing with a drunk, who then assaulted one of us.

I’m a medic, but nobody taught me how…"

Source: Unknown

Abstract

Background: Emergency care providers regularly manage mental health patients in a pre-hospital environment. The effective treatment of the mental health patient is dependent upon the competency of the emergency care provider. Experience of the researcher both as an emergency care provider and trauma counsellor has proven that most emergency care providers, including himself do not have the competency needed to manage a mental health patient.

Aims: To investigate the competency of emergency care providers to manage a mental health patient during a mental health emergency.

Setting: Emergency care providers from four private ambulance services, who are registered as independent practitioners and are operational within the boundaries of the Tshwane Metropole.

Methods: The competency theory as the theoretical framework was chosen and semi structured interviews were conducted to establish the level of competency of the independent emergency care providers to manage mental health patients. The competency theory constructs of knowledge, skills and attitudes and the effect of on-scene behaviour of the emergency care providers were investigated through the mode of semi-structured interviews, which were recorded, transcribed, and subsequently analysed using the competency theory as the theoretical framework.

Results: A total of 14 participants consented to participate in the study. It was found that the participants were not competent in managing mental health patients. There was an acknowledgement by the participants of these shortcomings. This made the likelihood of the acceptance of a pre-hospital mental health assessment protocol highly likely, however, there was a proviso that the pre-hospital mental health assessment protocol must be South Africanised to accommodate the multicultural diversity that is South Africa.

Conclusion: Participants acknowledged that they did not have the competency to manage mental health patients in a pre-hospital environment and that it was highly likely that the implementation of a pre-hospital mental health assessment protocol would be accepted.

Keywords: ambulance service(s), attitude, behaviour, competency theory, emergency mental health, Health Professions Act, No. 56 of 1974, knowledge, Mental Health Care Act, No. 17 of 2002, mental health patient, National Health Act, No. 61 of 2003, pre-hospital, pre-hospital skills, prehospital skills.

Definition of terms

- **Advanced Life Support (ALS)** means the level of care provided by an emergency care provider in accordance with the Advanced Life Support scope of practice, as determined from time to time by the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. An Advanced life Support practitioner is defined as an "independent practitioner".
- **Ambulance Emergency Assistant (AEA)** means a six-month certificate course in emergency medical care and subsequent registration as Ambulance Emergency Assistant (AEA) with the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. An Ambulance Emergency Assistant is registered as an "intermediate life support" practitioner and is defined as an "independent practitioner".
- **Attitude** means a set of beliefs, behaviours, and emotions directed towards a particular person object or event. Attitudes can have a powerful influence over behaviour and are often the result of the individuals experience or upbringing.
- **Basic Ambulance Assistant (BAA)** means a six-week certificate course in emergency medical care and subsequent registration as Basic Ambulance Assistant (BAA) with the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. A Basic Ambulance Assistant is an entry level emergency care provider and is defined as a practitioner requiring adequate supervision. A "supervised practitioner" may only treat a patient under the direction of an "independent practitioner".
- **Bachelor Degree: Emergency Medical Care (B. EMC)** means a four-year degree in emergency medical care and subsequent registration as an Emergency Care Practitioner (ECP) with the Health Professions Council of South Africa in terms of the Health

Professions Act, No. 56 of 1974. A Bachelor Degree: Emergency Medical Care practitioner is registered as an "advanced life support" practitioner and is defined as an "independent practitioner".

- **Competency** means the ability to affectively treat a mental health patient through the judicious use of knowledge, skills, attitudes and on-scene behaviour, thereby ensure that the mental health patient is managed and transported to the most appropriate medical or mental health facility.
- **Emergency care provider** refers collectively to emergency care providers, who are registered as "independent practitioners" and practice within the Advanced (ALS), and Intermediate Life Support (ILS) scope of practice as determined from time to time by the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. For the purpose of this research, the Basic Life Support (BAA qualification) is **excluded** as they are subject to supervisory practice and may not treat patients without adequate supervision.
- **Emergency Medical Service(s) (EMS)** means an organisation that is dedicated, staffed, and equipped to operate an ambulance, medical rescue vehicle or medical response vehicle registered in terms of the Emergency Medical Services Regulations 1320 (Emergency Medical Services Regulations [EMSR], 2017).
- **Emergency mental health scenes** means where the mental health patient requires the assistance of an emergency care provider to diagnose, treat, manage and transport where necessary a patient to the most appropriate medical or mental health facility when the patient is encountering a mental health episode and cannot care adequately for themselves and obtain assistance without this assistance.
- **Health Professions Act (HPA)** means the Health Professions Act, No. 56 of 1974.

- **Health Professions Council of South Africa (HPCSA)** means the body established in terms of section 2 of the Health Professions Act, No. 56 of 1974.
- **Independent practitioner** means the practising of emergency medicine independently, without the supervision of another health practitioner. For the purpose of this research, Advanced (ALS) and Intermediate Life Support (ILS) practitioners formed the cohort.
- **Intermediate Life Support (ILS)** means the level of care provided by an emergency care provider in accordance with the Intermediate Life Support scope of practice, as determined from time to time by the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. An Intermediate life Support practitioner is an "independent practitioner".
- **ITLS** means the International Trauma Life Support certification, which is designed for emergency care providers who are the first to evaluate and stabilise the trauma patient. The course provides complete training in the skills needed for rapid assessment, resuscitation, stabilisation, and transportation of trauma patients and is endorsed by the American College of Emergency Physicians (ACEP) since 1986.
- **Knowledge** has various connotations such as core, declarative, generic, personal, procedural, and tacit. Application of knowledge is dependent upon its application within the specific mental health scene exposure that is encountered.
- **Medical Officer (MO)** means a medical practitioner or B. EMC qualified emergency care provider of the emergency medical service provider, who manages all aspects related to patient care, including acting as a reference as a clinical advisor. Such appointment is detailed in Emergency Medical Services Regulations, (EMSR, 2017) provides for the appointment of a supervising medical practitioner (Section 4 (v111), pg. 70)

- **Mental health** means the general functioning of the individual at an acceptable level with regards to their behaviour, psychological and emotional wellbeing.
- **Mental health patient** means a patient who has a mental illness or mental health disorder which generally affect their mood, thinking or behaviour and covers a wide range of mental health conditions.
- **Mental health episode** means any occurrence or intensification of a mental health illness where the mental health patient is requiring external assistance of an emergency care provider to receive the appropriate treatment.
- **National Diploma: Emergency Medical Care (N. Dip EMC)** means a two-year degree in Emergency Medical Care and subsequent registration as a paramedic (ANT) with the Health Professions Council of South Africa in terms of the Health Professions Act, No. 56 of 1974. A National Diploma: Emergency Care practitioner is registered as an "advanced life support" practitioner and is defined as an "independent practitioner".
- **National Qualifications Framework (NQF) means** the National Qualifications Framework Act 67 of 2008.
- **Objective Structured Clinical Examination (OSCE)** means a multi-station, clinical skills assessment method that is based on objective testing and direct observation of student performance.
- **Paramedicine** means the occupational field of emergency care providers in the pre-hospital environment.
- **Patient report form (PRF)** means the record kept for a patient for the duration of his or her treatment by the emergency care personnel.
- **Practitioner** means a person registered under the Health Professions Act, No. 56 of 1974 and, in the application of rules 5, 6 and 9 of these rules, also a juristic person exempted from registration in terms of section 54A of the Health Professions Act.

- **Refusal of further Hospital Treatment (RHT)** means the documentation that a patient signs or where the emergency care provider documents the patient's acknowledgement that they do not want and further treatment, or transportation to an appropriate medical or mental health facility by the emergency care provider.
- **Skills** means the capacity to use learnt subject matter knowledge effectively and readily in the performance of complex tasks that are consistent with the competent treatment of a mental health patient.
- **South Africanised / Africanisation** means the incorporation of the South African multicultural diversity into local or international works to cater for the differences in mental health characteristics found throughout South Africa.
- **South African Qualifications Authority (SAQA)** means the South African Qualifications Authority Act, 1995 (Act 58 of 1995).
- **Supervision (Supervisor)** means the acceptance of liability by a supervising practitioner for the acts of another practitioner who is not yet qualified to function as an "independent practitioner".
- **Trauma counsellor** means an individual who renders counselling during a trauma situation.
- **Treatment protocols** means a set of formal procedures that are used in mental health systems, which contain rules which guide the emergency care provider in treating the mental health patient.

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1.1 Introduction

In November 2005, an emergency medical service (EMS) provider launched a trauma support initiative. The intention was for the trauma counsellors to assist the emergency care providers with the management of patients who required psychosocial support on an emergency scene. In the initial stages of the trauma support initiative, all trauma scenes where there was a fatality, or where a life-threatening injury had occurred, or there was a need to support the family, there was an operational requirement for a trauma counsellor to be dispatched. Over time, as the initiative developed, the trauma counsellors took on more aspects of the management of emergency scenes once the initial medical emergency had been dealt with. The interventions of the trauma counsellors were utilised, especially where there was a patient death.

The researcher's involvement in the trauma support initiative was as a trauma counsellor, focussing predominately on the support of the family in the event of there being a fatality, serious injury, or an unstable mental health patient, with crisis management dominating the emergency and post emergency interactions. The development of the initiative relied on the mutual respect of the abilities of the emergency care providers and trauma counsellors. The model that the researcher adopted was guided by previous training as an Emergency Services Chaplain by the Emergency Services Chaplaincy Southern Africa (Meulenbeld, 2001). A role which the researcher had performed within the Tshwane Emergency Services for more than five years, before joining this trauma support initiative. The researcher then qualified as a basic ambulance assistant (BAA) and subsequently as an intermediate life support (ILS) practitioner. The researcher has more than twenty years' experience in EMS, initially as a trauma counsellor,

and subsequently as an emergency care provider fulfilling the first responder role until an ambulance service arrives on the scene of the emergency.

During this involvement in the EMS, the researcher identified a rather disturbing practice where a specific group of patients would be allowed to sign a Refusal of further Hospital Treatment (RHT) on scene. These patients did not appear to present with a medical illness or traumatic injury, and were often diagnosed by emergency care providers as psychiatric or fluttering eye syndrome (FES) patients. It appeared that these mental health patients only received treatment when they required hospitalisation due to a traumatic injury or known medical illness. The emergency care providers often used the caveat, the patient was above the age of 18 years, and the patient had refused treatment, accordingly they cannot go against the patient's expressed wishes and treat the patient. The emergency care providers were also of the opinion that they could be held responsible by the patient because they wanted to die but was prevented from dying because of unwanted treatment. This opinion was more evident when the patient had self-harmed in a parasuicidal or suicidal attempt, and were life-threatening overdoses, or life-threatening injuries were evident. Furthermore, various comments and assumptions about mental health patients were made including: that they were looking for sympathy; wanting attention from their family; great actors pretending to be suicidal; or that they were trying to spite their family by wasting their time while knowing that they were not going to do any harm to themselves. The term FES was often used as a diagnosis where it was thought by the emergency care provider, that the patient was acting out a fake condition; often a source of much hilarity amongst the crews. The researcher, once qualified as an ILS practitioner, often encountered similar situations where he was unsure on how to manage the mental health patient.

In South Africa, I could not identify a defined training programme within pre-hospital medical training that teaches the emergency care provider how to diagnose, treat, manage, and transport a mental health patient to a the most appropriate medical or mental health facility. The Advanced Life Support Practitioner (ALS) protocol, (HPCSA – Professional Board for Emergency Care [HPCSA-PBEC], 2006a), and the Intermediate Life Support Practitioner (ILS) protocol (HPCSA – Professional Board for Emergency Care [HPCSA-PBEC], 2006b) do not provide clarity on the mental health emergencies, neither was clarity found in the mental health module from the University of Johannesburg (Van Tonder, 2019).

From my experience, knowledge of the treatment of a mental health patient has been imparted by more experienced emergency care providers who did not necessarily treat mental health patients as lawfully required as much of their knowledge had been acquired from peers, EMS providers' medical officers, medical doctors, or through trial and error. The researcher can still recall a frightening episode where he treated a young patient who was subsequently diagnosed with acute dystonia, in fact, none of the emergency care providers who were on scene had any idea of what they were facing. The impact of these types of mental health patients has the potential of not only scaring the emergency care provider but possibly imparting a negative attitude towards these types of patients, resulting in finding the most appropriate method to rid themselves of the patient. The signed or documented RHT is the quickest way of making the patient another person's problem.

1.2 Literature review

The literature review is guided by the need to understand what is the experience of emergency care providers in the diagnosis, treatment, management and transportation of a mental health patient, who is experiencing a mental health emergency.

1.2.1 Mental health emergencies

The emergency care provider is responsible for the diagnosis, treatment, management, and transportation, where necessary of a mental health patient to the most appropriate facility according to the Health Professions Council of South Africa Clinical Practice Guidelines (HPCSA-CPG) (Health Professions Council of South Africa [HPCSA], 2018). The following mental health emergencies namely, deliberate self-harm, aggressive patients, and misuse of psychiatric medications account for most mental health patient interventions encountered by emergency care providers, and usually require immediate intervention due to the injurious nature of the episode (Ani et al., 2017; Niehaus et al., 2005; Rees et al., 2017). Some of the mental health emergencies regularly encountered by the emergency care providers will now be discussed to explain the importance of properly managing a mental health patient.

1.2.1.1 The impact of deliberate self-harm

Death caused by self-harm resulting in death, is the 13th leading cause of deaths in the world, with the South African suicide rates being 18.7 / 100 000 for men, and 4.7 / 100 000 for women in 2016, and an estimation by the World Health Organization of one million deaths annually (Evans et al., 2018). Statistics vary, with Rees et al. (2017) reporting that 0.7% of patients attending hospital for self-harm episodes in 1997 / 1998 in the United Kingdom committed suicide within the following year, and 3% within 15 years. The estimates for self-harm admissions to South African hospitals being between 10% to 12% for non-fatal suicide attempts, with suicide related deaths in South Africa ranging from 8% to 10% of all non-natural deaths (Schlebusch, 2005). It was found in Kwazulu Natal accident and emergency units that 10% of those who commit suicide had been seen by a health care professional within the preceding two months but had not been identified or assessed as a suicide risk (Ani et al., 2017). The findings of Ani et al. (2017) supported the research done in the Waterberg District of

Limpopo by Mpiana et al. (2004), where it was found that a number of patients who committed suicide successfully, had attended an accident and emergency unit in the preceding months. Ani et al. (2017) concluded that there were two main factors leading to deliberate self-harm not being diagnosed correctly, one being partly due to the influx of patients presenting themselves at the accident and emergency unit on a daily basis, and the other being the lack of accepted standard screening tools.

1.2.1.2 The impact of the aggressive patient

The aggressive patient presents the emergency care provider with many diagnostic challenges. Two most common encountered risk factors for aggressive behaviour are a history of aggression, or a recent excessive alcohol intake. Apart from aggressive behaviour due to an aggressive nature or recent excessive alcohol intake, other conditions can also present with aggressive behaviour under suitable conditions (Cherry, 2018; Niehaus et al., 2005; Ramsden, 2013; Sue et al., 2010). Different aggressive behavioural episodes for mental health conditions, including behavioural disorders, delirium, dementia, intermittent explosive disorders, mental retardation, psychotic disorders, personality disorders (such as paranoid, antisocial, borderline, and narcissistic), and adjustment disorders characterised by behavioural disturbances are described by Cherry (2018), Niehaus et al. (2005), Ramsden (2013), and Sue et al. (2010).

1.2.1.3 The impact of the misuse or unwanted side effects of psychiatric medications

Some prescribed antipsychotic medications can cause drug-induced psychiatric emergencies which may lead to a life-threatening medical emergency if not treated. Three of these conditions are described and can be considered serious and require immediate intervention. The first condition is an accidental overdose or poisoning of prescribed antipsychotic medications and sometimes serotonin antidepressants which can give rise to the condition

called akathisia, if left untreated can lead to suicide (Niehaus et al., 2005). A second condition is acute dystonia, which is caused by the side effects of antipsychotic medications, and presents as sustained muscle contractions, muscle spasms and may lead to respiratory distress when the laryngeal muscles are involved (Niehaus et al., 2005). Opioid withdrawal induced acute dystonia is not directly related antipsychotic medications but still requires emergency medical management (Nath et al., 2019). A third condition is neuroleptic malignant syndrome (NMS) and is a potentially lethal side-effect of antipsychotic medication. The tell-tale signs are usually a deterioration of psychosis and delirium, and if not diagnosed has a very high mortality rate of approximately 20% (prevalence 0.02% to 2.4%) (Niehaus et al., 2005).

1.2.2 Informed consent

The Health Professions Act, No. 56 of 1974, Mental Health Care Act, No. 17 of 2002, and the National Health Act, No. 61 of 2003 obligates the emergency care provider to obtain informed consent from the mental health patient before treatment can commence (Health Professions Act, No. 56 of 1974 [HPA], 1974; Mental Health Care Act, No. 17 of 2002 [MHCA], 2002; National Health Act, No. 61 of 2003 [NHA], 2003; van Huyssteen, 2016; Zwart, 2015). Once informed consent is obtained, the emergency care provider is required to act reasonably competent when treating the mental health patient (HPCSA, 2018), however, it is often the case that the mental health patient is not capable of giving informed consent.

1.2.3 Mental health diagnostic deficiencies

Mental health patients are creating an ever-increasing challenge worldwide for emergency care providers. Research into Australian and New Zealand ambulance procedures, as well as guidelines set by the World Health Organization and the World Federation of Mental Health (Shaban, 2006), concluded that the current treatment practices of mental health patients rely on

the emergency care provider's tacit knowledge. Tacit knowledge is based upon the emergency care provider's own professional judgement developed through his experience. This results in vast differences in the assessment and treatment of mental health patients between newly qualified emergency care providers, experienced emergency care providers and emergency care providers in general (Parsons, 2014; Shaban, 2011).

To bring the mental health diagnostic deficiencies within South Africa into perspective, Mothibi et al. (2019), in their analysis of emergency care providers who were operational within the Free State, South Africa reported that over 85% of the emergency care providers had treated a mental health emergency, with the majority (64%, n = 102; N = 159) acknowledging that they were not confident that they had adequately treated their patient due to a lack of knowledge of mental health. It was further found by Mothibi et al. (2019), that almost 50% of the emergency care providers were not able to identify a number of mental health illnesses that could occur on an emergency mental health scene.

Mothibi et al. (2019) estimated that 36% of the emergency care providers correctly diagnosed the mental health patient, against 64% who did not adequately treat a mental health patient, based upon their own admission. These estimates are similar to those of Pajonk et al. (2001), who estimated that 39% of mental health emergency cases in Germany were correctly diagnosed by German emergency care providers.

1.2.4 Refusal of further Hospital Treatment (emergency care provider initiated)

In the Cape Town Metropole, Western Cape, research into the emergency care providers' decision to transport a patient who had attempted suicides and refusing care found that it was more likely for the treating emergency care provider to allow the patient to sign or document a

RHT on the patient report form, rather than transporting the patient to a mental health care facility (Evans, 2015; Evans et al., 2018). One of the factors identified for the treating emergency care provider to opt for the RHT, is the lack of training in the management and pre-hospital decision making of mental health emergencies (Evans, 2015; van Huyssteen, 2016; Zwart, 2015).

1.2.5 Admission criteria

The MHCA details four different categories of admission for mental health patients (MHCA, 2002; National Department of Health [NDOH], 2003; van Huyssteen, 2016; Zwart, 2015). The first category is voluntary admission, where the mental health patient is capable of giving informed consent to voluntary admission and treatment. The voluntary mental health patient is ill, needs help and has the competency to make an informed choice and consents to treatment and wants to be helped (MHCA, 2002; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015).

The second category is assisted admission, where the patient is suffering from a mental health condition and requires treatment. This patient is a danger to self and / or to others but is not competent to make an informed choice and is incapable of giving informed consent. However, this mental health patient does not refuse treatment and wants to be helped, but does not know how to go about obtaining treatment and needs assistance from the emergency care provider to obtain treatment (MHCA, 2002; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015).

The third category is the involuntary mental health patient who refuses treatment. This mental health patient is a danger to himself / herself and / or others where care, treatment and hospitalisation is necessary for the protection of the patient and / or others. This mental health patient does not have the competency to make an informed choice and may be admitted without

consent (MHCA, 2002; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015). The assistance is described in the MHCA where the emergency care provider can request assistance from the South African Police Services (SAPS). Section 33 of the MHCA is where the emergency care provider may request the assistance of the SAPS in escorting the patient to the appropriate medical of mental health facility. The SAPS police officer must ensure that the mental health patient fulfils the criteria of Section 33 before allowing the transfer of the patient to the most appropriate medical or mental health facility. The South African Police Services (SAPS) training guidelines outlines the police officer's criteria which must be met before allowing the admittance of a mental health patient as "involuntary mental health care user". The mental health patient must meet **all** the following criteria before being admitted to hospital for treatment:

- "a person with a mental illness,
- who is not capable of consenting to treatment,
- who REFUSES TREATMENT:
- and who is a DANGER to themselves or to others, or who
- needs treatment in order to protect the person's financial or personal reputation."

(MHCA, 2002; NDOH, 2003, p. 19).

The SAPS police officer is empowered to perform such actions in terms of Chapter 5, Section 40 of the Act (MHCA, 2002; Ndou, 2015; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015).

The last category is the emergency admission of a mental health patient who refuses treatment or is not conscious. Any delay in treatment may result in irreversible harm or death to the mental health patient, infliction of serious harm to others, or cause loss of, or serious damage to property belonging to himself / herself or others. The mental health patient is not competent

to give informed consent and may be admitted without consent. This last category includes the suicidal patient who has ingested significant amounts of substances in an attempt to kill themselves and when assessed by the emergency care provider is adamant that they will not consent to treatment. However, intervention and treatment are of paramount importance to ensure the saving of the life. Intervention by the emergency care provider, based on the assumption that the suicide attempt is the result of the patient suffering from a mental illness which has impaired the patient's judgement is the recommended course of action (MHCA, 2002; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015). Substantive proof is provided by Schmidt and Zechnich (1999, as cited in van Huyssteen, 2016), that the assumption of a suicidal patient having an underlying mental illness is usually the case. It was described by Schmidt and Zechnich, that 90% of suicide post-mortem psychological reviews associated mental illness such as psychosis, depression or substance abuse, as the primary cause of the suicide. The emergency care provider is acting beneficially in preventing self-harm to the patient who does not have the capability of understanding their circumstances and therefore cannot make a rational decision on consenting to treatment.

1.2.6 The attitude of emergency care providers towards mental health patients

The emergency care providers begin forming an attitude, either positive, or negative towards a mental health patient whilst responding to the emergency scene greatly influenced the approach towards mental health patient treatment upon arrival on the scene (Rees et al., 2018). The patient's presentation, surroundings and the perceptions of the mental health patient's illness contribute towards the development of the attitude of the emergency care provider (Prener & Lincoln, 2015).

There are negative attitudes towards many of the mental health patients, however, the highest occurrence focussed on the emergency care provider and their relationship towards suicidal patients. These identified attitudes included negative feelings in that these patients were often seen as not deserving treatment because of their disrespect for their own life. Other contributing factors towards the adverse attitudes of emergency care providers were also noted, including the emergency care providers experiencing a sense of powerlessness as the patient may attempt suicide again as well as the ineffectiveness in treating of the patient as the self-harm injuries are often of such a nature that it will result in subsequent death no matter the intervention (Evans, 2015; Prener & Lincoln, 2015; Rees et al., 2018).

1.3 The research problem

From the researcher's experience, he became aware of negative attitudes amongst emergency care providers towards mental health and mental health patients. The researcher's assumptions are based on personal experience as a trauma counsellor and as an ILS practitioner, that it is due to a lack of mental health knowledge and legislation that leads to repercussions in the treatment of mental health patients. All of these could lead to either incorrect diagnosis and treatment, or no-treatment at all. In addition, the researcher's experience in the pre-hospital field led to the realisation that the attitudes of emergency care providers towards mental health patients also impacted on their willingness to treat mental health patients. The literature review shows that the researcher is not alone, as the literature shows that emergency care providers have their own concerns about treating mental health patients. These concerns range from perceived elements of danger when treating a mental health patient, through to a lack of relevant knowledge of mental health conditions, and legislation (MHCA, 2002; NDOH, 2003; van Huyssteen, 2016; Zwart, 2015) which often gives rise to the ease of allowing the Refusal of further Hospital Treatment (RHT) to be signed (Evans, 2015; Evans et al., 2018). These

concerns, all contribute towards the prevailing attitude of the emergency care provider towards a mental health patient (Evans, 2015; Prener & Lincoln, 2015; Rees et al., 2018).

From the literature, a possible solution to the lack of mental health knowledge and skills in the pre-hospital environment is the implementation of a pre-hospital mental health assessment protocol. The assumption is that the attitude of emergency care providers towards a mental health patient may influence the successful implementation of a pre-hospital mental health assessment protocol. The resulting research problem is therefore to understand emergency care providers' knowledge, skills, attitudes, and behaviour towards mental health and mental health patients as well as the implications thereof for the pre-hospital evaluation and management of mental health patients.

1.4 Theoretical framework

An emergency care provider must be competent in his treatment of a mental health patient. To ensure the competency of the emergency care provider, they require subject matter knowledge and skills and the fundamental attitude to be able to treat the patient. The behaviour of the emergency care provider must be patient centric and self-evaluatory. To obtain this understanding of the competency of the emergency care provider, a theoretical framework is required to guide the research.

To guide the research, the competency theory is the theoretical framework that is used. The competency framework consists of three primary constructs: knowledge, skills, and attitude. Knowledge of mental health, and mental health practice serve as the basis for the emergency care provider to manage the mental health patient that they are attending to. Skills are the acquisition of the necessary mental health patient diagnostic and management skills to treat the

mental health patient. Attitude is inherent to the individual and matures over time. and may be positive or negative. Therefore, to establish an understanding of the competency of the emergency care providers, the constructs of knowledge, skills and attitudes formulating the competency theory is used as the theoretical framework for this research study (Baartman & de Bruijn, 2011; Chouhan & Srivastava, 2014; McClelland, 1998; Raven & Stephenson, 2001). The competency of the emergency care provider is displayed in their on-scene behaviour, and although not a construct of the competency theory, is influenced by and influences their competency (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011).

1.5 The research questions

The research questions were derived from the research problem. Two research questions will be addressed.

1) What is the competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment?

This gave rise to three sub-questions.

   (a) How knowledgeable are the emergency care providers about mental health?

   (b) How skilled are the emergency care providers in treating mental health patients?

   (c) What are the attitudes of the emergency care providers towards mental health patients?

2) What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol?

This gave rise to two sub-questions.

   (a) Does the competence of the emergency care providers justify the implementation of a pre-hospital mental health assessment protocol?

(b) What is the possibility that emergency care providers will accept a pre-hospital mental health assessment protocol?

1.6 The aim of the research

The aim of the research is to understand how the mental health patient is perceived by the emergency care provider, and whether they are competent to assess, manage and treat a mental health patient in the pre-hospital environment. The research further aims to understand whether the competency of the emergency care providers justifies the implementation of a pre-hospital mental health assessment protocol to guide the emergency care providers, and whether such a pre-hospital mental health assessment protocol would be accepted by the emergency care provider.

1.7 Objective of the research

To achieve the aim of the research, it will be required to understand (a) the emergency care providers' encounters with mental health patients, their knowledge of mental health and their knowledge and understanding of legislation related to mental health patients in the pre-hospital environment; (b) emergency care providers' self-assessment of skills related to the evaluation and treatment of mental health patients; (c) emergency care providers' attitudes towards mental health patients and how these attitudes are shaped; and (d) how acceptable the implementation of a pre-hospital mental health assessment protocol will be to emergency care providers. This information will elicit aspects of importance to consider when developing and implementing an intervention to assist with the assessment and management of mental health patients.

1.8 Research paradigm

The research is based upon the interpretivist paradigm. Interpretivism is based upon an understanding of how the individual constructs their own world relative to the situation being researched. Human interest, intuition, and reflection is crucial to the research process and investigation which will assist in achieving the research goal of increasing the general understanding of the phenomena (Terre Blanche et al., 2006).

This paradigm is suitable for the intended study as each individual emergency care provider has their own view of reality, and therefore there are a multitude of realities available. Interpretivism is based upon subjectivity as the knower and the known cannot be separated since the subjective knower is the only source of their reality. The participant is the product of their society in which they live, therefore there is no such thing as an objective fact that can be known outside this structure. It is only once the specific reality of each participant is known, that common themes and patterns will emerge.

1.8.1 Ontology: Interpretivism

Ontology is the study of the internal reality of the subjective experience of a person as there is no single external reality which can be researched (Edirisingha, 2012; Terre Blanche et al., 2006).

The foundation of interpretivist ontology is that there is no single external reality and that access to the real world is through the interdependence and mutual interaction between the participant and the researcher. The researcher, both as a trauma counsellor and an ILS practitioner has some prior insight into the research problem. It is due to this prior insight with the complexities, and unpredictability that a fixed research design cannot be formulated. The

reality of the participant is dynamic, flexible and each participant has their own interpretation and is built through the various social interactions that occur on a daily basis. The researcher cannot extract himself out of the subjectivity of the research and approach the research problem objectively, therefore, the understanding of the participant's interpretation of their reality and their social interactions requires a deeper investigation using the interpretivist research paradigm (Terre Blanche et al., 2006).

1.8.2 Epistemology: Interpretivism

Epistemology is the study of knowledge, and more specifically, what is knowledge and how do we gain this knowledge, and what are the limits of knowledge (Edirisingha, 2012; Reber et al., 2009; Terre Blanche et al., 2006). The interpretivist approach is time and context bound and it is important for the researcher to understand the reasons, motives, meanings, and other subjective experiences which cannot be generalized, and may well differ under differing circumstances. This data is influenced by the personal views and values of the researcher and the participants at the time of the interview (Terre Blanche et al., 2006).

As the interpretivist adopts a more flexible personal approach to the research, the following objectives are relative to interpretivism must be kept in focus: a) the nature of the reality of the individual participant is a product of their social construction, b) the goal of the research is to gain an understanding of each individual participant's reality as it relates to the research problem, c) specific, unique or deviant behaviour of the participant is the focus of interest to the researcher, d) the knowledge that is generated has meanings and is relative to time, context, culture, and the values of the individual participant, e) the researcher and the participant's relationship is built on interaction, cooperation and participation, with f) the objective of obtaining the desired information of what does the participant think or do, what are the

problems that they are confronted with, and how do the deal with these problems whilst as a researcher remaining open to new knowledge throughout the study and lets it develop with the help of participants (Edirisingha, 2012; Terre Blanche et al., 2006).

1.8.3 Research design

An interpretivist approach, that aligns with the interpretivist paradigm, was used to design the research.

The research design encompassed a number of steps. The first step was the development of the semi-structured interview protocol, with the inclusion of two levels of validation. The first validation was a peer review, and the second validation was the acceptance of the semi-structured interview protocol by the management of the emergency medical service providers that were approached to request permission to interview their personnel (Terre Blanche et al., 2006). Once the semi-structured interview protocol was accepted, and research approval had been obtained from the selected emergency medical service providers, the process of population sampling was initiated to generate sixteen possible respondents. A cross-sectional qualitative research approach was used where the researcher interviewed all the respondents over a period of two weeks. The interviews generated the data, firstly through the recordings of the interviews followed by the transcription of the interviews. The transcribed interviews were the source for the analysis which allowed the researcher to make deductions about possible relationships and to gather preliminary data to possibly support further research and investigation (Terre Blanche et al., 2006). The design will now be presented in more detail.

1.8.3.1 Semi-structured interview protocol design

The researcher, with extensive knowledge of emergency medical services could construct the questionnaire to support his personal views and assumptions which may jeopardise the value of the research undertaken. This was a risk that was identified by the researcher and was mitigated by having the questionnaire validated on two levels. This approach minimised the risk of the personal views and assumptions of the researcher dominating the semi-structured interview protocol and thus prevent providing a one-sided view, being the researcher's view of the current level of competency of the emergency care provider.

The first was the requirement to have the semi-structured questionnaire peer reviewed. Eight emergency care providers who were not affiliated to any of the selected emergency medical service providers were approached. Three of these emergency care providers provided feedback on the semi-structured interview protocol. Suggestions resulting from the validation process were incorporated into the semi-structured interview questionnaire.

The second validation was the submission of the interview questionnaire to the selected emergency medical service providers to gain acceptance and ethical clearance to interview their personnel. One of the emergency medical service providers requested clarification on selected points of the semi-structured interview protocol. This clarification was done, and there were no required changes to the semi-structured interview protocol.

1.8.3.2 Population and sampling

The research was conducted within the greater Tshwane Metropole. This region has representation of the four national emergency medical service providers, as well as two firmly

entrenched local services. All levels of emergency care providers are represented within these services. Approval to perform the research was received from four of the identified services.

The emergency medical service providers were asked to provide the names of the advanced life support (ALS) and intermediate life support (ILS) practitioners who were employed in their respective bases within the greater Tshwane Metropole. Three of the services provided names of the practitioners, the fourth service requested that the researcher attend the base and interview practitioners that were on duty for that day. Sixteen practitioners were selected (twelve via random sampling, and four at a base level), with eight ALS practitioners, and eight ILS practitioners. Fourteen of the practitioners voluntarily agreed to take part in the research study.

1.8.3.3 Data collection

Data collection was in the form of a semi-structured interview process. The respondents had the interview process explained and signed the necessary informed consent form to participate in the study. The interviews were conducted and recorded for subsequent transcription.

