

**PREHOSPITAL EMERGENCY CARE PROVIDER'S
UNDERSTANDING OF THEIR RESPONSIBILITIES TOWARDS
A MENTAL HEALTH CARE USER, DURING A BEHAVIOURAL
EMERGENCY**

By

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DVRCHA001

*This study is in partial fulfilment of the requirements for the degree Masters of
Philosophy in the Faculty of Health Sciences at the University of Cape Town*

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June 2019

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ACKNOWLEDGEMENTS

I would like to take the opportunity to give thanks to those who helped this project become a reality.

First, to my two supervisors, Prof. P. Hodgkinson and Dr. E. Dippenaar. Thank you for your patience and guidance. Your inputs have truly made this project an amazing learning curve.

To V. Voorendyk, thank you for your ideas and guidance on many of the legal aspects of this project.

To J. Beukes, your assistance and guidance in performing the focus groups were an absolute blessing. Your friendliness and patience were truly appreciated.

To my husband. You had to endure a few late nights and weekends on your own. Thank you for your support.

TABLE OF CONTENT

Declaration	i
Acknowledgements	ii
Part A – Literature Review	1
1. Literature search strategy	1
2. Introduction	1
3. History of mental healthcare in South Africa	2
4. Deinstitutionalisation	4
5. The current mental healthcare status in South Africa	5
6. Current legislation that regulates mental healthcare in South Africa	6
7. International legislation.....	13
8. Prehospital emergency care providers	15
9. The involvement of law enforcement	18
10. Conclusion	19
References	21
Addendums to Literature Review	31
Addendum A: Mental Health Care Act no 17 of 2002 Chapter 3 (Section 9)	31
Addendum B: Mental Health Care Act no 17 of 2002 Chapter 5 (Section 32).....	32
Addendum C: Mental Health Care Act no 17 of 2002 Chapter 5 (Section 40).....	33
Part B – Article.....	1
Abstract	1
Introduction	1
Methods	2
Results	5
Discussion	11
Conclusion.....	14
Acknowledgements	14
References	15
Part C – Addendums	1

1 **PART A – LITERATURE REVIEW**

2 **1. LITERATURE SEARCH STRATEGY**

3 Pubmed and COCHRANE databases were searched, and a systematic-like process was
4 used to identify any relevant literature. Publications dated from 2000 to December
5 2018 only, were included in the databases search. Google search engine was used to
6 identify possible grey literature. The following Boolean operator terms were searched
7 using the advanced search option in each database. [Paramedics OR Prehospital health
8 care provider OR prehospital provider] AND [Behavioural emergencies] AND
9 [Responsibilities OR roles]. [Law enforcement OR police] AND [Behavioural
10 emergencies]. Titles and abstracts were screened for relevance to the topic. Links to
11 suggested articles that databases identified as possible relevant articles to search terms
12 were also screened.

13

14 Inclusion criteria: For articles that showed high relevance, full articles were sought
15 and included for review.

16

17 Exclusion criteria: Abstracts that show low relevance or articles with high relevant
18 abstract for which full article could not be obtained.

19

20 **2. INTRODUCTION**

21 The World Health Organization (WHO) defines health as “a state of complete
22 physical, mental and social well-being and not merely the absence of disease or
23 infirmity.”¹ Mental health forms thus an integral part of overall health, still, this entity
24 of healthcare is neglected and receives low priority during budget allocation –
25 worldwide.² It is estimated that neuropsychiatric disorders ranks third in their
26 contribution to the burden of diseases in South Africa(SA), after Human
27 Immunodeficiency Virus and other infectious diseases.³⁻⁶ Within a 12 month period,
28 approximately 16% of SA adults will present with a mental illness and almost 70% of
29 those adults will not receive adequate mental healthcare.³ SA as a country, struggles
30 with many of the identified risk factors such as inequality, poverty, unemployment,
31 exposure to violence and urbanisation, which contributes to the development of mental
32 illness.² These risk factors together with budget constraints, limited resources, little

33 training opportunities amongst primary healthcare providers,, and the lack in
34 recognition for the need of mental health care amongst SA adults worsens the mental
35 health status of the country.^{3, 7, 8} Without adequate mental healthcare, the restoration
36 of a person’s mental health is not always possible and may easily develop into a clinical
37 significant mental illness.^{9, 10}

38 Mental health is defined by the WHO as “A state of well-being in which every
39 individual realises his or her own potential, can cope with the normal stresses of life,
40 can work productively and fruitful, and is able to make a contribution to her or his
41 community.”¹¹ Mental illness is the collective term for all diagnosable mental
42 disorders which relates to changes in thinking -, behaviour – or emotional disorders
43 and can present through a cluster of symptoms which can cause an impairment in daily
44 functionality.¹²⁻¹⁴ When a person’s coping mechanisms fail and that person’s thinking,
45 emotion and behaviour impair daily functionality it is considered a clinical significant
46 mental illness.^{3, 12, 13} Only when the impairment in thinking, emotion or behaviour
47 places the person or bystanders in imminent physical harm is it considered as a
48 behavioural emergency.^{15, 16}

49

50 **3. HISTORY OF MENTAL HEALTHCARE IN SOUTH AFRICA**

51 The history of mental healthcare has a dark and cruel start, but gaining knowledge on
52 all the wrongs done, helps one understand the reasons for the changes implemented
53 and the challenges the mental healthcare system faces today.¹⁷

54

55 The development of mental healthcare in SA can be divided into three stages:¹⁷

56 **3.1. The expediency and restraint period**

57 The period dates back as far as 1652, when the Dutch East India Company settled in
58 the Cape Colony.¹⁷ During that time mental healthcare was mostly provided to soldiers
59 and sailors who were considered mad – persons with illness without clear physical
60 cause.¹⁷ They were locked up in small rooms – institutionalised – and completely
61 isolated from society. They were deprived of their human rights to freedom, liberty
62 and autonomy - their freedom of choice.^{3, 5} The institutions provided basic healthcare,
63 but lacked in the provision of mental healthcare, adequate sanitation and protection
64 against restraints, neglect and abuse.^{5, 17}

65 **3.2. Psychiatric hospital period**

66 Immanuel Kant brought about the idea of equality during the enlightenment era;
67 1724-1804.^{17, 18} Kant argued that every human is equal and each person should have
68 autonomy over one's own body.^{17, 18} It was not long before the humanism movement
69 entered SA borders.^{17, 19} The movement fought for equal healthcare and opportunities
70 in society, which included persons with mental illness.^{5, 17, 19} Soon it was realised that
71 restraint and isolation no longer conform to the world's view and mental healthcare
72 changed from institutionalisation to specialised facilities.¹⁷ These facilities had larger
73 rooms, gardens and occupational activities to aid in recovery, but still provided limited
74 to no mental healthcare.¹⁷ Many persons with mental illness were still exposed to
75 abuse and neglect.^{5, 17, 19}

76 **3.3. The Modern Period**

77 In 1910 SA became a union, and on 1 November 1916 the state Department of Health,
78 promulgated the Mental Disorders Act.^{17, 19} The legislation was the first to regulate
79 the treatment provided to persons with mental illness.^{17, 19} Even though the Act
80 improved the medical and mental healthcare provided, the focus remained on the well-
81 being of society, rather than the well-being of a person with mental illness.^{17, 19} In 1966
82 a need for further regulation on the management of persons with mental illness was
83 found and the Mental Disorders Act was reviewed.^{17, 19} The Mental Health Act was
84 developed and promulgated in 1975.^{17, 19} The Act brought about improvements in
85 protecting the human rights of persons with mental illness and provided better
86 guidelines on the reception, detention and treatment of these persons.^{17, 19} The Act
87 was also the first in the country which empowered South African Police Services
88 (SAPS) to make an application for involuntary apprehension.^{17, 19} This means a SAPS
89 was empowered to apprehend a person with mental illness without their consent and
90 transport them to a mental healthcare facility.¹⁹ After the 1994 democratic election,
91 the government once again reviewed the mental healthcare system and the Mental
92 Health Care Act no 17 of 2002 was promulgated in 2004.^{5, 17, 19} At that time, the Act
93 was commended to be one of the most advanced legislation in protecting the human
94 rights of persons with mental illness.^{5, 19} The Act was based on the WHO ten mental
95 health principles as well as their recommendation of deinstitutionalisation.^{3, 5, 17}

96

97 **4 DEINSTITUTIONALISATION**

98 Deinstitutionalisation is the integration of mental healthcare into the general healthcare
99 system, which ensures the provision of mental healthcare starts at a primary healthcare
100 level and advances through to secondary and tertiary healthcare levels.^{20, 21} A major
101 motivator for deinstitutionalisation is the strong association between mental illness and
102 non-communicable diseases.^{3, 22} The South African Stress and Health study 2009,²³
103 found adults are more likely to visit the general healthcare system for mental related
104 problems than seeking specific mental healthcare services.²³ These findings are
105 supported by a literature review by Jacob and Coetzee²⁰ It is argued that
106 deinstitutionalisation allows for simultaneous treatment, assessment and monitoring of
107 both mental health and physical health.^{21, 22, 24} Additionally, it should decrease the
108 treatment gap by increasing accessibility and availability of mental healthcare,
109 decrease cost to care, aid in early recognition of mental illness, treat persons with stable
110 mental illness on an outpatient bases, practice preventative measures, promote human
111 rights and decrease the stigmatisation against persons with mental illness.^{21, 22, 24}

112 There are arguments against deinstitutionalisation. Persons with mental illness have
113 different diagnostic and management needs from those with physical disorders.²⁵
114 Jacob and Coetzee²⁰ found deinstitutionalisation has led to an increase in the
115 presentation of behavioural emergencies in SA primary healthcare settings.²⁰ Two
116 studies from Australian support these findings.^{26, 27} The primary healthcare setting is
117 that first contact a person has with the healthcare system.³ These settings are often
118 chaotic, unpredictable, loud and busy, which may further aggravate the person's
119 anxiety, aggression or violence.^{9, 26, 28} Furthermore, studies have found primary
120 healthcare providers, including prehospital emergency care providers and police
121 officers, are not adequately trained in recognising and managing mental illness
122 appropriately.^{21, 29-32} The lack of training, the ambiguous presentations of mental
123 illness and difficulty in performing a thorough assessment and management of a person
124 with mental illness in the primary healthcare setting can lead to substandard treatment,
125 stigmatisation towards a person with mental illness and violation of human rights.^{9, 21,}
126 ³¹ Other concerns are the large number of people with mental health illness that are
127 misdiagnosed or overlooked in the primary healthcare setting.⁹

128

129 **5. THE CURRENT MENTAL HEALTHCARE STATUS IN SOUTH**
130 **AFRICA**

131 In 2007, the Department of Health did a national review of the mental healthcare
132 system using the WHO Assessment instrument for Mental Health System (WHO-
133 AIMS).^{7, 31} They reported a significant shortage in mental healthcare providers and
134 facilities and that only between 1-8% of health expenditure were devoted to mental
135 health care.(3,14,23,25) The reported available mental health facilities were 3460
136 mental health outpatient facilities which treated 1660 person with mental illness per
137 100 000 general population annually; 80 day facilities which treated 3.4 person with
138 mental illness 100 000 general population; 41 community-based inpatient psychiatric
139 facilities with 2.8 beds per 100 000 general population; 63 community residential
140 facilities with 3.6 beds capacity per 100 000 general population and 23 mental
141 hospitals capable of providing 18 beds per 100 000 general population.⁷ As for the
142 number of available mental healthcare providers, the report estimate there are 9.3 per
143 100 000 general population.⁷ They reported that deinstitutionalisation occurred mostly
144 at district level, neglecting the important role the primary healthcare setting has in the
145 provision of mental healthcare.^{7, 31} Possible reasons for the failure of integration were
146 the lack of additional guidance and support primary healthcare facilities received from
147 secondary and tertiary healthcare facilities.^{21, 31} The lack in support resulted in the
148 provision of substandard mental healthcare without further referral or follow-up
149 treatment plans.^{21, 31} Other reasons were budgets constraints, lack in primary
150 healthcare providers, including prehospital emergency care providers, lack in mental
151 healthcare training, lack of knowledge of legislation, inadequate infrastructure and
152 problems with the SAPS.^{5, 21, 31} The low numbers of available healthcare facilities and
153 providers able to manage mental illness has led to a progressive increase in the
154 presentation of persons with mental illness in the emergency care setting.^{9, 20, 21, 26, 27,}
155 ³¹

156 After the release of the 2007 WHO-AIMS report, the Department of Health realised
157 they were far from providing mental healthcare as intended by the Mental Healthcare
158 Act.³ During February to April 2012, numerous mental healthcare summits were held
159 and through extensive consultative meetings a National Mental Health Policy
160 Framework and Strategic Plan 2013-2020 was drafted.^{3, 33} This strategic plan set goals
161 to achieve deinstitutionalisation into the primary healthcare setting, and recommended

162 further, specialised mental health training for primary healthcare providers.³ There are
163 two concerns relating to the Mental Health Policy Framework and Strategic Plan; one
164 is the neglect and acknowledgment of prehospital emergency care provider's role in
165 the provision of mental healthcare on a primary level and the second is an investigative
166 report, released after the Esidimeni tragedy, in which 143 persons with mental illness
167 died in 2016, after being transported from a designated mental healthcare facility to
168 numerous non-governmental organisations and healthcare facilities, found SA is still
169 far from reaching those set goals.³⁴

170

171 **6. CURRENT LEGISLATION THAT REGULATES MENTAL** 172 **HEALTHCARE IN SOUTH AFRICA**

173 Mental healthcare and specifically the protection of human rights, including those
174 living with mental illness in SA are regulated by the Constitution of the Republic of
175 South Africa no 108 of 1996, the Mental Healthcare Act no 17 of 2002 and the National
176 Health Act no 61 of 2003, Patient Rights charter, Health Profession Council of South-
177 Africa guidelines and other individual guidelines provided by private or provincial
178 institutions, each described below.³⁵⁻³⁹

179 **6.1. The Constitution of the Republic of South Africa no 108**

180 The Constitution is considered as the supreme law of the court and all other
181 legislation and laws must conform to the set values of the Constitution.^{5, 35}
182 According to Chapter 2, the Bill of Rights, everyone has the right to equality,
183 dignity, freedom and autonomy.^{5, 19, 35} Chapter 2, Section 27(a) describes the right to
184 access to healthcare services which include mental healthcare and subsection 3 states
185 no one may be refused emergency medical treatment.^{5, 19, 35} It is the responsibility of
186 the Department of Health to realise the right to access to health within the constraints
187 of available resources.³⁵ A frequently asked question is, what is meant by essential
188 healthcare and emergency medical services and what treatment does it constitute of?⁵
189 Both the Constitution and the National Health Act no 61 of 2003 fail to provide
190 concise definitions.⁵

191

192

193

6.2. The National Health Act no 61 of 2003

194 The Act is the right-based framework for the SA healthcare system.⁵ It should provide
195 guidelines, definitions and parameters of entitlement of each available healthcare
196 profession in SA to improve and promote healthcare, including mental healthcare on
197 a national level.^{5, 37} Spammers⁵ raised a major concern that none of these supporting
198 policies, regulations and guidelines were provided.⁵ According to him and Kramer⁴⁰
199 confusion exists amongst patients and healthcare providers as to what an emergency
200 and emergency treatment entails.^{5, 40} According to the Medical Schemes Act 1998, an
201 emergency is defined as “a sudden and, at the time, unexpected onset of a health
202 condition that requires immediate medical or surgical treatment, where failure to
203 provide medical or surgical treatment would result in serious impairment to bodily
204 functions or serious dysfunction of a bodily organ or part, or would place the person’s
205 life in serious jeopardy.” After the Soobramoney vs Minister of Health (Kwazulu-
206 Natal) case the concept of emergency was redefined by Justice Madala and Justice
207 Chaskalson as “a dramatic sudden situation or event which is of a passing nature in
208 terms of time. There is some suddenness and at times even an element of
209 unexpectedness in the concept ‘emergency medical treatment’.^{40, 41} Mr Soobramoney
210 suffered from chronic renal failure, but was refused dialysis due to resource
211 constraints.⁴² Mr Soobramoney argued that he had the right to these services in terms
212 of Section 27(3) and Section 11 of the Constitution.⁴² The constitutional Court
213 dismissed the case as his is suffering from a chronic illness and not an emergency.⁴⁰
214 These definitions provided by the Constitutional court and the Medical Schemes Act
215 may pose difficulties in the SA setting.⁴⁰ Many life-threatening emergencies
216 encountered involves acute exacerbation of already diagnosed chronic illnesses.^{40, 41}
217 These exacerbations may not be sudden or unexpected in nature but may be life-
218 threatening should immediate treatment not be provided.^{40, 41}

219

220 **6.3. National Health Act, Emergency Medical Services Regulations**

221 The regulations were released on 1 December 2017.⁴³ The regulations provide
222 definitions for each level of prehospital care.⁴³ The regulation defines emergency care
223 as “the evaluation, treatment and care of an ill or injured person in a situation in which
224 such emergency evaluation, treatment and care is required and the continuation of
225 treatment and care during the transportation of such person to or between healthcare
226 establishment (facilities).”⁴³

227 The definition is vague as it provides no clarity on what that situation is or what the
228 scope of practice is for the emergency evaluation, treatment and care.⁴⁰

229 **6.4. Health Professions Act no 56 of 1974, Regulations defining the**
230 **scope of profession of emergency care**

231 The definition provided by the regulations for emergency differs from the National
232 Health Act by also including emergency rescue.⁴⁴ An emergency situation is defined
233 as “circumstances during which a person is injured or is for some other reason in mortal
234 danger and need emergency care.”⁴⁴ As seen with the National Health Act, these
235 regulations fail to provide a scope of practice for the emergency rescue, evaluations,
236 treatment and care.

