PREVALENCE OF SUICIDAL IDEATIONS AMONG FIRST-YEAR STUDENTS AT THE UNIVERSITY OF THE WESTERN CAPE

MAYA ZOZULYA

A mini-thesis submitted in partial fulfilment of the requirements for the degree of M.A. (Research) Psychology in the Department of Psychology, University of the Western Cape.

Supervisor: Dr Michelle Andipatin

February 2016

ABSTRACT

This mini-thesis aims to gauge the extent of occurrences of suicidal ideations among a sample of first-year students at the University of the Western Cape. The study investigates whether differences among those with suicidal ideations exist with respect to gender, race, religious affiliation and faculty for which students are registered. The sample of the current study consisted of 161 students from two first-year Psychology classes at the University of the Western Cape. Non-probability convenience sampling was used whereby only those students who attended the two lectures were asked to participate in the current study. Students self-completed a questionnaire which included a brief demographic section and a section with the Beck Scale for Suicide Ideation (BSS). The overall occurrence of suicidal ideations in the chosen sample was 26%. No significant differences among those with suicidal ideations in terms of gender, race, religion or faculty were observed. The results of this study highlight the importance of establishing prevention and intervention programmes on university campuses to create more awareness about suicide and offer more education to students on this topic in general, as well as to specifically offer counselling and support to students suffering from suicidal ideations.

DECLARATION

I declare that *Prevalence of Suicidal Ideations among First-Year University Students at the University of the Western Cape* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Maya Zozulya

February 2016

Signed: ……

ACKNOWLEDGEMENTS

First and foremost, I would like to extend a very big thank-you to my parents, Yevgeny and Svetlana Zozulya, for always believing in me and for providing me with endless love and support.

To my fiancé, Desmond Michael Olsen, thank-you for all your support, love, encouragement and patience throughout this process.

To the students who participated in this study, thank-you for your honesty in light of such a difficult topic.

To Rizwana Roomaney, thank-you for your invaluable assistance.

To my supervisor, Dr Michelle Andipatin, a big thank-you for your guidance and never-ceasing faith in me and my abilities to complete this thesis even when I had my doubts. Thank-you for your continuous encouragement; and on occasion even going above and beyond your supervisor duties to help me. I could not have done it without you.

CONTENTS

LIST OF TABLES

CHAPTER 1: INTRODUCTION

"The prevalence of suicide, without doubt, is a test of height in civilization; it means that the population is winding up its nervous and intellectual system to the utmost point of tension and that sometimes it snaps."

(Havelock Ellis, n.d.)

1.1. Introduction

The main subject of this thesis is suicidal ideations. The study looks at a sample of first-year University students registered for the Psychology module at the University of the Western Cape. It aims to ascertain the extent of occurrences of suicidal ideations among these individuals as well as establish whether there are differences in these ideations based on gender, race, religious affiliation, and faculty students are registered with.

1.2. The need for research into suicidal ideations

Suicidal ideation definitions differ only slightly among different researchers and thinkers. Beck, Steer and Ranieri (1988) define suicidal ideations as "the presence of current plans and wishes to commit suicide in individuals who have not made any recent overt suicide attempts" (Hersen, 2004, p. 61). Similarly, Dusablon (2009) defines suicidal ideations as thoughts that people have about harming or killing themselves prior to committing or attempting suicide. Preedy, Watson and Martin (2011) define suicidal ideations as "thoughts about engaging in suicidal-related behaviour and/or communicating these thoughts" (p. 1945). Suicidal ideations are thoughts that one manifests based on certain factors influencing one's life. The reasons for these thoughts are multifaceted and can be extremely diverse and difficult to analyse and predict (Dusablon, 2009). Despite the difficulty of inquiry, it is necessary to form estimates in order to start seeing a clearer picture. It is therefore essential to establish the extent of occurrences of these manifestations to prevent suicide attempts.

Aside from being multifaceted and diverse in terms of reasons for having suicidal ideations, these manifestations are also challenging to study as this topic is regarded as a social taboo among various nations and cultures (Farberow, 2014). Furthermore, many statistics are deemed to be incomplete and unreliable as many suicide attempts, as well as fatal suicides, are not reported due to fear of social isolation and banishment (Williams, 2001). Underreporting may be done to not only protect the individual but their family as well. Furthermore, in instances where a death may have occurred under unclear or unknown circumstances – this death becomes regarded as an accident. To further complicate and diffuse the true picture, it is understood that people who suffer from suicidal ideations can be overlooked or misdiagnosed, or they themselves choose to hide the signs of their suffering until it is too late (Toprak, Cetin, Guven, Can & Demircan, 2011).

To understand the extent of the problem, research on prevalence of suicidal ideation is an important undertaking. However, despite the use of the word *prevalence* in the title of this mini-thesis, the aim of the study is not to establish prevalence in its technical sense because it is understood that a much larger sample would be necessary to conduct such an investigation. Rather the current study aims to establish the extent of occurrences of suicidal ideations among a chosen sample. Thus the researcher does not claim to generalise the results to the larger first-year student population, but to rather bring about attention that this topic necessitates among university students in general.

Suicidal ideations precede suicide attempts and deaths by suicide. Before people commit or attempt suicide, they will think about committing suicide as well as consider which method will be used to commit suicide (Schultz & Videbeck, 2009). This is the point where interventions are necessary. Some people may exhibit certain behaviours, gestures, or facial expressions (Schultz & Videbeck, 2009). For others, suicidal ideations are accompanied by other psychological disorders, such as depression and bipolar disorder, anxiety disorders, and mood disorders to name a few (McKay & Storch, 2013). It is thus essential to understand how prevalent this phenomenon is among various populations. Not only among those people with diagnosed psychological disorders, but among the

general population too. This knowledge is imperative for developing preventative and reactive programmes alike.

Despite the flaws in statistics, it is imperative to keep updating the knowledge database to ensure the latest and most recent findings are available to establish trends and assess the progress of preventative programmes. Every research project has its limitations whether it is with regard to sample, methodology or data collection instrument – no project is without flaws. However, researchers need to strive to conduct research into this phenomenon irrespective of the difficulty of inquiry.

More extensive research is needed to uncover the unknown factors associated with those who are suffering from suicidal ideations. Understanding these factors and working through them with the individuals who are suffering from suicidal ideations may encourage these individuals to openly discuss their psychological pain as well as encourage them to seek help prior to attempting suicide. Suicide ideators may feel ashamed to have these thoughts and will not feel comfortable divulging them to family members, friends or health professionals for fear of rejection, shame and embarrassment. This can lead to feelings of disconnection, isolation, fear and hopelessness – making prevention and intervention more difficult. Furthermore, should an individual survive the suicidal act, the social stigma attached makes the recovery very difficult for both the individual and his/her family (Rubin, Weiss & Coll, 2013; Joiner & Rudd, 2000).

It is also important to educate people on how to identify signs of psychological unrest and find ways to build rapport with suicide ideators to make them feel comfortable enough to at least admit they need help. Making sure they see a trained professional before they attempt suicide is vital to ensure they do not reach that point of psychological unrest (King, Foster & Rogalski, 2013).

It is also important to change the status quo of this topic being taboo and challenge the stigma that is often associated with it, to open up channels of communication and thus ensure suicide ideators are not stigmatised for having the suicidal thoughts but are rather treated. Many countries and cultures still frown

upon suicide due to various cultural and religious beliefs, which makes open communication on the topic more challenging (Kristula, 2008). By communicating the necessary cautionary measures through prevention campaigns, suicide ideators need to feel comfortable to talk to their family and friends and seek help before attempting suicide (King, Foster & Rogalski, 2013). Furthermore, prevention campaigns must also focus on family and friends of suicide ideators. The various symptoms, behaviours and signs of suicidal ideation need to be explained to allow for early detection. Colleagues and fellow students must be educated in the workplace and at schools (Nelson, 2008).

Suicidal ideations and behaviours may be misdiagnosed and confused with self-harming behaviour. However, the two behaviours are very different. Suicidal behaviour falls under the broader definition of self-harming behaviour as the onus is on hurting oneself. Those who self-harm do not necessarily see the end result as death. Many simply like or want to feel physical pain as it somehow "masks" the psychological pain they are feeling. Suicidal behaviour is very different and has a much more serious and grave intent. Thus, even psychological practitioners need to differentiate between the two very different psychological disorders to ensure they are able to prevent the suicide attempt (Chehil & Kutcher, 2012).

It is a sad fact that the majority of the population are unaware of how pervasive suicidal behaviour has become in the world. Many countries are alarmed by the rising rates of suicides and suicidal ideations among young individuals and are carrying out preventative measures in the forms of campaigns and programmes. When one considers the grave increase of the healthcare bill in South Africa, one immediately realises that prevention needs to be the main barrier to suicidal behaviour. This excessive healthcare bill does not include post-hospital and family treatment of suicide attempts which means that the reality is even more alarming (Sommer, 2009).

1.3. Research problem and study objectives

As mentioned earlier, statistics on suicide behaviour, in the world and in South Africa, are incomplete. The majority of the existing research findings are obtained

using hospital and police reports. Existing estimates of suicide attempts cannot be considered as exact statistics and statistics on fatal suicides also do not represent a complete picture in South Africa. Most existing data only accounts for the fatal suicides as these are more likely to be reported. And even this data is not a true representative as suicides can, in some instances, be reported as accidents (Krug, Dahlber, Mercy, Zwi & Lozano, 2002).

The result of this is that there is very little knowledge and information about suicide behaviour among South African youth, and even more so about suicidal ideations among first year university students (Drenth, Herbst & Strydom, 2013). This research study therefore aims to measure the extent of the occurrences of suicidal ideations among this target group. It furthermore aims to assess whether there are any demographic differences to ensure that preventative strategies are aimed at those who are at most risk and have the most relevant message. The objectives are:

1. To establish the existence and the extent of occurrences of suicidal ideations among a sample of first-year university students registered for Psychology module at the University of the Western Cape
2. To ascertain whether gender differences exist in this sample among those with suicidal ideations.
3. To ascertain whether racial differences exist in this sample among those with suicidal ideations.
4. To ascertain whether religious affiliation differences exist in this sample among those with suicidal ideations.
5. To ascertain whether there are differences in the extent of suicide ideation occurrences among students in this sample from different faculties.

1.4. Research hypotheses

To answer the above research objectives, it is necessary to hypothesise possible outcomes based on previous research. Hypotheses for this study are outlined below:

1. The extent of occurrence of suicidal ideations among first-year University students registered for Psychology module at the University of the Western Cape will be between 10% and 15%.
2. In this sample, female first-year university students will be more likely to have suicidal ideations than male first-year university students.
3. In this sample, Coloured[1] and Black students will be more likely to have suicidal ideations relative to White and Indian students.
4. In this sample, those who have religious associations will be less likely to have suicidal thoughts compared to those who have no religious associations.
5. In this sample, those registered with a faculty focused on social and psychological studies will be more likely to have suicidal ideations.

1.5. Definition of key terms

Suicidology is the scientific study of suicide and suicide prevention. This term includes not only the study of fatal and non-fatal suicides, but also para-suicides, deliberate self-harm, self-mutilation, acts of partial self-destruction, suicidal gesticulation and suicidal ideation (Sommer, 2009), which is the main topic of this research paper. The word "suicide" comes from the Latin word *suicidium*, where *sui* means "of oneself" and *cidium* means "a killing". The first uses of the word are recorded as early as 1651, even though the actual act of killing oneself is recorded in ancient times (Mahendran, 2008). The terms "suicide", "suicidal" and "suicidal behaviour" are used interchangeably and variably in the study of suicidology. For the purposes of this research paper, the term "suicidal ideation" will be used to refer to a range of self-destructive thoughts or ideas consisting of temporary desires to die, wishing to commit suicide, having an urge to die, making plans to carry out suicide, and ideating about leaving a suicide note about their suicidal urge (Opaku, 2010).

[1] The term 'Coloured' was coined in South Africa during the Apartheid era to refer to persons of mixed racial origin. To ensure a racial separation under the Apartheid Laws, four distinct racial groups were identified which were: Blacks, Whites, Coloureds and Indians.

It is necessary to differentiate suicidal ideations from self-harm ideations. Thoughts of self-harm are thoughts about wanting to injure oneself to experience physical pain which is often done to conceal psychological torment or when a person suffers from depression or low self-esteem (Fox & Hawton, 2004). Self-harming behaviour should never be underestimated as simply "attention-seeking" behaviour, misinterpreted as a suicide attempt or considered to be a symptom of a psychological disorder, such as borderline personality disorder. Self-harming behaviour comes in different forms of self-injury, internal or external, and can also be typified under self-neglect (Turp, 2003). The crucial distinction between self-harm and suicide attempts is that those who suffer from suicidal ideations see the end point as death while those who self-harm do not see death as their ultimate goal. Self-harming individuals are trying to deal with their lives by inflicting pain and some researchers go as far as to say that suicide and self-harm are complete opposites as self-harmers inflict pain to avoid suicide (Gratz & Chapman, 2009).

There are two broad categories of terminology of suicide, namely instrumental behaviour and suicidal acts. Instrumental behaviour consists of behaviour with zero intent to die, instead having motivations such as help-seeking, punishment of others, or attention-seeking. A suicidal act is behaviour with the ultimate intent of a fatal result which the deceased, with understanding and anticipation of a fatal outcome, performed themselves (Rudd, Joiner & Rajab, 2001; First, 2003; McLaughlin, 2007).

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders was released in May 2013. Throughout the edition, the emphasis on suicide has increased. Many chapters identify particular characteristics that make people more susceptible to suicide. The risks are recognised in psychological disorders such as anorexia nervosa, schizophrenia and post-traumatic stress disorder, just to name a few. These new additions are the results of significant research that has been conducted in the field for the past 14 years and it shows that suicide risk is not only prevalent among people with depressive and personality disorders but among people with many other disorders too (DSM-5, 2013). Furthermore, Section III of the fifth edition of the DSM outlines a number of assessment tools which are

aimed at assisting clinicians in evaluating patients consistently and comprehensively. These assessment tools measure an individual in 13 different psychological fields, of which suicide is one. Despite these extensive efforts, it is still not a comprehensive guide as symptoms of suicide are not one-dimensional and do not fit into a single category, which makes it much more difficult to assess, measure, treat and predict (DSM-5, 2013).

Section III of the fifth edition of the DSM has findings of the latest research works and thinking which aim to answer difficult questions about how to address different types of suicidal and self-harming thoughts and behaviours. It intends to further assist clinicians in differentiating suicide attempts from suicidal ideations and from deliberate self-harm as the intent of self-harm is not to end one's life (DSM-5, 2013).

In summary, suicidal ideation refers to cognitions that can range from fleeting thoughts that life is meaningless and not worth living, to having decisive well-planned ideas on how to end one's life. It's been found that suicidal ideations are much more prevalent than deliberate self-harming behaviours, while deliberate self-harm occurs a lot more often than completed suicide (Williams & Hill, 2012). These statistics indicate that behaviours that characterise certain populations may overlap but they are not necessarily one and the same.