1.8.3.4 Data analysis

Content analysis was used to structure the data analysis (Erlingsson and Brysiewicz, 2017). Throughout the data analysis, the researcher had to keep two fundamental principles in mind:(a) the researcher is an ILS practitioner and cannot extricate himself from his tacit knowledge, and (b) the researcher is an ILS practitioner and will encounter familiar problems from ILS participants but will also encounter strange or unfamiliar as the researcher does not have the knowledge and skills of the ALS practitioner (Terre Blanche et al., 2006, p. 322).

In this study the interviews were performed using the semi-structured interview protocol, recorded and transcribed. Content analysis was performed using the model as described by Erlingsson and Brysiewicz (2017). The analysis was performed logically, firstly through familiarisation with the data. This was followed by extrapolating and condensing the meaning of the data. To extrapolate the meaning, use was made of deductive coding, using codes that were developed from the theoretical framework. Deductive coding is not in contravention of the interpretivist paradigm, as the interpretivism relates to the researcher's beliefs of reality and knowledge. To mitigate against the possibility of researcher bias overshadowing the thoughts, feelings, and experiences of the participants, the steps of elaboration, interpretation and checking as suggested by Terre Blanche et al. (2006, p. 326) were used to validate the results. As an interpretivist researcher, two questions were kept in focus whilst analysing the results of the interviews and required continual asking: a) Is my personal experience as a trauma counsellor and an ILS practitioner influencing my interpretation of the results? and, b) Does my interpretation of the interviews make sense and there is no sign of the researcher's personal prejudices or bias?

1.9 Results

It was found that there is no formal mental health knowledge and skills education provided throughout the education phase of the emergency care provider. This lack of knowledge and skills was further compromised by a lack of a pre-hospital mental health assessment protocol. The emergency care provider, without this knowledge and skills, were able to develop their own models to treat a mental health patient. Overriding the lack of knowledge and skills is the attitude of the emergency care provider. It was found that whilst there were participants who held a predominant negative attitude towards the mental health patient, there was an underlying fluidity of attitude which was dependent upon their personal situation at the time of the mental

health emergency call. This fluidity was compounded by physical exhaustion, personal emotions, and the underlying ability to treat complex mental health emergencies at any time of the day or night and found the same participant projected a positive response on the emergency mental health scene at the beginning of the shift, and projected a negative attitude or negative response at the end of a 48-72-hour shift.

The acknowledgement by the participants makes it likely that a pre-hospital mental health assessment protocol could be implemented. There was however, a proviso sought by the participants, in that the protocols must be South Africanised, and that there must be effective education and training on the protocol before it is implemented.

1.10 The significance of the research

The significance of the research is that it presents the reality that the participants are not competent to manage a mental health patient whilst the patient is experiencing a mental health emergency.

The research identified the incongruity between the various South African Acts that influence mental health which needs a Declaratory Order from the South African High Court to establish the authority of the emergency care provider on the emergency mental health scene.

The acknowledgement of the lack of competency by the emergency care provider, and possibility of obtaining a Declaratory Order from the South African High Court increases the likelihood for the implementation of a pre-hospital mental assessment protocol, the proviso being that it is South Africanised to cater for the multicultural community that is South Africa.

1.11 Trustworthiness

The trustworthiness of the research was addressed under the following topics: credibility, transferability, confirmability, and dependability. The trustworthiness of the research is discussed in detail in the Chapter 4: Methodology.

1.12 Ethical considerations

The research proposal was submitted to the College of Human Sciences Research Ethics Review Committee of UNISA who granted ethical approval, ethics clearance number: 2019-CHS-Depart-03950336, dated 14 April 2019, to conduct the research (see Appendix A).

Ethical considerations in this research were addressed according to the principles of autonomy and respect for the dignity of persons, nonmaleficence, beneficence, and justice. The detailed discussion of these principles is presented in Chapter 4: Methodology.

1.13 Research affiliations

The researcher has no affiliations with any of the emergency medical service providers from which the emergency care providers were included as respondents of the research study.

1.14 Outline of the chapters

To organise this study in a logical sequence, the following eight chapters are presented.

Chapter 1

Chapter 1 provides an overview of mental health and mental health patients encountered on mental health emergency scenes. Included in this chapter is the researcher's involvement within emergency medical services, the researcher's motivation for conducting the current research,

and the purpose, importance, and scope of the research. The research question, aims and objectives were stated, and relevant terms were defined to improve the understanding of the content of the study.

Chapter 2: Literature review

Chapter 2 contextualises the study in relation to relevant literature, building on the literature overview described in chapter 1. The literature focuses on areas which allow for a greater understanding of the influencers of constructs of the competency theory. Supplementary literature was explored to ensure an understanding of the legal framework wherein the emergency care provider practices whilst treating a mental health patient.

Chapter 3: Theoretical framework

Chapter 3 considers this study's research paradigm. Chapter 3 consequently provides an outline and discussion of the interpretivist approach, to the research strategies and procedures utilised in this study. The competency theory is discussed and why it is applicable within EMS and applicable to the emergency care provider, firstly as a student, and subsequently as a qualified practitioner.

Chapter 4: Methodology

Chapter 4 argues the applicability of the research methodology, and the approach taken in developing the research protocols, the interview selection processes, the interviews and transcribing. This process enabled the analysis of the data collected from the transcripts of the semi-structured interview to better understand the knowledge / skills / attitudes / behaviour of the emergency care providers. Chapter 4 addresses the trustworthiness and ethical considerations that were the underlying foundations of the research process.

Chapter 5: The results of the semi-structured interviews

Chapter 5 presents the results of the analysis of the competency of the emergency care provider through the application of the theoretical framework as discussed in chapter 3. The methodology discussed in chapter 4 served as the foundation to develop the results emanating from the semi-structured interviews.

Chapter 6: Discussion regarding the participants competency to manage mental health patients

Chapter 6 discusses in detail the results of the analysis of question one using the theoretical framework to extrapolate meaning from the results and comparing the South African and international emergency care provider. It refers to appropriate literature to create an in-depth understanding of the competency of the South African emergency care provider.

Chapter 7: Implications for the pre-hospital management of mental health patients

Question two was a direct result of the outcomes of the findings from question and gives direction on the likelihood of the acceptance of a pre-hospital mental health assessment protocol. The discussion guides the reader through the multicultural diversity that is South Africa and illustrates areas that should be taken into consideration when a protocol is implemented.

Chapter 8: Conclusion and recommendations

In chapter 8 the conclusions to the study are presented. Additionally, recommendations that could enable the advancement of a mental health assessment protocol and facilitate sustained development are provided. Lastly directions for further research are considered.

1.15 Summary

In Chapter 1, the study was introduced to the reader to the research, providing an introduction through the literature review into the typical life of the emergency care provider when encountering a mental health emergency. An overview was provided as well as how the study was designed and conducted. There was an overview of important aspects to consider, such as ethics and trustworthiness. Chapter 2 explores the literature in depth, allowing the reader an in-depth insight into the theoretical competency of the South African emergency care provider.

Chapter 2 – Literature Review

2.1 Introduction

2.1.1 Aim of the literature review

The aim of this literature review is to gain an understanding of the existing research and debates relevant to mental health, mental health patients and mental health education, through researching, reading, analysing, evaluating and summarising relevant scholarly articles. The literature review is guided by the scope of this research and is focussed on ascertaining whether local and international education models currently deployed by the respective education institutions provide the emergency care provider with adequate education to enable emergency care provider competency in managing any mental health emergency that they may encounter within the operational setting and to identify research gaps and problems.

2.1.2 Literature review search methodology

The following search keywords were used to identify the initial source documents, this search was performed using the UNISA Library portal: attitude, behaviour, competency theory, emergency mental health, Health Professions Act, No. 56 of 1974, knowledge, Mental Health Care Act, No. 17 of 2002, mental health patient, National Health Act, No. 61 of 2003, pre-hospital mental health emergency, pre-hospital skills / prehospital skills.

The resultant articles were reviewed, and the relevant referenced scholarly works subsequently obtained and reviewed. The articles researched exceeded 125 relevant articles.

2.1.3 Introduction to the literature review

Mental illness is considered the pandemic of the 21st Century, with an estimated 450 million people being affected by mental illness as any one time, and approximately 873 000 suicides

per year (Shaban, 2006). An increase in mental health emergencies have been reported by Ford-Jones and Chaufan (2017), Prener and Lincoln (2015) and Roberts and Henderson, (2009). Globally, emergency care providers are one group of medical professionals who are in the forefront of facing the ever-increasing mental health challenge, and a number of studies have concluded that emergency care providers lack the necessary competency to manage mental health patients. Concialdi (2017) showed that there was an ever-increasing number of self-harm episodes in the United States of America (USA) as reported by the Centers for Disease Control and Prevention, and there was an acknowledgement that the emergency care providers were not adequately trained in the management of mental health and without this training, they relied mainly on their experience as qualified emergency care providers. Concialdi (2017) in his study introduced two available protocols to assist the emergency care providers in deescalating and managing a mental health emergency, namely: Psychological First Aid (PFA) and Mental Health First Aid (MHFA). Either of which could be used to assist the emergency care providers in deescalating and managing a mental health emergency.

In another USA study, Ford-Jones and Chaufan (2017) reviewed the inadequate training in mental health patient management and identified one of the reasons for this being the over emphasis on medical training to the detriment of mental health training. The authors stressed that it is the government, and the government's social and political structures that are responsible for the mental wellbeing of people and that the lack of these social and political structures give rise to circumstances where there is an increase in mental health episodes. McCann et al. (2018) found that the lack of knowledge gained from education was evident throughout Australia, albeit in varying degrees between the various states and qualifications. Roberts and Henderson (2009) found a similar lack of formal education in the South Australian Ambulance Service with only 37.5% (n=27; N = 74) stating that they had received what they

would consider some professional training in mental health. Shaban (2011) found that even after developing and subsequently training Queensland paramedics in mental health, that they still considered themselves ill prepared to treat mental health patients. A similar trend was found in South Africa with Mothibi et al. (2019) reporting that the majority of emergency care providers who were employed in both the public and private sector in the Free State, reported that they had received minimal mental health training. The same study identified that these emergency care providers had insufficient knowledge of the MHCA. Stander et al. (2021) reported similar findings in a study of emergency care providers in greater Tshwane Metropole.

In addition to acknowledging that there was minimal training of emergency care providers is the attitudes of the emergency care provider towards a mental health patient. It was found that there is a perception amongst the emergency care providers that psych calls, were not considered to be real emergencies (Prener & Lincoln, 2015). The attitude of the emergency care provider played an important role in the successful management of a mental health patient. A negative attitude displayed on an emergency scene by the responders, illicited a negative response from the mental health patient. The responder having been trained in the use of PFA, and understanding the opportunity to invoke the model, allowed for a positive response from the mental health patient to the emergency care provider (Concialdi, 2017).

More importantly, it is not knowledge, or skills, or attitudes as separate components but the combination of knowledge, skills and attitudes of the emergency care providers and the relationship of these which leads to successful patient treatment (Parsons, 2014). The combination of knowledge, skills, and attitudes in a specified domain, is regarded as competence (Wilcox, 2012). The lack of competency in mental health care reflected in the

literature raises the urgency in the development of mental health protocols and training programmes, which encompass the specific prevailing legislative requirements (Shaban, 2011).

2.2 Worldwide trends in mental health training

There is a general trend worldwide to deinstitutionalise mental health patients by focussing on the promotion of good mental health, thereby decreasing the frequency of mental health illnesses being treated in mainstream hospitals, and using community clinics to treat mental health patients. It was further found that the removal of mental health patients from institutions has not always been accompanied by the effective development of community services, which has led to the increase in the need for pre-hospital emergency care (Parsons, 2014; Roberts & Henderson, 2009; Stander et al., 2021; Zwart, 2015). Australia and the United Kingdom, with the appropriate legislative support, are at the forefront of developing emergency mental health protocols and training modules to support the pre-hospital treatment of mental health patients (McCann et al., 2018; Parsons, 2014; Roberts & Henderson, 2009; Shaban, 2011).

Australian studies have reported that even with legislative support, and the development of mental health protocols and mental health training, most emergency care providers still expressed concerns about their abilities to make competent clinical judgements and decisions on the treatment of mental health patients and their illnesses. The emergency care providers indicated that they did not have sufficient knowledge and skills, and therefore lacked the confidence in treating mental health patients (McCann et al., 2018; Parsons, 2014; Roberts & Henderson, 2009; Shaban, 2004, Shaban, 2011). Knowledge deficiencies reported in these studies included: a) lack of knowledge on mental illnesses, including the typical presentation of the illness, b) lack of knowledge of what the emergency care provider can and cannot achieve on an emergency mental health scene, and c) lack of appropriate diagnostic tools (McCann et

al., 2018; Parsons, 2014; Roberts & Henderson, 2009; Shaban, 2004, Shaban, 2011). These studies provide evidence that the mental health protocols and training models do not necessarily provide the emergency care provider with the competency to treat the mental health patient.

Although there are many institutions that provide some form of training in mental health for the emergency care provider, research studies show that the academic knowledge and skills transfer of mental health illnesses are limited. In those environments where training is not taking place, the onus is on the emergency care provider to self-educate after qualifying as an emergency care provider. Self-education is therefore of paramount importance in equipping the emergency care provider to ensure adequate treatment of a mental health patient on a mental health scene. Self-education can be accomplished by experiential knowledge acquisition gained on emergency mental health scenes, and ongoing knowledge acquisition through self-learning (McCann et al., 2018; Parsons, 2014; Roberts & Henderson, 2009; Shaban, 2004, Shaban, 2011). In South Africa, lifelong learning has been introduced into the education models for the Bachelor Degree: Emergency Medical Care (B. EMC) – Qualification Identification: 63129 (South African Qualifications Authority [SAQA], 2021) and the National Diploma: Emergency Medical Care (N. Dip EMC) – Qualification Identification: 74077 (South African Qualifications Authority [SAQA], 2018).

2.3 Training of emergency care providers in South Africa

In 2017, the Republic of South Africa. Department of Health published the National Emergency Care Education and Training Policy (NECET-Policy) (Republic of South Africa. Department of Health [RSADH], 2017). The purpose of the policy is to develop the necessary competency in knowledge, skills, attitudes and insights, at the desired exit level in respect of the B. EMC and N. Dip EMC qualification (SAQA, 2018; SAQA, 2021). To achieve the

objectives of the qualification for which they are being trained, the student emergency care provider needs to demonstrate exit level competency in theory, techniques, practical experience and skills. The emergency medical care qualifications were constructed in accordance with the National Qualifications Framework (NQF) and subsequently registered (as amended) with the South African Qualifications Authority (SAQA, 2018; SAQA, 2021). Whilst the South African emergency care providers' education models are migrating away from a combination of short courses and formal tertiary qualifications, to a tertiary qualification only model as published in the NECET-policy, the tertiary qualification model still incorporates the vocational based training model that formed an integral part of the short course model (RSADH, 2018; SAQA, 2018; SAQA 2021).

Whereas SAQA published the regulations for the B. EMC and N. Dip EMC qualifications (SAQA, 2018; SAQA, 2021), the Health Professions Council of South Africa Clinical Practice Guidelines (HPCSA-CPG), 2018) which recommends the clinical guidelines which should be used in general practice. The HPCSA-CPG (HPCSA, 2018) approach is similar to the National Occupational Competency Profile for Paramedics which is developed by the Paramedic Association of Canada (PAOC) (Paramedic Association of Canada [PAOC], 2011). Similar clinical guidelines and operational practice guidelines are described in paramedicine literature from Australia (Parsons, 2014; Shaban, 2011). It is found that in each of the topics discussed, that the intensity of the guidelines varies depending upon value apportioned by the authors of the guidelines and decision support systems.

2.3.1 Integrating knowledge, skills, and attitudes

Paramedicine education and training is a vocational based training and in keeping with the definition of vocational based education, a minimum of 20% of the learning takes place in the

workplace. The paramedical workplace training takes the form of practical shifts under the guidance of qualified and experienced emergency care providers following the display of basic competency in an educational setting. This vocational training model has the added advantage as workplace learning shows a different learning process which is often not intentional or planned but is more contextual and collaborative as the classroom context cannot provide examples of all possible scenarios found operationally (Baartman & de Bruijn, 2011). Emergency medicine, be it medical or mental health is a complex world, with higher levels of competency being required and pure vocational training is no longer sufficient. This is not only true in the South African environment, but worldwide, leading to many countries developing competence-based qualifications based upon occupational core competencies (Baartman & de Bruijn, 2011; Braithwaite, 2014; Parsons, 2014; Shaban, 2011). The definition for a competence-based qualification is the integration of knowledge, skills, and attitudes according to Baartman and de Bruijn, (2011). Competence-based qualifications are assumed to be the prerequisite for functioning adequately on the job. To perform adequately, an emergency care provider must be able to integrate knowledge, skills, and attitudes in a vocational setting to achieve observable results (Baartman & de Bruijn, 2011; Braithwaite, 2014; Parsons, 2014; Shaban, 2011).

2.3.2 Vocational competence

There is an emphasis within the competence framework that an emergency care provider must not only acquire knowledge and skills, but that they must integrate knowledge, skills, and attitudes to obtain vocational competence. The competence framework does not exclude the assessment of the individual components of knowledge, skills, and attitudes, of which certain knowledge and skills need to be proven to be competent before the progressing towards a practical training model (Baartman & de Bruijn, 2011). This vocational competency framework

is not unique to emergency care providers but can be seen within other medical modalities. Snyman and Kroon (2005) discussed the integrated approach to dentistry education in South Africa.

The structure of the training of the student emergency care provider exposes these students to limited knowledge and skills primarily as the field of practice is vast and all variations cannot be encompassed. The knowledge and skills base are enriched daily through the exposure to unique patient encounters (HPCSA, 2018; RSADH, 2017; SAQA, 2018, SAQA, 2021). Whilst the SAQA qualifications details the individual exit level outcomes, these can be summarised into four main focus areas, the theory component, the practical and experiential learning component, the final examination, and the post qualification learning

2.3.2.1 The theory component

The student emergency care provider is taught the theoretical principles to develop an understanding of paramedicine, and supportive functions such as patient management procedures, global rescue techniques, and managerial functions. Techniques, which are approved standards in the form of Objective Structured Clinical Examinations (OSCEs) are taught to the student emergency care provider. Student emergency care providers are taught how to apply their theoretical knowledge, OSCEs and supportive functions in patient management simulations. Students are then required to demonstrate that they are competent to practice in a real-world setting. This competency is determined by a series of assessments, including theory, OSCEs and a practical simulation. If the student is found to meet the respective exit level outcomes, they are allowed to progress to the practical and experiential learning phase of the curriculum (HPCSA, 2018; RSADH, 2017; SAQA, 2018; SAQA, 2021).

2.3.2.2 The practical and experiential learning component

The student emergency care provider, once found competent in integrating knowledge and skills in a theoretical environment, enters a practical and experiential phase where patient management is performed within the ambit of the student's proposed level of qualification under the relevant Advanced Life Support Practitioner (ALS) protocol, (HPCSA – Professional Board for Emergency Care [HPCSA-PBEC], 2006a), or Intermediate Life Support Practitioner (ILS) protocol (HPCSA – Professional Board for Emergency Care [HPCSA-PBEC], 2006b). This patient treatment is performed under the supervision of an emergency care provider who is suitably qualified under the HPCSA guidelines to supervise students (RSADH, 2017, SAQA, 2018; SAQA, 2021). The supervisor is responsible for ensuring that the student is competent to treat a patient, and the maintenance of patient safety (HPCSA, 2018; RSADH, 2017; SAQA, 2018; SAQA, 2021).

2.3.2.3 The final examination

Once the student emergency care providers have completed both phases of the curriculum, they are examined on their theoretical knowledge, OSCEs and simulation based on real-life scenarios. The competent student then qualifies and is able to register with the HPCSA for their specific qualification and, in the case of an ALS or ILS qualification can treat patients as independent practitioners (HPCSA, 2018; RSADH, 2017; SAQA, 2018; SAQA, 2021).

2.3.2.4 Post qualification learning

Upon the successful culmination of the training, the qualified emergency care provider registers as an independent practitioner with the HPCSA and is expected to be a life-long learner within emergency medical care where they gain knowledge, skills and experience from treating patients and this forms an integral part of the emergency care provider's development (Parsons,

2014; SAQA, 2018; SAQA, 2021; US Department of Transportation, 1998). To augment the experiential learning, the HPCSA requires that the emergency care provider maintains and updates the necessary skills, through compliance in accordance with the HPCSA's Continuous Professional Development (CPD) programme (HPCSA Core Operations CPD [HPCSA-CO], n.d.).

2.4 Mental health care and the emergency care provider

The MHCA promotes the deinstitutionalisation of mental health care, which places a bigger burden on the emergency care provider as there are more cases of mental health illnesses being encountered in the pre-hospital environment (MHCA, 2002; Stander et al., 2021, Zwart, 2015). It is however not simply an understanding of the MHCA that is required, but a grasp of the various Provincial Ambulance Services Act, such as the Gauteng Ambulance Services Act, No. 6 of 2002 (Gauteng Ambulance Services Act, No. 6 of 2002 [GASA], 2002), Constitution of the Republic of South Africa. No. 108 of 1996 (Constitution of the Republic of South Africa, No. 108 of 1996 [Constitution], 1996), Emergency Medical Services Regulations 1320 (EMSR, 2017), National Health Act, No, 61 of 2003 (National Health Act, No. 61 of 2003 [NHA], 2003), National Patients' Rights Charter (Health Professions Council of South Africa. [HPCSA] (2016), and applicable Health Profession Council of South Africa protocols (HPCSA-PBEC, 2006a; HPCSA-PBEC, 2006b) amongst others.

2.4.1 Authority of the mental health care provider

The MHCA defines the mental health care provider as the person who is providing mental healthcare services to mental healthcare users. The definition includes the mental healthcare practitioner, it is however unclear whether an emergency care provider who functions in a pre-hospital environment would be considered as a mental healthcare practitioner as the

professional focuses on an acute emergency. The MHCA, only makes reference to emergency care providers assisting with the transfer of mental health patients between facilities (Sections: 27(10), 33(9), 34(4)(b), 34(6), 39, 45(1), 45(3), 66(1)(j) & Regulation 27) (NDOH, 2003; Stander et al., 2021; van Huysteen, 2017; Zwart, 2015). Without any legal clarity been found on the subject, it is unclear as to whether pre-hospital health care providers can be considered under the definition of the MHCA, therefore the assumption is that they are excluded. Assuming that this is the case, the onus is on the SAPS police officer to manage a mental health patient, the only exception being a case of a behavioural emergency (NDOH, 2003; Ndou, 2015; Stander et al., 2021; van Huysteen, 2017; Zwart, 2015). Section 11 (1) and (2) provides the directive on the treatment and management of mental health patient, and the emergency care provider is made responsible for the wellbeing of the mental health care user through Section 11(2) of the MHCA, which states:

"(1) Every person, body, organisation or health establishment providing care, treatment and rehabilitation services to a mental health care user must take steps to ensure that—

(a) users are protected from exploitation, abuse and any degrading treatment;

(b) users are not subjected to forced labour; and

(c) care, treatment and rehabilitation services are not used as punishment or for the convenience of other people.

(2) A person witnessing any form of abuse set out in subsection (1) against a mental health care user must report this fact in the prescribed manner." (MHCA, 2002; NDOH, 2003; Ndou, 2015).

Regulation 7 (Form MHCA 02) as amended in Mental Health Care Act: Regulations: General: Amendment (Mental Health Care Act, 2016) provides guidance on the course of action that the emergency care provider is required to follow in the event of being a witness to the

contravention of Section 11 as described in Section 11(2) (MHCA, 2002; NDOH, 2003; Ndou, 2015).

2.4.2 Authority of the SAPS police officer

In terms of Section 25, voluntary admission, and Section 27 of the MHCA, there is no obligation for the police officer to intervene, unless under Section 27, there is a specific request from a mental health practitioner. The MHCA further asserts that the police officers have no responsibility towards a mentally ill person, who is not a danger to themselves, and cannot be apprehended. The police officer may merely recommend that the mentally ill person goes to the medical facility or contacts the local mental health facility or social services (NDOH, 2003). Sections, 27(10), 33(9), 34(4)(b), 34(6) and 39, 45(1) and (3), 66(1)(j) are some of the provisions of the MHCA which mandate the South African Police Services to assist with the management of an involuntary patient (NDOH, 2003). The MHCA, Section 40 (MHCA, 2002; NDOH, 2003; Ndou, 2015; Stander et al., 2021; van Huysteen, 2017, Zwart, 2015) makes the wellbeing of the mental health care user, the responsibility of the SAPS. Section 40(1) of the MHCA contains "likely to inflict serious harm" (p. 44), and with no clear interpretation of this clause, the interpretation is open to multiple variations. The police officer may request the emergency care providers to assist on a mental health emergency scene if there is a requirement for the medical restraint of a mentally ill patient (MHCA, 2002, NDOH, 2003).

2.4.3 Mental health patient consent

No treatment may be provided to any mental health patient without consent with definitions of the ability to consent being clarified under the "assisted mental health care user" and how Section 27 is applied, and the "involuntary mental health care user" and how Section 33 is applied (HPA, 1974; MHCA, 2002; NDOH, 2003; NHA, 2003; Stander et al., 2021; van

Huysteen, 2017; Zwart, 2015). Section 9 is an exception as it allows for the treatment of a mental health patient without consent, where such treatment is authorised in terms of Section 9(1)(b), or where there is a psychiatric emergency, and such treatment is authorised by Section 9(1)(c). In these cases, the emergency care provider could rely on two defences according to van Huysteen (2017), one being "negotiorum gestio", which is "the voluntary management by one person of the affairs of another without the consent of the other person" (van Huysteen, 2017, p. 130). The "negotiorum-gestio" defence can be invoked when the four requirements of the MHCA are met: 1) there must be an emergency situation, 2) the patient must be incapable of giving informed consent for the treatment, 3) the patient has not expressly stated that they do not want to the treated, and that such treatment is against their will, and 4) the emergency care provider considers the treatment to be in the best interest of the patient. The second defence being that of "necessity", can be invoked (van Huysteen, 2017, p. 132). The criteria for invoking this defence are a danger to self, others, or property, and is in the best interest of the society in general, and not necessarily in the best interest of the mental health patient. The emergency care provider can rely on this defence if the following can be proven: 1) there was an emergency situation which can be defined by the emergency care provider, 2) to invoke this defence, there is no requirement that the patient was not able to consent, the defence of necessity is relevant where the treatment is against the patient's will and there was the capability of consenting to the treatment but refuses to consent, and c) society's best interests was served through the treatment of the patient (van Huysteen, 2017, p. 132). Whilst involuntary and emergency admissions can be defended by the emergency care provider, the MHCA does not provide any direction for the emergency care provider on the management of a mental health patient that falls under the definition of the assisted admission patient criteria. The emergency care provider may, however, be able to defend his or her actions through invoking the principal of "negotiorum gestio" (van Huysteen, 2017, p. 130). The MHCA is

now introduced into the acquisition of knowledge, in conjunction with the NHA and the HPA (HPA, 1974; MHCA, 2002; NHA, 2003).

2.5 Mental health knowledge

The interpretation of the MHCA, does not provide clarity on what the responsibilities are of the emergency care provider on a mental health scene. Mental health training is therefore subjective, relying on the interpretation of what should be taught as the MHCA is not prescriptive on what the responsibilities are of the emergency care provider on an emergency mental health scene (van Huysteen, 2017; Zwart, 2015).

2.5.1 Academic knowledge acquisition

The B. EMC (SAQA, 2021), N. Dip EMC (SAQA, 2018), and HPCSA-CPG (HPCSA, 2018) provide limited guidance on the treatment of mental health emergencies other than guidance on the medical restraint of mental health patients through the administration of sedation medication. It is without this guidance from the B. EMC (SAQA, 2021), N. Dip EMC (SAQA, 2018), and HPCSA-CPG (HPCSA, 2018), that the Department of Emergency Medical Care of the Faculty of Health Sciences (The University of Johannesburg) as an example, has developed a module on behavioural emergencies (Learning Unit 8), which is presented in their Emergency Medical Care II Theory module for the B. EMC qualification (Van Tonder, 2019). This module provides students with insight into mental health, but not necessarily the in-depth knowledge that is required and has been found wanting in a number of studies.

2.5.2 Formal experiential learning

The SAQA NQF guidelines for the B. EMC (SAQA, 2021), and N. Dip EMC (SAQA, 2018) makes allowance for in classroom education and field education, where practical exposure is

obtained to supplement the theoretical teaching. It is in this stage of the education that the theoretical concepts are correctly identified, explained and / or applied in an operational environment. The focus is on achieving theoretical competence, and is a formal process, where the supervisor is required to acknowledge through his name, signature and HPCSA registration number that the student is competent to practice within their proposed scope of practice as promulgated by the HPCSA (HPCSA-PBEC, 2006a; HPCSA-PBEC, 2006b; SAQA, 2018; SAQA, 2021).

2.5.3 Post qualification experiential learning

Parsons (2014) paints a picture of the emergency scene as being unpredictable and chaotic, whilst being exciting and dynamic, while at times, these scenes may be dangerous and frightening. The expectation of the public is that the emergency care provider has the ability to resolve all illnesses or injuries that confront them. However, when the emergency care provider encounters a mental health patient, there is a general lack of clinical knowledge, which places an emphasis on experiential learning. The emergency care provider continues gaining mental health knowledge throughout their career. Through their interaction with peers, medical doctors and nurses, it is unavoidable that the emergency care providers develop a professional or formal network of contacts who contribute towards the development of mental health knowledge (O'Hara et al., 2015; Parsons, 2014; Shaban, 2011). The mental health patient's family and colleagues form an informal network, which contributes towards mental health knowledge, by providing mental patient histories, patient management, and other pertinent information. Although this information is valuable in itself, it does not warrant that the knowledge gained through this informal network is accurate (O'Hara et al., 2015; Parsons, 2014; Shaban, 2011).

There is a recognised distinction between formal and informal knowledge. Formal knowledge gained is verifiable, whereas the informal knowledge does not have a verifiable source. Irrespective of whether the emergency care provider utilises formal, informal, or a combination thereof, it shows that the emergency care providers look for inventive methods to develop ways to overcome the shortcomings that they have identified in their knowledge base. This formal and informal network, allows the emergency care provider the ability to develop the confidence to manage a mental health scene, with the ability to refer back to the network as the need arises (Shaban, 2011).

2.6 Skills in treating mental health patients

The interpretation of the MHCA, does not provide clarity on what the responsibilities are of the emergency care provider on a mental health scene and similar to the mental knowledge education, skills training is subjective, relying on the interpretation of what should be taught as the MHCA is not prescriptive on what the responsibilities are of the emergency care provider on an emergency mental health scene (NDOH, 2003; Stander et al., 2021; van Huysteen, 2017; Zwart, 2015).

2.6.1 Skills acquisition

Local and international studies found that similar to the dearth of education in mental health knowledge, the same is found when researching the education in mental health skills, there is a scarcity of skills education models (studies by Braithwaite, 2014; McCann et al., 2018; Parsons et al., 2011; Shaban, 2011, as well as local studies by Evans, 2015; Evans et al., 2018; Mothibi et al., 2019; Stander et al., 2021).

2.6.2 Formal experiential skills learning: field internship

The SAQA NQF guidelines for the B. EMC require that the student demonstrates field internship, and refer to the similarity of the course design to that of the United States Department of Transportation National Highway Traffic Safety Administration paramedic programme that was used as the programme guideline (SAQA, 2018; SAQA, 2021). The student must be found skilfully competent to practice mental health skills under suitable supervision, with the focus on achieving practical competence. This is a formal process, and the supervisor is required to acknowledge through his name, signature and HPCSA registration number that the student is competent to practice within the HPCSA scope of practice, be it ALS or ILS protocols (HPCSA-PBEC, 2006a; HPCSA-PBEC, 2006b). Upon the successful completion of the field internship, the student is confirmed as being competent to perform as an entry level practitioner (SAQA, 2018; SAQA, 2021).

2.6.3 Post qualification skills acquisition

Experiential learning allows the emergency care provider to formulate their own unique process to manage a mental health patient through the development of their confidence within the emergency care provider to treat the mental health patient. Their confidence addresses a number of areas in the management of a mental health emergency scene, these being interpersonal communication and patient management skills, clinical judgement and clinical decision making. Interpersonal communication and patient management skills are the most important skills that are acquired by the emergency care provider and is built over time through experience. These skills provide the emergency care provider with the most appropriate method of deescalating the mental health scene by being able to calm the mental health patient, and thereby generally allow for treatment to be initiated (Concialdi, 2017; Parsons, 2014; Shaban, 2011). On scene experience augments the pre-existing skillset by further developing

competency in clinical judgement and clinical decision making (Braithwaite, 2014; O'Hara et al., 2015; Parsons, 2014; Shaban, 2011).

2.7 Attitudes towards mental health patients

Rees et al. (2018) identified that the attitude of the emergency care provider more often than not, affects the assessment, diagnosis, treatment, and management of the mental health emergency.

