Psychosocial Factors Influencing Adolescent Para-Suicidal Behaviour in Limpopo Province, South Africa

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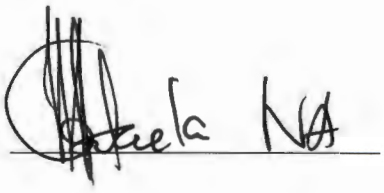
Declaration

I, Nyambeni Asnath Matamela declare that this thesis submitted by me for the award of Doctor of Philosophy in Psychology degree at the North-West University is my own independent work and has not previously been submitted by me at another university. All materials used within this document have been acknowledged.



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05/09/2015

Date

Dedication

I dedicate this project to all the participants who were involved in this work. Without you, this project would not have been completed. I learned a lot from all of you; the time we spent together will never be forgotten. Through this study I carry you in my heart at all times. I pray that you found meaning to your lives. Thank you for your participation.

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Psychosocial Factors Influencing Adolescent Para-Suicidal Behaviour in Limpopo Province, South Africa

Abstract

Background: Due to a high increase of parasuicide among adolescents and lack of a specific tailored therapy in South Africa, this study using a 2-in-1 study was designed to empirically determine (1) the psychosocial predictors of adolescent parasuicides and (2) to develop an intervention programme.

Method: Using a Cross-sectional design (Phase I), 266 participants were purposively sampled to assess psychosocial predictors of hope, self-esteem, resilience, and parenting styles. Phase II used a pre-test post-test design without a control group to assess 5 participants on a psycho-educational training intervention programme called PAT.

Results: Results in Phase I showed that parasuicide adolescents were more hopeless, $t(264) = 13.45$, $p < .000$ including agency thinking $t(264) = 17.37$, $p < .000$ and pathway thinking $t(264) = 18.90$, $p < .000$, had lower self-esteem $t(264) = 16.92$, $p < .000$, had higher parasuicidal behaviour $t(264) = -13.78$, $p < .000$, have less parental warmth $t(264) = -7.39$, $p < .000$, have less parental control $t(264) = 7.48$, $p < .000$, less resilient $t(264) = 13.11$, $p < .000$, have less personal competence $t(264) = 12.73$, $p < .000$ and unable to accept self and life $t(264) = 12.73$, $p < .000$ compared to non-attempters. Parental punitiveness was not significant for both groups. Male adolescents were worse than females. Using Structural Equation Modelling (SEM), results of path analysis did explain 17% of variance in the predictors of parasuicide behaviour. The results in Phase II using the calculation of the Cohen *d* effect size for efficacy of interventions showed the effectiveness of the Parasuicide Assertiveness Training (PAT) as there were some improvements on the psychosocial variables and a decline in parasuicide of adolescents who participated in the intervention in pre-test post-test conditions. The effect

sizes for the pre and post intervention differences ranged from $d = 0.43$ to 1.45 and was found to exceed Cohen's settlement for a large effect, which is $d = .80$ meaning the intervention did have an effect on the participants.

Conclusion: Adolescent parasuicides suffer acute psychosocial stressors and therefore benefit from the tailor-made psychotherapy called Parasuicide Assertiveness Training. PAT helps attempters overcome the challenges they face by increasing their hopefulness, self-esteem, resilience with difficult situations and in addition help them engage parents as agents to instil changes. PAT improved psychosocial variables and the need for repeat parasuicide subsided. Further interventions with inclusion of more variables are recommended.

CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION AND BACKGROUND TO THE STUDY

In the past two decades, concerns about adolescent parasuicide became the focus of most authors in research (Mhlongo & Peltzer, 1999; South African Depression & Anxiety Group, 2008; Maphula & Mudhovozi, 2012; Schlebusch, 2012). The reasons for this focus is the increase of parasuicide in the world and in South Africa (Peiser & Fehrsen, 2012) making it one of the top five reasons for severe medical admissions for both males and females, young and old (Reza et al., 2014; Beekrum, Valjee & Collings, 2011). Thus far, parasuicide is considered the main predictor of suicide and the rate is 10 times more than the completed suicide (Reza et al., 2014). Globally and in South Africa, parasuicide embodies a significant personal, social, and economic problem (Bertolotte & Fleischmann, 2009; Schlebusch, 2011).

In the United States for instance, over 38 000 Americans (ages ranging from 15-24 and 25-34) died by suicide in 2010 (National Institute of Mental Health (NIMH), 2014) while research in South Africa reveals escalating rates of parasuicide among adolescents (Maphula & Mudhovozi, 2012; Mhlongo & Peltzer, 1999; South African Depression & Anxiety Group, 2008).

Stark et al. (2010) reported an increase of about 11.5% in the rate of suicide among adolescents in South Africa, and these suicides are usually preceded by a parasuicidal gesture. In 2008, the South African Depression and Anxiety Support Group (SADAG) reported a rate of about 22 suicides and 220 parasuicides each day in South Africa (SADAG, 2008). In addition, the World Health Organization (WHO)

(2013) reported that the number of parasuicides in South Africa is 20 times the number of deaths by suicide. The statistics regarding parasuicide in South Africa and globally is an indication that this is an injury-related disease that requires investigating into the causes to formulate interventions among individuals. In this regard the study is conducted among adolescents, as they are regarded as the group most vulnerable to parasuicides (Schlebusch, 2011; Vawda, 2014; Pillay & Wassenaar, 2007; Madu & Matla, 2004). The selection of adolescents was made due to the vast body of literature stressing the high rate of attempted and successful suicides among adolescents, and for this reason, the population for this study was delimited to individuals ranging from 13-19 years in age. Authors such as Louw & Louw (2014); Conner et al. (2013); and Mays, Luta, Walker, and Tercyak (2012) all agree that this is a suitable delineation of adolescence.

Louw and Louw (2014) explain that the adolescence stage is a crucial stage in human development where people face life issues such as eating disorders, HIV and AIDS, poverty, substance abuse, sexuality and teen pregnancy etc. All these issues put strains on the adolescent's holistic wellbeing, leading to parasuicide at times. Other important factors that have been found to lead adolescents to attempt suicide according to the research conducted by Spirito et al., (2011a) are dysfunctional problem-solving skills, inadequate coping approaches, insufficient self-regulation or self-control skills, failure to adopt self-comforting behaviours, cognitive distortions and juvenile or unyielding use of defense mechanisms. Furthermore, the psychological stresses due to the burdens of life tend to affect the quality of life of adolescents negatively and holistic functioning diminishes, leading to engagement in parasuicide as the final resolution (Halverson et al., 2011; Madu & Matla, 2004).

There are a number of arguments regarding the definition of parasuicide. Kreitman (1977) defined parasuicide as acts which resemble suicidal acts through which an individual may or may not be attempting to kill himself. Other researchers defined parasuicide as a term which falls under a holistic broad term of suicidal behaviours, for clarification purposes suicidal behaviour is explained first. Suicidal behaviour is classified more specifically into three categories: suicide ideation, (which refers to thoughts of engaging in behaviour intended to end one's life); suicide plan, (which refers to the formulation of a specific method through which one intends to die); and suicide attempt or parasuicide, (which refers to engagement in potentially self-injurious behaviour in which there is intent to die but without success) (Nock & Prinstein, 2005; Nock & Kessler, 2006; Nock, Joiner, & Gordon, 2006).

Therefore, for the purposes of this study, the second definition of parasuicide defined from the perspective of suicidal behaviour is accepted. This study holds the stance that parasuicide is an act with a combination of suicide ideations and suicide plans, therefore the concept should be explained as such. For that reason, in this study parasuicide refers to the combinations of thoughts of engaging in behaviour intended to end one's life with the formulation of a specific method through which one intends to die as well as engaging in potentially self-injurious behaviour in which there is an intent to die but without success. The Modified Scale for Suicide Ideation is used to measure the thoughts, plans and behaviours of adolescents who have engaged in parasuicide. The selection of this scale was made because it can be used with adolescents who have engaged in parasuicide and those who have not, making it significantly relevant for this study because of the inclusion of non-attempters and attempters (Pettit et al., 2009). To delineate between adolescents who have engaged in parasuicide and those who have not, the words "attempters" or parasuicidal

adolescents (adolescents who have engaged in parasuicide) and "non-attempters" (adolescents who have not engaged in parasuicide) will be consistently used throughout this study.

Parasuicide has been associated with a number of psychosocial factors such as hope (George, 2005), self-esteem (George, 2005; Manani & Sharma, 2013) parenting styles (Greening, Stoppelbein, & Luebbe, 2010) and resilience (Johnson et al., 2010) in research. It is important to note that the studies cited above focused on the general populations and not actual parasuicidal adolescents, therefore this current study will differ from previous studies by exploring the psychosocial factors among adolescents who have actually engaged in parasuicide and were admitted to hospital. A control group of non-attempters will also be included. The selection of the variables (hope, self-esteem, parenting styles, and resilience) of this study was done on the basis of theoretical and empirical literature, which has revealed the influence of these variables on parasuicide (Beck, 1986; Manani & Sharma, 2013; George, 2005; Greening et al., 2010).

In exploring the psychosocial factors, starting with hope, researchers such as Enskär, Carlsson, Golsäter, Hamrin and Kreuger (1997); Lai and McBride-Chang (2001); Molassiotis, Van Den Akker, Milligan, and Goldman (1997); and George, (2009) have suggested that hope is a precondition for effective coping and decision-making and has a defensive function against the physiological and psychological stress of illness. Most previous studies have found that hopelessness is a preceding emotion or cognitive factor to parasuicide or successful suicide (Beck, Brown, Berchick, Stewart, & Steer 1990). This happens because an individual experiencing hopelessness usually has feelings of total loss of control, purpose, and meaning in life, which may lead to parasuicide.

Dufault and Martocchio (1985) defined hope as a multi-dimensional dynamic life force characterised by a confident, yet uncertain expectation of achieving a good future, realistically possible and personally significant. They identified two spheres of hope, namely generalised hope and particularised hope. According to Dufault and Martocchio (1985), generalised hope is a sense of some vague beneficial future that extends beyond the limits of time. Even so, generalised hope is not linked to a particular concrete or abstract object of hope, but particularised hope is concerned with a particularly valued outcome that is time specific. Snyder (1995) defined hope as a self-evaluation of the future or the process of thinking about one's goals, along with the motivation to move towards these goals (agency) and the way to achieve these goals (pathway).

Although both the definitions by Snyder (1995) and Dufault and Martocchio (1985) saw hope as a multi-dynamic life force that is future focused, this study prefers to use the explanation of hope by Snyder (1995), and with the inclusion of a Hope Scale developed by the same author. The scale has the following dimensions: agency and pathway, which are defined as a way of thinking and behaving that either enhances a wish to live, or a wish to die. Snyder's (1995) hope scale is more recent and comprises 12 items that can be easily administered to adolescents. The two subscales seemed age appropriate to adolescents as well. In comparison, Dufault and Martocchio's (1985) hope scale is comprised of 30 items and may be too long for patients who are ill and distressed, making it difficult to administer to participants.

Self-esteem is another variable found to have an influence on the psychological wellbeing (George, 2005) of an individual. This variable has been found in research to be associated with parasuicidal behaviours (Manani & Sharma, 2013). Feelings of inferiority (a component of self-esteem) have been associated with a

significant increase in the likelihood of suicidal ideation and a suicidal attempt (Rizwan & Ahmad, 2010). With this in mind, some authors have defined self-esteem as an individual's sense of his or her value or worth, or the extent to which a person values, approves of, appreciates, prizes, or likes him-or-herself (Blascovich & Tomaka, 1991); but the most comprehensive and regularly cited definition of self-esteem within psychology is Rosenberg's (1965), who described self-esteem as a positive or negative attitude toward the self. Although all the explanations of self-esteem are accepted, it is the Rosenberg Self-Esteem Scale (RSES) that is utilized for data collection. Rosenberg (1965) that was originally developed to measure adolescents' global feelings of self-worth or self-acceptance that is adopted for this study. RSES includes 10 items; compared to the Coopersmith Self-Esteem Inventory (Coopersmith, 1981), which has 50 items and is not properly validated within South Africa making RSES more usable in this instance.

Parenting style is conceptualised as the emotional climate in which parents raise their children (Darling & Steinberg 1993). Baumrind (1991) has identified two categories of parenting styles, namely parental control and parental warmth. Parental control is the degree to which parents manage their children's behaviour, from being very controlling to setting few rules and demands. Parental warmth is the degree to which parents are accepting of and responsive to their children's behaviour, as opposed to being unresponsive and rejecting. Previous studies have found that adolescents who do not receive parental warmth, nurturance and acceptance and are severely controlled physically and psychologically are prone to psychological distress, leading to parasuicide (Greening et al, 2010). Furthermore, patients who had engaged in parasuicidal behaviour were found to have been experiencing poor parental relationships and have often been in constant conflict with their parents (Schlebusch,

2004; Gould, Greenberg, Velting, & Shaffer, 2003). These two categories of parenting style are adopted for use in this study to determine their influence on parasuicide without reservations.

Another parenting style included in this study is parenting punitiveness, which according to Sadock and Sadock (2007) is characterised by severe physical and verbal aggression. These parenting styles have been correlated with the development of adolescent antisocial behaviour and poor regulation of emotions, which have been found to lead to parasuicide in the few previous researches conducted (Denbi, 2009). Although there is limited research on the concept of parental punitiveness as related to parasuicide, research by Liu, Tein, and Zhao (2005) indicated that 14% of Chinese rural adolescents had been beaten by their parents during that past year. Furthermore, adolescents who reported physical punishment during the past year had a greater probability for parasuicidal behaviour than those who did not report physical punishment by their parents.

Although the definition by Sadock and Sadock (2007) includes certain aspects of punitiveness, it is necessary to expand on the definition. For the purposes of this study, parental punitiveness refers to behaviours that are physically and psychologically damaging, such as hitting, shoving, pushing, tying, and putting in bondage, or denying access to enjoyable things. These behaviours are administered without specific reasons or are beyond the cultural or constitutional norm and are displayed by an individual in the role of a parent, caregiver, or a guardian. For this current study both the definitions are accepted. The Parental Punitiveness Scale developed by Ingoldsby, Schvaneveldt, Supple and Bush (2003), and adapted for a study of Parental styles and antisocial behaviours among adolescents by Denbi (2009), is used for this study.

