Factors associated with increased suicidal intent among deliberate self-harm patients treated in the emergency room of an urban hospital in South Africa

Dr Imraan Tayob
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Supervisor
Dr Ian Lewis
Co-supervisor
Professor Jason Bantjes

Declaration

I, Dr Imraan Tayob, hereby declare that this dissertation/thesis is based on my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor part of it has been, is being, or is to be submitted for any degree at this or any other university.

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Authors' Contributions

Principle investigator: Dr Imraan Tayob, Department of Psychiatry & Mental Health, University of Cape Town. **Supervisor:** Dr Ian Lewis, Department of Psychiatry & Mental Health, University of Cape Town. **Co-supervisor:** Prof Jason Bantjes**,** Department of Psychology, Stellenbosch University.

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List of Abbreviations

ER	Emergency Room
DSH	Deliberate self-harm
GSH	Groote Schuur Hospital
PSIS	Pierce Suicidal Intent Scale
SA	South Africa
SES	Socioeconomic Status

Statistical Abbreviations

B (constant)	**The value of the intercept: The intercept is not usually of much interest, it is the value of the dependent variable when the independent variable is zero**.
B (independent variable)	The slope coefficient: The slope coefficient represents the change in the dependent

	variable for a oneunit change in the independent variable.
SE	Standard error of the regression slope: How spread out your variables are around the mean.
95% CI	95% Confidence interval: You can be 95% confident that the true value of the slope coefficient is between these lower and upper bounds.
Standardised Interpretable effect size measure co-efficient β	Standardised coefficients refer to how many standard deviations a dependent variable will change, per standard deviation increase in the independent variable.
p-value	Probability value: Determine whether the slope coefficient is statistically significant, if $p < 0.05$ the slope coefficient is statistically significant – you can also interpret this as meaning that there is a linear relationship in the population.

Article Abstract

Factors associated with increased suicidal intent among deliberate self-harm patients treated in the emergency room of an urban hospital in South Africa

Imraan Tayob, Ian Lewis, Elsie Breet, Jason Bantjes

Prepared for submission to the *South African Journal of Psychiatry (SAJP)*

Background: Seventy-nine percent of global suicides occur in low- to middle-income countries. South Africa has the eighth highest rate of suicide in the world. Suicidal behaviour is one of the most common emergencies faced by psychiatrists and the assessment of suicide risk among deliberate self-harm patients remains challenging. Assessing suicidal intent is integral to managing suicide risk among deliberate self-harm patients, yet there is comparatively little research on the topic in South Africa. Identifying sociodemographic and clinical factors associated with high risk of deliberate self-harm or suicide may be useful for improving patient care and strengthening appropriate referral pathways.

Aim: To determine the sociodemographic and clinical factors associated with increased suicidal intent among deliberate self-harm patients treated in the emergency room of an urban hospital in Cape Town, South Africa.

Methods: Two hundred and thirty-eight consecutive presentations for deliberate self-harm were identified and recorded on a data capture form which obtained information about demographics and clinical characteristics. Suicide intent was measured using the Pierce Suicidal Intent Scale (PSIS, Appendix 6). Pierce Suicidal Intent Scale scores were categorised as low risk (PSIS score <4); medium risk (PSIS score 4–12); high risk (PSIS score >12). Patients categorised as high risk were deemed to have increased suicidal intent. Bivariate and multivariate regression analysis was used to identify factors associated with increased suicide intent.

Results: In our sample of 238 patients, 128 (54%) self-reported an increased suicidal intent defined as a Pierce Suicidal Intent Scale score of greater than 12. Significant associations with

increased suicidal intent were male gender, higher levels of education and having multiple reasons for deliberate self-harm.

Conclusion: Suicide is increasingly recognised as a serious public health problem globally and in South Africa. Determining the sociodemographic and clinical correlates for those at increased risk of suicidal behaviours provides useful information on identifying vulnerable patients. This allows clinicians to improve patient risk assessment and public health awareness interventions may be closer targeted to at-risk groups.

Keywords: Suicide; Suicidal intent; South Africa; Self-harm; Emergency psychiatry

Chapter One

Background and Significance

The World Health Organization reports that close to 800 000 people die due to suicide every year. Suicide is the fourth leading cause of death among 15 to 29-year-olds and 77% of global suicides occur in low- and middle-income countries.[1] South Africa (SA) has the eighth highest rate of suicide in the world. Each year, out of a population of 58 million people living in SA, approximately six to eight thousand people commit suicide, making suicide the third greatest cause of unnatural death in the country, after homicide and unintentional causes.[2]

Emergency rooms (ERs) are a quantifiable point of presentation for deliberate self-harm (DSH) patients. It is important to note that DSH is not always associated with suicidality. There is a distinct difference in the motives for those who deliberately self-harm and those who wish to end their life.[3] Deliberate self-harmers often do not wish to end their lives but they believe that self-harming will reduce their distress. It is this distinct difference that challenges mental health professionals to find appropriate treatments for patients and their families.

Patients who present to hospitals with DSH are triaged and assessed by ER doctors – initially they are assessed to ascertain if medical care is required as a result of DSH behaviours. If no medical care is required, ER doctors will make a decision, based on a patient's level of suicide intent, whether to discharge, refer to social services, or to refer patients to specialist mental health care services for psychiatric evaluation and care. Little is known about the sociodemographic and clinical correlates of this cohort of DSH patients who present with increased suicidal intent. It is hypothesised that these sociodemographic and clinical factors may provide clues as to which patients are at high risk of serious DSH or suicide, and that this information can be used to improve patient care and strengthen appropriate referral pathways.

This dissertation is a sub-study of an existing project entitled, *"An investigation of the epidemiology, psychosocial correlates, and cultural context of deliberate self-harm in South Africa"*. (Ethics number: N13/05/074; Commencement date: 1 Jan 2014), which collected extensive data about a cohort of 270 consecutive patients presenting to the emergency centre of Groote Schuur Hospital following incidents of DSH between 16 June 2014 and 29 March 2015.

The current study investigated the sociodemographic and clinical factors associated with a high level of suicidal intent among DSH patients who presented for treatment in the ER of an urban hospital in Cape Town, SA.

Definition of Key Concepts

Studies of suicide and self-injurious behaviour have been plagued by inconsistent terminology. Historically, different terms have been used to describe deliberate self-harming behaviours and include attempted suicide and parasuicide. The terms themselves can be interpreted differently, and may or may not imply intent.

For the purposes of this study, DSH was defined in accordance with the WHO/Euro Multi-Centre Study on Parasuicide, as *"An act with non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes which the subject desired via the actual or expected physical consequences"*.[4]

Suicidal intent is an essential component of the definition of suicide and suicidal behaviours because it differentiates between accidental and deliberate suicidal behaviours.[5] Suicidal intent has been defined as the seriousness or intensity of a person's wish to terminate their life.[6] The term *level of suicidal intent* is used to describe the intensity of a death wish.[7]

Suicidal intent consists of a conscious wish to be dead, but there are also non-suicidal (conscious or unconscious) reasons, such as trying to manipulate others or escape from an insufferable situation.[5] The distinction is important, as many patients who present with suicidal behaviours may not necessarily want to end their lives but are rather using the attempt to communicate a need for care.[8]

Literature Review

An examination of the literature reveals a growing global interest in the determination of factors associated with increased suicidal intent, however, there is a paucity of local data in this regard.[9] Suicide studies are important in order to develop improved pathways of care in busy ERs as well as prevention strategies and public health interventions.

A review of the literature was conducted to:

1. Determine what data already exist regarding demographic and clinical associations with increased suicidal intent in SA.
2. Review international research on demographic and clinical associations with increased suicidal intent in DSH.
3. Explore the factors associated with increased suicidal intent.

Literature search strategy and quality criteria

We conducted a structured literature search. Four databases were searched, namely, PubMed, MedLine, Google Scholar and PsychInfo, using the following search terms:
"High levels of suicidal intent"; "increased suicidal intent"; "high pierce scores"; "clinical characteristics of suicide attempters"; "self-harm"; "deliberate self-harm"; "nonfatal suicidal injury"

Further articles were obtained by searching local journals – the *South African Medical Journal* (SAMJ) and the *South African Journal of Psychiatry* (SAJP) – for articles published in the last 20 years using the terms "suicide" and "deliberate self-harm".

Inclusion criteria

1. Human subjects
2. English language
3. Articles published in peer-reviewed journals
4. Review or original articles covering DSH.
5. The review focused on articles published in the past 20 years (2000–2020). Articles published earlier were included if they were deemed to be of historical importance or if they presented data not replicated in later studies.

Increasing rates of suicide

The WHO statistics indicate that globally one person dies every 40 seconds from suicide. Furthermore, for each adult lost to suicide there may have been 20 others attempting suicide. Whilst suicide continues to be a serious problem in high-income countries, 77% of all suicides occur in low- and middle-income countries.[1] SA is a middle-income country in which there is a high incidence of suicide. Over the seven-year period (2002–2008), the average annual prevalence of suicide in SA was approximately 13.25 per 1,000,000 and suicide accounted for

approximately 9.6% of all unnatural deaths.[10] These statistics indicate a need for suicide interventions in SA, and the need for further research in this field in order to address this significant public health problem. An analysis of factors associated with high levels of suicidal intent is imperative to identify at-risk groups in SA, and to plan interventions accordingly.