1.6. Rationale

In general, there is a lack of statistics on suicide and suicidal ideations in South Africa. Despite the interest in suicide gaining momentum, much still needs to be done in order to understand the full extent of this tragic subject matter. Thus, the more research is done and the more research articles are written on this topic, the more interest it will elicit and the more funding researchers will be able to accumulate to test theories, collect more data and test preventative programmes, all with the same goal in mind – to identify gaps in the literature.

The primary aim of the study was to bring about attention to the possibility and the extent of occurrences of suicide ideations among the first year university

students. First year university students are faced with a large change in their lives when they enter a university. The period of transition from school to university can be very stressful as students often have to move away from home to live in on-campus residences. They have to find new friendships, and try to fit in again. In general, their worlds can be seen as turned completely upside down. This transition is often associated with moving away from the teenager stage to adulthood and can be experienced on different levels by different individuals. Some may welcome the excitement of the change and a chance to be independent, while others may develop feelings of loneliness and separation. A study conducted by Khokher and Khan (2005) in Pakistan, found that students who still lived at home relative to students who were staying in the on-campus residences reported higher rates of suicidal ideations. This finding is contradictory as families are seen as a strong source of support in Pakistan culture (Khokher & Khan, 2005). This population group is thus in need of deeper analysis to understand the factors that affect suicidal ideations in order to formulate preventative programmes for suicide.

The significance of the current study is that this research work will bring attention to the emerging need for interventions and more extensive research on university students in terms of suicidal ideations and suicidal behaviours and will help to reverse the rising suicide rate among South African youth in general. It further aims to identify gaps in the existing pool of literature that is currently available on South African students and suicide.

1.7. Theoretical framework

The theoretical framework that underpins this research study is Emile Durkheim's theory of suicide. Due to the highly multi-dimensional nature of suicides and suicidal ideations, Durkheim's theory integrates well within the university context of this thesis and the multitude of reasons that can influence individuals' suicidal ideations.

Emile Durkheim is considered to be the father of sociology as his contributions to the field of sociology are incomparable to any other before or after him

(Thompson, 2005). In his book *Le Suicide* (1897), Durkheim proposed that the definition of suicide is not universal despite its common use in conversations; instead, it has many meanings. The definition may vary from case to case and its interpretation can change based on who is defining it. Thus, it would be futile to follow the common use of the word as the aspects that should be combined may be distinguished and aspects that should be distinguished may be combined and thus misrepresent the true nature of the occurrence. He postulates that an explanation can only be derived from comparison and that scientific investigation can only be achieved if it compares facts. This further reinforces the suitability of Durkheim's theory of suicide as the basis for this thesis, as one of the main aims of this thesis is to establish a baseline for the research on suicidal ideations among university students at the University of the Western Cape which future research studies can use to make comparisons in order to ascertain whether any changes in behaviours have occurred. Results of this and future studies will feed into the broader knowledge formation about the phenomenon among this sub-segment of population.

In his search for the definition of suicide, Durkheim explains that it is possible to group certain behaviours that have common qualities and are objective enough to be recognised by candid observers to establish a category of objects. Among the different varieties of death, some have a unique characteristic of being carried out by the victim which results from an act committed by the sufferer – this characteristic is fundamental to the common idea of suicide. Suicide is commonly understood to be conceived by a positive, violent action involving some muscular energy; however, it may likewise be carried out by refraining to carry out a certain vital act – such as refusal to consume food (Thompson, 2005). The Beck Scale for Suicide Ideation (BSS), which is a scale used as part of the data collection method and described in more detail in Chapter 3 of this thesis, consists of items that include the positive and negative aspects of suicidal thoughts that Durkheim is referring to. For instance, items 1 to 4 aim to gauge one's desire to live or die which relates to the positive aspect of suicidal ideations Durkheim refers to. While item 5, for example, measures ones predisposition to take the necessary steps to save own life and avoid death in a life-threatening situation which is more

of a negative aspect of suicidal ideation Durkheim describes above (Beck, Kovacs, & Weissman, 1979, p.345). This further reaffirms the appropriateness of the use of Durkheim's theory as a theoretical framework for this thesis.

Durkheim further postulates that a person's behaviour may not need to have been originally aimed at resulting in death in order for death to take place and despite the indirect causal relation, the phenomenon still occurs. He describes the death of a political activist who is executed by the acting government for treason as suicide as ultimately, his own conscious actions lead him to his own death, even though he did not deliver his own ending (Thompson, 2005).

According to Durkheim, the definition of suicide is then "any death which is the direct or indirect result of positive or negative act accomplished by the victim himself" (Thompson, 2005, p. 42). However, this definition is incomplete as it fails to distinguish between acts of a conscious and unconscious mind – a person who is a victim of hallucination and falls out of a window, thinking it is level with the ground, cannot be directly comparable to a sane person striking themselves and aware of their actions. Intent is not an easy thing to be interpreted by an onlooker, and can even sometimes escape self-observation. The intent of self-destruction cannot be the only fundamental defining aspect of suicide. A soldier going into war knows that the possibility of death exists in the battle, yet he knowingly marches on – however, his is not a suicidal death. The same can be said for a martyr dying for his beliefs and a mother sacrificing herself for her children. Sacrifice can be thought of as a desperate act of a person who does not care to live; at that point, life is abandoned and one desires death at the moment of renouncing life. The final definition of suicide according to Durkheim is "death occurring directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result", while an attempt "is an act thus defined but falling short of actual death" (Thompson, 2005, p. 44).

After defining the phenomenon at hand, Durkheim hypothesised that suicidal behaviour is an amalgamation of psycho-instinctual impulse and social influence. Durkheim had various hypotheses that touched on every aspect of human life – family and upbringing, culture, ethnic origin, religious affiliations, income group,

size of the family, education level, gender, age and everything that could possibly structure an individual's identity (Thompson, 2005).

Durkheim gave a lot of weight to the social aspect of suicide. He indicated that social or group relationships restrain people, thus promoting social cohesion critical to maintaining a society. He defines two forms of suicide – altruistic and egoistic. A person, who is in very close relation to the community, will feel it honourable or obligatory to commit suicide should he fail to live up to the expectations – Durkheim called this altruistic suicide. Whereas, egoistic suicide on the other hand, is the opposite of that, with the individual being very self-involved and having very loose relationships with communities. Egoistic suicide is very common in Western societies where individualism is valued and promoted. Thus, suicides in countries such as Japan will likely to be of altruistic nature, while suicides carried out in the Westernised world, such as America and even South Africa to some extent, having so much Westernised influences, are likely to be egoistic in nature (Dillon, 2010).

In terms of gender differences, Durkheim notes that completed suicide rates are higher among men while attempted suicide rates are higher among women. During the century when Durkheim wrote his thesis, women were in a much more insignificant position – he felt as women were much less educated, were traditionalist, behaved according to strict beliefs and did not have intellectual needs, it could have resulted in the lower suicide rates. However, as their literacy grew, so did their susceptibility to suicide. Women have been a subject of oppression and control until recent times with feminist movements allowing women more right to education and work opportunities, changing their status in society (Thompson, 2005).

Similarly, during the period of Durkheim's exploration, statistics on suicide indicated higher rates of suicide among older individuals. He postulated that it could be attributed to the fact that people may be less reluctant to admit that the cause of death was suicide when a person is older. Likewise, degenerative diseases would have reached their climax, affecting the psyche of the older person and causing them to consider suicide (Thompson, 2005).

On a more controversial note, Durkheim also wrote on distinctiveness between suicidal behaviours among ethnic groups. He hypothesised that there was no correlation between being underprivileged and suicide as systematic oppression and being underprivileged can cause individuals to become adjusted to a certain way of life. If one does not expect anything of life, there is no disappointment. He pointed out that Black people were much less suicidal than Whites. His assumption relates to education levels; as the education levels grow among mixed race individuals, so does the predisposition to suicide (Thompson, 2005). Therefore, the distinction between ethnic groups according to Durkheim is more of a social one rather than organic or biological. As the social and economic gap decreases, so does the difference in suicide rates (Thompson, 2005).

1.8. Structure of the mini-thesis

The current chapter (Chapter One) highlights the importance of doing research on suicidal ideations. It likewise outlines the research problem and the main aims and objectives this research intends to achieve and cover. Chapter Two consists of an extensive literature review which explores suicidal ideations among the youth and university students in particular, while exploring suicidal ideations with respect to gender, age, race, religious affiliation and faculty differences. It will provide a comprehensive evaluation of the existing knowledge database in the field of suicidology. The main focus will be around the extent of the occurrences of suicidal ideations among university students. Chapter Three will outline the methodology and research design. Statistical results will be reported in Chapter Four. Chapter Five will include a comprehensive discussion about the results achieved in the study, which will be followed by the conclusion in Chapter Six.

CHAPTER 2: LITERATURE REVIEW

"There is but one true philosophical problem and that is suicide."

(Albert Camus, 1942)

2.1. Introduction

This chapter will outline recent knowledge on suicide by providing statistics on suicide and suicidal ideations and factors associated with suicide such as age, gender, race and religion. Suicide and suicidal ideations among university students will be discussed next. To end the chapter, limitations of research on suicide and suicidal ideations will be discussed, outlining influencing factors such as social stigma and cultural differences as well as historic developments.

2.2. Statistics on suicide and suicidal ideations

2.2.1. The worldwide phenomenon

According to the World Health Organisation (WHO, 2014), approximately more than 800 000 people die from suicide every year worldwide, with the attempted suicide figure being 10 to 20 times more, and in some countries up to 40 times more frequent. It is estimated that the fatal to non-fatal suicide ratio worldwide ranges between 1:10 and 1:40. Approximately one death by suicide occurs every 40 seconds and one attempt every three seconds. This figure is estimated to increase to 1.53 million deaths by suicide in the year 2020, with one death every 20 seconds and one suicide attempt occurring every one to two seconds (Bertolote, 2001). The estimated increase can account for the 60% rise over the last five decades, with suicide rates rising by approximately 49% among males and 33% among females. This figure represents 1.8% of the worldwide burden of disease and can rise up to 2.4% by the year 2020. These findings show that more people are dying from suicide compared to all armed conflicts occurring around the world (Bertolote, Fleischmann, Leo & Wasserman, 2009).

It is apparent that certain socio-demographic characteristics are associated with suicide. Suicides are more prominent in European countries that have similar genetic, historical and socio-cultural features. The geographical J-shaped pattern extends from Finland to Austria and is believed to reveal historic migrating patterns which are still apparent in contemporary European inhabitants. Eastern Mediterranean countries that adhere to Islamic traditions have the lowest rates of suicide with the exemption of China, where suicide rates among males are much less severe compared to females (Mahendran, 2008).

Mahendran (2008) writes that global suicide rates have been steady throughout history even though significant increases have been evidenced in certain European regions. Latin countries around the Mediterranean and on the American continent have had decreasing suicide rates, while Asian countries such as Sri Lanka, Thailand and Singapore have seen increases in suicide rates. The suicide rates in the Far East countries such as Hong Kong, Japan and the Philippines have been holding steady, which also does not mean the rates are declining. Despite Eastern Europe having the highest suicide rate, the largest number of suicides occur in Asia (Engin, Gurkan, Dulgerler & Arabaci, 2009).

In the African region, the suicide rate was estimated at 11.4 per 100 000 in 2012, which is close to the global estimated rate, however the increase in the suicide rate from 2000 to 2012 was estimated at 38%. Suicide rates appear to be lower in the west and north compared to the south and east regions of the continent. Similar to the global trends, the suicide rates are high among the elderly however suicide also peak among the younger populations (WHO, 2014). Furthermore, in countries such as Egypt, suicide attempt rates among those in the 15-44 year age group are as high as 38.5 and suicides are 3.5 per 100 000 with the majority occurring among young females living within over-sized families (Schlebusch, n.d.).

Suicide is most prominent in over-populated underdeveloped countries with a poor socio-economic situation. A prime example of this is China and India where 30% of all suicides worldwide are committed. China alone has 30% more suicides than in the whole of Europe, while India has the second highest number of

suicides in the world. The number of suicides in India is equivalent to the number of suicides in four European countries that have the highest number of suicides together, namely Russia, Germany, France and Ukraine (Bertolote & Fleischmann, 2002).

The above-mentioned statistics show that the reality of suicide among the global population is grave and that suicide is on the rise. Many preventative measures need to be put in place in order to reverse the situation. The sub-section below delves into the available South African statistics to date.

2.2.2. A South African picture

South Africa is a country which presents an interesting site for research as it is a completely unique setting compared to all other countries in the world. It is a country where social stratification and segregation was lawfully enforced based on racial differences. This law was enforced for many years, creating a divide which is still haunting South Africa today, even after Apartheid was abolished. This economic and political divide favoured the White population which meant that the then-called Non-White populations were heavily underrepresented. This had an effect on statistics in South Africa and the reality that is becoming apparent in the present time is that the statistics are not indicative of whether the suicide morbidity has worsened over the years or whether the statistics collected are presenting a complete picture (Burrows, 2005).

Statistics from Apartheid South Africa may be seen as inconsistent and flawed in general terms as the non-White population was heavily underrepresented and the majority of the suicide cases would be unreported or misrepresented (Burrows, 2005; Bantjes & Kagee, 2013).

The latest WHO statistics indicate that the rate of suicide in South Africa in 2007 was 0.9 per 100 000 for the total population, while the 9th Annual Report of the National Injury and Mortality Surveillance System (NIMSS) of 2008 shows that 10.32% of all deaths from 1 January to 31 December 2007 were attributed to

suicide. Among these deaths, suicides by hanging account for 58%, suicides by poisoning for 17% and those involving firearms for 15%.

Almost two-thirds of all suicides were completed by individuals aged between 20 and 39 with the highest number of deaths occurring amongst those in the age group of 25-29 (535 deaths); however, those aged between 20 and 34 are at most risk (NIMSS, 2008). Nesthiombo and Mashamba (2012) explain that children as young as 10 and 14 are committing suicide in South Africa and the growing rate of suicide among youth may be attributed to the constant pressures of living up to unrealistic expectations. In South Africa, many children have forfeited their freedom and youth to help take care of the family. Many children are faced with the responsibility of providing for their younger siblings or sick parents. Furthermore, due to high HIV/AIDS mortality in South Africa, divorce and marital conflict, many children are left without parents which makes them take on more responsibilities earlier on in life. Economic, social and political issues in South Africa impact on the lives of children and adolescents on top of all the usual developmental changes they are going through which adds to their levels of stress, anxiety and hopelessness (Nesthiombo & Mashamba, 2012).