237 **6.5. The Mental Healthcare Act no 17 of 2002 (MHCA)**

238 The Act aims to provide equal and fair mental healthcare to all SA citizens.^{5, 19, 36} It
239 aims to protect the human rights of persons with mental illness by regulating the care,
240 treatment and rehabilitation services provided, by guiding the roles and responsibilities
241 of mental healthcare practitioners, mental healthcare providers, Mental Healthcare
242 Review Boards, South African Police Services and lay persons.^{5, 19, 36} The Act
243 however is silent on the roles and responsibilities of prehospital emergency care
244 providers.^{2, 36, 45}

245 Chapter 1 of the act, provides many definitions, of which the most important for this
246 review are:³⁶

247 **6.5.1. Mental healthcare provider**

248 “Means a person providing mental healthcare services to mental healthcare users
249 (MHCU) and includes mental healthcare practitioners.”³⁶

250 It is unclear as to whether prehospital health care providers can be considered under
251 the definition of a mental healthcare provider. Because the profession focuses on acute
252 emergency situations it is rather assumed, they are not. If this is the case, the
253 management of a person with mental illness in the prehospital setting, except in the
254 case of a behavioural emergency, is under the onus of the South African Police
255 Services.⁴⁶

256 **6.5.2. Mental healthcare user (MHCU)**

257 “Means a person receiving care, treatment and rehabilitation services or using a health
258 service at a health establishment aimed at enhancing the mental health status of a user,
259 state patient and mentally ill prisoner and where the person concerned is below the age
260 of 18 years or is incapable of taking decisions and in certain circumstances may include
261 – Prospective user; the person’s next of kin; a person authorised by any other law or
262 court order to act on that persons behalf; an administrator appointed in terms of this
263 Act; and an executor of that deceased person’s estate.”³⁶

264 **6.5.3. Mental illness**

265 “Means a positive diagnosis of a mental health related illness in terms of accepted
266 diagnostic criteria made by a mental healthcare practitioner authorised to make such
267 diagnosis.”³⁶

268 From this definition it almost appears that mental illness have indistinguishable
269 characteristics, but as described earlier, mental illness is a range of mental-, behaviour
270 and emotional disorders each with its own cluster of signs, symptoms and
271 experiences.^{5, 47} It also suggests that mental illness is completely separated from
272 physical illness, when in reality these two entities are interconnected.^{5,47} One concern
273 with this definition is the requirement of a diagnoses made by a mental healthcare
274 practitioner.^{5,36} If this is the case, no healthcare provider or police officer will be able
275 to provide involuntary care and treatment to a MHCU without that positive diagnosis
276 of a mental illness.

277

278

6.5.4. Involuntary care, treatment and rehabilitation

279 “Provision of health intervention to people incapable of making informed decisions
280 due to their mental health status and who refuse health intervention but require such
281 services for their own protection or for the protection of others.”³⁶

282 As a principle, all patients are considered mentally capable of making informed
283 decisions and provide consent.^{48, 49} Autonomy is a fundamental human right and
284 therefore no care, treatment or rehabilitation may be provided without consent.^{36, 38, 49}

285 According to the above definition involuntary care, treatment and rehabilitation may
286 only be provided when the person is incapable of making informed decisions.
287 Currently SA has no legislation or guidelines on the assessment of mental capacity.⁴⁹
288 According to the discussion paper 105, by the South African law reform Commission,
289 a patient is considered mentally incapable of making informed decision when they are
290 unable to communicate the decision after all communication options have been
291 considered and/or the patient is unable to retain and understand the information
292 provided.⁵⁰

293 Chapter 3 (section 9), Chapter 5 (Section 32) and Chapter 5 (Section 40) describe the
294 circumstance in which involuntary care, treatment and rehabilitation services may be
295 provided.^{5, 19, 36} According to Chapter 3 (Section 9) (Addendum A) involuntary care,
296 treatment and rehabilitation services may be provided by a healthcare provider when
297 due to a mental illness any delay in providing these services may lead to irreversible
298 harm to health, or death of a MHCU or others or serious loss to property.³⁶ This section
299 is unclear on whether a MHCU illness should be considered mentally incapable before
300 involuntary care and treatment may be provided. Considering the immediate reaction
301 required to prevent serious harm or even death, it is assumed that a healthcare provider
302 may provide involuntary care to a MHCU irrespective of their current mental capacity
303 to make informed decisions. Under the National Health Act and Health Professions
304 Act, prehospital emergency care providers are considered healthcare providers, which
305 suggest prehospital emergency care providers may provide involuntary care and
306 treatment to preserve life or prevent irreversible harm.

307 Chapter 5 (section 32) (Addendum B) describes the process of involuntary care in
308 situations other than those describe in Chapter 3 (Section 9) and is clear that the MHCU

309 must be mentally incapable of making informed decisions before involuntary care,
310 treatment of rehabilitations services may be provided.³⁶

311 Chapter 5 (Section 40) (Addendum C) describes the involvement SAPS.³⁶ According
312 to this section a SAPS officer must take a MHCU to an appropriate healthcare facility
313 if the officer has reason to believe through observation or information obtained by a
314 mental healthcare practitioner, that a MHCU is likely to inflict serious harm due to a
315 mental illness or severe and profound intellectual disability.³⁶ When examining
316 Chapter 5 (Section 40) one notice the Act does not provide a definition for ‘serious
317 harm’³⁶ The interpretation of serious harm, is left up to the SAPS officer’s
318 understanding of the behaviour of the MHCU at the time of assessment.^{31, 51} The
319 definition provided for severe profound intellectual disability is; “a range of
320 intellectual functioning extending from partial self-maintenance under close
321 supervision, together with limited self-protection skills in a controlled environment
322 through limited self-care and requiring constant aid and supervision, to severely
323 restricted sensory and motor functioning and requiring nursing care.”³⁶ From this
324 definition it appears there is already a diagnoses of a mental illness. One cannot help
325 but wonder, does this exclude the person experiencing a behavioural emergency with
326 an acute mental illness?

327 Concerns have been raised by Ndou^{19, 51} and Moosa⁵² on this authority provided to
328 SAPS to apprehend a MHCU.^{19, 51, 52} According to Ndou^{19, 51} they lack medical
329 training and understanding of mental illness.⁵¹ This is supported by a retrospective
330 study done by Johnson⁵³. The study reports that SAPS are unable to correctly predict
331 or recognise behaviour that might cause harm to self or others.^{52, 53} This again opens
332 the SAPS to civil law suits in cases of unlawful involuntary apprehension or in cases
333 where the officer made a decision not to apprehend a MHCU and harm is done to
334 others or property.⁵¹ The second concern is the lack in guidance provided by the
335 MHCA on the acceptable methods of apprehension and transportation by SAPS.^{51, 54,}
336 ⁵⁵

337 **6.6. Health Professions Council of South Africa (HPCSA) Guidelines**

338 The HPCSA is the regulatory body of all healthcare professions as established in terms
339 of the Health Professions Act no 56 of 1974.⁵ Their function is to guide and advance
340 the healthcare professions through training and clinical practice guidelines.⁵ For

341 prehospital emergency care providers the council provide guidelines on patient
342 consent, patient rights and scope of practice for each prehospital level of care. On 31
343 December 2018 the Council released new clinical practice guidelines for prehospital
344 emergency care providers.^{38, 39, 56} To date, implementation is slow. The new clinical
345 practice guidelines recommend no deviations from current practices in terms of
346 managing behavioural disturbances, although no previous clinical guidelines exist.

347 **6.7. Guidelines provided to Gauteng Emergency Services (EMS)**
348 **employees**

349 There are two guidelines; Management of Mental Health Cases in the EMS setting and
350 Guidelines for the Management of Emergency Mental Health Patients by EMS and
351 provided to the employees of the Gauteng Emergency Medical Services.^{57, 58} Both
352 documents are vague in the management of behavioural emergencies. According to
353 the guidelines a MHCU may no longer be transported in SAPS vehicle and Gauteng
354 EMS may use leather bands to mechanically restrain a MHCU.^{57, 58} Restraints are
355 emergency intervention used to quickly deescalate a behavioural emergency, but are
356 highly discouraged as it often causes injuries to the MHCU.^{9, 59} The MHCA does not
357 provide any guidelines on the use of restraints, but a separate guideline, Policy
358 Guidelines on Seclusion and Restraints of a Mental Health Care User, was released by
359 the Department of Health which does provide guidance.^{36, 59} According to this Policy,
360 mechanical restraints may only be used by a mental health care practitioner inside a
361 health care facility in the event of a MHCU inflicting serious harm to self or others.⁵⁹
362 It is presumed then that mental healthcare providers and other healthcare providers,
363 including prehospital health care providers, may not make use of mechanical restraints.
364 According to the scope of practice provided by HPCSA, prehospital emergency care
365 providers practicing at advanced level of care, may sedate patients.^{56, 60} The guidelines
366 are unclear on whether sedation may be used as a chemical restraint in behavioural
367 emergencies as well or whether it may only be used in patients that require sedation
368 because of their physical illness.

369 **6.8. Guidelines used by the South African Police Services**

370 The training guideline for the SAPS, dated 2003, provided basic training on the
371 MHCA⁵⁴ The guideline differs from the EMS guidelines, stating that SAPS may
372 transport a MHCU in the a SAPS vehicle.⁵⁴ The use of an ambulance, is recommended

373 when the MHCU has been sedated and requires continuous monitoring, but when an
374 ambulance is not available a sedated MHCU may be transported in a SAPS vehicle,
375 provided a healthcare provider accompanies the MHCU.⁵⁴ The guideline placed high
376 value on the relationship required between the justice system and healthcare system
377 during the management of behavioural emergencies.⁵⁴ Concerns have been raised that
378 such relationship are lacking, especially between the justice system and primary
379 healthcare setting.^{41, 53, 61} Both parties would seem to feel unsure of their
380 responsibilities and are hence reluctant to assist, trying to transfer responsibilities from
381 one party to the other.^{41, 53, 61}

382

383 7. INTERNATIONAL LEGISLATION

384 SA is a signatory state to international entities such as the United Nations (UN) and
385 the WHO and agreed to conform to certain guidelines, amongst which are the United
386 Nations Mental Illness Principles and the Rights of Persons with Disabilities.^{2, 5} By
387 signing such a document the SA government committed to improve and empower the
388 rights of person with disabilities.^{2, 62} A systematic review by Burns² identified a
389 significant gap between the provision and the demand of mental healthcare in SA.^{2, 7}
390 These findings implied that the Government was failing as a signatory to execute their
391 responsibilities and obligation set out by these guidelines.^{2, 62} Despite efforts by the
392 UN and WHO to improve mental healthcare and protect human rights, no universal
393 regulation for the provision of mental healthcare exists.⁶³ The lack of universal mental
394 healthcare regulations means that there are still approximately 40% of the world's
395 countries without any form of mental healthcare legislation or programs.⁶³

396 Countries such as the United Kingdom and Australia do have mental healthcare
397 legislation and are in many ways similar to the South African Mental Healthcare Act.

398 7.1. Australia, State of Victoria Mental Health Act no 26 of 2014

399 The Act was promulgated in July in 2014 and the main purpose is to provide a
400 legislative framework on the assessment and treatment of MHCU and is an amendment
401 to the Mental Health Act 1994.^{64, 65} The Act provides definitions for important terms,
402 many of which has a different meaning as that provided by the SA MHCA. Mental
403 illness is defined as “a medical condition that is characterised by significant
404 disturbance of thought, mood, perception or memory.” And does not require a

405 diagnosis from a mental healthcare practitioner. The Act also elaborate on what is not
406 a mental illness.⁶⁴ Compulsory has the same meaning as Involuntary. The State of
407 Victoria's justice system has the same responsibilities as the SAPS. The criterion for
408 involuntary apprehension is like that of the SA MHCA. The Act does not require the
409 police officer to make any clinical judgement.⁶⁴ According to the Victorian Protocol
410 for the transport of people with mentally illness, the MHCU may only be transported
411 in a police vehicle if the person cannot be transported safely in an ambulance or a
412 mental health service vehicle.⁶⁶

413 A significant difference observed between the Australian State of Victoria Mental
414 Health Act and the SA MHCA is the power provided to prehospital emergency care
415 providers. According to Section 353, State of Victoria prehospital emergency care
416 providers may enter any premises, when there is reason to belief a MHCU can be found
417 within that premises and is likely to commit or attempt suicide or inflict serious harm
418 to self or others.^{64, 65} The prehospital emergency care providers may then involuntary
419 apprehend the MHCU and transport to a designated mental healthcare facility.^{64, 65}
420 Involuntary apprehension by a prehospital emergency care provider may be performed
421 whether the MHCU is mentally incapable of making informed decisions or not.^{64, 66}
422 Prehospital emergency care providers must always take the MHCU's decision making
423 capacity into account but may still involuntary apprehend in situations where they are
424 of the opinion the MHCU has the likelihood of causing serious harm to self or other.⁶⁵
425 The authority provided to prehospital emergency care providers to involuntary
426 apprehend a MHCU is not without concern.⁶⁵ Such authority may encourage defensive
427 practice, where prehospital emergency care providers transport the MHCU without
428 just cause to prevent law suits of negligence.⁶⁵ Such practices are against the principles
429 of healthcare, a patient's autonomy has always been considered or implied in cases of
430 an emergency, before any care and treatment is rendered.⁶⁵ Involuntary apprehension
431 is easy to perform in cases where the MHCU lack decision making capabilities, but
432 the terms of involuntary apprehension when the MHCU have decision making
433 capabilities are unclear.⁶⁵ Healthcare providers have a legal obligation towards their
434 patient's in both respecting their autonomy and providing the care they required.⁶⁵
435 Involuntary apprehension is in direct conflict with this legal obligation.⁶⁵

436

7.2. The United Kingdom, Mental Health Act 2007

437 The Act is an amendment to the Mental Health Act 1983.⁶⁷ In this Act the term
438 “mental illness” is substitute with the term “mental disorder” which is seen as any
439 “disorder or disability of the mind.”⁶⁷ This definition is very different from the term
440 mental illness as described in the definition of the Australian Mental Health Act or the
441 SA MHCA.⁶⁷ Section 136 of this Act describe the responsibilities of the United
442 Kingdom Police services.⁶⁷

443 According to this section, police officers may remove the MHCU, when found in a
444 place to which the public has access to, and remove the MHCU to a place of safety,
445 when the MHCU appears to be suffering from a mental disorder and immediate
446 intervention is required for the safety of others and the MHCU.⁶⁷ This differ from the
447 Australian Mental Health Act which provide this apprehension power to police
448 services and prehospital emergency care providers on any premises.⁶⁴ The SA MHCA
449 does not specify the place in which a SAPS may involuntary apprehend a MHCU.³⁶

450

451 8. PREHOSPITAL EMERGENCY CARE PROVIDERS

452 For the purpose of this review, the prehospital setting refers to the rescue, evaluation,
453 care and treatment provided to a person that requires such emergency interventions
454 due to injury or illness, and the continuations of care of treatment during transportation
455 from the place of incident to an appropriate healthcare facility.⁴⁴ In SA there are three
456 levels of care, Basic Life Support, Intermediate Life Support and Advanced Life
457 support.^{41, 68} Historically, qualifications were obtained through short courses
458 training.^{41, 68}

459 At present a new National Emergency Care Education and training Policy is being
460 implemented under the Department of Health with the help of the HPCSA.⁶⁸ This is
461 to ensure unity in training standards and qualifications conform to the South African
462 National Qualifications Framework.^{41, 68}

463 Prehospital emergency care providers are often the first to respond to an emergency,
464 which may be a call for assistance with a MHCU.^{29, 69, 70} While mental health
465 legislation have changed, from a paternalistic approach, to respecting the rights of
466 MHCU and deinstitutionalisation, the prevalence of mental illness in the prehospital