2.7.1 Pre-arrival attitudes of emergency care providers

The emergency care provider's attitude towards the mental health patient, often begins in the pre-arrival phase of the emergency mental health call (Rees et al., 2018). As such, emergency care provider may start to form opinions of the emergency en-route to the mental health scene (Shaban, 2011). Attitudes that may occur during the response of emergency care provider to mental health patients, have been identified, namely a) the perceived social positioning of the mental health patient and whether they indeed warrant such treatment especially if the patient was considered to be homeless, substance abusers, or that their ailments were considered to be minor in nature, (Prener & Lincoln 2015; Shaban, 2006), b) the emergency care provider considers that the mental illnesses is a result of structural deficiencies which included the unwillingness of the law enforcement to place the patients into protective custody, and leaving the emergency care providers to manage the mental health patients (NDOH, 2003; Parsons, 2014; Prener & Lincoln, 2015; Shaban, 2006), and c) the perceived consequences of the abuse of the system by mental health patients who remove an ambulance from the operational base for minor complaints leaving genuine patients with a medical need without available resources (Parsons, 2014; Prener & Lincoln, 2015). It was found by Parsons (2014) that past experiences

with mental health emergencies did not necessarily equate to a positive attitude of an emergency care provider towards a mental health patient.

These preconceived ideas influence the emergency care provider's personal view and attitude towards the mental health patient, and at that moment in time could under the right conditions, create a negative attitude towards the patient, even more so if there is a lack of knowledge which may affect their confidence on the emergency scene (Rees et al., 2018).

2.7.2 Perception of time spent with mental health patients

In a study of the South Australian Ambulance Service (SAAS) it was found that the majority of the emergency care providers attributed more than 10% of their caseload to mental health patients, were in reality, it was found from the records that their caseload was less than 3%. The study found a similar overestimation of the time spent on the scene of a mental health emergency. The time estimates for emergency care providers on the scene according to the records was that the emergency care providers spent less than 10 minutes on the scene of a mental health emergency, whereas the emergency care providers estimated a time span of 20-40 minutes on the scene (Roberts & Henderson, 2009). There was further research that alluded to similar perceptions in their studies where the emergency care providers viewed mental health patients as wasting their valuable time with minor health episodes, where they could be treating real emergencies (Parsons, 2014; Shaban, 2011). In South Africa, similar attitudes amongst emergency care providers were found where they reported that mental health patients who self-harm are seen as a "waste of time" as time was spent "talking in circles" when they could be treating more seriously injured patients (Evans et al., 2018; Stander et al., 2021).

2.7.3 On-scene attitudes of emergency care providers

The management of the mental health scene, involving the interaction between the patient, family, police, and colleagues was seen as being influential in the capacity of the patient's decision-making ability. This greatly influences the emergency care provider's interaction with the patient, often due to the patient's realisation that they are now in an embarrassing position, and do not want to comply with the instructions given. This serves to further reduce the sympathy of the emergency care provider and increases the possibility of the development of negative attitudes towards the mental health patient (Parsons, 2014; Rees et al., 2018; Shaban & Considine, 2011). The emergency care providers often ask themselves a number of questions when encountering a complex mental health scene. Emergency care providers reported reciprocal questions, including: a) why the patient has self-harmed and cause themselves pain, b) why do they see some patients regularly, and c) why do they have a number of similar calls in the same area around the same time (Rees et al., 2018).

2.7.3.1 Attitudes towards repeat emergency medical services users

A small percentage of mental health patients are repeat emergency medical services users, which often results in the emergency care provider becoming frustrated and developing a negative attitude towards these patients. These patients often present with episodes of self-harm, alcohol intoxication, seizure disorders, respiratory illnesses, or a recurrence of a mental health episode due to non-compliance of their medication schedule, and as such are often difficult to manage (Brokaw at el., 1998; Edwards et al., 2015; Fuda & Immekus, 2006). In general, these known patients were allocated a lower priority due to the frequency of their call rate (Scott et al., 2014). The lowering of the priority may have an adverse effect on the patient as there is a general consensus as described by Edwards et al. (2015) that these patients have complex underlying medical, mental health, social and personal care needs.

2.7.3.2 Attitude towards on-scene risk

There is a perception amongst emergency care providers that all mental health patients are aggressive or violent and that they pose a risk to the emergency care provider and may result in the patients' health being compromised (Evans et al., 2018; Parsons, 2014; Shaban, 2011). The more concerning is the aggressive self-harm patient who has a weapon and is violent and could potentially assault the emergency care provider. These mental health patients require the intervention of the police service, who are able to detain the patient, and protect the emergency care provider (Evans, 2015; Ndou, 2015; Stander et al., 2021, van Huysteen, 2017; Zwart, 2015). However, there is a risk in that the patient may further injure themselves or others during the intervention. An additional risk coupled with such an intervention is that the mental health patient may have a self-harm episode in the presence of the emergency care provider. There were a number of the emergency care providers that reported that they were concerned about threats to their own safety whilst treating and transporting mental health patients. On some occasions, it was reported that the emergency care providers had been injured (Evans, 2015). Often in these situations, the police services are requested to assist, however, not all interventions are successful. Amongst the reasons offered being: a) the police officer did not attend the scene, b) the police officer, when attending the scene did not assist the emergency care provider and c) the police officer overrode the request of the emergency care provider and took the mental health patient into custody (Evans, 2015; Parsons, 2014; Shaban, 2011, Stander et al., 2021). The consequences of the perception or actions of the mental health patient that may well lead to the non-treatment of the mental health patient and therefore compromising the health of the patient (National Mental Health Workforce Development Coordinating Committee [NMHWDCC], 1999).

2.7.3.3 Attitudes towards a self-harm patient

Self-harm has been identified as being one of the three most prevalent mental health emergencies that are encountered by the emergency care provider (Ani et al., 2017; Parsons, 2014; Rees et al., 2018; Shaban, 2006). Emergency care providers, when faced with a self-harm episode, reported that there were two distinct attitudes that were in evidence. There were reports of extreme concern for the patients, especially if the self-harm was an attempt, or actions leading to the emergency care provider being concerned that a life is being threatened. Emergency care providers took these actions or threats seriously with the expressed focus on stabilising the patient and transporting them to the most appropriate medical facility (Parsons, 2014; Rees, 2018; Shaban, 2011). There was very little evidence found that emergency care providers differentiate between the potential overdose patient falling into one of the three categories as defined by Ghodse (1978). Ghodse' (1978) three categories are: suicidal gesture or suicidal attempt; overdose in the course of addictive drug taking, and accidental overdose or poisoning. In all these studies, the emergency care providers negate the other causes of substance abuse and assume that the episode is a suicidal gesture or suicidal attempt (Evans et al., 2018; Parsons, 2014; Rees et al., 2018; Shaban, 2011; Stander et al., 2021). The second report is that the emergency care provider becomes judgemental towards the patient by presupposing answers to the questions of how and why the self-harm attempt has occurred. These questions are often asked and answered by the emergency care provider before commencing with the assessment, diagnosis, treatment and management of the mental health patient, often perpetuating the negative views and assessment of the care provided (Rees et al., 2018; Sandman & Nordmark, 2006; Shaban, 2006).

Notwithstanding the possibility of arriving on scene with a preconceived negative attitude, the emergency care provider may well develop a negative attitude on scene towards the mental

health patient. This is mostly influenced by the injuries sustained by the mental health patient from being minor of nature and not warranting any medical assistance, to a sense of hopelessness due severity of the injuries that have occurred as the patient's chance of survival is often compromised (Parsons, 2014; Rees, 2018). The attitude towards the mental health patient led to emergency care providers reporting that they often found themselves making mistakes when treating the mental health patient due to being judgemental (Shaban, 2011) Another contributing factor is the severity of the injury together with the aggressiveness or non-compliance of the patient. This negative view towards the mental health patient was enhanced by the perceptions of the emergency care provider that the patient is "clearly looking for attention" (Evans, 2015, p. 55) or attempting to ensure that a relative or friend is made to feel guilty due to the situation that is unfolding (Rees et al., 2018).

Although, many emergency care providers develop negative attitudes towards mental health patients, Parsons (2014), Rees et al. (2018) and Shaban (2011) found that some emergency care providers experienced positive encounters on certain scenes. This was mostly reported by emergency care providers when treating frequent self-harm patients, since they were able to build a trusting and understanding relationship with the patient. The emergency care providers acknowledged that it made them more empathetic and caring for the patient. It was found that many of the emergency care providers, once obtaining mental health knowledge and the ability to treat the patient adopted a positive attitude towards the mental health patient and the episode that was being managed, even more so where the patient was a regular self-harm patient (Parsons, 2014; Rees et al., 2018; Shaban, 2011).

2.8 Competency in managing mental health patients

Very little is known about how emergency care providers make decisions on a mental health scene resulting in the action that they take in transporting or leaving the patient (Shaban, 2006). Due to the nature of a mental health scene, the emergency care provider is a problem solver by nature, and must call on their competency to resolve the pressing problem (Shaban & Considine, 2011). The emergency care provider is required to manage a mental health patient when the patient is facing a mental health emergency and to call on his mental health knowledge, skills, and a prevailing attitude towards the mental health patient. The integration of knowledge, skills and prevailing attitude leads to effective clinical judgement and decision-making skills (Croskerry, 2006). To achieve effective patient treatment, the emergency care providers must continually ask themselves a number of questions when treating a mental health patient, namely a) am I able to determine what is wrong with the patient? b) do I know how to treat this patient? c) do I know what type of treatment should be initiated? and d) am I certain that I am making the correct clinical decisions in relation to this patient? (Parsons, 2014). "Sound clinical judgement and decision-making skills are vital to perform this complex role effectively in a wide range of challenging healthcare contexts" (Standing, 2011, p. xvii). Whilst clinical judgement and clinical decision making are closely related; they are different, Dowie (1993) suggested the following simple definition: "judgements are essentially "an assessment between alternatives"whereas decisions can be viewed as "a choice between alternatives"" (p. 8). In various mental health care studies, it is evident that the competency of the emergency care provider in the accuracy of the clinical judgement and clinical decision making is influenced by the depth of mental health knowledge, skills and the attitude of the emergency care provider (Braithwaite, 2014; O'Hara, 2015; Parsons, 2014; Shaban, 2011). Clinical judgement and clinical decision-making process on scene is vitally important as this has implications on the management of a mental health patient.

2.8.1 Clinical judgement

Emergency care providers' have traditionally only treated mental health emergencies limited to certain conditions such as suicide, and the transportation of patients with injuries caused by self-harm to a hospital. The consequence of this is that the emergency care provider is not equipped with adequate diagnostic and decision-making abilities for mental health emergencies, the HPCSA-CPG is not prescriptive on the treatment of Behavioural Issues & Mental Health in Section 6 (HPCSA, 2018. p. 71). Emergency care providers are facing increasing challenges in the care of the mentally ill. Research into mental health practices shows that studies about the appropriate treatment practices of mental health patients by emergency care providers is lacking (Shaban, 2006; Wyatt, 2003). Research into a number of Australian and New Zealand ambulance procedures, and international literature from the World Federation of Mental Health and the World Health Organisation, allowed for a general conclusion to be drawn is that current treatment practices, relies on the emergency care provider's tacit knowledge which is based upon the emergency care provider's experience (Shaban, 2006). The assessment and treatment of mental health patients therefore becomes each emergency care provider's own professional judgement developed through his experience. This results in vast differences in the assessment and treatment of mental health patients between emergency care providers. This level of assessment and treatment differs between a newly qualified emergency care provider and an experienced emergency care provider. This results in the mental health patient undergoing varying levels of effective mental status evaluations. This was not only found in Australia and New Zealand, but supported by findings in the United Kingdom, Hong Kong and the USA (Shaban, 2015). A review of three public hospitals over a twelve-month period in Belgium, showed that approximately 36% of patients who presented with mental health illnesses were transported to the hospital by ambulances and it was found that these patients required significant medical treatment before

mental health interventions could be considered. The mental health patients who came to the hospital independent of an ambulance displayed significantly fewer medical complaints, even though these patients presented with serious mental health disorders such as depression or psychosis, had found their way to the emergency room without professional assistance (Shaban, 2006; Spooren et al., 1996). Psychiatric emergencies in Germany ranked as the third most requested type of assistance, with substance abuse disorders and suicide attempts accounting for the majority of referrals. Five typical psychiatric emergencies were presented to emergency physicians and emergency care providers to establish their diagnosis and treatment abilities. It was established that the emergency physicians' diagnosis was correct in 71% of emergency cases, against only 39% of the emergency cases being diagnosed correctly by emergency care providers. Whereas, only 32% of the correctly diagnosed emergency cases by emergency physicians were appropriately treated and managed compared to 14% of the correctly diagnosed emergency cases for emergency care providers (Pajonk, 2001; Shaban, 2006).

2.8.2 Clinical decision models

Research has shown that the emergency care providers world-wide are not adequately trained to manage a mental health patient, but are legally, medically and ethically bound to treat the patient, this leaves emergency care providers needing to make clinical decisions based on limited training and knowledge (Constitution, 1996; HPA, 1974; MHCA, 2002; NHA, 2003; Pajonk, 2001; Shaban, 2015; Stander et al., 2021; Spooren et al., 1996, Wyatt, 2003). The emergency care provider needs to attend to the mental health patient and manage the episode that they are facing, and to do this, they need to adopt a decision-making model to ensure that the mental health patient is managed.

2.8.3 Decision making models

An emergency care provider needs to approach and treat a mental health patient, regardless of whether they have the competency to treat the specific mental health episode that they are encountering, because some competence is required, even if it is only in terms of the medical treatment of patients that is required. Whilst there is a broad range of clinical decision models documented across the varying medical modalities, it was found that emergency care providers intuitively adopted differing treatment approaches when encountering a unique, complex, and volatile mental health emergency scene (Bendall & Morrison, 2009). Five decision-making models were identified and found to be used in practice. These were: a) hypothetico-deductive model, b) algorithmic model, c) pattern recognition model, d) rule-out worst-case scenario model, and e) event driven model. These approaches allow the emergency care provider the ability to move instinctively between different approaches as the mental health patient's condition changes of the scene (Parsons, 2014; Townsend & Luck, 2009). Modern paramedicine according the Bendall and Morrison (2009) requires the emergency care provider to treat all eventualities.

2.8.3.1 Hypothetico-deductive model

The hypothetico-deductive model describes the emergency care provider's ability to rationally and logically formulate a well-articulated plan to manage the mental health patient. This model allows the emergency care provider to formulate an explanation or hypothesis to explain and understand the patient's presentation (Carnevali & Thomas, 1993; Tanner et al., 1987). This approach, however, requires that the emergency care provider re-evaluates their approach and consider alternatives, especially if the current treatment is not having the desired effect or the patient is deteriorating (Bendall & Morrison, 2009). The advantage of this model is that it can be consistently applied and allows for the acquisition of more information, thus building on the

existing knowledge base of the emergency care provider. The hypothetico-deductive model allows for input from additional sources, including the patient, family, and clinical observations to allow the emergency care provider the flexibility to explore all options leading to effective mental health patient treatment (Corcoran, 1986). The disadvantage of the model is that an inexperienced emergency care provider may refute a hypothesis which may well lead to inaccurate clinical judgement and inaccurate clinical decision (Sandhu et al., 2006).

2.8.3.2 Algorithmic model

The second decision-making model that is often used in practice is the algorithmic model. This is a decision-making tool which makes use of protocols, flowcharts or clinical guidelines to manage common patient clinical presentations. This model is frequently used within emergency care practice as a step-by-step guideline aimed at standardising and simplifying patient treatment (Bendall & Morrison, 2009; Caroline, 2008). This model presents numerous risks to the emergency care provider. The first being that the inexperienced emergency care provider may not utilise all the information available to ensure that their clinical judgement and decision are accurate, and refer to the algorithm as the rule, with the second risk being that the experienced emergency care provider has over time formulated their own algorithms which are more in line with their own individual practice regimes (Sandhu et al., 2006). There is however, a dichotomy within the algorithmic model: a) the experienced emergency care providers are potentially operating outside the approved scope of practice of the emergency medical service provider, and b) the inexperienced emergency care provider may well miss important information relative to the patient's condition (Grimshaw & Russell, 1993).

2.8.3.3 Pattern recognition model

The third decision-making model is the pattern recognition model. Benner and Tanner (1987) and Boyle et al. (2008) describe pattern recognition a useful model when the emergency care provider approaches the patient. The patient's presentation of the mental illness is compared to the patterns of previous patients that have been encountered with similar presentations. This model allows for swift recognition of a treatment plan. Studies have shown that the knowledge and skills base of the emergency care provider increases as experience is gained (Benner & Tanner, 1987; Cioffi & Markham, 1997). There are however limitations to this model, which is the possibility of anchoring (Bendall & Morrison, 2009). Anchoring takes place when the emergency care provider relies too much on a particular set of information. The second limitation is confirmation bias (Chapman & Sonnenberg, 2000; Klayman, 1995) where the emergency care provider ignores subsequent information which may refute the original pattern that was identified. The combination of anchoring and confirmation bias may have fatal consequences on the emergency mental health scene (Sandhu, et al., 2006).

2.8.3.4 Rule-out worst-case scenario model

The fourth decision-making model that has been suggested by Jensen (2011), is the rule-out worst-case scenario model. This model allows for the emergency care provider to quickly investigate and eliminate the most life-threatening or serious conditions before exploring what they consider to be less life-threatening conditions (Bendall & Morrison, 2009; Sandhu, et al., 2006). A lesser experienced emergency care provider may not identify significant life-threatening or serious conditions using this approach.

2.8.3.5 Event driven model

The final model that was suggested as another common diagnostic practice is the event driven model (Sandhu et al. 2006). This approach allows for the emergency care provider to initiate treatment without having full knowledge of the patient's condition, then evaluating the results of the treatment, often used in conjunction with the rule-out worst-case scenario model. The primary aim being to stabilise the patient and transport to the most appropriate medical or mental health facility. Experience is the key to the success of this model, with the less experienced emergency care provider not necessarily being able to provide the adequate level of mental health patient management and care (Crook, 2001; Higgs et al., 2008).

2.9 Summary

The literature review shows that the emergency care provider faces many challenges both locally and internationally. The challenge starts with the lack of effective mental health education, and amongst others, deficient clinical and decision-making models. South Africa is not unique, as similar scenarios are found in different countries throughout the world. The South African emergency care provider does however, find themselves in a unique situation in that the MHCA does not authorise the emergency care provider to treat the mental health patient on the emergency mental health scene. It authorises the South African Police Service officer to make decisions on the wellbeing of the patient. The MHCA contradicts the Constitution and the NHA, as these two Acts make it obligatory for the emergency care provider to treat a patient. This contradiction exposes the South African emergency care provider, and may adversely impact the management of the mental health patient.

The literature is very compelling on the articulation of what is wrong with emergency mental health in general, but weightless on what the emergency care providers requirements are

relative to resolving the problem. This study attempts to understand the competency of the emergency care providers to treat a mental health patient within the Tshwane Metropole. If the emergency care providers are found to be not competent, would they be accepting of a pre-hospital mental health assessment protocol.

Chapter 3: Theoretical Framework

3.1 Introduction

In Chapter 1, two research questions were proposed, the first being: 1) What is the competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment? This gave rise to three sub-questions, (a) How knowledgeable are the emergency care providers about mental health? (b) How skilled are the emergency care providers in treating mental health patients? and (c) What are the attitudes of the emergency care providers towards mental health patients? and to sub-question 2) What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol? Therefore, the first question focuses on the competency of the emergency care providers when their knowledge, skills, and attitudes are evaluated. Knowledge, skills, and attitudes are the constructs of the competency theory (Baartman & de Bruijn, 2011; Chouhan & Srivastava, 2014; McClelland, 1998; Raven & Stephenson, 2001).

3.1.1 Purpose of the chapter

The purpose of this chapter is to gain an understanding of the competency theory and the application thereof within emergency medical services, specifically as it relates to the management of mental health emergencies.

3.1.2 Current definition and application of the competency theory

Whilst the definition of competency appears to be simple, there are many researchers that present their own interpretation of competence and competency. Chouhan and Srivastava (2014) identified no fewer than 16 different definitions of competency, five of which are presented to illustrate the diversity of the interpretation of competence and competency:

- “Boyatzis (1982, 2007) adopted the term competency as an “underlying characteristic of an individual that is causally (change in one variable causes change in another) related to superior performance in a job”” (p. 15).
- “Dubois (1998) defined competencies as the characteristics of: knowledge, skills, mindsets, thought patterns, and the like that, when used either singularly or in various combinations, resulting in successful performance” (p. 16).
- “McClelland (1973) defined ‘competence’ as a personal trait or set of habits that leads to more effective or superior job performance, in other words, an ability that adds clear economic value to the efforts of a person on the job” (p. 16).
- “Spencer and Spencer (1993) formulated their interpretation as ‘competencies are skills and abilities, things you can do, acquired through work experience, life experience, study or training’” (p. 16).
- “Woodall and Winstanley (1998) maintain competency as the skills, knowledge and understanding, qualities and attributes, sets of values, beliefs and attitudes which lead to effective managerial performance in a given context, situation or role” (p. 16).

Another definition that could be added to this list is that of Epstein et al. (2002, p. 226, as cited by Wilcox, 2012) who defined competence as the “habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values and reflection in daily practice for the benefit of the individual and community being served”.

Literature shows that competency is the basic requirement that enables the individual to do their job satisfactorily, but not in an outstanding manner, and includes the concepts of knowledge, skills, and attitudes (Wilcox, 2012).

Competency is an individual's capabilities in the form of knowledge, skills, and attitudes which are internal manifestations of the individual and cannot be easily measured. The external reflection of this competency is the individual's behaviour. Behaviour is in the form of actions, thoughts, and feelings. Actions, is how we witness the performance of the individual and is influenced by internal and external factors. Thoughts are imbedded in the individual and have influences such as morality, personal values, loyalty to self and influence the willingness of the individual to function within the accepted norms of the organisation. Feelings are emotions which are initiators of actions, however, positive or negative emotions influence behavioural outcomes of the individual (Chouhan & Srivastava, 2014). In order to successfully perform in their job, an individual needs the necessary competencies of knowledge, skills and attitudes, as well as the necessary behavioural attributes. Therefore, competency is the ability to do something efficiently through the combination of knowledge, skills, and attitudes, and the behaviour comprising of their thoughts, actions and feelings in the way that the individual conducts themself whilst doing their job functions (Baartman & de Bruijn, 2011; Raven & Stephenson, 2001).

3.2 Competency theory

To obtain competency, the individual must possess relevant knowledge (e.g. mental health knowledge), skills (e.g. treatment skills), and attitudes (e.g. diligence). Competence builds on the knowledge, skills and attitudes that were acquired through the initial professional training on the back of a basic education (Roe, 2002; Wilcox, 2012). Competence is refined through professional practice. As an example, understanding mental health illness is knowledge, while to use the understanding of mental health illnesses to treat a mental health patient contributes towards competency. The ability to administer medication to a mental health patient is a skill, wanting to ensure a mental health patient safety through a chemical restraint contributes

towards competency. Wanting to do the best for the mental health patient is an attitude, whereas treating all mental health patients with respect contributes towards competency. In Figure 1, a modified relationship between competencies and the knowledge, skills, and attitudes are shown.

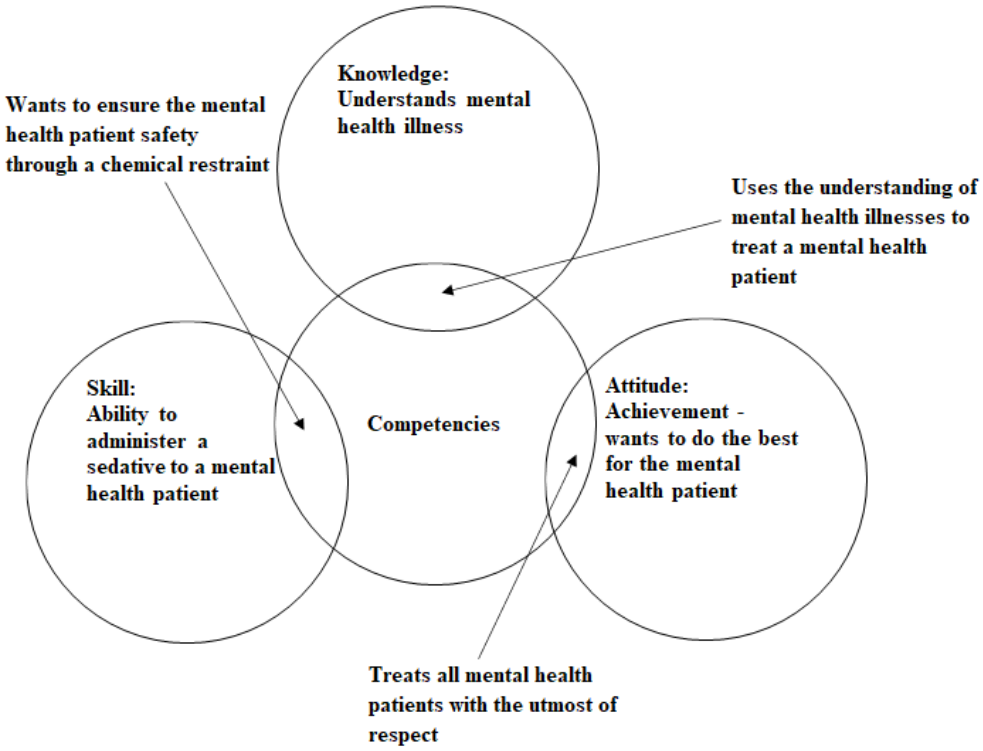

Figure 1 Modified relationship between competencies and knowledge, skills, and attitudes

The diagram has been modified from "An Initial Study to Develop Instruments and Validate the Essential Competencies for Program Evaluators (ECPE)" (Wilcox, 2012)

The theoretical framework that is being used to analyse the data is, therefore, based on the competency theoretical framework (Baartman & de Bruijn, 2011; Chouhan & Srivastava, 2014; McClelland, 1998). In the sub-sections below, the components of competency are presented as understood and defined for the purpose of this study.

3.2.1 Knowledge

Knowledge is the cognitive processing of learnt information and is factual. It includes the understanding, recognition, recall, evaluation of patterns, concepts and application of facts, that are necessary to perform the tasks requires for a particular job. Knowledge is generally acquired through a structured education model, being formal education, followed by on-the-job-training, and then work experience. Knowledge is generally considered to be general knowledge and disciplinary knowledge (Baartman & de Bruijn, 2011; Parker & Lobo, n.d.; Roe, 2002, Wilcox, 2012).

3.2.2 Skills

"Skill is the ability to demonstrate a system and sequence of behavior that are functionally related to attaining a performance goal…it must result in something observable, something that someone in the person's environment can 'see'" (Boyatzis, 1982, p 33). Skills are often discipline specific. To be considered competent, the individual needs to demonstrate that they have the minimum disciplinary skills to perform effectively. Skills can be acquired through an education model which is pre- and post-qualification. Pre-qualification skills can be acquired in a number of different ways, within a formal educational environment, or a formal or informal on the job learning through the transfer of discipline specific skills, using examples and simulations of how to perform a task. Post-qualification focuses of the sequential development of the skills, with basic skills being securedbefore more advanced skills can be developed, or reinforce other skills (Baartman & de Bruijn, 2011; Boyatzis, 1982; Parker & Lobo, n.d.; Roe, 2002, Wilcox, 2012).

3.2.3 Attitude

Knowledge and skills required for a job can be relatively easily identified and subsequently developed through education and training. Knowledge and skills, which are easily identifiable, and are considered to be surface competencies by Spencer and Spencer, (1993), whereas attitudes are more complex, more complex than knowledge and skills. Confidence or thoughtful about someone or something, which includes the manner in which a person may deal emotionally with situations is attitude. Attitude is reflected in a person's behaviour.

It is difficult to measure a person's attitude, especially their perception about a situation that they are encountering. It is not easy to change a person's attitude especially when it has been formed over a significant period of time A person's attitude may be developed or adjusted as a result of education and training. This may take considerable time and effort, and may be difficult to measure how much change has occurred in the individual's attitude as a result of this intervention (Baartman & de Bruijn, 2011; Parker & Lobo, n.d.; Spencer & Spencer, 1993).

3.3 Behaviour

Competencies are difficult to measure and can only be ascertained through the evaluation of their behaviour, which is the manner in which the individual acts, or conducts themselves, especially towards other individuals. Behaviour comprises of three main dimensions, being a) actions, b) thoughts, and c) feelings (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011). Behaviour has implication on the job performance of the individual. Braithwaite (2014) provided an example where participants voiced a connection between unethical behaviours, such as falsifying a document (actions) to protect themselves (feelings: possibly due to fear of medicolegal consequences and prosecution), with a lack of moral teaching in upbringing (thoughts). This behaviour, which may be considered as unethical practice, is distinct from their competencies as the emergency care provider has

knowledge, skills, and the prerequisite attitude to treat a mental health patient, being a qualified emergency care provider. Ethical practice is a learned behaviour which is the application of ethical decision making, or the ability to apply ethics to a specific situation and applies reasoning and judgement to the laws, guidelines of the organisation, and the norms and values of their service to their patient is taught.

What differentiates behaviour from competency, is that questions can be asked of the emergency care provider's behaviour: why did they behave unethically? Why did they falsify documentation? What actions did they perform or not perform that they feel that they are required to protect themselves? Why did they act in this manner, and is it contradictory or consistent with their moral upbringing?

Parker and Lobo (n.d.) discussed the concept of observable behaviour which they defined as the "outstanding performance on tasks or activities" (p. 10) and how competencies develop to enable "outstanding performance on tasks or activities" as "competencies are a person's capabilities in the form of **knowledge**, **skills**, and **attitude**, which gets reflected through a person's behaviour in the form of **actions**, **thoughts**, and **feelings** and finally manifests itself in outputs which are **products** and **services**" (p. 11).

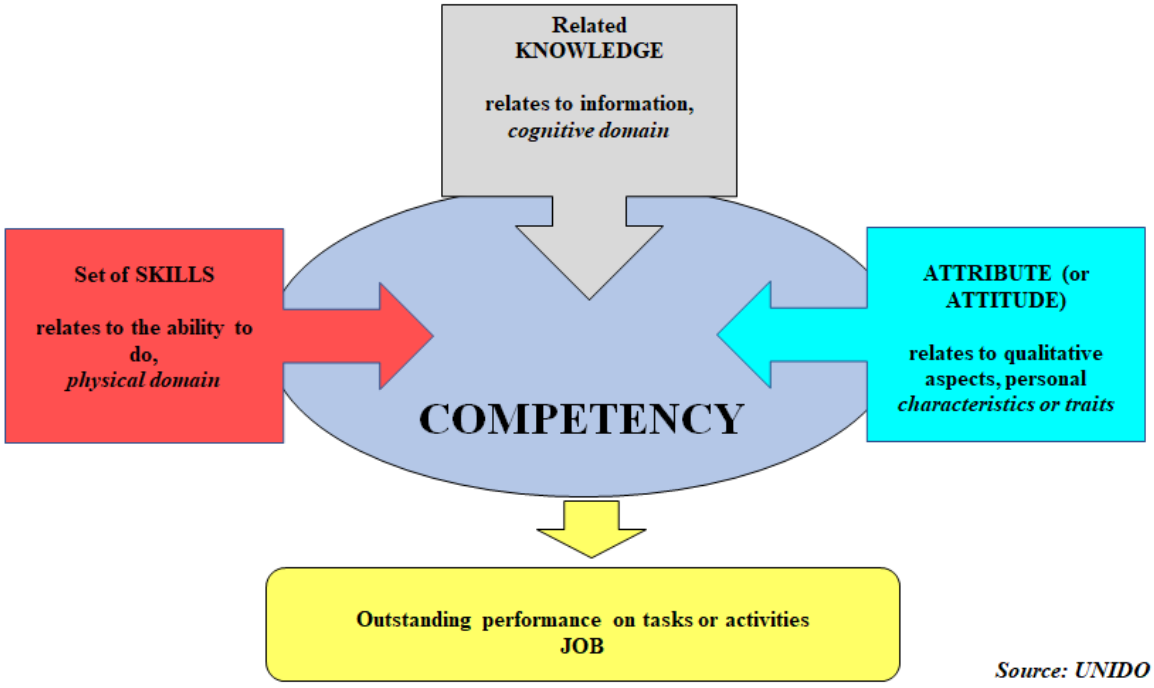

Figure 2 Competency framework resulting in outstanding performance

Illustration of the behavioural outcomes of outstanding performance through the effective use of **knowledge**, **skills**, and **attitude**, reflecting in an individual's behaviour in the form of **actions**, **thoughts**, and **feelings** which presents outstanding performance in the forms of **products** and **services**" (Parker and Lobo, n.d., p. 10).

3.3.1 Actions

Action is the first dimension through which a person exhibits behaviours. Actions are what we see the person do. It is hard to measure a person's attitudes that affect behaviour, but we can measure and evaluate action. The questions are asked how, amongst other factors, the actions of the individual are influenced by other persons, how are these actions influenced by the organisation that they work for, and the environment wherein they operate (Raven & Stephenson, 2001). Actions are the observable results of a person's attitudes and the consequences thereof can be monitored (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Shaban, 2011). Typically, it would be expected that questions are asked by the individual, which would include: Would I accept my action if I was is the recipients position?

Would I feel comfortable if my actions were applied to myself in similar circumstances? Am I able to justify my actions or find good reasons for my actions? (Braithwaite, 2014; Parker & Lobo, n.d.; Roe, 2002 Parsons, 2014; Shaban, 2011).