Historically, South African society had the philosophy of “Ubuntu” which is “the principle of caring for each other’s well-being and a spirit of mutual support…Ubuntu means that people are people through other people” (Nesthiombo & Mashamba, 2012, p.99). In recent years the collective consciousness of “Ubuntu” has been weakening which could be attributed to the transitional change in the traditional culture of South Africa and a shift towards a more westernised society. This transition can also negatively impact on the South African youth and adult population alike causing a societal disconnect (Nesthiombo & Mashamba, 2012).

The gender ratio for suicide in South Africa is 4.6 males to every 1 female (NIMSS, 2008). This could be attributed to the influence of patriarchal society that South African population still subscribes to. Even though women can work, men are still regarded as the breadwinners in the families. They still tend to earn disproportionately higher incomes compared to their female counterparts. The

pressure that amounts to keeping up to the promise of being a provider can cause stress especially if their financial situation is not well. Their egos become tarnished and they lose their self-respect. Their masculine roles become undermined. Furthermore, men in the South African society are assigned a very strong characteristic and thus display of any vulnerability may cause internal stress which can result in suicidal ideations (Nesthiombo & Mashamba, 2012).

For males, the majority of suicides were completed by hanging (62%) or with the use of a firearm (15%); with poisoning (38%) and hanging (36%) being the top modus operandi for suicides among females. NIMSS indicates that deaths due to suicide, burns, and other non-intentional causes as well as instances where the cause of death is undetermined are not recorded or tracked by any other agency besides NIMSS (NIMSS, 2008).

Suicide rates are highest in three major metropolitan areas, namely in Tshwane (17.4 per 100 000), Johannesburg (14.4 per 100 000) and Durban (11.9 per 100 000). Suicides by hanging and with the use of firearms are highest in Tshwane (8.1 and 4.1 per 100 000, respectively). The majority of suicides occurred in the private residences of the victims. The peak day for suicide is reportedly Monday at 16.4%, followed by Saturday (14.6%) and Sunday (14.5%), with the peak hours of death being between 16:00 and 20:00 (22.1%). In terms of month, suicides occur most commonly in December (10.1%), followed by September (9.5%) and October (8.9%) (NIMSS, 2008).

By acknowledging these statistics, preventative programmes can be aimed at specific populations, regions, and even days of the week when suicides are more prominent in order to fight the increasing prevalence rate of suicides in South Africa. The fight against suicide is not reaching its objective, as the clear increase in prevalence of suicide is not indicative of a successful prevention programme. The sad truth is that despite suicide being one of the leading causes of death, other more tabloid-grasping issues are receiving all the government funding (e.g. HIV prevention) despite the noticeable decreases in prevalence. The Global Health Observatory (GHO), a department of WHO, indicates that the annual number of

deaths due to AIDS-related causes has been steadily decreasing from a peak of 2.3 million deaths in 2005 to an estimated 1.7 million deaths in 2011 (WHO, n.d.).

2.3. Factors associated with suicide and suicidal ideations

2.3.1. Age

Everywhere in the world, suicide is second leading cause of death among people aged 15-29 years (WHO, 2014). In the past, suicide was predominantly evident amongst the elderly; however, in recent years, the situation has been reversed with younger people attempting and committing suicide more often (WHO, 2014; Bertolote et al., 2009). In certain countries, statistics indicate that suicides occur among males and females at a rate of 0.9 and 0.7 (respectively) per 100 000 amongst 5-14 year-olds, while for 15-24 year-olds, the suicide rate is 13.3 and 12.7, respectively (Bertolote, 2001). Furthermore, recent studies show that more suicides occur among those in the 5-44 year age group (55%) relative to those in the older age groups, with most suicides being committed by people in the 35-44 year age group for males and females alike (Bertolote & Fleischmann, 2002). This phenomenon is sometimes referred to as the "ungreying" phenomenon, which is evidenced by the almost doubling suicide rate among the 15-year-old population from the year 1960 (Malone & Yap, 2009).

In South Africa, the highest rate of suicide is among people aged 35-44 years (1.5 per 100 000), with 75+ years of age being a close second (1.4 per 100 000), and those aged 15-34 years being in a close third place (1.3 per 100 000). The actual number of suicides indicates that more than half of all suicides occur among individuals aged 15-24 (30%) and 25-34 (25%), thus indicating that individuals in these age groups are the most vulnerable populations according to the WHO (2007) report in South Africa.

Kisch, Leino and Silverman (2005) indicate that suicide is a problem which originates in the early high school years, rises in young adulthood and escalates even further during the next two decades. Suicide is now considered to be among the five leading causes of death for the youth globally. In South Africa, 1 in 5

teens have contemplated suicide and of all non-natural teen deaths, 9.5% are due to suicide. Among teens, suicide is the fastest growing and second leading cause of death. In the recent National Youth Risk Survey, it was found that more than 20% of teens aged 15-24 have considered suicide in the past month (SADAG, 2014).

According to Wasserman, Cheng & Jiang (2005), despite reports of suicide indicating stable or declining rates in the developed countries, suicide among young adults has been on the increase. In 21 of 30 countries in the WHO European region, suicides among males aged 15-19 increased in the period of 1979-1996. Female suicide rates increased less noticeably in 18 of the 30 countries. Even though some global statistics exist on suicide trends and rates, very little is known about suicide rates among individuals aged 15-19.

According to The Status of Youth Report (SYR) 2003: Young People in South Africa (2005), the highest suicide rates in South Africa occur among individuals aged between 20 and 34 years, with more than 10 000 young people committing suicide each year. Almost 10% of youth surveyed for the report revealed that they had had suicidal ideations in the previous year.

The 2nd South African National Youth Risk Behaviour Survey 2008 (2010) indicates that in the past six months, 24% of learners reported feeling sad and hopeless, while 21% had suicidal ideations, and 21% attempted to commit suicide. The report further elaborates that it was a pioneer in the school-based research into non-fatal suicides which provides results representative of the national population. It provided data indicating that nearly every fifth learner (19%) had suicidal ideations, 15.8% of learners made plans to commit suicide, and 17% attempted to commit suicide on one or more occasions in the past six months. Twenty-eight percent of those who attempted suicide needed medical treatment as a consequence.

Bantjes and Kagee (2013) caution against using National Injury Mortality Surveillance System (NIMSS) Annual Reports to make any assumptions about the age differences among those who commit suicide as they do not contain actual

data in terms of frequencies of suicides by age groups. The reports are not clear whether the age group differences in deaths by suicides are a function of demographic split in the population or real evidence that certain groups are at more risk due to being in a certain age bracket. The authors also point out the NIMSS reports do not have consistency in terms of age brackets making it even harder to conduct comparative analysis between reports (Bantjes & Kagee, 2013).

Nonetheless, the concerning truth about the prevalence of suicide in South Africa is that, similar to the global trends, it is rising among the younger population (Nesthiombo & Mashamba, 2012). Children as young as 10 years old are committing suicide (Schlebusch, n.d.). This is disturbing and requires more attention than has been given in the past. More studies on youth suicide need to be conducted so that greater attention is paid to this morbid phenomenon, as well as to encourage more preventative programmes.

2.3.2. Gender

The global suicide rate among males and females remains constant with 3.2:1 being recorded in 1950 and 3.6:1 in 1995. It is estimated to rise to 3.9:1 by 2020. China is the country which is excepted as it has the highest suicide rate in the world (30% higher than in Europe) and shows that female suicide rates are higher than males in that region (Bertolote, 2001; Bertolote et al., 2009).

In South Africa, there is a great distinction between males and females in terms of the rates of suicide. According to the WHO 2007 report, suicides are much more prevalent among males with 75% of all deaths by suicide being committed by males. Females are more vulnerable at a younger age, from 15 to 24 years of age, while suicide is prevalent among males from 15 to 44 years of age. Looking at the rate per 100 000, the highest suicide rate is among males aged 35-44; however, when looking at the actual figures, it is evident that those aged 15-34 are at most risk (WHO, 2007).

Wasserman, Cheng and Jiang (2005) examined the WHO Mortality Database for February 2004 for young adults aged 15-19 in 90 countries. Suicide was the fourth

largest cause of death with 12% of all deaths being caused by suicide. In terms of gender, they found that suicide was the fourth predominant cause of death (9.5%) in males, while for females suicide was the sixth leading cause of death (8.2%).

In South Africa, deaths by suicides are four times more prevalent among men than women. Furthermore, 80% of all suicides committed in South Africa are done so by men (Bantjes & Kagee, 2013). This highlights the necessity of focusing research studies in South Africa on suicidal ideations among males as this demographic group is at most risk. Suicide prevention programmes likewise need to focus on making sure those who are exhibiting suicidal tendencies are advised to seek help and those who surround them are able to notice these exhibited behaviours. Those individuals, such as family members, friends and colleagues, need to be able to have the knowledge to read the signs of suicidal predisposition and behaviours in order to inform the necessary bodies of the help the suicidal person may be in need of. They need to be able to recognise the signs as well as ensure they are able to postpone the act of suicide before the doctor or clinician is able to assist (Suicide Prevention, n.d.; How To Help A Suicidal Person, n.d.).

2.3.3. Race

Racial differences have been observed when it comes to suicide and suicidal behaviours. Of those who participated in the SYR (2005), 8.3% revealed that they had had suicidal ideations in the past year. Of these, 12.7% were Coloured, 8.5% were Black, 5.6% were White and less than 1% were Indian. The report indicates that the inconsistencies associated with findings around Indian youth can be attributed to their small sample size in the survey.

The 2nd South African National Youth Risk Behaviour Survey 2008 (2010) indicated that marginally more Black learners (41%) revealed that they had seen a doctor or counsellor because they had had sad or hopeless feelings compared to Coloured (20.4%) and Indian (19%) participants. Furthermore, the report found that significantly fewer Indian learners (17.8%) had ever considered suicide compared to Coloured students (23.9%). Similarly, significantly more Coloured students (20.9%) had made a plan to commit suicide in the past six months

compared to Black learners (15.9%). Indian learners were reported to have a significantly lower prevalence of having made one or more suicide attempts (11.7%) relative to Coloured (25.2%) and Black (20.9%) learners. The report also indicated that the Western Cape Province had the highest percentage of students (19%) who made a plan to commit suicide, and had a significantly lower prevalence of students seeing doctors or counsellors because they were feeling sad or hopeless, indicating that students in this study (South African National Youth Risk Behaviour Survey, 2010) would rather commit suicide than attempt to seek help. This is a disturbing finding and preventative programmes need to focus on making the doctors or counsellors more approachable and the first port of call for students who are experiencing feelings of sadness and hopelessness as these are the feelings that strongly correlate with suicidal ideations and attempts.

Bantjes and Kagee (2013) highlight that due to the lack of a systematic approach to reporting demographic characteristics of suicide it is not possible to clearly estimate the proportions of suicide by race and region. They then explore and urge for an interesting debate around the importance of analysing suicide statistics by racial profile. The authors propose that it may be of more importance to understand other socio-economic factors such as level of education, poverty, level of employment, health status, and accessibility to medical care as well as geographic location. These factors may be far more meaningful at predicting suicide risk than ethnicity (Bantjes & Kagee, 2013).

2.3.4. Religion

When comparing countries in terms of suicide rates based on their prevalent religious associations, notable differences are observed between Muslim countries and countries with any other dominating religion. In Muslim countries, such as Kuwait, where committing suicide is strictly forbidden, the total suicide rate is almost zero. In Hindu countries, such as India, and in countries where Christianity is the prevailing religion, such as Italy, the total suicide rate is close to 10 per 100 000. In Buddhist countries on the other hand, for example in Japan, the total suicide rate is much higher at 17.9 per 100 000. The highest suicide rate in the

world is observed in atheist countries, such as China, where the rate per 100 000 is 25.6 (Bertolote & Fleischmann, 2002).

In terms of gender, male suicide rates are generally higher than females in countries with prevailing religions. The highest male to female ratio is found in atheist and Christian countries – 3.5:1 in both instances. The lowest suicide ratio is seen in Hindu countries – 1.3:1 (Bertolote and Fleischmann, 2002). Bertolote and Fleischmann (2002) elaborate that these findings do not take personal levels of religion into account; nevertheless, they do show how important religious context may be. It may be of importance to consider prevalence of a religion in a country as a cultural factor in the study on suicide.

2.3.5. University students

A study conducted by Engin, Gurkan, Dulgerler and Arbaci (2009) assessed first-year students (class of 1992) between January 2003 and October 2004 to ascertain, among other objectives, whether they had suicidal thoughts. They found that 2.4% of the students had constant suicidal thoughts and 11.2% had previously attempted suicide. The main risk factors that were found to be associated with students' suicidal thoughts were gender issues, problems at school, family issues, anger, somatisation, hostility, psychotic symptoms, phobic anxiety, anxiety disorder and interpersonal sensitivity. They also found that in 19.6% of the cases, individuals had a relative who had previously attempted suicide and 13.9% had a father who had previously attempted suicide. Of those students who had previously attempted suicide, the majority cut their wrists (78.1%), 18.3% took pills and 3.6% jumped from a window or a high place. The most prominent causes of suicidal ideations were depression and feelings of unhappiness. Other causes were dissatisfaction with living space, failing classes, loneliness and shyness. Serious illness or a recent death among family members and the economic situation were also mentioned as causes of suicidal ideations (Engin et al., 2009).

Results from the study conducted by Toprak, Cetin, Guven, Can and Demircan (2011) on 636 undergraduate students in Turkey indicate that 11.4% had suicidal ideations and 7.1% had attempted suicide. The authors found that while the

prevalence of self-harm was higher among males, no gender differences were observed in suicidal ideations and suicide attempts. Their main hypothesis was that self-mutilators were more likely to have suicidal thoughts and attempts than non-mutilators. Their hypothesis was accepted with self-mutilators having more suicidal thoughts (59% vs. 11%) and suicide attempts (63% vs. 14%) compared to non-mutilators. The study also found that self-harm is a strong predictor for suicidal ideations and suicide attempts (Toprak et al., 2011).

It is evident that the demographic factors chosen for analysis in the current study bear an importance to the study of suicidology in South Africa. Suicides are on the rise among youth, males, and Coloured individuals, which makes this study a relevant piece of enquiry. Age, gender, race, and religion are all factors that could act as predictors or preventions against suicidal ideations. Furthermore, suicidal ideations and attempts are high among university students which warrants for further investigations into this population.

2.4. Limitations of suicide statistics

The paragraphs that follow aim to highlight possible reasons for misclassification, misunderstanding, underreporting and underrepresenting of the suicide phenomena. They are aimed at cautioning the reader of any statistical report, to read the information guardedly and not take it de facto. Most prevailing reasons for underreporting and misrepresentation are those of social taboo and cross-cultural and cross-country data collection practices and are discussed in detail below.