467 setting has increased.^{27, 30, 71, 72} It is estimated that 4-5.4% of patients visiting primary
468 healthcare facilities seek mental healthcare and approximately 30% of those patients
469 are transported by prehospital emergency care providers.^{29, 70, 73-75} This number may
470 be a gross underestimation as it only included MHCU actively seeking mental
471 healthcare and many mental illness are overlooked in the primary health setting.^{9, 29, 74}
472 A literature review done by Ford-Jones⁷⁰ in Toronto, America, identified three possible
473 concerns relating to mental healthcare and prehospital healthcare setting.⁷⁰ First is the
474 misuse of prehospital healthcare services in the management of behavioural
475 emergencies and MHCU, secondly there is insufficient and inadequate training on
476 mental healthcare and thirdly the substandard and scarce community based mental
477 healthcare facilities.⁷⁰ They go so far as to question the appropriateness of prehospital
478 emergency care providers to manage behavioural emergencies.⁷⁰

479 Shaban,^{27, 30} an Australian based researcher has completed multiple studies on
480 behavioural emergencies and the prehospital settings. Systemic reviews from 2004
481 and 2006 found the changes in Australian mental healthcare legislation now requires
482 prehospital emergency care providers to perform a thorough assessment of a MHCU's
483 mental capacity.^{27, 30} Australian healthcare facilities use a mental capacity tool, but
484 the tool is too complex and time consuming for the prehospital healthcare setting, so
485 there is a concern on how prehospital emergency care providers can make accurate
486 clinical judgements and decisions in unpredictable situations.^{27, 30} Both Shaban⁷¹ and
487 Wyatt⁷⁶ from Australia, and Prener²⁹ from Northeastern city, United States,
488 investigated clinical judgement amongst prehospital emergency care providers during
489 a behavioural emergency.^{29, 71, 76}

490 Shaban⁷¹ and Prener's²⁹ studies found participants perceived MHCU users as violent
491 and feared for their own safety.^{29, 71} They experienced professional and personal
492 stresses and were uncertain on the roles that they as prehospital emergency care
493 providers fulfil during the management of a behavioural emergency.^{29, 71} Prener's²⁹
494 participants felt they are expected to make clinical decisions on the necessity for
495 transportation of MHCU based on limited training and knowledge. Participants felt
496 they are trained in medical and traumatic emergencies, not in the management of
497 mental illness. Some higher qualified participants even believed that behavioural
498 emergencies are not true emergencies and waste time and resources that could have
499 been used for true medical or traumatic emergencies.²⁹ Watt⁷⁶ found inexperienced

500 prehospital emergency care providers uses guidelines and protocols to guide their
501 decision making, while more experienced prehospital emergency care providers based
502 their judgements and decisions on knowledge gained through experience.⁷⁶
503 Rees et al⁶⁹ from Wales, United Kingdom and McCann et al from Australia⁷⁷
504 investigated how prehospital emergency care providers perceived the care they provide
505 towards a MHCU. Rees's⁶⁹ study emphasized that traditional training for prehospital
506 emergency care providers focused on medical and traumatic emergencies but provided
507 little training on the management of mental illness.⁶⁹ They found participants were
508 torn between their moral obligations towards the MHCU and law. Some participants
509 felt more loyal towards their moral obligations and reported manipulating the system
510 and MHCU as to whether they transport them voluntarily or involuntarily.⁶⁹ McCann⁷⁷
511 reported the care provided to a MHCU were most likely influenced by the prehospital
512 emergency care provider's understanding of their roles and responsibilities during the
513 management of a behavioural emergency.⁷⁷ No consensus could be reached amongst
514 participants on whether their scope of practice should be extended to manage
515 behavioural emergencies in this study.⁷⁷
516 Roberts and Henderson⁷⁵ looked at the perception South Australian prehospital
517 emergency care providers have on their roles, education and working relationship
518 when responding and managing a behavioural emergency. They found that
519 participants perceived their main responsibilities during the management of a
520 behavioural emergency, being to prevent further harm, treat life-threatening injuries
521 and transport the MHCU to an appropriate healthcare facility.⁷⁵
522 Only one study on behavioural emergencies and prehospital emergency care providers
523 in South Africa was found, performed in Cape Town by Evans⁴⁵. Evans⁴⁵ explored
524 prehospital emergency care providers' decision around transport of a MHCU who self-
525 harms and refuses care. She found that less than 66% of participants were willing to
526 take steps to convince a MHCU to be transported.⁴⁵ It appears that SA prehospital
527 emergency care providers follow the same management approach as the participants
528 from Rees's et al⁶⁹ study. More than 50% of participants transported MHCU
529 involuntary and 80% of participants received no training on the SA MHCA.⁴⁵
530 Emond et al,⁷² performed a quantitative study to determine whether training in mental
531 healthcare could improve understanding amongst Australian prehospital
532 undergraduate students. After mental healthcare training only 25% of the participant

533 felt comfortable managing a behavioural emergency, but training in mental healthcare
534 could remove confusion and misunderstanding on the legal aspects of behavioural
535 emergencies.⁷²

536 It is interesting to notice that Rees's⁶⁹ study commented on the perception of MHCU
537 when treated by prehospital emergency care providers. They perceived the care
538 provided as hostile and unsympathetic, and felt they are judged and threatened by
539 prehospital emergency care providers.^{69, 78} This negative interaction has led to an
540 underlying fear amongst MHCU and may have a negative impact on MHCU's
541 safety.^{45, 69, 78} MHCU are less likely to seek mental healthcare which may lead to
542 progressive worsening mental health status or increase the likelihood of refusing
543 prehospital transportation.^{10, 29, 45} Refusal to transportation may lead to prehospital
544 emergency care providers transporting MHCU involuntarily for fear of law suits of
545 neglect, as in Australia.⁷⁵

546

547 **9. THE INVOLVEMENT OF LAW ENFORCEMENT**

548 Historically, police services were most often involved in the apprehension and
549 detainment of MHCU for the greater well-being of the society.^{17, 79} Today, even with
550 the movement towards the protection of MHCU's human rights, society is still of the
551 opinion that police services have a legal obligation to protect the society whatever the
552 cost and police services are often the service contacted to deal with a behavioural
553 emergency.^{26, 80} Approximately 15% of police related calls in England and Wales,
554 involved a person with a mental illness.²⁵ As for prehospital emergency care
555 providers, police officers are unfamiliar with the correct procedures and services
556 available to assist with the management of a MHCU.⁸⁰ Most police officers perceive
557 a MHCU as violent, hence it was found that this negative viewpoint together with a
558 lack of training and understanding in mental illness, lead to the use of unnecessary
559 force to manage a behavioural emergency.⁸¹

560 Many sources were found to criticize the involvement of police services, especially as
561 prescribed in the SA MHCA (section 40).^{5, 25, 31, 51} Only one study was found that
562 focused on the perspectives of SAPS.⁵³ Jonsson⁵³, through a retrospective study,
563 determined the compliance of SAPS with the SA MHCA.⁵³ The study recognised a
564 weak relationship between the healthcare system and justice system in SA, and found

565 mental health training for SAPS to be lacking.⁵³ With the lack in training and unclear
566 boundaries as to when a MHCU should be held responsible for a criminal act, SAPS
567 must make difficult decision when dealing with a MHCU.⁵³ The study found SAPS
568 officers felt a lack of support from the healthcare system which led to either
569 unnecessary arrests of a MHCU, or a MHCU requiring medical assistance being left
570 in the community.⁵³ Both environments may have a negative impact on the MHCU's
571 mental health status.⁵³ The study also found that approximately 25% of all MHCU
572 assessed in the healthcare facility are brought in by SAPS.⁵³ SAPS experienced
573 prehospital emergency care providers as unwilling to assist in the transportation of a
574 violent MHCU, and the healthcare system perceived SAPS as unwilling to help.⁵³ To
575 adequately manage a MHCU, the healthcare system and justice system need to support
576 one another.⁵³

577

578 **10. CONCLUSION**

579 SA has still a long road ahead in providing mental healthcare as indented by the
580 MHCA. As seen in the literature, the incidence of mental illness is increasing in the
581 primary healthcare setting.^{27, 71, 75, 78} While the WHO recognises prehospital
582 emergency care providers as important role players for the provision and access to
583 primary healthcare, legislation and regulation in SA remains unclear on the roles and
584 responsibilities of prehospital emergency care providers in the provision of mental
585 healthcare. Regulatory bodies call on prehospital emergency care providers to account
586 for their clinical judgements, decisions and actions, but without the proper training
587 programs, legislation and support in place. It is therefore necessary to research the
588 following identified gaps.

589 1) Numerous definitions for an emergency were identified in SA legislation. Without
590 a universal definition of an emergency, what would SA prehospital emergency care
591 providers perceive as a behavioural emergency?

592 2) According to the Mental Health Care Act no 17 of 2002, Chapter 3 (Section 9) a
593 healthcare provider may provide involuntary care and treatment to preserve life.
594 Currently there are no regulations to guide SA prehospital emergency care providers
595 in the provision of such care and treatment towards a MHCU. How do SA prehospital
596 emergency care providers currently perform these duties?

597 3) The MHCA provides powers to SAPS to apprehend persons presenting with a
598 clinically significant mental illness. How do SA prehospital emergency care providers
599 currently manage such a MHCU and are current practices in line with current
600 legislation?

601 4) Internationally, prehospital emergency care providers are of the opinion that
602 behavioural emergencies and mental illness should not be managed by prehospital
603 emergency care providers. Do SA prehospital emergency care providers share this
604 viewpoint?

605

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ADDENDUMS TO LITERATURE REVIEW

ADDENDUM A: MENTAL HEALTH CARE ACT NO 17 OF 2002 CHAPTER 3 (SECTION 9)

(1) A health care provider or a health establishment may provide care, treatment and rehabilitation services to or admit a mental health care user only if –

(a) the user has consented to the care, treatment and rehabilitation services or to admission;

(b) authorised by a court order or a Review board; or –

(c) due to mental illness, any delay in providing care, treatment and rehabilitation services or admission may result in the –

(i) death or irreversible harm to the health of the user

(ii) user inflicting serious harm to himself or herself or other; or

(iii) user causing serious damage to or loss of property belonging to him or her or other

(2) Any person or health establishment that provides care, treatment and rehabilitation services to a mental health user or admits the user in circumstance referred to in subsection (1)(c)

(a) must report this fact in writing in the prescribed manner to the relevant Review Board; and

(b) may not continue to provide care, treatment and rehabilitation services to the user concerned for longer than 24 hours unless an application in terms of Chapter V is made within the 24-hour period.

**ADDENDUM B: MENTAL HEALTH CARE ACT NO 17 OF 2002 CHAPTER
5 (SECTION 32)**

Involuntary care, treatment and rehabilitation may only be provided to a mental healthcare user in a healthcare establishment when;

(a) an application in writing is made to the head of the health establishment concerned to obtain the necessary care, treatment and rehabilitation services and the application is granted;

(b) at the time of making the application, there is reasonable belief that the mental healthcare user has mental illness of such a nature that

(i) the user is likely to inflict serious harm to himself and herself or others; or

(ii) care, treatment and rehabilitation of the user is necessary for the protection of the financial interest or reputation of the user; and

c) at the time of the application the mental healthcare user is incapable of making an informed decision on the need for the care, treatment and rehabilitation services and is unwilling to receive the care, treatment and rehabilitation required.

ADDENDUM C: MENTAL HEALTH CARE ACT NO 17 OF 2002 CHAPTER 5 (SECTION 40)

The involvement of South African Police Services in the management and transfer of mental healthcare user.

(1) If a member of the south African Police Service has reason to believe, from personal observation or from information obtained from a mental healthcare practitioner, that a person due to his or her mental illness or severe profound intellectual disability is likely to inflict serious harm to himself or herself or others , the member must apprehend the person and cause that person to be-

a) taken to an appropriate health establishment administered under the auspices of the State for assessment of the mental health status of the person; and;

b) handed over into custody of the head of the health establishment or any other person designated by the head of the health establishment to receive such persons.

(4) If an assisted or involuntary mental healthcare user has absconded or is deemed to have absconded or if the user has to be transferred under sections 27 (10), 33 (9), 34 (4) (b), 34 (6) and 39, the head of the health establishment may request assistance from the South African Police Services to –

(a) locate, apprehend and return the user to the health establishment concerned; or

(b) transfer the user in the prescribed manner.

(8) A member of the South African Police Services may use such constraining measure as may be necessary and proportionate in the circumstances when apprehending a person or performing any function in terms of this section.

1 **PART B – ARTICLE**

2 *In the original format for submission to the*
3 *South African Journal of Psychiatry*

4 **SOUTH AFRICAN PREHOSPITAL EMERGENCY CARE PROVIDERS’**
5 **UNDERSTANDING OF RESPONSIBILITIES DURING A BEHAVIOURAL**
6 **EMERGENCY**

7

8 **ABSTRACT**

9 **Background:** Prehospital emergency care providers in South Africa are regularly
10 called to assist with the management of mental healthcare users. The Mental Health
11 Care Act no 17 of 2002 regulates mental healthcare in South Africa but makes no
12 reference to the roles and responsibilities of prehospital emergency care providers in
13 the provision of mental healthcare, rather giving the South African Police Services
14 authority over the wellbeing of a mental healthcare user outside the hospital setting.

15 **Aims:** To investigate what prehospital emergency care providers understand their
16 responsibilities are towards a mental healthcare user and the community during the
17 management of a behavioural emergency.

18 **Setting:** Prehospital emergency care providers from the three main levels of care,
19 currently operational within the boundaries of Pretoria.

20 **Methods:** A grounded theory qualitative study design was chosen using semi-
21 structured focus groups for each level of prehospital emergency care; Basic Life
22 Support, Intermediate Life Support and Advanced Life Support. Data from each focus
23 group was collected through audio recordings, transcribed and analysed using a
24 framework approach.

25 **Results:** A total of 19 prehospital emergency care providers from all three main levels
26 of care participated in the focus group discussions (4 BLS, 6 ILS and 9 ALS). Four
27 main themes were identified: Perceptions of behavioural emergencies, responsibilities,
28 understanding of legislation and barriers experienced.

29 **Conclusion:** Participants placed high value on their moral and medical responsibilities
30 towards a mental healthcare user and would like to have the backing of legislation to

31 fulfil their role. There is a desire for better education, skill development and awareness
32 of mental healthcare in the prehospital emergency care setting.

33 INTRODUCTION

34 Prehospital emergency care in South Africa (SA) is regulated by the Constitution of
35 the Republic of South Africa no 108 of 1996,¹ the National Health Act no 61 of 2003,²
36 the Health Professions Act 56 of 1974 and regulations^{3,4} and guidelines provided by
37 the Health Professions Council of South Africa (HPCSA).¹⁻⁵ Prehospital emergency
38 care is a primary service and according to the Health Professions Act refers to “the
39 rescue, evaluation, care and treatment provided to a person that requires such
40 emergency interventions due to injury or illness, and the continuations of care of
41 treatment during transportation from the place of incident to an appropriate healthcare
42 facility.”⁴ According to the Constitution no one may be refused emergency treatment,
43 but as Spammers⁶ highlights: “what constitute such emergency interventions?”.
44 Numerous definitions for an emergency is found in SA regulations, creating confusion
45 amongst lay persons and emergency care providers on what constitutes an
46 emergency.^{7, 8} Another concern relating to these legislation are the lack in guidance
47 provided to prehospital emergency care providers on the management of mental health
48 care users (MHCU). The Mental Health Care Act no 17 of 2002, regulates mental
49 healthcare in SA, and focuses on deinstitutionalisation – the integration of mental
50 healthcare into the primary healthcare setting, however the Act fails to recognise
51 prehospital emergency care providers’ role in the provision of mental healthcare.⁹

52 An SA based study¹⁰ has reported an increase in the presentation of MHCU in the
53 primary to general healthcare settings, this is most likely due to
54 deinstitutionalisation.¹⁰⁻¹³ A MHCU can present with changes in emotion, thinking and
55 behaviour, which may cause impairment in their daily functionality, or in the case of
56 a behavioural emergency “a situation in which impairment in a person’s thinking,
57 emotions and behaviour places the person or bystanders in imminent physical harm”
58 ¹⁴⁻¹⁸ According to all the above mentioned legislation no treatment may be provided
59 without consent, the exception being a behavioural emergency.^{2, 9, 19} According to
60 Chapter 3(Section 9) of the MHCA, a healthcare provider, which include prehospital
61 emergency care providers, may provide involuntary care, treatment and rehabilitation
62 to a MHCU, however, it is unclear how this involuntary care and treatment should be
63 provided in the prehospital setting.^{9, 17, 18, 20}

64 Even in countries, such as Australia and the United Kingdom, where legislative
65 support is provided to prehospital emergency care providers, they may still lack the

66 skills and knowledge to appropriately manage a MHCU and remain uncertain of their
67 roles during the management of a MHCU^{11, 21} Studies have found that some
68 prehospital emergency care providers considered behavioural emergencies as a waste
69 of emergency service's resources.^{22, 23}

70 Prehospital emergency care providers in SA are frequently called to assist a MHCU.
71 The management of such a person is complex as their human rights should be respected
72 and their medical needs met, while protecting the community and other providers from
73 harm. SA legislation is vague and provides little guidance to prehospital emergency
74 care providers in how to management a MHCU. This study will to investigate what a
75 cohort of SA prehospital emergency care providers understand their responsibilities
76 are towards a MHCU and the community during the management of a behavioural
77 emergency.