3.3.2 Thoughts

Thinking is imbedded in each individual, and through this process, tests the morality, and personal values of the individual as well as their loyalty to self, others and the company that they work for. Questions that would be expected to be asked would include: Would I have applied the same thought process if I was in the recipient's position? Would I be comfortable if I applied my though patterns to myself in a similar situation? Am I able to justify my thought process or find good reasons for my thought process? Do I revisit my thought process upon the completion of the activity? (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011).

3.3.3 Feelings

Feelings are emotions, and are initiators of actions, and can be positive or negative towards the task at hand. Positive or negative feelings will affect the willingness of the individual to access the knowledge and skills that they have learnt and combine it with the pre-existing or newly formed attitude to the work environment, which will be displayed as feeling towards the work situation that is being presented. The positive or negative feelings should illicit questions about the performance of the individual in the performance of their job and whether they were willing to perform to the best of their ability: Did feelings influence my willingness to act? Was I able to use my knowledge, skills and did my feelings affect my attitude in the performance of the job? (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011).

3.4 Competency theoretical framework and emergency mental health scenes

An emergency mental health scene is a unique experience, irrespective of the emergency care provider's experience. In saying this, each mental health scene has a patient which is displaying signs and symptoms of a mental health episode, with their own personal history of the illness and the contributory factors that have created the emergency. The likelihood of exactly the same circumstances being present on two or more emergency mental health scenes is effectively nil. Even the mental health patient that is a known frequent user of EMS, has changed their history since the previous episode; examples being that there may have been different medications prescribed since the last episode, compliance in taking of the medication may have changed, or the trigger for the current episode maybe different from the previous episode.

In addition, as discussed in Chapter 2.8 (Competency in managing mental health patients), the emergency care provider would need to use a combination of clinical judgement (as discussed in Chapter 2.8.1), and decision-making models (as discussed in Chapter 2.8.2 and 2.8.3) to competently diagnose, treat, manage, and transport the mental health patient to an appropriate medical or mental health facility. To understand the competency of the emergency care providers in treating mental health patients, the analysis of the data obtained for the current study would need to be performed using a modified competency theoretical framework.

3.5 Modified competency theorical framework

The competency theory as discussed by Raven and Stephenson (2001) has matured and has been adapted by many industries and organisations for the assessment of the competency of their individual employees. Literature research could not identify a specific competency theoretical framework which could be used as a template for the analysis of the competency of

the South African emergency care providers' approach towards the management of a mental health patient. The competency theoretical framework (as presented in Figure 3) has been modified by the researcher to enable a thorough understanding of the individual emergency care provider's competence and will focus on the competency to practice in accordance with the Bachelor Degree: Emergency Medical Care (B. EMC) - Qualification Identification: 63129 (South African Qualifications Authority [SAQA], 2021), National Diploma: Emergency Medical Care (N. Dip EMC) – Qualification Identification: 74077 (South African Qualifications Authority [SAQA], 2018), ALS protocol (HPCSA-PBEC, 2006a), ILS protocol (HPCSA-PBEC, 2006b), and the Health Professions Council of South Africa Clinical Practice Guidelines (HPCSA-CPG) (HPCSA, 2018).

To ensure a thorough understanding of competency, the three constructs of knowledge, skills, and attitude were interrogated. The research was based on a semi-structured interview, and thus, the actual knowledge, skills, attitudes, and on-scene behaviour of the emergency care provider could not be tested. The analysis was focussed on the self-reporting of the emergency care provider through the semi-structured interviews, much of which will be articulated in the description of their behaviour displayed on the mental health scene.

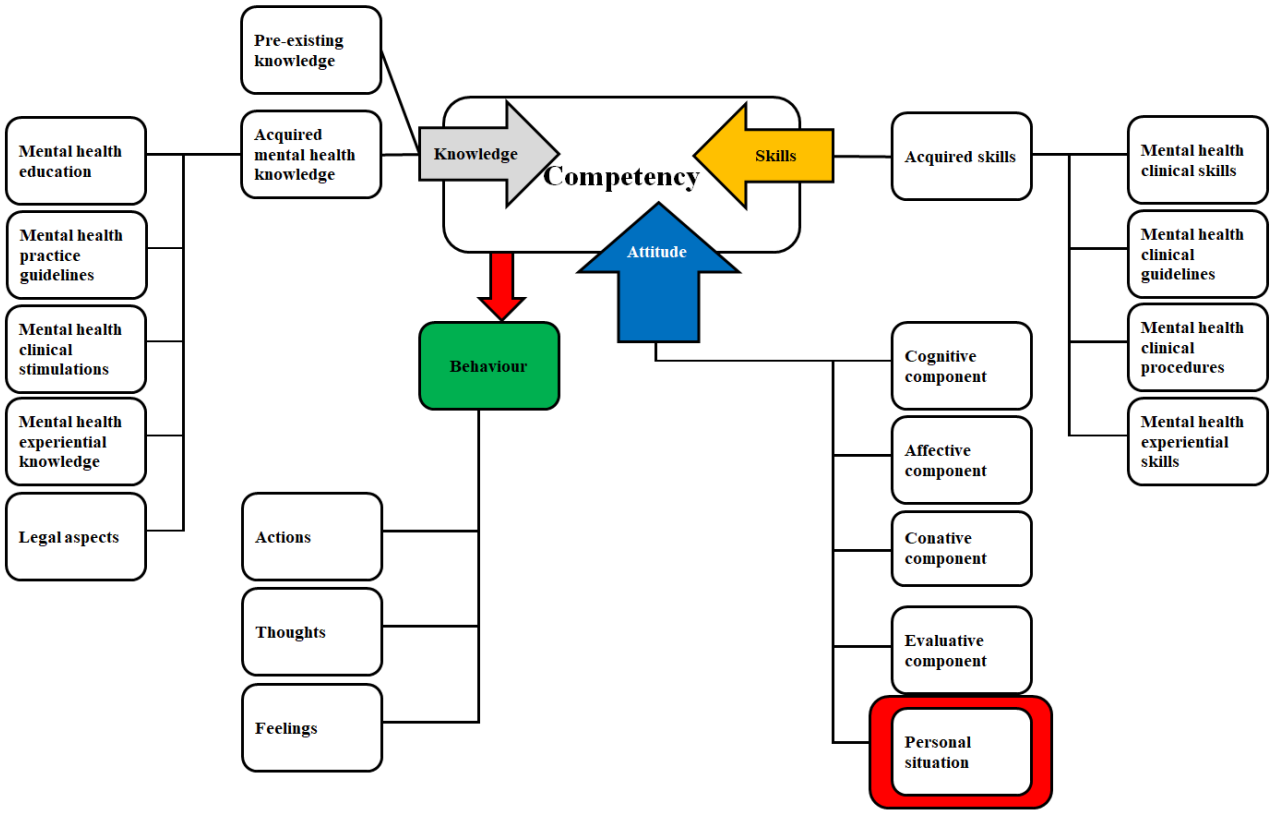

Figure 3 Modified competency framework model

The theoretical framework has informed the analysis of the data. Each component of the competency model, namely knowledge, skills and attitude, has been analysed through deductive coding using the sub-components of each category, as codes. Behaviour as the demonstration of mental health patient treatment competence, was analysed by using the sub-components of action, thoughts and feelings. The conceptualisation of each construct from the modified competency framework, that was used during the analysis, is explained below.

3.5.1 Analysis of knowledge

Knowledge is the subject matter of what comprises mental health, mental health illness, and patient management procedures and clinical practice guidelines, thus enabling the emergency care provider to be placed in the position to understand mental health and mental health illness. Knowledge comprises of pre-existing knowledge which the emergency care provider has acquired before starting their formal paramedicine training, and acquired subject matter

knowledge which they have gained from academic sources, clinical practice guidelines, simulations, experiential knowledge and personal experience through the education and operational phases as an emergency care provider. The understanding of the legal aspects of mental health legislation were also investigated.

3.5.1.1 Pre-existing knowledge:

Pre-existing knowledge is derived from two sources, prior experience, and prior formal academic qualifications. Pre-existing knowledge is not mandatory, however, under certain circumstances, prior knowledge is a requirement or preferred as it forms a basis for paramedicine education (Paramedic Association of Canada [PAOC] (2011). The SAQA NQF regulations for the B. EMC refer to the recognition of prior learning where it is applicable (SAQA, 2021), whereas the N. Dip EMC does not recognise any prior learning (SAQA, 2018). Australian literature refers to the impact of prior experience and pre-existing knowledge of the emergency care providers when approaching and treating mental health patients (Parsons, 2014; Shaban, 2011). Pre-existing knowledge has been gained through a prior experience due to life events, and through formal academic qualifications contained a psychology module(s) before the emergency care provider started the formal emergency care training programme.

3.5.1.2 Acquired mental health knowledge:

Acquired mental health knowledge is the foundation which equips the emergency care provider with the theory surrounding the topic of mental health and mental health illnesses. Knowledge does not only reside with mental health, but includes topics such as life sciences, patient management procedures, patient transport or RHT procedures, and decision support systems. Acquired specific subject matter knowledge is the theoretical learning in the classroom and in

the practical environment where academic teaching takes place (PAOC, 2018; Parsons, 2014; Shaban, 2011). Life-long learning occurs after qualification (SAQA, 2018; SAQA, 2021).

Mental health education

Mental health education is the mental health academic curriculum taught to the student emergency care provider to ensure that they have a mental health specific knowledge and can function operationally. The emergency care provider requires additional supportive knowledge, such as life sciences (for example: anatomy and physiology biochemistry, epidemiology, and human biology,) and physical sciences (for example: physics and chemistry) (PAOC, 2011), to broaden their knowledge as an emergency care provider and to enable them to treat a mental health patient (Shakeri et al., 2018). Subject matter theory further includes the understanding of legislative procedures and mental health patient protection and scene management of a mental health emergency (PAOC, 2011; Parsons, 2014; Shaban, 2011). The SAQA NQF regulations refers to specific knowledge outcomes which must be achieved as a part of the qualification criteria for the specific qualification (SAQA, 2018; SAQA, 2021), whereas the HPCSA-CPG (HPCSA, 2018) details the clinical practice guidelines that must be observed by the emergency care provider. The semi-structured interviews were analysed to ascertain what specific subject matter was taught related to mental health and mental health patients.

Mental health practice guidelines

Mental health practice guidelines where the appropriateness to practice in accordance with mental health clinical practice standards, diagnosis, mental health patient treatment, and manage the mental health patient in accordance with the established documented clinical practice guidelines are taught (Baartman & de Bruijn, 2011; PAOC, 2011). The SAQA NQF

approach is to refer to procedures and best practice which the emergency care provider is taught regarding the management of the incident (SAQA, 2018; SAQA, 2021), whereas the HPCSA-CPG (HPCSA, 2018) details the clinical practice guidelines that must be observed by the emergency care provider. The semi-structured interviews were analysed to ascertain whether any specific clinical management guidelines were taught to the student during the theoretical phase.

Mental health clinical simulation

A clinical simulation needs to present to the emergency care provider, an authentic scene which includes a mental health condition that is relevant and displays the physical, verbal and emotional reactions of a mental health patient, thus allowing the emergency care provider to apply the theoretical knowledge in the management of the episode. It would be expected that the clinical management procedures would be tested (PAOC, 2011). Baartman and de Bruijn (2011) considers the process to be integrated learning. In the South African environment, it is found that as a part of the integrated assessment, a simulated patient scenario is referred to as an exit level outcome (SAQA, 2018, SAQA, 2021), whereas the HPCSA-CPG (HPCSA, 2018) details the clinical practice guidelines that must be observed by the emergency care provider. It has been found that clinical simulations provide a safe environment for the student, where the treatment of patient scenarios happen. There is the assurance that mistakes will be identified and assistance given to allow for the competence of the student to develop, and that there will be no serious negative long-term consequences as the simulated treatment does not take place on an actual patient (Raven & Stephenson, 2001). The semi-structured interviews were analysed to ascertain if mental health scenarios were demonstrated through the clinical simulations during the theoretical phase.

Mental health experiential knowledge

Experiential knowledge is knowledge that is gained through experience. Experiential knowledge is focussed on two aspects of learning, being a component of the education model prior to qualification, and subsequent to qualification as an emergency care provider. Experiential exposure provides the student emergency care provider the opportunity to practice the application of the theoretical knowledge under supervision and to apply such theoretical knowledge in the everyday context. (Clements & Mackenzie, 2005; PAOC, 2011) In the South African context, the theoretical knowledge is applied in a practical environment (SAQA, 2018; SAQA, 2021). Personal experience that has been gained by the emergency care provider simply through their everyday practice, where relationships are constructed which serve as references for the emergency care provider (PAOC, 2011). The relationship between the emergency care provider and other health care, and allied workers are recognised in the South African model (SAQA, 2018; SAQA, 2021).There was an analysis of the semi-structured interviews to ascertain if any experiential knowledge was imparted by the lecturers during the theoretical phase and what experiential knowledge has been learnt from everyday practical mental health patient treatment and have developed more effective methods of managing mental health incidents (Parsons, 2014).

Legal aspects

The legal aspects predominate within mental health. there are four topics which are subject to analysis, these being: (a) subject matter theory specifically focused on the Mental Health Care Act, No. 17 of 2002 , (b) knowledge of consent as defined by the Mental Health Care Act, No. 17 of 2002 , (c) knowledge of admission criteria as defined by the Mental Health Care Act, No. 17 of 2002 , and (d) knowledge of police officer involvement as defined by the Mental Health Care Act, No. 17 of 2002 (Ndou, 2015, NDOH, 2003; van Huysteen, 2017; Zwart, 2015).

3.5.2 Analysis of skills

Skills are required to be taught to the student emergency care provider so that they will be able to treat a mental health patient on an emergency mental health scene. The analysis of skills focused on the mental health skills that enable the treatment of the mental health patient. The analysis of skills examined the acquisition of mental health patient treatment skills under the subject headings of mental health clinical skills, mental health clinical guidelines, mental health clinical procedures, and mental health experiential skills. These are acquired skills.

The clinical skills are taught in the classroom and consist of clinical skills, clinical practice guidelines and simulations. The student emergency care provider then applies the theoretical skills in the experiential knowledge phase of the learning to develop their personal experience on the application of these clinical skills and should be able to apply such clinical skills when treating a mental health patient. The semi-structured interviews will provide an understanding of the technical skills that have been taught in the classroom environment, or developed from the experience gained from treating mental health patients.

Mental health clinical skills

Mental health clinical skills are taught in support of the theoretical knowledge enabling the emergency care provider to effectively treat the mental health patient. The clinical skills that are taught range from the ability to obtain a patient's history, to managing a complicated mental health patient episode (Shakeri et al., 2018). Internationally, clinical skills are primarily taught to ensure that the emergency care provider has the prerequisite skills (PAOC, 2011; Parsons, 2014; Shaban, 2011). In South Africa, a similar trend is found where the emergency care provider is taught the prerequisite clinical skills to ensure that effective patient treatment can take place (SAQA, 2018; SAQA, 2021), whereas the HPCSA-CPG (HPCSA, 2018) details the

clinical practice guidelines that must be observed by the emergency care provider. The semi-structured interviews were analysed to ascertain whether the emergency care provider reports the ability to apply subject matter theory in the treatment of a mental health patient.

Mental health clinical guidelines

The clinical environment requires mental health clinical guidelines to enable the integrated diagnosis, treatment and management skills of the mental health patient. In the education phase, the emergency care providers are taught the clinical practice guidelines which are based upon the HPCSA-CPG (HPCSA, 2018). The foundation for the clinical practice guideline is found in the SAQA NQF registered qualifications (SAQA, 2018; SAQA, 2021), whereas the HPCSA-CPG (HPCSA, 2018) details the clinical practice guidelines that must be observed by the emergency care provider. Internationally, a similar approach is found, where the emergency care provider is taught the integrated procedures that are needed in the clinical environment to diagnose, treat and manage a mental health patient (PAOC, 2011; Parsons, 2014; Shaban, 2011). The application of clinical practice guidelines that were learnt in the academic setting were questioned through the self-reporting of the emergency care provider to ascertain the effectiveness of the clinical practice guidelines in treating mental health patients.

Mental health clinical procedures

Whereas, the clinical procedures are taught in the academic phase, there is a requirement that the mental health clinical procedures be integrated with the subject matter theory supporting clinical skills to ensure that there would be effective patient treatment. Similar approaches are found in the Canadian approach (PAOC, 2011; Parsons, 2014; Shaban, 2011) and South African HPCSA-CPG (HPCSA, 2018) models. The semi-structured interviews were analysed to ascertain the efficiency of clinical treatment as self-reported by the emergency care provider.

Mental health experiential skills

The training model that is employed within the emergency medical services allows for experiential skills to be gained, however, it is not possible for all patient presentations to be demonstrated or encountered during the training. The semi-structured interviews were analysed to ascertain whether there are experiential clinical skills learnt by the emergency care provider (Clements & Mackenzie, 2005; PAOC, 2011; SAQA, 2018; SAQA, 2021). There are four areas that were explored, being: a) the ability to utilise all knowledge to be able to diagnose a unique mental health patient illness, b) the ability to treat a new unique mental health patient presentation gained from the treatment of previous mental health patients, c) knowledge gained regarding the progression of the mental health illness, and treatment thereof, and d) the ability to construct a new patient treatment model for a unique mental health patient. The HPCSA-CPG (HPCSA, 2018) guideline stresses that experiential knowledge incorporates new learning in all disciplines, and that the development of knowledge is based on "Evidence from opinions of respected authorities, based on clinical **experience**, descriptive studies, or reports of expert committees" (p. 20), or "Recommended practice based on clinical **experience** and consensus" (p. 44), It is not possible for the student emergency care provider to obtain an exposure to the practical environment and actual mental health patients, Kolb (1984) introduced experiential learning as a source of learning and development. Experiential learning has become a focus in the healthcare setting. Where Kolb (1984) differed from other learning models was in the acknowledgement that experience is gained through the education process. The experiential learning model requires the performance of mental health patient management, share the results and observations with the supervising practitioner, and jointly discuss and reflect of the process in real world examples. The student would be required to apply the learnings to different scenarios. Experiential learning through examples in clinical skills education is supported by Sand et al. (2014) who describe the process as being the connection between knowledge, and

previous experiences. Life-long learning is introduced through the NECET-Policy (RSADH, 2017), and the B. EMC (SAQA, 2021) and N. Dip EMC (SAQA, 2018) qualifications, and is supported by Kolb (1984) and Sand et al. (2014), which stresses that there must be a constant revisiting of the knowledge to bridge to new knowledge.

3.5.3 Analysis of attitude

Attitude is the underlying foundation of the emergency care providers' approach to a mental health patient. Research does not specifically evaluate the different perspectives of attitudes that are present, such as the cognitive, affective, evaluative, and conative attitudes but tends to group attitude into globular tendencies such as negative or positive. The in-depth reviews of the research into attitudes allows the differences between cognitive, affective, evaluative, and conative attitudes to be extrapolated and understood (Braithwaite, 2014; Parsons, 2014; Prener & Lincoln, 2015; Ross et al., 2018; Wilcox, 2018). To understand what attitude is and how it affects the views of the emergency care provider and the treatment of the mental health patient, attitude was explored under the perspectives of cognitive, affective, evaluative, and conative attitudes. However, attitudes are also affected by the emergency care provider's own personal situation wherein they find themselves, whilst this is not formally an attitude, it does contribute to a fluidity of attitude, finding that the emergency care provider's attitude may be positive then negative during the course of their operational shift (Braithwaite, 2014; Parsons, 2014; Wilcox, 2018). The analysis was focussed on the self-reporting of the emergency care provider through the semi-structured interviews.

Cognitive attitude

Cognitive attitude is the opinion or belief segment of an individual's attitude, and is the part of attitude that relates to general knowledge. Researchers have identified that the cognitive

attitude contributed towards the overall attitude in their research participants. The participants view that related to opinions, thoughts and beliefs on how they, their colleagues or the mental health patient affect their attitude towards the mental health episode (Braithwaite, 2014; Parsons, 2014; Prener & Lincoln, 2015; Shaban, 2011; Wilcox, 2018). The semi-structured interviews were analysed to identify the opinions, thoughts, and beliefs that the emergency care provider reported and were associated with a mental health patient.

Affective attitude

Affective attitude involves the individual's feelings and emotions about the mental health patient. Emotions and feelings featured in the research, with a number of the participants noting that their treatment of a mental health patient was often guided purely by their feelings towards the mental health patient and what emotions these feelings brought to the fore. In the research, it is difficult to ascertain whether these feelings in particular are underwritten by knowledge, skills or experience (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). The feelings or emotions generated in response to, or towards a mental health patient is the affective attitude of the emergency care provider. The self-reporting by the emergency care provider of the emotions or feelings generated in response to, or towards a mental health patient were analysed.

Conative attitude

The conative component of attitude is the way that the attitude that the individual has, influences how the individual acts or behaves. On-scene behaviour is influenced by the attitude of the emergency care provider towards the mental health patient appears to be one of the least substantiated topics in research. Conative attitude is the demonstration of how the emergency care providers' attitudes influence their on-scene behaviour (Braithwaite, 2014; Parsons, 2014;

Wilcox, 2018). The semi-structured interviews were analysed to identify whether the self-reported attitude of the emergency care provider influences the mental health patient treatment.

Evaluative attitude

The predisposition of the individual to continually examine and analyse their competencies is the evaluative attitude. The evaluative component of the attitude is a critical component in learning and occurs both formally and informally throughout the task that is being undertaken. The favourable or unfavourable reaction of the emergency care provider towards the mental health patient was not clearly developed in the research, leaving the reader to draw their own conclusion based upon their own assumptions (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). The favourable or unfavourable reaction of the emergency care provider towards the mental health patient exhibited in the beliefs, or intended behaviour was analysed to understand the tendency of the emergency care provider to act in a certain way towards the mental health patient. The semi-structured interviews were analysed to ascertain the self-reporting of the reactions of emergency care providers towards mental health patients.

Personal situation

The participant's personal situation is not an "attitude", research has shown that the shift duration, unprocessed emotions of traumatic patient encounters contribute towards a fluidity of attitude. The researchers present the reality that an emergency care provider's attitude at the beginning of a 48-72-hour shift is markedly different to that at the end of the shift. The personal situation of the emergency care provider is introduced as a subset of attitude to establish an understanding of whether the length of a shift combined with the possibility of unprocessed emotions effects the fluidity of attitude. The semi-structured interviews were analysed to garner an understanding of the impact of the emergency care provider's personal situation on their

treatment and reaction to the mental health patient (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018).

3.5.4 Analysis of behaviour

Behaviour differentiates itself from competency, where "competencies are a person's capabilities in the form of **knowledge**, **skills**, and **attitude**, which gets reflected through a person's behaviour in the form of **actions**, **thoughts**, and **feelings** and finally manifests itself in outputs which are **products** and **services**" (Parker & Lobo, n.d.). Behaviour was specifically analysed as part of the semi-structured interviews to identify the participant's behaviour related to their assessment of the treatment of the mental health patient.

Whilst in theory, a qualified emergency care provider, should be able to treat and manage a mental health emergency, reality may prove the contrary. Research shows that on many occasions, the emergency care provider questions their behaviour on the scene, asking questions where they self-interrogate amongst others, their own thought processes and actions in treating the patient. The competency theory does not make reference to clinical judgement and decision-making skills; however, these skills may well have an effect on the behaviour of the emergency care provider (Braithwaite, 2014; Parsons, 2014; Shaban, 2011).

Actions

Emergency care providers often question their actions when considering the treatment of a mental health patient. It would be expected that the participants would question their actions and what is the influence of peers, their organisation and EMS on their actions. The justification of their actions in the management of the mental health patient following a mental health emergency should undergo the necessary scrutiny (Braithwaite, 2014; Parsons, 2014; Shaban,

2011). The semi-structured interviews were analysed identify on-scene behaviour displayed by the participant and whether there was any post-scene scrutiny of their on-scene actions.

Thoughts

Thinking is inherent to the participant and through this process they are able to test their moral and personal values, loyalty to self, peers, and their patient. It is expected that there will be through this process, a critical self-evaluation of mental health patient treatment irrespective of the outcome (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011). Braithwaite (2014) refers to emergency care providers who entertain negative thoughts following the attendance on specific scene, even questioning whether they should remain an emergency care provider. The semi-structured interviews were analysed to identify the thoughts and thought processes when treating and managing a mental health patient.

Feelings

Research has shown the feelings are emotions, and are initiators of actions, and can be positive or negative towards the task at hand and will affect the willingness of the individual to access the knowledge and skills that they have learnt, and combine it with the pre-existing or newly formed attitude to the work environment, which will be displayed as feeling towards the work situation that is being presented (Braithwaite, 2014; Parker & Lobo, n.d.; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011). These feelings are compounded and potentially affect the interactions with future mental health patients (Braithwaite, 2014; Parsons, 2014; Shaban, 2011). Feelings towards a mental health patient were analysed in the semi-structed interviews to ascertain whether these contribute towards the effective treatment of a mental health patient.

3.6 Summary

The competency theory has matured, and different occupations have adapted the theory to specifically train their employees. Emergency medical services worldwide have identified that competency of the emergency care providers have been neglected and are changing their education models. South Africa is no different, and the literature search could not identify a specific competency model for the South African emergency care provider. A modified approach to understand the competency of the emergency care provider was utilised to ensure that an understanding of their competency to treat a mental health patient can be assessed.

Chapter 4: Methodology

4.1 Introduction

In Chapter 1, two research questions were proposed. The first was: What is the competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment? This gave rise to three sub-questions (a) How knowledgeable are the emergency care providers about mental health? (b) How skilled are the emergency care providers in treating mental health patients? and (c) What are the attitudes of the emergency care providers towards mental health patients? The second research question was: What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol? The gave rise to two sub-questions, (a) Does the competence of the emergency care providers justify the implementation of a pre-hospital mental health assessment protocol? and (b) What is the possibility that emergency care providers will accept a pre-hospital mental health assessment protocol?

The theoretical framework of the study was informed by the competency theory. Inherent in the competency theory is that patient treatment is reliant on each emergency care provider's specific knowledge, skills, attitude, and is observed in their behaviour and performance at the time of treating a mental health patient. In order to gain an understanding of the competency and behaviour of the emergency care provider and their ability to treat a mental health patient, a semi-structured questionnaire protocol was developed. The emergency care providers were interviewed, and the resultant data analysed using the interpretivist approach.

Each person has their own unique experience of their world which differs from every other person. A methodology is required which brings these experiences to the fore. Interpretive inquiry is said to provide greater clarity on how the person understands the meaning of the

specific context of the phenomena. The social theory, in the current study is the competency theory, and will inform the understanding of the emergency care providers competency in mental health patient management. This will in turn assist the interpretivist researcher in making sense of the data (Angen, 2000; Terre Blanche et al., 2006). In this chapter the research paradigm and research design, as well as the trustworthiness of the study and ethical considerations will be discussed.

4.2 The interpretivist paradigm

Interpretivism is based on two fundamental constructs, the one being the nature of knowing, which relies on relativist ontology. Relativist ontology is based upon the assumption that reality as we know it, is constructed by the individual intersubjectively through meanings and understandings that they have socially and experientially assembled. The second construct is reality, which relies on transactional or subjectivist epistemology. Transactional or subjectivist epistemology, assumes that the researcher and the phenomena of the investigation are linked and cannot be separated (Angen, 2000; Terre Blanche et al., 2006). This link is guided by how the researcher understands the world and how it is studied. This is determined by the inherent beliefs and feelings of the interpretivist researcher (Levers, 2013).

Interpretivism investigates real-life occurrences and is considered is radical in nature, since the complexity of a person is such that it is not possible to find answers by using theoretical models. This complexity can be attributed to the uniqueness of each individual, where their cultural, historical, social, political, and subjective experiences, coupled with their knowledge cautions on the formation of generalisation of findings. Interpretivist research is qualitative by nature; however, it does not follow the typical qualitative approach. Interpretivism has its own

distinctive approach to research design, and concept formation, and in its data analysis and standards of assessment (Angen, 2000; Potter, as cited in Terre Blanche et al., 2006).

Interpretivism has been called “anti-positivist” or “naturalist inquiry” and is seen as a critique of “positivism” in social sciences, as the interpretivist researcher cannot objectively analyse his / her research. This is due to each person having their own view of reality and cannot extract themselves from that reality (Angen, 2000; Potter, as cited in Terre Blanche et al., 2006). Corbin and Strauss (2008, as cited in Levers, 2013) acknowledged that there is no one reality waiting to be discovered, there are multiple realities, and that it is not possible to separate the researcher from the research as the researcher has their own view of reality.

4.3 An interpretivist approach to the study

An interpretivist approach to conducting the research was appropriate for this study as it focusses on the understanding and interpretation of the emergency care providers’ perspectives on mental health and mental health patients. To gain this understanding and interpretation, the research design was guided by the ontology and epistemology of the interpretivist paradigm.

The ontology of the interpretivist paradigm is that there are multiple realities, and that these realities can be explored, and are constructed through human interactions and meaningful actions. These multiple realities exist due to varying human experiences including their knowledge, views, and interpretations. Interpretivism discovers how the individual makes sense of their social worlds in their natural settings through their interactions with other individuals around them (Edirisingha, 2012; Terre Blanche et al., 2006).

The epistemology of the interpretivist paradigm is that all events are understood through the mental process of interpretation that is influenced by the interaction within the individual's social context. In this research approach, the researcher socially constructs the reality through experiencing the real life of the emergency care provider. The researcher and the emergency care provider are involved in the interactive mode of data collection through use of a semi-structured interview protocol, to engage in a process of talking, listening, and other personal interactions (Edirisingha, 2012; Terre Blanche et al., 2006).

The research design, following an interpretivist approach, will now be discussed.

4.4 Research design

In line with the interpretivist paradigm, this study was designed as a qualitative cross-sectional study. A cohort of sixteen emergency care providers was proposed, and were to be interviewed using the semi-structured interview protocol as a means of the data collection. This approach was used in order to investigate the emergency care providers' views of a mental health emergency and a mental health patient in order to gain an understanding of how they constructed their own worlds relative to their knowledge, skills, attitudes, and behaviour towards mental health patients within the pre-hospital environment. The evaluation of the constructs allowed for an understanding of the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol (Terre Blanche et al., 2006).

4.4.1 Population and sampling

The population of interest were emergency care providers registered with the HPCSA as independent practitioners (HPA, 1974). These are emergency care providers who are registered

and can practice under the auspices of the ALS protocol, (HPCSA-PBEC, 2006a), and ILS protocol (HPCSA-PBEC, 2006b). It is not possible for emergency care providers to operate as individuals (with a few exceptions), and are employed by registered emergency medical service providers, who have been registered in accordance with the requirements of the Emergency Medical Services Regulations, 2017 issued by the Department of Health on the 1st of December 2017 (EMSR, 2017). Therefore, the focus was on obtaining permission to conduct participant interviews from those employed at national or large regional emergency medical service providers. Emergency care providers who are registered under the BLS protocol (HPCSA – Professional Board for Emergency Care [HPCSA-PBEC], 2006c) are excluded from the scope of the research as their qualifications are defined as "supervised practice" and they may not treat a patient without adequate supervision.

The research focussed on the greater Tshwane Metropole, which is serviced by four of the national private emergency medical service providers, and two firmly entrenched large private regional based services. Out of these, three national and two regional emergency medical service providers were approached for participation in the research, as they had representation of ALS and ILS qualified emergency care providers. Approval to conduct research was obtained from four of the emergency medical service providers (see Appendices B to E). The fifth service provider did not respond to the researcher's request for participation.

Three of the participating emergency medical service providers provided a detailed listing of potential ALS and ILS participants upon request. The fourth emergency medical service provider allowed the researcher to draw ALS and ILS participants from the crews on both the day and night shift on a specified date.

A total of twelve emergency care providers were selected to participate in the research. Random sampling using MoonStats 2 (MoonStats CC. 2001), was conducted for the three emergency medical service providers who had provided names of potential participants. The participants were separated alphabetically into the two strata of ALS and ILS emergency care providers. Two participants per strata per emergency medical service provider were initially selected and contact was made with the selected participants. A date was provided to the fourth emergency medical service provider which allowed for two participants from each stratum to be interviewed from their Tshwane base. Whilst random sampling may be considered superfluous or not aligned with the ambit of an interpretivist qualitative study, the researcher was cognisant that he knows and is well known to many of the potential participants, and may through any other selection procedure, select participants who have similar views as himself. The use on a random sampling tool thus eliminated the possibility of such selections, and allowed for all possible participants to be selected for the interview process.

Successful contact was made with eleven of the selected participants and appointments made on days which was convenient to all parties. One of the selected ALS practitioners had resigned from the emergency medical service provider and was employed by another emergency medical service provider, which was not amongst the selected service providers, therefore the selected participant could not be interviewed. A replacement was selected from the remaining ALS practitioners from the service using MoonStats 2 (MoonStats CC. 2001), to ensure randomised sampling was maintained. This ALS practitioner agreed to be interviewed. The remaining four participants from the fourth emergency medical service provider were identified at the base upon arrival.

There were originally sixteen emergency care providers selected, of which, two did not want to take part in the interview process. Guest et al. (2020) in his research proved that in excess of 70% of the major themes in all studies are identified from the first six interviews and 92% of major themes are found in the first twelve interviews. Therefore, the researcher was of the opinion that an additional two emergency care providers would not add substantially to the themes that are identified from the fourteen interviews that would be conducted, but did consider interviewing two additional emergency care providers if substantial themes where still emerging upon the completion of the analysis of the previous fourteen interviews. As the analysis of the data will show, the theory of Guest et al. (2020) held true and the last two interviews conducted would not have contributed significantly to the overall substance of the data collected. The interview strata consisted of six ALS practitioners and eight ILS practitioners.