Resilience has been gaining wide recognition in positive psychology and general psychology as a whole and has thus become the main theme of the latest advancements in positive mental health and wellbeing around the world (Abiola & Udofia, 2011). There have also been attempts to study the influence resilience has on parasuicidal behaviour in South Africa (George, 2005, 2009) with findings reporting that low resilience does have an influence on parasuicide.

Ungar (2008, 2011) defined resilience as the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways. Ungar (2008, 2011) viewed resilience as a collective effort that is biopsychosocial in nature, whereas Wagnild and Young (1993) defined resilience as the ability to thrive in the face of adversity or recover from negative events, categorising it into personal competence and acceptance of self and life.

Although both definitions by Ungar (2008, 2011) and Wagnild and Young (1993) are adopted for this study, the resilience scale (25 items) by Wagnild and Young was used in data collection. This selection in based on the vast literature available evaluating the psychometric properties of the Wagnild and Young resilience scale within clinical and non-clinical population, showing high consistency and validity across these groups. It seemed necessary to utilise this scale to add to the body of literature and to influence methodology in resilience research. Furthermore, this is the first study to utilise the Wagnild and Young resilience scale in a population of clinical patients who have engaged in parasuicide in South Africa, although it has been used in other cultures (Nigeria, Japan, Turkey and many more) and among

clinical patients (Abiola & Udofia, 2011; Hasui, Igarashi, Shikai, Shono, Nagata & Kitamura, 2009).

The psychosocial factors, believed to have an influence on parasuicidal behaviour, are not limited to the ones mentioned here. Nevertheless, when an adolescent has attempted suicide, an assessment is conducted by a multidisciplinary team to determine the severity of the attempt. The psychologist assesses the factors involved in the behaviour, and usually intervention methods are mapped out according to the adolescent's needs. Normal practice is to prevent death by suicide by restricting the individual's access to means of re-engaging in the behaviour, for example getting rid of pills, guns, poisons, and sharp objects. There should be medical intervention, and then supportive counselling conducted by a psychologist, with the assistance of a social worker, if there are social problems (Bertolote & Fleischmann, 2009).

Those considered high risk subgroups, such as people with mental disorders like bipolar mood disorders or borderline personality disorders, are addressed with indicated specialised interventions, which include a range of behavioural therapies and approaches such as cognitive therapy (Fleischmann et al., 2008). The mentioned techniques are meant to suppress the need to reattempt (Bertolote et al., 2010). However, with all these effort research has revealed that adolescents still reattempt and even complete suicide (Kessler, Berglund, Borges, Nock, & Wang, 2005; Hulten et al., 2000). Previous attempts have been made to formulate intervention studies for suicidal individuals, but they are centered mostly in the Western countries and are tailored more specifically to that population (Harrington et al., 1998; and Harrington et al., 2000; Spirito et al., 2011; Prinstein et al. 2008; and Robinson et al., 2014). Prevention of reattempts remains difficult in South Africa, because currently there is no empirical evidence from intervention studies regarding well-tested, contextualised

and established methods of intervention. This study proposes to fill this gap by doing an assessment of the study variables to determine the extent of their influence on parasuicidal behaviour and to develop an intervention method. Because this is one of the first studies on interventions related to adolescent parasuicide in South Africa, the treatment results will be aimed at obtaining preliminary data for continuous intervention studies in this area of parasuicidal behaviour.

1.2. PROBLEM STATEMENT

The study of parasuicide is necessary in this time where there are numerous reports of adolescents engaging in parasuicide (Malan, 2014; SADAG, 2015). The death of an adolescent is a loss to the public, which includes the school, teachers friends, family and the community as a whole (Shilubane, Bos, Ruiter, van den Borne, & Reddy, 2015). Psychological issues such as grief, depression, and other emotional problems usually arise as a result of this loss, which also impacts the functioning of the other individuals involved (Zhang, Tong, & Zhou, 2005; Lindquist, Johansson, & Karlsson, 2008; McKinnon & Chonody, 2014). The economy is also impacted by this loss, as the individual will not be able to contribute to the economic growth of the country (Bertolotte & Fleischmann 2009; Schlebusch, 2011). Due to the fact that those who complete suicide cannot voice the causative factors in their behaviour, this study focuses on those who engaged in parasuicide.

Research conducted over time in South Africa shows that adolescent spectrum of suicidal behaviours are related to psychosocial factors (George, 2005), personal psychological factors (Schlebusch, 2004), environmental factors (Madu & Matla,

2004) and family/parental problems (Pillay & Wassenaar, 1997). Most of these studies in South Africa have focused on determining the prevalence of suicide, improving risk assessment, and assessing socio-demographic factors (Madu & Matla, 2004; Ajaero, 2008; Wassenaar & Pillay; 2007). Furthermore, the available literature shows that most studies only collected baseline data (Ajaero, 2008; Pillay & Wassenaar, 1997) without going further to formulate interventions. Interestingly, researchers such as Linehan (2008) and other authors (Flisher, 1999; Madu & Matla, 2004; Mashego & Madu, 2009; Pillay & Wassenaar, 1997; Schlebusch, 2004) specifically referred to suicidal behaviours intervention research as an area in desperate need of development which shows that there is a gap in intervention studies.

Regardless of an increase in the interventions on parasuicidal adolescents over the previous decade, incidence rates of adolescent suicidal deaths have been increasing, posing a question about the effectiveness of current preventative or intervention methods of parasuicidal behaviour. The overwhelming percentage of over 9.5% of adolescent's suicide deaths in South Africa during 2014 is alarming (Malan, 2014). It is possible that a number of adolescents within this percentage (9.5%) had been parasuicidals who must have presented in a hospital before completing suicide therefore causing an enquiry into the effectiveness of the current intervention practices.

Furthermore, other studies in literature (George, 2005, 2009; Mashego, Peltzer, Williamson & Setwaba, 2006) focused on assessing suicidal ideations and behaviours among non-clinical populations, making it difficult to generalize the findings to clinical patients who have engaged in parasuicide.

Several promising strategies have been developed to address the problem of parasuicide globally. An intervention study by Harrington, Kerfoot, and Dyer (2000) discovered that family interventions with adolescents who had poisoned themselves was effective in reducing thoughts, plans and behaviours associated with self-inflicted death. Brent, Holder and Kolko (1997) also reported a decrease in parasuicidal behaviours after the treatment of depressed adolescents with either CBT, systemic behaviour family therapy or the provision of non-directive support. Fleischmann et al. (2008) also explained an intervention study by the WHO SUPREMIS and found that brief intervention contact reduced reattempts of suicide. Dialectical Behavioural Therapy (DBT) for people with Borderline Personality Disorder also decreased suicidal attempts (Perseius, Ojehagen, Ekdahl, Asberg, and Samuelsson 2003; and Turner, 2000). It is important to note that there is a predominance of Western studies that are empirically validated and randomised in clinical trials (Meltzer, Alphs, & Green, 2003; Linehan, 2008, Fleischmann et al., 2008) with South Africa lacking empirical data regarding parasuicide interventions. Furthermore, the above cited studies offered limited explanation of the intervention methods provided to the participants. Most published intervention studies do not specify whether the interventions were age-tailored or not, making generalisability and replication difficult to achieve.

Currently South Africa lacks studies that have combined psychosocial factors in psycho-educational intervention. Therefore this study hopes to fill this gap by first, exploring the psychosocial factors (hope, self-esteem, parenting styles and resilience) among attempters and non-attempters to collect baseline data to inform the development and implementation of the intervention for parasuicide. Then, the formulated intervention will be implemented among adolescents addressing, hope,

self-esteem, parenting styles and resilience, and finally, the intervention methods will be tested for their efficacy.

1.3. AIMS OF THE STUDY

Phase I: This study aims to assess and identify the psychosocial factors that influence adolescent parasuicide by establishing baseline data through comparing attempters and non-attempters and empirically determining if there are variables that influence parasuicidal behaviour.

Phase II: This study aims to develop and implement a psycho-educational intervention for adolescents who have engaged in parasuicidal behaviour and to determine if there is behaviour change.

1.3 OBJECTIVES OF THE STUDY

For the study to fulfil the above mentioned aims, it will be anchored on the following objectives for both phases of the study.

Phase I

•To compare attempters and non-attempters in terms of psychosocial factors and parasuicidal behaviour.

•To determine the influence of psychosocial factors (hope, self-esteem, parental styles, parental punitiveness, parental control and resilience) on adolescent parasuicide.

•To establish if there is significant gender differences of psychosocial factors and parasuicide.

Phase II

•To develop and test the efficacy of intervention among adolescents who have engaged in parasuicide.

1.4. SCOPE OF THE STUDY

Phase I documents baseline data, comparing attempters and non-attempters, while Phase II establishes an empirical intervention and assess whether the intervention had an influence on parasuicide. The psychosocial variables assessed include hope, self-esteem, parental warmth, parental control, parenting punitiveness, and resilience. The site of the study is the Limpopo Province, South Africa, limited to the Voortrekker hospital in Mokopane Town.

1.5. SIGNIFICANCE OF THE STUDY

The significance of this study is discussed by considering three broad areas: 1) theoretical significance, 2) methodological significance and, 3) practical significance.

1.5.1. Theoretical significance

In South Africa there is a vast literature on the psychosocial factors of suicide, but most of these studies have limited themselves to baseline data and avoided formulating interventions. To the authors' knowledge, this is the first research project in South Africa to explore the psychosocial factors of adolescent parasuicide, develop and implement interventions, as well as test the intervention's efficacy in a quantitative research. Therefore this study contributes to the current theoretical and methodological knowledge.

Because of the scarcity of literature on parasuicide intervention, this study will add to the literature available in South Africa. It will also contribute to a theoretical

understanding of the development of the intervention programme for parasuicide which will be useful for future replication of the study.

The results of this study will also inform policy makers in health planning, modifying current interventions for suicidal patients, as well as suicide prevention. Furthermore, this study will serve as a key source for the improvement of health issues surrounding therapy for adolescents who have engaged in parasuicide.

Due to the dearth of literature on parasuicide intervention, other avenues of research are expected to develop from the foundation laid by this study.

Most previous studies conducted on parasuicidal behaviour have focused on either one or two of the variables such as self-esteem and hope, or resilience alone with few having explored the comprehensive psychosocial factors (George, 2005). The inclusion of the psychosocial variables in one study in South Africa is unique, let alone among adolescents who have engaged in parasuicide. Therefore this study adds to the current theoretical knowledge.

The widest body of literature regarding parasuicide interventions is from the Western countries (Brent, Holder and Kolko, 1997; Harrington et al, 2000; Turner, 2000; Perseius et al, 2003; and Fleischmann et al. 2008) depicting that there is a lack of documented knowledge in South Africa. Currently there is a lack of empirical intervention studied in South Africa, although most researchers did make recommendations of intervention strategies (Pillay & Wassenaar, 1997; Madu & Matla, 2004; Wassenaar & Pillay; 2007; Ajaero, 2008). As a result of this lack, this research will assist in filling the lacuna of knowledge by developing, implementing and testing the intervention efficacy among parasuicidal individuals.

1.5.2. Methodological significance

Thus far in South Africa, previous studies have assessed some of the psychosocial factors among non-clinical populations who have not specifically engaged in parasuicide. This study is unique because of the inclusion of both attempters and non-attempters therefore adding to the current methodological knowledge.

Furthermore this is the first study to utilise the Wagnild and Young Resilience Scale among a population of parasuicidal adolescents. This is because few of the studies in South Africa have explored suicidal behaviours in relations to resilience, as there is a lack of suicide studies integrating the two factors. This study will contribute to the body of literature in the growing field of resilience in relation to suicidal behaviour therefore adding to methodological knowledge.

Furthermore, the use of the Structural Equation Modelling (SEM) to understand the pathways of psychosocial factors and parasuicide is unique within the South African context. This study will open an avenue for the future use of high-end statistics in future studies of this kind.

Because of lack of intervention studies in South Africa, this study will have implications for further development of psychosocial skills training programmes or intervention studies. This will hopefully be conducted on a larger population using different methodological approaches.

1.5.3. Practical significance

The high rate of adolescent deaths due to suicide in South Africa (Malan, 2014) reflects a need to intensify the parasuicide intervention method in clinical situations to reduce repetition of parasuicide and preventing death by suicide. Therefore this study will study will contribute to the body of knowledge within the field of clinical psychology, especially assisting with advancement of mental health professionals' skills of psychotherapy with parasuicidal adolescents.

Furthermore, the intervention strategies outlined are useable, cost effective, require minimal training and can be used with patients of different levels of cognitive functioning making it accessible to every adolescent, as well as developmentally appropriate for adolescents.

The manner in which this intervention is formulated can also be used in proactive prevention of suicidal behaviour, therefore making it easy to adapt it for preventative awareness campaigns among adolescents who have not engaged in parasuicide.

CHAPTER 2: THEORETICAL FRAMEWORK AND PERSPECTIVES

The biopsychosocial model is utilised as a study framework to conceptualise the variables of this study. Furthermore different theories to explain parasuicide and psychosocial variables of this study are also included.

2.1. THEORETICAL FRAMEWORK

2.1.1. Biopsychosocial model

The biopsychosocial model, which was first developed by cardiologist Dr George Engel (Engel, 1977) is today widely accepted by mental health professionals. This model evolved from being a strictly biomedical model to a biopsychosocial model, taking into consideration other factors involved in human disease or condition. Instead of focusing on human condition as influenced only by medical factors, the model suggests that an integrated approach to human behaviour and disease be considered. This means that in the study of parasuicide, a combination of psychosocial factors needs to be explored. This model stresses that biological, psychological and social factors, although distinctive, are all interlinked and important to explore as contributing to the development and maintenance of a disorder or a condition. With regard to the current study this model assists by providing a conceptual framework for parasuicide and its influential factors. It is widely accepted that parasuicide is the outcome of a complex interplay of aetiological factors. This section explains how biology (though not a focus of this study, it will only be discussed for the sake of clarifications), psychology and social factors influence parasuicide and how they can all be integrated in parasuicide intervention.