78

79 **METHODS**

80 **Study design**

81 A grounded theory qualitative research approach was chosen, using semi-structured
82 focus group interviews as the tool for data collection.²⁴ Because the study is
83 exploratory, focus group discussions were chosen to add focus group dynamics during
84 the discovery process.²⁵

85 **Focus group design**

86 An interview guide was developed, which encouraged participants to introduce their
87 own concepts and ideas. Focus group interviews were conducted by the principal
88 investigator, an Advanced Life Support prehospital emergency care provider, with the
89 assistance of an experienced qualitative researcher. Separate focus groups were
90 conducted for each of the three main levels of prehospital emergency care in SA, for
91 level specific attributes to surface and to allow comparison between practitioners with
92 varying levels of training and clinical experience. Focus group sizes were kept small,
93 with no more than eight participants in each, to allow in depth discussion and equal
94 opportunity for contributions.²⁶

95 **Participants and sampling strategy**

96 SA prehospital emergency care setting has three main levels of care: Basic Life
97 Support (BLS), Intermediate Life Support (ILS) and Advanced Life Support (ALS).
98 The scope of practice for each level of care is described in the HPCSA clinical
99 guidelines.^{3, 4, 27-29} A convenience sampling approach was used, and participants were
100 recruited using an invitation distributed around organisations and social media to
101 ensure participants from both the public and private sector were included. The
102 invitation provided a short description of the study, details to attend a focus group at
103 a predetermined time, date and venue and contact details of the principle investigator.
104 A secured list of all emergency care providers that showed interest to participate was
105 compiled and those registered with the HPCSA, operational within the municipal
106 boundaries of Pretoria SA and with at least two years' clinical experience were
107 included and invited to partake in the focus group interviews. Invited persons were
108 reminded of the focus group interviews two weeks prior and were send participants
109 information sheets to peruse prior to the interview date.

110 **Data Collection**

111 Focus group interviews were conducted in English, in a private room at a convenient
112 and neutral location. Two rounds of focus group interviews were held with all three
113 levels to ensure data saturation and to explore or clarify issues raised in the first round.
114 Data were collected using audio recording and observational field notes, with sessions
115 lasting from 40 min to two hours (including interval breaks).

116 **Data Analysis**

117 Focus group interview were manually transcribed by the principal investigator. The
118 principal investigator became familiarised with the data and made analytical notes on
119 possible meanings and the introduction of bias before analysis.³⁰ Framework analysis,
120 as illustrated by figure 1, was used. Codes identified from the data were arranged under
121 predefined structural codes. Structural coding is “a questions-based code that acts as a
122 labelling and indexing device, allowing researcher to quickly access data likely to be
123 relevant to a particular analysis from a larger data set”.³¹ Data were analysed to identify
124 codes that conformed with the structural codes and then placed into categories,
125 illustrated in table 2. Uncategorized codes were re-examined and assigned as best fit
126 to either an existing structural code or a new category. From these structural codes four

127 main themes were identified. The analytic notes and recognition of bias before data
 128 analysis acted as verification strategies which, together with peer-review, ensured a
 129 level of reliability and validity.³⁰

130

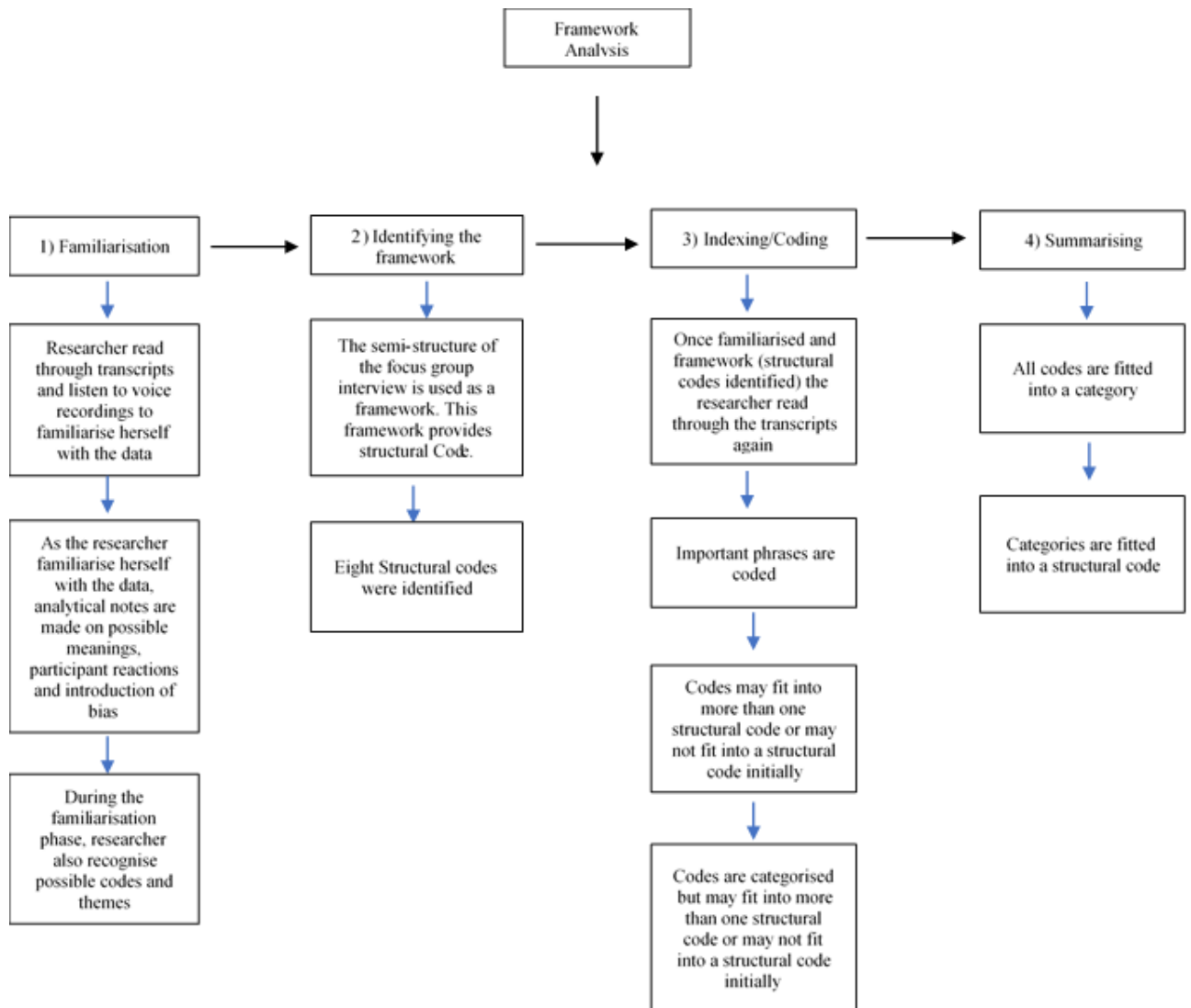


Figure 1: Data Analysis using Framework analysis

131 **Ethical Consideration**

132 Ethical approval was obtained from the Human Research Ethics Committee of the
 133 University of Cape Town (HREC REF: 201/2018). All participants completed an
 134 informed consent form prior the commencement of the focus group interview and
 135 provided verbal consent for audio recordings throughout and were reassured that their
 136 responses and opinions would remain anonymous.

137 **RESULTS**

138 **Participant Demographics**

139 In total, 4 BLS, 6 ILS and 9 ALS prehospital emergency care providers participated in
 140 the focus group interviews over the period of November 2018 and January 2019. An
 141 overview of the participant’s demographics is presented in table 1. (One participant
 142 had only a year’s experience which was discovered retrospectively but included in the
 143 results due to low response rate)

144 Table 1: Participant demographics

BLS Focus Group									
Total Participants		4							
	B07	B08	Bb01	Bb02					
Gender	Male	Female	Male	Female					
Years experience	5	1	3	3					
Sector	Private	Private	Private	Private					
ILS Focus Group									
Total Participants		6							
	I01	I02	I03	Ib01	Ib02	Ib04			
Gender	Male	Male	Female	Male	Male	Female			
Years Experience	6	5	3	3	17	3			
Sector	Private	Private	Private	Private	Private	Private			
ALS Focus group									
Total participants		9							
	A01	A02	A03	A04	A05	A06	Ab01	Ab02	Ab03
Gender	Male	Male	Male	Female	Male	Male	Male	Male	Male
Years experience	9	9	17	25	5	10	10	5	2
Sector	Public	Private	Public	Private	Private	Private	Private	Private	Private

145

146 **Four main themes**

147 Eight structural codes were identified from the focus group semi-structure interview
 148 guide. The ninth structural code represented all codes that initially did not conform to
 149 the first eight. From these the four main themes were identified.

150 Table 2: Four main themes identified from the structural codes

Theme 1: Perception of behavioural emergencies			
Structural Code	Feelings and thoughts	Behavioural emergency meaning	Phrases without structural code
Code			Stigma Prevalence
Theme 2: Responsibilities			
Structural Code	Responsibilities		
Theme 3: Barriers experienced			
Structural Code	Education and training	Systems	Phrases without structural code
Code			Layperson Family members
Theme 4: Legislation			
Structural Code	Police involvement	Legislations and guidelines	Mental capacity

151

152 Theme 1: Perception of behavioural emergencies

153 An ALS participant was of the opinion the prevalence of behavioural emergencies in
 154 the prehospital setting has increased. All participants reported negative feelings such
 155 as fear, frustration, apprehension, anger, aggression and uncertainty when being
 156 dispatched to a behavioural emergency. Participants felt behavioural emergencies are
 157 time consuming and emotionally and physically taxing. An ILS participant described
 158 prehospital emergency care providers as unsympathetic towards a MHCU.

159 *“...apprehension. Because you do not know...and for me it’s like, I know to us*
 160 *it will be, ah, emotionally and mentally taxing...” (I01)*

161 BLS and ILS participants reported positive feelings such as curiosity and empathy
 162 towards a MHCU, but only one ALS participant reported feeling confident in the
 163 management of a MHCU.

164

165 Participants described a MHCU behaviour as being “a deviation from norm”. A
166 MHCU was described as unpredictable, presenting with behaviour that often fluctuates
167 between a state of calmness to aggression and usually refuses treatment or
168 transportation. Participants associated the following mental health disorders with a
169 MHCU; post-traumatic stress disorder, acute psychosis, bipolar, depression, paranoia
170 and Schizophrenia, and are often called to manage situations of panic attacks, self-
171 harm, harm to others, self-neglect, domestic disputes, hallucination, suicide, overdose
172 or a MHCU that needs someone to talk to.

173 *“...we are talking like all of the patients are like...cutting his business off just*
174 *saying; “I want to die.”. Those are the obvious ones...The, the patient I usually*
175 *have a problem with... locked himself in his ho, house for three weeks. Literally*
176 *lying on the floor wasting away, with severe sepsis. But he is still technically*
177 *GCS fifteen...He is still looking at his telephone, looking at the laws going;*
178 *“But you cannot touch me” ...and you know for a fact, you can’t leave this oke*
179 *here. He will die...” (A02)*

180 Theme 2: Responsibilities

181 Participants felt that once they have established their own safety in a behavioural
182 emergency the next responsibility is to act as a neutral body, assess the situation and
183 determine whether emergency medical services or other resources are required.
184 According to ALS participants they are a supportive role to SAPS during the
185 management of a MHCU.

186 *“Because my responsibility, first and foremost, is my safety as well as my*
187 *partner.” (Ib01)*
188

189 Participants viewed their responsibilities towards a MHCU as being; to act in the best
190 interests of the patient, provide appropriate medical treatment, prevent further harm
191 and promote health. This is best done through a calm approach, removing the MHCU
192 from the situation, listening attentively and where appropriate convincing the MHCU
193 to be transported. Participants reported often lying to the MHCU to convince them to
194 agree to transport and treatment. One ALS participant felt strongly against this method.

195 *“Well in the prehospital field it would be to prevent them from harming*
196 *themselves or others.” (Bb02)*

197 *“We can ah, convince them to go to hospital with their own consent.” (I02)*

198 Some participants stated that treatment for mental illness is outside their scope of
199 practice and that it is not their responsibility to act as enforces or mental healthcare
200 providers. ILS participants especially, placed high value on their responsibility as
201 being more to report their findings on scene to the receiving facility to ensure the
202 MHCU receives adequate mental healthcare.

203 *“It is your responsibility to report it at the facility where you take the patient,*
204 *but I don’t think it is our responsibility to sort out the mental illness.”(Ib04)*

205 The BLS and ILS groups saw their responsibilities as minor, during the management
206 of a behavioural emergency, especially when managing an aggressive MHCU.

207 *“As a BLS our involvement is quite minimal. You are just an extra set of hands*
208 *on scene. We don’t typically make decisions...That is up to the ALS or if the*
209 *patient is not violent it is your ILS.”(Bb02)*

210 *“...it is not for us as Intermediate Life Support practitioners to sedate, handle.*
211 *We can try and defuse the situation. But, with regards to sedation of the*
212 *aggressive...we can’t do much without ALS.”(I01)*

213 ALS participants realise the main expectation of their role in the management of an
214 aggressive MHCU is sedation. However, they do feel BLS and ILS often ask for their
215 assistance prematurely.

216 *“Crews called me for backup...”Bring your drugs, your are going to sedate.”*
217 *“I’ll come up and assess this”...there was absolutely no indication for me to*
218 *sedate him there and then.”(A04)*

219 Theme 3: Knowledge and understanding of current Legislation

220 Participants appear to have a good understanding on patient consent to treatment, as
221 well as the requirement of mental capacity to provide consent. It seems that the
222 Glasgow Coma Scale and participants own judgement on whether a MHCU is
223 grounded in reality is used to assess a MHCU mental capacity. Participants however
224 do feel, determining mental capacity is a grey area in the prehospital setting and
225 outside their training.

226 *“...we can’t force them to stop hurting themselves. We are actually not allowed*
227 *to, because if that guy says; “I don’t want to” we are not allowed to touch*
228 *him.”(Bb01)*

229 *“GCS 15 out of 15. Knows where they are. Know when. What time it is. Can*
230 *answer all my questions...”(I02)*

231 Some participants knew of the MHCA having learnt about it through training or word
232 of mouth but showed little familiarity with the practical application of the MHCA.
233 Most participants reported having learnt through experience that when a MHCU does
234 not consent and has the potential to cause harm, South Africa Police Services (SAPS)
235 must be involved for involuntary transport of the MHCU to a facility that is equipped
236 to observe the MHCU for seventy-two hours.

237 *“Well, a lot of it comes from the medical health law...If we take that patient*
238 *without them willingly come, coming with us...Then that’s why a lot of the times*
239 *they would tell us to refer to SAPS.”(I01)*

240 *“...those facilities most of the times would be (Naming a few public government*
241 *facilities)...they need to be kept for that involuntary observation...for seventy-*
242 *two hours.”(Ib01)*

243 One ALS participant, familiar with the MHCA, suggested the current legislation and
244 guidelines must be reviewed to clarify prehospital emergency care providers’
245 responsibilities during the management of a MHCU.

246 *“This is what’s happening. What are our rights? What are we obliged to do?*
247 *How do we intervene here?”...It’s possibly time to review the Mental Health*
248 *Care Act and mandate such things.”(Ab01)*

249 Theme 4: Barriers experienced during the management of a behavioural emergencies
250 Barriers that prevent participants from performing their responsibilities as described
251 above were also identified and encompassed issues with the current prehospital
252 system, family members and SAPS.

253 Family members often expect prehospital emergency care providers to enter a scene
254 and enforce treatment upon the MHCU, which leaves the MHCU apprehensive
255 towards them.

256 *“Families threatening them; ‘The ambulance is coming to take you away.’ They*
257 *immediately apprehensive to talk to you or even allow you to treat*
258 *them.”(Ib02)*

259 Difficulties experienced with the prehospital system included the; dispatching system,
260 education and scope of practice, and lack in prehospital, SAPS and mental healthcare
261 resources. Education was a major concern amongst participants, who reported training
262 in mental healthcare as inadequate, insufficient and varying across levels of care.
263 Participants' training focused more on medical emergencies, while knowledge gained
264 in this area were largely self-taught or through experience. Many participants showed
265 interested in receiving additional training in mental healthcare as well as on the
266 legislation relating to mental healthcare.