Society versus Individual

In his seminal sociological classic, *le Suicide*, published in 1897, Emile Durkheim illustrates that the suicide rate is, within a general range, fairly constant in societies. Bearman's analysis of Durkheim's work states that the suicide rate over time is, in fact, less variable than the mortality rate over time.[11] However, globally there has been a slow linear increase in the suicide rate over time. Statistics show that this trend is true for the aggregate as well as for specific subgroups, including gender, race or income. Durkheim proposes that despite suicide being an act of self, as the root of the word "sui", meaning "self", suggests, or an individual act, the suicide rate is a social fact, external to that of the individual.[11] It is rather endemic of the social structure of any given society. If we are to examine the social structures of a society in relation to suicide rates and levels of suicidal intent, it is necessary to start with a consideration of the sociodemographics of the given society.

Deliberate Self-Harm in the South African Context

Suicide accounts for almost 10% of national deaths in SA, however, an analysis of regional suicide statistics show that there is some variability between regions compared to the national aggregate.[10] Sociodemographic differences in economics, racial composition, access to health services, cultural differences, and degree of urbanisation vary across regions. This highlights the need for regional enquiry in terms of suicide in order to better plan specific prevention strategies for at-risk groups. In order to plan suicide prevention strategies, there is a need for organised, standardised and accurate data collection, as well as analysis of this data from various geographical sites.

A study conducted in the Eastern Cape looked at the burden of DSH on Critical Care services in the region.[12] It stressed the limited long-term data in SA for completed suicide, attempted suicide and parasuicide (collectively referred to as DSH). The study showed that 55% of all admissions were as a result of ingesting insecticides containing organophosphate. The authors highlight the significant costs to health care as a result of DSH, and that there was no statistical significance in the means of annual admission rates over a five year period.[12] The study also

found that there was no significant difference between male and female survival rates in patients admitted to critical care units secondary to DSH. The study emphasised the need for improved psychological and psychiatric services in the Eastern Cape, as well the need to improve public health education on the dangers of ingesting toxic substances.

A study conducted in KwaZulu-Natal assessed the profiles of patients and reasons for admission following DSH.[8] Sociodemographic findings from this study are consistent with those of other studies on DSH – more females were presented to ERs with DSH, there was no gender difference in attempted suicides, and men were more likely to complete suicide than women.[8] Attempted suicide was assessed from the notes of patient folders, as opposed to a suicidal intent screening tool. The study highlighted the need for a validated screening tool to identify patients at risk of DSH and the need to explore community-based interventions, which could address reasons for DSH and prevent future admissions.

A recent study conducted in 2018 in Bloemfontein, SA, looked at the profile of deliberate self poisoning patients who presented to Pelonomi Regional Hospital. This study showed that deliberate self poisoning mostly occurred among females in the age group 20 to 29 years old. Most of the patients resided in poor socioeconomic areas, and faced relationship, marital, employment and other psycho-socioeconomic problems.[13] The study stressed the need for improved psychosocial support by community counsellors, social workers and psychologists to the age group mostly affected. It recommended that specific areas of focus should include schools, hospitals, places of employment and homes, especially those situated in areas associated with poor socioeconomic status (SES).[13]

Global Studies on Deliberate Self-Harm

There is a paucity of data on the characteristics of DSH patients in SA and other parts of the world. Understanding the intent of suicide attempters may help improve the effectiveness of suicide prevention strategies.[14] A study conducted in Korea looked at characteristics of high intent suicide attempters admitted to ERs. The study examined the differences in suicide-related and clinical variables according to the degree of suicidal intent. The authors noted that suicide victims and survivors differed in terms of demographic and clinical characteristics. The study revealed that premeditation, older age, and sustained suicidal ideation were characteristics of individuals with high suicidal intent, and suggested that it is necessary to evaluate and monitor these factors to prevent repeated suicide attempts.[14]

A study conducted in Lisbon, Portugal, over a three year period, published in 2015, catagorised patients who were admitted to an urban psychiatric ER, following suicidal behaviour. They reported on satisfaction levels among patients treated in the ER after an episode of DSH, parasuicide or suicide attempt.[15] By determining these results, the authors hoped to enhance practice in psychiatric ER settings by increasing the quality of patient care, and referring patients for more adequate psychiatric care. In the study, suicidal intentionality was evaluated with the Pierce Suicide Intent Scale. Highly intentional suicidal behaviour was higher in males, people with social problems and those who had psychiatric conditions or a familial psychiatric history. The predominant variables correlating with higher suicidal intentionality were similar to those described in studies conducted in other countries.[15] These studies highlighted the need for further studies to improve the understanding of suicidal behaviour observed in this Portuguese ER.

A study conducted in South India assessed suicidal intent scores among a sample of young suicide attempters aged 15 to 24 years old who presented to an emergency department, and identified factors associated with suicide intent among the cohort. The authors highlighted that very few studies in developing countries examined correlates of suicidal intent in young patients.[16] This study revealed that suicide intent scores varied significantly depending on the presence or absence of psychiatric morbidity. High levels of intent of suicide in young individuals was associated with psychiatric morbidity as well as with the presence of hopelessness. Statistical analysis showed hopelessness to be a key predictor of suicidal intent. The study concluded that an assessment of suicidal intent and hopelessness among young attempters is important and may help identify high-risk individuals who need significant psychiatric interventions.

The Estonian-Swedish Mental Health and Suicidology Institute conducted a study as part of The World Health Association's worldwide intervention study on suicidal behaviour. The aim was to characterise the severity of attempted suicide by extracting the components of suicidal intent using the Pierce Suicide Intent Scale and analysing levels of suicidal intent by gender, age, and variables indicating the severity of attempted suicide.[17] Their study showed that the level of suicidal intent was not gender-dependent, but increased with age. Classified in age groups, their unequivocally expressed "wish to die" was similar, but equivocal communication (components termed "arrangements" and "circumstances") increased with age. Middle-aged

groups scored higher for the "alcohol/drugs" component. Psychiatric diagnosis, method of attempting suicide, and duration of hospitalisation were linked to suicidal intent, but danger to life was not.[17] Furthermore, they concluded that in suicide risk assessment, results from a Suicidal Intent Scale contribute to clinical observation and add valuable information about a suicidal person's real intention.

A comparison of the global studies on suicide and DSH, highlighted above, indicate that whilst there are sociodemographic and clinical correlates that are common in patients who present with DSH, others factors are unique, or less significant in different countries or societies. The Korean study[14] revealed that individuals with high suicidal intent were significantly older, were more likely to have a diagnosis of depression, and had higher rates of premeditation and sustained suicidal ideation. Similarly, the Swedish studies[17] found that increased intent was associated with advanced age and a co-morbid psychiatric diagnosis. In addition, drug and alcohol use was associated with increased risk, but in contrast, the studies found gender to be insignificant. This was in contrast to the Portuguese study which highlighted male sex to be an important risk factor for suicide. As with the Korean and Swedish studies, the Portuguese and Indian[16] studies found that a psychaitriac history was predictive of intent.

Rationale for the Study

DSH is an increasing global health problem, even more so in developing countries such as SA. Suicide rates are less variable than mortality rates, but have shown a constant increase over time. Globally, studies have been conducted to try and establish at-risk groups, and in so doing, plan interventions accordingly. In SA, limited data exist on those who present with DSH, and there are differences across regions. An examination of the factors associated with patients who present with high levels of suicidal intent is needed. In doing so, at-risk groups can be identified and more appropriate interventions for these specific groups can be developed to lessen the burden that suicidal behaviours pose.

Aim of the Research

The aim of the research is to determine the sociodemographic and clinical factors associated with increased suicidal intent among DSH patients who presented for treatment in the ER of an urban hospital in Cape Town, SA.

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Chapter Two: Publication Ready Manuscript Prepared for the *South African Journal of Psychiatry*

Factors associated with increased suicidal intent among self-harm patients treated in the emergency room of an urban hospital in South Africa

Imraan Tayob, Ian Lewis, Elsie Breet, Jason Bantjes

Abstract

Background: Seventy-nine percent of global suicides occur in low- to middle-income countries. South Africa has the eighth highest rate of suicide in the world. Suicidal behaviour is one of the most common emergencies faced by psychiatrists and the assessment of suicide risk among deliberate self-harm patients remains challenging. Assessing suicidal intent is integral to managing suicide risk among deliberate self-harm patients, yet there is comparatively little research on the topic in South Africa. Identifying sociodemographic and clinical factors associated with high risk of serious deliberate self-harm or suicide may be useful for improving patient care and strengthening appropriate referral pathways.

Aim: To determine the sociodemographic and clinical factors associated with increased suicidal intent among deliberate self-harm patients treated in the emergency room of an urban hospital in Cape Town, South Africa.

Methods: Two hundred and thirty-eight consecutive presentations for deliberate self-harm were identified and recorded on a data capture form which obtained information about demographics and clinical characteristics. Suicide intent was measured using the Pierce Suicidal Intent Scale (PSIS). Pierce Suicidal Intent Scale scores were categorised as low risk (PSIS score <4); medium risk (PSIS score 4-12); high risk (PSIS score >12). Patients categorised as high risk were deemed to have increased suicidal intent. Bivariate and multivariate regression analysis was used to identify factors associated with increased suicide intent.

Results: In our sample of 238 patients, 128 (54%) self-reported an increased suicidal intent defined as a Pierce Suicidal Intent Scale score of greater than 12. Significant associations with

increased suicidal intent were male gender, higher levels of education and having multiple reasons for deliberate self-harm .

Conclusion: Suicide is increasingly recognised as a serious public health problem globally and in South Africa. Determining the sociodemographic and clinical correlates for those at increased risk of suicidal behaviours provides useful information on identifying vulnerable patients. This allows clinicians to improve patient risk assessment and public health awareness interventions may be closer targeted to at-risk groups.