From a biological perspective, this model explains that factors such as genes, neurotransmitters and gender are influential elements of parasuicide (Sadock & Sadock, 2007). There have been reports that parasuicide occurs in some families, especially in families where there is history of depression. For an example, in families that have had a case of depression with violent suicidal behaviour, parasuicidal behaviours are more common than in families without previous parasuicide. Other explanations found that a child born to a mother who is a recurrent suicide attempter will also be prone to parasuicide. Although there is an overlap in genetic and social explanations with this finding, both factors (genes or socialisation) come into play here and require further study (Sadock, Sadock & Ruiz, 2015).

A greater risk of double suicide among identical vs fraternal twin pairs (Roy, Nielsen, Rylander, Sarchiapone, & Segal, 1999) is reported. Whether genes or socialisation is implicated in twin studies is not known yet, but research has found that there have been records of imitation of parasuicide among twins, especially if they share a life event or a stressor (Tondo & Baldessarini, 2001). Other investigative studies where post-mortems were conducted discovered that there is a reduced amount of cerebral concentrations of serotonin in the brain of individuals who commit suicide, and this is because low serotonin is strongly implicated in depression, which is usually a precursor to parasuicide (Mann, 1998).

Furthermore, deficient serotogenic functioning in the ventral prefrontal cerebral cortex may contribute to the disinhibition of impulsive aggressive behaviour among those individuals who engage in violent suicide (Mann, Waternaux, Haas, & Malone 1999). The functions of serotonin, genes and the twin effect of parasuicide are not independent and can be influenced by environmental factors, not limited to stress, grief, abuse of substances, low thyroid functioning, and unstable blood pressure,

therefore increasing unbearable psychological pain and exposing the individuals to parasuicide. Although an adolescent may have a certain genetic vulnerability to suicidal behaviour, he/she will not just engage in the behaviour without a predisposing negatively perceived situation that triggers the vulnerability, exposing the individual to hopelessness as well as negative issues in self-esteem and resilience, ultimately causing parasuicide.

As much as gender can be viewed as a social and a psychological concept, for the purpose of this study it is discussed as a biological concept. It has always been a known fact that men and women behave differently due to differences in their psychological characteristics such as emotion, motivation, cognition, and sexuality. With regard to the current study, research shows that females engage in parasuicide more than males (Carli et al., 2013; Garcia, Skay, Sieving, Naughton, & Bearinger 2008; Cheng et al., 2009; Brent, McMakin, Kennard, Goldstein, Mayes & Douaihy, 2013; Nath, Paris, Thombs, & Kirmayer, 2012; Eskin, Ertekin, Dereboy, & Demirkiran, 2007; Blum, Sudhinaraset, & Emerson, 2012). However, males have always been associated with the use of more lethal methods, therefore completing suicide or dying by suicide more than females (Kpsowa & McElvain, 2006).

In practical application, with regard to genetic explanations, any family history of suicidal behaviour or depression in a patient should be thoroughly assessed. If need be, tests for neurotransmitters may be done if there is a family history of depression or suicidal behaviours or if the parasuicide behaviour is not explainable by any other circumstances. Interventions for both males and females may have to differ in intensity or session numbers, since some males have an inability to be expressive in therapy when compared to females.

Hope, self-esteem, and resilience are integrated and explained in the psychological model. According to this model, factors such as psychodynamic explanations of conflicts, losses, changes in life and relationships are influential in parasuicide. Other issues include fantasies of escape, reward, reunion, or resurrection (Hendin, 1991). Leenaars and Balance (2010) explained parasuicide from Freud's perspective as result of the confusion between the self and the lost other object, leading to homicidal anger towards the self. This usually occurs when there is self-blame and when events are seen as uncontrollable. At times, suicidal behaviour can arise from guilt for wishing the death of parents, identification with a parent's death, revenge for loss and gratification, and a request for help. Conflicts between the conscious and the unconscious have been implicated in the precipitations of parasuicide. In simpler terms, adolescents who have had a loss of a significant other through divorce or death will have to go through changes in their lives, such as adjusting to the loss. If not able to cope, suicidal behaviour may be seen as way of reuniting with the dead individual or inflicting revenge or hurt on the person that rejected them.

The psychological perspectives also clarify that suicidal behaviour can be influenced by hopelessness, low self-esteem, and low resilience. Intense pre-occupation with humiliation and disappointment can influence parasuicide. Thoughts that are driven by punitiveness and spite, or self-hate may lead to suicidal behaviour. Cognitive approaches to suicide have stressed that learned helplessness, hopelessness, cognitive distortions about self-esteem; abilities and the environment combined with pathological processing of organising and interpreting experiences are implicated in suicidal behaviour (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995; Beck, Kovacks, & Weissmann, 1979). Suicidal people have been found to have passive

attitudes towards the challenges of living and have always shown impaired problem solving capacity (Pollock & Williams, 1998), meaning that these individuals do not have the ability to bounce back when faced with life stressors. Their uses of resources to make up resilience are poor and dysfunctional, and they are left feeling helpless and hopeless without solutions to life challenges.

Parasuicidal behaviour can also serve as defence mechanisms to protect the self from threat to self-esteem and confidence. As in the case with parasuicidal adolescents, an attempt is a method of dealing with the fears of being embarrassed, ashamed, or feeling degraded, especially when the circumstances are such that their self-esteem has been damaged, for example by failing matric, falling pregnant or an HIV diagnosis. In clinical practice, it is important to consider the life event that led to a suicidal behaviour so that the joint and independent influence of the event, hope, self-esteem, and resilience can be clearly understood and be framed effectively in the intervention process.

With regard to the social perspective, parenting styles are explained as part of this study. Adolescence is as much a social phenomenon as it is a biological and a psychological phenomenon. It is a period of dependence, extended by the society and the connection an adolescent has. Parents play a specific role in moulding the emotional and psychological functioning of an adolescent. It is mostly the parental upbringing that determines the stability of an adolescent in all areas of functioning. Steinberg et al, (1991) and Baumrind (1991) conceptualise parenting as warmth control. These categories are then broken down into high warmth, positive/assertive control and in adolescence high expectations; (low warmth, high conflict and coercive, punitive control attempts; high warmth coupled with low control attempts; and low warmth and low control. According to Baumrind (1991) parenting styles are

associated with several risk behaviours and personality aspects, especially when adverse parenting styles such as the authoritarian or rejecting-neglecting styles are evident.

Problems with lower self-esteem and lower social and personal competence have been found in adolescents. These are associated with authoritarian parenting in comparison to authoritative parenting, which produces adolescents with higher self-esteem, higher self-control, and stronger resistance to peer influence (Jackson, Henriksen, & Foshee, 1998).

Suicidal behaviour is associated with perceived negative parenting expressed as low parental warmth and high parental control and punitiveness (Lai & McBride-Chang, 2001). Furthermore, adolescents with parents high in control and low in affection also have double the risk of suicidal ideation and three times the risk of parasuicide (Martin & Waite, 1994). Rehbein and Baier (2013) also stress that parental hostility is associated with parasuicide, especially among boys, where experiences with parental violence are more prevalent and have been shown to predict suicide attempts.

This model explains that adolescents in an environment in which they were not nurtured, were unloved, controlled physically and emotionally, and were punished with harsh, aggressive and violent methods are likely to engage in parasuicide. These kinds of parenting style impact negatively on the adolescent's self-esteem, resilience and hope. Because these resources form a buffer against suicidal behaviour, and when they are disturbed, the adolescent may resort to suicidal behaviour as a means of escape.

In summary, the biopsychosocial model explains that parasuicide must be handled by taking into consideration the biological, psychological and social components of functioning. These components are interconnected and if one component is influenced, it will affect the others. The lack of parasuicide intervention methods that take into consideration the biopsychosocial framework can lead to re-engagement and consequently completed suicide. Therefore, any intervention to be formulated must integrate the biological, psychological and social factors to be effective. In conclusion, these study intervention methods are developed from the framework of the biopsychosocial model.

2.2. THEORETICAL PERSPECTIVES ON PARASUICIDE

2.2.1. Transactional model of suicide

The transactional model of suicide was developed by Bonner and Rich (1988) and emphasises the constant interaction between different influences in an individual's life over time. This theory is founded on the same view as the biopsychosocial model and it indicates how environmental factors, social factors as well as personal factors result in acts such as parasuicide. This theory is based on the assumption that parasuicidal behaviour occurs as part of the on-going interactions of a variety of cognitive, emotional, social and environmental variables. It explains parasuicidal behaviour as an act that results from the interaction between environmental stress and cognitive distortions, which in turn leads to rigidity, ultimately causing depression. According to this model, individuals with strong maladaptive reasons for not living are more likely to give up attempts to resolve their stress. They tend to be filled with hopelessness, lacking also in resilience, which causes low self-esteem and are therefore likely to execute more overt forms of suicidal behaviour.

Similar to the theory by Beck (1986) that refers to a cognitive behavioural model of suicidality, this theory explains that the fundamental pathway for suicidal behaviour is thoughts, and the personal meaning of life is in the atmosphere the individual lives in. Parasuicidal behaviour is secondary to maladaptive meaning, constructed and assigned in relation to the self, the environmental context and the future. The relationship between the suicidal belief system and the other psychological, biological and physiological systems is interdependent. This means that for an adolescent to attempt suicide, there must be a continuous interacting process of cognitive dysfunctions (negative thoughts towards the self and the environment), physiological dysfunctions (physical or somatic problems), and environmental dysfunction (stressors such as relationship problems, or loss of a loved one). All these factors combined, cause a burden on the adolescent's functioning, causing a need to escape life and consciousness through suicidal behaviour.

The applicability of this theory to this study is demonstrated by Linehan (1993), who uses it to explain parasuicide of individuals with borderline personality disorders. Linehan (1993) explains that when adolescents progress into rigid thinking, there is an increment of emotional explosiveness, and over time suicidal tendencies and self-injuries. Although this theory explains the interaction of variables and their influence on parasuicide, it did not explain specific intrapsychic processes that urge individuals to engage in parasuicide, the theory by Schneidman (1993) explains the reasons effectively. The discussion of Schneidman model of unendurable psychological pain follows below.

2.2.2. Schneidman's model of unendurable psychological pain

This theory was developed in 1993. Shneidman (1993) states that human suicide is characterised by psycheache, which is defined as profound psychological pain that stems from thwarted psychological needs that required satisfaction. Each parasuicide is distinctive. However, most behaviours have common characteristics that are present with most successful suicides. According to Shneidman, the ten characteristics of parasuicide are as follows:

Suicide offers a solution: Suicide is seen as a problem solving strategy. Adolescents are developing individuals who still lack certain coping mechanism and are therefore not able to solve problems. They usually see limited alternatives to the problems of life, and therefore begin to experience life as painful, intolerable, absurd, and meaningless, with suicide as the only way out. Suicide can also be seen as a way to end consciousness. It becomes a method of ending suffering and a way to stop mental pain and anguish (Maris, 1982).

Intolerable psychological pain, also referred to as psycheache, is a common denominator in all suicidal behaviour (Schneidman, 1993). Psycheache is defined as hurt, anguish, loneliness, shame, soreness, and aching in the mind. The pain is essentially psychological. When adolescents experience psycheache, they experience excessive shame, guilt, humiliation, loneliness, fear, anger, at times dread of growing old or dying badly (Schneidman, 1993). Adolescents can also have frustrated psychological needs. This happens when basic needs such as achievement, affiliation, autonomy, nurturance, and understanding are not satisfied. If combined with other life events causing severe stress, this can lead to parasuicide (Maslow, 1963; 1968). Feelings of hopelessness and helplessness in suicidal individuals are always the

central theme according to research study by Beck (1986). Adolescents feel depressed, hopeless, and helpless if they believe that their life quality will never improve.

Continuous feelings of helplessness are associated with a need (Beck, 1986) to escape from life through suicidal behaviour. At times adolescents may experience ambivalence, wanting to both die and live at the same time. Even with severe suicidal ideations, they may continue to make active life decisions, like making a doctor's appointment, which is usually a cry for assistance. However, if their situation is not helped, a suicide attempt may occur. Such individuals experience egression, which is a belief that they cannot escape problems of life without dying (Schneidman, 1993). Egression causes them to adopt suicidal behaviour as a lifelong coping pattern or as a coping skill to life challenges. The explanations of the characteristics of parasuicide by Schneidman are broad and inclusive and are accepted to explain this study. However, the theory focuses more on the intrapsychic factors than personally experienced factors, as explained by the Interpersonal theory of suicide.

2.2.3. The interpersonal theory of suicide

As explained by Joiner (2005), this theory proposes that everyone has a need to belong and have some form of a mutually satisfying relationship, especially adolescents, as their life satisfaction is determined by their connections. This theory states that the most dangerous form of suicidal desire is caused by the synchronised presence of two interpersonal constructs, namely thwarted belongingness and perceived burdensomeness with hopelessness. Furthermore, the theory explains that the competence to engage in suicidal behaviour is separate from the wish to engage in suicidal behaviour.

According to Van Orden et al. (2010) thwarted belongingness refers to the feelings one has about belonging, or when the "need to belong" (to others) is unmet. Van Orden et al. (2010) further explains perceived burdensomeness as the belief that one is so inadequate that one`s existence is a burden on friends, family members and/or society (Van Orden et al. 2010). This explanation characterises an adolescent who engages in parasuicide. According to the theory, the capability for suicidal behaviour emerges through habituation and opponent processes in response to recurrent experience to physically painful or frightening experiences such as bullying, sexual assault, family problems, or other forms of abuse. An adolescent may sense that he or she lacks meaningful connections to others, either because of a belief that nobody cares or a sense that, although others care, they cannot relate to the individual's current situation. This usually happens with adolescents with absent parents or who have been experiencing recurrent abuse.

When an adolescent senses that he or she makes no meaningful contribution to the world and is a liability to others, low self-esteem, hopelessness, and poor internal control arise, influencing parasuicide.