267 *"I think experience has prepared us, to kind of understand which situation has*
268 *got the potential to go certain places and how to deal with it...most newly*
269 *qualified people...I don't think there's enough things preparing them to deal*
270 *with all of these situations."*(Ab02)

271 The dispatching system often provides inaccurate information around the type of
272 emergency participants are being dispatched to, which make it difficult to adequately
273 prepare.

274 *"...where you get dispatched to a patient that fell... Yes, he fell. But that's due*
275 *to reasoning that he wants to jump from a building or a roof or..."*(I02)

276 SAPS involvement overall was described as reluctant and uncaring, and participants
277 found SAPS members lack understanding of the MHCA and mental illness. Two ALS
278 participant are of the opinion SAPS members fear litigations which may explain their
279 reluctance. Participants thought that SAPS involvement should be limited to the safety
280 of prehospital emergency care providers and the community.

281 *"...our police is not equipped. And they don't care about the well-being of the*
282 *patient."*(Bb01)

283 *"And from what I've picked up it's also a fear of litigation...And that is also*
284 *why the p, police just don't want to get involved. But, that also leaves us*
285 *hanging."*(Ab01)

286 Participants acknowledged the shortage of prehospital emergency care providers,
287 SAPS officers and healthcare facilities and provided suggestions to overcome these
288 barriers, such as; provide prehospital emergency care providers with the authority to
289 transport an involuntary MHCU or to have a mental healthcare expert with whom they

290 can consult and make decisions regarding the MHCU's treatment. One ALS however
291 did raise the concern on the appropriateness of prehospital emergency care providers
292 in the management of a MHCU.

293 *“When we mandate certain things, this is the limitation of what paramedics*
294 *can do and what police can do. This is what they are authorised to do, and*
295 *then we mandate an expert being available for a telephonic consult...”(Ab01)*

296 *“You require somebody that is specialised in that to deal with these patients,*
297 *rather than someone like us...”(Ab03)*

298

299 **DISCUSSION**

300 Prehospital emergency care providers in this study showed an overwhelmingly
301 negative feeling towards MHCU, which is not unique to the SA setting.^{11,32,20}
302 Participants experienced behaviour emergencies as emotionally and physically taxing,
303 but did not share the viewpoint, as described in literature, that behaviour emergencies
304 are a waste of prehospital resources.^{22, 23} Interesting, the feeling of prehospital
305 emergency care providers being unsympathetic towards MHCU, has been experienced
306 by MHCU and described by Rees et al.³³ The results confirms that a MHCU can be
307 perceived as violent, overdosed or suicidal individual, who often refuses treatment and
308 transportation^{32,34,20, 35} The study further show that prehospital emergency care
309 providers are not only exposed to behavioural emergencies but to MHCU presenting
310 with a wide range of behavioural disturbance.^{13,23}

311 Safety was a major concern amongst participants, whom described the SA prehospital
312 setting as unsafe; however, participants are willing to take responsibility for the
313 wellbeing of a MHCU. This finding is contradictory to local and international reports
314 which suggest prehospital emergency care providers are unwilling to take steps to
315 convince a MHCU to be transported or view a MHCU as an issue for social services.^{20,}
316 ^{22, 35}

317 The responsibilities described by participants during the management of a MHCU
318 included: treat injuries, prevent further harm and transport the MHCU to an
319 appropriate facility, which correlates with other studies.^{12, 34, 35} BLS participants saw
320 their involvement as minimal in the management of MHCU, whereas ILS felt when

321 managing an aggressive MHCU, responsibility for the management of such person
322 falls upon ALS. One responsibility mentioned by participants, and not reported
323 elsewhere is reporting scene findings to the receiving facility to ensure MHCU
324 receives appropriate care.

325 Healthcare providers must obtain informed consent from a *compos mentis* patient,
326 before any treatment may be provided.^{9,36} Available mental capacity assessment tools
327 are intended for in-hospital use.²¹ According to the Medical Protection Society³⁶
328 mental capacity is defined as “the capacity to make decisions in light of information
329 about the relevant risks, benefits and consequences of the proposed intervention,
330 specifically being able to understand relevant information, appreciate the
331 consequences of the situation and reason about the treatment.”³⁶ Using GCS to
332 determine mental capacity is inappropriate as it a scale intended to determine level of
333 consciousness and following acute cerebral damage.³⁷ An Australian study also found
334 that the method of determining mental capacity is inadequately taught.¹¹ The HPCSA
335 and MHCA provides no guidelines on the appropriate provision of involuntary care
336 and treatment during the management of a behavioural emergency.^{9, 20} Participants
337 were unsure of what their responsibilities are and how to provide this involuntary care
338 and treatment.

339 Reluctance from police in dealing with MHCU with the potential to cause harm has
340 been described in local and international studies.^{20, 22} Prehospital emergency care
341 providers feel they are thus obliged to take responsibility for the well-being of a
342 MHCU and often have to convince MHCU to allow voluntary transport.^{22, 33}
343 Participants were of the opinion that current legislation should change to empower
344 them to act in the best interest of the MHCU and SAPS should only be responsible for
345 scene safety. Another solution may be to have a mental healthcare expert available to
346 both parties to assist in the decision-making process as to whether a MHCU requires
347 involuntary assistance.

348 The study suggests that SA prehospital emergency care providers do not receive
349 adequate training on the MHCA, and learn largely through experience.²⁰ Experience
350 is what mostly guides decision making processes in prehospital emergency care
351 providers, but those that are inexperienced rely on protocols and guidelines.^{12 22, 38} Due
352 to the lack of guidelines, an inexperienced SA prehospital emergency care provider
353 could make clinical decisions which violates a MHCU human rights. It is essential for

354 prehospital emergency care providers to be ethically and legally competent.³⁹ This
355 study identified a need for additional training and education in mental healthcare.^{21 35}
356 Participants felt well prepared in the management of medical emergencies, but poorly
357 prepared when managing a MHCU, which also has been reported by Australian and
358 UK.^{32 33}

359 Family members often struggle to cope with a MHCU and phone for assistance.⁴⁰

360 Negative feelings experienced by prehospital emergency care providers towards
361 MHCU, the description of a MHCU and behavioural emergencies and the difficulties
362 experienced with police have been described in international and local literature.
363 Results unique to this study were viewpoint that behavioural emergencies were not a
364 waste of prehospital resources, but rather there is no one else to take up the
365 responsibility for the wellbeing of a MHCU in the prehospital setting.

366 **Strengths and Limitations**

367 This study is the first to explore how prehospital emergency care providers view their
368 responsibilities during the management of a behavioural emergency and set a baseline
369 for further research on mental healthcare in the prehospital setting.

370 The study had a small and focussed sample size from limited geographical area, thus
371 findings are not generalisable to the rest of SA, which will require further studies. The
372 distribution between public and private participants were disproportionate. During the
373 sampling process attempt was made to include participants from both sectors, but more
374 interest was shown from the private sector. There is no reason to believe that the public
375 sector would have a different understanding or experience from the private sector.
376 Focus group discussions are excellent to explore a topic but does have limitations;
377 participants may not express their own views to the group, and group interaction and
378 dominances are unpredictable.⁴¹ An experienced qualitative facilitator assisted with
379 the initial focus group and care was taken to facilitate a safe and conducive context
380 for all. The working definition of what a behavioural emergency evolved during the
381 study was used to design the semi-structured interview guide, and as more
382 understanding and knowledge was gained on the topic, only then was the term,
383 behavioural emergency, limited to the provided definition. During the transcription of
384 the first focus group discussion, it was noticed that on occasions participants'
385 comments were occasionally interrupted or completed, especially when participants

386 had difficulty expressing themselves. This might have led to the introduction of
387 researcher bias -leading questions and wording bias.⁴² During the second focus group
388 interviews the principal investigator focused on limiting this type of researcher bias.
389 Afrikaans speaking participants may have had difficulty expressing their ideas and it
390 should have been considered to conduct focus group discussions in participant's home
391 language. The principal investigator had a working relationship with most of the
392 participants, but participants were encouraged to speak and present their ideas freely.

393 **Recommendations**

394 Further research on mental healthcare in the prehospital setting is required. Future
395 studies should determine whether this study's results can be generalised to SA, focus
396 on changes in prehospital mental health education and legislation and how these will
397 impact a MHCU and their interactions with prehospital emergency care providers.

398

399 **CONCLUSION**

400 Prehospital emergency care providers in this study place high value on their moral and
401 medical responsibilities towards a MHCU. They would like to have legislative support
402 to fulfil their responsibilities towards a MHCU and desire better education, skill and
403 understanding in mental healthcare. BLS and ILS participants are of the opinion that
404 most decisions made around the management of an aggressive MHCU are made by
405 ALS practitioners. SA legislation, prehospital clinical guidelines and training
406 programs need revision to clarify the responsibilities prehospital emergency care
407 providers have during the management of a MHCU in the prehospital setting.

408

409 **ACKNOWLEDGEMENTS**

410 The principal investigator would like to acknowledge her two supervisors, Professor
411 P. Hodkinson and Doctor E. Dippenaar, research assistant, Mrs. J. Beukes and an
412 advisor on the legal aspects Mr. V. Voorendyk.

413

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PART C – ADDENDUMS

Addendum 1: Health Research Ethics Committee Approval 2

Addendum 2: Approval Letters from Relevant Emergency Medical Care Companies3

Addendum 3: Research Proposal 6

Addendum 4: South African Journal of Psychiatry Instruction for Authors 34

ADDENDUM 1: HEALTH RESEARCH ETHICS COMMITTEE APPROVAL



UNIVERSITY OF CAPE TOWN
Faculty of Health Sciences
Human Research Ethics Committee



Room 852-40 Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6626
Email: shuretha.thomas@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

04 June 2018

HREC REF: 201/2018

Dr P Hodgkinson
Emergency Medicine
F51, OMB

Dear Dr Hodgkinson

PROJECT TITLE: PREHOSPITAL HEALTHCARE PROVIDER'S UNDERSTANDING OF THEIR RESPONSIBILITIES TOWARDS A MENTAL HEALTHCARE USER, DURING THE MANAGEMENT OF A BEHAVIOURAL EMERGENCY (Master's candidate- Ms C Stander)

Thank you for submitting your response to the Faculty of Health Sciences Human Research Ethics Committee.

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

Approval is granted for one year until the 30 June 2019.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.

(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

Please quote the HREC REF in all your correspondence.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate Institutional approval, where necessary, before the research may occur.

The HREC acknowledges that the student, Charnelle Stander will also be involved in this study.

Yours sincerely

Signature Removed

PROFESSOR M BLOCKMAN
CHAIRPERSON, FHS HUMAN RESEARCH ETHICS COMMITTEE
Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938

ADDENDUM 2: APPROVAL LETTERS FROM RELEVANT EMERGENCY MEDICAL CARE COMPANIES

ER24



MediClinic Corporate Office
25 Du Toit Street
Stellenbosch 7600
PO Box 456
Stellenbosch 7509
www.er24.co.za

18 July 2018

Ms C Stander
University of Cape Town

Dear Ms Stander

RE: PROJECT 06/2018
PROJECT TITLE: Prehospital Healthcare Provider's understanding of their responsibilities towards a mental healthcare user, during the management of a behavioural emergency.

The above research protocol has been reviewed by the ER24 Research Committee and I am pleased to inform you that your request has been approved. Access is hereby granted to the participants required as stipulated in your protocol.

Should your methodology change or any concerns arise during the data collection period, it is your responsibility to inform the ER24 Research Committee in due course. You are also required to forward the completed project to ER24.

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.

Regards,

Signature Removed

Craig Wylie
Research Committee
ER24

realhelprealfast

ER24 EMS (Pty) Ltd (a ER24 Registration Number 2000/006657/07
VAT Registration No. 4730 62887



Netcare Hospital Management (Pty) Limited

Tel: + 27 (0)11 301 0001
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78 Mauds Street, Corner West Street, Sandton, South Africa
Private Bag X34, Benmore, 2010, South Africa

RESEARCH OPERATIONS COMMITTEE FINAL APPROVAL OF RESEARCH

Approval number: UNIV-2018-0032

Ms Chamelle Standor

E mail: chamelle.d.v@gmail.com

Dear Ms Standor

RE: PREHOSPITAL HEALTHCARE PROVIDER'S UNDERSTANDING OF THEIR RESPONSIBILITIES TOWARDS A MENTAL HEALTHCARE USER, DURING THE MANAGEMENT OF A BEHAVIOURAL EMERGENCY

The above-mentioned research was reviewed by the Netcare Research Operations Committee's delegated members and it is with pleasure that we inform you that your application to conduct this research at Netcare 911, has been approved, subject to the following:

- i) Research may now commence with this FINAL APPROVAL from the Netcare Research Operations Committee.
- ii) All information regarding Netcare will be treated as legally privileged and confidential.
- iii) Netcare's name will not be mentioned without written consent from the Netcare Research Operations 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) Netcare 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 Netcare Research Operations Committee as well as a FINAL REPORT with reference to intention to publish and probable journals for publication, on completion of the study.

Executive Directors: R.H. Frodland, K.N. Oboan

Company Secretary: I. Bregwandeke

Reg. No. 1992/002177/07

Tshwane Emergency Medical Services



City Strategy and Organizational Performance

Room CSP22 | Ground Floor, West Wing, Block D | Tshwane House | 320 Madiba Street | Pretoria | 0002
PO Box 440 | Pretoria | 0001
Tel: 012 355 7423
Email: Nresphof@tshwane.gov.za | www.tshwane.gov.za | www.facebook.com/CityOfTshwane

My ref: **Research Permission/ Stander**
Contact person: **Pearl Maponya**
Section/Unit: **Knowledge Management**

Tel: 012 358 4559
Email: PearlMap3@tshwane.gov.za
Date: 20 August 2018

Ms. Chamellé Stander
363 12th avenue
GEZINA
0084

Dear Ms Stander,

RE: PREHOSPITAL HEALTHCARE PROVIDER'S UNDERSTANDING OF THEIR RESPONSIBILITIES TOWARDS A MENTAL HEALTHCARE USER, DURING THE MANAGEMENT OF A BEHAVIOURAL EMERGENCY.

Permission is hereby granted to Ms Chamelle Stander, a MPhil in Emergency Medicine candidate at University of Cape Town (UCT), to conduct research in the City of Tshwane Metropolitan Municipality.

It is noted that your study to investigate what South African prehospital healthcare providers understand their responsibilities are towards a mental healthcare user and the community during the management of a behavioural emergency. The City of Tshwane further notes that all ethical aspects of the research will be covered within the provisions of UCT Research Ethics Policy. You will be required to sign a confidentiality agreement form with the City of Tshwane prior to conducting research.

Relevant information required for the purpose of the research project will be made available upon request. The City of Tshwane is not liable to cover the costs of the research. Upon completion of the research study, it would be appreciated that the findings in the form of a report and or presentation be shared with the City of Tshwane.

Yours faithfully,

Signature Removed

PEARL MAPONYA (Ms.)
DIRECTOR: KNOWLEDGE MANAGEMENT

ADDENDUM 3: RESEARCH PROPOSAL

PREHOSPITAL HEALTHCARE PROVIDER'S UNDERSTANDING OF THEIR RESPONSIBILITIES TOWARDS A MENTAL HEALTHCARE USER, DURING THE MANAGEMENT OF A BEHAVIOURAL EMERGENCY.

STUDENT: Charnellé Stander
BTEMC
University of Cape Town: DVRCHA001

SUPERVISOR: Dr. Peter Hodkinson
PhD
University of Cape Town

CO-SUPERVISOR: Dr. Enrico Dippenaar
PhD
University of Cape Town / Anglia Ruskin University

This study is in partial fulfilment of the degree:
Master of Philosophy in Emergency Medicine

DECLARATION

I, **Charnellé Stander**, hereby declare that the work on which this thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university. I authorise the University to reproduce, for the purpose of research either the whole or any portion of the content in any manner whatsoever.

Signature: Signature Removed

Date: 20/01/2018

PLAGIARISM DECLARATION

I know that plagiarism is a serious form of academic dishonesty.

I have read the document about avoiding plagiarism, am familiar with its contents and have avoided all forms of plagiarism mentioned there.

Where I have used the words of others, I have indicated this by the use of quotation marks.

I have referenced all quotations and properly acknowledged other ideas borrowed from others.

I have not and shall not allow others to plagiarise my work.

I declare that this is my own work.

I am attaching the summary of the Turnitin match overview (when required to do so).

Signature: Signature Removed

Date: ...20/01/2018.....