4.4.2 Data gathering

The approach to data collection that has been relied on has been semi-structured interview protocol. This allows for fluidity and the ability to enrich subsequent interviews based upon the knowledge and insight gained from the previous interviews. The interview is a qualitative method that relies on an adequate dialogue between the researcher and the respondents (Terre Blanche et al., 2006). All participants, with the exception of one took place during an operational shift. Only two of the shift-based interviews was interrupted by an operational callout. The participants agreed to continue with the interview on their next operational shift. Upon resumption, the recorded interview from the previous shift was replayed, and the participants were provided with the opportunity to refresh the memory and ask for, or provide additional information before continuing with the interview. The interviews were successfully

completed. The emergency care provider who requested an interview time which did not coincide with an operational shift, was interviewed at their operational base.

All the interviews were recorded with the permission of the participants and subsequently transcribed by a professional data transcriber. The transcripts and the handwritten notes from each interview formed the source for the analysis. The interview process is described below.

4.4.3 The semi-structured interview protocol

The semi-structured interview was developed following the in-depth literature review which focused on building up knowledge of mental health and mental health emergencies. The semi-structured interview protocol was constructed using guidelines as discussed by Terre Blanche et al. (2006) and was guided by the research questions. These guidelines directed the method employed by the researcher to develop the semi-structured interview protocol The subject matter included was: a) the focus of the research, b) the basic steps in developing the semi-structured interview protocol, c) drafting of the questions, d) choosing the response format, and e) the evaluation of the semi-structured interview protocol.

The semi-structured interview protocol (see Appendix G4) consisted of main and additional probing questions and allowed for modification during the interviews. It was anticipated by the researcher, that clarification examples may be requested and these should remain consistent, and the introduction of scenarios that presented (a) pure medical presentation, (b) pure mental health presentation, and (c) an episode which had medical and mental health presentations were considered. The introduction of consistent scenarios as a part of the probing questions, ensured a method that was considered effective as the data emanating from these scenarios would be

measurable, through an evaluation of the answers provided by the emergency care providers (Terre Blanche et al., 2006)

To ensure that consistent scenarios for presentation to the participants, a review was done on existing mental health education programmes for emergency care providers that were available in Australia, the United Kingdom, and the United States of America. The objective was to find a model which had sufficient information, being an educator workbook, a student workbook and a quick reference guide that explained the concepts underlying the model. As the objective was to provide an example for discussion, the application of the mental health model for South Africa was not assessed. The immediate model that met this criterion was the Australian Government, Department of Health and Ageing (AGDH): Emergency triage education kit (Australian Government. Department of Health and Ageing [AGDH], 2009a). A complete AGDH: Emergency triage education kit: Triage workbook was made available (AGDH, 2009b). This was supported by AGDH: Emergency triage education kit: Triage quick reference guide which could be used actively to assess a mental health patient (AGDH, 2009c). This model was presented to the respondents as a discussion point, inclusive of a number of scenarios which had bearing on the individual questions being asked. It was found that the Emergency Triage education kit triage workbook (AGDH, 2009b) contained scenarios that could be incorporated into the semi-structured interview protocol.

The purpose of the semi-structured interview was to gather information that would enable the research questions to be answered, thereby constructing a view of the mental health patient and emergency mental health scene from the time of dispatch, to the logical conclusion of the call, be it a) transportation of the patient to definitive secondary or tertiary care facility, b) Refusal of further Hospital Treatment (RHT) by the patient, or c) death of the patient. The interpretivist

approach allows for consolidating the knowledge and building a comprehensive picture of the emergency care provider in the situation that they find themselves when treating mental health patients on an emergency mental health scene.

4.4.3.1 The thought-provoking self-harm questionnaire

Ghodse (1978) addresses three "self-harm" scenarios, of which only one is potentially deliberate self-harm, being patients who take a drug overdose deliberately in a suicidal attempt or suicidal gesture (see Appendix G3). Accidental overdose by a patient taking medication in a normal course of events, or as a result of addictive drug taking does not necessarily meet Ghodse's (1978) definition of deliberate self-harm. The literature generally addresses overdoses as being purely self-harm episodes. The complexity of deliberate self-harm by mental health patients, without any demarcation relating to the cause thereof were addressed by Ani et al. (2017), Evans (2015), Rees et al. (2018), and Shaban (2006), where each of these publications gave different viewpoints as to the cause of self-harm, but commonly focussed on the person either parasuicide, attempting to commit suicide, or a serious attempt to kill themselves. Van Huyssteen (2017) and Zwart (2015) further addressed the confusion relating to the concept of consent, where the patient consents to being treated by the emergency care provider. Consent has legal implications, and there is a difference between the definitions of consent within the MHCA and NHA. Van Huyssteen (2017) and Zwart (2015) do not differentiate between variations of self-harm. These researchers provided a one-dimensional view of self-harm, whereas Ghodse (1978) provided a multidimensional view of self-harm.

The self-harm questionnaire had a single objective, being that these three demarcations introduced a thought process into the minds of the participants which had them thinking about their views of mental health, and especially deliberate self-harm, overdose in the course of

addictive drug taking, and accidental self-harm scenarios (Ghodse, 1978). It was envisaged that the introduction of the questionnaire would lead to a more in-depth interview with the stimulation of thought processes by the emergency care provider who would generally not have considered accidental self-harm within their normal clinical practice routine.

4.4.4 Evaluation of the semi-structured interview questionnaire

To ensure that the semi-structured interview questionnaire had sufficient depth to illicit strong responses from the participants, the questionnaire was validated. Validation of the questionnaire focussed on obtaining feedback from independent practitioners, asking them to consider what their answers would be to the questions posed. In addition, there was a request to contribute additional questions which they thought may add value to the semi-structured interview. The emergency care providers' input was incorporated into the semi-structured interview questionnaire which then provided a more rounded approach to gathering valuable data from the emergency care providers that were to be interviewed.

The researcher had the advantage of having worked within an operational environment with a number of emergency care providers. Eight of these providers, which would be representative of the target population, were selected for the validation process. The selection comprised of ALS and ILS emergency care providers, who were registered as independent practitioners with the HPCSA (HPA, 1974), and had substantive experience in the management of mental health patients and mental health emergencies. There was no pressure placed on the practitioners to validate the questionnaire. Three of the emergency care providers responded and provided valuable input into the validity of the interview questionnaire. These three emergency care providers were not affiliated to any of the selected emergency medical service providers from whom the participants of the study were selected.

4.4.4.1 Additional probing questions

The validators suggested three additional probing questions to the existing questionnaire, namely a) what has your experience been of patients who are frequent users of emergency medical services due to self-harm incidents, b) what is the impact of comorbidity on the mental health patient and the view of the emergency care providers of such patients and family interactions, and c) further exploratory questions on the views of the emergency care providers on the training requirements for the various levels of emergency care providers.

4.4.4.2 Academic approval

The final version of the semi-structured interview was discussed in detail with the co-supervisor of the research and the approach towards the interviews agreed.

4.4.5 Data analysis

The fundamental belief of the interpretive researcher is that reality consists of the individual's subjective experiences of the external world, and that their reality is a social construct. Content analysis was performed using the model as described by Erlingsson and Brysiewicz (2017), with the stated objective of transforming the transcribed interview texts systematically into a highly organised, clear and concise summary of the key results. Content analysis, depending on the aim of the study, and the quality of data collected, is not prescriptive on the data analysis model, or level of reporting, which may be at the highest level of abstraction, or extrapolated to a thematic level.

In this study the interviews were recorded and transcribed, and subsequently analysed to deduce the knowledge, skills, attitudes, and behaviour of the participants as suggested by the content of their interviews. The analysis was performed logically, firstly through

familiarisation with the data following the interview process using the semi-structured interview protocol. This was followed by extrapolating and condensing the meaning of the data. To extrapolate the meaning, use was made of deductive coding, using codes that were developed from the theoretical framework, and naturally belonged to the categories of knowledge, skills, attitude, and behaviour. Deductive coding is not in contravention of the interpretivist paradigm, as the interpretivism relates to the researcher's beliefs of reality and knowledge. To mitigate against the possibility of researcher bias overshadowing the thoughts, feelings, and experiences of the participants, the steps of elaboration, interpretation and checking as suggested by Terre Blanche et al. (2006) were used to validate the results (see Appendix H).

4.4.5.1 Familiarisation

The process of familiarisation of the interviews started when the interviews were conducted. The interviews were transcribed by a data transcribing professional. Upon receipt of the transcribed interviews, the researcher began the process of familiarisation. It began by reading through the interviews. This was an important step in developing a relationship with the interviewees and enabled the development of an understanding of what each participant had said. While reading, notes were made, regarding the first impressions, what the initial reactions to the read were, and which features were highlighted (Erlingsson & Brysiewicz, 2017).

4.4.5.2 Condensation of meaning

The interview data was analysed to extract meaning from what the participants had said, consolidating the results until there was a condensed meaning which still conveyed the essence of the essential message. The researcher was aware, that: a) there was a need to develop an in-depth understanding of the meaning behind the data, and b) with extensive knowledge of

paramedicine, needing to mitigate the impact of bias, forcing the thought process in a predetermined direction. Throughout the process of condensation, the researcher was conscious of the questions posed by this research study, as well as the constructs of knowledge, skills, attitudes, and behaviour. This resulted in a deeper understanding of the emergency care providers and what was relevant in understanding what influenced their knowledge, skills, attitudes, and behaviour (Erlingsson & Brysiewicz, 2017).

4.4.5.3 Formulating codes

The categories of knowledge, skills, attitudes, and behaviour were predetermined, through the development of the theoretical framework. The data was assessed, and the codes continually re-evaluated throughout the process until the researcher was satisfied that the defined codes represented the data as a whole. The process was supported by notes, impressions, and reactions that developed whilst gaining an understanding of the contents of the interviews (Erlingsson & Brysiewicz, 2017).

4.4.5.4 Developing categories and themes

Deductive coding of the theoretical framework was done on hand of the codes for analysis of the predetermined categories of knowledge, skills, attitudes, and behaviour. No additional codes that could be grouped under the categories emerged from the data, and therefore no new categories were created. The analysis of data that is rich in latent meaning can allow analysis to be performed, which in turn allows for the creation of themes, but the latent meaning of this data did not allow for additional themes to emerge (Erlingsson & Brysiewicz, 2017).

4.4.5.5 Elaboration

The previous steps grouped similar information from all the interviews under the same categories. This allowed for a fresh view of the data which allowed for further exploration of

how the participants constructed their own worlds relative to their knowledge, skills, attitudes, and behaviour towards mental health patients within the pre-hospital environment. This exploration is named elaboration. Throughout this process, the research questions were kept in the forefront to ensure that the exploration of the categories did not follow trends that where outside the ambit of the research. Where it did occur, the interaction of the coding was revisited and the value of the data revaluated. Whilst Erlingsson and Brysiewicz (2017) did not explicitly include elaboration in their discussion, it is often used in interpretivist research (for example Terre Blanche et al., 2006), and this process can assist with the interpretation of the information grouped according to the codes and categories and can contribute towards a better understanding of the phenomenon under study (Terre Blanche et al., 2006).

4.4.5.6 Interpretation and checking

Erlingsson and Brysiewicz (2017) refer to interpretation as an integral part of the steps in formulating codes and developing categories and themes. Terre Blanche et al. (2006) details interpretation and checking as the final step in their interpretive data analysis. According to them the final step is the interpretive step in the study and includes writing, explaining, and discussing the findings. It is followed by checking that the interpretation of the findings was accurate and is used to identify any weaknesses or contradictions in the arguments. The interviews were read again and compared to the interpretation that had been written. Whilst a researcher cannot be perfectly objective, it is expected that there will be steps taken to minimise subjectivity in the authorship. In keeping with the interpretivist approach, there was an awareness that the results may be biased, or possibly overshadowed by the thoughts, feelings and experiences of the participants. Therefore, two questions were focussed on, being: a) Is my personal experience as a trauma counsellor and an ILS practitioner influencing my

interpretation of the results? and b) Does my interpretation of the interviews make sense and is there any sign of the researcher's personal prejudices or bias?

4.5 Trustworthiness of the research

A concern that is always raised in the review of qualitative research is that of trustworthiness. The participants have been interviewed and their perceptions have been reported. There are two aspects to trustworthiness in research, one being how the research was designed and executed by the researcher. This is the key to trustworthiness in the research. The second is whether the participants answered the questions honestly, or whether they provided answers that they perceive the interviewer wanted? Trustworthiness in this research study was addressed under the following headings: bias inherent in interpretivist research, validity of the research, credibility of the research; dependability of the research, generalisability of the research, transferability of the research, and confirmability of the research.

4.5.1 Bias inherent in interpretivist research

An interpretivist researcher has to ensure that his own experience, although influencing the interpretations, do not overshadow the experience, thoughts, and feelings of the participants. This could be interpreted as bias if not managed correctly.

There are two types of biases that can enter the study, the researcher bias and the participant bias, and cognisance must be taken of both to ensure that the research is trustworthy. Two views on bias in research were presented by Sarniak (2015) and Shah (2019) where they addressed researcher and participant bias. These researchers proposed their own views on bias and provided a combined baseline to prevent bias from overshadowing the value of the research.

4.5.1.1 Researcher bias

There was a possibility that the researcher's subjectivity could enter the study, and that this bias could start in the design phase. A number of possible areas were identified, and the following mitigating steps were used to minimise the possibility of the researcher's bias entering into the study. The first possibility was the wording of the questions, which was mitigated by having an independent review by emergency care providers who confirmed and suggested amendments. This was followed by a discussion with the supervisor of the research followed by the submission of the semi-structured interview protocol to the EMS service providers, of which one requested clarity. This process validated the order of the questions to ensure that the responses to subsequent questions were not influenced by the previous questions (Sarniak, 2015; Shah, 2019). The second possibility was that the researcher's subjectivity would bias the interview process, and could lead to false assumptions and judgements of participants from other cultures. To maintain objectivity, where doubt in the response existed, the respondent was questioned in further detail until the researcher was comfortable that the answers where objectively understood (Sarniak,2015).

To overcome any subjectivity on the multicultural spread of the participants, a general discussion on the backgrounds of both the participant and the researcher took place before the commencement of the interview. Following the interview, another short discussion took place to ensure that the possibility of cultural bias was reduced (Shah, 2019). Unfortunately, short-term observational studies have a particular disadvantage, especially where the building of trust is concerned, and these steps were seen as a possible method to garner trust (Sarniak, 2015; Shah, 2019).

The researcher, with his experience, could interpret the data to support the research hypothesis or omit data which did not favour his hypothesis. To overcome this, there was a conscious focus on understanding the results. It was beneficial to the researcher in hindsight that he was an ILS qualified practitioner and needed to understand the ALS protocols, which minimised the opportunity of confirmation bias (Sarniak, 2015; Shah, 2019). It was similarly found that as an ILS practitioner, it was not possible to focus on one or a couple of positive responses that supported the research hypothesis, as the ALS practitioners accounted for almost 45% of the participants. This reduced the possibility of the halo effect occurring (Sarniak, 2015).

4.5.1.2 Responder (participant) bias

Whilst personal bias can influence the interpretivist researcher, affecting the outcomes of the research, responder bias can also influence the research. It was therefore necessary that the researcher should be aware of the possibility of responder bias.

There was a risk of responder bias occurring in the interviews. To overcome this, a semi-structured interview protocol was developed and validated to ensure that constructive answers or arguments were required from the participant. To a great extent this eliminated the opportunity of friendliness bias occurring, where the participant demonstrates the tendency to agree with or be positive about whatever the researcher presents (Sarniak, 2015; Shah, 2019). The researcher, when sensing that the participant was tending to answer the questions without much thought, introduced a topic which related to paramedicine practice, which allowed for free discussion on these topics, before returning to the semi-structured interview protocol (Sarniak, 2015; Shah, 2019). Social acceptability bias was considered, especially where sensitive or controversial topics were raised with the possibility existing that participants might

respond inaccurately, especially where there was a possibility that sponsor bias may arise. In this case the answers that are provided by the participants may be skewed due to the perceived position of the researcher relative to their organisation. The researcher was independent of the management of all four of the organisations, and was a consultant to the fourth national ambulance service provider. This national ambulance service provider was not a participant in the research programme (Sarniak, 2015; Shah, 2019). Habituation bias was not considered as each question that was asked required a different response. Where the responses appeared to be similar, a paramedicine topic was introduced to change the focus of the interview, before returning to the semi-structured interview protocol (Sarniak, 2015; Shah, 2019).

4.5.2 Credibility of the research

The credibility of the research is supported by the overall approach to the study. The researcher has been involved in emergency services for more than twenty years and is well known to the management of most of the emergency medical service providers, having worked with many of them throughout his career. He was also recognised by a number of the participants and management. This background and recognition allowed for credibility to be established with the participants. This background provided a proper understanding of the context of the research context and the interviews allowed the emergency care providers the opportunity to express what they truly felt about the level of their knowledge, skills, attitudes, and behaviour towards mental health and the mental health patient. They were able to discuss their current and future needs to be able to improve the treatment of these patients. Throughout the interview process, the possibility of researcher and responder bias was consciously kept in mind.

To ensure that credibility was maintained, it was important to establish that the results were credible or believable from the perspective of the emergency care providers. The purpose of

qualitative research was to understand and then describe the results through the eyes of the participants. The participants in the research were the only ones who could legitimately judge the credibility of the results. The Penguin Dictionary of Psychology (Reber et al., 2009) defines credibility as: “Believability. In studies of PERSUASION the credibility of the source of statement is an important variable; persons with high credibility, not surprisingly, have more persuasive impact than those of low credibility” (p. 179). The following steps were taken to maintain researcher credibility.

a) The research methodology used addressed qualitative research and emanated from the discipline of psychology.

b) There was an understanding and familiarisation of the context wherein the emergency medical services provider’s practice.

c) The selection of the participants was done using recognised sampling software. This selection eliminated bias in the selection of participants.

d) There was a possibility of the emergency care provider not being truthful, therefore various probing questions were established to test the honesty of the participant.

e) There was a conscious effort to identify and minimise the effects of researcher and responder bias.

f) In an attempt to establish any deliberate falsehood or fabrication, probing questions were used. The results of these questions were used to develop the analysis of the interviews.

g) The research hypothesis was continually refined through the use of negative case analysis until it incorporated the total environment that was identified.

h) All research was subject to on-going peer review which established discrepancies and provided fresh insight into the research being undertaken. The initial peer review was done by the co-supervisors of the research.

i) The research report will be evaluated against similar research done on the competency of emergency care providers and on their understanding of mental health, and on their ability to treat mental health patients (Kanjee, as cited in Terre Blanche et al., p. 476-498, 2006).

4.5.3 Dependability of the research

Dependability establishes whether the research study's findings are consistent and repeatable. To ensure dependability as a researcher, the verification of the findings must be consistent with the raw data collected, and if other researchers were to review the data collected, they would arrive at similar findings, interpretations, and conclusions. The experience of treating mental health patients by an emergency care provider is increased every day, and even if this research is repeated with the same questionnaire and same participants, the findings may differ from the current findings. This does not devalue the current findings, and does not mean that the articulation of knowledge, skills and attitudes cease to exist (van der Riet & Durrheim, as cited in Terre Blanche et al., p. 80-111, 2006).

The dependability of the research has close links to the credibility of the research. Dependability was maintained through the construction of the semi-structed interview questions. The semi-structured interview questions had additional probing questions designed to provide the same scenarios to participants if the requirement arose with a particular emergency care provider. Each question asked allowed the researcher to get a sense of the participant's knowledge, skills, attitudes, and behaviour towards mental health and mental health patients. The same questions can be asked to any ALS or ILS practitioner. The answers provided by additional emergency care provider can be validated against the current research.

This will allow for the research method to be replicated in future research with the stated objectives (van der Riet & Durrheim, as cited in Terre Blanche et al., p. 80-111, 2006).

4.5.4 Transferability of the research

Transferability of the research is the degree to which the results can be generalised or transferred to other contexts or settings. It is the primary responsibility of the researcher who is doing the generalizing. This may not be possible as each emergency care provider in the population finds him or herself in a different context and time which presents a different group of needs that are important to them. Transferability can be further enhanced by the researcher doing a thorough job of describing the research context as well as the underlying assumptions that were central to the research. The transferability should be determined by the reader but a rich description of the setting / context, data collection and analysis methods, and participants, may facilitate this determination. Therefore, enough information is provided in this study to enable others to determine the transferability of the findings to their area of interest (Terre Blanche et al., 2006). Transferability of the research may well be affected by the limited population of participants, and that with a larger population, different results may be obtained by another researcher.

4.5.5 Confirmability of the research

Confirmability has to do with the level of confidence that the findings of the research study are free of researcher biases and is based on the narrative of the emergency care providers understanding of knowledge, skills, attitudes, and behaviour as well as the likelihood of the acceptance of the implementation of a pre-hospital mental health assessment protocol (Terre Blanche et al., 2006). The researcher established confirmability through an audit of the research process, which consisted of a sound research design which would lead to

trustworthiness of the results. Steps included the independent validation of the semi-structured interview protocol, conducting of the interviews and having the audio sessions recorded, transcribing of the audio sessions and reading them in conjunction with the notes from the interviews. It also included the analysis, which included the validation of the predetermined themes and the identification of the categories, ensuring that the interpretations and inferences made sense. The results were then evaluated against the literature that was referenced throughout the process to see if it made sense, either confirmatory or divisive. Where it was found that the results were divisive, the analysis was reviewed to ensure that the results were not the subjective view of the researcher.

Defensibility was an internal step performed by the researcher, where each finding was interrogated to ensure that it was provable through the data of the participant and that there were no findings introduced which could not be defended objectively (Terre Blanche et al., 2006).

4.6 Ethical considerations

The research proposal was submitted to the College of Human Sciences Research Ethics Review Committee of UNISA who granted ethical approval and ethics clearance to conduct the research (2019-CHS-Depart-03950336, dated 14 April 2019. See Appendix A).

Participation by the emergency care providers was voluntary and they were able to withdraw if they so wished without any penalty. Informed consent to participated in the study was obtained from all participants (See Appendix G for the consent to participate in the study).

Effendi and Hamber (as cited in Terre Blanche et al., 2006) highlighted that there are several approaches to ethics and that there are four widely accepted philosophical principles that applied in various ways by various researchers, and that, dependent upon the ethical codes of conduct that the researcher complies with, provide different emphases on the four philosophical principles. Full ethical considerations were applied to the interview process and the participants. Beauchamp and Childress (as cited in Terre Blanche et al., 2006) provide guidance on the interpretation of the four principles. These four principles have become known over time as principilism. The four guiding principles are autonomy and respect for the dignity of persons, nonmaleficence, beneficence and justice.

4.6.1 Autonomy and respect for the dignity of persons

The interview process commenced following the receipt of the ethical clearance from the College of Human Sciences Research Ethics Review Committee of UNISA (2019-CHS-Depart-03950336, dated 14 April 2019. See Appendix A), and from the four of the emergency medical service providers (see Appendices B to E). Wassenaar (as cited in Terre Blanche et al., 2006) linked the autonomy and respect for the dignity of persons to the Nuremberg Code, which covers most of the requirements for voluntary informed consent of research participants. The study was explained in detail and the participants were given the opportunity to ask questions to ensure that any clarification required was provided. The participants were asked if they consented to participating in the research, to which all agreed, and subsequently signed the consent forms. The explanation included that their names would be kept confidential and that their names would not feature in the report. They were given the opportunity to clarify any areas of concern. The participants were informed that they could at any stage, without any penalisation, withdraw from the interview process. They were asked if they agreed to

participate in the interviews of their own free will. They then signed the study's informed consent form.

4.6.2 Nonmaleficence

Nonmaleficence required that the participants that were interviewed were not harmed through the process. Wassenaar (as cited in Terre Blanche et al., 2006) explained that the concept of harm could also include wronging the participant, in using the research outcomes for purposes other than what the participants believe was required. This builds on the principles of autonomy and respect for the dignity of the person through the principle of nonmaleficence. The participants in this research were not harmed through the process, but if at any stage during the interview, it became obvious that the participants were reacting adversely to the process, it would have been recommended that they were referred to a psychologist for the management of their reactions. There were substantial discussions related to the participants' mental health, which was not expected. There were some instances where private thoughts were discussed, but no instance arose where the participant needed to be referred to a mental health professional.

All possible references that would enable readers to identify either the individual or the employing company were removed. Whatever personal information they confide to the researcher was kept confidential.

4.6.3 Beneficence

Terre Blanche et al. (2006) put forward the principle that the research should benefit the participants. The benefits from this research focussed on the longer term. The emergency care provider's input will form an integral part in directing the development of guidelines for a

mental health screening or assessment tool program, which will assist in the future treatment of mental health patients as they are inherently focused on the treatment of their patients and improving the outcomes of their treatment protocols for on mental health patients. There is no direct benefit to the participants as no functional protocols were produced.

4.6.4 Justice

The general requirement of justice is that the participants should not be exposed to any burdens that will not be of benefit to them, and they should receive what is due to them (Terre Blanche, 2006). This interview process was designed to leave the participants in a similar position that they were in before the interview processes took place. The research participants will be contacted individually following the completion of the work and offered a copy of the report. Two of the respondents indicated that they wanted a copy of the completed work.

4.7 Permission to use the "self-harm" questionnaire

The original work was done in 1975 and published in Ghodse, (1978). A copy of the questionnaire was obtained from the journal upon request.

4.8 Summary

The researcher, using the interpretivist paradigm, was aware of the possibility of researcher and responder (participant) bias influencing the results. Whilst researcher bias was a possibility, it was also possible that the researcher's thoughts, feelings, and experiences may have overshadowed those of the participants. The approach to the research methodology, using the interpretivist paradigm, focused at every stage, from the development of the semi-structured interview protocol to the final publication, on establishing if bias had been introduced. Steps included the independent validation on the semi-structured interview protocol, and the

minimisation of simple routine answers. The one advantage that was present, was that the researcher was an ILS practitioner, and not an ALS practitioner, and therefore could not pre-empt answers to all the questions as the ALS practitioner scope of practice is not included within the researcher's scope of practice (HPCSA-PBEC, 2006a; HPCSA-PBEC, 2006b). The results of the interviews were analysed in depth because almost 45% of the knowledge contributed to the research was unknown, as it was found in the ALS practitioner interviews and not in the ILS practitioner interviews. The data that contributed to the research is provided in Chapter 5. Chapter 6 offers a discussion regarding the participants competency to manage mental health patients. In Chapter 7 the implications for the pre-hospital management of mental health patients are described.

Chapter 5: The results of the semi-structured interviews

5.1 Introduction

The analysis of the semi-structured interviews was based on a modified competency model which served as a guideline as previously discussed in Chapter 3.2, Figure 4 reflects the codes that were used during the data analysis phase of the study.

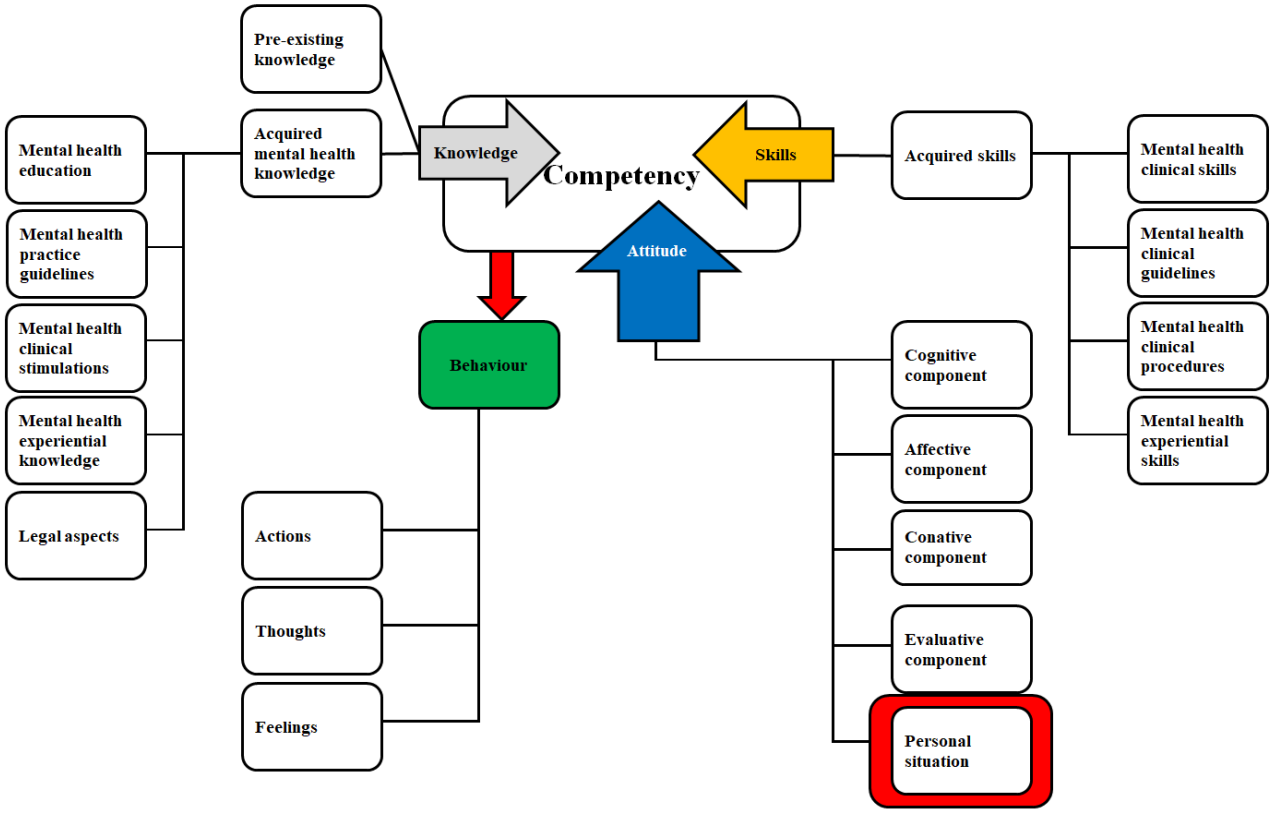

Figure 4 Modified competency framework model

5.2 Categories

The presentation of the results is organised according to the categories and their constituent codes.

5.3 Knowledge

Knowledge is presented under two topics, being pre-existing knowledge, and acquired knowledge.

5.3.1 Pre-existing knowledge

For the participants in the current study, pre-existing transferable subject matter knowledge was very limited. There was, however, an indication by two of the participants that prior experience with mental health and academic qualifications obtained prior to qualifying as an emergency care provider, might contribute towards their management of mental health patients.

The academic qualifications referred to were university degrees which included psychology modules. These provided the participants with a greater insight into the mental health patient which impacted positively on their patient treatment.

> I think that has helped me quite a fair amount to understand all these different disorders and stuff. It certainly helps with the treatment of the patients when it comes to their mental health. [INT-02]

There was a hint that prior experience with mental health could contribute towards knowledge of, and subsequently to the competence in treating of, mental health patients.

> My mom is a remedial teacher, so I grew up a lot around a lot of the kids that had mental problems, so I learned to deal with a lot of them from very young. [INT-10]

5.3.2 Acquired mental health knowledge

Acquired mental health knowledge is obtained while qualifying as an emergency care provider, and augmented post qualification through patient treatment experience.

5.3.2.1 Mental health education

It was evident from the participants' responses that there was a decided lack of mental health education during their training.

> I think our mental health training was maybe a one-hour lecture. [INT-03]

> There was a lady that came there for a day or two, talking about … she was a psychologist or something, but she was just as … I don't know, a bit out of touch, because I remember everyone thought it was a big joke or whatever, but it wasn't like a module. I mean, obviously they gave us the section on mental health, these are different mental illnesses, study them, the definition, whatever, but that is about it. To be honest I don't remember an extensive … [INT-06]

5.3.2.2 Mental health practice guidelines

There was no reference by any of the participants that they had received training in mental health practice guidelines for mental health emergency scenes.

5.3.2.3 Mental health clinical simulation

None of the emergency care providers referred to clinical simulations where there was a treatment scenario for a mental health patient.

5.3.2.4 Mental health experiential knowledge

There was no evidence provided by the participants that any mental health knowledge was gained through the experiential phase of their training. The knowledge base of the emergency care provider is predominantly related to their experience as an emergency care provider.

> Whether it is an imbalance or something, I don't know, but that is the first time where I actually realised listen here, a psychosomatic seizure is actually … it can be real. [INT-03]

5.3.2.4.1 Knowledge gained from experience

In gaining this on-scene experience, many of the emergency care providers use a number of different models in learning how to treat a mental health patient. This approach enables the emergency care provider to gain experience on what is normal mental health and abnormal mental health, allowing them to treat a mental health patient even if they are unable to diagnose the patient's mental health condition.

> Well, I'm not a professional, so I don't know off by heart, but I know the basics basically, so it is enough for me to actually treat patients, if I can put it that way. Normally I can pick up if something is wrong or it doesn't take me too long to pick up. [INT-03]

5.3.2.4.2 Knowledge gained from resources

There were however, participants who acquired experiential mental health knowledge by accessing available relationships that they have constructed by simply performing as an emergency care provider. These form resources which assist in the development of mental health patient treatment plans which are pliable, dependent upon the episodes which are encountered.

a) Emergency medical services provider's medical officers

One of the personal resources of acquired knowledge is the emergency medical services providers' medical officers who are often medical doctors, or B. EMC qualified emergency care providers, who are available to assist with a resolution to a unique mental health episode.