An adolescent who has been exposed to painful provocative experiences such as violent punitiveness by the parents, will usually suffer from intense psychological pain. This intense psychological pain combined with the physical pain causes the adolescent to have diminished fear of death, and when there is no fear of death the adolescent will engage in an inherently frightening and painful suicide attempt with a high rate of fatality.

The explanation by this theory is vital in the study of adolescent parasuicide and the formulations of an intervention, since these feelings of burdensomeness and

loneliness are processes that should be addressed in an intervention for adolescent parasuicide. In this study these processes are integrated with self-esteem, resilience and hope interventions. In support of the themes of the interpersonal theory of suicide, the theory of escape from the self by Baumeister explains other intrapsychic reasons that cause individuals to attempt suicide. The explanation follows below.

2.2.4. Baumeister's theory

Another theory that is one of the most influential and well-studied models of suicide is Baumeister's theory of escape from the self. Baumeister's theory includes six main steps towards a suicide attempt: (1) falling short of standards, (2) attributions to the self, (3) high self-awareness, (4) negative affect, (5) cognitive deconstruction, and (6) consequences of deconstruction. The suicide act begins with the perception that current circumstances fall short of standards that are either self-imposed or perceived as imposed by significant others. Next, the individual makes negative, internal attributions for failing to meet these unrealistically high expectations. As a result of falling short of standards and engaging in self-criticisms for perceived failures, the individual develops a heightened state of painful self-awareness. An adolescent may start to perceive him/herself as incompetent, undesirable, guilty, or inadequate. Consequences of this negative deconstruction are consistent psychological pain. Suicide is then motivated by the desire to escape this aversive state of self-awareness of perceived shortcomings or failures and lack of achievements (Baumeister, 1990). In the case of the current study, consistent psychological pain is associated with a negative breakdown of the adolescent's resilience, hope and self-esteem.

For an example, an adolescent who has fallen pregnant in high school, could feel that she has failed herself and her family, as she will not be able to meet the standards that she has set for herself, such as for instance obtaining her degree. Next she may have feelings of self-hate, guilt and low self-esteem and engage in self-criticism. If these feelings are not interrupted by some form of positive intervention, she may want to escape the self in the form of a suicide. In order to increase the usefulness of this theory in this study, it is incorporated in the resilience, hope and self-esteem intervention.

2.2.5. Differential susceptibility hypothesis

Differential susceptibility hypothesis is a brief theory developed by Belsky (1997), stressing that individuals vary in the degree to which they are affected by experiences or the qualities of the environment they are exposed to. Some individuals are more susceptible to such influences than others. In this study, gender differences are explored in terms of parasuicide and psychosocial factors. Gender differences have been found to expose some individuals to certain processes more than others. Previous research have reported that men have been found to abuse drugs more than women. This theory recognises that the pathways to suicide for males and females may be quite different, as has been recognised by researchers such as Anestis, Bagge, Tull, and Joiner (2011). Previous research has revealed that females engage in parasuicidal behaviour more than males (Carli et al., 2013; Garcia et al, 2008; Cheng et al, 2009; Brent et al., 2013; Nath et al, 2012; Eskin, Ertekin, Dereboy, & Demirkiran, 2007; Blum et al, 2012). Males have been found to have a higher suicide mortality rate with the use of more lethal methods compared to females (Kpsowa & McElvain, 2006). In

other aspects, males more often reported having parents who are punitive than females, causing them to engage in parasuicide more than females.

It is important to note that gender differences also influence the way individuals perceive the life events that occur in their lives. Females may perceive an event as painful, when men may perceive it as minor. Previous studies have shown that females may be particularly sensitive to family conflicts because of the importance of close ties and family for happiness (Van Orden et al., 2010). In this study, the explanation of gender differences by this theory is taken into considerations during the implementation of an intervention.

2.3. Summary of the theories explaining parasuicide

The theories used in this study to explain parasuicidal behaviour among adolescents all ascribe to the central belief that hope, self-esteem, parenting styles and resilience interdependently and in an interlinked manner influence suicide. The need to escape psychological pain is another theme that is most prominent from the theories. The author draws knowledge from these theories to assist in the formulation of intervention strategies to address adolescent parasuicide with the aim of preventing further reattempts and suicide mortality.

2.4. THEORETICAL PERSPECTIVES OF PSYCHOSOCIAL FACTORS IN PARASUICIDE.

The psychosocial factors of this study include hope, self-esteem, parenting styles and resilience. The theories discussed below assist this study by explaining the processes of the psychosocial variables by articulating the specific factors considered to be important to this study.

2.4.1. Hope theory

The proponent of the hope theory is C.R. Snyder (Snyder, 1995). The basic perspective of this theory is that hope comprises two appraisals that occur simultaneously: (1) the appraisal that one is capable of executing the means to attain desired goals (agency thinking); and (2) the appraisal that one is capable of generating those means (pathways thinking). Snyder argues that from birth, individuals start to piece together correlations (what goes with what), until they begin to develop an understanding of causation or the notion that one thing can lead to another. This is the foundation of the pathways thinking that forms one element of Snyder's Hope Theory. At around one year of age, psychological growth occurs and we develop a sense of identity. It is also the time when we realise that we can make things happen. This is agency thinking.

In addition, this theory holds the view that hopeful thinkers, as people who are able to establish clear goals, imagine multiple workable pathways toward those goals, and persevere, even when obstacles get in their way. Furthermore, Snyder (1994) sees hope as a cognition, departing from other theorists who see hope as an emotion or, if not, as a state with an affective component. Moreover, Snyder also mentions that hopeful thinking is one of the biggest determinants of success – more so even than intelligence, skill or previous success. The theory also holds the idea that hope does contribute to greater levels of self-esteem and well-being.

This theory is applicable to this study because the adolescent's parasuicide is dependent on the individual state of hope. It is expected from this theory that

individuals with low pathway and agency thinking may be more susceptible to parasuicide as compared to those with high pathway and agency thinking.

2.4.2. Self-esteem theory

This theory was pioneered by Rosenberg (1965). Rosenberg (1965) explained self-esteem as a positive or negative orientation toward oneself; or a general appraisal of one's worth. It is composed of two separate categories, namely competence and worth (Gecas, 1982; Gecas & Schwalbe, 1983). The competence element (efficacy-based self-esteem) refers to the degree to which people see themselves as capable and effective. The worth element (worth-based self-esteem) refers to the degree to which individuals feel they are persons of worth.

Normally, people are motivated to have high self-esteem, and having it indicates positive self-interest, not selfishness. Self-esteem is only one component of the self-concept, which Rosenberg defines as "totality of the individual's thoughts and feelings with reference to himself as an object." Besides self-esteem, self-efficacy or mastery, and self-identities are important parts of the self-concept. People high in self-esteem claim to be more likable and attractive, to have better relationships, and to make better impressions on others than people with low self-esteem. High self-esteem makes people more willing to speak up in groups and to criticise the group's approach. Relative to people with low self-esteem, those with high self-esteem show stronger clique preference, which may increase bias and judgment towards the other group.

It is assumed that the less the self-verification, the greater the distress. The higher an individual's self-esteem, the less the distress. The higher an individual's self-esteem, the less impact a lack of self-verification will have on levels of distress. The

more persistent the lack of self-verification, the greater the loss in self-esteem, perhaps leading to parasuicidal behaviour. At times self-esteem can also be influenced by parenting styles. Adolescents who do not receive adequate positive parenting behaviours and who instead receive punitive and controlling parenting may experience deprivations in the nurturing of their self-esteem.

When faced with life stressors, lack of a strong self-esteem causes an inability to be resourceful with generating solutions to the problems faced. Therefore, to escape psychological pain, such individuals may resort to parasuicide. It is important to note that parasuicidal behaviours do not develop directly from self-esteem, but self-esteem may have indirect effects on whether one decides to engage in parasuicide or not.

2.4.3. Theory of parenting styles

The best known theory in the study on parent-child relations is grounded on the work of Diana Baumrind in the 1960s (Baumrind, 1991), which has been cited by several researchers (Maccoby & Martin, 1983; Steinberg, Lamborn, Darling, Mounts, & Dornbusch 1991; Hetherington, Henderson, & Reiss, 1999). Developmental psychologists have been exploring how parents impact child development. Although it is difficult to find actual cause-and-effect links between specific actions of parents and later behaviour of children, some reliable information regarding parent-child relationship outcomes has been recorded. This is because some children raised in harsh environments have grown up to become impeccable contributing members of the society, whereas some raised in environments filled with nurturance and love have grown up to be deviant and/or with clinical conditions. This shows that there is

probably no linear influence of parenting styles on adolescent outcomes, but there are other interdependent factors involved in the process.

Nevertheless, Baumrind (1991) and Steinberg et al (1991) proposed important categories of parenting and how they influence adolescent outcomes. They were conceptualised as parental warmth and control. These types have been recurrently linked with adolescent outcomes in research.

Warm parents are democratic, but they establish rules that children are expected to follow. When their children make mistakes, they are forgiving and do not use harsh methods of punishing. They are able to discuss concerns with their children and they show empathy and understanding. Children and adolescents of warm parents are consistently described as charitable, and socially competent. With the parental warmth style, high responsiveness and high demand in parenting behaviour has been shown to be associated with less misconduct and clinical symptoms among adolescents (Steinberg et al, 1991).

Controlling parents have low responsiveness and are highly demanding and aggressive with punitive behaviours. They usually establish strict rules that the children have to follow. If an adolescent fails to follow these rules, they are usually punished. These parents usually fail to explain the reasoning behind these rules when asked. Brar (2003) explains that this parenting style has been associated with externalising behavioural problems such as conduct problems, ADHD, and substance abuse. Other findings by Odubote (2008) show that a controlling parenting style has a strong relationship with delinquency behaviour.

According to Baumrind (1991), permissive parenting is characterised by extreme warmth and indulgence without control. These parents make very few

demands on the children. They are not punitive, but allow most things to happen, in a way they don't exercise any form of control. Although they nurture their children, they tend to act as friends to their children than as parents. The permissive parenting style has been associated with delinquency. These adolescents have been found to be reliant, needy, helpless and lacking social accountability with low cognitive functioning (Alizadeh, Abu Talib, Abdullah & Mansor, 2011) leading to inability to self-regulate or deal with daily stressors.

Baumrind (1991) explains that the disengaged parenting style is comprised of few demands, very low warmth and little communication. Even though they are able to provide for the needs of the children materially, they are disengaged emotionally. At times they even reject and neglect the child. They are mostly indifferent to their adolescent's needs, whereabouts, or experiences at school or with peers. Research has found that these children tend to show problematic behaviours in that they lack self-control, have low self-esteem and are less competent than their peers. They may also demonstrate impulsive behaviours due to issues with emotional and self-regulation.

In summary, the theory of parenting styles makes an assumption that there is an association between a poor parenting atmosphere and adolescents disorderly outcomes. This means that the more negative the parenting environment, the worse the child outcome and/or the possibility of clinical disorders. For example, the development of depression, anxiety, and other internalising disorders has been linked to parent-child relationships, lack of parental warmth, high parental conflict and extreme punitiveness (Hudson & Rapee, 2002; Pillay & Wassenaar, 1997). Parental control and punitiveness were found to be strongly associated with suicide attempts in recent research (Rehbein & Baier, 2013; Alizadeh, Abu Talib, Abdullah & Mansor,

2011). In this study, parenting styles are measured according to parental warmth, and control. Parental punitiveness is also measured by the use of an independent scale.

2.4.4. Resilience theory

The Resilience theory by Wagnild and Young (1993) views resilience as a personality characteristic that moderates the negative effects of stress and promotes adaptation. According to Wagnild and Young (1993) there are two important aspects of resilience, namely personal competence (a collection of behaviours including concentration, intensity, persistence, and self-sufficiency) and acceptance of self and life (acceptance of life in spite of adversity and experience of peace with adaptability, balance, flexibility, and perspective of life). Although this theory has never been used to explain parasuicide, when used with other mental health conditions, it was found that individuals who had high personal competence and acceptance of self and life were better able to cope with stressors than those with low personal competence and acceptance of self and life. Previous research have found that social and personal competence factors of resilience are commonly found among teenagers who did not attempt suicide in comparison to those who did (Everall, Altrows, & Paulson, 2006).

Five interrelated concepts that constitute resilience according to Wagnild and Young (1993) are equanimity, (a balanced perspective of one's life and experiences), perseverance (a willingness to continue the struggle to reconstruct one's life, to remain involved and to practice self-discipline), self-reliance (a belief in oneself and ones capabilities), meaningfulness (the realisation that life has a purpose and the valuations of ones contributions), existential aloneness (the realisation that each person's life path is unique. Existential aloneness confers a feeling of freedom and a sense of

uniqueness). This study continues on the assumption that for adolescents not to attempt suicide, the presence of these five concepts should be positive, functional and strong.

Wagnild and Young (1993) pointed out that information on resilience is scarce, and as such other explanations of resilience are included here. Authors such as Richardson, Neiger, Jensen, and Kumpfer (1990) stated that resilience implies the process of coping with mild to severe disruptions as opportunities for growth, development, and skill building. Similar to Wagnild and Young (1993), other theorists have explained resilience as a stable personality trait or ability that protects individuals from the negative effects of risk and adversity (Hollister-Wagner, Foshee, & Jackson, 2001; Howard & Johnson, 2000; Walsh, 2002).

In order for resilience to be experienced, the following processes must occur: predisposition to biopsychosocial or environmental conditions; contact with a high-magnitude stressor; stress-response; return to baseline functioning and symptom levels. Even with this, resilience remains invariant, and the context in which it occurs should be considered. Luthar, Cicchetti, & Becker (2000) mention that some adolescents manifest resilience in some situations and areas of functioning, but not in others, leaving a gap for the development of deficits.

Resilience is also dependent on the reciprocal interactions of the environment. Factors that promote resilience fall within the category of individual, family and external or community factors, and should be considered in intervention studies. Among the individual factors, self-esteem is implicated as a precursor to high resilience. Resilient adolescents are generally found to have good problem-solving skills and to use problem-focused coping strategies (Howard & Johnson, 2000). In

other words, when faced with problems, these adolescents face and reflect on problems rather than avoiding them, they creatively generate and plan solutions to problems and reach out to other people for help.