TABLE OF CONTENT

1. Introduction.....	10
1.1 Background	10
1.2 Motivation for Study	12
1.3 Research Question	12
1.4 Aim	13
1.5 Objectives	13
2. Methodology.....	13
2.1 Study Design	13
2.2 Study Population and Sampling	14
2.3 Focus Group Design	16
2.4 Data Collection and Management	17
2.5 Data Analysis Plan	18
2.6 Ethical Considerations	18
2.7 Limitations	19
2.8 Expected Outcomes	20
2.9 Project Timeline	20
2.10 Resources and Budget	21
References.....	22
Addendums.....	26

1. INTRODUCTION

1.1 Background

The behaviour of a person is described as the manner in which he or she normally acts.(1) A deviation from this normal behaviour, such as violence, aggression, loss of emotional control, self-destruction, agitation or the increase use in recreational drugs or alcohol in the presence of one or more recent stressors, is defined as a behavioural emergency.(1–3) Over the decades mental healthcare has contributed significantly to healthcare cost and disability within the community.(4) Today, it is estimated that mental healthcare contributes almost a third to the burden of disease in South Africa.(4–6)

Ancient societies placed high value on the well-being of a community as a whole.(7–9) This often led to the neglect of an individual's rights and autonomy within that society.(7,8,10,11) During the era of enlightenment (1724-1804), Immanuel Kant brought about the concept that all men are equal.(7–9) This movement has led to the improvement in quality of life and health care for mental healthcare users. (7,8,12)

The Mental Health Care Act of South Africa no 17 of 2002 (MHCA) has ensured for some of these improvements.(4,13) Under the Act both regional and district hospitals were designated to provide mental healthcare, which significantly improved the accessibility and availability of mental healthcare to a mental healthcare user. (4) Even with these improvements, mental healthcare is unfortunately still considered as a low priority in medical care, worldwide.(4,6) The MHCA provides valuable definitions, of which includes mental illness and a mental healthcare user, as well as the responsibilities of respective stakeholders involved in the care of a mental healthcare user.(13) These definitions and responsibilities are not without flaws.(13–15) Defining mental illness suggests there is a single mental illness and all mental disorders have indistinguishable characteristics, when in reality there is a range of mental disorders each with its own signs, symptoms and experiences.(15) The definition of a mental healthcare user may also create confusion; “A person receiving care, treatment and rehabilitation services using a healthcare facility aimed at enhancing the mental health status of that user”(13) It is unclear from this definition whether this ‘person’ includes only those with a positive diagnosis of a mental illness or also include a person with an acute mental health disorder. The MHCA explains the responsibilities of mental healthcare practitioners, healthcare facilities, South African Police Services (SAPS), and even that of a lay person, but is silent on the specific responsibilities of prehospital healthcare providers.(13,14,16)

Currently the responsibility to detain and apprehend a violent mental healthcare user lies with the SAPS.(13,16) This has been heavily criticised by South African mental healthcare authors.(17,18) According to them, this responsibility places SAPS's members under enormous pressure.(17,18) Firstly; the decision to apprehend a mental healthcare user is based on the SAPS members' subjective 'reason to believe' that a person is likely to inflict serious harm to self or others.(17) This subjective opinion is thus made by an individual without any medical training.(17) Secondly; should the SAPS member have any doubt that the mental healthcare user is likely to cause serious harm and does not apprehend the person, the SAPS's member may face civil claims for damages.(17) Lastly; should the SAPS member apprehend a mental healthcare user based on his/her 'reason to believe' that the mental healthcare user is likely to cause harm to self or others, without objective justification, the mental healthcare user may claim for unlawful apprehension.(17) No definition of serious harm is provided by the MHCA which means involuntary apprehension is determined by the SAPS member's understanding of the behaviour of the mental healthcare user and their interpretation of the MHCA.(17)

The lack of guidance from legislation, protocols and insufficient training on how to manage a behavioural emergency, often creates feelings of incompetence, frustration and stigmatisation amongst the prehospital healthcare providers and police members.(10,14,19–22)

In this study, the prehospital setting refers to the care and treatment provided to a person that requires emergency care and/or transportation from outside an appropriate healthcare facility. Within South African setting, mental healthcare forms part of the healthcare system, which includes primary healthcare.(2,22–24) This means prehospital healthcare providers are often the first point of access to mental healthcare for many mental healthcare users.(14,21,22,25) During the management of a behavioural emergency it is required, by law, that the mental healthcare user should be treated with respect, dignity and equality.(9–11) However, behavioural emergencies often requires rapid action from prehospital healthcare providers for the safety of the mental healthcare user and the community, which may lead to the violation of these basic human rights.(2,3,25) The international literature shows prehospital healthcare providers across different settings, admit to substandard care and negative feelings towards mental healthcare users.(3,19,21,22) According to them the attributing factors are a lack in knowledge and understanding on responsibility towards the mental healthcare user during the management of a behavioural emergency, the lack of guidance from legislation as well as the lack in availability and cooperation from police services.(3,19,21,22) Some studies have found

prehospital healthcare providers feel, behavioural emergencies are outside of their scope of practice and should rather be managed by trained Mental Healthcare Practitioners and Police Services.(2,3,25)

By gaining insight into EMS practitioners' current understanding relating to their responsibilities during a behavioural emergency, it will help to determine the need (if any) for adapting processes to meet mental healthcare legislation, for example by the development and implementation of suitable guidelines for prehospital healthcare providers.

1.2 Motivation for Study

Management of a mental healthcare user during a behavioural emergency is a complex task. It involves harmonising the person's medical needs and legal entitlements against their personal wellbeing and the safety of the greater community. The implementation of legislation and ethical guidelines to protect and respect the rights of a mental healthcare user, must consider and appropriately stipulate the responsibilities of all stakeholders involved in the mental wellbeing of a mental healthcare user.(19,22,26) There has been little guidance offered for prehospital healthcare providers to aid them in dealing with an increased volume of behavioural emergencies.(1–3,21,22,25) Legislative and ethical policies are vague and do not provide concise guidance for appropriate day-to-day management of behavioural emergencies in the prehospital setting.(3,21,22,27)

This study will explore the understanding of prehospital healthcare providers on their responsibilities towards a mental healthcare user during the management of behavioural emergencies. It flows from a previous (unpublished) research conducted by the research student: "Understanding of patient consent to treatment in behavioural emergencies amongst South African advanced life support paramedics" which determined there is a poor level of understanding amongst prehospital providers on patient consent to treatment and involuntary care during behavioural emergencies.(28) Patient consent will not be the focus of this study.

1.3 Research Question

What is the understanding amongst a sample of prehospital healthcare providers in Pretoria, South Africa, on their responsibilities towards a mental healthcare user during the management of a behavioural emergency?

1.4 Aim

This study aims to investigate what South African prehospital healthcare providers understand their responsibilities are towards a mental healthcare user and the community during the management of a behavioural emergency.

1.5 Objectives

- 1) Perform a literature review of currently applicable laws and professional guidelines pertaining to the management of behavioural emergencies in the South African prehospital healthcare setting
- 2) Describe and contextualise the understanding of a representative sample of prehospital healthcare providers of their responsibilities towards a mental healthcare user during the management of behavioural emergencies by means of focus group interviews.
- 3) Determine whether the understanding among prehospital healthcare providers of their responsibilities towards a mental healthcare user during the management of behavioural emergencies corresponds with current legislative and ethical guidelines, as derived from the literature review.

2. METHODOLOGY

2.1 Study Design

This study will have a qualitative descriptive design, using focus group interviews as the method of data collection. Focus group interviews, are in-depth interviews on a specific topic, and provides a deeper insight into the thoughts and understanding of the study participants.(29,30)

Within the South African prehospital setting there are three levels of prehospital healthcare; Basic Life Support (BLS), Intermediate Life Support (ILS) and Advanced Life Support (ALS). The following HPCSA registers are all considered as ALS prehospital healthcare providers; Paramedic (ANT), Emergency Care Technician (ECT), and Emergency Care Practitioner (ECP).

One focus group interview per level of care will be conducted. Thematic analysis, the process of identifying the most emergent themes or patterns within a qualitative dataset, will be used as the primary method of qualitative data analysis.(31)

2.2 Study Population and Sampling

This study will take place within the municipal boundary of Pretoria, South Africa. Pretoria is one of the country's capital cities and falls within the City of Tshwane Metropolitan Municipality with a resident population of approximately 2.1 Million.(32) To ensure maximum disclosure during the interview, the focus groups should be kept as homogeneous as possible.(33) Each level of care (BLS, ILS, ALS), will therefore be investigated separately. Separating the levels of care will also provide an opportunity to determine any differences in the understanding of responsibilities during the management of a mental healthcare user during a behavioural emergency.

The focus group interview will be conducted by the research student. Each focus group will consist of 6-8 participants. The chosen focus group size is to ensure that no participant is left out of the discussion but large enough to generate valuable information.(33)

The HPCSA iRegister site was searched on 2 August 2017 to estimate the number of prehospital healthcare providers actively registered in Pretoria. Provisional numbers reflect 397 BLS, 161 ILS and 107 ALS healthcare providers that were registered in Pretoria. Although not all practitioners residing in Pretoria may be practising therein, it gives a good estimation of the sample population. These results, however, do not indicate public or private sector employment status of the prehospital healthcare provider.

The inclusion criteria for this study are consenting prehospital healthcare providers from all three levels of care that are actively registered with the HPCSA. The prehospital healthcare provider must be currently operational and responding to emergencies within the municipal boundary of Pretoria, with at least 2 years' post-registration experience. The study will include prehospital healthcare providers from both the public and private sectors. Exclusion criteria for this study are prehospital healthcare providers not actively registered with the HPCSA or currently holding a dispatch or managerial position. The reason for the exclusion criteria is to ensure that participants are current with 'in the field' behavioural emergency practices.

A non-probability sampling approach will be applied, using convenience and snowball techniques to recruit participants. An invitation (Addendum A) will be distributed by the research student. Social media platforms such as Facebook, WhatsApp Emergency Services groups as well as email lists used to send out weekly news relating to the prehospital setting will be used. The research student has good knowledge of both the private and public emergency services operating in the Pretoria region and will also personally distribute the

research invitation. A well-known recruitment technique to mitigate selection bias in qualitative research is the snowball technique.(29,34) Potential participants who respond to the research invitation, will be encouraged - on a voluntary basis - to nominate two to three other potential participants. The nominees may be from either the private or public sector and invited using any of the invitational platforms mentioned.

The invitation provides basic information about the study, dates, times and venue of each focus group, including the research student's contact details. The date, time, and venue of each focus group will be predetermined by the research student. At no time will a potential participant be coerced to neglect personal or working obligations to participate in the study. The venue that will be used to conduct the focus group interviews will be situated in the centre of Pretoria, easily accessible from most areas in Pretoria and close to public transport station. It is not foreseen that any disturbance will interrupt the focus group discussions.

All potential participants who respond to the research invitation will be added to a password protected participant database. This database will be used to store basic personal contact details such as phone numbers and email addresses. The contact details will only be used to provide the potential participants with additional information regarding the study. Participant Information Sheets (Addendum B) will be emailed and hardcopies will be available. The information sheet will explain what participation means, the process of withdrawal, and what the study expects from the participants. It is expected of all participants to be professional, provide opportunity to other participants to voice their views and beliefs relating to the topic, respect those views and beliefs but also have the freedom to voice their own views and beliefs during the focus group interviews. Only when potential participants have reviewed the information leaflet and indicated willingness to participate and attend the relevant focus group, will they become study participants.

Participation is within each participant's own personal capacity, thus no explicit permissions from employers are required. Participation will not affect the participant's employment or professional standing as a prehospital healthcare provider. Participants will be telephonically contacted 2 days prior the pre-determined focus group interview date as a reminder and confirmation of participation. Participants will be required to complete an Informed Consent Form (Addendum C) on arrival at the venue and before commencement of the focus group interviews.

For Qualitative research using thematic analysis, the desire is to reach thematic saturation. This is the point in qualitative research which uses thematic analysis where no more new themes arises during new focus group interviews.(29–31,33) The sample size anticipated for this study may not reach thematic saturation. Thematic saturation however is not the only determinant for the use of small sample size in qualitative research. Because of the narrow study aim and the specific characteristics chosen for the sample population the sample size is considered sufficient to reach the study aim.(35)

2.3 Focus Group Design

The focus group interviews will take place in the form of a semi-structured interview, with predetermined topics. Cases of behavioural emergencies (Addendum D) will be presented to participants, after which the participants will be encouraged to elicit an open discussion on their understanding of their responsibilities towards the mental healthcare user and the community during the management of these situations:

- 1) A mental healthcare user that has caused harm to self but not others,
- 2) A mental healthcare user that has caused harm to others but self,
- 3) family members raising concerns regarding a mental healthcare user who has the potential to cause self-harm, but no obvious evidence is present at the time of treatment,
- 4) A mental healthcare user actively causing harm to self or others which may lead to irreversible injuries.

These scenarios will explore the mental healthcare user who has no cognitive impairment and is able to make informed decisions, as well as the mental healthcare user with impaired cognitive abilities.

The research student will facilitate the focus group interviews in English and will attempt to stay neutral to all comments. Bias introduced to the study by the research student will be recognised and described during data analysis. Thematic analysis through coding of the data will be done to determine basic, organisational and global themes. Findings of the focus group interviews will be concluded in a narrative report which will provide the basis of finding discussions.

2.4 Data Collection and Management

Time prior to the focus group interviews will be provided for participants to review, ask questions, and sign the informed consent form (Annexure C) and get familiarised with one another. A unique research identifier will be allocated to each participant and will be used during data transcription and analysis to ensure anonymity.

The discussion group will break after every 40 minutes of discussion for approximately 15-20 minutes. It is aimed not to have a focus group interview for longer than 2 hours. It has been found the productivity of a focus group decrease beyond 90 minutes.(33) Refreshments in the form of snacks and water will be provided to participants during the breaks.

During the focus group interviews, the research student will use field notes and voice recordings to collect data. All data obtained, whether by means of voice recording or field notes will be stored onto a password protected computer and hard drive not later than one day after the focus group discussion. Only the research student and supervisors will have access to participant codes and data.

Participants may withdraw from the study at any time during the research. Withdrawal by participants prior to the focus group discussion will have no negative effect on the outcome of the study. Non-attendance may have a negative influence on the study outcomes, for this reason the research student will attempt to book the maximum of 8 participants for that focus group instead of the minimum of 6 participants. If a participant does not attend the relevant focus group, without notice, an attempt to contact the participant and confirm absence from the focus group discussion will be explored.

Withdrawal after or even during the focus group discussion will also influence the outcome of the study. Data already obtained cannot be retracted. Statements made by a withdrawing participant might have opened the discussion to another theme or led to valuable information that would otherwise not have been obtained. Should it be necessary the research student will only mention that a previous statement made by a participant who has withdrawn from the study has led to the following data.

2.5 Data Analysis Plan

Immediately after each focus group interview, recordings and field notes will be reviewed and clarified to ensure no important information is lost from memory. Once all focus group interviews have been conducted, the research student will transcribe the data into a format which is easy to analyse. These transcriptions together with the original field notes and recordings will be passed on to research supervisor, Dr Enrico Dippenaar, to assist with data analysis. The results from the data analysis will be discussed with Victor Voorendyk for further assistance on the legal aspects of the study. Victor is a lawyer, specialising in medical malpractice claims. He has previous prehospital experience with a special interest as well as knowledge on the research topic. Dr. Dippenaar has experience in conducting and analysing focus groups dataset. Data analysis will be done separately to ensure no influence from either party is introduced. The analysis method chosen for this study is that of analytic induction, using thematic analysis. The data obtained from each focus group interview will be compared with one another to identify commonalities and divide these findings into common themes. Possible explanation for differences found during the analysis will be explored and discussed amongst the research supervisors and research student. Once data analysis is completed, the themes will be compared with findings from literature to develop a theory regarding the understanding of the sample population on their responsibilities towards a mental healthcare user during the management of a behavioural emergency.

2.6 Ethical Considerations

Ethical approval will be obtained from the University of Cape Town Human Research Ethics Committee. All ethical and data management guidelines set by the University of Cape Town will be followed. Participants' rights common with qualitative research and the declaration of Helsinki will be respected during the study recruitment, data collections and analysis. Informed consent will be obtained from every participant following review of the participant information leaflet, and prior to interview commencement. Confidentiality; due to the nature of this study, anonymity is not possible during the focus group interview. For this reason, a section on confidentiality has been included on the informed consent forms to which participants will agree to. Participants will be encouraged not to disclose any response or information from the focus group interview.

A research identifier will be allocated to the participant to ensure that data are stored and analysed in a confidential manner. All data will be kept confidential by saving the data on a password protected computer and hard drive. Access will only be provided to the research student and supervisors.