Keywords: Suicide; Suicidal intent; South Africa; Self-harm; Emergency psychiatry

Introduction

The World Health Organization reports that close to 800 000 people die due to suicide every year. Suicide is the second leading cause of death among 15 to 29 year-olds and 77% of global suicides occur in low- and middle-income countries.[1] South Africa (SA) has the eighth highest rate of suicide in the world. Each year approximately six to eight thousand people complete suicide, making suicide the third highest cause of unnatural death in the country, after homicide and unintentional causes. These statistics are evidence that suicide is a serious public health problem in SA. An examination of the literature reveals a growing global interest in the determination of factors associated with higher levels of suicidal intent, however, there is a paucity of local data in this regard. Suicide studies are important in order to develop improved pathways of care in busy emergency rooms (ERs) as well as prevention strategies and public health interventions.

Self-harm patients who present to hospitals are triaged and assessed by ER doctors – initially they are assessed to ascertain if medical care is required as a result of self-harm behaviours. If no medical care is required, ER doctors will make a decision, based on a patient's level of suicide intent, as to whether to discharge, refer to social services, or to refer patients to specialist mental health care services for psychiatric evaluation and care. Distinguishing between these two groups of patients can often be difficult. Huang et al.[2] attempted to determine if these two patient groups were easily distinguishable and found in their sample of 954 participants that no simple alghorithm could accurately distinguish between these two groups. Little is known about the sociodemographic and clinical factors of this cohort of deliberate self-harm (DSH) patients who present with increased suicidal intent. These sociodemographic and clinical factors may provide clues as to which patients are at high risk of serious DSH or suicide, information which can be used to improve patient care and strengthen appropriate referral pathways.

Deliberate Self-Harm in South Africa

Suicide accounts for almost 10% of national deaths in SA, however, an analysis of regional suicide statistics show that there is some variability between regions compared to the national aggregate.[3] Sociodemographic differences in economics, racial composition, access to health services, cultural differences, and degree of urbanisation vary between regions. This highlights the need for regional enquiry in terms of suicide in order to better plan specific prevention strategies for at-risk groups. In order to plan suicide prevention strategies, there is a need for

organised, standardised and accurate data collection, as well as analysis of this data from various geographical sites.

A study conducted in KwaZulu-Natal assessed the profiles of patients and reasons for admission following DSH. Sociodemographic findings from this study are consistent with those of other studies on DSH – more females were presented to ERs with DSH, there was no gender difference in attempted suicides, and men were more successful in completing suicide than women.[4] Attempted suicide was assessed from the notes of patient folders, as opposed to a suicidal intent screening tool. The study highlighted the need for a validated screening tool for the identification of patients at risk of DSH. It further pointed out the need to explore community-based interventions which could address reasons for DSH and prevent future admissions.

A recent study, conducted in 2018 in Bloemfontein, looked at the profile of deliberate self poisoning patients who presented to Pelonomi Regional Hospital. This study showed that deliberate self poisoning mostly occurred among females aged 20 to 29 years old. Most of the patients resided in areas with poor socioeconomic status (SES), and faced relationship, marital, employment and other psycho-socioeconomic problems.[5] The study stressed the need for improved psychosocial support by community counsellors, social workers and psychologists to the age group most affected. It recommended that specific areas of focus should include schools, hospitals, places of employment and homes, especially those situated in areas associated with poor SES.[5]

Global Studies on Deliberate Self-Harm

As in SA, there is a lack of in-depth data regarding the characteristics of DSH patients globally. A Korean study[6] noted that suicide victims and survivors differed in terms of demographic and clinical characteristics. The study revealed that premeditation, older age, and sustained suicidal ideation were characteristics of individuals with high suicidal intent, and suggested that it is necessary to evaluate and monitor these factors to prevent repeated suicide attempts. A Portuguese study evaluating suicidal intentionality with the Pierce Suicide Intent Scale found that highly intentional suicidal behaviour was related to male sex, social problems and personal and familial psychiatric history. The most important variables correlated with higher suicidal intentionality were similar to those described in other countries.[7] A study conducted in South India[8] revealed that suicide intent scores varied significantly depending on the presence or

absence of psychiatric morbidity. High levels of intent of suicide in young individuals was associated with psychiatric morbidity as well as with the presence of hopelessness.

The Estonian-Swedish Mental Health and Suicidology Institute conducted a study as part of The World Health Association's worldwide intervention study on suicidal behaviour. The aim was to characterise the severity of attempted suicide by extracting the components of suicidal intent using the Pierce Suicide Intent Scale and analysing levels of suicidal intent by gender, age, and variables indicating the severity of attempted suicide. (Sisask et al., 2009). Their study showed that the level of suicidal intent was not gender-dependent, but increased with age. Middle-aged groups scored higher for the 'alcohol/drugs' component. Psychiatric diagnosis, method of attempting suicide, and duration of hospitalisation were linked to suicidal intent, but danger to life was not.[9] Furthermore, they concluded that in suicide risk assessment, results from a Suicidal Intent Scale contribute to clinical observation and add valuable information about a suicidal person's real intention.

A comparison of the global studies on suicide and DSH, highlighted above, indicate that whilst there are sociodemographic and clinical correlates that are common in patients who present with DSH, others factors are unique, or less significant in different countries or societies. The Korean study revealed that individuals with high suicidal intent were significantly older, were more likely to have a diagnosis of depression, had higher rates of premeditation, and sustained suicidal ideation. Similarly, the Swedish studies found that risk also increased with age and a co-morbid psychiatric diagnosis. In addition, drug and alcohol use was found to be associated with increased risk, but, in contrast, gender was found to be insignificant. This was in contrast to the Portuguese study which highlighted male sex to be an important risk factor for suicide. Like the Korean and Swedish studies, the Portuguese and Indian studies found that a psychiatric history was predictive of intent.

DSH is an increasing global health problem, even more so in developing countries such as SA. Suicide rates are less variable than mortality rates, but have shown a constant increase over time. Globally, studies have been conducted to try and establish at-risk groups, and in doing so plan interventions accordingly. In SA, limited data exist on those who present with DSH, and differences in regional statistics exist. A closer examination of the factors associated with patients who present with high levels of suicidal intent needs to be conducted. In doing so, at-risk groups can be identified and more appropriate interventions can be developed to lessen the

burden that suicide poses. The current study investigated the sociodemographic and clinical factors associated with a high level of suicidal intent among DSH patients who presented for treatment in the ER of an urban hospital in Cape Town, SA.

Materials and Methods

Methods

Study Design, Setting, and Sampling

We set out to (1) determine the proportion of the sample with increased suicidal intent based on the PSIS; (2) determine the sociodemographic correlates of increased suicidal intent; (3) determine which combination of sociodemographic factors are most strongly associated with suicidal intent; (4) determine which clinical characteristics were asossiated with increased suicidal intent; (5) to determine which clinical variables predicted suicidal intent when controlling for social demographic factors.

Definitions of DSH are highly contested and the construct is difficult to operationalise. For this study, we defined DSH in accordance with the WHO/Euro Multi-Centre Study on Parasuicide as: 'An act with non-fatal outcome, in which an individual deliberately initiates a non-habitual behaviour that, without intervention from others, will cause self-harm, or deliberately ingests a substance in excess of the prescribed or generally recognised therapeutic dosage, and which is aimed at realising changes which the subject desired via the actual or expected physical consequences' (pp. 99).[10]

For this cohort study data were collected from 270 consecutive DSH patients who presented to the ER at Groote Schuur Hospital in Cape Town, SA between 16 June 2014 and 29 March 2015.

Patients were routinely asessed by medical staff in the ER upon presentation. Data relevant to this study were drawn from the clinical files and recorded on pro forma data collection forms. Quality checks were perfomed on the data. Following exclusion criteria, 238 patients were included in the study. Cases were excluded if their files were misplaced or insufficient information was available in the patient file (17 patients); if the patient had already been included in the sample on a prior presentation to the hospital during the period of data collection (9 patients); if the patient discharged themselves from hospital before data was captured (1 patient); or if the patient demised as a result of their injuries (5 patients).

Measures

The following data were collected:

Demographic Information

Patient age, gender, relationship status, number of dependents, level of education, and employment status were recorded. SES was based on annual family income and recorded as low to moderate SES (ZAR0 to ZAR76 800) and high SES (ZAR76 801 to ZAR2 547 601).

Motives for DSH

Patients' 'stated reasons' for engaging in DSH were recorded and were regarded as a reflection of their motive for DSH. The 'stated reasons' were grouped into the following motives: 'financial concerns', 'marital/romantic relationship issues', 'family conflict', 'medical illness', 'psychiatric illness', 'bereavement', 'academic concerns', 'unplanned pregnancy', 'not known' and 'other (specified)'.

Method of DSH

Information relating to the method of DSH revealed overdosing on 'prescription' or 'non-prescription' medication, 'ingestion or inhalation of poison', infliction of a 'gun shot' or 'laceration', as well as 'immolation', 'hanging' or 'asphyxiation'.

The Severity of DSH

Severity of DSH was captured using two variables: (1) whether or not a medical intervention was required (with options being: 'none', 'sutured', 'activated charcoal', 'oral medical treatment', 'IV medical treatment', 'intubation and ventilation', 'dialysis', or 'surgical treatment'); and (2) the patient's Glasgow Coma Scale (GCS)[11] score on admission to the ER. The GCS was used to measure the level of responsiveness to stimuli (i.e., level of consciousness). In this study, we regarded a score of 13 to 15 to indicate no or minimal depression in level of consciousness (LOC), a score of 9 to 12 to indicate a moderately depressed LOC, and a score of 8 or less to indicate a significantly depressed LOC.