2.4.1. Suicide – the hidden truth

It is common practice to question the reliability of suicide statistics as suicide is a hidden phenomenon, which leads to the assumption that the real figures are much more alarming (WHO, 2014). Historically, the majority of research on suicide was conducted in the high-income countries. However, in recent years, research studies have been focusing on the African region and revealing increasing suicide trends among both the young and the old populations. This truth is not always

welcomed due to differences in religious and cultural beliefs. Some regard suicide as a social taboo, a crime which can lead to social embarrassment, stigmatisation, and social severance. This in turn reduces the trustworthiness of statistics and data collection which is further impacted by the lack of standardised research approaches and instruments as well as limited research infrastructure and cooperation (Schlebusch, 2011a; Schlebusch & Burrows, 2009; Wasserman, Cheng & Jiang, 2005). This further indicates that reported statistics not only reveal a fraction of the problem but are also varied and diverse in reporting prevalence rates (Schlebusch, n.d.; Wasserman, Cheng & Jiang, 2005).

The availability of literature for many African countries is sparse which makes generalisations for the entire continent difficult to determine; thus, it is only possible to deduce broad trend analyses. Despite former publications indicating low suicide rates, recent studies show that in many African countries, suicide rates are similar to the global rates (Schlebusch, 2011a).

Burrows and Laflamme (2007) conducted a study in South Africa to assess the accuracy of suicide data recorded in the surveillance system used by medical practitioners to report on the manner of injury death. The study was executed in one of the three cities where this system was fully implemented in the year 2000. The study indicated that one third of all cases did not have traceable records, had not been completely finalised or had vague conclusions. The research highlights the importance of using medical expertise in determining deaths caused by suicides however it further emphasises that suicide deaths may be highly underestimated due to their hidden nature and potential of misclassification of suicides as accidental deaths (Burrows & Laflamme, 2007).

Bantjes and Kagee (2013) expand further on the lack of accurate statistics in South Africa by highlighting that there is a nonexistence of a comprehensive and focused research programme aimed at a national coverage. Currently, the two main sources of epidemiology data on suicides in South Africa are retrospective evaluation of mortuary records and the National Injury Mortality Surveillance System (NIMSS), which is a panel-based reporting system aimed at analysing data from a number of predetermined mortuaries. As much as these sources

provide insight into the prevalence of suicide and the risk factors associated with suicide, they do not provide reasons why South African commit suicide.

2.4.2. Police and mortuary records – country specific

The majority of statistics that are made available are provided to WHO by its Member States or by their national officers who are responsible for suicide prevention. The information provided is based on real death certificates signed by legally authorised staff, such as doctors and less commonly by police officers (Wasserman, Cheng & Jiang, 2005). The general belief is that these statistics have not been tampered with and have not been misrepresented, thus indicating a true picture of the suicide phenomena. At times, a delay may be caused in reporting the mortality figures as a judicial procedure may be taking place to ascertain the cause of death. This and other delays may result in statistics being released in periods of two to four years and this explains why the "most recent data" has figures of a few years ago. This of course can vary from country to country (WHO, 1999). Furthermore, while studies are being conducted, different ICD (International Classification of Diseases) versions are being used which could promote misclassification in the mortality statistics even further (Wasserman, Cheng & Jiang, 2005).

Mahendran (2008) indicates that global data is limited due to varying reporting policies, and unsolved problems with respect to suicidology nomenclature, and depends on the country's perceptions of suicide as a public health threat. He continues that due to the above-mentioned factors, in some countries suicide statistics may be underestimated by as much as 40% to 50%.

Burrows (2005) explains that suicide statistics vary in terms of reliability from country to country due to varying methods of recording data, levels of misclassification, as well as underreporting. Further reasons are: differences in report rates from different investigators, differences in reported rates of suicide per 100 000 and the actual numbers in different regions and countries. Many studies are conducted on mortuary and hospital patient data which does not represent a full picture of the population and does not reflect the extent of the

problem, especially in terms of rural areas. Statistics on suicidal behaviours are also often underreported for cultural, religious and other socio-economic reasons. This warrants cross-national, cross-cultural and cross-regional data comparisons (Schlebusch, n.d.).

2.5. Conclusion

The review of literature about suicide and suicidal ideation provides a look into the disturbing reality of the high prevalence of both areas. The review also highlights how, by looking at different variables and demographic factors, we can start seeing a clearer picture of this phenomenon. Finally, it shows how studies on suicide and suicidal ideations can be limited and therefore indicates a need for a more systematic and standardised process of measuring suicide and suicidal ideations to allow for more cross-sectional analysis. Given these gaps outlined, the current study set out to uncover the extent of occurrences of suicidal ideations among first-year university students at the University of the Western Cape. The University of the Western Cape is a predominantly Coloured university, and as indicated by current statistics which suggest that suicidal ideations are more prominent among Coloured people, similar statistics may be uncovered in this thesis.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

This chapter outlines the methodology and the procedure used for this study. It will expand on the chosen research design, followed by the explanation of the selected sample and sampling technique. A detailed account of the data collection procedure and the instrument used to collect the data will be provided. The chapter will then outline which statistical analyses were used to analyse the results. Finally, ethical considerations of the study will be discussed.

3.2. Research design

This study used a quantitative research methodology with a cross-sectional survey design, as data was collected at only one point in time from a sample using a questionnaire. The advantage of this approach is that it allows for a snapshot of the phenomenon at a certain point in time; however, the biggest drawback is that it doesn't allow for changes to be observed over time, as would be evidenced by using a longitudinal research design (Babbie & Mouton, 2013). Data collection was done using a self-administered questionnaire which was administered in English as it is the primary language of instruction at the University of the Western Cape.

3.3. Participants

The participants in the study consisted of two first-year Psychology classes at the University of the Western Cape. This introductory module was selected as it usually consists of students from different faculties and is often taken as an elective module for different fields of study, such as Law, Education, Dentistry, Community and Health Sciences, and Arts. The overall sample of the study consisted of 161 students. The aim was to obtain at least a 10% sample of the first-year Psychology population, which was achieved, to get a representative overview of the study population (n=1061).

The other rationale for choosing first year students as the sample for the current study was the fact that first-year students may be considered a vulnerable group due to all the changes that are taking place in their lives in light of them joining the University. Independence from parents, responsibilities of choosing a career, living outside of home, whether at the University residence or in other communal or independent dwelling, prospect of making new friends and separating from current friendships, just to name a few. All of these changes may be overwhelming and may create feelings of loneliness, separation, and lack of belongingness, which can cause feelings of depression and anxiety, which in turn may influence manifestations of suicidal ideations (Orden et al., 2008).

Non-probability convenience sampling was used to recruit participants for the study. This sampling technique was used to collect data based on convenience and availability of the sample (Babbie & Mouton, 2013). Convenience sampling entailed gaining access to two first year Psychology lectures. Only those students who were available and showed interest in participating in the study completed the survey. Thus participation in the study was voluntary. It is important to indicate that this sampling technique may have implications for the general population and thus one should exercise caution not to generalise the findings to the larger populations and instead use these findings solely to understand the sample at hand. By implication, the researcher implies that the study results cannot be generalised to the larger population of first-year students as the sampling technique was not representative of the study population. Results of the study are indicative of the extent of occurrences of suicide ideations among the recruited sample and no further inferences can be made to the larger population of first-year university students.

3.4. Data collection instrument

A survey was used to collect data from respondents. Questionnaires are a standard and structured method used to collect data from respondents (Babbie & Mouton, 2013), which was deemed to be the best approach for the current study as it allowed for a larger data sample to be collected. The survey consisted only of

closed-ended questions. The questionnaire consisted of two parts, namely demographic information and the Beck Scale for Suicide Ideation, which in some parts of this thesis will be shortened and referred to as BSS. The demographic section consisted of questions to identify respondents' age, gender, race, field of study, faculty, and religious affiliation (Refer to Appendix B).

The Beck Scale for Suicide Ideation (BSS) gauges the present and immediate strength of attitudes, behaviours and plans for suicide-related behaviour with the intent to end life. The BSS was "designed to quantify the intensity of current conscious suicidal intent by scaling various dimensions of self-destructive thoughts or wishes" (Beck, Kovacs, & Weissman, 1979, p.345). The BSS can either be administered as a self-report or it can be administered by a clinician; this depends on the sample population. The scale is a 21-item self-report instrument, however in the current study the last 2 items of the scale were excluded as they explore past suicidal attempts and were deemed too sensitive in nature to be administered to the current sample. Respondents thus were only asked to complete 19 items. Each item consists of three alternative statements ranging in intensity from 0 to 2. The total score is calculated by summing all the scores from individual items. The total score can range from 0–38 (Beck, Kovacs, & Weissman, 1979).

The first part of the BSS consists of five screening items which assess the respondent's desire to live or die, which also includes the wish to commit suicide. If respondents' total score after the first five items is zero, they are instructed to terminate the interview. However, if respondents choose option 1 or 2 on any of the first five items, they are guided to continue answering the second part of the BSS which explores the duration and frequency of suicidal ideation as well as the extent of the preparation a person has gone through for the contemplated suicide attempt (Simpson & Tate, 2002).

Evidence of the content validity of the Beck Scale for Suicide Ideation (BSS) has been provided in previous studies using similar populations (Harris & Molock, 2000; Chioqueta, & Stiles, 2006; Walker & Bishop, 2005; Walker et al., 2008; Orden et al., 2008). The reliability of the BSS scale ranges from .90 to .91

(Walker et al., 2008; Orden et al., 2008). In the current study, the reliability of BSS was tested using Chronbach's alpha, $\alpha = .98$; $n = 161$, which indicates high reliability of the measure. The BSS also has high concurrent validity as it highly correlates with other clinically tested measures tested on both inpatient and outpatient samples, such as Scale for Suicide Ideation (SSI) (.90 to .94), Beck Depression Inventory Suicide Item (.58 to .69), Beck Depression Inventory (BDI) (.64 to .75) and Beck Hopelessness Scale (.53 to .62) (Beck, Steer, & Ranieri, 1988).

To be more specific, the Scale for Suicide Ideation (SSI) is a 21-item measure conducted by an interviewer. It gauges the extent of patient's thoughts, behaviours and plans to commit suicide on the day of the interview. The scale uses a 3-point scale ranging from 0 to 2. The scale is very similar to the BSS scale with having 19 items yielding the total score and five screeners. However the SSI consists of questions that assess frequency of previous suicide attempts and the degree of intent to kill onself at the latest suicide attempt (Brown, 2001). The Beck Depression Inventory (BDI) and the Beck Depression Inventory Suicide Item both measure the level of depressive symptoms. Both are 21-item self-complete scales. Each item is rated on a scale of 0 to 3, thus the possible total score can range from 0 to 63 (Brown, 2001). Despite not being measures which can be used to test for full clinical syndrome of depression, they do reliably measure depressive symptomatology (Walker & Bishop, 2005). Beck Hopelessness Scale (BHS) is a 20-item self-report measure with true or false statements aimed at measuring the extent of positive and negative beliefs about the future for the past week. The total score ranges from 0 to 20 and takes less than 5 minutes to complete (Brown, 2001).

The BSS has been utilised and validated among various populations ranging from psychiatric inpatients and outpatients to college students and adolescents, making it the ideal tool for the current study. For instance, a study conducted by Ovuga, Boardman and Wassermann (2005) used the BSS to measure the prevalence of suicidal ideations in two districts of Uganda, a country in a Sub-Saharan Africa. The study results showed high rates of suicide ideation in the Ugandan population

which was consistent with other international studies. As the BSS was not validated in Uganda at the time of the study, the researchers assigned an arbitrary cut-off point of 10 or higher to indicate a moderate to high suicide risk among the participants. Researchers found that there were no significant differences in the mean scores on the BSS for gender and other demographic variables (Ovuga, Boardman and Wassermann, 2005).

The BSS is also one of the few tests that have shown to have predictive validity for death by suicide. In a 20-year prospective study conducted by Brown, Beck, Steer and Grisham (2000), patients who were considered to be at high risk were found to be seven times more likely to commit suicide compared to those who were considered to be low risk (Perlman, Neufeld, Martin, Goy & Hirdes, 2011).

The BSS is one of the most popular instruments used to assess suicidal ideation and many studies have been conducted to ascertain its validity. It has the ability to differentiate between adults and adolescents with and without a history of suicidality (Holi et al., 2005). It has been used across nations and countries and has therefore been translated into different languages, such as French, Norwegian, Chinese and Urdu (Jie & Brown, 2007: Wong, 2014).

The BSS Manual (Beck and Steer, 1991) and studies using the scale (Simpson & Tate, 2002) have identified five factors using a Principal Component Analysis. The five factors are Intensity, Active Desire, Planning, Passive Desire and Concealment. Factors of the BSS and their individual items are represented in Table 2. Brown (2001) and Miller, Segal and Coolidge (2001) report on the BSS having three factor model, while an even more recent study by Holden and DeLisle (2005) established a two-factor model of motivation, namely wishes, reasons and desires; and preparation, namely planning and acting. However, as the researcher made use of the BSS Manual (Beck and Steer, 1991), analysis and reporting will be done using the five factor model of the BSS.

Table 1.

Factors of the BSS and their individual items.

Factor and individual item
Factor 1: Intensity of suicidal ideation
Item 6: Duration of suicidal thoughts
Item 7: Frequency of ideation
Item 9: Control over suicidal action
Item 15: Expectancy of actual attempt
Factor 2: Active suicidal desire
Item 1: Wish to live
Item 2: Wish to die
Item 3: Reasons for living or dying
Item 4: Active suicide attempt
Item 8: Attitude towards ideation
Factor 3: Planning
Item 12: Specificity of planning
Item 16: Extent of preparation
Item 17: Suicide note
Item 18: Final acts
Factor 4: Passive suicidal desire
Item 5: Passive suicide attempt
Item 11: Reasons for attempt
Item 12: Specificity of planning
Item 13: Availability of opportunity of method
Item 14: Capability to carry out attempt
Factor 5: Concealment
Item 10: Deterrents to attempt
Item 19: Deception and concealment

3.5. Data collection procedure

After the ethical clearance was acquired from the Ethics Committee of the University of the Western Cape, the lecturers were requested to grant permission to collect data during their lectures. The data collection took place during the second semester of the 2011 academic year at University of the Western Cape,

specifically during the third quarter. The total number of registered students for the third quarter first-year Psychology module amounted to 1061 students.