2.7 Limitations

Qualitative research aims to describe an in-depth understanding of a specific phenomenon and contextualise that understanding.(35) This can easily be achieved with a small sample size.(35) Because there are few literature pieces available regarding this topic, an indirect outcome of this study would be to determine whether further research on this topic is required. The findings will only represent the sample and will not be representative of the population of prehospital healthcare providers in Pretoria.

The research student will be guided by the study supervisors, who have experience in both qualitative research and focus group interviews to mitigate bias that may be introduced into the study. The research student has already completed a Massive Open Online Course (MOOC), by the University of Amsterdam on Qualitative research to further broaden her understanding of qualitative research.

Selection bias may be introduced to the study. The snowball technique that will be used during the recruitment stage is a well-known strategy used in qualitative research to minimise selection bias.(29,33,35) This technique also allow for potential participants that are unrelated or unfamiliar to the research student to participant in the study. (29,33,35)

The inexperience of the research student in conducting focus group interviews may lead to information bias. To mitigate this, the research student will complete another MOOC on how to conduct effective focus group interviews. Information bias may further be introduced into the study during data analysis. It is for this reason the research student and supervisor, Dr. Enrico Dippenaar will analyse the data separately. The individual analysed data will then be compared and interpret.

2.8 Expected Outcomes

The findings generated by this study will provide information regarding the understanding of prehospital healthcare providers on their responsibility towards a mental healthcare user during the management of behavioural emergencies. The aim is to publish these findings in a peer reviewed publication and stimulate future research to investigate the gaps within the prehospital healthcare training programs relating to behavioural emergencies. It is anticipated that this research study will assist in improving training outcomes amongst prehospital health care providers as well as improve the management of mental healthcare users during behavioural emergencies.

2.9 Project Timeline

Month	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Year	'17	'17	'17	'18	'18	'18	'18	'18	'18	'18	'18
EM-DRC				X							
Ethics				X	X						
Interviews (Data Collection)					X	X					
Transcribing of Data						X	X				
Data Analysis							X				
Compilation of Final Report								X	X	X	
Submission											X

2.10 Resources and Budget

BUDGET			
July 2017– December 2018			
Item	Unit cost	No of Units	Total cost
Consumables			R 343.00
Pens	R 3.50	2	R 7.00
Note book for field notes	R 25.00	1	R 25.00
Invitational flyers	R 1.00 p/p	100	R 100.00
Informed consent forms	R 1.00 p/p	180	R 180.00
Plane white stickers	R 30.00	1	R 30.00
Refreshment platters	R65.00	6	R390.00
Minor research equipment			R 1400.00
Voice recorder	R 1000	1	R 1000.00
32G Memory card	R 400	1	R 400.00
Total			R 2132.00

The study will be funded by the research student.

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MANAGEMENT OF A BEHAVIOURAL EMERGENCY

Do you fully understand your responsibilities as a prehospital healthcare provider, towards a mental healthcare user or are you still tolling a dice between ethics, legislation and moral code?



I am a student in the Division of Emergency Medicine, University of Cape Town, and I am looking for volunteers to take part in a research study exploring what South African prehospital healthcare providers in Pretoria understand their responsibilities are towards a mental healthcare user and the community during the management of a behavioural emergency.

To explore your understanding on this topic, you are invited to participate in a focus group interview. During the interview you will be provided with the opportunity to air your views and beliefs in a relaxed and informal discussion.

Each level of care, BLS, ILS and ALS will be interviewed separately.

Focus Group	BLS	ILS	ALS
Date	xx	xx	xx
Time	xx	xx	Xx
Venue	xx	xx	xx

The focus group interviews will take approximately 2 hours of your time.

In appreciation for your time, snacks and beverages will be supplied.

For more information please contact:

Charnelle Stander

Cell phone: 082 382 4282

Email: dvrcha001@myuct.ac.za

The study has been reviewed and approved by the Human Research Ethics Committee, University of Cape Town.

PARTICIPANT INFORMATION SHEET

Understanding of responsibilities during the management of behavioural emergencies amongst prehospital healthcare providers in Pretoria, South Africa

EMDRC Study Number: EMxxxx/xx, HREC Ref: xxx/2017

Principal Investigator: Dr Peter Hodkinson (peter.hodkinson@uct.ac.za)

Research Student: Mrs Charnellé Stander (dvrcha001@myuct.ac.za)

WE WOULD LIKE TO INVITE YOU TO PARTICIPATE in a research study that will be investigating what prehospital healthcare providers understand their responsibilities are towards a mental healthcare user and the community during the management of behavioural emergencies. Before deciding to participate, we would like you to understand why and how the research is being done and what it would involve for you. **The research student will be available to answer any questions you may have.** We suggest that you take the necessary time to read and thoroughly understand the information on this sheet. The study is part of an educational project in partial fulfilment of the requirements of a MPhil degree through the University of Cape Town, South Africa.

THE PURPOSE OF THIS PROJECT is to describe the understanding of responsibilities during the management of behavioural emergencies amongst prehospital healthcare providers; and to determine whether this understanding reflects current legislation.

DO I HAVE TO TAKE PART? It is your decision to voluntarily participate in this study and should you agree to partake we will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason.

THE STUDY INVOLVES focus group interviews. The focus group interview will consist of 6-8 participants of the same level of registration, Basic Life Support (BLS), Intermediate Life Support (ILS) and Advanced Life Support (ALS). During the focus group interview participants will be encouraged to speak openly about their views and beliefs on their responsibilities during the management of behavioural emergencies in the prehospital setting. The focus group interview will be conducted by the research student and audio recorded for data collection purposes. It is expected that each focus group interview should not last longer than 2 hours.

PARTICIPANT INFORMATION SHEET

Understanding of responsibilities during the management of behavioural emergencies amongst prehospital healthcare providers in Pretoria, South Africa

EMDRC Study Number: EMxxxx/xx, HREC Ref: xxx/2017

Principal Investigator: Dr Peter Hodkinson (peter.hodkinson@uct.ac.za)

Research Student: Mrs Charnellé Stander (dvrcha001@myuct.ac.za)

THE FOCUS GROUP INTERVIEWS WILL BE HELD ON:

Focus Group	BLS	ILS	ALS
Date	xx	xx	xx
Time	xx	xx	Xx
Venue	xx	xx	xx

EXPENSES AND PAYMENT: You will receive no payment for your participation, however snacks and drinks will be provided during a short break of the focus group interview.

RISKS INVOLVED IN PARTICIPATION: There are no anticipated risk to your participation.

BENEFITS INVOLVED IN PARTICIPANTION: You will not receive any direct personal benefit from participation. Your participation will help in identifying the gap between the responsibilities as set out by current legislation and prehospital healthcare providers' understanding on their responsibilities towards a mental healthcare user during the management of behavioural emergencies. This information can be used for future guidelines, which may improve and benefit your future work circumstances.

WHAT IF THERE IS A PROBLEM? should you have any questions, concerns or complaints about this research study, its procedures, risks and benefits, you may contact the principal investigator or the University of Cape Town Ethics Committee.

WHAT WILL HAPPEN IF I WANT TO WITHDRAW FROM THE STUDY?

Withdrawal may be done at any time during the study and without a reason. In the event of withdrawal, you should contact the principal researcher to convey your withdrawal. There will be no prejudice or effect on your professional standing. Due to the nature of the study, documentation and information obtained during the focus group interview cannot be destroyed. This is because a statement or comment made by you, may have led to another participants ideas or question. For this reason, no direct reference will be made to any information obtained from you prior to your withdrawal.

PARTICIPANT INFORMATION SHEET

Understanding of responsibilities during the management of behavioural emergencies amongst prehospital healthcare providers in Pretoria, South Africa

EMDRC Study Number: EMxxxx/xx, HREC Ref: xxx/2017

Principal Investigator: Dr Peter Hodkinson (peter.hodkinson@uct.ac.za)

Research Student: Mrs Charnellé Stander (dvrcha001@myuct.ac.za)

WILL MY TAKING PART IN THIS STUDY BE KEPT CONFIDENTIAL? Yes. Names on any data sheets, both electronic and hard copy will be removed once analysis starts. All data and back-ups thereof will be kept in password protected computer. Only the principle investigator, research student, and a co-supervisor will have access to the raw data. Due to the interactive participation nature of the study, participants will be asked to keep all responses confidential.

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY? The aim is to publish the findings in scientific journal through the University of Cape Town, South Africa. For your convenience, a summary of the findings will be made available upon your request and emailed to you. You will not be identifiable in any publication made.

WHO HAS REVIEWED AND AUTHORISED THE STUDY? This study has been authorised by the Human Research and Ethics Committee (HREC) of the University of Cape Town South Africa (Ref.xxx/2017). HREC can be contacted on Tel: (+27) 021 406 6338, Email: xxxxxxxxxxxxxxxxx. The study is funded by the research student.

FURTHER INFORMATION AND CONTACT DETAILS: Should you wish to have more specific information about this research project, need advice as to whether to participate, have any questions or concerns you may speak to the research student, Charnellé Stander, who can be contacted telephonically on (+27) 082 382 4282.

All three focus group discussions will be conducted by the research student. To address the study aim through its objectives open ended questions will be used to guide the focus group discussions.

Example guiding themes:

- 1) What are your general feelings when you are dispatched to a behavioural disturbance?
- 2) In general, what do you feel your responsibility are towards a mental healthcare user? (For this focus group interview, the definition of a mental healthcare user is: A person receiving care, treatment or rehabilitation services using a healthcare facility aimed at enhancing the mental health status of that user. This includes prehospital healthcare services)
- 3) According to the Mental Health Care Act, mental health forms part of the healthcare system, which include primary healthcare, i.e. prehospital healthcare. What do you think this mean in terms of your responsibilities towards a mental healthcare user?
- 4) Let's for argument sake say, a mental healthcare user has caused physical harm to another person but self has not sustained any injuries. Do you think you still have a responsibility, in terms of treatment, towards this mental healthcare user? Why? In your opinion who should take responsibility? The justice system or the healthcare system? Why the justice system? Why the healthcare system?
- 5) What if this scenario changes slightly? The mental healthcare user has also sustained injuries. Do you now think you have a treatment responsibility towards him or her? Will you feel comfortable as a healthcare provider, if the mental healthcare user has sustained only minor injuries to rather hand him or

her over to the Police instead of letting the mental healthcare user enter the healthcare System? Those that answered no, why not? Those that answered yes, why? In your opinion then, when should this mental healthcare user receive mental health care?

- 6) How would you describe your responsibilities as a prehospital healthcare provider towards a mental healthcare user that causes self-harm only? Do you think this mental healthcare user requires the justice system or healthcare system? Those participants that believes a mental healthcare user that sustained minor injuries while causing harm to others, should enter the justice system but a mental healthcare user that causes self-harm only, should enter the healthcare system, how would you say your responsibility towards the two mental healthcare users differ?
- 7) Would you say, as a prehospital healthcare provider, you have the responsibility in deciding which mental healthcare user is mentally stable to rather enter the justice system, provided a crime has allegedly been committed by the mental healthcare user and does not require any medical treatment on scene? Do you think such responsibility should be placed upon prehospital healthcare providers? Why?
- 8) How would you describe your responsibilities towards a mental healthcare user that is not harmful to self or others at the time of assessment, but has a history of causing harm?
- 9) Taking everything that was discussed and mentioned into considerations, how would you summarise your responsibilities as a prehospital healthcare provider during the management of a behavioural emergency?

ADDENDUM 4: SOUTH AFRICAN JOURNAL OF PSYCHIATRY INSTRUCTION FOR AUTHORS

Overview

The author guidelines include information about the types of articles received for publication and preparing a manuscript for submission. Other relevant information about the journal's policies and the reviewing process can be found under the about section. The compulsory cover letter forms part of a submission and must be submitted together with all the required forms. All forms need to be completed in English.

Original Research Article

An original article provides an overview of innovative research in a particular field within or related to the focus and scope of the journal, presented according to a clear and well-structured format. Systematic reviews should follow the same basic structure as other original research articles. The aim and objectives should focus on a clinical question that will be addressed in the review. The methods section should describe in detail the search strategy, criteria used to select or reject articles, attempts made to obtain all important and relevant studies and deal with publication bias (including grey and unpublished literature), how the quality of included studies was appraised, the methodology used to extract and/or analyse data. Results should describe the homogeneity of the different findings, clearly present the overall results and any meta-analysis.

Word limit

3000-4000 words (excluding the structured abstract and references)

Structured abstract

250 words to include a Background, Aim, Setting, Methods, Results and Conclusion

References

60 or less

Tables/Figures

No more than 7 Tables/Figure

Ethical statement

Should be included in the manuscript

Compulsory supplementary file

Ethical clearance letter/certificate

Original Research Article full structure

Title: The article's full title should contain a maximum of 95 characters (including spaces).

Abstract:

The abstract, written in English, should be no longer than 250 words and must be written in the past tense. The abstract should give a succinct account of the objectives, methods, results and significance of the matter. The structured abstract for an Original Research article should consist of six paragraphs labelled Background, Aim, Setting, Methods, Results and Conclusion.

Background:

Summarise the social value (importance, relevance) and scientific value (knowledge gap) that your study addresses.

Aim:

State the overall aim of the study.

Setting:

State the setting for the study.

Methods:

Clearly express the basic design of the study, and name or briefly describe the methods used without going into excessive detail.

Results:

State the main findings.

Conclusion:

State your conclusion and any key implications or recommendations.

Do not cite references and do not use abbreviations excessively in the abstract.

Article

Introduction:

The introduction must contain your argument for the social and scientific value of the study, as well as the aim and objectives:

Social value: The first part of the introduction should make a clear and logical argument for the importance or relevance of the study. Your argument should be supported by use of evidence from the literature.

Scientific value: The second part of the introduction should make a clear and logical argument for the originality of the study. This should include a summary of what is already known about the research question or specific topic, and should clarify the knowledge gap that this study will address. Your argument should be supported by use of evidence from the literature.

Conceptual framework: In some research articles it will also be important to describe the underlying theoretical basis for the research and how these theories are linked together in a conceptual framework. The theoretical evidence used to construct the conceptual framework should be referenced from the literature.

Aim and objectives: The introduction should conclude with a clear summary of the aim and objectives of this study.

Research methods and design:

This must address the following:

Study design:

An outline of the type of study design.

Setting: A description of the setting for the study; for example, the type of community from which the participants came or the nature of the health system and services in which the study is conducted.

Study population and sampling strategy: Describe the study population and any inclusion or exclusion criteria. Describe the intended sample size and your sample size calculation or justification. Describe the sampling strategy used. Describe in practical terms how this was implemented.

Intervention (if appropriate): If there were intervention and comparison groups, describe the intervention in detail and what happened to the comparison groups.

Data collection: Define the data collection tools that were used and their validity. Describe in practical terms how data were collected and any key issues involved, e.g. language barriers.

Data analysis:

Describe how data were captured, checked and cleaned. Describe the analysis process, for example, the statistical tests used or steps followed in qualitative data analysis.

Ethical considerations: Approval must have been obtained for all studies from the author's institution or other relevant ethics committee and the institution's name and permit numbers should be stated here.

Results:

Present the results of your study in a logical sequence that addresses the aim and objectives of your study. Use tables and figures as required to present your findings. Use quotations as required to establish your interpretation of qualitative data. All units should conform to the SI convention and be abbreviated accordingly. Metric units and their international symbols are used throughout, as is the decimal point (not the decimal comma).

Discussion:

The discussion section should address the following four elements:

Key findings: Summarise the key findings without reiterating details of the results.

Discussion of key findings: Explain how the key findings relate to previous research or to existing knowledge, practice or policy.

Strengths and limitations: Describe the strengths and limitations of your methods and what the reader should take into account when interpreting your results.

Implications or recommendations: State the implications of your study or recommendations for future research (questions that remain unanswered), policy or practice. Make sure that the recommendations flow directly from your findings.

Conclusion:

Provide a brief conclusion that summarises the results and their meaning or significance in relation to each objective of the study.

Acknowledgements:

Those who contributed to the work but do not meet our authorship criteria should be listed in the Acknowledgments with a description of the contribution. Authors are responsible for ensuring that anyone named in the Acknowledgments agrees to be named.

Also provide the following, each under their own heading:

Competing interests: This section should list specific competing interests associated with any of the authors. If authors declare that no competing interests exist, the article will include a statement to this effect: The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article. Read our policy on competing interests.

Author contributions: All authors must meet the criteria for authorship as outlined in the authorship policy and author contribution statement policies.

Funding: Provide information on funding if relevant

Disclaimer: A statement that the views expressed in the submitted article are his or her own and not an official position of the institution or funder.

References:

Authors should provide direct references to original research sources whenever possible. References should not be used by authors, editors, or peer reviewers to promote self-interests. Refer to the journal referencing style downloadable on our Formatting Requirements page.