Suicidal Intent

Suicidal intent was measured in two ways: (1) the patient's stated intentions were recorded, and this information was used to identify patients who said they intended 'to die' as a result of their injuries; and (2) the 12-item Pierce Suicidal Intent Scale (PSIS)[12] was used to objectively measure the level of suicidal intent. The PSIS total scores range between zero and 25, where a

PSIS score of below 11 indicated 'low to moderate suicidal intent' and a score of 11 and above indicated 'high suicidal intent'. The PSIS assesses suicide intent by obtaining information on 12 items, namely: (1) Isolation; (2) Timing; (3) Precautions against rescue; (4) Acting to get help; (5) Final acts in anticipation; (6) Suicide note; (7) Lethality; (8) Stated intent; (9) Premeditation; (10) Reaction to act; (11) Predictable outcome; and (12) Death without medical intervention. Item (1) to (6) form the 'circumstances score', (7) to (10) form the 'self-report score' and items (11) and (12) the 'medical risk score'.[12] The PSIS is a validated and reliable measure of suicidal intent. Sisask et al.[9] reported that the scale contributed to clinical observation and added useful information regarding suicidal intent. Krishna et al.[13] reported that the PSIS was not weak across cultural difference as it is based on documented behaviours or acts at the time of the DSH. In this study, the PSIS was successfully translated to a South Indian language and was a suitable assessment of suicidal intent in this context.[13]

Data Management and Statistical Analysis

All analyses was conducted using SPPS Version 25, with the threshold for statistical significance set at $\alpha = 0.05$. Descriptive statistics were generated to describe demographic and clinical characteristics. Categorical information was summarised by frequencies and percentages, and numerical (continuous) variables by means and standard deviations.

A series of linear regressions were run to determine which sociodemographic and clinical variables predicted PSIS scores. Thereafter, seven seperate multiple linear regression analyses were run to determine which clinical factors (while controlling for demographic variables) remained significant predictors of intent. Alpha was set at 0.05 and the results of all regression analyses are reported as adjusted Beta coefficients with 95% confidence intervals (CIs).

Ethical Considerations

The data used in this study were collected as part of a larger study which received ethical approval from the Human Research Ethics Committee (HREC) of the Universoty of Cape Town as well as the appropriate hospital authorities prior to data collection. This sub-study was granted additional ethical approval from the HREC. The information collected from each patient record was assigned a unique number and stored on a password-protected computer to protect patient confidentiality.

Results

Sample Characteristics

One hundered and twenty-eight (54%) patients reported increased suicidal intent with respect to the PSIS. The subsequent results report only on these patients. The average age was 29.4 years (SD = 13 years). The majority of the sample were female (n = 87, 68%); population group: 104 (81%); low SES: 71 (56%); had no dependants: 84 (66%); were in a relationship: 96 (75%); had secondary school or higher level of education: 74 (58%); and were unemployed: 68 (53%).

Sociodemographic Factors Associated with Suicidal Intent

Simple linear regression analysis was done to determine associations between sociodemographic variables (gender, race, SES, dependants, relationship status, employment status, and educational level) and suicidal intent (see Table 1). The only sociodemographic characteristic that was significantly associated with suicidal intent was educational level (p = .001). A one-unit increase in educational level resulted in a 2.94 (95% CI, 1.21 to 4.67) unit increase in suicidal intent scores on the PSIS.

Table 1. Simple linear regression analysis of sociodemographic factors associated with suicidal intent among deliberate self-harm patients (n = 128)

		Unstandardised coefficients				
Model		B	SE	95% CI	β	*p*
1	Constant	12.3	1.67	9.04 – 15.6		<.001**
	Male gender	1.56	0.96	-0.33 – 3.45	-0.14	.110
2	Constant	6.95	1.53	3.93 – 9.99		<.001**
	Population group	2.41	1.28	-0.12 – 4.94	0.17	.060
3	Constant	7.29	1.39	4.55 – 10.03		<.001**
	High SES	1.68	0.94	-0.18 – 3.54	0.17	.080
4	Constant	9.73	0.56	8.63 – 10.83		<.001**
	Has dependents	0.01	0.94	-1.90 – 1.92	<0.01	.990
5	Constant	8.83	1.04	6.77 – 10.9		<.001**
	In a relationship	1.05	1.15	-1.24 – 3.33	0.08	.370
6	Constant	8.02	0.67	6.7 – 9.33		<.001**
	Secondary or higher education	2.94	0.87	1.21 – 4.67	0.29	.001**
7	Constant	8.60	1.37	5.88 – 11.3		<.001**
	Unemployed	0.77	0.89	-0.99 – 2.54	0.08	.390

A multiple linear regression analysis was conducted to determine which combination of sociodemographics are most strongly associated with suicidal intent (see Table 2). As shown in Table 2, gender and educational level were the only sociodemographic variables that make a statistically significant contribution to the multivariate model. Predicted suicidal intent for males was associated with 2.61 (95% CI, 0.52 to 4.69) units greater than that predicted for females. Suicidal intent for secondary school or higher level of education was associated with 3.64 (95% CI, 1.53 to 5.75) units greater than that predicted for primary school education.

Table 2. Multiple regression analysis of sociodemographic factors associated with suicidal intent among deliberate self-harm patients (n = 128)

		Unstandardised coefficients				
Model	Proportion of sample	B	SE	95% CI	β	*p*
Constant		3.5	2.99	-2.44 – 9.44		.250
Male gender	32	2.61	1.05	0.52 – 4.69	0.24	.020*
White	14.1	0.91	1.60	-2.27 – 4.09	0.06	.570
High SES	35.9	0.7	1.04	-1.36 – 2.76	0.07	.500
Has dependents	32.8	1.76	1.14	-0.51 – 4.04	0.17	.130
In a relationship	75	0.92	1.33	-1.71 – 3.55	0.08	.490
Secondary or higher	57.8	3.64	1.06	1.53 – 5.75	0.37	.001**
Unemployed	53.1	0.05	1.05	-2.05 – 2.14	0.01	.970

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

Clinical Characteristics Associated with Suicidal Intent

Linear regression analysis was used to determine which clinical variables (having multiple stated reasons for DSH, acute use of substance, chronic hazardous substance use, method of DSH, multiple methods of DSH, history of DSH, duration of hospital admission) predicted suicidal intent when variables are entered into the analysis on their own (see Table 3). The clinical characteristics that were significantly associated with suicidal intent included having multiple stated reasons for DSH ($p < .001$) and multiple methods of DSH ($p = .04$). A one-unit increase in number of reasons for DSH resulted in a 3.68 (95% CI, 1.97 to 5.39) unit increase in suicidal intent scores on the PSIS. Those who used multiple methods of DSH scored 7.40 (65% CI, 0.32 to 14.50) units higher on the PSIS compared to those who used a single method of DSH.

Table 3. Simple linear regression analysis of clinical factors associated with suicidal intent (*n* = 128)

Model		Unstandardised coefficients				
		B	SE	95% CI	β	*p*
1	Constant	8.42	0.55	7.34 – 9.51		<.001**
	Multiple stated reasons for deliberate self-harm	3.68	0.86	1.97 – 5.39	0.34	<.001**
2	Constant	8.74	2.1	4.58 –12.89		<.001**
	No acute use substances at time of deliberate self-harm	0.55	1.14	-1.7 –2.79	0.04	.630
3	Constant	9.7	0.54	8.63 – 10.8		<.001**
	Chronic hazardous substance use	0.28	0.98	-1.67 – 2.22	0.03	.780
4	Constant	9.66	0.46	8.74 – 10.6		<.001**
	Violent method of deliberate self-harm	1.34	2.13	-2.87 – 5.56	0.06	.530
5	Constant	9.6	0.45	8.72 – 10.5		<.001**
	Multiple methods of deliberate self-harm[a]	7.4	3.58	0.32 – 14.5	0.18	.040*
6	Constant	9.91	0.76	8.41 – 11.4		<.001**
	History of deliberate self-harm	0.88	1.07	-1.25 – 3.02	0.09	.410
7	Constant	9.22	0.55	8.13 – 10.3		<.001**
	Longer duration of hospital stay	0.12	0.08	-0.03 – 0.27	0.14	.120

Note. [a]Violent and non-violent methods used. *$p < .05$. **$p < .01$. ***$p < .001$.

Multiple linear regression analyses were done to determine which clinical variables predicted suicidal intent, after controlling for sociodemographic factors. Results (see Table 4) indicated that when the sociodemographic variables were controlled for, having multiple stated reasons for DSH remained statistically significant ($p = .02$) while multiple methods of DSH were no longer a statistically significant ($p = .170$) predictor of suicidal intent. Patients with multiple stated reasons for DSH had suicidal intent values that were 2.43 (95% CI, 0.48 to 4.37) units greater than having a single stated reason for DSH.