Parental support as one of the family factors can be instrumental if parents provide specific resources and services to their adolescent to promote resilience. These supportive sources can be informative (consisting of guidance and information that assist the youth in navigating life's challenges), and emotional, (where the adolescent is provided with companionship and given the message that he or she is valued and appreciated).

According to Johnson et al (2010) adolescents who receive direct guidance and encouragement from their parents in the face of adversity often feel motivated, optimistic, and reassured that someone believes in their ability to succeed and would not resort to suicidal behaviour. Extra activities such as athletics, pastimes, or spiritual events provide healing from the tensions of family life and expose adolescents to conditions more constructive for growth. Furthermore resilient adolescents often seek out support when in need from adult sources that are not related to them such as pastors, and community helpers.

Furthermore, adolescents with resilience tend to have goals, hopes, and plans for the future, combined with the persistence and ambition to bring them to fruition (Everall, Altrows, & Paulson, 2006). They have been found to have strong social skills with interpersonal communication filled with wittiness, compassion, agility, and an easy-going personality, all of which are able to improve openness (Hollister-Wagner et al., 2001).

In addition a positive self-concept and self-esteem have also been found to influence healthy resilience among adolescents (Dumont & Provost, 1999; Hollister-Wagner et al., 2001). Dumont and Provost (1999) found that resilient adolescents were participants with high levels of stress and low levels of depression who demonstrated significantly greater self-esteem than did susceptible adolescents who were participants with high levels of both stress and depression.

2.4.5. Summary of the theories explaining psychosocial variables of this study

From the theories explaining the variables of this study, there is consensus that if an adolescent experiences a decline in hope, self-esteem, and resilience, he or she is no longer able to face adverse events and to overcome them. These variables are independent as well as interdependent, for example, when self-esteem is low, an adolescent will have hopelessness and lack resilience. Parenting influences are implicated in the development of hope, self-esteem, and resilience. Where parenting is effective and positive, there is efficient development of functional self-esteem, hope, and resilience. These theories do confirm that the inclusion of these variables in intervention studies is necessary to prevent recidivism of parasuicidal behaviour among adolescents.

2.5. THE THEORY OF INDIVIDUAL INTERVENTION IN CLINICAL RESEARCH

This theory of individual intervention in clinical research is discussed due to its applicability to the use of individual intervention in this study. Individual case intervention studies have often been compared to group intervention studies and regarded as unscientific, anecdotal and inferior. Even so, they can still be used to test a theory and confirm hypotheses that have implications for individual cases. According to Charlton and Walston (1998), for individual case intervention studies to carry weight in clinical research, the following two methodological principles have to be put in place. Initially, a theory that has sufficient precision to explain individual cases have to be developed or adopted, then a hypothesised model which shows how variables are related or how they influence each other has to be constructed. For the purposes of this study, the biopsychosocial model has been adopted for use. Secondly, a hypothesised model should be tested using pure cases to determine the acceptability or rejection of the model.

History has shown that the use of individual case studies has certain weaknesses, although it has been in use since the early 1900's and later on by individuals like Freud and Pavlov. Individual case studies have been labelled as unrepeatable, uncontrolled, unrepresentative and subjectively interpreted. Even with these weaknesses, the use of case studies should not be denigrated and replaced with group studies, because this method can still assist by providing detailed information and insight for further research, permitting investigation of otherwise impractical situations and laying a foundation for larger studies.

Charlton and Walston (1998) describe two kinds of individual case studies, namely serendipity and formal case study. Serendipity is the process whereby a hypothesis is tested by convenience, for example a clinician noticing a case that unexpectedly refutes the theory that he/she holds or believes in. Serendipity case studies help the clinician to modify the framework of expectation regarding human disease or disorder in an important and interesting manner.

In formal case study, the researcher has formulated a hypothesis using a specific theory or a model that requires testing by seeking out cases that would confirm or reject the hypothesis (Shallice, 1998; Charlton, 1995). Walston (1997) outlines the methods used in formal case study as contextual theory, specific hypothesis, case findings, hypothesis testing, and analysis. For the current study, a formal case study approach was adopted because it has been used widely in psychology within the area of Cognitive Neuropsychology (Zeki, 1993).

In contextual theory, the researcher is supposed to study theory intensely with scrutiny and understanding. The researcher is then expected to come up with a specific hypothesis in the form of a model that can be tested to determine the influence of variables on each other. Case finding is supposed to be conducted after the hypothesised model has been established. The Charlton-Walston theory encourages finding pure cases, in other words cases that do not have any other recognisable symptoms or a diagnosis of other disorders. The theory encourages the use of interviews, psychometric tests and screening measures to confirm the absence of other disorders. Seeking out pure cases assists with controlling the study for any unobservable factors that may interrupt the intervention being implemented. In order to test the hypothesis, the researcher should choose appropriate instruments to test the hypothesis. The selection of the instruments is dependent on the research approach,

being either qualitative or quantitative. Analysis should adapt to the research approach employed in the study.

Rowley (2002) encourages the use of multiple case designs to achieve the replication logic. Rowley (2002) further stresses that multiple cases can be regarded as equivalent to multiple experiments. The Charlton and Walston (1998) study has utilised four participants and concluded that although there is a need for replication of their study, the results laid a foundation for other studies to be produced. Individual case studies can be useful if conducted with understanding of theory and establishing hypotheses and within a context where replication will occur if the need arises. The methods referred to here are discussed as part of the Phase II methodology of this study.

2.6. OPERATIONAL DEFINITIONS USED IN THIS STUDY

In this study:

Psychosocial factors are defined as factors that that have an influence on parasuicide. The psychosocial factors in this study are limited to hope, self-esteem, resilience, and parenting styles and punitive parenting.

Hope is defined as looking forward to the future with confidence or expectation and includes taking steps to ensure that that expectation takes place. Hope was measured by the scores of the hope scale by Snyder (1995).

Self-esteem is defined as the perception of the adolescents in their environment. Rosenberg (1965) describes self-esteem as a favourable or unfavourable

attitude toward the self. Self-esteem was measured by the scores of the Rosenberg Self-Esteem Scale.

Parental styles refer to the emotional climate in which parents raise their children. For this study, parenting style is categorised into three categories. Parental warmth is defined as the parent's expression of interest in children's activities and friends, involvement in children's activities, expression of enthusiasm and praise for children's accomplishments, and demonstration of affection and love Parental control is the amount of supervision parents exercise, the decisions parents make about their children's activities and friends, and the rules parents hold for their children. Parental warmth and control are measured by the scores obtained in the scores on the scale of Steinberg, Lamborn, Darling, Mounts, and Dornbusch (1991).

Parental punitiveness refers to the style of parents who use some form of punishment (hitting, shoving, pinching, and putting in bondage) as a means to teach certain lessons. Parental punitiveness is measured by scores obtained on the Parental Punitiveness Scale by Ingoldsby et al. (2003).

Resilience is defined as the ability to bounce back and cope effectively in the face of difficulties (Wagnild & Young, 1993; Meichenbaum, 2005; Ungar, 2011). In this instance resilience is comprised of two elements. The first element is Personal Competence: a collection of behaviours including concentration, intensity, persistence, and self-sufficiency. The second is Acceptance of Life: the act of accepting the process of life and being able to handle it in a healthy manner. Resilience in this study is measured by scores obtained on the Resilience Scale by Wagnild and Young.

Adolescents are individuals who are females or males with ages ranging from 13-19 (Louw & Louw, 2014).

Parasuicide refers to the combinations of thoughts of engaging in behaviour intended to end one's life with the formulation of a specific method through which one intends to die and therefore engaging in potentially self-injurious behaviour in which there is intent to die but without success. To assess for the desire, thoughts, plans, and preparations, and behaviours for parasuicide the Modified Scale of Suicide Ideation was used.

The mean scores of the scales are quantified on a continuous level due to the utilisation of Structural Equation Modelling.

CHAPTER 3: LITERATURE REVIEW

Research suggests that the factors influencing parasuicide are multiple and can never be traced back to one single cause. Biological, psychological, psychiatric, historical, social and cultural factors have been implicated in the behaviour. While not all researchers consistently agree that some of the factors may cause parasuicide, most scholars have argued that the influence of psychosocial factors in parasuicide require investigation into their spectrum, consequently including them in intervention studies. One other aspect that researchers agree on is that adolescents who engage in parasuicidal acts are usually not healthy individuals (Linehan, 1993). They suffer from psychiatric or mental, physical or somatic, cultural (social, historical, and mythological) or spiritual disorders (Sadock & Sadock, 2007). The following literature review probes the psychosocial factors (limited to hope, self-esteem, parenting styles, and resilience) involved in precipitating parasuicide among adolescents and offers a review of current intervention methods. Seeing that the main subjects of this study are adolescents with parasuicide as the main dependent variable, the next section explains adolescence as a stage and parasuicide by briefly reviewing literature.

3.1. UNDERSTANDING ADOLESCENCE

Adolescence has been said to be the most crucial stage of human development (Sadock and Sadock, 2007). This is the age of transition during which an adolescent is at the threshold of adulthood (Louw & Louw, 2014). In this 21st century an adolescent is faced with rapid growth in his-or-her environment in the form of advancing

technology, exposure to drugs, and other accessible risk taking behaviours. Individuals in this stage face many physical as well as psychological changes and are sometimes not able to deal with these changes. Exposure to physical and psychological changes during adolescence can lead to increasing social, cognitive and emotional demands (Engelbrecht & Van Vuuren 2000). Brown (2008) mentions some of the primary psychosocial tasks adolescents must accomplish in order to stand out. These include developing an identity and pursuing independence; to find belonging, to find satisfying attachments and gain approval from peers; to measure up, to develop competency and find ways to achieve, to commit to particular goals, activities, and principles. The successful mastery of these demands eventually influences the health outcomes of adolescents and can determine whether they will engage in parasuicide (Louw & Louw, 2007). Furthermore, Brown (2008) found that the environments that surround the adolescent usually have a huge effect on the growth outcome of the individual as it tends to impact the individual in all areas of functioning (psychologically, socially, physically and spiritual).

In other research, it was found that adolescents tend to suffer from psychological problems at one time or the other during their development (Rupali, Sidhyartha, Manish, Kamal, & Kannan, 2014). Many of these problems are of transient nature and are often not noticed. To support this finding, a study by Halvorsen et al. (2011) among adolescents with acne revealed that suicidal thoughts were reported by 10.9% of all adolescents, but only 9.5% of those with no acne or little acne, 18.6% of those with moderate acne, and 24.1% of those with substantial acne. Furthermore, females reported more suicidal ideation, problematic lifestyles, poorer subjective health, and more psychological problems compared to males. Adolescents' health and well-being can therefore be significantly influenced by

stressors such as physical appearances as in the case of acne. Lack of access to personal and environmental coping resources worsens this pain. Adolescents are inclined to adopt negative coping behaviours when their resources appear inadequate to deal with the demands of life (Israelashvili, Gilad-Osovitzki & Asherov, 2006). Research by Campos, Besser, Abreu, Parreira and Blatt (2014) reports that adolescents with higher levels of self-deprecation and dependency on other people have a greater probability of developing severe psychological distress and show a greater level of social withdrawal and unhappiness, which account for their vulnerability to suicide risk. Among all the factors that burden adolescents, there is a presence of bidirectional pathways, indicating that the processes are reciprocal and able to influence each other. For example, an adolescent with acne may experience issues with self-esteem and resilience.

One of the most important transitions occurring during adolescence is the extent to which peer relationships rise in importance and influence (Louw & Louw, 2014). Peer relationships provide a context not only for the acquisition and maintenance of friendships and friendship networks, but also for the development of key social skills, social problem solving skills, and empathy. However, they are not entirely positive, and they may as well influence the development of negative outcomes, such as poor academic adjustment (Buhs, Ladd, & Herald, 2006), delinquency (Ellis & Zarbatany, 2007), aggression (Espelage, Holt, & Henkel, 2003), depression (Landman-Peters et al., 2005), or social anxiety (Elizabeth, King, & Ollendick, 2004). In agreement with the above statement, Fotti, Katz, Afifi, and Cox (2006) found in a study among early adolescent males and females that depression, lack of or dysfunctional relationships, low parenting nurturance, and increased

parental neglect and rejection were all significantly associated with parasuicidal behaviours.

A study by Cui, Cheng, Xu, Chen, and Wang (2011) suggests that specific insufficiencies in relationships, such as lack of age appropriate relationships and being victimised by bullying, were significantly related to parasuicidal behaviours. Du Plessis (2012) conducted a study to investigate the psychosocial factors of suicide ideation among adolescents and discovered parent-child relationships, peer relationships and financial constraints as stressors among coloured adolescents. Black adolescents reported financial constraints and romantic relationships as precipitants of stress, while white adolescents reported that their relationship with their parents is a major problem associated with suicide ideations (Du Plessis, 2012).

It appears from the above review of literature that there is consensus among researchers that the adolescent stage makes the individual vulnerable and anything that adolescents perceive as negative within their context, for example having acne, being bullied, and disconnectedness can have an influence on the psychological functioning of the individual leading to parasuicide as well as a series of repeat parasuicide. The process of parasuicide by adolescents is explained below.

3.2. UNDERSTANDING PARASUICIDE

Previous research have suggested that parasuicide is the strongest known indicator for a future successful suicide (Linehan et al, 2002). Studies show that 1% of patients who engage in parasuicide will complete suicide within two years of the first act (Semple, Reid & Miller, 2005). This view remains true in the 21st century, with researchers

agreeing that if no intervention is implemented, a repeat suicide may be completed (Schlebusch, 2012; Madu & Matla, 2004).