The researcher made arrangements with two lecturers at the UWC for the first year Psychology module to collect data during two lecture times in order to collect as many questionnaires as possible. The data were collected at the beginning of two lectures in order to avoid attrition. The lecturer introduced the researcher who then continued to provide information with regard to the aims and objectives of the study and the ethical considerations in terms of the anonymity and confidentiality of the information provided by the students. The researcher explicitly explained to the students that their participation in the study was completely voluntary and that they reserved the right to withdraw from the study at any moment. Furthermore, the researcher explained the importance and significance of signing the consent form which was handed out with the questionnaire. The researcher also provided the same information on the overhead projector along with the address and a telephone number of the Centre for Student Support Services at the University of the Western Cape for the students who may have felt any discomfort after or during the completion of the questionnaire. The researcher emphasised that once the students had completed the questionnaire, they had to raise their hands and the lecturer or the researcher would collect the completed questionnaire and signed consent form straight from them in order to further ensure confidentiality and anonymity of the information provided. The researcher and the lecturer then handed out questionnaires and consent forms, and the students were given 15 to 20 minutes to complete them. After all the completed questionnaires were collected, the questionnaires and consent forms were put into separate boxes in order to ensure anonymity.

The first round data collection yielded 124 completed questionnaires and the second data collection yielded 46 completed questionnaires. It was observed that the first lecture had a lot more students in attendance compared to the second lecture. This was explained by the fact that during the first lecture, the lecturer had a lot of material still to cover with regard to the module; while during the second lecture, the students were merely revising the already covered material. It is,

however, worth mentioning that both data collection time slots were during the same week; the first one was on a Monday (22 August 2011) and the second was on a Wednesday (24 August 2011).

Based on the fact that the lecture hall was much busier during the first round of data collection compared to the second round, various obstacles to accurate data collection were observed. For instance, it was observed that one of the students initially circled a number other than "0" in Part 1 of the BSS scale; however, after seeing that his neighbour/friend had already finished his questionnaire, he changed his answer to "0" and submitted his questionnaire to the researcher. Therefore, due to the close proximity of the participants as well as peer pressure, some students may have rushed through the questionnaire in order to finish the questionnaire as quickly as possible to avoid being stigmatised by their neighbours. These may be regarded as possible limitations of the data collection procedure.

3.6. Data analysis

In total 170 questionnaires were collected, however after the process of checking and cleaning the data, which took place in order to validate collected questionnaires, 9 questionnaires had to be excluded as they were incomplete, i.e. these questionnaires had missing data. Thus, only 161 questionnaires were used for analysis. Each questionnaire was given an identification number and the data was then captured and coded using the Statistical Package for the Social Sciences 20 (SPSS – 20). Demographic categorical variables, such as gender, race, religion, and faculty were coded using numbers from 0 to 5 – depending on the number of groups per variable. Continuous variable – age – was coded exactly based on the answers provided. BSS items were coded 0 to 2 as per BSS Manual (Beck and Steer, 1991). Missing data was coded as 999. Missing data was only accepted for respondents whose total score after the first five items on the BSS scale totalled 0, as they were not required to continue with the questionnaire.

Frequency tables were generated for all variables and used for descriptive statistics, which were used to interpret demographic characteristics of the sample

based on frequencies and percentages. Babbie and Mouton (2013) define descriptive statistics as a set of sample observations. Descriptive statistics were used to describe variables such as age, gender, race, religious affiliation and faculty of the sample. Frequency distributions were used to calculate the extent of occurrences and intensity of suicide ideations among the study sample. A variable (BSS Suicidal Occurrence) was created to distinguish between respondents who had suicidal ideations and those who did not have suicidal ideations, by summing up the total score after the first five items on the BSS. Respondents whose total score on the first five items of the BSS were coded as 0 and labelled "without suicidal ideations"; respondents whose total score after the first five items was equal to or larger than 1 were coded as 1 and labelled "with suicidal ideations". This decision was made based on previous studies (Simpson & Tate, 2002; Becker, 2011) and the BSS Manual (Beck & Steer, 1991).

The BSS Manual (Beck and Steer, 1991) does not indicate a fixed cut-off score, however it is suggested that increasing scores represent greater suicide risk and any total score greater than 0 must yield further investigation (Cochrane-Brink, Lofchy, & Sakinofsky, 2000; Andrade, Sesso, & Diniz, 2015). De Man and Leduc (1995) stated that scores closer to 0 indicated low suicide ideation, while scores closer to 38 indicated high suicide ideation. Simpson and Tate (2002) indicated using scores of 9 and above to signify moderate to high suicidal intent. To ensure the current study does not underestimate scores on the BSS, a cut-off score of 9 was used. A variable (BSS Suicidal Intensity) was constructed to distinguish between those with low suicidal intent and moderate to high suicidal intent. Those with scores 1 to 8 were coded 1 and labelled "low suicidal intent", and those who scored 9 and above were coded 2 and labelled "moderate to high suicidal intent". Furthermore, five BSS Factors were created into separate variables to assess demographic differences on each factor. Each factor was constructed of individual items as indicated in Table 2.

Inferential statistics are generally used to make inferences about the larger populations from which the samples are drawn (Babbie & Mouton, 2013). Inferential statistics were used to compare means between groups and to

determine whether significant differences exist. The chi-square statistic is used to determine whether there are significant differences between expected and observed frequencies in one or more categorical variables (Field, 2009). Chi-square analysis was used to determine significant differences between males and females as gender is a categorical variable. After careful consideration of the statistical assumptions, Kruskal-Wallis was chosen as an ideal statistical test to determine whether differences between groups for race, religion, and faculty were significantly different.

In summary, demographic variables – gender, race, religion and faculty, were analysed on the following variables: BSS Suicidal Occurrence, BSS Suicidal Intensity as well as each of the five BSS Factors.

3.7. Ethical considerations

Ethical clearance was acquired from the Senate of Higher Committee of the University of the Western Cape. Permission to conduct interviewing during the two first year Psychology lectures was also acquired from the lecturers prior to data collection. The students were asked to sign letters of consent before completing the questionnaire (Refer to Appendix A). Thus, the study largely depended on informed and voluntary participation. Consent forms as well as the information on the overhead projector used in each lecture outlined the nature of the study, benefits and potential risks involved in being a participant. This was done to ensure participants could make an informed decision as to whether they wanted to participate in the research study or not. It was clearly explained to participants that they had a choice to be a part of the study prior to them filling in the questionnaire. It was also made clear that participants had the right to withdraw from the study at any moment without any consequences. It was highlighted that students' participation or non-participation in the study would not affect their performance in the course.

It was explained to the participants that their participation was confidential and anonymous. The questionnaire did not require names of respondents, making the questionnaire anonymous as well. The researcher did not personally know any of

the participants in the study. Consent forms were a necessity to conduct research; however, they were kept separate from the questionnaires and the only person who had access to the consent forms was the researcher herself which she kept strictly confidential.

Participants were not harmed or misled in any way, physically, psychologically, socially or emotionally. No known risks were involved in participation in the study. Cautionary measures were undertaken to ensure that should any student feel discomfort at any time during or following their participation in the study, they were provided with the telephone number and the location of the Centre for Student Support Services at the University of the Western Cape on the overhead projector during the entire data collection procedure. The researcher's values and beliefs were not imposed on the participants in any way.

CHAPTER 4: RESULTS

4.1. Introduction

The main aim of the study was to establish the existence and the extent of occurrences of suicidal ideations among a sample of first-year university students at the University of the Western Cape, specifically among a sample of students who took the first-year Psychology module. The study also aimed at understanding whether there were significant differences in terms of gender, race, religious affiliation and faculty among those students who had suicidal ideations. In this chapter, demographic characteristics of the sample will be outlined first. Thereafter, the extent of suicide ideation occurrences and extent of suicidal intent will be analysed using the whole sample and demographic variables to show whether differences among groups are significant. Finally, analysis of five factors of the BSS will be provided also using demographic variables to analyse significant differences between groups.

4.2. Demographic characteristics of the sample

The total sample consisted of 161 participants. The sample consisted of more females (73%) than males (27%). This was a representative reflection of the study population as the courses in the Community and Health Sciences generally draw more females than males. The mean age of the sample was 20.17 (*SD* = 4.26) with the youngest participants being 17 years old and the oldest 49 years old. As 81% of the sample consisted of students between the ages of 18 and 20, any analysis to compare students on the age variable would not yield any meaningful results, thus the age variable was not used to compare scores on the BSS scale.

Table 2:

Demographic distribution of the sample.

Demographic Variables		N	Percentage
Gender			
	Female	117	72.7
	Male	44	27.3
	Total	161	100.0
Race			
	Coloured	97	60.2
	Black	40	24.8
	White	12	7.5
	Asian/Indian	11	6.8
	Other	1	0.6
	Total	161	100.0
Religion			
	Christian	119	73.9
	Muslim	27	16.8
	Atheist	2	1.2
	Buddhist	1	0.6
	Missing	12	7.5
	Total	161	100.0
Faculty			
	Community and Health Sciences (CHS)	93	57.8
	ARTS	51	31.7
	LAW	17	10.6
	Total	161	100.0

In terms of other demographic descriptors, the majority of the sample were Coloured (60%), with Black students being second largest racial group (25%). The racial profile of the sample population is representative of the racial

composition in the Western Cape. It appears that one student felt that provided racial categories in the Demographic section of the questionnaire were not adequate and they chose not to categorise themselves into any of the provided sub-groups. This reaffirms the historical issue of race in the South African context, which is still firmly instilled among many South Africans today. Nevertheless, racial categories are necessary in understanding the extent of the problems that are being researched to ensure preventative and intervention programmes are targeting groups that are at most risk.

The sample consisted of majority Christian participants (74%) with the second largest religious group being Muslim (17%) which is representative of the religious affiliation of the general population in the Western Cape region of South Africa based on AMPS 2014B dataset. Twelve students (8%) decided not to disclose their religious affiliation.

The majority of students in the sample (59%) were enrolled in the Faculty of Community and Health Sciences with students from the Faculty of Arts being second largest group in the sample (32%). This is in line with the University of the Western Cape registrations as for majority of students studying at the Faculty of Community and Health Sciences, Psychology is a major, while for students who are completing their studies through the Faculty of Arts or Law, Psychology is usually only an elective module.

4.3. Occurrences of suicidal ideations in the total sample

The occurrences of suicide ideations was measured using the constructed variable, BSS Suicidal Occurrence, whereby students whose total score after the first five items on the BSS scale totalled 0 were labelled “without suicidal ideations” and those whose score was higher than 1 were labelled “with suicidal ideations”. Results indicate that 26% of the sample had suicidal ideations.

Table 3.

Occurrences of suicide ideations.

BSS Suicidal Occurrence variable	N	Percentage
Without suicidal ideations	120	74.5
With suicidal ideations	41	25.5
Total	161	100.0

A third of females in the sample had suicidal intent, while only 16% of males had suicidal ideations (Table 4). The difference between male and female students were not significant with regard to differences in occurrences in suicide ideation χ^2 (1, N = 161) = 2.91, p = .09. Table 5 illustrates results for Chi-square statistic between gender and BSS Suicidal Occurrence using the SPSS output.

Table 4.

Occurrences of suicide ideations by gender.

BSS Suicidal Occurrence		No suicidal intent		Suicidal intent	
		N	Percentage	N	Percentage
Gender					
	Female	83	70.9	34	29.1
	Male	37	84.1	7	15.9
	Total	120	74.5	41	25.5

Table 5.

Chi-square statistics for Gender and BSS Suicidal Occurrence.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	2.913[a]	1	.088	
Fisher's Exact Test				.106
N of Valid Cases	161			

A third of Black students and a third of Asian/Indian students in the sample had suicidal ideations, while a quarter of Coloured and less than 10% of White students in the sample had suicidal ideations. Nearly a third of students who were Christian and a quarter of students who did not disclose their religious affiliation had suicidal ideations, while a fifth of Muslim students had suicidal ideations. Students with suicidal ideations were equally as likely to be registered at the Community and Health Sciences (CHS) faculty as at the ARTS faculty (25% and 26%, respectively), while slightly more students (29%) registered at the faculty of LAW had suicidal ideations (Table 6). Results of the Kruskal-Wallis test indicate that differences found were not significant in terms of race χ^2 (4, N = 161) = 5.96, p = .20, religion χ^2 (4, N = 161) = 1.78, p = .78 or faculty χ^2 (2, N = 161) = .17, p = .92 with regard to occurrences of suicide ideations. Table 7 and Table 8 illustrate results for Kruskal-Wallis statistic between race, religion and faculty and BSS Suicidal Occurrence using the SPSS output.

Table 6.

Occurrences of suicide ideations by race, religion and faculty

BSS Suicidal Occurrence		No suicidal intent		Suicidal intent	
		N	Percentage	N	Percentage
Race					
	Coloured	74	76.3	23	23.7
	Black	27	67.5	13	32.5
	White	11	91.7	1	8.3
	Asian/Indian	8	72.7	3	27.3
	Other	0	0.0	1	100.0
	Total	120	74.5	41	25.5
Religion					
	Christian	87	73.1	32	26.9
	Muslim	22	81.5	5	18.5
	Atheist	1	50.0	1	50.0
	Buddhist	1	100.0	0	0.0
	Missing	9	75.0	3	25.0
	Total	120	74.5	41	25.5
Faculty					
	Community and Health Sciences (CHS)	70	75.3	23	24.7
	ARTS	38	74.5	13	25.5
	LAW	12	70.6	5	29.4
	Total	120	74.5	41	25.5

Table 7.

Kruskal-Wallis ranks for race, religion, faculty and BSS Suicidal Occurrence.

Dependent variable	Independent variables	Groups	N	Mean Rank
BSS Suicidal Occurrence				
	Race			
		Coloured	97	79.59
		Black	40	86.66
		White	12	67.21
		Asian / Indian	11	82.45
		Other	1	141.00
		Total	161	
	Religion			
		Christian	119	82.15
		Muslim	27	75.41
		Atheist	2	100.75
		Buddhist	1	60.50
		Missing	12	80.63
		Total	161	
	Faculty			
		CHS	93	80.41
		ARTS	51	81.02
		LAW	17	84.18
		Total	161	

Table 8.

Kruskal-Wallis statistics for race, religion, faculty and BSS Suicidal Occurrence.

Kruskal-Wallis statistics	Race[a]	Religion[b]	Faculty[c]
Chi-Square	5.964	1.780	.165
df	4	4	2
Asymp. Sig.	.202	.776	.921

a. Grouping variable: Race.
b. Grouping variable: Religion.
c. Grouping variable: Faculty.

4.4. Intensity of suicide ideations

Suicide intensity will be represented by a cut-off score of 9, whereby students whose final score on the BSS ranged from 1 to 8 were placed in the 'low suicidal intent' category, while students who scored a total of 9 and above on the BSS scale were categorised into 'moderate to high suicidal intent' category. The variable consisting of these two categories is a constructed variable named BSS Suicidal Intensity. Results show that 20% of students who had suicidal ideations had moderate to high suicidal intent, while 80% had low suicidal intent (Table 9).

Table 9.

Occurrence and intensity of suicide ideations.

BSS Suicidal Intensity variable	N	Percentage
Low suicidal intent	33	80.5
Moderate to high suicidal intent	8	19.5
Total	41	100.0

Males with suicidal ideations were more likely to have moderate to high suicidal intensity (43%) compared to females with suicidal ideations of whom only 15% had moderate to high suicidal intensity. However, chi-square test showed that the differences between males and females were not significant, χ^2 (1, N = 41) = 2.93, p = .09 (Table 10 and Table 11).