Table 4. Multiple linear regression analysis of sociodemographic and clinical predictors of suicidal intent (n = 128)

Model	Model	% of predictor in sample	Unstandardised coefficients			β	*p*
			B	SE	95% CI		
1	Constant		2.89	2.99	-3.05 – 8.84		.340
	Multiple reasons for deliberate self-harm	37.5	2.43	0.98	0.48 – 4.37	0.25	.020*
	Male gender	32	2.24	1.06	0.13 – 4.34	0.22	.040*
	White	14.1	0.74	1.57	-2.39 – 3.87	0.05	.640
	High SES	35.9	1.13	1.09	-1.04 – 3.29	0.11	.300
	Has dependents	32.8	1.72	1.18	-0.62 – 4.06	0.17	.150
	In a relationship	75	1.51	1.37	-1.22 – 4.24	0.13	.280
	Secondary school or higher education	57.8	2.64	1.11	0.44 – 4.84	0.25	.020*
	Unemployed	53.1	-0.14	1.04	-2.22 – 1.93	-0.02	.890
2	Constant		1.66	4.08	-6.44 – 9.76		.680
	No acute substance use	80.5	0.82	1.22	-1.61 – 3.25	0.07	.510
	Male gender	32	2.63	1.05	0.54 – 4.72	0.25	.010*
	White	14.1	1.07	1.62	-2.16 – 4.29	0.07	.510
	High SES	35.9	0.71	1.04	-1.36 – 2.77	0.07	.500
	Has dependents	32.8	1.66	1.16	-0.65 – 3.96	0.16	.160
	In a relationship	75	1.03	1.34	-1.63 – 3.69	0.08	.450
	Secondary school or higher education	57.8	3.6	1.07	1.48 – 5.73	0.36	.001**
	Unemployed	53.1	0.14	1.07	-1.98 – 2.25	0.01	.900
3	Constant		4.3	3.12	-1.9 – 10.5		.170
	Chronic harzadous substance use	69.5	0.32	1.05	-1.76 – 2.4	0.03	.760
	Male gender	32	2.53	1.07	0.4 – 4.66	0.24	.020*
	White	14.1	0.75	1.62	-2.47 – 3.96	0.05	.650
	High SES	35.9	0.8	1.06	-1.23 – 2.9	0.08	.450
	Has dependents	32.8	1.58	1.17	-0.74 – 3.91	0.15	.180
	In a relationship	75	0.6	1.38	-2.14 – 3.33	0.05	.670
	Secondary school or higher education	57.8	3.44	1.09	1.28 – 5.61	0.35	.002**
	Unemployed	53.1	-0.18	1.09	-2.34 –1.98	-0.02	.870
4	Constant		3.5	3.0	-2.47 – 9.47		.250
	Violent method of deliberate self-harm	4.7	1.24	2.39	-3.51 – 5.99	0.05	.610
	Male gender	32	2.57	1.06	0.47 – 4.67	0.24	.020*
	White	14.1	0.9	1.61	-2.3 – 4.09	0.06	.580
	High SES	35.9	0.63	1.05	-1.46 – 2.72	0.06	.550
	Has dependents	32.8	1.8	1.15	-0.49 – 4.08	0.17	.120
	In a relationship	75	0.9	1.33	-1.75 – 3.54	0.07	.500
	Secondary school or higher education	57.8	3.65	1.07	1.53 – 5.77	0.37	.001**
	Unemployed	53.1	0.1	1.06	-2.01 – 2.21	0.01	.930
5	Constant		3.33	2.98	-2.59 – 9.25		.270
	Multiple methods of deliberate self-harm	1.6	6.49	4.69	-2.83 – 15.81	0.13	.170
	Male gender	32	2.36	1.06	0.25 – 4.46	0.22	.030*
	White	14.1	1.17	1.60	-2.01 – 4.35	0.08	.470
	High SES	35.9	0.47	1.05	-1.6 – 2.55	0.05	.650
	Has dependents	32.8	1.77	1.14	-0.5 – 4.03	0.17	.120
	In a relationship	75	0.93	1.32	-1.69 – 3.55	0.08	.480

	Secondary school or higher education	57.8	3.58	1.06	1.48 – 5.69		.001**
	Unemployed	53.1	0.19	1.06	-1.9 – 2.29	0.02	.860
6	Constant			3.61	-2.05 – 12.39		.160
	History of deliberate self-harm	34.4	0.67	1.17	-1.68 – 3.01	0.07	570
	Male gender	32	1.74	1.22	-0.7 – 4.17	0.17	.160
	White	14.1	-1.36	2.01	-5.37 – 2.64	-0.09	.500
	High SES	35.9	2.48	1.32	-0.16 – 5.11	0.25	.070
	Has dependents	32.8	1.98	1.31	-0.65 – 4.6	0.20	.140
	In a relationship	75	1.21	1.59	-1.96 – 4.37	0.10	.450
	Secondary school or higher education	57.8	2.47	1.33	-0.2 – 5.13	0.25	.070
	Unemployed	53.1	-0.71	1.24	-3.2 – 1.78	-0.08	.570
7	Constant		3.52	3.01	-2.46 – 9.5		.250
	Longer hospital stay	-	0.02	0.10	-0.17 – 0.21	0.20	.840
	Male gender	32	2.59	1.06	0.48 – 4.69	0.24	.020*
	White	14.1	0.81	1.68	-2.53 – 4.15	0.05	.630
	High SES	35.9	0.71	1.04	-1.36 – 2.78	0.07	.500
	Has dependents	32.8	1.77	1.15	-0.52 – 4.06	0.17	.130
	In a relationship	75	0.97	1.36	1-72 – 3.67	0.08	.480
	Secondary school or higher education	57.8	3.63	1.07	1.5 – 5.76	0.37	.001**
	Unemployed	53.1	0.03	1.06	-2.058 – 2.14	0.003	.980

Note. *$p < .05$. **$p < .01$. ***$p < .001$.

Discussion

The aim of this study was to determine the sociodemographic and clinical factors that predicted high levels of suicidal intent in patients who presented in an ER in Cape Town, SA. Patients who were male, who had higher levels of education, and who stated multiple reasons for DSH had higher levels of suicidal intent.

We found an effect of gender on suicidal intent, with males having higher levels of intent. This is consistent with a large European cross national study[14] on gender differences in suicidal intent which found that females have less serious intent to die than males. In contrast, a number of other studies demonstrated no difference in suicidal intent between genders.[15,16,17] A study conducted by Seedat and colleagues[18], which reviewed mental health service use among South Africans with mood, anxiety and substance disorders, found that gender was significantly correlated with mental health care service use, particularly for mood disorders. It reported that women were far more likely to seek psychiatric treatment than men. As a result, women were more likely to receive treatment and admission for mood disorders. In contrast, South African men are less likely to receive treatment, and this could translate into presenting to ERs only when in dire need. This highlights the significant gap between the risk of suicide in South African men and their health seeking behaviours, and its effects.

A Mendelian randomisation study[19] with more that 815 000 participants suggested that educational attainment reduces the risk for suicide attempts amongst individuals of European ancestry. This was in contrast to a study by Pompili et al.[20] which found that higher levels of educational attainment were associated with increased suicidal intent. Pompili et al.[20] investigated how level of education influenced completed suicide in an Italian nationwide register study, and concluded that individuals with higher educational avhievement and high premorbid functioning were more prone to suicide risk when facing failures or public shame. It can be postulated that individuals with higher levels of education have a sense of achievement and a greater expectation to do well in a chosen career, or financially. Due to these expectations, failures or setbacks are often met with stark psychological reactions and could attribute to higher levels of suicidal behaviours in this group.[20]

In a study looking at DSH in a SA tertiary hospital,[21] it was reported that there is no single common motive and patients often have a unique narrative and an interplay between multiple stressors. This is consistent with other SA and international studies.[21] Most often, the acute stressor is cited as a reason for suicidal intent, however, the narrative is frequently multifactorial.The current study found that having multiple stated reasons for DSH significantly correlated with higher levels of suicidal intent. This suggests that individuals who present to ERs with suicidal intent within a context of a single stressor or reason, such as unemployment, or a failed relationship alone, may have a lower risk for suicide than those with multiple reasons or stressors. If additional stressors occur in the life of a patient, such patients may significantly increase their risk of suicide. Early identification of these patients is important, followed by the development of psychiatric and psychological care plans that improve coping mechanisms and resilience, thus reducing the risk of suicide.

A proposed South African suicide prevention strategy[22] recommends monitoring suicidal behaviour patterns on an ongoing basis in order to develop appropriate prevention strategies. Focused strategies targeting at-risk groups highlighted by the current study are to be developed.

Limitations of the Study

The limitations of this study are three-fold. First, a small number of patients in the sample size may limit the statistical power to determine factors associated with high levels of suicidal

intent. Second, the study was conducted in one large tertiary hospital in an urban area and so the findings are not representative of all South African population groups, such as those with different SES accessing different health care facilities. Lastly, the information gathered relies largely on the clinical assessment of the ER doctor and this may not be reliable.

Conclusion

Suicide is recognised as a serious public health problem both globally and in SA.[3] This study identifies sociodemographic and clinical correlates for those at increased risk of suicidal behaviours. In our setting, suicidal intent is associated with higher educational attainment and male gender. This quantitative research contributes to the growing body of knowledge on DSH in SA and may be a starting point for future investigation. Similar studies are needed in other regions and in non-urban settings.

Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

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Appendices

Appendix 1: DSH Data Capture Form

Patient identifier:

Sex:

Male	Female

Age: Ethnicity:

Black	Asian	Coloured	White	Unknown

Home language:

Afrikaans	isiXhosa	English	Other (Specify)

Nationality:

South African	Other

Religion:

Christian	Islam	Hindu	Catholic	Other	Not known

Marital status:

Single	Married	Separated	Divorced	Widowed

Number of dependents (children): Completed level of education:

Primary Schooling	Secondary schooling	Tertiary Education (Under graduate)	Post graduate qualification

Employment status:

Unemployed	Employed

Living circumstances:

Income level (SES):

Method of DSH:

		Quantity:
Prescription medication	Benzodiazepines	
	Barbiturates	
	Tricyclics	
	Anti-psychotics	
	SSRIs	
	Analgesics	
	anti-hypertensives	
	iron tablets	
	antiepileptics,	
	antibiotics	
	oral hypoglycemic agents	
	Unknown	
	Other meds (specify)	
	Aspirin	

Non-prescription	**Paracetamol**	
	Other meds (specify)	
Ingestion or inhalation of poison	**Organophosphate**	
	Rat poison	
	Corrosive substance (Acid)	
	Bleach	
	Carbon monoxide	
	Other (specify)	
Gun shot		Site of wound(s):
Laceration		Site of wound(s):
Immolation		
Hanging		
Asphyxiation		

Severity of the act:

		Duration of admission
Level of admission	Seen in casualty and discharged	
	Admitted to C13 (short stay medical unit)	
	Admitted to another medical unit	
	Admitted to high care	
	Admitted to ICU	

Level of intervention	None
	Sutured
	Activated charcoal
	Oral medical treatment
	IV medical treatment
	Intubation and ventilation
	Dialysis
	Surgical procedure

GCS on admission	

Stated intention:

To Die	
To regulate the behaviour of someone else	
To regulate emotional state	
To escape a situation	
Implosive act	
To communicate something (eg. distress)	
Mistake	
Not known	
Other (specify)	

Stated reason for the attempt:

Financial concerns	
Marital / romantic relationship issues	
Family conflict	
Medical illness	
Psychiatric illness	
Bereavement	
Academic concerns (exams or performance at school/university)	
Other (specify)	
Not known	

Previous attempts:

Not known	
No previous attempts	
One previous attempt	

Multiple (2 or more) previous attempts	

History of psychiatric illness (Has the patient received a psychiatric Dx prior to this act of DSH?):

Unipolar mood disorder	
Bi-polar mood disorder	
Anxiety Disorder	
Personality Disorder	
Psychotic Illness (Schizophrenia)	
Substance dependence	
Post-Traumatic Stress Disorder	
Adjustment disorder	
No psychiatric Dx	
Not known	
Other (specify)	

Current Psychiatric Dx (On assessment following the act of DSH):

Unipolar mood disorder	
Bi-polar mood disorder	
Anxiety Disorder	
Personality Disorder	
Psychotic Illness (Schizophrenia)	
Substance dependence	
Post-Traumatic Stress Disorder	
Adjustment disorder	
No psychiatric Dx	
Not known	
Other (specify)	

Receiving psychiatric treatment prior to admission:

Yes	No	Not known

Receiving psychological treatment (psychotherapy) prior to admission:

Yes	No	Not known

Medical Dx not related to the incident of DSH:

HIV status:

HV+	HIV-	Not known

Evidence of alcohol/drug intoxication during the act of DSH:

Yes	Alcohol	
	Cannabis	
	Methaqualone (Mandrax)	
	Cocaine	
	Methamphetamine (Tik)	
	Heroin	
	Solvents	
	Other (specify)	

No	
Not known	

History of substance abuse:

Alcohol abuse	
Cannabis Abuse	
Benzodiazepines	
Methaqualone (Mandrax)	
Cocaine Abuse	
Methamphetamine (Tik) Abuse	
Heroin	
Solvents	
MDMA (Ecstasy)	
Flunitrazipam (Rohypnol)	
Ketamine	
Wellconal (Pinks)	

Psychiatric Plan:

Assessed by psychiatric registrar	Yes	No

Psychotropic meds initiated	No
	Yes (specify)

	No

Psychotropic meds adjusted	Yes (specify)

Input from psychologist	No
	Yes (specify)

Input from social worker	No
	Yes (specify)

Discharged	Discharged without follow up	
	Discharged with follow up at community clinic	
	Discharged follow up at DCAP	
	Discharged with follow-up with drug/alcohol rehab	
	Discharged with follow up in J2	psychiatry
		psychology
	Discharged with referral made to therapeutic unit	G22
		VBH ward 1
		LGH ward 15

Admission	C23 (emergency unity)	voluntary	assisted	involuntary
	G22 (therapeutic unit)	voluntary	assisted	involuntary

Record of follow-up:

No record of follow-up	
Record of follow-up	
Not known	

Appendix 2: Ethical Clearance Human Research Ethics Commitee

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

Room E52-24 Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6492 • **Facsimile** [021] 406 6411
Email: Sumayah.ariefdien@uct.ac.za
Website: www.health.uct.ac.za/research/humanethics/forms

05 February 2014

HREC/REF: 645/2013

Ms L **Fenkel**
Psychiatry & Mental Health
J-block
GSH

Dear Ms Frenkel

Project Title: AN INVESTIGATION OF THE EPIDEMIOLOGY, PSYCHO-SOCIAL CORRELATES, AND CULTURAL CONTEXT OF DELIBARATE SELF-HARM IN SOUTH AFRICA

Thank you for your letter dated 31 January 2014, addressing the issues raised by the 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 28 February 2015.

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

Please note that the on-going ethical conduct of the study remains the responsibility of the principal investigator

Please quote the HREC REF in all your correspondence.

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, HSF HUMAN ETHICS

Federal Wide Assurance Number:
FWA00001637. Institutional Review
Board (IRB) number: IRB00001938

This serves to confirm that the University of Cape Town Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration(FDA-USA), International Convention on Harmonisation Good Clinical Practice (ICH GCP) and Declaration of Helsinki guidelines.

The Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

Hrec/ref:645/2013

Appendix 3: Ethical Clearance Human Research Ethics Commitee

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

Room G 50 Old Main Building
Groote Schuur Hospital
Observatory 7925
Email: hrec-enquiries@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

23 January 2020

HREC REF: 034/2020

Dr Ian Lewis
Department of Psychiatry & Mental Health
J2, GSH

Dear Dr Lewis

PROJECT TITLE: FACTORS ASSOCIATED WITH ELEVATED LEVELS OF SUICIDAL INTENT AMONG SELF-HARM PATIENTS TREATED IN THE EMERGENCY ROOM OF AN URBAN HOSPITAL IN SOUTH AFRICA (LINKED TO 645/20193 MMED CANDIDATE- DR IMRAAN TAYOB)

Thank you for submitting your new study to the Faculty of Health Sciences Human Research Ethics Committee (HREC) for review.

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

Approval is granted for one year until the 30 January 2021.

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)

The HREC acknowledges that the student: Dr Imraan Tayob will also be involved in this study.

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.

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

Please quote the HREC REF in all your correspondence

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, FHS HUMAN RESEARCH ETHICS COMMITTEE
Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938
NHREC-registration number: REC-210208-007

HREC Ref 034/2020
OL

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2006), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines. The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

HUMAN RESEARCH ETHICS COMMITTEE
07 JUL 2021
HEALTH SCIENCES FACULTY
UNIVERSITY OF CAPE TOWN

UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

FACULTY OF HEALTH SCIENCES
Human Research Ethics Committee

FHS016: Annual Progress Report / Renewal

HREC office use only (FWA00001637; IRB00001938)			
This serves as notification of annual approval, including any documentation described below.			
☐ Approved	Annual progress report	Approved until/next renewal date	30.7.22
☐ Not approved	See attached comments		
Signature Chairperson of the HREC/ Designee		Date Signed	7/7/21

Note: Please email this form and supporting documents (if applicable) in a combined pdf-file to hrec-enquiries@uct.ac.za.
Please clarify your plan for research-related activities during COVID-19 lockdown.
Please use the latest form found on our website:
http://www.health.uct.ac.za/fhs/research/humanethics/forms

Comments to PI from the HREC
Thank you for the deviation Account

Principal Investigator to complete the following:

1. Protocol information

Date (when submitting this form)	05/07/2021		
HREC REF Number	034/2020	Current Ethics Approval was granted until	30/01/2021
Protocol title	Factors associated with elevated levels of suicidal intent among self-harm patients treated in the emergency room of an urban hospital in South Africa		

Protocol number (if applicable)	Not Applicable		
Are there any sub-studies linked to this study?		x Yes	☐ No
If yes, could you please provide the HREC Reference number for all sub-studies? **Note:** A separate FHS016 must be submitted for each sub-study.		645/20193	
Principal Investigator	Dr Imraan Tayob		

(Note: Please complete the Closure form (FHS010) if the study is completed within the approval period)

UNIVERSITY OF CAPE TOWN

FACULTY OF HEALTH SCIENCES
Human Research Ethics Committee

Department / Office Internal Mail Address	Department of Psychiatry & Mental Health

1.1 Does this protocol receive US Federal funding?	☐ Yes	x No
1.2 If the study receives US Federal Funding, does the annual report require full committee approval? **Note:** Any annual approvals for **Full Committee** review MUST be submitted on the monthly HREC submission dates. (Please send electronic copy for full committee review to hrec-submission@uct.ac.za)	☐ Yes	x No

If yes in 1.2 please complete section 1.3 below for invoicing purposes

1.3 Ethics Renewal Fee

Please **(tick ✓)** appropriate box for billing purposes:

Submission Type	***Description***	***New fee (Vat Incl.)***	***tick ✓***
Research funded solely from UCT departmental/ divisional/group budget	Annual evaluation of research progress report for re-certification	**R0,00**	☐
Non-sponsored student research for degree purposes at UCT/Other Universities & Colleges	Annual evaluation of research progress report for re-certification	**R0,00**	x
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R7000,00**	☐
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Expedited review	**R3 710.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National grant funded research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R6000.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National Grant funded research for Annual evaluation of research progress report for re-certification for Expedited review	**R1 500,00**	☐

NB: Protocols funded by UCT (e.g. departmental funding / student research) and by certain grant funding organizations (e.g. MRC, NRF, CANSA,) are exempt from these charges.