Parasuicidal behaviour is often done out of despair, as explained by Schneidman theory of psycheache or psychological pain (Schneidman, 1993), and as a means of escape from life distresses (Baumeister, 1990). The cause of parasuicide is frequently a psychological disorder such as mood disorders, psychosis, alcoholism, or substance abuse (Hawton & Van Heeringen, 2009). Factors that cause distress such as financial difficulties or troubles with interpersonal relationships often influence parasuicidal behaviours (Hawton & Van Heeringen, 2009). The method of parasuicide is usually dependent upon what is available to the adolescents at the time of the behaviour; this is not limited to whether there was intent or not.

Research by Zakharov, Navratil, and Pelclova (2013) has revealed that the most frequently used methods are ingestion of drugs that affect the nervous system and anti-inflammatory non-steroids. In a study conducted by these researchers, it was revealed that when engaging in parasuicide, adolescents used medication appraised as lethal in 73.4% of cases. Girls were found to use non-toxic doses more frequently than boys. Tsirigotis, Gruszczynski and Tsirigotis (2011) found that the most predominant methods of parasuicide were medicinal drug abuse (42.31%) and severe loss of blood by self-cutting (25.64%), and the least frequent were poisoning and throwing oneself under a moving car (1.28%).

In agreement with the previous statement, other research shows that females are more frequently inclined to choosing pharmacological drug overdose and poisoning as the suicide method, while males more frequently used hanging and suffocation (Schlebusch, 2012). Most researchers agree that females attempt suicide

more often than males. Males have been found to use more lethal methods than females when engaging in parasuicide. Schlebusch (2012) explains that within the South African general context, the leading suicide methods have been found to be hanging, poisoning, shooting, gassing and jumping from high places such as bridges.

Just like in suicide methods, research has found that there are differences in the psychosocial factors of males and females. For instance, hopelessness, which is associated with depression, was indicated more among females than in males (Austad, Joa, Johannessen & Larsen, 2013; Sadock, Sadock & Ruiz, 2015). Regarding self-esteem, another study revealed that males have higher global self-esteem than females (Quatman & Watson, 2001) while in other research, no differences were found (Ahmad, Imran, Khanam & Rizwan, 2013). With parenting styles, Kausar and Shafique (2008) found that females perceived their parents as having more warmth than males did, therefore causing females to have positive socio-emotional adjustment than males.

Furthermore, Steinberg and Silverberg (1986) also showed that females who experienced parental warmth were more autonomous and independent as compared to males, who had emotional regulation problems and low self-esteem. In terms of parental control, it was found in a study by Kausar and Shafique (2008) that females were more controlled by their parents than males. Males were allowed to go out to public places, whereas females would be overprotected from the outside world. In agreement with the previous statement, Bingham, Jean and Trivellore (2006) also recorded that males experienced lower parental control and greater parental permissiveness than females in most studies, hence the delinquency and emotional dysregulation among males. Males tended to perceive their parents as more punitive in comparison with females (Kausar & Shafique, 2008), leading males to have emotional

dysregulation, causing them to engage in violent parasuicide. Regarding punitiveness, Chang (2007) raises the importance of culture in all parenting strategies, mentioning the example that Asian parents are more punitive, whereas American parents are more warm and nurturing. Regarding resilience, males were found to have more resilience than females (Pearlin & Schooler, 1978; Deb & Arora, 2009; Morano, 2010; Von Soest, Mossige, Stefansen, & Hjemdal, 2010; Yu et al., 2011; Waaktaar & Torgersen, 2012; Stratta, Capanna, Patriarca, de Cataldo & Bonanni, 2013; Abukari & Laser, 2013). Although issues of male socialisation (Boardman, Blalock, & Button, 2008) could be the cause of these findings, it is important to note that parasuicide intervention strategies may need to take account of gender differences. For interventions focused on females, the aim may be to increase hope, self-esteem and support-seeking behaviours from friends and to increase quality of life, while interventions for males focusing on reducing negative self-esteem, allowing emotional expressions and increasing true resilience may be more effective.

Interesting developments in research have also discovered that the peak time for parasuicide is (06h00-20h00), mostly over weekends (Fridays – 16.4%, Saturdays – 14.6%, and Sundays – 14.5%) and towards the end of the year (December – 10.1%, September – 9.5% and October – 8.9%) (Donson, 2008). There is a need for further research to confirm these findings within a larger population and to identify other factors that may be involved in precipitating suicidal attempts at those specific times.

According to Person (2012) parasuicide may be influenced by broader cultural views. Culture as a way of life does influence many aspects of life, whether it is health, finances, or psychological problems. For an example, from an African perspective a male adolescent is supposed to be a protector of his younger siblings. Failure to do so may invite derogatory comments from his parents and the community

as a whole, in turn provoking feelings and thoughts of inferiority, self-blame, anger, helplessness, hopelessness, low self-esteem and a desire to escape life and his situation. Person (2012) explains that parasuicide is not accepted in cultures like the Igbo society (a Nigerian tribe) even in the 21st century. It is considered to be an "nso ani", meaning a sin against the earth. The Igbos people do not acknowledge the difficulties of life or the demands of everyday life. They do not accept suicide in any form and at any age as a solution to any problem, regardless of the complications and stressors of life. Suicide is believed to be a dreadful and immoral way to die.

Research has shown that Zimbabweans take parasuicide seriously. In a study conducted among 21 individuals who have engaged in parasuicide, the behaviours were attributed to avenging spirits, marital, family and love disputes, financial problems and terminal illnesses (Munikwa, Mutopa & Maphosa, 2012). The counselling of these individuals is handled by a traditional leader as they are deemed to be experienced and able to solve such problems. This lack of cultural responsibility in accepting the presence of life stressors in some cultures can make the implementation of an intervention difficult, let alone the efficiency of the intervention. Future studies should engage culture and intervention studies should be culturally tailored.

Research on religion and suicide in Africa is not adequate, yet religion has much influence on people's way of life in Africa and globally. In exploring religious views on suicide among the Baganda people in Uganda, a total of 28 focus groups and 30 key informant interviews were conducted. The researchers found that suicide is largely seen as a breach of God's doctrine that life is sacred (Mugisha, Hjelmeland, Kinyanda & Knizek, 2014). According to the respondents, suicidal behaviour is a sin, and anyone who completes suicide is bound to go to hell. Because parasuicide and

religion are linked, there is a need to perhaps integrate religion in parasuicide interventions in future studies.

The above discussion shows that parasuicide has a long history that cannot be disputed. Whether acknowledged or not, it remains a huge public burden. The factors that influence parasuicide are biopsychosocial in nature, and therefore future studies should perhaps adopt this biopsychosocial principle in their investigation or intervention formulation.

The following section discusses the available literature on the psychosocial variables of this study.

3.3. HOPE AND PARASUICIDE

Over the past three decades, there has been an increasing systematic interest in the idea of hope. However, research efforts have been diminished by the lack of adequate instruments to measure hope, which offers an opportunity for further research in scale development, especially within the South African context. Nonetheless, there has been an evolution of studies that explored the concept of hope with conditions such as cancer (Phillips-Salimi, Haase, Kintner, Monahan, & Azzouz, 2007), psychological disorders such as depression (Beck, 1986), academic success, self-esteem (Snyder et al., 2002), among patients with traumatic brain injury (Peleg, Barak, Harel, Rochberg, & Hoofien, 2009) and many other circumstances. The influence of hope on depression and psychosocial adjustment was studied in persons with traumatic spinal cord injuries and it was found that higher hope was associated with less depression and greater overall psychosocial adjustment. However, in another study it was found that hope was negatively correlated with the severity of depressive

symptoms (Elliott, Witty, Herrick & Hoffman, 1991; Kwon, 2000). In a study conducted among psychotic patients, hopelessness was found to be a sign of suicide risk, above and beyond a history of attempted suicide (Klonsky, Kotov, Bakst, Rabinowitz, & Bromet, 2012). The literature mentioned above reflects the exploration of hope coupled with other conditions, both within the medical or psychological realm, displaying the need or importance of this concept in studies as it is a paramount aspect of life.

Even so, literature that explored the concept of adolescent parasuicide and hope was limited. Nonetheless, a study conducted a decade ago by Kaslow et al. (2004) among African American male and female non-attempters and attempters revealed higher reported levels of hope among non-attempters than among attempters. Other research by Meadows, Kaslow, Thompson, and Jurkovic (2005) conducted among women in abusive relationships also found that women who reported high levels of hope were less likely to attempt suicide, but those who reported low levels of hope were more likely to attempt suicide. Historical research by Beck, Rush, Shaw and Emery (2002) and a decade ago by Goldston et al. (2001) found that a strong association exists between hopelessness or low pathway and agency thinkers and depression, which usually precedes parasuicidal behaviour. Other research revealed in a study of 1,958 outpatients that hopelessness, as measured by the Beck Hopelessness Scale, is significantly related to eventual suicide (Beck, Steer & Brown, 2006).

In support of previous literature, Goldston et al. (2001), Kwok and Shek, (2008) and George (2005) revealed that hopelessness correlated with a higher risk of suicidal behaviour. Similarly, Sebate (1999) reported that a person's sense of hopelessness appears to make a noteworthy influence towards parasuicide. In agreement with previous researches, Dogra, Basu, and Das (2011) suggest that the

meaning in life and reasons for living act as stress buffers and could predict the ability to cope with life adversity and help to generate hope or hopelessness.

Because of the scarcity of studies on hope and parasuicide, there appears to be a need for studies to explore the influence of hope on parasuicide, perhaps using the hope explanations by Snyder (1995), as well as by Dufault and Martocchio (1985) as they both represent distinct, but interesting views. Therefore, this study attempts to fill this gap by adding to the body of literature on this area of study. Other contextual factors such as personality factors that may have an influence on hope among suicidal individuals may also be explored in future research.

3.4. SELF-ESTEEM AND PARASUICIDE

Research has found that the negative self-esteem of depressed patients tends to develop during childhood and adolescence due to the strong critical attitude of parents and teachers, which hinders the development of a healthy self-esteem (Pászthy, 2005). In a general self-esteem survey of 14-18-year-old male students in Budapest, negative self-esteem was present in 30.9%; anhedonia in 29.9%; and negative mood in 33.2%. Among female students, negative self-esteem was 36.5%; anhedonia was 29.4%; and negative mood was 37.7% (Kalmár, 2013). From the research by Kalmár, (2013) it is important to note that negative self-esteem is obviously important for the development of personality, and as such, the quality of feedback received from the environment significantly affects one's functioning and view of the self (Sullivan, 1953; Kalmár, 2013).

Many researchers are in agreement with the opinion that negative self-esteem is involved in parasuicide. Adolescents with low self-esteem are more likely to

develop negative cognitive coping styles and are at an increased risk for developing depression and suicidal tendencies (Kazdin, 1990; McFarlane, Lukens, & Link 1995; Overholster, Adams, Lehnert, & Brinkman, 1995). A study in the 1980s by Dukes and Lorch (1989) revealed that low self-esteem has been found to be important in the prediction of suicidal ideation among secondary school students.

Likewise, Manani and Sharma (2013) explain that self-esteem deficits appear to play a significant role in suicidal behaviour among adolescents, meaning that parasuicide may be related to the persistent negative views of the self. Claes, Houben, Vandereycken, Bijttebier, and Muehlenkamp (2010) agree with the viewpoint by Rosenberg (1965) that a negative view of the self may involve seeing the self as worthless and the future as hopeless. In a different study conducted by the same author, it was found that adolescents with low self-esteem saw life as not worth living and perceived everyday stressors as overwhelming, leading to a desire to escape. In a comparative study by Santos, Saraiva, and De Sousa (2009), low self-concept was found among attempters than non-attempters.

Another study by Claes and Muehlenkamp (2009) revealed that adolescents with a low self-esteem are more attracted to other adolescents with self-injurious behaviours, and are more susceptible to imitate parasuicidal behaviour to handle their difficulties or to gain certain belonging in their peer group. This is a suggestion or an opinion worth studying further in both qualitative and quantitative research so as to get a clearer picture of adolescent peer involvement and the psychological processes involved.

However, contrary to the above stated findings, Mashego, Peltzer, Williamson, and Setwaba (2006) found that there was a negative relationship between self-esteem

and suicidal behaviour. Other previous research with adolescents also documented negative correlations between self-esteem and parasuicidal behaviour (Hawton, Rodham, Evans, & Weatherall, 2002; Lundh, Karim, & Quilish, 2007). George (2005) in a study conducted in the Northern Cape, South Africa, also found that self-esteem and suicidal ideation were negatively associated. Reasons for this are not known as yet, while there is a suspicion that self-esteem may have moderating effects on parasuicidal behaviour. There is a need for research to establish whether there are mediating or moderating factors in self-esteem in relation to parasuicide. In other words, it is likely that positive self-esteem increases one's ability to cope effectively with stressors and it would be rational to assume that self-esteem is a powerful resource for inducing parasuicidal behaviour and combating parasuicidal behaviour.

Another study has argued that self-esteem is negatively correlated if it is measured against parasuicide as a whole, but if it is categorised into explicit and implicit self-esteem, there is a significant positive relationship either explicitly or implicitly with parasuicide. Because of these two dimensions of self-esteem, other research has discovered that adolescents with low explicit self-esteem are more prone to parasuicide than those with implicit low self-esteem (Creemers, Scholte, Engels, Prinstein & Wiers, 2012).

From the current literature review it is clear that self-esteem, whether negative or positive, does play a role in adolescent parasuicide. The moderating effects of self-esteem on parasuicide are alleged therefore requiring further studies. The fact that self-esteem as a concept has fewer scales, especially within South Africa, encourages a need to conduct studies that will delve into self-esteem scale construction.

3.5. PARENTING STYLES AND PARASUICIDE

Research has found that parents have a significant role and are expected to foster an open and positive relationship with their adolescent that, in turn, contributes to an individual's readiness to share information concerning their life and its activities with his/her parents (Kopko & Dunifon, 2010). Although recent literature regarding parasuicide and parenting styles is sparse, parenting styles have been associated with suicidal behaviour among adolescents (Greening et al., 2010). For adolescents, family life has always been the most important sphere of their lives, and this is obvious in early research by Pfeffer, Normandin, and Kakuma (1994). They argue that suicidal behaviour often represents a final effort to escape a miserable and unbearable family situation. This is evidenced in a study conducted among 40 adolescents admitted to a hospital in Pietermaritzburg, South Africa, after a suicide attempt. More than 77% reported conflict with their parents a few hours preceding the parasuicide (Schlebusch, 2004).