> Usually what we do in the circumstances if we are not sure, we phone the [medical officers] and tell them the whole situation, go from there and let them help us with the guidance to what is the best to do. [INT-05]

b) Emergency room doctors

Some of the participants have a preferred referral base of medical doctors at the emergency rooms where they bring most of their patients, whom they contact for relevant mental health patient treatment information.

> But there are doctors at [Medical Facility 2] that we can immediately phone and they are open to it, like [medical doctor 9] and [medical doctor 10]. [INT-04]

c) Mental health scenes

Some participants stated that they gathered knowledge and experience in treating mental health patients from considering the emergency mental health scene in total, and not just the mental health patient. The emergency mental health scene provides a valuable input to the emergency care provider on what has transpired prior to them arriving on the mental health scene.

> When you walk into the room or into the house and you look around, and you look at the environment and you look at you know are there alcohol bottles all over the place, are there open pill bottles, are there children involved. [INT-04]

The emergency care providers described current mental health episodes that were triggered by family conflict.

> Let's say for example it is a husband and a wife that is really going through some hard times, and the wife is the one that is having a relapse, the husband will insist that you take this patient to the hospital, although on assessment when you are assessing the patient and you are talking to the patient, based on the history that you got from the family members, that the patient is actually aware and understand and is only being provoked by a certain party. [INT-09]

Substance abuse was seen as an escape mechanism where the patient was incapable of managing life situations.

> Well, alcoholism yes, but alcoholism normally comes with personal problems. People can't deal with their problems and then they tend to grab alcohol or drugs. That is just a bad cycle of things, you know that … It just goes … ja, so it is not problem solving. It is just a temporary solution for them or so they think, but anyway it doesn't help, so it just … it makes things worse. [INT-03]

d) Patient's family

One of the means of gaining experiential knowledge of the treatment of a mental health patient is from the patient's family. The family members are considered by the emergency care providers as having a true understanding of the patient, their normal and now abnormal episode, as they are able to immediately identify that the patient is starting to present with adverse behaviour which is indicative of a mental health episode. This knowledge of the mental health patient, their normal and current presentation, episode triggers, and the way that the patient has been previously treated, contributes to the construction of the emergency care provider's knowledge base.

> So, it is … if I don't understand what is going on with a patient I will … usually the family will know what is going on with them and they can say, "Okay, the patient has got this, this, this problem" and you can go from there or if it is a condition. [INT-02]

> You will always … you can learn from their family members, how they treat them to see okay, this is the way to do it. They are not … so just be yourself and go there and "Hi", this and this. [INT-07]

Knowledge gained from familiar sources: Google

The lack of theoretical knowledge of mental illnesses, allows for the acquisition of knowledge on the diagnosis of the patient's mental illness to be obtained using various non-academic forums. One such source that was referenced by several emergency care providers was Google.

> Our friend Google. [INT-01]

Participant INT-02 qualified the use of Google as not necessarily being the most appropriate resource, but it is an available resource in an emergency where information regarding a mental health illness is required.

> So, if you are really stuck you can Google it, which is not always the best thing, but you can Google it. [INT-02]

5.3.2.5 Legal aspects

The emergency care providers were consistent, that in general, they had insufficient, or no knowledge about the legal aspects related to the treatment of mental health patients. The areas of concern when analysing the data regarding an understanding of the legal aspects of treatment were the knowledge of consent, the knowledge of admission criteria and the knowledge of SAPS police officer authority.

5.3.2.5.1 Knowledge of consent

The participants were not able to provide a well formulated definition of consent and rather described consent in general terms or at the sites of incidents.

> The [patients]are losing it, but they are still fine, they understand what is going on and they don't want to go to hospital, and it is the families that don't understand that, that we are not allowed to take those [patients] against their will, even though they are crazy, doing funny stuff, but they are not hurting themselves, they are not hurting someone else, so that is the one that gets difficult for us. [INT-05]

> We have had a few instances like that where they refuse to go to hospital and then we determine well, their GCS is 15, so they are okay to sign refusal of further hospital treatment (RHT). [INT-10]

5.3.2.5.2 Knowledge of admission criteria

Only one participant understood involuntary admission criteria.

> If not, then we go through the involuntary route, because now he is harming himself and which we don't actually want, and we as medical personnel or EMS personnel has got that obligation to see if there is a real threat to somebody's life, then we can, ja, do that involuntary. [INT-01]

A substantial number of participants indicated that they would leave a mental health patient if they did not consider that the patient required medical treatment.

> Not really. It depends on what the call is. If they are in anyway … if it … yes, if there is medical intervention that needs to be taken, yes, then we will take them to a facility. If there is no reason for medical interference from the outside, then we will try to chat with them, try and … "Listen here, these are your options", because sometimes the family will interfere, then ask us, like can't we take them to a facility. What about … I'm like, "Well, in my opinion it is a self-admitting facility, so therefore go see a psychologist or a psychiatrist, whichever one you have available" and yes, we tell them and then "Go to this place". [INT-11]

5.3.2.5.3 Knowledge of SAPS police officer authority

Whilst the MHCA bestows legislative powers on the SAPS police officer, there is no understanding of these legislative powers by the participants. The participants understanding encompassed the requirement to request the assistance of the police officer if the mental health patient needed hospitalisation, was reacting violently or was not cooperating but required urgent treatment.

> It has happened quite a few times, where they have actually broken down [Mental Health Facility 2] and then in the East we also respond to [Mental Health Facility 1], where I have lately got more and more psychotic patients who we have needed to sedate, where we have actually had to call in the Police to help to restrain and then sedate them. [INT-04]

The request for assistance of the police officer is based upon experience and not the understanding of the MHCA.

> Ja, I know, but I didn't know the Act. I know if the patient is violent you have to call for Police, then … ja. [INT-08]

5.4 Skills

Skills presented by the participants are acquired skills and they differ from knowledge as these skills focus specifically on the assessment, diagnosis (where possible) and treatment of the mental health patient.

5.4.1 Mental health clinical skills

Clinical skills are taught primarily to ensure that the emergency care provider has the prerequisite skills to treat a patient. There is no evidence that mental health patient diagnostic or management skills are taught during the education phase of their training. The participants referred to medical patient management skills instead of mental health patient management skills when responding to a question posed during the interviews.

> Mental related. Well, then it is the basic, best thing for them is to keep them calm and comfortable by probably sedating them, if you can't keep them like … if they are spasming and stuff, best thing is then sedation and taking them to hospital for further assessment. If you are not sure what you are dealing with, you can then go for your basics, your ABC's, make sure you have got that in control, but then keeping your patient calm and comfortable and with "comfortable" I mean medication wise, getting that. [INT-05]

5.4.2 Mental health clinical guidelines

There was no evidence found that the participants were taught any mental health clinical guidelines which would enable the integration of the diagnosis, treatment, and management skills required for dealing with mental health patients. The only references to treatment of a mental health patient related to the ability to sedate the patient, which is a medical skill.

> We can't always get an accurate history with those [kinds] of patients because they are quite aggressive and they usually need to be sedated, in my experience with those patients, but I don't … it is not always a suicide attempt. It is more just the drug induced

> psychosis. They have obviously just taken too much of … whether it is Meth or Ecstasy in my experience, ja and then they just have an episode. [INT-06]

5.4.3 Mental health clinical procedures

No evidence was found that the participants were taught any clinical procedures in the management of mental health patients.

5.4.4 Mental health experiential skills

With no mental health skills being taught, the participants are required to develop their own unique mental health patient treatment regimes.

5.4.4.1 Ability to diagnose mental health conditions

The participants were unable to diagnose mental health conditions. Their diagnosis was limited to a select number of mental health conditions, the most frequently mentioned being dementia [INT-03, INT-04, INT-05 and INT-07 as examples] and psychosis [INT-02, INT-04, INT-06, and INT-14]. Other common mental health conditions included Alzheimer's, schizophrenia, bipolar, and self-harm (from taking various forms from overdose, parasuicide or suicide attempts).

> Ja, so you get like those as well and the same with like dementia and Alzheimer's and all of those, so a lot of them are generic as well and a lot aren't, so it is due to sicknesses that evolves into that or age, so ja, you get … [INT-07]

On the occasions that the participants offered their own diagnosis of a mental health patient's unique condition, it was usually with a caveat such as "I might be wrong" [INT-05] or "but if a patient is within their right mind, 'right mind' – quotation marks again" [INT-06].

5.4.4.2 Ability to treat a mental health patient's condition

There was a limited ability to treat a mental health patient's condition, and these conditions were primarily of a medical nature. In the event of the participants not being able to treat the mental health condition, they relied on their ALS or ILS HPCSA-PBEC protocols to treat the mental health patient.

> That patient you will treat as you find. If you get there you will do your observations, your normal primary survey, head to toe survey and then you will treat as you find. If you find a patient, let's say for example the medication that he took … let's say for example it is blood pressure medication, which you will find the blood pressure it is way too low, so you start treating medically as you find, blood pressure wrong, you correct, sugar low, you correct and you take to hospital, where they will manage whatever that you have just corrected. [INT-09]

5.4.4.3 Ability to construct a new treatment model for a unique mental health patient condition

No evidence was found of an emergency care provider reporting the ability to construct a new treatment model for a unique mental health patient condition.

> No, that is one of the … not just "Yes, we are there for the emergencies", but one of the biggest [parts of] patient treatment is calming, reassuring, and actually talking to your

> patient, getting a history of the patient and that is what a lot of guys don't understand, that first that is why the history is [so] important and talking, calming, reassuring, getting, seeing the bigger picture. [INT-05]

Where participants did attempt to treat a unique mental health patient condition, they improvised and managed the results.

> Ja, improvise as you go along. [INT-07]

> Well, sometimes I do step back, so that my BAA does the vitals, so I can summarise how the patient reacts and the people around them, and how like if they will be more serious and be more painful if their family members are there. If you remove them, then they are like a completely different person or they will cooperate with you. So, I do sometimes would be like, I don't know what to do here, let me remove people and see what happens. [INT-07]

5.4.4.3.1 The opportunity for misdiagnosis

The diagnosis by the emergency care provider of FES as a para-mental illness was pervasive. There are mental illnesses where the presentation may be considered as being a FES due to the lack of mental health knowledge on behalf of the emergency care provider.

> Ja, ja, I think a lot of times there are … not my crews, but I have been with crews where they are (indistinct) you know the patient is … "No, she is … it is just a FES case, she is just having chest pain because she has done this before", or whatever. It is just one

> of those things. I try not … I try to … obviously you can see when a patient is being full of nonsense. [INT-06]

5.4.4.3.2 The opportunity for diagnostic overshadowing

Diagnostic overshadowing occurs when a mental health illness distracts the emergency care provider from providing adequate medical care for a traumatic injury. The responses varied from comments such as my crews will never misdiagnose a traumatic injury when treating a mental health patient:

> Ja, ja, I think a lot of times there are … not my crews. [INT-05]

to the acknowledgement that diagnostic overshadowing can occur:

> Yes, some of the guys are actually concentrating more on the mental side and forgetting about the medical side of it. [INT-01]

A number of emergency care providers stayed within their ALS or ILS HPCSA-PBEC protocols, thereby ensuring that they would identify the traumatic injury.

> That patient you will treat as you find. If you get there you will do your observations, your normal primary survey, head to toe survey and then you will treat as you find. If you find a patient, let's say for example the medication that he took … let's say for example it is blood pressure medication, which you will find the blood pressure it is way too low, so you start treating medically as you find, blood pressure wrong, you

> correct, sugar low, you correct and you take to hospital, where they will manage whatever that you have just corrected. [INT-09]

5.4.4.3.3 Sedation as a resolution to all mental health emergencies

Sedation, which is a medical skill, is often used as the preferred treatment of a non-compliant mental health patient, or when the mental health illness cannot be diagnosed. The focus on sedation was the typical response of the emergency care providers.

> But basically, what we normally do is if we have got a difficult patient that we need to sedate, we need to make sure the patient is in definite … or definitely harming themselves or the people around them, and ja, they … what, allay it … sorry, man, I don't know what is the correct word. [INT-03]

> Then secondly if the patient still [does not] want to go to hospital, then we have to call someone who is going to come with the drugs, all the stuff and sedate the patient. [INT-12]

5.5 Attitudes towards mental health and mental health patients

Attitude is complex, and cannot be simply stated as being good, bad or something in between. The data was analysed according to the following codes: cognitive attitude, affective attitude, behavioural or conative attitude, evaluative attitude, participants' experience and attitude, and personal situation.

5.5.1 Cognitive attitude

A number of the participants expressed their personal beliefs that affected their attitude towards a mental health patient. One participant suggested the cultural impact of Ubuntu was the main driver in his approach to the mental health patient.

> Ja, it will be caring, humanity, Ubuntu, like you can't just let anyone suffer, because even if you are off duty, seeing something happens, you have to act, you have to do something. Nobody knows that I'm medically qualified, because I'm [in] my private clothes, but because I can see a situation, I have to attend to it. [INT-08]

A second participant suggested that her family background, with the mother being a remedial teacher, played an important role.

> Ag, I think it is just the way I have grown up. My mom is a remedial teacher, so I grew up a lot around a lot of the kids that had mental problems, so I learned to deal with a lot of them from very young and also the family history and stuff like that. My uncle committed suicide two years ago and it all takes into account. [INT-10]

A third participant referred to her family's belief system as being the model which is followed.

> Ja, I think so, definitely, to be kind to others as well. I do … my family is very Christian and stuff. I'm not the most perfect example, but I try and keep to those morals, to look after people, you know as we should. [INT-06]

Conversely, several participants found that the exposure to other cultures different from their own created its own challenges that made them uncomfortable when managing a mental health patient.

> As a … in a culture some they believe or like what … I don't know what can I put this word? Like some they believe [in their] ancestors, so yes. [INT-12]

> The other problem that I'm also picking up is, the cultural stuff as well with the herbal healing and they are also taking all funny muti that is also not … I don't know, they are making them see stuff and believe stuff, and think stuff and … so that is a bit of a difficult one for us. [INT-05]

5.5.2 Affective attitude

Mental health patients generate emotions and feelings in the emergency care provider. Empathy came through as a strong theme throughout the interviews, however, there were positive and negative responses towards the mental health patient. Positive response showed that there was an empathetic response towards the mental health patient.

> You need to be able to … well, you need to treat them obviously, because I mean and is to provide empathy towards them as well. They have obviously got a problem and it is to provide that empathy towards them, try not to show that you are upset with them, because it will generally make them worse. Not necessarily be sympathetic towards them, but at least by empathetic towards them, so you can … and understand what is going on with them. I mean, you need to understand that Alzheimer's patients in most cases are very scared. [INT-02]

A number of participants attributed the lack of empathy (negative responses) to their own personal situation at the time of encountering a mental health patient.

> We are tired, we have had a really long day, and now 02:00 in the morning we have got to go help some dude that wants to jump off a bridge. So, I think we need to, as EMS personnel, medics and paramedics, I think we need to take a step back and have more empathy. [INT-04]

Compassion from the participants was more apparent when the patient had a diagnosis of a mental illness.

> I get so concerned, because the other day we went there the mother was crying because she said whenever the guy gets paid, he disappears, he [gets] drunk and gets seizures. He just disappears for the whole weekend and then come back home broke. [INT-08]

Participants noted a high level of annoyance which is generated by mental health patients who are perceived to be wasting the emergency care provider's time when they could be treating more seriously injured patients.

> Honest, it depends on the day that you feel, but it gets annoying sometimes, it is … so you do get your frequent flyers that basically they are crying for help, and they are asking, "Please help me", but then there is a difference between guys that actually need help and guys looking for attention. [INT-05]

> Well, depending on what it is, I know the one we struggled with was he just phoned for pain meds. You know, he knew there was nothing wrong with him, but he knew what to say and I find them annoying, but somewhat they still do need help, obviously they have some problem. [INT-10]

Another source of annoyance is the time spent with the mental health patient, especially when the perception is that the duration of the call can be extremely long.

> That is the one, yes, yes, but that seems or tends to be quite a big problem actually and that is I guess the biggest irritation of dealing with mentally ill patients, is to get them into a facility where they can actually accept them, because these will turn out to be 2 / 3-hour / 4-hour calls at the end of the day. [INT-03]

5.5.3 Conative attitude

Conative attitude refers to how the participants' attitudes influence their on-scene behaviour and treatment of the mental health patient.

A patient who is perceived to be faking a mental health episode, leads to a negative attitude and subsequent negative behaviour from the participants because the patient is not cooperating. This may lead to the emergency care provider not necessarily being able to manage the situation. This became a participant behavioural issue as the provider adopted a harsh approach towards a patient whom she considered as being a FES patient.

> I don't … if it is like … what do you mean, like stupid attempts, like they are attempting, but it is sort of [FES]? Ja, it is abuse of [emergency medical services]. [INT-06]

When the participant considered the patient's episode to be FES, they simply ignored the seizures due to their diagnosis, intimating that a patient mimicking a seizure was a common occurrence.

> Obviously, I'm not going to [sedate] every anxiety patient who is mimicking seizures, because you get that a lot. [INT-03]

Experiential learning does however lead to a recognition that on occasions there is something that is more serious than a FES.

> FES patients, you get that a lot. So that is sort of if you are doing it a long time and too much, perhaps you sort of get hard to the fact or actually … no, you have seen everyone is faking it, but in this case, like in wow, you could see that is real. You could see there is really, really, really something wrong somewhere and that wasn't faked. [INT-03]

There were emergency care providers who suggested that their attitude and behaviour towards the mental health patient was dependent upon their personal emotions at the time of the call.

> That is what I … obviously you are too tired 02:00 in the morning, maybe I'm not as friendly as I am at 08:00 in the morning or whatever, but I always try my best to be kind first, but not very vain. [INT-06]

Some participants demonstrated negativity towards mental health patients, much of which was driven by the assumption that the patient was seeking attention or was non-compliant in taking

medication. These assumptions demonstrate a lack of understanding by the emergency care provider that there may be other reasons for the episode such as an undiagnosed comorbidity.

> If you phone me for nonsense, like, "Oh ja, I took pills like two weeks ago and I'm not feeling lekker now, and my [indistinct] this, my aunt that, my mother this", like no. [INT-11]

5.5.3.1 Participants' experience and attitude

The experience of the participants as independent practitioners ranged from four years to over twenty years. This presented a vast difference in the behavioural attitude towards the mental health patient. As they gained more practical experience, they were able to become more confident in mental health diagnosis and implement more effective mental health patient care.

5.5.3.1.1 Attitude of newly qualified emergency care provider

The initial approach of newly qualified emergency care providers towards mental health patients appeared to be a negative reaction, referring to the mental health patients as "crazies", "zombie-like", and references to mental health patients being a joke.

> No, no, no, it is fine. I think everyone is like in saying ja, they are attracting … we have a joke actually, sorry, we are attracting all the crazies, but anyways … ja. [INT-03]

> Like zombie-like? [INT-08]

5.5.3.1.2 Changes in attitude of the emergency care provider as they gain experience

As the emergency care provider gains experience in the treatment of mental health patients, the attitude mostly changes. The mental health patient is now viewed as someone who has a mental health illness and requires help.

> Ja, I do. It just gives a bit of understanding of you know what is actually wrong, instead of just hearing, “Okay, Bipolar or schizophrenia” or something, you are going, “Okay, they are crazy”. It is like okay, but there is actually something not clicking in the brain. [INT-10]

5.5.3.1.3 Attitudes of experienced emergency care providers

It is only when emergency care providers have gained sufficient experience, that they can argue logically that the possibility exists that the mental health patient is unwell, and that each mental health emergency needs to be treated on merit.

> Suicide patients they have got a reason for why they attempt to commit suicide. Even the drug abusers they also have reasons as to why they are doing what they are doing in those cases. It is not always just that they are taking it just for fun and what not. Sometimes they are taking these recreational drugs because they have got issues at home and what not, and [for them] it is coping mechanism for something of that (indistinct). So, I guess you have got to understand them more and realise that it is not always that they are just a difficult person. [INT-02]

5.5.4 Evaluative attitude

Evaluative behaviour is the favourable or unfavourable reaction of the participant towards the mental health patient.

Self-harm episodes are often viewed with disdain by the emergency care provider, with many self-harm attempts being considered as attention seeking behaviour, echoed by the term FES. The emergency care providers perceive many of the self-harm episodes as being attention seeking or manipulation of loved ones, family, and friends, and easily discount that there may well be serious mental health problems underlying these actions.

> The ones, "Look at me, my mom and dad [are] not paying attention to me, my husband is not [indistinct] to me", whatever, those type of like FES basically, those ones we do tend to get a lot. Ja, they are more on the common side. [INT-11]

The participants reaction to a perceived self-harm attention seeking episode is indicative of not necessarily diagnosing or eliminating a mental illness, and simply classifying the patient's self-harm episode as attention seeking behaviour.

> Ja, so 30% is more or less those that are … who have taken … "I have had a fight with my boyfriend, I'm taking three Panados. I phone you; I say I have done an overdose". [INT-09]

Another consideration that was offered was that mental health episodes, generally in the form of para-suicidal self-harm episodes, are seen as a manipulative tool to achieve the desired result from family and loved ones.

> Ja, ja, so on the other side I think she was crying out or help, that "I have a problem with my boy" … because after drinking the Domestos her mom was talking to her, "baby girl, what is wrong?" and then that is when she was open, that "okay, this is this and this … I have a problem with my boyfriend. I love Junior" and then the mom was like, "Who is Junior now?". "My boyfriend". "So, you have a boyfriend?" and she said yes. So, you see, her drinking the Domestos, like it gave her a chance to explain furthermore what is going on in her life, ja, so crying out for help, yes. [INT-08]

The participants introduced the element of abuse of emergency medical services by frequent or repeat users. The frequent user was classified as abusing the emergency medical services because their mental health episode was considered a waste of time. Nevertheless, there was an understanding that there may well be an underlying cause which was not diagnosed.

> I think those people do need help. Obviously, there is something wrong that they need to constantly call, so I think they need to see someone, like a psychologist or something, but I think for us to waste our resources going to that person, but again maybe it is not their fault. That is how they think. [INT-06]

There were, however, participants who viewed a number of the frequent users as being mental health patients who should not receive treatment as their condition was an act with the intention of manipulating family and friends. These mental health patients are seen as a source of annoyance, with a marked negative attitude towards the patient.

> Honest, it depends on the day that you feel, but it gets annoying sometimes, it is … so you do get your frequent flyers [frequent ambulance users] that basically they are crying

> for help, and they are asking, “Please help me”, but then there is a difference between guys that actually need help and guys looking for attention. The difference between the 16-year-old whose boyfriend broke up with her that is going through her little emotional midlife crisis with regards to the person that has actually got issues. [INT-05]

A number of participants showed disdain towards a mental health patient who was considered to be a FES or a frequent ambulance user.

> And that is unfortunate. Yes, we get annoyed with this, but that is what it comes down to. It is abuses of some and then yes, there is some situations that … like I have said, the difference between this person that is actually not … that is not well, that is ill, for the person that is just looking for attention. The one you get there, and it is the eyes going and they don’t want to talk to you, and there is nothing wrong with them, but they just don’t want to talk to you and then it is usually the ones that just need a good hiding from their parents more than anything else. [INT-05]

5.5.5 Personal situation

The participants suggested that their own here and now influenced their personal attitude towards the mental health patient that they were treating, and that under different circumstances they would react differently towards the patient. This leads to a fluidity of their attitude towards the mental health patient, which may well find the same participant projecting a positive response on the emergency mental health scene at the beginning of the shift and projecting a negative attitude or negative response at the end of a 48-72-hour shift. The influence of time came across strongly: a) time of the call and exhaustion, b) time of the call and the emotional

state of the emergency care provider, c) cumulative emotional state of the emergency care provider.

5.5.5.1 Time of the call and exhaustion

Many of the participants stressed the point that they worked long shifts, with some being as long as 48 to 72 hours. They were very aware that the further their shift progressed, the more their tiredness affected their attitude towards a mental health patient. This was portrayed as the participant not necessarily being very friendly, which may be interpreted as negativity.

> That is what I … obviously you are too tired 02:00 in the morning, maybe I'm not as friendly as I am at 08:00 in the morning or whatever, but I always try my best to be kind first, but not very vain. [INT-06]

5.5.5.2 Time of the call and the emotional state of the emergency care provider

The personal emotional state of the participant at the time of the call affected their attitude towards the mental health patient. Whilst clarification was not sought as to what was meant by emotional state, emergency care providers referred to difficult cases which they had encountered.

> I said on and off. Ja, I know what to do, I know how to treat them and stuff. It is just my emotions at that time will depend... I won't be rude or anything, but I mean I will be let's say "kortaf", so ja. [INT-11]

5.5.5.3 Cumulative emotional state of the emergency care provider

Whilst there are concerns raised regarding the time of the call and the emotional state of the emergency care provider, there were multiple references to emergency care providers encountering emotional breakdowns which have led to exits from the industry and attempts of self-harm.

> Ag, I think it is not very well looked after here. I'm talking about employees now. If you go and look at [Ambulance Service 4] stats or … okay, not [Ambulance Service 4] specifically, but I have known at least three people that have been hospitalised, one tried to kill himself, one … and it is almost "Okay, go enjoy your 21 days in [Mental Health Facility 1]. Come back to work". Now I don't see how that is okay, number one, because how did that person get to that point after working in this career for so long? Someone should be watching out for these … I think there should be trigger calls, like things like yes, we all deal with these calls on our own, but like … and I know no one likes to talk to anyone, because they send you … it is like a Trauma Counsellor from [Ambulance Service 4] that goes, "How was this call, are you having bad dreams, are you?". [INT-06]

> Ja, what you do and like … and also, we don't bother phoning the Trauma Counsellors, because they take five hours to come out from wherever and then they come, then they are, "Oh, no, I (indistinct) do you feel this?", whatever. I mean, like just it is a waste of time to be honest. I mean maybe that sounds rude to them, but they are just really there to waste our time and we are just like, "Okay, it is fine, we will deal with it ourselves". People drink or people smoke, people do whatever to get over it and then it is done. It is like buried in the back there somewhere. [INT-06]

5.6 Behaviour of the emergency care provider

A semi-structured interview has a disadvantage as the mental health patient treatment and management by the emergency care provider cannot be assessed. The participants should be mental health patient centric practitioners, focussing on the self-evaluation of their actions towards the mental health patient after the completion of the call. They should evaluate how they treated the patient and whether their personal values affected the outcome of the patient's treatment. The researcher must rely upon the self-reporting of the participants on their actions, thoughts and feelings and the effect that these had on their ability to evaluate their own self-perception.

5.6.1 Actions

Through the data analysis, elements of abruptness, annoyance, antagonism, disrespect, and rudeness were identified. There was, however, the caveat that their responses were affected by, in their words "how I feel at the time", and "we are tired after a long day".

> Well, honestly in my opinion a mental health patient is the same as any other patient, so I won't necessarily treat them different. I know we are sometimes … or we feel or sometimes feel different towards people who has got … for example your cocaine people and your drug people, ja, you feel different and maybe sometimes you will try telling them … not try telling them off, but it is just you will tell them they are doing the wrong thing, but at the end of the day I guess that is the same thing as any other thing, it is a mental issue, it is a mental health problem. [INT-03]

5.6.2 Thoughts

Evidence presented by the emergency care providers pointed towards their own personal feelings towards a mental health patient and the affect that these patients have on themselves.

> Ja, definitely there are some calls more than others that are more upsetting to some people than other ones, so some people can handle this and some people it is just they get emotional when they deal with certain cases like that. [INT-05]

> I think so. I think it would maybe help your understanding of where that patient is coming from, maybe give you some insight into what they are struggling with. I think it would … it could help. I don't know whether depending on your experience as a person it could actually make you dislike that person because you had a bad experience, or it could help you understand them. [INT-06]

One area that was a concern was the possibility that an emergency care provider may reach a point of no return mentally, and simply stop practicing and leave. This indeed did happen at the base of one participant, where their manager simply stopped practicing.

> I have had one Base Manager, I remember he got to a call and decided, "Okay, this is … I saw enough of this, this is" … [INT05]

5.6.3 Feelings

There are two focus areas that came to the fore, the first being the fear of violence and encountering a violent patient:

> Well, some is very violent, some is just aggressive, but they don't … it is not a physical thing, it is just verbalising. So basically, you take a lot of verbal abuse, but you take it from … who is it coming from basically at the end of the day, so, but ja, the treatment will remain the same, ja, within whatever scopes we have to do that treatment. [INT-03]

The second focus of the responses being the perception that a mental health patient is a waste of the emergency care provider's time, skills, and experience, instead of treating more deserving patients. This generated negative feelings and emotions and effected the willingness of the participant to access their knowledge and skills and to combine it with their attitude, to display a positive attitude towards the mental health emergency being encountered.

> Because I think it is quite a waste of our time, to be honest. I understand there is some issue, he has obviously got an addiction, but phoning [Emergency Medical Services] out to come help with his addictions, wasting our time and taking our resources away from people who could actually use it at that point. [INT-10]

5.7 Compensating for a lack of knowledge and skills

The emergency care providers, once qualified, have minimal knowledge of mental health illnesses, minimum understanding of the mental health patient, or mental health diagnostic criteria. A safety-first approach in managing a mental health patient was the treatment of choice, being especially true when there is an acknowledgement by the emergency care provider that they are unsure of the mental health patient's condition. This safety-first approach is the caveat to possibly prevent the mental health patient from deteriorating in the foreseeable future.

> So, if you don't have the knowledge behind it or even don't know the signs and symptoms, if you are unsure about something and you don't feel at ease. Rather take him, and do the necessary tests, than to leave him there and tomorrow he is dead or something. But they still need to be hospitalised though, you know? [INT-07]

> Honestly speaking, the only thing that we can actually do is just to get to … what you call, to hospital for them to do further investigation. [INT-09]

The experience of the emergency care provider leads to an effective mental health patient treatment coupled with the appropriate medical approach.

> Ja, experience count a lot. Ja, based on experience count a lot and then medical approach, you have to think. Just at times you don't have to use … sometimes you just have to think, yes. [INT-08]

If the mental health patient is aggressive, violent, or considered a danger to themselves, others, or property; the clinical practice guideline of choice in this situation is to sedate the mental health patient, which is a medical practice guideline.

> Obviously, number one, safety of ourselves and then safety of the patient, and definitely first do no harm, you know try your basic life support, if I can say it that way and try and talk to the patient, and try and make you know … but if the patient is violent, severely aggressive and then you need to do what is best for the patient. So today I decide I'm going to sedate this guy, but I do it on the basis that it is the best for the patient, even though he sees me tomorrow in the street and he hates my guts, it doesn't

matter, I made that judgment call on the basis that this would be the best for the patient, to get proper psychiatric evaluation and further treatment. [INT-04]

5.8 Summary

In this chapter, the constructs of knowledge, skills, and attitudes, which are the foundation of the competency theory, were analysed. The analysis found that the participants had developed their own practice methods to compensate for their lack of knowledge. However, the behaviour of the participants on the mental health scene on occasions was abrupt, rude, or disrespectful towards the mental health patient. Whilst the literature describes knowledge, skills, and attitudes as being the primary constructs of the competency theory, it is only through their behaviour that their competency may be measured. In chapter six these results are discussed in relation to the literature and the competency theory.

Chapter 6: Discussion regarding the participants competency to manage mental health patients

6.1 Introduction

The aim of the research is to understand how the emergency care providers perceive the mental health patients, and how they use their competence to assess, manage and treat a mental health patient in the pre-hospital environment. The research further aims to understand whether the competency of the emergency care providers justifies the implementation of a pre-hospital mental health assessment protocol to guide the emergency care providers, and whether such a pre-hospital mental health assessment protocol would be accepted by the emergency care provider.

To obtain this understanding, a modified competency framework model [3.5 Modified competency theorical framework] was used to assess the knowledge, skills and attitude of the individual participants who took part in the research. This gave rise to two research questions, the first was: What is the competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment? This produced three sub-questions, (a) How knowledgeable are the emergency care providers about mental health? (b) How skilled are the emergency care providers in treating mental health patients? and (c) What are the attitudes of the emergency care providers towards mental health patients?

This chapter discusses the results of question one and leads to Chapter 7, where the second question: What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol? is discussed.

6.2 Knowledge

While it might be expected that knowledge regarding mental health, mental health practice guidelines and mental health legislation would be taught, it was found that there is no mental health knowledge included in training programmes. The mental health knowledge that the participants had, was acquired through the accumulation of experience and knowledge gained from medical officers or medical practitioners selected by the individual participants, or from family members of the patient. While the MHCA details the authority of the SAPS police officer and the medical practitioner, knowledge of the legal ramifications of the Act was non-existent among participants.

6.2.1 Pre-existing knowledge

Pre-existing mental health knowledge proved to be almost completely lacking amongst the participants. Nevertheless, there was an indication that pre-existing knowledge might be useful in developing competence when treating mental health patients. Related to this finding, the B. EMC (SAQA, 2021), the Paramedic Association of Canada [PAOC] (2011) and certain Australian qualifications (Parsons, 2014; Shaban, 2011), make it clear that pre-existing knowledge is not mandatory, however, under certain circumstances, prior knowledge is a requirement or preferred as it forms a basis for paramedicine education.