Please provide details for invoicing, either complete section 1 or 2 :

If yes in 1.2 please complete section 1.3 below for invoicing purposes

1.3 Ethics Renewal Fee

Please **(tick ✓)**appropriate box for billing purposes:

Submission Type	Description	New fee (Vat Incl.)	tick ✓
Research funded solely from UCT departmental/ divisional/group budget	Annual evaluation of research progress report for re-certification	**R0,00**	☐
Non-sponsored student research for degree purposes at UCT/Other Universities & Colleges	Annual evaluation of research progress report for re-certification	**R0,00**	x
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R7000,00**	☐
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Expedited review	**R3 710.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National grant funded research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R6000.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National Grant funded research for Annual evaluation of research progress report for re-certification for Expedited review	**R1 500,00**	☐

NB: Protocols funded by UCT (e.g. departmental funding / student research) and by certain grant funding organizations (e.g. MRC, NRF, CANSA,) are exempt from these charges.

Please provide details for Invoicing, either complete section 1 or 2 :

1. Invoice billing – Directly to Sponsor

Sponsor's name	
Billing Address of Sponsor:	
Vat Number:	

(Note: Please complete the Closure form (FHS010) if the study is completed within the approval period)

If yes in 1.2 please complete section 1.3 below for invoicing purposes

1.3 Ethics Renewal Fee

Please **(tick ✓)**appropriate box for billing purposes:

Submission Type	***Description***	***New fee (Vat Incl.)***	***tick ✓***
Research funded solely from UCT departmental/ divisional/group budget	Annual evaluation of research progress report for re-certification	**R0,00**	☐
Non-sponsored student research for degree purposes at UCT/Other Universities & Colleges	Annual evaluation of research progress report for re-certification	**R0,00**	x
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R7000,00**	☐
Annual re-certification / Progress report (FHS016 Form)	Clinical Trial & International Grant Funded Research - Annual evaluation of research progress report for re-certification for Expedited review	**R3 710.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National grant funded research - Annual evaluation of research progress report for re-certification for Full Committee Approval	**R6000.00**	☐
Annual re-certification / Progress report (FHS016 Form)	National Grant funded research for Annual evaluation of research progress report for re-certification for Expedited review	**R1 500,00**	☐

NB: Protocols funded by UCT (e.g. departmental funding / student research) and by certain grant funding organizations (e.g. MRC, NRF, CANSA,) are exempt from these charges.

Please provide details for Invoicing, either complete section 1 or 2 :

1. Invoice billing – Directly to Sponsor

Sponsor's name	
Billing Address of Sponsor:	
Vat Number:	

(Note: Please complete the Closure form (FHS010) if the study is completed within the approval period)

Contact person	
Telephone number	
Email Address	
2. **Internal Journal Billing:**	
Fund Number:	
Cost Centre Number:	
Account Holder Name:	
Division of Account Holder:	

2. List of documentation for approval

3. Protocol status (tick ✓)

☐	Open Enrolment
☐	Closed to enrolment (tick ✓)
☐	Research-related activities are ongoing
☐	Research-related activities are complete, long-term follow-up only
x	Research-related activities are complete, data analysis only
☐	Main study is complete but sub-study research-related activities are ongoing
☐	Study is closed → Please submit a Study Closure Form (FHS010)

4. Enrolment

Number of participants enrolled to date	
Number of participants enrolled, since last HREC Progress report (continuing review)	
Additional number of participants still required	

5. Refusals

Total number of refusals (participants invited to join the study, but refused to take part)	

(Note: Please complete the Closure form (FHS010) if the study is completed within the approval period)

7. Progress of study

Please provide a brief summary of the research to date including the overall progress and the progress since the last annual report as well as any relevant comments/issues you would like to report to the HREC:
Some delays in data analysis due to COVID-19 pandemic and clinical commitments. Data analysis now done and currently completing final write up.

8. Protocol violations and exceptions (tick ✓ all that apply)

x	No prior violations or exceptions have occurred since the original approval
☐	Prior violations or exceptions have been reported since the last review and have already been acknowledged or approved
☐	Unreported minor violations that have occurred since the last review, as well as significant deviations not yet reported, are attached for review

9. Amendments (tick ✓ all that apply)

x	No Prior amendments have been made since the original approval
☐	Prior amendments have been reported since the last review and have already been approved

(Note: Please complete the Closure form (FHS010) if the study is completed within the approval period)

☐	New protocol changes/ amendments are requested as part of this continuing review (See note below)

Note: If new protocol changes are being requested in this review, please complete an amendment form (FHS006).
Specific changes in the amended protocol and consent/assent forms must be **bolded**, *italicised* or tracked and all changes must include a rationale.

10. Adverse events

10.1 Please provide below or attach a narrative summary of serious adverse events and/ or unanticipated problems since the last progress report. Please indicate changes made to the protocol and informed consent document(s) as a result (if not already reported to the HREC). Please comment on whether causality to any study procedure or intervention could be established.
NIL

10.2 Have participants received appropriate treatment/ follow-up/ referral when indicated (e.g. in the case of abnormal or incidental clinical findings, distress or anxiety)?		
☐ Yes	☐ No	x Not applicable
If yes, please describe:		

11. Summary of Monitoring and Audit Activities (tick ✓)

11.1 Was this study monitored or audited by an external agency (e.g. SAHPRA, FDA)?		
☐ Yes	☐ No	x Not applicable

11.2 Did a Data and Safety Monitoring Board publish a report?		
☐ Yes	☐ No	x Not applicable

11.3 If yes, please identify the agency and attach a summary of the findings.					
Agency Name		Report attached	☐ Yes	☐ No	☐ Not applicable
		DSMB report attached	☐ Yes	☐ No	☐ Not applicable

11.4 Has there been any agency, institutional or other inquiry into non-compliance in this study, or any finding of non-compliance concerning a member of the research team?	
☐ Yes	x No
If yes, please explain:	

12. Level of risk (tick ✓)

12.1 In light of your experience of this research, please indicate whether the level of risk to participants has:	
☐	Increased
☐	Decreased
x	Shown no change
If there has been a change, please explain:	

12.2 Please provide a narrative summary of recent relevant literature that may have a bearing on the level of risk.
N/A

13. Insurance

Please confirm that valid no fault insurance is still in place? **(tick ✓)**			
☐ Yes		x No	
If yes, please complete the following:			
Insurer's name:			
Policy no.		*Coverage Period:	
For UCT sponsored studies please liaise the Insurance office via fhs.sponsorship@uct.ac.za regarding the required documentation and information required obtain a renewed UCT No-fault Insurance Certificate.			

14. Statement of conflict of interest

Has there been any change in the conflict of interest status of this protocol since the original approval? (tick ✓)	
☐ Yes	x No
If yes, please explain and if necessary, attach a revised conflict of interest statement (Section #7 in the New Protocol Application Form FHS013):	

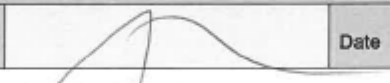
15. Signature

My signature certifies that the above is complete and correct.			
Signature of PI		Date	05/07/2021

HUMAN RESEARCH ETHICS COMMITTEE
07 JUL 2021
HEALTH SCIENCES FACULTY
UNIVERSITY OF CAPE TOWN

UNIVERSITY OF CAPE TOWN
FACULTY OF HEALTH SCIENCES
Human Research Ethics Committee

Form FHS011: Study deviation

HREC office use only (FWA00001637; IRB00001938)			
This serves as acknowledgement of a protocol deviation as described below.			
Chairperson of the HREC signature		Date	7/7/21

Principal Investigator to complete the following:

1. Protocol information

Date (when submitting this form)	06/07/2021
HREC REF Number	034/2020
Project Title	Factors associated with elevated levels of suicidal intent among self-harm patients treated in the emergency room of an urban hospital in South Africa
Protocol number (if applicable)	Not Applicable
Principal Investigator	Dr Imraan Tayob
Department / Office Internal Mail Address	Department of Psychiatry & Mental Health

2. Protocol deviation description

Please describe the deviation below, including the reason why the deviation occurred.
Due to COVID-19 pandemic, I had additional clinical requirements. Over and above this, The Colleges of Medicine South Africa cancelled exams and rescheduled. As a result, time allocated for my thesis regarding timelines was delayed. The above being reasons for required extension of Ethics Approval.

3.1 Please describe any follow-up action(s) taken or planned as a result of this deviation e.g. DSMB reporting, report to sponsor, informing participants.
Intention to Submit MMed minor Dissertation has been processed. No reporting to sponsor or informing of participants required.
3.2 Please describe what action(s) have or will be taken to prevent similar deviations in future.
Intention to submit MMed minor Dissertation has been processed. Awaiting feedback from a co-supervisor, thereafter edits/ correctios (if required) will be made. Thereafter, will proceed to marking process under direction of supervisor(s) and appointed markers.