Schlebusch (2004) further noted that these patients experience significantly more family conflicts, academic problems, and problems with their boyfriends or girlfriends than their controls (Schlebusch, 2004). Another study also confirmed these findings, stating that problems in relationships between parent and child instability and dysfunction in the family environment were shown to be greater risk factors (Gould et al, 2003). Parents who have strong psychological control, inconsistent control, lack of expression of affection and covert marital hostility had children with high suicidal thoughts (Florenzano et al., 2011).

In another study low parental warmth and dysfunctional family atmosphere combined were found to be related with increased possibility of parasuicidal behaviour, even after controlling for the existence of psychological disorders and socio-demographic variables (Kinge et al., 2001). Another study also revealed that poor mother and child communication may be related to suicide in both broken and intact families, while poor father and child communication has been suggested to be associated with suicide risk in intact families (Gould, Shaffer, Fisher & Garfinkel 1998). This view is interesting and requires further investigation by using a larger sample for generalisation purposes.

In a study by Pillay and Wassenaar (1997) in South Africa among matched groups of hospitalised parasuicidal adolescents, and non-psychiatric medically hospitalised adolescents, findings revealed significantly higher levels of family disturbance, hopelessness and depressive symptoms in the parasuicidal group. In another comparison study it was found that in families with two children, the sibling who claims to have received less parental warmth and more parental aggression reported more suicidal thoughts and behaviours than their counterparts who did not report being subjected to such harsh parenting (Wagner & Cohen, 1994).

Whereas some studies reveal that a parent–child relationship characterised by low warmth or unsupportive and un-nurturing communication is associated with parasuicide (Connor & Rueter, 2006; Prinstein, Boergers, Spirito, Little, & Grapentine, 2000, Adams, Overholser, & Lehnert, 1994), other research explains that parasuicide is associated with parental overprotection, meaning that providing too much warmth and nurturance may increase the adolescent's chances of engaging in parasuicidal behaviour. These findings were reflected in a study by Curran, Fitzgerald, and Greene (1999). They explained that overprotectiveness causes adolescents to be

dependent on the parents for life resources. In the absence of parents, perhaps due to death, these adolescents are not able to defend themselves against stressors, leading them to suffer from an inability to utilise healthy manners of coping and therefore selecting suicide as a method of coping. Because of the uncertainties of these explanations, further research to clarify the influence of overprotectiveness on parasuicidal adolescents may be necessary. It is possible that other factors such as the participants answering the questionnaire in a socially desirable manner, or cultural issues, or misunderstanding questions were involved in the Curran et al. (1999) study. Further studies to clarify this finding may be necessary.

Another parenting style, referred to as parental punitiveness, was also found to be closely associated with parasuicide. Although research on the interaction between these concepts is limited, most researchers are in consensus regarding the influence of punitiveness on parasuicide. Research has found that negative or hostile parenting, has also been linked to suicidal behaviour among adolescents (Gau et al., 2010).

Another research investigating punitive parenting practices showed a significant positive association of adolescents' suicidal ideation and punitive parenting (Lai & McBride-Chang, 2001). Other evidence is found in a study by Liu et al. (2005), which revealed that 14% of Chinese rural adolescents had been beaten by parents during the past year, and adolescents who reported physical punishment by parents during the previous year had a greater possibility for parasuicide than those who did not report physical punishment by parents.

It appears that there is limited recent literature investigating links between parenting styles and adolescent's parasuicidal behaviour, depicting a need for research that will assist in intervention formulations. Nevertheless, most of the literature cited

above reveals that parasuicide risks were derived from inadequate parental nurturing behaviour, separation from parents, and psychosocial dysfunctions of the family members. Due to a lack of recent literature in South Africa on the interplay of these concepts, this current study will contribute by adding new information to the body of knowledge in this area of study.

3.6. RESILIENCE AND PARASUICIDE

Resilience is a subject that is gaining wide recognition in positive psychology. Recently, it seems to be the main issue of promotion in positive mental health and wellbeing around the world (Abiola & Udofia, 2011). There is a growing worldwide focus on policy, changing mental health policy and practice from only an emphasis on services for those suffering from psychiatric illness, to the prevention of mental health problems and the promotion of positive mental health (World Health Organization, 2005) with the study of resilience.

Resilience during adolescence may be particularly important during times of transition and difficulty, when stress tends to accumulate. Research has found that high resilience comes as a result of positive appraisal of any negative situation, which causes low suicidality (Johnson et al., 2010). These researchers further established that stressful situations are known to influence appraisals; these researchers suggest that when an adolescent is in stressful situations, he/she may negatively appraise the situations, leading to low resilience, then suicidal behaviour.

Another available study showed that patients with a previous history of engaging in parasuicide had significantly lower resilience scale scores than patients who had never attempted suicide (Roy, Sarchiapone, & Carli, 2007). In a study

undertaken among 20 patients within a hospital who had never attempted suicide, it was found that they had meaningfully higher mean resilience scores than the matched patients who were attempters. Correspondingly in the inmates sample (n=166), those who were attempters had significantly higher resilience scores than the control group who were attempters (Roy, Sarchiapone, & Carli, 2011). In agreement with previous authors, the study conducted by George (2009) among 590 learners in Free State, South Africa, found that adolescents with low resilience had more severe suicidal ideations than those who had high resilience.

In most of the literature reviewed, the link between resilience and suicidal behaviour became obvious. Since there is little literature regarding the relationship between parasuicide and resilience especially among adolescents, the current study attempted to partially fill this gap with the results of this study. Because of the usage of the Wagnild and Young resilience scale, this study attempted to reveal the influence of acceptance of self and life and personal competence on parasuicidal behaviour. This brings into literature this new construct and adds this information to strengthen the body of knowledge on resilience and suicidal behaviour, and opens up new avenues for research in South Africa.

3.7. THE INTERCONNECTEDNESS OF VARIABLES

A literature review linking the above reviewed variables interestingly reveals that parenting styles have a moderating effect on hope and self-esteem. A study by Heaven and Ciarrochi (2008) revealed that perceived parenting style and gender were found to be related to mean levels of hope and self-esteem over time. The researchers further state that perceptions of parental authoritativeness by adolescents were associated with high hope, while females showed a decrease in hope; parental control was related to low self-esteem with females manifesting lower self-esteem than boys.

They further reported that adolescents reared by parents perceived to be authoritative are more skilled at agency and pathways thinking than youths who reported other parental styles.

In a multivariate study, researchers found that hope, self-esteem and resilience are joint predictors of parasuicidal behaviour (Kwok & Shek, 2008; Ponnet et al., 2005; George, 2005), meaning that there is an interaction among these variables in relation to parasuicide. Most studies conducted have found positive and significant correlations among these constructs (George 2005; Mashego, Peltzer, Williamson, & Setwaba, 2003).

Furthermore, a study done by Padilla-Walker, Hardy, and Christensen (2011), which examined adolescent hope as a mediator between connectedness to mother and father and positive and negative child outcomes, revealed that hope mediated the relationship between parent-child connectedness and adolescents' pro-social behaviour, school engagement, and internalising behaviour. The findings of the interconnectedness of variables are supported by the biopsychosocial model which emphasizes the interconnectedness of hope, self-esteem, resilience and parenting styles. In light of these findings, it is necessary to study these concepts for further analysis, especially within our African context where some of these concepts, such as parenting styles and self-esteem, are highly influenced by culture.

3.8. INTERVENTION METHODS FOR PARASUICIDE

Parasuicide is a considered a crisis, meaning that it requires emergency intervention. When an individual engages in a parasuicide, he/she is rushed to a hospital; individuals involved with treatment will be a multidisciplinary team with the

medical staff, social workers, psychiatrists and then lastly psychologists. From the author's experience, current intervention methods employed included the use of assessments to assess for lethality and further risk. Intervention related to parasuicide has previously emphasised the prevention of future suicide by including methods such as limiting access to further means to attempt suicide (such as guns, pills, poisons and so on) or treating mental illness associated with suicidal behaviour (Schlebusch, 2012a). Supportive psychotherapy is usually the most recommended form of intervention. Then other methods of psychotherapy such as cognitive behavioural therapy and psychoanalysis are used, including a referral to a psychiatrist for medication depending on the long term therapeutic needs of the individual. This practice continues and efficiency has been recorded, but there appears to be a need for expansion of suicide interventions, especially for adolescents who have attempted suicide, to prevent repeat parasuicide.

According to Linehan (2008), previous theories of suicide and suicide prevention contend that suicidal behaviour is a symptom of a mental disease and the intervention requires treatment of the underlying disease. However, this does not seem to be the case, because even after eliminating the symptoms of the disease, people would still commit suicide. Over time, an alternative theory was developed and it conceptualised parasuicide as dysfunctional and disordered (Linehan, 2008). From these explanations, the intervention methods for parasuicide should address parasuicide and its causes directly to induce behavioural change. In most intervention studies that have been conducted, the expected outcome of the study was decreased suicidal behaviour (Fleischman et al., 2008). However, in this study the expected outcome or change is in the psychosocial factors the client is experiencing, with the notion that change in these factors will warrant change in the parasuicidal behaviour.

Thus far, pharmacotherapy has also been included for suicide associated conditions such as Bipolar Mood Disorders, Major Depressive Disorders, Borderline Personality Disorders and many more (Wasserman et al., 2012). A study undertaken by Meltzer et al. (2003) where Clozapine and Olanzapine were compared in a clinical trial, it was found that Clozapine reduced a need to engage in parasuicidal behaviours as it helps to produce a soothing happy effect on an individual. In studies by Deykin, Hsieh, Joshi, and McNamara (1986) and Valuck, Orton, and Libby (2009) the evaluations of outcomes for an education programme combined with the use of anti-depressants revealed positive results. Because the use of pharmacotherapy was found partly useful in decreasing suicidal behaviours, the global promotion of the combination of psychotherapy and medications was emphasized (Sadock & Sadock, 2007; Spirito, Esposito-Smythers, Wolff, & Uhl, 2011).

There is some evidence from empirical studies that demonstrates a possibility to reduce the suicide mortality rate in a population by keeping continuous interaction with clients. Carter, Clover and Whyte (2005) and Luxton, June, and Comtois (2013) have found that an intervention using postcards and letters to clients reduced the recurrence of hospital-treated parasuicide. Furthermore, Fleischmann et al. (2008) reported that death by suicide was reduced in the brief intervention and contact (BIC) group compared to the group that received treatment as usual (TAU) in all five sites of the SUPRE-MISS study by the WHO (2008). Kuipers and Lancaster (2000) assessed informal social support for brain injured patients and found that clients and their caregivers reported that limit of access to any means of attempt had successfully resolved prior suicide attempts. This was cited by only a few patients. Secondly, the majority of participants mentioned that availability of social support by family, friends

and clinicians was helpful in reducing their need to attempt suicide (Harrington et al. 1998; Harrington et al, 2000).

Chang, Stanley, Brown, and Cunningham (2011) and Ghahramanlou-Holloway, Cox, and Greene (2012) encouraged the use of the combination of Cognitive Behavioural Therapy and Dialectical Behavioural Therapy to reduce repeat parasuicide. In agreement these researchers such as Perseius et al (2003), and Turner (2000) focused on the use of Dialectical Behavioural Therapy (DBT) for people with Borderline Personality Disorder who have attempted suicide and found that the ten female patients suggested that DBT was helpful by saving their lives because of the reduction of the frequency of suicide attempts. Harrington et al. (1998) and Harrington et al, (2000) discovered that home-based family interventions with adolescents who had poisoned themselves were discovered to be efficient in reducing suicidal behaviours.

Furthermore Thompson, Eggert, and Herting (2000) and Thompson, Eggert, and Randell (2001) reported a decrease both in parasuicidal behaviours following interventions conducted at school involving teachings on personal advancement or crisis intervention. Another study by Apter, Ratzoni, and King (1994) revealed a decrease in suicidal thoughts following treatment with fluvoxamine for adolescents with Obsessive-Compulsive Disorder (OCD). Joiner, Voelz, and Rudd (2001) also revealed a decrease in suicidal thoughts among adolescents with anxiety or depression receiving a community-based problem solving interventions.

The study of Brent, Holder and Kolko (1997) reported a decrease in suicidal ideation after therapy with depressed adolescents with either one CBT, systemic behaviour family therapy or the provision of non-directive support. Other studies have

encouraged the use of outpatient psychotherapy practice with adolescents following psychiatric hospitalisation (Spirito et al., 2011a). Prinstein et al. (2008) emphasises that outpatient intervention of adolescents following hospital admission for parasuicide is of particular significance, because the three month period immediately following discharge from the hospital has been found in research to be the period during which adolescents who attempt suicide are most at risk for a repeat attempt.

Previous intervention studies conducted with a focus on the psychosocial variables of this study revealed the following findings. According to Nordentoft et al. (2002), hope had improved after the implementation of integrative treatment which included a combination of assertive community treatment, antipsychotic medication, family psychoeducation, and social skills training, and a follow-up at a community mental health centre. In another study by McDermott & Hastings (2000) it was found that an eight week intervention which was aimed at increasing hope among adolescents yielded positive results. However, a need to increase the time for interventions seemed necessary. In a pre-test post-test without a control group Snyder, Cheavens, & Sympson (1997) found that adolescents who were psycho-educated on hope skills had gained hope tremendously in post-test. A recent study which tested the effects of a specifically designed, eight-module internet-based programme on suicidal ideation among secondary school students revealed that overall levels of suicidal ideation, depressive symptoms and hopelessness decreased significantly over the course of the intervention (Robinson et al., 2014).

With regards to self-esteem, research by Barrett, Webster, and Wallis, (1999) revealed that interventions that target self-talk, modification of negative thinking, the utilisation of more positive thinking, communication skills, problem solving, and self-perception, facilitated improvements in self-esteem and cognitions regarding one's

self-perception in previous studies. Furthermore other researchers such as Kashani and Bayat (2010) found that social skills training increased the amount of assertiveness and self-esteem in adolescents who were less assertive.