6.2.2 Acquired mental health knowledge

Acquired mental health knowledge equips the emergency care provider with mental health knowledge which forms the foundation of mental health and mental health illnesses. Yet, among the participants, a lack in mental health education and training in mental health clinical practice guidelines has been identified. In addition, clinical simulations reflecting mental health patients were not included in training scenarios. Finally, there was no evidence of knowledge

about the legal aspects of dealing with mental health patients. Most mental health knowledge was gathered from on-the-scene experience and from consulting key resources including medical officers, casualty doctors, patient family members and from Google searches.

There has been a concerted effort worldwide to start introducing mental health education into the practice protocols of emergency care providers. Unfortunately, these efforts have been proven to be largely ineffective (McCann et al., 2018; Roberts & Henderson, 2009; Townsend & Luck, 2009). Research in Australia into the introduction of post-qualification mental health modules found that these modules did not necessarily impart sufficient knowledge to the emergency care provider (Parsons, 2014; Shaban, 2011). Shaban (2011), who was the author of one such qualification (Diploma of Paramedical Science (Ambulance)) for the Queensland Ambulance Service (QAS), researched the feedback on the training and found that the Australian emergency care providers, after completing the qualification, still considered their mental health education to be ineffective.

Knowledge does not reside only within mental health qualifications, but includes topics such as life sciences, patient management procedures, patient transport or refusal of transport procedures, and decision support systems. Acquired specific subject matter knowledge is the theoretical learning in the classroom and in the practical environment where academic teaching takes place (PAOC, 2018; Parsons, 2014; SAQA, 2018; SAQA, 2021; Shaban, 2011).

Upon the completion of their studies, the emergency care provider is subject to the requirements of the HPCSA's Continuous Professional Development (CPD) programme (HPCSA-CO, n.d.). The CPD programme is therefore reliant on the education institutions in the main, as well as the medical officers of the various Emergency Services developing specific

courses. The researcher reviewed the available CPD programmes and failed to identify any CPD programme which allows for the continuous learning of the latest developments related to mental health. From the current study it became evident that the emergency care provider is now reliant on experiential learning gained from treating of mental health patients and the application of legal requirements such as consent to treat, or mental health admission criteria. The remaining sections focus on the post qualification experiential learning and the application of the legal aspects on the emergency mental health scene.

6.2.2.1 Mental health experiential learning

The participants relied on mental health knowledge acquired through on-the-scene experiential learning.

The participants in the current study gained mental health knowledge from a variety of resources. In the same way, there are initiatives in Canada and the United States of America that are developing an integrated model where the emergency care provider has access to medical doctors, psychologists, sociologists, and legal resources, amongst others, with the overall objective of increasing the supervision of the emergency care provider (Hillman, 2013; Roberts, 2005; Roberts & Yeager, 2004).

Whilst the Emergency Medical Services Regulations, (EMSR, 2017) provides for the appointment of a supervising medical practitioner (Section 4 (v111), pg. 70), the lack of clarity on the status of the emergency care provider on an emergency scene as discussed in 2.4.1: Authority of the mental health care provider, does not clearly mandate the Emergency Medical Service to appoint a medical practitioner to act in a supervisory role when the emergency care provider is managing a mental health patient. Whilst the ALS and ILS emergency care

providers are considered to be independent practitioners who are responsible for their actions on the emergency mental health scene, they do have access to resources if they require assistance or further information (HPCSA-PBEC, 2006a; HPCSA-PBEC, 2006b). These resources include their emergency medical service provider's medical officer (who may be a medical doctor or a B. EMC qualified practitioner), or an emergency room doctor, with whom they have a relationship as a result of them being a regular consultant to their patients. The participants recognise that in certain cases such assistance is required and are migrating towards an unofficial supervision of complex mental health patients by referring the patient's mental health condition to their preferred medical officer. This is consistent with the trends found in Canada, the United Kingdom, and the United States of America where a greater level of supervision is being developed within mental health patient management (Horspool et al., 2016; Roberts, 2005; Roberts & Yeager, 2004; Wilson-Palmer & Poole, 2015).

The approach which is being developed in Canada and the United States of America enables all the necessary resources to function together (Roberts, 2005). As an example, the Albuquerque Family Advocacy Centre (New Mexico*)* consists of thirteen different agencies working together under one roof. The facility is designed to provide access to many different resources and in so doing, reduce the stress and trauma on the family in the event of an incident occurring. The objectives of the centre include:

- A victim safe and friendly environment (there are no suspects in the vicinity);
- A reduction of interviews that the victim must undergo as all the necessary resources are available at the same time;
- Multi-disciplinary teams are coordinated from the centre, and include medical practitioners, law enforcement functions including protective services, forensic

investigations, prosecution, and crisis counselling *(*Albuquerque Family Advocacy Centre, n.d.)

The United Kingdom has initiated a street triage model with the intention of reducing Section 136 Detentions in terms of Section 136 (S136) of the (United Kingdom) Mental Health Act (1983). This approach brings the British Police, mental health and medical professionals to the mental health patients and their family, whilst having access to the mental health professional available telephonically (Horspool et al., 2016; Wilson-Palmer & Poole, 2015).

Although this is not within any formalised mental health patient model found in South Africa, experience is resulting in participants unconsciously following the trend of involving family members in the treatment and management of mental health patients. This is similar to the approach that is more formalised in Canada, the United Kingdom, and the United States of America (Horspool et al., 2016; Roberts, 2005; Roberts & Yeager, 2004; Wilson-Palmer & Poole, 2015).

6.2.2.2 Legal aspects

The initial hurdle that the participant must overcome is the conflicting requirements of two fundamental Acts being the NHA and the MHCA, as regards consent, admission criteria and the authority of the SAPS police officer (NDOH, 2003; van Huysteen, 2016; Zwart, 2015). In the literature review, it was found that the MHCA does not provide any guidance on what the responsibilities of the emergency care provider are on an emergency mental health scene. Authors such as Ndou (2015), Stander et al. (2021), NDOH (2003), van Huysteen (2017), and Zwart (2015) conclude that the emergency care provider is excluded from the definition, thus leaving the SAPS police officer to manage a mental health patient. The only exceptions are in the case of a behavioural emergency or transfer too or from medical or mental health facilities.

Whilst the MHCA details the authority of the SAPS police officer, in reality the emergency care provider is generally the first responder on the emergency mental health scene and is required to manage the mental health patient, more often than not without a police officer being available.

6.2.2.2.1 Knowledge of consent

The MHCA states that no treatment may be provided to any mental health patient without consent. However, there are stipulations in the Act which allow a mental health patient to be treated without their consent (MHCA, 2002; HPA, 1974; Stander et al., 2021; NDOH, 2003; Zwart, 2015). It was found that participants were unable to articulate the definition of consent as stated in the MHCA, and were more likely to allow the patient to sign or document a RHT on the patient report form (PRF), rather than transporting the patient to a mental health care facility (Evans, 2015). One of the factors leading to the RHT, was the lack of training in the management and pre-hospital decision making of mental health emergencies (Evans, 2015; van Huyssteen, 2016; Zwart, 2015)

This lack of training can be circumvented through the application of two legitimate defences. Legal opinion provides two legitimate defences which the emergency care provider can raise in the event of the mental health patient requiring urgent medical or mental health treatment. being “negotiorum gestio”, which is “the voluntary management by one person of the affairs of another without the consent of the other person” (van Huysteen, 2017, p. 130) and “necessity” (van Huysteen, 2017, p. 132). It was found that none of the participants were aware that either of these could be a possible defence if charges were brought against them for treating and transporting a mental health patient to the most appropriate facility. At best, it was found

that the participants would attempt to obtain the assistance of the SAPS to assist with the management of the non-compliant or violent patient.

6.2.2.2.2 Knowledge of admission criteria

The MHCA details four different categories of admission for mental health patients: voluntary admission, assisted admission, involuntary admission, and emergency admission (van Huyssteen, 2016; Zwart, 2015). The Constitution (Section 27) (Constitution, 1996) and the NHA (Chapter 2) (NHA, 2003) includes the directive that no person who requires emergency medical treatment may be refused such treatment (van Huyssteen, 2016). The assumption made in the literature regarding the non-recognition by the MHCA of emergency care providers treating and transporting a mental health patient to the most appropriate facility does not offer clarity on whether the MHCA admission criteria are appropriate in the pre-hospital environment where the emergency care providers function, and whether the admission criteria as stipulated in the NHA is valid for the treatment and transportation of a mental health patient (Ndou, 2015, van Huyssteen, 2016; Zwart, 2015). Without this clarification, the emergency care provider cannot be faulted if they use the admission criteria of the NHA as their guideline when considering transporting a mental health patient.

6.2.2.2.3 Knowledge of the SAPS police officer authority

SAPS police officers are afforded extensive authority by the MHCA with Sections 9, 11, 25, 27, 33, 34, 39, 40, 45, and 66 affording them rights over the mental health patient under the conditions specified in the Act (NDOH, 2003). By contrast, the emergency care provider is only mentioned in terms of the "transfer of mental health care users by SAPS between health establishments: Applicable Sections: 27(10), 33(9), 34(4)(b), 34(6) and 39,45(1) and (3), 66(1)(j)" (NDOH, 2003, p. 23). The emergency care providers knowledge of the SAPS police

officer's authority is limited to requesting assistance when a mental health patient needs to be sedated due to the possibility of them self-harming, endangering others or property. Even in this situation, there is no consensus on when the SAPS police officer is required and how they may assist the emergency care provider

6.2.2.2.4 Incongruity of the South African Acts

The incongruity between the Constitution, HPA, MHCA, and NHA, amongst others may need a Declaratory Order from the South African High Court to establish the authority of the emergency care provider on the emergency mental health scene. Ndou (2005), Stander et al. (2021), van Huysteen (2017), and Zwart (2015) all conclude that the MHCA does not include the emergency care provider in the definition of a medical providers.

6.3 Skills

Mental health diagnostic and treatment skills were limited. Where such skills were found, the participants had gained these skills from treating mental health patients on mental health emergency scenes. This did not necessarily result in clinically sound treatment regimens and this led to a number of challenges including misdiagnosis of an emergency or allowing the mental health aspect of an emergency to overshadow (diagnostic overshadowing) a possibly more serious medical illness or traumatic injury in the patient. The only medical process mentioned by the participants was sedation.

6.3.1 The opportunity for misdiagnosis of mental health conditions

Worldwide, there is a dearth of mental health skills training within paramedicine, which leads to a general lack of focus on mental health skills over medical skills as illustrated in studies by Braithwaite, 2014; McCann et al., 2018; Parsons et al., 2011 and Shaban, 2011, as well as local

studies by Evans, 2015; Evans et al., 2018 and Stander et al., 2021. The diagnosis of a mental health illness is not simple, as many conditions require in depth interviews, tests, and investigations by a psychologist or psychiatrist before a diagnosis can be made (First, 2014). The participants simply do not have time to spend investigating the mental health condition of each mental health patient they encounter, especially if the mental health patient is on a medical aid, and on-scene time limits are constraints (Europ Assistance Worldwide Services, 2015; ER24, 2015; Netcare 911, 2015). This is particularly true as the participants are not taught mental health clinical skills, mental health clinical practice guidelines, or mental health clinical procedures required to do the necessary investigations.

The lack of mental diagnostic skills may result in mental health misdiagnosis by the participant. FES was a common diagnosis. This ranged, from one extreme of wild, exaggerated presentations of seizures, to the other extreme of total silence from the patient. These patients are generally ignored by the participants and classified as being a common phenomenon. Mothibi et al., (2019) supported the assertion that many emergency care providers were not confident, or not able to diagnose a list of mental illnesses. These mental illnesses that were misdiagnosed included personality disorders, substance abuse, delirium, dementia, and psychosis. Internationally, German emergency care providers were only able to diagnose an estimate of 39% of mental health emergency cases (Pajonk et al., 2001). It was found that the diagnostic skills of emergency care providers in Australia was particularly poor when formally assessed (Parsons, 2014; Shaban, 2011). Nel et al. (2014) identified several mental health illnesses which on-scene management found difficult, two being personality disorders which could typical present with either of two extremes, the histrionic and the dependent personality disorder. These may well be diagnosed as FES patients. The histrionic personality disorder can present abnormal behaviours which may include attention seeking behaviours, angry

outbursts and manipulative suicidal gestures or behaviour as an attempt to obtain the necessary treatment as they often fear that they will not be taken seriously by the emergency care providers (Nel et al., 2014). The dependent personality disorder patient's behaviour is often characterised as not having the age-appropriate ability to operate autonomously, when compared to the developmental span of a similar individual (First, 2014; Nel et al., 2014; Ramsden 2013; Sue et al., 2010). The dependent personality disorder patient is most likely to make repeated and urgent calls for medical assistance from emergency care providers, often becoming angry or frightened if they perceive that their concerns are not taken seriously (Nel et al., 2014).

6.3.2 The opportunity for diagnostic overshadowing

The emergency care providers, when faced with the scenario of a patient who has a known mental health illness and who has suffered a traumatic injury, may ignore the traumatic injury. There was an acknowledgement that this does occur on emergency mental health scenes. This is a case of diagnostic overshadowing, which occurs when a patient with a known mental health illness, showing symptoms of a medical condition or traumatic injury may have their physical symptoms misattributed to their mental disorder. This is further complicated if the emergency care provider has a negative attitude or negative predisposition towards the mental health patient (Jones et al., 2008).

6.3.3 Inability to effectively treat a range of mental health emergencies

It was found that the inability to effectively treat a range of mental health emergencies led the emergency care provider to rely firstly on the medical protocols, and in the event of the mental health patient being not cooperative, the medical skill of sedation. The MHCA refers to sedation as being an option to manage an unstable mental health patient, although it is assumed

that the emergency care provider would function under the NHA as the patient was a danger to self, others, or property (Mothibi et al., 2019; Parsons, 2014; Shaban, 2011).

6.4 Attitude

There were participants that were inherently negative towards the mental health patient. It was found that most of the participants displayed a fluid attitude towards the patient. This fluid attitude was often found where the participant would be positive towards a patient early in the shift but as the shift progressed, their attitudes tended to vary, often being reported as having the potential of being negative. Concerns were raised by the participants regarding cultural diversity within South Africa and the lack of understanding of these cultures.

6.4.1 Multicultural diversity

The multi-cultural implication of the South African community was a cause of concern for the westernised participants who did not understand indigenous cultural beliefs, use of muti, and ancestral worship. This is not strange, as other similarly diverse cultures report similar concerns and a lack of understanding of non-western cultural manifestations. It has been reported that some of the African American and Latino / Hispanic cultures unsettled many emergency care providers in the United States of America. Similarly, Pacific islander cultures were found to disconcert many westernised practitioners (Paniagua, 2018). The emergency care provider is taught the medical classification of diseases according to the ICD-10 classification, which is mute when considering the cultural variables that may influence the diagnosis of the condition. The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5), which is not taught to the emergency care provider, alerts the practitioner to these cultural variables (Paniagua, 2018). The concentration on medical knowledge and skills compared with the dearth of mental health knowledge and skills, does not equip the participant with culturally

diverse knowledge (Ford-Jones & Chaufan, 2017; McCann et al., 2018; Roberts & Henderson, 2009; Shaban, 2011).

6.4.2 Emotions and feelings towards the mental health patient

The mental health patient generated emotions and feelings within the participants. The literature shows that many of the emergency care providers are guided by their emotions and feelings in the treatment of the mental health patient (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). It was found that empathy and compassion for the mental health patient was one extreme attitude, with the other extreme being annoyance. Empathy and compassion were seen when the mental health patient was found to be a genuine patient, who was not able to manage their condition, either by themselves, or with the help of the family. Here we find for the first time, the caveat of "depends on how I feel at the time" and "we are tired after a long day", amongst others being used. It was here that the participants acknowledged that their own personal circumstance affected their approach to the mental health patient. These personal circumstances found them being less empathetic and compassionate compared to what they should be. It was found in research that compassion was one of the seven desirable traits of an emergency care provider (Sine & Northcutt, 2008, as cited by Shaban, 2011, p. 16; as cited by Parsons, 2014, p. 89). Parsons (2014) and Shaban (2011) note both compassion and empathy as key requirements in treating a mental health patient. The same authors noted that exhaustion of the participant affected the element of compassion.

6.4.3 Annoyance of FES, wasting time, or attention seeking mental health patients

The participants expressed disdain when encountering a mental health patient whom they perceive as being FES, wasting time, or attention seeking mental health patients. These

participants were more likely to diagnose these patients as wasting their precious time or manipulating their family or the situation. This negative attitude might lead to ineffective or non-treatment of the mental health patient.

Research has shown that the evaluative attitude of the emergency care provider is not well understood, and the perceptions of their actions lead to conclusions regarding their on-scene behaviour (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). Similar factors which could lead to irritation and annoyance were found in the Cape Town Metropole and left the emergency care providers drained and they often found it difficult not to be judgemental. Under these circumstances they found that they lost the ability to empathise with the patient (Evans, 2015).

Experience was found to be the most important aspect of the emergency care provider in being able to diagnose and manage a mental health patient (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). It became clear that experience in treating a mental health patient is an important factor amongst the participants. The newly qualified emergency care providers reacted towards the mental health patients with extreme negativity: “No, no, no, it is fine. I think everyone is like in saying ja, they are attracting … we have a joke actually, sorry, we are attracting all the crazies, but anyways … ja.” [INT-03]. As they gain experience, the participants build an understanding that many of their initial diagnoses and views of the mental health patient develop into an understanding that there is an underlying mental illness which requires treatment, but more so, that each mental health patient must be treated on merit and not merely glibly diagnosed as an FES or “waste of time” or “attention seeking mental health patient” (Braithwaite, 2014; Parsons, 2014; Shaban, 2011; Wilcox, 2018). Stander et al. (2021)

found a similar reliance on experience to enable the effective treatment of mental health patients.

6.4.4 Personal situation

Internationally, research has shown that the personal situation of the emergency care provider affects the treatment of the patient. The overriding factors are the emotions of the emergency care provider. It was found that the emergency care providers fears for their own safety. The emotions of dealing with the dying and death, and their own personal wellbeing also had an effect. It was also found that the emotional, cognitive capacity and physical wellness of the emergency care provider was affected by their personal situation (Parsons, 2014; Shaban, 2011). Evans (2015) found that emergency care providers in the Cape Town Metropole had similar concerns around their own personal safety and would request the SAPS to assist on mental health emergency scenes where they had or suspected a violent or potentially violent patient.

In the current study, the participants' here and now became a caveat for reasoning behind why the on-scene attitude is often perceived or portrayed as being negative and led to fluidity within the general attitude towards a mental health patient. Two areas of focus came to the fore. These were a) the time of the call, exhaustion, and the possible unprocessed emotional state of the participant following a previous callout, and b) the cumulative emotional state of the participant. It was found that even in the worst of times, the participant still attended to the mental health patient and the emergency mental health scene.

6.4.4.1 Time of the call, exhaustion, and the emotional state of the participant

The participants suggested that their shifts contributed to many of the negative mental health perceptions as they work extremely long hours, and it is plain and simply tiredness that is a partial cause of this attitude. However, whilst that is one of the reasons, another was the time on-scene time and their availability for the next emergency. Their own internal or crew debriefing model did not always allow the participant time to recovery emotionally from the previous traumatic call. This often found them on the next scene with the unprocessed emotions of the previous emergency scene still fresh in their minds. Australian literature showed that tiredness and emotions played a part in their concerns about their own wellness as emergency care providers (Parsons, 2014; Shaban, 2011). Stander, et al. (2021, pg11) reported that emergency care providers in the Tshwane Metropole experienced "behaviour emergencies as emotionally and physically taxing".

6.4.4.2 Cumulative emotional state

The greater concern is the accumulation of emotions within each of the participants, without a trusted third party with whom they can consult to assist them in overcoming these emotions. Several the participants referred to their own private methods to ease the burden. Where corporate assistance is available, the trust in the intervention was virtually non-existent due to perceptions that management would limit their own career aspirations if their true feelings were made known to the corporate intervention team. International research reported on individual emotional episodes. It was found that there was no reference to the cumulative effects of unprocessed emotional episodes, however, it was found in general literature that unprocessed emotions do have adverse effects on the person, with the most important being depression (Zuccarini & Busic, 2013). Research into emergency care providers and depression did not render any results on the impact of a cumulative emotional state.

6.5 Behaviour

Research into the behaviour of the participants focussed on three distinct areas, namely actions, thoughts, and feelings, all of which were found to be self-centred. The participants were defensive about their actions on the mental health scene, focussing on their own thoughts and how they felt at the time of the call. There was no evidence of the participants being patient-centred, which would include the self-evaluation of their on-scene behaviour, post the completion of the mental health episode.

6.5.1 Actions

The emergency care providers' actions towards the mental health patients were self-centred and defensive. There were elements of abruptness, annoyance, antagonism, disrespect, and rudeness displayed by the emergency care providers. Where it was expected that the emergency care provider would be open regarding a self-evaluation of their actions on the mental health scene and their treatment of the mental health patient, it was easier to be defensive and use the caveat "depends on how I feel at the time" and "we are tired after a long day" (Braithwaite, 2014; Parsons, 2014; Shaban, 2011).

6.5.2 Thoughts

It was expected that the emergency care provider would focus on their thought processes on how they treated the mental health patient, and whether they followed any thought processes and decision-making models. In the discussions, different methods of approaching a unique mental health patient were discussed, answer of which were derived from prompting the emergency care providers. As an example, [INT-07] used a combination of Sandhu's Event Driven Model as described in 2.8.3.5 above (Sandhu et al., 2006). and Pattern's recognition model (Benner & Tanner, 1987; Boyle et al., 2008; Cioffi & Markham, 1997) as described in

2.8.3.3 above to manage a unique situation where the diagnosis was not readily formulated. In general, however, there was no evidence that the participants questioned their thought processes once the incident was completed. For this reason, the researcher was unable to identity if knowledge and skills were being actively constructed, or whether there would be a functional recall when dealing with a similar mental health episode in the future. The responses were also defensive in describing their personal view of a mental health patient and the episode that was encountered, often again using caveats such as "some calls are more upsetting than others" (Braithwaite, 2014; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011).

6.5.3 Feelings

Feeling and emotions, be they positive or negative, are initiators of action to achieve the task at hand. These feelings and emotions affect the willingness of the individual to access their knowledge and skills and to combine them with their attitude and to display this outcome in the work situation that is being encountered (Braithwaite, 2014; Parsons, 2014; Raven & Stephenson, 2001; Shaban, 2011). Whilst it was expected that the participants would evaluate their on-scene actions, it was once again found that they were more concerned about their own wellbeing. They feared encountering a violent patient, which they considered to be present in most if not all mental health patients. This left the participants feeling exposed, more so as they did not understand the authority of the SAPS police officer in terms of the MHCA (Evans, 2015; Ndou, 2015; Stander et al., 2021, van Huysteen, 2017; Zwart, 2015).

6.6 Compensating for a lack of knowledge and skills

It was found that the emergency care provider improvised when treating a unique mental health patient whose condition they had not previously been exposed to. In so doing, they generally opted for a safety-first approach and transported the patient to hospital. However, there were

references to participants allowing the mental health patient to sign or document an RHT. As their experience and maturity progressed, they had a higher level of experience, but still made use of a high level of improvisation on the scene. International research demonstrated a similar approach to mental health patient management, following a safety-first approach and managing the patient medically before addressing the mental health episode. Transportation of the patient was found to be an accepted standard in Australia in such a situation, although there were references to non-transportation (Parsons, 2014; Shaban, 2011). In the research on transportation in the Cape Town Metropole, Evans (2015) found that two thirds of the emergency care providers would not necessarily try and convince a mental health patient to go to hospital. They would however transport a mental health patient to hospital if they considered it a medical emergency.

Reasons for not transporting mental health patients were varied with participants stating that they lacked confidence, had erroneous interpretations of the MHCA, and that they were only qualified to treat medical conditions or traumatic conditions, amongst others (Evans, 2015; Parsons, 2014; Shaban, 2011, Stander et al., 2021). Similar reports were found in the participant interviews.

It was found that most of the participants inherently wanted to assist the mental health patient and ensured that they improvised on the scene to find a model that they could use to treat, manage, and transport the patient to the most appropriate facility.

> Ja, improvise as you go along. [INT07]

There was however confusion regarding authorization and the abilities of the participant to transport a mental health patient, and each independent practitioner essentially made their own

decision on the transportation of the patient, taking all of the available information into consideration (SAQA, 2018; SAQA, 2021).

6.7 Summary

Whilst it is clear that there is insufficient knowledge and skills imparted to the participants during their training, it affects the treatment of a mental health patient. Over time, once qualified, the participant was able to build up an experience base which they could access, either to use directly, or to adapt for the specific case. There are concerns regarding the negative attitudes towards the mental health patient. A large percentage of the negative attitude could be attributed to the lack of knowledge and skills, but there is a percentage which can be attributed the fluidity of the attitude due to the emotional state of the participant on arrival on the scene. Aspects of tiredness, not having sufficient time to process the emotions from a previous traumatic incident played a part. The combination of tiredness, and an accumulation of unprocessed emotions allowed the participants to get into emotional trouble, with no, or limited trust in corporate interventions. The emergency care providers, even with lack of knowledge, skills, and attitudes affected by their emotions, are able to compensate for their lack of knowledge and treat mental health patients making use of experience and improvisation. Although this is generally true, the lack of diagnostic skills exposes the participants in the diagnosis of common mental illnesses such as the histrionic or dependent personality disorders, by identifying such patients as FES patients or as suffering from medical illnesses that are brought on by the misuse or unwanted sides effects of psychotic medications such as akathisia, acute dystonia, or neuroleptic malignant syndrome and by ignoring potential life-threatening conditions.

Chapter 7 addresses Question Two: What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol? and focuses on the two sub-questions:

(a) Does the competence of the emergency care providers justify the implementation of a pre-hospital mental health assessment protocol? and

(b) What is the possibility that emergency care providers will accept a pre-hospital mental health assessment protocol?

Chapter 7: Implications for the pre-hospital management of mental health patients

7.1 Introduction

In the previous chapter, question one was discussed, and it was found that the participants lacked the competence to treat a mental health patient. This results in implications for the pre-hospital management of mental health patients. This brings us to the second research question, namely What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol? In this chapter, the two sub-questions are discussed: (a) Does the competence of the emergency care providers justify the implementation of a pre-hospital mental health assessment protocol? and (b) What is the possibility that emergency care providers will accept a pre-hospital mental health assessment protocol?

The results of the discussion on question one allows the researcher to draw conclusions without extrapolating the results and discussing the results separately. This chapter presents the results and discusses the implications for the pre-hospital management of mental health patients.

7.2 Justification for the implementation of a mental health assessment protocol

The results of the semi-structured interviews have shown that there is a general lack of competence amongst the participants, and that this inevitably plays a part in participants not always diagnosing mental health conditions. These results are supported by international and local research (studies by Braithwaite, 2014; McCann et al., 2018; Parsons, 2014, 2011 and Shaban, 2011, as well as local studies by Evans, 2015; Evans et al., 2018; Stander et al., 2021). Research by Mothibi et al. (2019) provided evidence that the Free State emergency care providers reported similar concerns regarding the lack of training in mental health knowledge and skills.

As previously stated, current training and protocols do not provide guidance on mental health education.

7.3 What is the possibility that the emergency care providers will accept a pre-hospital mental health assessment protocol?

The emergency care provider has been found wanting in mental health competency, and the participants were aware of the lack of mental health competency, and therefore it is likely that a pre-hospital mental health assessment protocol will be welcomed. The participants were clearly concerned about the lack of mental health clinical guidelines, and this will make it even more likely that they would accept a pre-hospital mental health assessment protocol. International mental health assessment protocols are country and culture bound, and do not always accommodate the cultures of another country and its unique culture. The Emergency triage education kit / Triage workbook / Triage quick reference guide features the unique culture of Australia. South Africa is a multi-cultural and diverse country with many culturally based practices which are not common practice within the westernised diagnosis of mental health illnesses. The South African emergency care provider is taught the medical classification of diseases according to the ICD-10 classification, which is mute when considering the cultural variables that may influence the diagnosis of the condition. The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM-5), which is not taught to the emergency care provider, alerts the emergency care provider to these cultural variables (Paniagua, 2018).

From the data analysis, it became evident that the acceptance of an international pre-hospital mental health assessment protocol could be influenced by it's being South Africanised, to accommodate the multicultural diversity that is South Africa. This will make it more likely that the pre-hospital mental health assessment protocol will be accepted if the South African context

and cultures inform the protocol. The multicultural diversity of South Africa was referred to in Chapter 6.4: Attitude.

> I think it should be revised for South Africa, because we … let's just be honest, our country doesn't run the same as the first world. Here it is completely different. Even just the diversity of cultures here as well, just how you manage patients in this environment is a [completely] different story, you know? I think you can adapt a model from there, but it has to be revised specifically for South Africa. [INT-06]

There was specific reference to a United States of America model that has been introduced into South Africa were no adaptation to the South African conditions has taken place, and this leads to confusion in the examination.

> It is the same with ITLS, you do ITLS and they instruct you to use South African things for South Africans, but when you write the exam it is American based. [INT04]

The development of a South Africanised pre-hospital mental health assessment protocol should take into consideration, both international and national studies. A more "westernised" individual might feel quite different about this matter than an African individual. The acceptance of the protocol might then depend upon the individual.

It is even more likely that a South Africanised pre-hospital mental health assessment protocol would be accepted if it is accompanied by an appropriate education and training programme in the use of the protocol. An education and training programme in the use of the protocol would improve the understanding of mental health illnesses and the management of mental health

patients. The pre-hospital mental health assessment protocol would therefore be a tool to improve understanding (improved knowledge) and support improved decision making (improved skills).

> Ja, I definitely do. This looks like it would really work, but these student guidelines as well, you know you don't just [indistinct] go out and treat or sedate your mental health patients. You know, at least to have a guideline. [INT04]

There is a high likelihood of a pre-hospital mental health assessment protocol being accepted in South Africa. To achieve the acceptance, the protocol must include both international and national studies. The protocol needs to South Africanised to accommodate the multicultural diversity of South Africa. This is itself a challenge. The greater challenge exists in helping an individual from one culture understanding other cultures. This would have to be addressed in the training programme in the use of the protocol.

The development of a pre-hospital mental health assessment protocol has the potential to develop the competency of the emergency care provider, but training is a requirement which needs to be addressed. The literature points towards training not being effective, still leaving the emergency care provider with a lack of confidence in treating a mental health patient. Similar findings have been found in Australia, and the United States of America.

The Queensland Ambulance Service (QAS) in Australia tasked Shaban, who was their Principal Paramedic Educator (Paramedic Clinical Education) to develop a Diploma of Paramedical Science (Ambulance) (Shaban, 2011). Shaban (2011) researched the results of the training and found that there was a lack of confidence in the emergency care providers in

treating mental health patients. In the United States of America, Cheney et al. (2008) examined a “psychiatric patient diversion protocol”, developed from their work, which allowed for the emergency care providers to transfer the mental health patient directly to a mental health facility, thereby by-passing the medical facility casualty department. Cheney et al. (2008) found that even with effective training the medical clearance of 96% of the patients was accurate. However, they found that there was a 29% non-adherence to the psychiatric patient diversion protocol. These failures led to a number of patients being transferred to a medical facility for various procedures and hospital admissions. The international research reflects a possible challenge to the acceptance of a pre-hospital mental health assessment protocol where there is a reluctance to accept the protocol and the associated education and training programme in the use of the protocol.

> I think more the people who have been on the road for however long, the ones that are tired, I don’t think they would be good for something like that. They don’t want to learn anymore, they don’t want to be here, but they don’t want to leave. So, try and get them to learn something, you know extra stuff to help patients, it is … I don’t think it is going to … [ILS-INT-05]

7.4 Summary

There is a high likelihood that a pre-hospital mental health assessment protocol designed for South African use will be implemented. The acknowledged lack of participant competency by the participants justifies the implementation of a pre-hospital mental health assessment protocol. The acceptance of the pre-hospital mental health assessment protocol requires that it be South Africanised to accommodate the multicultural diverse community that is South Africa. This protocol must be accompanied by an education and training programme in the use

of the protocol. However, there is always the risk that certain individuals may be reluctant to accept the South Africanised pre-hospital mental health assessment protocol.

Chapter 8: Conclusion and recommendations

8.1 Introduction

In the previous chapters, a step-by-step process to establish the answers to the research question asked in Chapter 1.5 was presented. In this chapter, the results are presented along with the answers to the research question. The research question consisted of two interlinked questions. The answer of the first question had a direct impact on the answer to the second. Each question is discussed, and the answers of the participants presented. Each study has strengths and limitation, and the strengths, limitations, and possible strategies to overcome the limitations of this study are discussed. The study identified further opportunities for research which are presented. The chapter concludes with a reflection on my journey from when the seed was planted all those years ago until where I am today and presents an overall conclusion.

8.2 Aim of the study

The aim of the research was to understand how the participants perceive mental health patients, and whether they are competent to assess, manage and treat a mental health patient in the pre-hospital environment. The research further aimed to understand whether the competency of the emergency care providers justifies the implementation of a pre-hospital mental health assessment protocol to guide the emergency care providers, and whether such a pre-hospital mental health assessment protocol would be accepted by the emergency care provider.

8.3 Questions answered

There were two specific questions posed when the researcher initiated the study:

1) What is the level of competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment, and

2) What is the implication of the level of competency identified for the implementation of a pre-hospital mental health assessment protocol.