Table 10.

BSS Suicidal Intensity by gender.

BSS Suicidal Occurrence		Low suicidal intent		Moderate to High Suicidal intent	
		N	Percentage	N	Percentage
Gender					
	Female	29	85.3	5	14.7
	Male	4	57.1	3	42.9
	Total	33	80.5	8	19.5

Table 11.

Chi-square statistics for Gender and BSS Suicidal Intensity.

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	2.929[a]	1	.087	
Fisher's Exact Test				.120
N of Valid Cases	41			

A third of Black students and 13% of Coloured students with suicidal ideations had moderate to high suicidal intent, while the only White students who had suicidal ideations feel into the moderate to high suicidal intensity group. The Kruskal-Wallis test showed that no significant differences between students on race χ^2 (4, N = 41) = 6.59, p = .16, religion χ^2 (3, N = 41) = 2.73, p = .44 or faculty χ^2 (2, N = 41) = .4.57, p = .10 existed when analysing by BSS Suicidal Intensity. Table 13 and Table 14 illustrate results for Kruskal-Wallis statistic between race, religion, faculty and BSS Suicidal Intensity using the SPSS output.

Table 12.

BSS Suicidal Intensity by race, religion and faculty

BSS Suicidal Occurrence		No suicidal intent		Suicidal intent	
		N	Percentage	N	Percentage
Race					
	Coloured	20	87.0	3	13.0
	Black	9	69.2	4	30.8
	White	0	0.0	1	100.0
	Asian/Indian	3	100.0	0	0.0
	Other	1	100.0	0	0.0
	Total	33	80.5	8	19.5
Religion					
	Christian	24	75.0	8	25.0
	Muslim	5	100.0	0	0.0
	Atheist	1	100.0	0	0.0
	Missing	3	100.0	0	0.0
	Total	33	80.5	8	19.5
Faculty					
	Community and Health Sciences (CHS)	21	91.3	2	8.7
	ARTS	8	61.5	5	38.5
	LAW	4	80.0	1	20.0
	Total	33	80.5	8	19.5

Table 13.

Kruskal-Wallis ranks for race, religion, faculty and BSS Suicidal Intensity.

Dependent variable	Independent variables	Groups	N	Mean Rank
BSS Suicidal Occurrence				
	Race			
		Coloured	23	19.67
		Black	13	23.31
		White	1	37.50
		Asian / Indian	3	17.00
		Other	1	17.00
		Total	41	
	Religion			
		Christian	32	22.13
		Muslim	5	17.00
		Atheist	1	17.00
		Missing	3	17.00
		Total	41	
	Faculty			
		CHS	23	18.78
		ARTS	13	24.88
		LAW	5	21.10
		Total	41	

Table 14.

Kruskal-Wallis statistics for race, religion, faculty and BSS Suicidal Intensity.

Kruskal-Wallis statistics	Race[a]	Religion[b]	Faculty[c]
Chi-Square	6.592	2.727	4.572
df	4	3	2
Asymp. Sig.	.159	.436	.102

a. Grouping variable: Race; b. Grouping variable: Religion; c. Grouping variable: Faculty.

4.5. Factors of the BSS

The BSS consists of five factors: Intensity of Suicidal Intention (Factor 1), Active Suicidal Desire (Factor 2), Planning (Factor 3), Passive Suicidal Desire (Factor 4) and Concealment (Factor 5). Respondents whose total score was bigger than 0 on the group of items comprising each factor were considered to have suicidal ideations linked to each factor. Table 12 illustrates extent of each factor in the sample. The Majority of the sample with suicidal ideations had Active Suicidal Desire (95%). Passive Suicidal Desire and Concealment (63% and 59%, respectively) were also prominent among students with suicidal ideations. Intensity of Suicidal Intention and Planning were only found in about a third of the sample with suicide ideations.

Table 15.

Occurrence of BSS factors.

BSS Factors	Variable	N	Percentage
Factor 1: Intensity of Suicidal Intention			
	Yes	12	29.3
	No	29	70.7
	Total	41	100.0
Factor 2: Active Suicidal Desire			
	Yes	39	95.1
	No	2	4.9
	Total	41	100.0
Factor 3: Planning			
	Yes	11	26.8
	No	30	73.2
	Total	41	100.0
Factor 4: Passive Suicidal Desire			
	Yes	26	63.4
	No	15	36.6
	Total	41	100.0
Factor 5: Concealment			
	Yes	24	58.5
	No	17	41.5
	Total	41	100.0

After conducting a chi-square analysis on gender and BSS factors, significant differences were observed between males and females on Factors 3 and 4. The percentage of participants who were planning their suicide differed by gender in that significantly less females than males were planning their suicide χ^2 (1, N = 41) = 3.95, p = .05. Similarly, significantly more male students were likely to have Passive Suicidal Desire compared to females χ^2 (1, N = 41) = 4.87, p = .03. Table 16 outlines frequencies for all five BSS factors by gender while Table 17

illustrates results for the chi-square statistic on all five BSS factors analysed by gender.

Table 16.

Occurrence of BSS factors by gender.

BSS Factors		Female		Male	
	Variable	N	Percentage	N	Percentage
Factor 1					
	Yes	9	26.5	3	42.9
	No	25	73.5	4	57.1
Factor 2					
	Yes	33	97.1	6	85.7
	No	1	2.9	1	14.3
Factor 3					
	Yes	7	20.6	4	57.1
	No	27	79.4	3	42.9
Factor 4					
	Yes	19	55.9	7	100
	No	15	44.1	0	0
Factor 5					
	Yes	18	52.9	6	85.7
	No	16	47.1	1	14.3
Total		34	100	7	100

Table 17.

Chi-square statistics for Gender and Five Factors of BSS.

BSS Factors	Chi-Square tests	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Factor 1					
	Pearson Chi-Square	.753[a]	1	.386	
	Fisher's Exact Test				.398
	N of Valid Cases	41			
Factor 2					
	Pearson Chi-Square	1.610[b]	1	.204	
	Fisher's Exact Test				.316
	N of Valid Cases	41			
Factor 3					
	Pearson Chi-Square	3.951[c]	1	.047	
	Fisher's Exact Test				.069
	N of Valid Cases	41			
Factor 4					
	Pearson Chi-Square	4.870[d]	1	.027	
	Fisher's Exact Test				.035
	N of Valid Cases	41			
Factor 5					
	Pearson Chi-Square	2.569[e]	1	.109	
	Fisher's Exact Test				.207
	N of Valid Cases	41			

a. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.05; b. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .34; c. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.88; d. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.56; e. 2 cells (50.0%) have expected count less than 5. The minimum expected count is 2.90.

Kruskal-Wallis test showed that a significant relationship exists between students from different religious groups on Factor 4: Passive Suicidal Desire χ^2 (3, N = 41) = 7.75, p = .05. Forty percent of the Muslim students had Passive Suicidal Desires which was lower than for Christian and Atheist students and the difference was significant (Tables 19 and 22).

Furthermore, the Kruskal-Wallis test also revealed that there is a significant relationship between students in different faculties on Factor 3: Planning χ^2 (2, N = 41) = 8.91, p = .01 as less than 10% of students with suicidal ideations registered at the Community and Health Sciences faculty had suicidal ideations associated with Factor 3: Planning. This was significantly less compared to students in the sample registered in the Arts and Law faculties (80% and 85%, respectively) (Tables 20 and 22). No other significant differences were identified by Kruskal-Wallis statistic between race, religion, faculty on the BSS factors. (Table 22).

Table 18.

Occurrence of BSS factors by race.

BSS Factors	Variable	Coloured		Black		White		Asian/ Indian		Other	
		N	Percentage	N	Percentage	N	Percentage	N	Percentage	N	Percentage
Factor 1	Yes	7	30.4	2	15.4	1	100	1	33.3	1	100
	No	16	69.6	11	84.6	0	0	2	66.7	0	0
Factor 2	Yes	22	95.7	12	92.3	1	100	3	100	1	100
	No	1	4.3	1	7.7	0	0	0	0	0	0
Factor 3	Yes	6	26.1	4	30.8	1	100	0	0	0	0
	No	17	73.9	9	69.2	0	0	3	100	1	100
Factor 4	Yes	18	78.3	6	46.2	1	100	1	33.3	0	0
	No	5	21.7	7	53.8	0	0	2	66.7	1	100
Factor 5	Yes	15	65.2	7	53.8	1	100	1	33.3	0	0
	No	8	34.8	6	46.2	0	0	2	66.7	1	100

Table 19.

Occurrence of BSS factors by religion.

BSS Factors	Variable	Christian		Muslim		Atheist		Missing	
		N	Percentage	N	Percentage	N	Percentage	N	Percentage
Factor 1	Yes	11	34.4	1	20.0	0	0	0	0
	No	21	65.6	4	80.0	1	100	3	100
Factor 2	Yes	30	93.8	5	100	1	0	3	100
	No	2	6.2	0	0	0	100	0	0
Factor 3	Yes	10	31.2	0	0	1	100	0	0
	No	22	68.8	5	100	0	0	3	100
Factor 4	Yes	23	71.9	2	40.0	1	100	0	0
	No	9	28.1	3	60.0	0	0	3	100
Factor 5	Yes	20	62.5	2	40.0	1	100	1	33.3
	No	12	37.5	3	60.0	0	0	2	66.7

Table 20.

Occurrence of BSS factors by faculty

BSS Factors	Variable	CHS		ARTS		LAW	
		N	Percentage	N	Percentage	N	Percentage
Factor 1	Yes	7	30.4	1	20.0	4	30.8
	No	16	69.6	4	80.0	9	69.2
Factor 2	Yes	22	95.7	4	80.0	13	100
	No	1	4.3	1	20.0	0	0
Factor 3	Yes	2	8.7	3	60.0	6	46.2
	No	21	91.3	2	40.0	7	53.8
Factor 4	Yes	11	47.8	4	80.0	11	84.6
	No	12	52.2	1	20.0	2	15.4
Factor 5	Yes	12	52.2	3	60.0	9	69.2
	No	11	47.8	2	40.0	4	30.8

Table 21.

Kruskal-Wallis ranks for Race, Religion, Faculty and Five Factors of BSS.

BSS Factors			Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Independent variables	Groups	N	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank
Race							
	Coloured	23	21.24	21.11	20.85	24.04	22.37
	Black	13	18.15	20.42	21.81	17.46	20.04
	White	1	35.50	22.00	36.00	28.50	29.50
	Asian / Indian	3	21.83	22.00	15.50	14.83	15.83
	Other	1	35.50	22.00	15.50	8.00	9.00
	Total	41					
Religion							
	Christian	32	22.05	20.72	21.91	22.73	21.81
	Muslim	5	19.10	22.00	15.50	16.20	17.20
	Atheist	1	15.00	22.00	36.00	28.50	29.50
	Missing	3	15.00	22.00	15.50	8.00	15.83
	Total	41					

Table 21.

Kruskal-Wallis ranks for Race, Religion, Faculty and Five Factors of BSS (continues).

BSS Factors			Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Independent variables	Groups	N	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank
Faculty							
	CHS	23	21.24	21.11	17.28	17.80	19.70
	ARTS	13	21.31	22.00	24.96	25.35	23.19
	LAW	5	19.10	17.90	27.80	24.40	21.30
	Total	41					

Table 22.

Kruskal-Wallis statistics for Race, Religion, Faculty and Five Factors of BSS.

BSS Factors		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Independent variables	Kruskal-Wallis statistics					
Race[a]						
	Chi-Square	5.934	.480	4.198	7.156	3.362
	df	4	4	4	4	4
	Asymp. Sig.	.204	.975	.380	.128	.499
Religion[b]						
	Chi-Square	2.210	.577	5.833	7.752	2.350
	df	3	3	3	3	3
	Asymp. Sig.	.530	.902	.120	.051	.503
Faculty[c]						
	Chi-Square	.231	3.068	8.905	5.386	.976
	df	2	2	2	2	2
	Asymp. Sig.	.891	.216	.012	.068	.614

a. Grouping variable: Race; b. Grouping variable: Religion; c. Grouping variable: Faculty.

CHAPTER 5: DISCUSSION AND CONCLUSION

"There comes a happy pause, for human strength will not endure to dance without cessation; and everyone must reach the point at length of absolute prostration."

(Lewis Carroll, 1869)

5.1. Introduction

This chapter highlights the main results of this study and provides a comparison with regard to the differences from and/or similarities to past research findings. This chapter will also provide a discussion as to how the findings can be supported by the chosen theoretical framework as well as explore the changes that have developed over time and what may have influenced these changes. A brief conclusion will summarise the main findings of the study as well as provide suggestions for prevention and intervention strategies. Lastly, an account of the limitations of this study will be provided with further suggestions for future research.

5.2. Discussion

The overall occurrence of suicidal ideations in this study was 26%. This is much higher than 2.4% reported by Engin et al. (2009) and higher than 11.4% reported by Toprak et al. (2011) who conducted studies among first-year and undergraduate students. Furthermore, it is observed that 20% of students with suicide ideations have moderate to high suicidal intent. This is a very high statistic and urges for an intervention effort and more research studies to be conducted to understand influencing factors.

Globally, many more males commit suicide compared to females (WHO, 2007) with China being the only country where this trend is reversed. Contrary to this global trend, Toprak et al. (2011) did not find any differences between males and females with regard to suicidal ideations. This finding is in line with the results of the current study where no significant differences were observed among male and female students with regard to the occurrences and intensity of suicidal ideations.

It was found that significantly more males than females had Passive Suicidal Desire and were planning their suicide (Factors 3 and 4 on the BSS). This finding aligns closely with the commonly found ratio in literature where males are more likely to commit suicide while females are much more likely to attempt it (Tatarelli, Pompili, & Girardi, 2007).

Contrary to the findings from the 2nd South African National Youth Risk Behaviour Survey 2008 (2010), where suicide ideations were more prevalent among Coloured individuals, no significant differences in occurrences and intensity of suicide ideations between students of different race groups were found. Furthermore, no significant differences in terms of race were observed with regard to the BSS factors.

The results of this study show that no significant differences were observed in suicide ideation occurrences and intensity based on students' religious affiliations. The one difference that was significant was that Muslim students were significantly less like than Christian or Atheist students to have Passive Suicidal Desire (Factor 4 on the BSS). This is in line with the research conducted by Bertolote & Fleischmann (2002) who found that in countries where Christianity is the prominent religion, the suicide rate is much higher than in Muslim countries.