Ethical considerations: Papers based on a case study that involves the treatment of humans must adhere to the Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subjects. Specify the recognised ethics committee from

which approval for the case study was obtained; also state the serial number of the ethical clearance. Case studies must have the consent of the patient(s) or waiver of consent approved by an ethics committee.

Vancouver reference style guide

Notes

- Your reference list should appear at the end of your assignment/report with the entries listed numerically and in the same order that they were cited in the text.
- It is very important that you use the right punctuation and that the order of details in the reference is also correct.
- No use of & between author names
- Book and journal titles are not italicised or placed in quotation marks.
- Abbreviate page numbers to p., for example p. 12–25.
- Only first words of the article title and words that normally begin with a capital letter are capitalised.
- Journal titles are abbreviated. A list of abbreviations for the titles is available online at either [List of Journals in MEDLINE with abbreviations](#) (NB: Use the binoculars in the toolbar to search for a title) or [Medical Journal Abbreviations](#) (Internationally recognised abbreviations for journal titles). Other sources: [Caltech Library Services](#) and [Bioscience](#)
- In reference list: more than 6 authors, first 3 authors are listed; thereafter add et al. after the third author. In text: only the first authors name then et al.
- If the journal has continuous page numbering, you may omit month/issue number
- Place superscript reference number after commas and full stops and before colons and semi-colons – unless the superscript is attached to authors name or title of book/database – then always before punctuation.
- If the reference number is connected to a year or number, place a space between the number and the reference number for clarity. [example: back as 1915³⁵ ...]
- Italicise the title of artwork (painting, photograph, sculpture etc.) in the text. The title should be written in title case. For example, *The Alchemist*. Place single inverted commas around the title of an art exhibition, which should be written in sentence case. For example, 'Fossil icons of South Africa'.

Books

Books	In-Text Example	Reference List Example
Single author	The theory was first propounded in 1993 by Comfort ¹ that ... OR Comfort ¹ claimed that '...'	1. Comfort A. A good age. London: Mitchell Beazley; 1997.
2 – 6 authors	'... new definition of disability' ² OR Madden et al. have stated that '...' ²	2. Madden R, Hogan T. The definition of disability in Australia: Moving towards national consistency. Canberra: Australian Institute of Health and Welfare; 1997.
More than 6 authors	Numerous academic	3. Rodgers P, Smith K, Williams D, et
authors	librarians ³	al. The way forward for Australian libraries. Perth: Wombat Press; 2002.
No author	'...the most-accepted definition.' ⁴	4. Advertising in the Western Cape. Cape Town: ABC Publishers; 1990.
Multiple works by same author	University research ^{5,6} has indicated that... [if not previously cited]	5. Brown P. Corals in the Capricorn group. Rockhampton: Central Queensland University; 1982. 6. Brown P. The effects of anchor on corals. Rockhampton: Central Queensland University; 1988.
Editor	The most comprehensive work on the Subject ⁷ ...	7. Kastenbaum R, editor. Encyclopedia of adult development. Phoenix: Oryx Press; 1993.
Different editions	The latest preferred style ⁸	8. Renton N. Compendium of good writing. 3rd ed. Milton: John Wiley & Sons; 2004. An edition number is placed after the title of the work - this is not necessary for a first edition.
Encyclopedia or Dictionary	'is defined as ...' ⁹	9. Oxford dictionary for scientific writers and editors. Oxford: Clarendon; 1991. Parabola; p. 89. [include the definition looked up – in this case 'Parabola']
Article or chapter in a book	As discussed by Blaxter ¹⁰ ...	10. Blaxter M. Social class and health inequalities. In: Carter C, Peel J, editors. Equalities and inequalities in health. London: Academic Press, 1976; p. 369–380.

Article or chapter in a book – no author	Achieving a life of its own ¹¹ ...	11. Solving the Y2K problem. In: Bowd D, editor Technology today and tomorrow. New York: Van Nostrand Reinhold, 1997; p. 27–40.
Conference proceeding (the whole conference)	This was discussed at the conference ¹⁵	15. Harnden P, Joffe JK, Jones WG, editors. Germ cell tumours V. Proceedings of the 5th Germ Cell Tumour Conference; 2001 Sep 13–15; Leeds, UK. New York:Springer; 2002.
Conference paper	This was discussed at the conference ¹⁵	15. Anderson JC. Current status of chorion villus biopsy. Paper presented at: APSB 1986. Proceedings of the 4th Congress of the Australian Perinatal Society, Mothers and Babies; 1986 Sep 8–10; Queensland, Australian. Berlin: Springer; 1986. p. 182–191.
Conference poster/workshop	This was discussed at the conference ¹⁵	15. Chasman J, Kaplan RF. The effects of occupation on preserved cognitive functioning in dementia. Poster session presented at: Excellence in clinical practice, 4th Annual Conference of the American Academy of Clinical Neuropsychology; 2006 Jun 15–17; Philadelphia, PA.
Image in a book	The poster ‘Buy Australian Apples’ ¹⁶	16. Cowle C, Walker D. The art of apple branding. Hobart:Apples from Oz; 2005.

Print Journals

Print Journals	In-Text Example	Reference List Example
Article	As mentioned by Wharton ¹⁷ ,...	17. Wharton N. Health and safety in outdoor activity centres. J Adventure Ed Outdoor Lead. 1996;12(4):8–9.
Article – no author	It’s a growing problem in the U.K. ¹⁸ ...	18. Anorexia nervosa. Br Med J. 1969;2(1):529–530.
Newspaper article – with or without author	‘... not responsible’. ¹⁹	19. Towers K. Doctor not at fault: coroner. The Australian 2000 Jan 18;3.
Newspaper article – no author	‘...not responsible.’ ²⁰	20. Doctor cleared by coroner. Sydney Morning Herald 2000 Jan 24;12.

Press release	As stated by the company ²¹	21. Watersmith C. BHP enters new era [press release].Melbourne: BHP Limited; 2000 Mar 1.
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Electronic Journals

Electronic Journals	In-Text Example	Reference List Example
Full text from an electronic database	The economic policy issues raised by the Internet are discussed in detail by Madden ²²	22. Reid DB. Australasian association of doctors' health advisory services. Med J Australia [serial online]. 2005 [cited 2006 Mar 28];182(5):255. Available from: Health and Medical Complete.
Full text from an electronic database – no	The internet has had a huge impact on the Australian economy ²³ ...	23. Cell tropism of Salmonella enterica. Int J Med Microbiol [serial online]. 2004 [cited 2006 Mar 28]; 294(4):225–33. Available from: Health and Medical Complete.
Full text newspaper, newswire or magazine from an electronic database – no author	Promoted as a 'frontier state' ²⁴ , Western Australia is seen by overseas tourists as ...	24. WA packed with overseas appeal. The West Australian [serial online]. 2003 [cited 2004 Nov 13] Nov 12; 47. Available from: Factiva.
Full text from the internet	Recreational venues of a seasonal nature can still be profitable ²⁵ ...	25. Sopensky E. Ice rink becomes hot business. Austin Business Journal [serial on the Internet]. 2002 [cited 2002 Oct 16]; 10(4). Available from: http://www.bizjournals.com/austin/stories/2002/10/14/smallb1.html .
Article from Curtin E-Reserve	' ...tips on speaking to groups of health care professionals. ²⁶	26. Bodeker G, Kronenberg F. A public health agenda for traditional, complimentary, and alternative medicine. Am. J. Public Health [serial online]. 2002 [cited 2006 Mar 29] 92(10):1582–91. Available from: Curtin Library and Information Service E-Reserve.
Article from a CD-ROM (BPO)	Marketing is money well spent, even in hard times, according to La Rosa ²⁷ .	27. La Rosa SM. Marketing slays the downsizing dragon. Information Today [serial on CD-ROM] 1992 [cited 2002 Oct 16]; 9(3):58–9. Available from: UMI Business Periodicals Ondisc.

Newspaper article from online database	Marketing is money well spent, even in hard times, according to Dearne ⁶⁰ .	60. Dearne K. Dispensing with the chemist. The Australian [newspaper online]. 2005 Jun 14 [cited 2005 Jun 30];[about 8 screens]. Available from: Factiva. http://global.factiva.com .
Cochrane Review	This is debated by Iyer, Farquhar and Jepson ²⁸	28. Iyer V, Farquhar C, Jepson R. The effectiveness of oral contraceptive pills versus placebo or any other medical treatment for menorrhagia. [Cochrane review] In: The Cochrane Library, Issue 4, 1998. Oxford: Update Software.

World Wide Web

World Wide Web	In-Text Example	Reference List Example
Document on WWW	A good example of how students can learn online about referencing at their own pace can found at Curtin University. ²⁹	29. Department of Health. Creutzfeldt Jakob disease: Guidance for healthcare workers [homepage on the Internet]. c2003 [updated 2003 Mar 23; cited 2003 Nov 9]. Available from http://www.doh.gov.uk/pdfs/cjdguidance.pdf
Document on WWW – no article title	... Curtin University Library launched an improved version of their homepage ³⁰	30. Curtin University of Technology [homepage on the Internet]. Perth: Curtin University; c2004 [updated 2004 May 21; cited 2004 Dec 10] Available from: http://www.curtin.edu.au/
Document on WWW – No author	Both Leafy Seadragons and Weedy Seadragons are protected species. ³¹	31. Leafy seadragons and weedy seadragons [homepage on the Internet]. c2001 [updated 2001 Aug 1; cited 2004 Dec 10]. Available from: http://www.windspeed.net.au/~jenny/seadragons/ .
Document on WWW – No date	A link between these conditions has been noted by McCook. ³²	32. McCook A. Pre-diabetic condition linked to memory loss [homepage on the Internet]. No date [cited 2003 Feb 7]. Available from: http://www.nlm.nih.gov/medlineplus/news_11531.html

Image on the web	The image of the bleached coral ³³	33. Great Barrier Reef Marine Park Authority [image on the Internet]. c2002 [updated 2006 Jan 28; cited 2006 Feb 15]. Available from: http://www.gbrmpa.gov.au/corp_site/info_services/science/bleaching/
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Government Publications

Government Publications	In-Text Example	Reference List Example
Acts of parliament	The Environmental Protection Act 1986 ³⁴ ...	34. Environmental Protection Act of 1986, WA [statute on the Internet]. c2002 [cited 2004 Dec 21]. Available from: State Law Publisher.
Cases	State-federal relations in this issue were tested in court as far back as 1915 ³⁵ ...	35. The State of New South Wales v. The Commonwealth (1915) 20 CLR 5.
Australian Bureau of Statistics Bulletin	... change from the figures published in 1999 by the ABS. ³⁶	36. Australian Bureau of Statistics. Disability, ageing and carers: summary of findings. Canberra: ABS; 1999. ABS publication 4430.0.
Australian Bureau of Statistics from ABS website	... change from the figures published in 1999 by the ABS. ³⁷	37. Australian Bureau of Statistics. Disability, ageing and carers: Summary of findings [serial online]. c1999 [cited 2004 Oct 14]; ABS publication 4430.0. Available from: http://www.abs.gov.au .
Census information	... information from the 2001 census now becoming dated. ³⁸	38. Australian Bureau of Statistics. Census of population and housing: 2001 Census Basic Community Profiles and Snapshots: Postal Areas: postal area 6050: B01 selected characteristics. First release processing [data table online]. c2001 [cited 2002 Nov 20]. Available from: http://www.abs.gov.au .
Government reports	... a new approach to resource assessment on the macro level. ³⁹	39. Resource Assessment Commission. Forest and timber enquiry. Volume 1. Draft report. Canberra: Australian Government Publishing Service; 1991.

		Also: 39. Childrens Institute, UCT. Child rights in focus. Annual report 2004/2005 [document on the Internet]. University of Cape Town; no date [cited 2009 Feb 21]. Available from: xxxx.
Patent	US Patent 20020103498 ⁴⁰	40. Pagedas AC, inventor; Ancel Surgical R&D Inc., assignee. Flexible endoscopic grasping and cutting device and positioning tool assembly. United States patent 20020103498. 2002 Aug 1.
Online Standard	from Standards Australia ⁴¹	41. Standards Australia. Size clothing scheme for infants' and children's clothing – underwear and outerwear [standard online]. c1997 [cited 2006 Feb 22]; AS 1182–1997. Available from: Standards Australia Online.

Secondary Sources

Secondary Sources	In-Text Example	Reference List Example
Book	Higgins discusses Newman's research in his work... ⁴²	42. Higgins D. Horizons: The poetics and theory of the intermedia. Illinois: Southern Illinois University Press: 1984 Record the book that you actually used.
Journal article	Clements quoted Chandler in his article... ⁴³	43. Clements C. The facts about cocaine (drugs), Science and Children [serial online]. 2007 [cited 2007 Apr 13]; 44(7): 44. Available from: ProQuest. Record the journal that you actually used.

Other Sources

Other Sources	In-Text Example	Reference List Example
Personal communication, email, discussion lists (no web archive)	This was later confirmed (Savieri S 1999, personal communication, April 24) that an outbreak occurred in London at	Not included in reference list as they cannot be traced by the reader.
	this time.	
Citing unpublished work using numbered references: Give ‘(Unpublished)’ at the end of a reference if the information is not readily available or obvious.		Matthews C, Van Rensburg A, Schierhout G, Coetzee N. The potential of syndromic management to improve the care of patients at an STD clinic in Cape Town. Medical Research Council and Department of Community Health, University of Cape Town; 1997 (Unpublished report). Thapisa A. Co-operation with the University of Botswana. [Personal interview, 10 March] Cape Town; 1998 (Unpublished).
Films and video recordings	... as seen in the Lonergan film, You Can Count on Me ⁴⁴ .	44. Scorsese M, producer; Lonergan K, director. You can count on me [motion picture]. United States: Paramount Pictures; 2000.
Television and radio programmes	...then AMA chief, in a television interview. ⁴⁵	45. The medical profession in the 1990s [television broadcast]. The MacNeil/Lehrer news hour. New York, Washington D.C.: Public Broadcasting Service; 1993 Oct 11.
Podcastin The Wings of a Butterfly – Children, Teenagers and Anxiety ⁴⁶	46. The wings of a butterfly – children, teenagers and anxiety [podcast on the Internet]. Sydney: ABC Radio National; c2005 [updated 2005 Sep 10; cited 2005 Sep 16]. Available from: http://www.abc.net.au/podcast/default.htm#mind .
CD-ROM	...in Anderson’s Electronic Atlas of Haematology ⁴⁷	47. Anderson SC, Poulsen KB. Anderson’s electronic atlas of haematology [CD-ROM]. Philadelphia: Lippincott Williams and Wilkins; 2002.

Email discussion list – web archive	... as discussed by Little ⁴⁹ .	49. Little L. Two new policy briefs. ECPOLICY [discussion list on the Internet]. 2002 Apr 16 [cited 2002 Nov 13]. Available from: http://www.askeric.org/Virtual_Listserv_Archives/ECPOLICY/2002/Apr_2002/Msg0003.html
Government publication	Examples	Australia. Commonwealth Department of Veterans' Affairs and Defence. Australian Gulf War veterans' health study 2003. Canberra: Commonwealth of Australia; 2003. Australian Bureau of Statistics. Disability, ageing and carers: summary of findings. Canberra: ABS; 1999. ABS publication 4430.0.
Association/organisation as author	Examples	Name of organisation. Title of book. Place of publication: Publisher; year. Page(s). Diabetes Prevention Program Research Group. Hypertension, insulin, and proinsulin in participants with impaired glucose tolerance. Hypertension. 2002;40(5):679–86.
Foreign/Translated works	Examples	Ellingsen AE, Wilhelmsen I. [Disease anxiety among medical students and law students]. Tidsskr Nor Laegeforen. 2002 Mar 20;122(8):785–7. Norwegian.
Scientific / Technical report	Examples	Lugg DJ. Physiological adaptation and health of an expedition in Antarctica: with comment on behavioural adaptation. Canberra: A.G.P.S.; 1977. Australian Government Department of Science, Antarctic Division. ANARE scientific reports. Series B(4), Medical science No. 0126.
Unpublished dissertation/thesis	Example	Borkowski MM. Infant sleep and feeding: a telephone survey of Hispanic Americans [unpublished dissertation]. Mount Pleasant (MI): Central Michigan University; 2002.
In Press	Example	Tian D, Araki H, Stahl E, Bergelson J, Kreitman M. Signature of balancing selection in Arabidopsis. Proc Natl Acad Sci U S A. In press 2002.

Referencing software packages in Vancouver	Format: Title (1 space) medium in square brackets [e.g. computer program, computer file](full-stop, 1 space) Version (full-stop, 1 space) Place of production (colon, 1 space) Producer (semicolon, 1 space) Year (full-stop)	Epi Info [computer program]. Version 6. Atlanta (GA): Centers for Disease Control and Prevention; 1994.
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