8.3.1 Question One

1) What is the level of competence of the emergency care providers in the treatment of mental health patients in the pre-hospital environment? The question focussed on establishing whether the participants, based upon their mental health knowledge, their mental health skills, and their attitude towards mental health patients, were competent to assess, manage and treat a mental health patient in the pre-hospital environment. It was found that the participants are not competent to treat a mental health patient.

8.3.1.1 Reflection on question one

The concept of competence has matured to the point that there is a competency model developed for most industries. It was not possible to ascertain whether there is an emergency mental health competency model which could be used as a baseline for developing the competency of the emergency care provider.

The participants were found to be not competent to treat a mental health patient. The academic process to teach mental health knowledge and skills is not available to the participants, who, after the academic process, qualifies them as independent practitioners without the prerequisite mental health knowledge and skills. It was found that the participants' attitudes varied from compassion to annoyance and was dependent upon the fluidity of the participants own personal situation relative to their emotions and level of exhaustion during the shift. This was often noticeable in their on-scene description of behaviour and attitudes towards the mental health patient. The participants relied upon their own abilities to build their competency in mental

health and the management of the mental health patient through on-scene experience and interactions with colleagues, medical and mental health professionals, and the families of the mental health patients.

The participants acknowledged that they were not competent to assess, manage and treat mental health patients in the pre-hospital environment.

8.3.2 Question Two

What is the implication of the level of competency identified, for the implementation of a pre-hospital mental health assessment protocol? The acknowledged lack of competence by the participants exposes the mental health patient to ineffective or no on-scene treatment. There is thus a requirement for the implementation of a pre-hospital mental health assessment protocol designed for South African use.

8.3.2.1 Reflection on question two

There is a high likelihood that a pre-hospital mental health assessment protocol designed for South African use will be accepted. The pre-hospital mental health assessment protocol needs to include both local and national research to ensure validity for South Africa.

The protocol needs to be South Africanised to accommodate the multicultural diversity of South Africa which is a challenge in itself. The greater challenge exists in the individual from one culture understanding the other cultures. To overcome this specific challenge, there needs to be an education and training programme in the use of the protocol. This does, however, present a risk, as the acceptance of the South Africanised pre-hospital mental health assessment

protocol is dependent upon the individual emergency care provider accepting the protocol, the associated education model, and their willingness to implement the protocol.

8.4 Strengths and limitations of the study

8.4.1 Strengths of the study

The first strength of the study is that is provides an understanding of the participants' current competency to assess, manage and treat a mental health patient in the pre-hospital environment. Whilst this study had a limited number of participants, it points to the reality of mental health competency amongst emergency care providers. This research can be replicated in a wider region, incorporating the greater multicultural diversity of South Africa and the results can be validated against this study

The second strength of the study is that the researcher has undergone similar emergency care provider education as the greater percentage of the participants and has a practical understanding of the shortcomings within the current education model.

The third strength of the study is that the researcher is an operational ILS practitioner and having fulfilled the role of trauma counsellor is able to validate the interviews, through having encountered similar mental health emergencies in practice. This strengthens the validation of the research as answers which were unexpected could be interrogated further to establish the reasons behind such replies.

8.4.2 Limitations of the study

The study was designed using the interpretivist paradigm as a base. The subjective knowledge of the researcher and the literature research led to the development of a semi-structured

interview protocol. In hindsight, the semi-structured interview protocol focussed on the latent meaning of the competency, which did not allow for themes to be developed. Codes and categories were pre-empted due to the deductive coding conducted based on the theoretical framework used. Additionally, the participants could not be evaluated whilst treating a patient, and the researcher had to rely on the self-reporting of the information provided.

The study was limited to sixteen participants, with fourteen participants finally making themselves available. The limited number of participants did not necessarily find saturation in all the topics pre-empted in the semi-structured interview. Due to limited number of participants, there were areas of interest that were not expanded upon, therefore, limiting in-depth analysis of those topics. This was especially true when cultural views on mental health and mental health patients were discussed. However, it was found that saturation was achieved in the core topics of competency (knowledge, skills and attitudes) and behaviour.

Several of the emergency care providers were non-English first language speakers. The interviews were conducted in English, which may have led to a lack of a thorough understanding of the question posed and answers provided. The following participants were interviewed in English although in the case of INT-01, INT-03, INT-05, INT-11, their mother tongue was Afrikaans; Setswana in the case of INT-08, INT-12, INT-13: INT-09's mother tongue was Tshivenda; and the mother tongue of INT-14 was Sesotho.

8.5 Methods to overcome the limitations of the study

The participant pool should be enlarged to provide the opportunity for the researcher to gain information from a more diverse cultural grouping, thereby increasing the possibility of gaining a greater understanding of the individual participant

The interviewing of a number of participants in English and not in their vernacular limited the full discussions that could emanate from the interview. The interviewer should be confident to either interview in the vernacular or have the interviews conducted by someone who is fluent in the vernacular and can interpret the results into English.

8.6 Opportunities for further research

The results of the research have identified opportunities for further research.

8.6.1 Design amendments to the semi-structured interview protocol

The semi-structured interview protocol must be constructed to be less rigid, allowing for the possibility of encouraging wider discussions, and the ability to use the full possibilities that the interpretivist methodology offers in the development of categories and themes, as many of these topics where pre-empted.

8.6.2 Pre-hospital mental health assessment protocols

Based on the finding of the current study that the South African emergency care provider needs a pre-hospital mental health assessment protocol, further research into this topic is required.

Internationally, there are three methods that are being followed: a) specialisation qualification as found in Australia with the development of qualifications such that was developed by Shaban (2011), b) the British Street Triage model which is gaining acceptance in Great Britain which brings the British Police, mental health and medical professionals to the mental health patient and their family (Horspool et al., 2016; Wilson-Palmer & Poole, 2015), and c) the United States of America and Canadian model which focusses on grouping all the professionals in a centralised facility with the patient and their family being brought to the facility (Hillman,

2013; Roberts, 2005; Roberts & Yeager, 2004). Whilst these three models do have a certain level of success; the South African pre-hospital mental health assessment protocol would need to incorporate the cultural diversity found within the communities whilst extracting the best practices found in these three and other possible models and develop a South African pre-hospital mental health assessment protocol.

8.6.3 Emergency care providers' mental health

The study elicited information that did not contribute to answering the current research questions yet it identified the need for research related to the mental health of emergency care providers.

Local and international research (studies by Parsons, 2014; Shaban, 2011, as well as local studies by Evans, 2015) address the impact of unprocessed emotions and often the short and long-term effect of what the emergency care provider witnesses daily. The participants in this study alluded to experiencing similar short and long-term effects of the daily medical conditions and traumatic events that they witness on a daily basis. This was of such concern that it led the participants to discuss the short- and long-term impact on their careers as emergency care providers and it warrants further research.

8.6.3 Topics not reaching saturation

The limited number of participants, from the various cultures that exist within the Tshwane Metropole did not necessary allow for the saturation of all the topics, especially the effect of the cultural diversity on individual participants who function within communities that they do not necessary understand. Research should be done to understand the impact of the cultural diversity on the individual emergency care providers.

8.6.4 Incongruity of South African Acts

There is incongruity between the Constitution, HPA, MHCA, and NHA and between other Acts. Research is required to gain an understanding of the authority of the emergency care provider in the emergency mental health environment, and what processes are required to formalise the authority. The current conclusion drawn is that the MHCA does not include the emergency care provider in the definition of a medical providers.

8.7 A reflection on my journey

Little did I know that the seed sown by a Catholic Priest, Monsignor Vincent Hill in 1998 would take me on a personal journey from simply wanting to fulfil something that was missing in my life, to wanting to understand what it takes to be competent in treating a mental health patient. The watershed event was March 2011, when I found myself in the position where I had suffered a major cardiac event following a simple everyday patient extrication that resulted in me experiencing a life-threatening cardiac injury. I required two operations, firstly undergoing an angiogram in an attempt to repair the damage, which was not successful. This was followed by seven-hour cardio-thoracic surgery, where the damage was repaired. The reality of what had happened in March 2011 struck me with devastating effect about six months later, when I was diagnosed with depression, and post-traumatic stress disorder, which was all attributable to the level of psychological support that I had received, firstly whilst in hospital, and then in post recovery.

When I started this journey, I thought that I understood mental health paramedicine. How wrong I was. As an interpretivist researcher, I found myself reading international and local academic studies and textbooks and recalling events where I reacted in a similar manner to

what the authors described and discussed, recognising that I had made the same or similar mistakes when treating a mental health patient.

The 14 participants that I engaged with during the semi-structured interviews, elicited a similar response. One of the incidents that I recall, was where a participant spoke about being annoyed when treating a mental health patient that they knew, and subsequently encountered some unfriendly SAPS police officers, and when they got to the medical facility, the reception of the receiving medical professionals was very tense. I found myself replaying in my mind a similar situation as described by this participant. I remembered a patient whom I was annoyed with. I have treated this patient on many occasions for alcohol poisoning and heroin overdoses. On this day, the patient was uncooperative and hysterical, which necessitated the assistance from the SAPS. The police officers arrived shortly thereafter, but my annoyance with this patient carried over to these police officers and created a tense scene. On arrival at the hospital, there were two irritated police officers, one restrained patient, an irritated partner and I, who was just as irritated. The reception that I received at the hospital was not conducive to effective treatment.

As the study progressed, the more I learnt about how difficult mental health patients are to treat, not only because of my own lack of knowledge and skills of mental health, but the lack of understanding of the South African legislation. My attitude to the mental health patient was affected by how I personally felt about the patient and how the lead-up to the case affected me especially where there were unprocessed emotions from a prior incident. It was especially noticeable when the patient and family were known to me, and I found that in retrospect my attitude was fluid. Positive towards the mental health patient when I felt good, but negative following a difficult or emotional prior incident. My behaviour, actions, thoughts and feelings

were mirrored by the participants who expressed similar difficulties in managing mental health patients during their interviews.

This study has shown that we are all struggling, and these results make it imperative that the management of mental health patents is further researched, not only for their benefit, but for the benefit of the emergency care providers so that they can understand the impact of trauma on their daily lives and seek the necessary psychological assistance timeously.

8.8 Summary

This study set out to establish whether the emergency care providers, based upon their mental health knowledge, their mental health skills, and their attitude towards mental health patients, were competent to assess, manage and treat mental health patients in the pre-hospital environment. It was found that the emergency care providers are not competent to treat mental health patients. The participants acknowledged their concerns about their mental health patient treatment competency. This makes the likelihood that a pre-hospital mental health assessment protocol could be implemented in South Africa, with the proviso that it is South Africanised, and incorporates the multicultural diversity of the country.

Throughout the study, it was found that there are still many areas relating to mental health and the emergency care provider that require further research and development. These include the legal frameworks within which the emergency care provider operates, and which is outside the sphere of mental health patient management and psychology. South Africa is not alone in the management of emergency mental health patient by emergency care providers. Similar concerns were found in studies from Australia, the United Kingdom, and the United States of America.

It was not that long ago the emergency care providers were called ambulance drivers, then in the 1970's they were known as ambulance officers, and now, in the 2020's, they are becoming medical professionals. The emergency medical services still have some way to go before areas such as mental health and mental health patients are treated with the same competency as the medical patient who has a fractured leg or has suffered cardiac arrest. This research is one small step towards further understanding mental health patients and their emergency care providers.

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Appendix A: Ethical approval – UNISA

UNISA university of south africa

COLLEGE OF HUMAN SCIENCES RESEARCH ETHICS REVIEW COMMITTEE

30 April 2019

NHREC Registration # :
Rec-240816-052
CREC Reference # : 2019-CHS-Depart-03950336

Dear D. K Myburgh

Decision:
Ethics Approval from 30 April 2019 to 01 May 2023

Researcher(s): D.K Myburgh

Supervisor(s): H.C. Erasmus

The Evaluation of Emergency Mental Health Practices in the treatment of Mental Health Patients on Emergency Scenes in South Africa

Qualification Applied: Masters in Psychology

Thank you for the application for research ethics clearance by the Unisa Department of Psychology College of Human Science Ethics Committee. Ethics approval is granted for three years.

The ***low risk application*** *was* ***reviewed and*** **expedited** by Department of Psychology College of Human Sciences Research Ethics Committee, on the **(30 April 2019)** 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(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
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

2. 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 Department of Psychology Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. 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.
5. 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.
6. 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 require additional ethics clearance.
7. No fieldwork activities may continue after the expiry date **(01 May 2023).** Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number **2019-CHS-Depart-03950336** *should be clearly indicated on all forms of communication with the intended research participants, as well as with the Committee.*

Yours sincerely,

Signature : 

Prof I. Ferns
Ethics Chair: Psychology

Signature : 

Dr Suryakanthie Chetty
Ethics Chair : CREC

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Appendix B: Approval to conduct research – Emergency Service Provider One

06 June 2019

Attention: Mr. Deon Myburgh

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Dear Deon,

Your letter on the above matter refers.

Thank you for the request to conduct research within I have been informed that your proposal has been evaluated by the Emergency Medicine Division Research Committee and has been recommended for approval by this office.

I am therefore pleased to inform you that such approval is hereby granted.

Your contact person for the study will be:

Office:
Mobile:
Email:

This letter may be produced and shown to our employees if there are any queries related to the research. They may also contact for any further information that they may require.

I wish you well in your endeavor and trust that you will keep this office and its department informed of your findings when these become available.

Appendix C: Approval to conduct research – Emergency Service Provider Two

26 June 2019

Mr D Myburgh
University of South Africa

Dear D Myburgh

RE: **PROJECT 07/2019**
PROJECT TITLE: The Evaluation of Emergency Mental Health Practices in the treatment of Mental Health Patients on Emergency Scenes in South Africa

The above research protocol has been reviewed by the Research Committee and I am pleased to inform you that your request has been approved.

would be your point of contact at Operations. Please make contact with him to arrange any functional requirements.

We would ask that if you identify any serious adverse events, which need immediate intervention, you inform of these on the email address,

Should your methodology change or any concerns arise during the data collection period, it is your responsibility to inform the Research Committee in due course. You are also required to forward the completed project to

I look forward to viewing the results of your study. I am positive that the science that you will generate will be of benefit to the profession.

Kind Regards

Appendix D: Approval to conduct research – Emergency Service Provider Three

Date: 06 JUNE 2019

Attention: Mr. Deon Myburgh

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

Dear Deon,

Your letter on the above matter refers.

Thank you for the request to conduct research within

I have been informed that your proposal has been evaluated by the Emergency Medicine Division Research Committee and has been recommended for approval by this office.

I am therefore pleased to inform you that such approval is hereby granted.

Your contact person for the study will be:

Office:

Mobile:

Email:

This letter may be produced and shown to our employees if there are any queries related to the research. They may also contact for any further information that they may require.

I wish you well in your endeavour and trust that you will keep this office and its department informed of your findings when these become available.

Yours sincerely,

Appendix E: Approval to conduct research – Emergency Service Provider Four

RESEARCH OPERATIONS COMMITTEE FINAL APPROVAL OF RESEARCH

Approval number: UNIV-2019-0026

Mr DK Myburgh

E mail:

Dear Mr Myburgh

RE: THE EVALUATION OF EMERGENCY MENTAL HEALTH PRACTICES IN THE TREATMENT OF MENTAL HEALTH PATIENTS ON EMERGENCY SCENES IN SOUTH AFRICA

The above-mentioned research was reviewed by the Research Operations Committee's delegated members and it is with pleasure that we inform you that your application to conduct this research at Private Emergency Services, has been approved, subject to the following:

i) Research may now commence with this FINAL APPROVAL from the Committee.

ii) All information regarding the Company will be treated as legally privileged and confidential.

iii) The Company's name will not be mentioned without written consent from the Committee.

iv) All legal requirements with regards to participants' rights and confidentiality will be complied with.

v) All data extracted may only be used in an anonymised, aggregated format and for the purposes of this specific study as specified in the proposal. The data may under no circumstances be used for any other purpose whatsoever.

vi) The Company must be furnished with a STATUS REPORT on the progress of the study at least annually on 30th September irrespective of the date of approval from the Committee as well as a FINAL REPORT with reference to intention to publish and probable journals for publication, on completion of the study.

vii) A copy of the research report will be provided to the Committee once it is finally approved by the relevant primary party or tertiary institution, or once complete or if discontinued for any reason whatsoever prior to the expected completion date.

viii) The Company has the right to implement any recommendations from the research.

ix) The Company reserves the right to withdraw the approval for research at any time during the process, should the research prove to be detrimental to the subjects/ Company or should the researcher not comply with the conditions of approval.

x) APPROVAL IS VALID FOR A PERIOD OF 36 MONTHS FROM DATE OF THIS LETTER OR COMPLETION OR DISCONTINUATION OF THE STUDY, WHICHEVER IS THE FIRST.

We wish you success in your research.

This letter has been anonymised to ensure confidentiality in the research report. The original letter is available with author of research

Appendix F: Participant information sheet

Appendix F1: Participant information sheet

Ethics clearance reference number: ***2019-CHS-Depart-03950339***

Research permission reference number: ……

Date : ……

The Evaluation of Emergency Mental Health Practices in the treatment of Mental Health Patients on Emergency Scenes in South Africa

Dear Prospective Participant

My name is Deon Myburgh and I am doing research under the co-supervision of Dr. Helena Erasmus, a lecturer in the Department of Psychology at the University of South Africa (UNISA), and Dr. Willem Stassen, Programme Coordinator: PhD Emergency Medicine, Division of Emergency Medicine, University of Cape Town, towards a Masters in Psychology at the University of South Africa. We have funding for research into mental health emergencies. We are inviting you to participate in a study entitled "The Evaluation of Emergency Mental Health Practices in the treatment of Mental Health Patients on Emergency Scenes in South Africa".

What is the purpose of the study?

I am conducting this research to be able to understand how the mental health patient is perceived by the emergency care provider, and further to gain insight into their interaction with these patients, inclusive of their medical evaluation, management, and treatment. The research will determine the conditions under which emergency care providers will accept a protocol guiding the management of mental health patients and whether it will be feasible to develop

and implement a prehospital mental health triage solution to guide emergency care providers' evaluation and management of mental health patients.

Why am I being invited to participate?

You have been selected to participate due to your tacit knowledge and experience gained from many years of treatment and management of mental health patients.

A list of emergency care providers fulfilling the participant criteria was received from your operational management. From this list you were randomly selected. Approximately 15 names were selected from a list of 100 prospective participants.

What is the nature of my participation in this study?

The study involves semistructured interview which would be audio taped to facilitate clarity of interview. The questions will relate to your experiences in the management of mental health patients as well as contributing towards the effective management and treatment of these patients in the future. It is expected that the interview would be approximately 45 minutes in duration.

Can I withdraw from this study even after having agreed to participate?

Participating in this study is voluntary and you are under no obligation to consent to participation. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a written consent form. You are free to withdraw at any time and without giving a reason.

What are the potential benefits of taking part in this study?

Your input will form an integral part in directing the development of guidelines for a mental health triage program, which will assist in the future treatment of mental health patients.

Are there any negative consequences for me if I participate in the research project?

As a participant in the research project, you may provide evidence of unintended errors in the treatment of a patient. The researcher is not an enforcer of the law or legal processes, information from yourself which may be misconstrued as confessions to unintended errors in patient treatment will be reported statistically. As a participant in this research, you will not be harmed through the process, but if at any stage within the interview, it becomes obvious that you are reacting adversely to the process, it will be recommended that you consult a psychologist for the management of your reactions. All possible references that will enable readers to identify you or your company will be removed. Whatever information you confide to the researcher will be kept confidential.

Will the information that I convey to the researcher and my identity be kept confidential?

You have the right to insist that your name will not be recorded anywhere and no one will be able to connect you to the answers you give. Your answers will be given a code number or a pseudonym and you will be referred to in this way in the data, any publications, or other research reporting methods such as conference proceedings.

Your contribution may be reviewed by people responsible for making sure that research is done properly, including members of the Research Ethics Review Committee. Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Your anonymous data may be used for journal articles and/or conference proceedings and at no time will you be identifiable.

How will the researcher protect the security of data?

Hard copies of your answers will be stored by the researcher for a minimum period of five years in a locked cupboard/filing cabinet at University of South Africa (UNISA) for future research or academic purposes; electronic information will be stored on a password protected computer. Future use of the stored data will be subject to further Research Ethics Review and approval if applicable. Hard copies will be shredded and/or electronic copies will be permanently deleted from the hard drive of the computer through the use of a relevant software programme after five years.

Will I receive payment or any incentives for participating in this study?

No payments or rewards will be offered, financial or otherwise.

Has the study received ethics approval?

This study has received written approval from the College of Human Sciences Research Ethics Review Committee of UNISA. A copy of the approval letter can be obtained from the researcher if you so wish.

How will I be informed of the findings/results of the research?

If you would like to be informed of the final research findings, please contact Deon Myburgh on (Mobile) or (Email) .

Should you require any further information or want to contact the researcher about any aspect of this study, please contact Deon Myburgh, on the contact details provided.

Should you have concerns about the way in which the research has been conducted, you may contact . Contact the research ethics chairperson of the College of Human Sciences Research Ethics Review Committee, :

Telephone: Email:

If you have any ethical concerns.

Thank you for taking time to read this information sheet and for participating in this study.

Deon Myburgh

Researcher

Appendix G: Consent to participate in the study

Appendix G1: Consent to participate in this study

Ethics clearance reference number: ***2019-CHS-Depart-03950336***

Research permission reference number:

I, …….…… (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty.

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the interview.

I have received a signed copy of the informed consent agreement.

Participant name & surname: ……..……
(Please Print)

Participant signature: …… Date : ……

Researcher's name & surname: Deon Myburgh

Researcher's signature: ……..…… Date : ……

Participant reference number: ……..……

Appendix G2: Participant information sheet

Ethics clearance reference number: ***2019-CHS-Depart-03950336***

Research permission reference number:

The Evaluation of Emergency Mental Health Practices in the treatment of Mental Health Patients on Emergency Scenes in South Africa

Name of interviewer		
Reference number of Interviewee		
Reference number of audio recording		
Date of interview		
Informed consent discussed		
Points requiring clarity regarding informed consent:		
Informed consent given and form completed		
Date of informed consent given and form completed		
Withdrawal of informed consent		
Date of withdrawal of informed consent		
Note: The interviewee will not be referenced by name.		
Note: The place of the interview will not be referenced.		

Appendix G3: The self-harm questionnaire

The Self-harm Questionnaire													
Qualification level	**BAA**		**AEA**		**ECT**		**ECA**		**ANT (CCA)**		**ANT (NDip)**		**ECP**
Gender		**Age**		**Occupation**				**Years of service**					

Instructions:

On the following pages you will find a series of statements about three types of patients:

- Patients who overdose as a form of a suicidal gesture / suicidal attempt;
- Patients who overdose in the course of addictive drug taking;
- Patients who accidentally overdose / poisoning.

For each statement in the pages that follow we would like you to show the extent to which you ***AGREE*** or ***DISAGREE*** with the idea it expresses. Alongside each question there are five spaces. Please place a tick in the space which ***BEST REPRESENTS YOUR OPINION***. Remember that this is not a test. There are no right or wrong answers. Use the scale to show ***YOUR OPINIONS***. Please do not leave out any statements even if you find it difficult to decide in some instances. The same questions are repeated for the three groups of patients. Please do not discuss the questions with others, we are interested in ***YOUR*** views. Whatever you tell us will be regarded as completely confidential: you do not need to sign the questionnaire.

There is no time limit to answering this questionnaire; please take your time to consider *YOUR* views before answering the questions.

Definitions:

The following definitions are applicable:

- Suicidal gesture / suicidal attempt:
    - *Suicidal gesture*: overdose taken as a "cry for help" *or* for secondary gain (e.g. social manipulation);
    - *Suicidal attempt*: overdose taken in a definite attempt to kill him/herself.

- *Overdose in the course of addictive drug taking*: unintentional overdose either of drug(s) of addiction or of another drug(s), or a combination, not with suicidal intention but to gain additional effect;
- *Accidental overdose / poisoning*: "unintentional" overdose or poisoning with no evidence or desire to harm him/herself.

Acknowledgements:

The original questionnaire was designed for a research project by Dr. A. N. Oppenheim and Dr. G. Edwards, under the auspices of A. Hamid Ghodse. Ghodse, A. (1978). The attitudes of casualty staff and ambulance personnel towards patients who take drug overdoses. *Social Science & Medicine, 12, 341-346.* Pergamon Press Ltd

Suicidal gesture / suicidal attempt (Indicate to what extent you *AGREE* or *DISAGREE* with the statements below)	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1. Because of their emotional problems, these patients deserve the very best of care.	☐	☐	☐	☐	☐
2. They cannot help what they do, they are victims of circumstances who are crying out for understanding.	☐	☐	☐	☐	☐
3. I do my best to discuss their personal problems with them.	☐	☐	☐	☐	☐
4. I take particular trouble to make the patients comfortable.	☐	☐	☐	☐	☐
5. These patients are not very satisfying to treat.	☐	☐	☐	☐	☐
6. I find it hard to understand these patients.	☐	☐	☐	☐	☐
7. In my treatment of them, I sometimes let my irritation show.	☐	☐	☐	☐	☐
8. It is difficult to bring oneself to bother with these patients.	☐	☐	☐	☐	☐
9. These patients need a good telling off.	☐	☐	☐	☐	☐

Overdose in the course of addictive drug taking (Indicate to what extent you *AGREE* or *DISAGREE* with the statements below)	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1. Because of their emotional problems, these patients deserve the very best of care.	☐	☐	☐	☐	☐
2. They cannot help what they do, they are victims of circumstances who are crying out for understanding.	☐	☐	☐	☐	☐
3. I do my best to discuss their personal problems with them.	☐	☐	☐	☐	☐
4. I take particular trouble to make the patients comfortable.	☐	☐	☐	☐	☐
5. These patients are not very satisfying to treat.	☐	☐	☐	☐	☐
6. I find it hard to understand these patients.	☐	☐	☐	☐	☐
7. In my treatment of them, I sometimes let my irritation show.	☐	☐	☐	☐	☐
8. It is difficult to bring oneself to bother with these patients.	☐	☐	☐	☐	☐
9. These patients need a good telling off.	☐	☐	☐	☐	☐

Accidental overdose / poisoning (Indicate to what extent you *AGREE* or *DISAGREE* with the statements below)	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
1. Because of their emotional problems, these patients deserve the very best of care.	☐	☐	☐	☐	☐
2. They cannot help what they do, they are victims of circumstances who are crying out for understanding.	☐	☐	☐	☐	☐
3. I do my best to discuss their personal problems with them.	☐	☐	☐	☐	☐
4. I take particular trouble to make the patients comfortable.	☐	☐	☐	☐	☐
5. These patients are not very satisfying to treat.	☐	☐	☐	☐	☐
6. I find it hard to understand these patients.	☐	☐	☐	☐	☐
7. In my treatment of them, I sometimes let my irritation show.	☐	☐	☐	☐	☐
8. It is difficult to bring oneself to bother with these patients.	☐	☐	☐	☐	☐
9. These patients need a good telling off.	☐	☐	☐	☐	☐

Appendix G4: Semistructured questionnaire:

1. Tell me about scenes where you had to deal with mental health patients?
2. What is mental health?
3. What is your obligation as an emergency care provider towards mental health patients?
4. Which legislation and protocols of relevance to you cover mental health issues?
5. What is your view of a mental health patient?

Additional probing question - if required: "What has been your experience of patients who are frequent users of emergency services due to self-harm, be it:

- overdose in the course of addictive drug taking;
- overdose deliberately in a suicidal attempt or gesture;
- accidental overdose / poisoning.

Additional probing question - if required: Do you think that patients who try various means of attempting suicide, such as overdose, wrist-cutting, self-harm, carbon monoxide poisoning, etc. and are frequent users of emergency services, are treated differently from patients who have a singular attempt?

Additional probing question - if required: Do you think that this is inappropriate use of EMS?

6. On what do you base your views of a mental health patient, be it cultural, religious, your own history, or other views?
7. How does your cultural and religious views affect your treatment of mental health patients?
8. How do you treat a mental health patient if you cannot diagnose a medical condition?

Additional probing question - if required: Do you think that mental health patients demonstrating symptoms of mental illness have physical symptoms misdiagnosed due to their mental health conditions?

Additional probing question - if required: Do you think that you consider a mental health patient demonstrating physical symptoms as being complex and comorbid?

Detailed example – Sebastian is a 16-year-old boy who is crying and banging his head against the footpath in a small laneway. Sebastian has superficial lacerations to both wrists, and is dishevelled and unkempt. He is upset about having emergency care providers wanting to treat him, and is saying, 'just leave me alone - why don't you just piss off'. He admits trying to hurt himself, and says that he will do so again as soon as he can.

1 **2** 3 4 5 (Answer 2 is the correct answer)
Airway, breathing and circulation are intact. The patient has attempted self-harm. His comments indicate that he may be at high risk of absconding. He should be transported to the nearest appropriate casualty. He should commence treatment within 10 minutes of arrival in the casualty. (Emergency Triage Education Kit Triage Workbook, 2009, p. 154)

Detailed example – Lionel, 68 years. He has Alzheimer's disease and for the past two days has refused fluids. This morning his carer found him lying on the floor next to his bed yet the cot-sides were up. She thought that he had probably fallen because the blankets were also on the floor and he had been incontinent of urine. Last week he was able to mobilise with a frame and take himself to the toilet, but for the past two days he has not had the energy to move at all and has needed assistance going to the toilet. Since the fall he cannot stand up and he seems to be guarding his right hip. On arrival, he is lying on the bed groaning. His heart rate is 122 beats per minute, respiratory rate 24 breaths per minute and blood pressure is 110/70.

1 2 **3** 4 5 (Answer 3 is the correct answer)
Airway is intact heart rate is elevated as is respiratory rate. There is a possibility of a fractured hip and given cognitive impairment pain difficult to assess. This patient is likely to be in pain and discomfort from the injury. He should wait no longer than 30 minutes for treatment. (Emergency Triage Education Kit Triage Workbook, 2009, p. 174)

Additional probing question - if required: Do you think that a lack of mental health knowledge limits your diagnostic capabilities?

Additional probing question - if required: What is your opinion of patients who are overdose victims – taking the three possibilities from the questionnaire – what is your thinking about an alcohol / substance abuse patient and the possibility that they have mental health issues?

Detailed example – Edward is a 36-year-old male with a past history of alcoholism. He has a referral letter from the nearby drug and alcohol service and an escort. The referral letter states that the patient has 'suicidal ideation and homicidal thoughts'. The letter requests a psychiatric assessment and states that the patient is 'possibly experiencing alcohol withdrawal'. He states that his last drink was at 9.00 am.

1 2 **3** 4 5 (Answer 3 is the correct answer)
This patient has no compromise to this airway, breathing or circulation. There is no report of acute behavioural disturbance or agitation at this stage. You will need to determine whether it was 9.00 am today or the day before that the drink was consumed (possible alcohol withdrawal state). This patient has an escort and will be under direct surveillance from that person. He should be transported to the nearest casualty. He should not leave the waiting room without this support person. He must also be under close observation of the Triage Nurse. Security should be informed that this person is in the casualty.

The patient has suicidal ideations and is at risk of self-harm. He should wait no longer than 30 minutes to commence treatment. Re-triage may need to be performed if the patient shows signs of behavioural disturbance. (Emergency Triage Education Kit Triage Workbook, 2009, p. 151)

Additional probing question - if required: Do you think that the introduction of Naloxone Hydrochloride onto the AEA protocols would improve the emergency care providers outlook on overdose patients now that they have the ability to intervene instead of waiting for ALS? What do you think a protocol related to mental health patients should look like?

Detailed example – if required: Do you think that the protocols should include aspects of:

- The Mental Health Care Act, No 17 of 2002;
- Clinical diagnosis;
- Clinical practice guidelines for treatment protocols.

9. What training should be provided to enable you to effectively evaluate and manage mental health patients?
10. I am going to present a possible solution to you and would like to hear what you think about it?

Additional probing question - if required: I sense that you do not really like this tool.

11. What approach would you rather suggest?
12. What are the challenges that you foresee?
13. Are these challenges general to all emergency care providers?
14. What are your personal challenges that you foresee?
15. How would you view a specialised mental health emergency care provider?
16. Do you think that the culture of the South African emergency care provider is the same as the British, USA and Australian emergency care providers?

17. Do you think that the South African emergency care provider should adopt best practice for mental health patients from the British, USA and Australian emergency care providers?

Appendix H: Example of the coding structure

The following coding structure was used for the analysis of the attribute of "Attitude".

Attribute	**Definition**
• Affective component.	The emergency care provider's feelings / emotions towards the mental health patient.
• Behaviours or conative component.	The manner in which the attitude of the emergency care provider influences how they act or behave towards the mental health patient.
• Cognitive component.	The beliefs, thoughts, and attributes that the emergency care provider would associate with a mental health patient.
• Evaluative component.	The manner in which the emergency care provider reacts to a mental health patient based upon their own belief system.
• Personal situation.	The impact of the emergency care provider's immediate personal situation and how it affects their view of a mental health patient.
• Influences of external parties.	The effect of the influence of external agents on the emergency care provider's treatment of the mental health patient.
• Education, specialisation and mental health assessment programme – acceptance.	The positive acceptance of the education specialisation and mental health assessment programme.

• Education, specialisation and mental health assessment programme – non-acceptance.	The non-acceptance of the education specialisation and mental health assessment programme.
• Assumptions.	The assumptions made by the emergency care provider that influences their attitude – not aligned to any specific attribute.