The Psychology modules are not only taken by those majoring in Psychology; it can also form part of many other degrees such as Occupational Therapy, Physiotherapy, and even Law degrees. No significant differences in occurrences and intensity of suicidal ideations were found between students registered with different faculties. However, significantly less students registered with the Community and Health Sciences faculty were planning to commit suicide (Factor 3 on the BSS) compared to students registered with the faculty of Law and faculty of ARTS. This finding indicates that students registered at the faculty of Law and the faculty of ARTS may be at a higher risk to those registered at the Community and Health Sciences, however this should not be looked at in isolation as other demographic and psychosocial factors may be have an influence. The current sample size was too small to allow a further investigation thus future research can explore this in more detail provided a larger sample size is used.

Results of the current study show that Active Suicidal Desire was the most commonly occurring factor among those with suicide ideations. This may have occurred by default as four out of five screening items of the BSS are grouped under this factor, thus it makes sense that the majority of the sample with suicide ideations are grouped under this factor as they must have chosen a response above 0 for at least one of the five screening items in order to be classified into a 'with suicidal ideations' group.

The other two factors that were prominent among students with suicidal ideations were Passive Suicidal Desire and Concealment. This finding highlights the fact that many students with suicidal ideations may have considered the reasons for a suicide attempt, they may have made certain plans for committing suicide and may have the method of committing suicide. They also may have found the courage to go through with committing suicide and may have made peace with leaving their family and friends behind. But worst of all, these students may not be talking about their ideations and thoughts of killing themselves, they may be concealing them and lying making it much more difficult to help them. Educational anti-suicide intervention programmes are essential on university campuses to ensure students feel comfortable enough talking about their thoughts and feelings in a safe environment without being judged and segregated.

The study and its results have thus far aligned closely with the theoretical framework of Emile Durkheim. Durkheim suggested that suicide and suicidal behaviours, and hence suicidal thoughts, are a combination of psychological and social influences. He indicated that no suicide is the same and this is due to the fact that we are all different and every aspect of life affects us differently. Variables such as gender, age, race, religion, family, income group, etc – all these factors will have some influence whether we are aware of it or not. By studying the effects of these variables, we can start comparing results and start understanding which factors may influence people to commit suicide more than others.

Durkheim believed that suicide also needs to be studied within a social context. He stipulated that suicide rates differ depending on individual's level of social

integration. He stated that the collective force is a deterrent against suicide while it's weakening leads to development of suicide (Thompson, 2005). Hence, the experience of becoming a first-year student can predispose students to suicide as, in most cases, they leave their homes, families and friends behind and move to a new city or to a new living arrangement (on-campus or off-campus residences). The main message that is very often communicated to the first-year students is one indicating that they need to become more independent as their future rests in their hands. Thus, students may feel under a lot of pressure causing internal turmoil.

There are many aspects of this social change that may affect students in a negative way: students need to make new friends, find new ways to study, live in an unknown place to them, try to get around the new town or city (if they moved away from their home town), earn some extra money, and many more. All these factors can cause psychological distress and if their families and friends are not near to offer support, students may experience depression and lack a sense of belongingness (Orden et al., 2008) making them more susceptible to suicidal ideations.

The study aligns with Durkheim's hypotheses in terms of gender, race and religion. According to Durkheim, those with Christian beliefs (Lutheran and Calvinism) have a higher suicidal predisposition as, unlike in the Catholic religion, these religions emphasise individualism. This trend is observed in the current study – with the majority of those having suicidal ideations being Christian. Similarly, when it comes to gender differences, Durkheim highlights that men carry out more completed suicides while females tend to attempt more suicides. This is also in line with the results of the study as women were less likely to fall into the High Suicidality category compared to males – indicating that men with suicidal ideations had more severe suicidal ideations than their female counterparts (Thompson, 2005).

5.3. Conclusion

In general, the study explores various variables that could not only differentiate students in terms of the occurrence of suicidal ideations according to demographics but also in terms of intensity of suicidal ideations and according to the factors of the BSS. Due to limited sample size, a true prevalence investigation was not possible; however it is important to conduct prevalence studies to assess whether the problem exists as well as the extent of this problem. It would be futile to invest in creating prevention and intervention programmes if a problem is non-existent or is very limited. This study shows that the extent of the problem of suicide predisposition can be great. More prevalence studies employing probability sampling are necessary in order to gain a more exact understanding of the extent of suicidal ideations among not only first-year university students but a larger body of university students in all universities of South Africa. Furthermore, factors associated with suicide need to be explored in order to understand possible causes and relating variables of suicidal ideations among students. Finally, students need to be involved more in the prevention and intervention strategies regarding suicide awareness and prevention to ensure they are able to identify if one of their peers may be likely to attempt suicide, and when and where to seek help should such a peer be identified.

5.4. Limitations of the study and future recommendations

Limitations of the study are factors that could have biased results of the research in a certain way, making results of such a study not 100% representative of the population in question. One such limitation is the sampling technique. The study used a non-probability convenience sampling technique when recruiting participants; thus, respondents who took part in the survey were those who were available on the specific days the data was collected, resulting in some respondents not having a chance to participate. Therefore, it is essential to exercise caution when using the results of this study to make comparative deductions about other populations other than a similar sample of university students.

Another major limitation of the current study was the limiting sample size. Being large enough for total analysis, it left very little room to analyse data by various sub-groups once the sample with suicidal ideations was determined. The sample of 41 was very limiting in terms of analysis as some sub-groups would be made-up of less than five individuals, providing a sample more suitable for qualitative analysis rather than quantitative analysis. Future research should be conducted on a much larger sample allowing for more room to conduct statistical analysis on the various sub-groups in question.

The instructions outlined in the questionnaire clearly stated that only those students who scored at least a 1 on any of the five screening items need to continue with the second part of the BSS section. The total number of people who had done so was 41. Nevertheless, one student disregarded this instruction and continued to complete the rest of the questionnaire despite his final score after the first five screening items adding up to zero. Their final total score on the BSS was 1 as they scored "1" for item 12 which explores extent of plans for suicide. According to literature, a score of "1"on BSS indicates the presence of suicidal thoughts and ideations and should not be ignored. However, due to the criteria laid out in the BSS Manual, this students was not included in the group labelled 'with suicide ideations'.

Furthermore, despite having specific instructions to not move on to Part 2 of the scale should participants' scores be "0" for all five items in Part 1, some students (1.86% of the sample, n=3) carried on and completed the entire questionnaire. Their total BSS score was "0", and thus they were not included in the sample described as those with suicidal ideations. The limitation of this implication is that scores of "0" in the second part of the scale do not necessarily mean the absence of suicidal thoughts. On items such as 6, a score of "0" is linked to the statement "I have brief periods of thinking about killing myself which pass quickly". Similarly, scoring "0" on item 7 would indicate that a person rarely or only occasionally thinks about killing themselves. And a score of "0"on item 11 would indicate that a person's reasons for wanting to commit suicide are primarily aimed at influencing other people, such as getting even with people, making people

happier, making people pay attention to them, etc. All these, and a few other items, may still imply the presence of suicidal thoughts; however, as their final total score was “0”, they would not be considered suicidal. This limitation may also be one for the BSS scale itself as a score of 0 on the above mentioned items doesn’t imply absence of suicidal ideations but rather less intense suicidal ideations. It may be necessary to review the scores or the wording of these items.

Another limitation is that not all students completed the survey. As mentioned in Chapter 3: Research Methodology, the proximity of students could have caused peer pressure, thus either discouraging students from participating entirely or encouraging them to alter their responses on the BSS. Ideally, students should be spaced out in a way to ensure their responses are not visible to their neighbours so that respondents do not feel pressured to complete the survey according to social convention, i.e. by circling only “0” answers. Aside from being concerned with peers, students may have completed the survey based on how they wanted the researcher to perceive them. Due to the fact that the survey was a self-report measure, reflexivity issues may have occurred, as students could have either over-stated or under-stated the extent of their suicidal ideations based on what they thought the researcher would like to hear.

Future research should broaden the focus to include students from various years to measure suicidal ideations according to year of study (i.e. first year, second year, third year, Honours, Masters, and, perhaps, even Doctorate level) and to ensure a broader age range of the sample, thus allowing significant differences between various age groups to be measured.

Additionally, following the study conducted by Khokher and Khan (2005), it would be interesting to include place of residence (at home vs. on-campus residence) of the students to see whether differences in occurrences of suicide ideations exist depending on the residence of students in the South African university environment. It would also be beneficial to follow up the quantitative research with qualitative in-depth interviews (IDIs) with respondents who obtained particularly high scores on the BSS (i.e. total score of above 9) in order

to understand possible causes and factors that could have precipitated their suicidal ideations.

In summary, the current study uncovered a high percentage of occurrences of suicidal ideations in the sample that was recruited, despite all the limitations of the study design and the sample size this result should not be taken lightly. This study urges for a more thorough exploration of the topic at hand among students at the University of the Western Cape to understand the full extent of the problem and to assess the necessity and urgency of rolling out prevention and intervention programmes on and off campus.

REFERENCES

Albert Camus. (1942). *Myth of Sisyphus and Other Essays*. [e-book]. Retrieved from http://books.google.co.za.

Andrade, S. V., Sesso, R., & Diniz, D. H. D. M. P. (2015). Hopelessness, suicide ideation, and depression in chronic kidney disease patients on hemodialysis or transplant recipients. *Jornal Brasileiro de Nefrologia, 37*(1), 55-63.

Babbie, E. R. & Mouton, J. (2013). The Practice of Social Research. (13th Ed.). Belmont: Wadsworth, Cengage Learning.

Bantjes, J. & Kagee., A. (2013). Epidemiology of suicide in South Africa: Setting an agenda for future research. *South African Journal of Psychology, 43*(2): 238-251.

Beck, A. T., Steer, R. A., & Ranieri, W. F. (1988). SCALE FOR SUICIDE IDEATION: PSYCHOMETRIC PROPERTIES OF A SELF-REPORT VERSION. *Journal Of Clinical Psychology, 44*(4), 499-505.

Becker, M. A. S., (2011). The impact of suicide prevention gatekeeper training on college students. (Masters thesis, The University of Texas, Austin, United States of America). Retrieved from https://repositories.lib.utexas.edu/bitstream/handle/2152/ETD-UT-2011-08-3803/SWANBROW-BECKER-MASTERS-REPORT.pdf?sequence=1&isAllowed=y.

Bertolote, J.M. (2001). Suicide in the world: An epidemiological overview 1959–

2000. In D. Wasserman (Ed.), Suicide: An unnecessary death (pp. 3-10). London: Martin Dunitz.

Bertolote J. & Fleischmann A. (2002). A global perspective in the epidemiology of suicide. *Suicidology, 7*(2): 6-8.

Bertolote, J.M., Fleischmann, A., De Leo, D. & Wasserman, D. (2009). Suicidal thoughts, suicide plans and attempts in the general population on different continents. In D. Wasserman & C. Wasserman (Eds.), *Oxford textbook of suicidology and suicide prevention: A global perspective* (pp. 99-104). Oxford: Oxford University Press.

Brown, G. K. (2001). A review of suicide assessment measures for intervention research with adults and older adults. University of Pennsylvania. Retrieved from http://www.sprc.org/sites/sprc.org/files/library/BrownReviewAssessmentMeasuresAdultsOlderAdults.pdf.

Brown, G. K., Beck, A. T., Steer, R. A. & Grisham, J. R. (2000). Risk factors for suicide in psychiatric outpatients: A 20-year prospective study. *Journal of Consulting and Clinical Psychology, 68*(3): 371-377.

Burrows, S. (2005). Suicide mortality in South African context: Exploring the role of social status and environmental circumstances. (Thesis, Karolinska Institutet, Department of Public Health Sciences, Division of Social Medicine, Stockholm, Sweden). Retrieved from

https://publications.ki.se/xmlui/bitstream/handle/10616/39183/thesis.pdf?sequence=1

Burrows, S. & Laflamme, L. (2007). Assessment of Accuracy of Suicide Mortality Surveillance Data in South Africa: Investigation in an Urban Setting. *Crisis, 28*(2): 74-81.

Carroll, L. (1869). *Phantasmagoria and other poems*. [e-book]. Retrieved from http://books.google.co.za

Chehil, S. & Kutcher, S. (2012). *Suicide Risk Management: A Manual for Health Professionals* (2nd ed.). United Kingdom: John Wiley & Sons, Ltd.

Chioqueta, A. P., & Stiles, T. C. (2006). Psychometric properties of the Beck Scale for Suicide Ideation: A Norwegian study with university students. *Nordic journal of psychiatry, 60*(5), 400-404.

Cochrane-Brink, K. A., Lofchy, J. S. & Sakinofsky, I. (2000). Clinical Rating Scales in Suicide Risk Assessment. *General Hospital Psychiatry 22*: 445–451.

De Man, A. F., & Leduc, C. P. (1995). Suicidal ideation in high school students: Depression and other correlates. *Journal of Clinical Psychology, 51*(2), 173-181.

Dillon, M. (2010). *Introduction to Sociological Theory: Theorists, Concepts, and their Applicability to the Twenty-First Century*. [e-book]. Retrieved from http://books.google.co.za/

DiTomasso, R. A., Golden, B. A. & Morris, H. J. (Eds). (2010). *Handbook of*

Cognitive-Behavioral Approaches in Primary Care. New York: Springer Publishing Company, LLC.

Drenth, C. M., Herbst, A. G. & Strydom, H. (2013). Complicated Grief in the South African Context: A Social Work Perspective. *British Journal of Social Work, 43*(2): 355-372.

DSM-5. (2013). *American Psychiatric Association. Diagnostic and statistical manual of mental disorders*. (5th ed). Washington, DC: American Psychiatric Association.

Dusablon, T. L. (2009). First Grade Predictors of Adolescent Suicide-Related Ideation in an Urban Sample: A Latent Class Approach (Doctoral dissertation, The John Hopkins University, Baltimore, Maryland). Retrieved from http://books.google.co.za/books?id=yIdO2GTbY2MC&printsec=frontcover#v=onepage&q&f=false.

Engin, E., Gurkan, A., Dulgerler, S. & Arabaci L. B. (2009). University students' suicidal thoughts and influencing factors. *Journal of Psychiatric and Mental Health Nursing. 16*: 343–354.

Farberow, N. L. (2014). *Taboo Topics*. New Jersey: Transaction Publishers.

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: Sage.

First, M. B. (Ed.). (2003). *Standardized Evaluation in Clinical Practice*. Arlington, VA: American Psychiatric Publishing, Inc.

Fox, C & Hawton, K. (2004). *Deliberate Self-Harm in Adolescence*. USA: The

Royal College of Psychiatrists.

Gratz, K. L. & Chapman, A. L. (2009). *Freedom from self-harm: Overcoming Self-Injury with Skills from DBT and Other Treatments*. Oakland, CA: New Harbinger Publications, Inc.

Havelock, E. (n.d.). Retrieved from http://www.brainyquote.com/quotes/quotes/h/havelockel149198.html

Hersen, M. (Ed). (2004). *Comprehensive Handbook of Psychological Assessment, Personality Assessment. Vol 2.* New Jersey: John Wiley & Sons, Inc.