4. Principal Investigator's acknowledgement of responsibility

Appendix 4: Approval Notice

Approval Notice

Response to Modifications (New Application)

23-Sep-2013
Bantjes, Jason JR

Ethics Reference #: N13/05/074

Title: An investigation of the epidemiology , physcho-social correlates , and cultural context of deliberate self harm in South Africa

Dear Doctor Jason Bantjes,

The **Response to Modifications -** ***(New Application)*** received on , was reviewed by members of **Health Research Ethics Committee 2** via Expedited review procedures on **30-Aug-2013** and was approved.
Please note the following information about your approved research protocol:

Protocol Approval Period: **23-Sep-2013 -23-Sep-2014**

Please remember to use your **protocol number** (**N13/05/074**) on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review:
Please note a template of the progress report is obtainable on www.sun.ac.za/rds and should be submitted to the Committee before the year has expired.
The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.
Translation of the consent document to the language applicable to the study participants should be submitted.

Federal Wide Assurance Number:
00001372 Institutional Review Board
(IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Helene Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.
For standard HREC forms and documents please visit: www.sun.ac.za/rds

If you have any questions or need further assistance, please contact the HREC office at 0219389207.

Included Documents:
APPLIC FORM
DEC LETTER
HLEMENLAND
DEC LETTER
KNIZEL
DEC
LETTER
FRENKEL
DEC
LETTER
LOUW

CV LOUW
DEC LETTER BANTJES
CV BANTJES
CV
HLEMELAND
PROTOCOL

Sincerely,

Mertrude

Davids
HREC Coordinator
Health Research Ethics Committee 2

Appendix 5: Groote Schuur Hospital Approval

Western Cape Government
Health

GROOTE SCHUUR HOSPITAL
Enquiries: Dr Bhavna Patel
E-mail : Bhavna.Patel@westerncape.gov.za

To: Dr Jason Bantjes
Psychology Department
Stellenbosch University
Room 2007
Wilcocks Building

E-mail: jbantjes@sun.ac.za

Dear Dr Bantjes,

RESEARCH PROJECT: AN INVESTIGATION OF THE EPIDEMIOLOGY, PSYCHO-SOCIAL CORRELATES, AND CULTURAL CONTEXT OF DELIBERATE SELF-HARM IN SOUTH AFRICA.

Your recent letter to the hospital refers.

You are hereby granted permission to proceed with your research.

Please note the following:

a) Your research may not interfere with normal patient care
b) Hospital staff may not be asked to assist with the research.
c) No hospital consumables and stationary may be used.
d) No patient folders may be removed from the premises or be inaccessible.
e) Please introduce yourself to the person in charge of an area before commencing.
f) Please discuss the study with the Head of Psychiatry, Prof D. Stein, before commencing.
g) Please provide the research assistant/field worker with a copy of this letter as verification of approval.
h) Confidentiality must be maintained at all times.

I would like to wish you every success with the project.

Yours sincerely

Batel

DR BHAVNA PATEL
CHIEF EXECUTIVE OFFICER
Date: 02 December 2013

G45 Management Suite, Old Main Building,
Observatory 7925

Private Bag X,
Observatory, 7935

Tel: +27 21 404 3178/9 fax: +27 21 404 3121

www.capegateway.go.v.za

Appendix 6: Pierce Suicidal Intent Scale (PSIS)

Suicide risk: the intent score scale and risk of repetition scale

Intent score scale
Add scores for each Area. Evaluation of risk appears at the end.

Circumstances relating to suicidal attempt

Isolation
0 Somebody present
1 Somebody nearby or in contact (as by phone)
2 No-one nearby or in contact

Timing
0 Timed so that intervention is probable
1 Timed so that intervention is unlikely
2 Timed so that intervention is highly unlikely

Precautions against discovery
0 No precautions
1 Passive precautions eg avoiding others but doing nothing to prevent their intervention (eg alone in room, door unlocked)
2 Active precautions (eg locked doors)

Acting to gain help during or after attempt
0 Notified helper regarding attempt
1 Contacted but did not specifically notify helper regarding the attempt
2 Did not contact or notify potential helper

Final acts in anticipation of death
0 None
1 Partial preparation or ideation
2 Definite plans made (eg changes in will, taking out insurance)

Suicide note
0 No note
1 Note written but torn up
2 Presence of note

Self-report Patient's statement of lethality
0 Thought that what he had done would not kill him
1 Unsure whether what he had done would kill him
2 Believed that what he had done would kill him

Stated intent
0 Thought that what he had done would not kill him
1 Unsure whether what he had done would kill him
2 Believed that what he had done would kill him

Premeditation
0 Impulsive, no premeditation
1 Considered act for approx 1 hour
2 Considered act for approx 1 day
3 Considered act for more than 1 day

Reaction to act
0 Patient glad he had recovered
1 Patient uncertain whether he is glad or sorry
2 Patient sorry he has recovered

Risk Predictable outcome in terms of lethality of patient's act and circumstances known to him
0 Survival certain
1 Death unlikely
2 Death likely or certain

Would death have occurred without medical treatment?
0 No
1 Uncertain
2 Yes

Total score:
0-3 Low risk
4-10 Medium risk
11+ High risk

Risk of repetition scale:
Antisocial personality
Problem alcohol use
Not living with a relative
Previous out-patient psychiatric care
Previous suicide admission
Previous in-patient psychiatric care
Scoring: 5+ = significant risk of repetition

Appendix 7: Instructions to authors submitting articles to the *South African Journal of Psychiatry*

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

Corrections

A correction provides the platform to communicate important, scientifically relevant errors or missing information in a published article. Any changes after publication that affect the scientific interpretation (e.g., changes to a misleading portion of an otherwise reliable publication, an error in a figure, error in data that does not affect conclusions or addition of missing details about a method) are announced using a Correction. Read our submission procedure for **corrections** and **publishing policies**.

Compulsory title	The title of the submission should have the following format: 'Corrigendum: Title of original article'.
Submission File	completed **Correction Submission Form** (required)

Compulsory supplementary file	any supporting documents or emails, **Author Change Request Form** (if applicable), **Corresponding Author Change Request Form** (if applicable)

Cover Letter

The authorship, disclosure statements, copyright, and license agreement form is our compulsory cover letter which needs to form part of your submission. Kindly download and complete, in English, the provided **form**.

Anyone that has made a significant contribution to the research and the paper must be listed as an author in your cover letter. Contributions that fall short of meeting the criteria as stipulated in our policy should rather be mentioned in the 'Acknowledgements' section of the manuscript. Read our **authorship** guidelines and **author contribution** statement policies.

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.

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 orsteps 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. Refer to the acknowledgement structure guide on our *Formatting Requirements* page.

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
- Data availability: All research articles are encouraged to have a data availability statement.
- 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.

Review Article full structure

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

Abstract: The abstract should be no longer than 250 words and must be written in the past tense. The abstract should give a concise account of the objectives, methods, results and significance of the matter. The abstract can be structured and should consist of five paragraphs labelled Background, Aim, Method, Results and Conclusion.

- Background: Why is the topic important to us? State the context of the review
- Aim: What is the purpose of your review ? Describe the aim or purpose of your review.
- Method: How did you go about performing the review? Describe the methods used for searching, selecting and appraising your evidence.
- Results: What are the findings? What are the main findings of your literature review.
- Conclusion: What are the implications of your answer? Briefly summarise any potential implications.

Introduction: Present an argument for the social and scientific value of your review that is itself supported by the literature. Present the aim and objectives of your literature review.

Methods: Although this is not a systematic review (see instructions on original research for this type of article) it is still necessary to outline how you searched for, selected and appraised the literature that you used. Discuss any methodological limitations.

Review findings: Present your review of the literature and make use of appropriate sub-headings. Your review should be a critical synthesis of the literature.

Implications and recommendations: Discuss the findings of your review in terms of the implications for policy makers and clinicians or recommendations for future research.

Conclusion: This should clearly state the main conclusions of the review in terms of addressing the original aim and objectives.

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. Refer to the acknowledgement structure guide on our *Formatting Requirements* page.

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
- Data availability: All research articles are encouraged to have a data availability statement.
- 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.

Case Report full structure

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

Abstract: The abstract should be no longer than 250 words and must be written in the past tense. The abstract should give a concise account of the Introduction, Patient presentation, Management and outcome and significance of the matter. The abstract can be structured and

should consist of four paragraphs labelled Introduction, Patient presentation, Management and outcome, and Conclusion.

- Introduction: Describe the context and the reason for publishing this patient study.
- Patient presentation: Describe your 3-stage assessment of the patient.
- Management and outcome: Describe the management plan, progress and final outcome.
- Conclusion: Summarise the lessons learnt and key implications or recommendations.

Introduction: Convey clearly what is particularly interesting about the patient that you want to describe to the reader. It is useful to begin by placing the study in a historical or social context. If similar cases have been reported previously, please describe them briefly. Clarify your aim or objectives in publishing this patient study.

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.

Patient presentation: Describe your patient in detail with consideration of the following aspects:

- Describe the information that was gathered on the patient's medical problem(s) from the consultation, physical examination and results of any investigations.
- Describe the information that was gathered on the patient's perspective of their illness (loss of function, ideas, beliefs, concerns, expectations, or feelings)
- Describe the information that was gathered on the patient's context (family structure and function, occupational issues, environment)
- Provide a 3-stage assessment of the patient's clinical, individual and contextual issues.

Management and outcome: In this section, you should clearly describe the plan for care, as well as the care that was actually provided, how the patient's condition progressed over time and the final outcome.

Discussion: Summarise the key points, lessons learnt and discuss these in relation to the literature. Clarify the implications or recommendations that arise from this patient 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. Refer to the acknowledgement structure guide on our *Formatting Requirements* page.

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
- Data availability: All research articles are encouraged to have a data availability statement.
- 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.