Holden, R. R. & DeLisle, M. M. (2005). Factor analysis of the Beck Scale for Suicide Ideation with female suicide attempters. *Assessment,* 12(2): 231-8.

Holi, M. M., Pelkonen, M., Karlsson, L., Kiviruusu, O., Ruuttu, T., Heilä, H., Tuisku, V. & Marttunen, M. (2005). Psychometric properties and clinical utility of the scale of suicidal ideation (SSI) in adolescents. *BMC Psychiatry,* 5(8): 1-8.

How To Help A Suicidal Person. (n.d.). Retrieved from http://www.suicide.org/how-to-help-a-suicidal-person.html

Jie, Z., & Brown, G. K. (2007). Psychometric Properties of the Scale for Suicide Ideation in China. *Archives of Suicide Research, 11*(2), 203-210.

Joiner, T. & Rudd, M. D. (Eds). (2000). *Suicide Science: Expanding the Boundaries*. United States of America: Kluwer Academic Publishers.

Khokher, S. & Khan, M. M. (2005). Suicidal Ideation in Pakistani College Students. *The Journal of Crisis Intervention and Suicide Prevention,*

26(3), 125-127.

King, C. A., Foster, C. E. & Rogalski, K.M. (2013). *Teen Suicide Risk: A Practitioner Guide to Screening, Assessment, and Management*. New York: The Guilford Press.

Kisch, J., Leino, V.E. & Silverman M.M. (2005). Aspects of suicidal behavior, depression and treatment in college students: results from the spring 2000 national college health assessment survey. *Suicide and Life Threatening Behavior*. *35*: 3–13.

Kristula, C. G. H. (2008). Dispelling The Last Taboo: Helping Clergy And Congregations To Care For Persons And Families Who Are Living With Mental Illness (Doctoral dissertation, The Theological School of Drew University, Madison, New Jersey). Retrieved from http://books.google.co.za/books?id=9iK2Y3N7_I4C&printsec=frontcover#v=onepage&q&f=false

Krug, E. G., Dahlber, L. L., Mercy, J. A., Zwi, A. B. & Lozano, R. (Eds). (2002). *World report on violence and health*. Geneva: World Health Organisation.

Loretz, L. (2005). *Primary Care Tools for Clinicians*: *A Compendium of Forms, Questionnaires, and Rating Scales for Everyday Practice.* Missouri: Mosby, Inc.

Mahendran, R. (2008). Suicide. *ANNALS: Academy of Medicine Singapore. 37*(9): 729-731. Retrieved from http://www.annals.edu.sg/pdf/37VolNo9Sep2008/V37N9p729.pdf

Malone, K. & Yap. S.Y. (2009). Innovative psychosocial rehabilitation of suicidal young people. In D. Wasserman & C. Wasserman (Eds.), *Oxford textbook of suicidology and suicide prevention: A global perspective* (pp. 685-690). Oxford: Oxford University Press.

McKay, D. & Storch, E. A. (Eds). (2013). *Handbook of Assessing Variants and Complications in Anxiety Disorders*. New York: Springer Science + Business Media.

McLaughlin, C. (2007). *Suicide-Related Behaviour: Understanding, Caring and Therapeutic Responses*. England: John Wiley & Sons Ltd.

Miller. S, Segal, D. L., & Coolidge, J. F. L. (2001). A comparison of suicidal thinking and reasons for living among younger and older adults. *Death studies*, *25*(4), 357-365.

National Injury Mortality Surveillance System (NIMSS). (2008). A Profile of Fatal Injuries in South Africa: Ninth Annual Report 2007. Retrieved from http://www.mrc.ac.za/crime/nimms_rpt_Nov08.pdf

Nelson, R.E. (2008). *The Power to Prevent Suicide: A Guide for Teens Helping Teens*. Accessible Publishing Systems PTY, Ltd.

Netshiombo, K. & Mashamba, T. (2012). Social dynamics of suicide in South Africa: A theoretical perspective. *African Journal for Physical, Health Education, Recreation and Dance,* 2: 95-103.

Opaku, S. O. (2010). Female Suicide in Africa. *Testing, Psychometrics, Methodology in Applied Psychology, 17*(3), 131-139.

Van Orden, K. A., Witte, T. K., James, L. M., Castro, Y., Gordon, K. H., Braithwaite, S. R., ... & Joiner, T. E. (2008). Suicidal ideation in college students varies across semesters: The mediating role of belongingness. *Suicide and Life-Threatening Behavior, 38*(4), 427-435.

Ovuga, E., Boardman, J. & Wassermann, D., (2005). Prevalence of Suicide Ideation in Two Districts of Uganda. *Archives of Suicide Research, 9*: 321-332.

Perlman, C. M., Neufeld, E., Martin, L., Goy, M. & Hirdes, J. P. (2011). *Suicide Risk Assessment Guide: A Resource for Health Care Organizations*. Toronto, ON: Ontario Hospital Association and Canadian Patient Safety Institute.

Preedy, V. R., Watson, R. R. & Martin, C. R. (Eds). (2011). *Handbook of Behaviour, Food and Nutrition*. New York: Springer.

Rubin, A., Weiss, E. L. & Coll, J. E. (Eds). (2013). *Handbook of Military Social Work*. Hoboken, New Jersey: John Wiley & Sons, Inc.

Rudd, M.D., Joiner, T. & Rajab, M. H. (2001). *Treating Suicidal Behaviour: An Effective, Time-Limited Approach*. New York: A Division of Guilford Publications, Inc.

Schlebusch, L. (2011a). An overview of suicidal behaviour in Africa. In D.M. Ndetei & C.P. Szabo (Eds.), *Contemporary psychiatry in Africa: A review of theory practice and research* (pp. 375-396). Nairobi: Acrodile Publishing Limited.

Schlebusch, L. (n.d.). Chapter 13: Suicidal Behaviour. Retrieved from http://www.mrc.ac.za/crime/Chapter13.pdf.

Schlebusch, L. & Burrows, S. (2009). Suicide attempts in Africa. In D. Wasserman & C. Wasserman (Eds.), *Oxford textbook of suicidology and suicide prevention: A global perspective* (pp. 105-108), Oxford: Oxford University Press.

Schultz, J. M. & Videbeck, S. L. (Eds). (2009). *Lippincott's Manual of Psychiatric Nursing Care Plans* (8th ed.). China: Walters Kluwer Health; Lippincott Williams & Wilkins.

Sommer, M. (2009). Reported Behaviour and Attitudes of Adolescents. (Master's Thesis, The University of South Africa, South Africa). Retrieved from http://uir.unisa.ac.za/bitstream/handle/10500/1685/01dissertation.pdf?sequence=2.

South African Depression and Anxiety Group (SADAG). Retrieved November 13, 2014, from SADAG: http://www.sadag.org.

Suicide Prevention. (n.d.). Retrieved from http://www.helpguide.org/mental/suicide_prevention.htm.

Tatarelli, R., Pompili, M., & Girardi, P. (Eds). (2007). *Suicide in Psychiatric Disorders*. New York: Nova Science Publishers, Inc.

The 2nd South African National Youth Risk Behaviour Survey 2008. (2010). Cape Town: South African Medical Research Council. Retrieved from http://www.mrc.ac.za/healthpromotion/yrbs_2008_final_report.pdf.

The Status of Youth Report 2003: Young People in South Africa. (2005). Umsobomvu Youth Fund. Retrieved from http://www.hsrc.ac.za/en/research-outputs/view/2115.

The World Health Organisation (WHO). (2014). *Preventing suicide: A global imperative.* WHO.

The World Health Organisation (WHO). (n.d.). *Global Health Observatory (GHO): Number of deaths due to HIV/AIDS.* Retrieved from http://www.who.int/gho/hiv/epidemic_status/deaths_text/en.

The World Health Organisation (WHO). (2007). Suicide rates by gender and rates, South Africa. Retrieved from http://www.who.int/mental_health/media/southafr.pdf.

Thompson, K. (Ed). (2005). Readings from Emile Durkheim. [e-book]. Retrieved from http://books.google.co.za.

Toprak S., Cetin I., Guven T., Can G. & Demircan C. (2011). Self-harm, suicidal ideation and suicide attempts among college students. *Psychiatry Research, 187*: 140-144.

Turp, M. (2003). *Hidden Self-Harm: Narratives from Psychotherapy*. England: Jessica Kingsley Publishers Ltd.

Walker, R. L., Wingate, L. R., Obasi, E. M. & Joiner (Jr), T. E. (2008). An Empirical Investigation of Acculturative Stress and Ethnic Identity as Moderators for Depression and Suicidal Ideation in College Students. *Cultural Diversity and Ethnic Minority Psychology, 14*(1): 75-82.

Wasserman, D., Cheng, Q. & Jiang, G. (2005). Global suicide rates among young people aged 15-19. *World Psychiatry, 4*(2): 114-120. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1414751/.

Wong, P. T. (2014). Suicide risks among college students from diverse cultural backgrounds. *Directions in Psychiatry, 33*(4), 237-249.

Williams, J. M. G. (2001). *Suicide and Attempted Suicide.* London: Penguin Books.

Williams, J. & Hill, P. (2012). *A Handbook for the Assessment of Children's Behaviours*. UK: John Wiley & Sons Ltd.

APPENDIX A: Letter of Consent

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa
Tel: +27 21-959 2283, Fax: 27 21-959 3515
E-mail: 2770369@uwc.ac.za

LETTER OF CONSENT

Title of Research Project: The prevalence of suicide ideations in Psychology first-year university students at the University of the Western Cape.

I, the undersigned, fully understand the research aims, my rights and my role as participant in the study, as well as issues related to confidentiality, as outlined in the information leaflet.

I hereby express my willingness to participate in this study. I am aware of my right to withdraw at any time. I also grant permission to the researcher to use the information obtained as part of a research project and to publish the findings as part of the research report and any other related report in future.

_____

_____

Participant **Date**

Researcher's Contact Details

Maya Zozulya, University of the Western Cape, Department of Psychology.

Cell phone number: 079 501 8943. Email address: 3104240@uwc.ac.za

I thank you for your cooperation. You are welcome to contact me for any queries at the address given above.

APPENDIX B: Questionnaire

Section 1. Demographic information

Please fill in the space provided

1. Age

2. Gender

Male		Female	

3. Race

Coloured		Black		White		Indian		Other (specify)	

4. Field of study

5. Faculty

6. Religious affiliation

Section 2. Suicide Ideation

Please carefully read each group of statements below. Circle the ONE statement in each group that **best** describes how you have been feeling for the **past week, including today**. Be sure to read all of the statements in each group before making a choice.

Part 1.

1. 0 I have a moderate to strong wish to live.
   1 I have a weak wish to live.
   2 I have no wish to live.

2. 0 I have no wish to die.
   1 I have a weak wish to die.
   2 I have a moderate to strong wish to die.

3. 0 My reasons for living outweigh my reasons for dying.
   1 My reasons for living or dying are about equal.
   2 My reasons for dying outweigh my reasons for living

4. 0 I have no desire to kill myself.
   1 I have a weak desire to kill myself.
   2 I have a moderate to strong desire to kill myself.

5. 0 I would try to save my life if I found myself in a life-threatening situation.
   1 I would take a chance on life or death if I found myself in a life-threatening situation.
   2 I would not take the steps necessary to avoid death if I found myself in a life-threatening situation.

If you have circled the option ZERO (0) in all of the above statements, then you can stop answering the questionnaire, however if you have circled 1 or 2 in any of the above statements please proceed to Part 2 of this questionnaire.

Part 2.

6. 0 I have brief periods of thinking about killing myself which pass quickly.
   1 I have periods of thinking about killing myself which last for moderate amounts of time.
   2 I have long periods of thinking about killing myself.

7. 0 I rarely or only occasionally think about killing myself.
   1 I have frequent thoughts about killing mysel
   2 I continuously think about killing myself.

8. 0 I do not accept the idea of killing myself.
   1 I neither accept nor reject the idea of killing myself.
   2 I accept the idea of killing myself.

9. 0 I can keep myself from committing suicide.
   1 I am unsure that I can keep myself from committing suicide.
   2 I cannot keep myself from committing suicide.

10. 0 I would not kill myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.
    1 I am somewhat concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.
    2 I am not or only a little concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.

11. 0 My reasons for wanting to commit suicide are primarily aimed at influencing other people, such as getting even with people, making people happier, making people pay attention to me, etc.
    1 My reasons for wanting to commit suicide are not only aimed at influencing other people, but also represent a way of solving my problems.
    2 My reasons for wanting to commit suicide are primarily based upon escaping from my problems.

12. 0 I have no specific plan about how to kill myself.
    1 I have considered ways of killing myself, but I have not worked out the details.
    2 I have a specific plan for killing myself.

13. 0 I do not have access to a method or an opportunity to kill myself.
    1 The method that I would use for committing suicide takes time, and I really do not have a good opportunity to use this method.
    2 I have access or anticipate having access to the method that I would choose for killing myself and also have or shall have the opportunity to use it.

14. 0 I do not have the courage or the ability to commit suicide.
    1 I am unsure that I have the courage or the ability to commit suicide.
    2 I have the courage and the ability to commit suicide.

15. 0 I do not expect to make a suicide attempt.
    1 I am unsure that I shall make a suicide attempt.
    2 I am sure that I shall make a suicide attempt.

16. 0 I have made no preparations for committing suicide.
    1 I have made some preparations for committing suicide.
    2 I have almost finished or completed my preparations for committing suicide.

17. 0 I have not written a suicide note.
    1 I have thought about writing a suicide note or have started to write one, but have not completed it.
    2 I have completed a suicide note.

18. 0 I have made no arrangements for what will happen after I have committed suicide.
    1 I have thought about making some arrangements for what will happen after I have committed suicide.
    2 I have made definite arrangements for what will happen after I have committed suicide.

19. 0 I have not hidden my desire to kill myself from people.
    1 I have held back telling people about wanting to kill myself.
    2 I have attempted to hide, conceal, or lie about wanting to commit suicide

THANK YOU FOR YOUR PARTICIPATION

APPENDIX C: Letter from the proof-reader

4 Bergzicht

62 Church Street

Strand

7140

Telephone: 021 853 4908

Cellphone: 083 297 2752

13 November 2014

TO WHOM IT MAY CONCERN

I hereby certify that I have proofread the Master's mini-thesis written by Maya Zozulya, entitled PREVALENCE OF SUICIDAL IDEATIONS AMONG FIRST YEAR UNIVERSITY STUDENTS AT THE UNIVERSITY OF THE WESTERN CAPE, and that I am satisfied that, provided the changes I have made are effected, the language is of an acceptable standard.

Lydia Koetzee

BA (Hons) (English) (Stellenbosch)

SATI Accreditation: English Editing