When reviewing literature regarding interventions of parasuicide with the use of self-esteem, there was dearth of literature, nevertheless other research revealed that when Cognitive Behavioural Therapy was implemented among participants, there were significant increases in levels of self-esteem leading to substantial decreases in depressive symptoms and psychopathology associated with schizophrenia (Oestrich, Austin & Lykke, 2007; Waite, McManus, & Shafran, 2012). A lack of studies that directly examine the impact of self-esteem interventions on parasuicide encourages the undertaking of future studies.

Literature that targeted resilience to decrease repeated parasuicide is scarce. The studies found were mostly recommending resilience strengthening in suicide intervention without focusing on actual parasuicide intervention (George, 2009; Panagioti, Gooding, Taylor, & Tarrier, 2014; Youssef et al, 2013; Kleiman & Beaver, 2013). Nonetheless Winfield (1994) and Wong and Lee (2005) found that interventions to nurture and enhance resilience assisted the adolescents who had specific learning difficulties to cope with everyday challenges because of the strengthening and building of personal protective factors. Furthermore Olowokere and Okanlawon, (2014) found that when resilience intervention is implemented among a sample of vulnerable children, there were gains in resilience in post-test protecting them from psychological dysfunctions. These findings inspire hope that if resilience is strengthened among parasuicidal adolescents, there may be a decrease in the need to repeat parasuicide.

Research has recently revealed that there are constant increased efforts in testing the efficacy of suicide interventions among adolescents. One such intervention is the inclusion of Cognitive Behaviour Therapy alone or in combination with antidepressant medication (Stanley et al., 2009). Results of these interventions have not been published yet. On the other hand, research conducted by Brent et al. (2009) emphasized that 10 of the 24 suicide events occurred within four weeks of the commencement of the intervention before the patients could receive sufficient therapy. Brent et al. (2009) stressed that parasuicide interventions in which the most intense treatment is given early on, likely cause a decrease in the risk of repeat parasuicide. These researchers suggest that clinicians need to emphasize security planning and provide more intense and concentrated therapy in the commencement of interventions. In addition, they noted that therapy should focus on helping adolescents to develop patience for suffering; assist to improve the adolescent's family functioning, school and social surroundings; and thoroughly pursue coping approaches for these adolescents. This current study adopted these suggestions made by Brent et al. (2009) for the intervention development.

Research by Rotheram-Borus, Piacentini, Cantwell, Belin, and Song (2000) shows that there is a high dropout of parasuicidal adolescents from therapy. Other researchers found that even when youths and families receive therapy services after a parasuicide, they often do not partake in these sessions for as long as suggested (Daniel, Goldston, Harris, Kelly, & Palmes, 2004; King, Hovey, & Brand, 1997; King, Segal, & Kaminski, 1995; Lloyd, Horan, & Borgaro, 1998). McKay and Bannon (2004) support the above findings, stating that the average length of care in urban settings was three to four visits, with only 9% of families still attending after three months of treatment. The trend of therapy absenteeism is not only current; it has been

present since the mid-1990s (Mishne, 1996). Mishne (1996) even referred to adolescents are a hard-to-reach group in clinical work therefore requiring specialized treatment methods and approaches. For this reason, Daniel and Goldston (2009) stressed the need to develop methods of interventions that are tailored for adolescents, as the lack of developmentally tailored interventions could be a precipitating factor to truancy from therapy and then to the re-occurrence of parasuicidal behaviour. It has been assumed in research that many adolescents do not have the patience for lengthy therapy (Rathus & Miller, 2002) or the sustained capability to focus on expression or examination of feelings in long-term therapy (Deykin et al., 1986).

Further assumptions have been made that adolescents commonly experience inconsistency about participation in treatment and they find the discussions of suicidal behaviours not worthy (Rotheram-Borus et al., 2000). Goldston (2003) mentioned that feelings of shame or embarrassment associated with participating in treatment were reported to cause the adolescents to have a desire to put the parasuicide event behind them to avoid stigmatization. Adolescents appeared to be uncomfortable discussing past suicidal attempts or prevention of future complications, or may simply believe that a suicidal crisis cannot possibly recur (Goldston, 2003). Moreover, they may fear the reactions of friends if they find out about the parasuicide act. Goldston (2003) also mentions that from a developmental perspective, adolescents may not want to be in therapy because participation means that they are different from their friends. This is the reason why studies by Rotheram-Borus et al. (2000) and Spirito Boergers, Donaldson, Bishop, and Lewander (2002) suggest the potential for brief interventions that focus on fixing the parent-child associations, or assisting families resolve hindrances to therapy to influence or increase compliance to therapy. Family support and participation is also necessary for the success of intervention with parasuicidal

adolescents (Logan & King, 2001). The issue of adolescents' validation within a family context was also recommended by Daniel and Goldston (2009) due to family enhanced suicidal attempts.

Studies that explore adolescents' attitudes towards or perceptions of psychotherapy are suggested from the findings in this literature. It is important to note that the literature reviewed was from Western countries. The current status of literature in South Africa shows that there is not enough evidence to inform a targeted intervention policy aimed at reducing repeat parasuicide in adolescents. There is also limited evidence that some interventions, including pharmacological, psychotherapeutic, and behavioural or parent training programmes may be operational in reducing re-engagement in parasuicide within South Africa. The existing methods currently used in South Africa do not seem to provide a reliable body of substantiation, suggesting any clear way forward for intervention with adolescents, hence a need to conduct studies that will attempt to deal with these concerns within a South African context and fill the gap in intervention research.

3.9. SUMMARY OF THE LITERATURE AND IDENTIFIED GAPS

The literature reveals that several psychosocial factors influence parasuicide. Moreover, they are interconnected. Hope, self-esteem, parenting styles and resilience each has a role to play in adolescent parasuicidal behaviour. Research has found that hope is associated with suicidal behaviour. Adolescents with low pathway and agency thinking have been reported to be vulnerable to parasuicide as a form of escape from

the psychological distress. There seems to be arguments on the influential position of self-esteem on parasuicidal behaviour, other researchers explain that low self-esteem is associated with most parasuicides; other researchers found that there was no association between self-esteem and parasuicide. Future studies that will assess the components of self-esteem and their influences on parasuicide are necessary.

Research internationally and locally shows that parenting styles have a role to play in adolescents' parasuicide. In summary, parents who are not nurturing physically and emotionally, who exercise psychological and physical control, and who administer harsh, aggressive and injurious punitive methods have been found to have adolescents who are vulnerable to suicidal behaviour. A study done in South Africa by Pillay and Wassenaar (1997) confirms these findings. Resilience as a growing field of study has been implicated in suicidal behaviour. Studies conducted both locally and internationally are in agreement that individuals with low resilience are susceptible to parasuicide.

Of the research that has been conducted so far in South Africa, many studies were conducted among learners at schools or general populations. The studies focus on suicide ideations, and not on patients who have attempted suicide. Although research on suicidal behaviour is present in South Africa, there has been a lack of attention to formulating intervention strategies to reduce suicide mortality among adolescents. Intervention strategies to assist parasuicidal adolescents are still vague. Studies that have included intervention research mostly originate in Western and European countries, leaving South Africa with a scarcity of research. This forces clinicians to follow the treatment procedures developed in Western countries that do not take the African culture into consideration. Furthermore, because of cultural, infrastructure and socio-economic differences between Western countries and Africa,

replication of the intervention studies conducted internationally may be difficult in Africa.

3.10. HYPOTHESES FOR PHASE I AND II STUDY.

Phase I study hypotheses

1. Attempters will differ significantly from non-attempters on psychosocial measures (hope, self-esteem, parenting styles, and resilience) and parasuicidal behaviour.

2. Psychosocial factors (hope, self-esteem, parental styles, parental punitiveness, parental control and resilience) will have a significant independent influence on adolescent parasuicide.

3. There will be a significant difference in the psychosocial factors and parasuicide between genders.

Phase II study hypothesis

4. A psycho-educational intervention will have a significant positive effect on the psychosocial factors and the parasuicidal behaviours of adolescents.

CHAPTER 4: METHODOLOGY

This study was in two phases. Phase I was meant for baseline data collection to inform the development of the intervention programme in Phase II. The intervention programme, which included formulating strategies to assist participants with the psychosocial factors that influence parasuicide, was implemented in Phase II. The intervention programme is referred to as Parasuicide Assertiveness Training (PAT). The methodological presentation will follow the APA format on two-in-one study.

4.1. PHASE I STUDY

4.1.1 Research design

Phase I of this study employed a quantitative approach with a cross-sectional survey design. This phase was used to collect baseline data from both the groups (attempters and non-attempters) participating in this study. The essential characteristic of a cross-sectional design is that the study can compare different population groups at a single point in time; as is done in this study. The independent variables measured in this study are hope, self-esteem, parenting styles, parental punitiveness, and resilience. The dependent variable is parasuicidal behaviour.

4.1.2. Sampling technique and participants

This study utilised data from a total of 266 participants (150 for non-attempters and 116 for the attempters). A cross-sectional survey was conducted among secondary school learners by means of a purposive sampling. 150 learners were recruited from a local high school in Mokopane village. Of the participants, 59 (39.3%) were males

and 91 (60.7%) were females. The sample included mostly Pedi (52.7%) speaking adolescents, and Sotho (13.3%) speaking adolescents due to the location where the data were collected.

A convenience sample was used to select a sample among adolescents who have engaged in parasuicide as they presented at the hospital for medical attention. One specific criterion for this participants was that they should be between 13 and 19 years of age and should have engaged in parasuicide. A total of 116 adolescents responded to the questionnaire. Of the participants, 42 (36.2%) were males and 74 (63.8%) were females. The ages of respondents ranged from 13-19. The sample was also largely Pedi (54.9%) (33.6%) Afrikaans, and 11.5% mixed ethnicities. This was due to the location where the data were collected. The area is mostly Sepedi and Afrikaans. See Table 1 below for the demographic factors of participants in this study.

Table 1: Biographical Data of Participants

	Attempters (N=116)	Non-Attempters (N=150)
Demographic Variables		
Sex		
Male	42(36.2%)	59(39.3%)
Female	74(63.8%)	91(60.7%)
Age Groups		
Middle Adolescents	32(27.6%)	24(22.7%)
Late Adolescents	84(72.4%)	116(77.3%)
Ethnicity		
Afrikaans	38(32.9%)	0%
Sepedi	63(54.3%)	75(6.7%)
Isindebele	0%	20(13.3%)
Sesotho	0%	17(11.3%)
Others	15(12.8%)	35(22.7%)
Levels of Education		
Grade 8-10	49(42.2%)	56(37.3%)
Grade 11-12	50(43.1%)	73(48.7%)
Tertiary Education	17(14.7%)	20(13.3%)
Parents Marital Status		
Single	38(32.8%)	64(44.7%)
Married	50(43.1%)	77(51.3%)
Widowed	16(13.8%)	5(3.3%)
Divorced	5(4.3%)	3(0.7%)

4.1.3. Instruments

A questionnaire with demographic data and six sections was used for the collection of data. The scales used to collect data in this study are the Hope Scale (Snyder et al., 1991), Rosenberg Self-Esteem Scale (Rosenberg, 1989), The Modified Scale for Suicidal Ideations (Miller, Norman, Bishop, & Dow, 1986), Parental Styles Scale (Lamborn, Mounts, Steinberg, and Dornbusch, 1991), Parental Punitiveness Scale (Ingoldsby et al., 2003), and the Resilience Scale (Wagnild & Young, 1993). Descriptions of the scales are given below.

4.1.3.1. Hope Scale

The assessment of hope was done by using the Hope Scale (Snyder et al., 1991) which comprises 12 items and is used to measure two interrelated aspects of hope, namely agency (a sense of successful determination in meeting goals in the past, present and future) and pathways (confidence in the ability to devise plans to meet goals). Items such as *"I energetically pursue my goals", "My past experiences have prepared me well for my future"*. Scoring of these items is achieved by an eight-point rating scale, ranging from definitely false to definitely true. In a South African study by Potgieter (2004) alpha coefficients were calculated as follows: agency at 0.81 and pathway at 0.75. In this study, the alpha coefficient of the overall hope scale was 0.63, agency subscale was 0.70 and pathway subscale was 0.69.

4.1.3.2. The Rosenberg Self-Esteem Scale (RSES)

The RSES developed by Rosenberg (1989) is administered to give an indication of the participants' feelings of self-worth and self-acceptance. The scale is made up of ten items, five of which are negatively worded. Items such as *"I feel that I am a failure"* are answered according to a four-point rating scale, which extends from strongly agreeing (4) to strongly disagreeing (1). The score of the self-esteem scale was calculated on a continuous level. Five of the items are reverse scored in order to get the correct overall score (items 2, 5, 6, 8, and 9). Alpha coefficients of between 0.88 are reported for the total score of this measuring instrument (Rosenberg, 1989). This scale has been used in a number of South African studies with alpha coefficients between 0.93 in a study by Maluka and Grieve (2009), and 0.97 in a study by Westaway, Jordaan, and Tsai (2013). The alpha coefficient for the current study is 0.66.

4.1.3.3. Modified Scale for Suicidal Ideations (MSSI)

The MSSI was developed by Miller et al. (1986). It assesses an individual's thoughts, plans and behaviours found in parasuicide (Pettit et al, 2009). The scale is comprised of 19 items. The first 4 items have been selected as screening items to identify those individuals whose suicide thoughts are acute enough to permit the administration of the whole scale. Each item is rated on a 0-3 point scale and the ratings are added to give a total score ranging from 0 to 54. Scores were interpreted in a continuous level. The MSSI takes roughly 10 minutes to administer. The items are answered in a multiple choice style e.g., "*wish to die", wish to live"* and "*Sense of courage to carry out attempt"* or *wrote a "suicide note*" "0-none, 1-weak, 2-moderate

to strong". The assessment time takes 5 to 10 minutes. Psychometric properties found in previous studies revealed an alpha coefficient of 0.96. (Pinninti, Steer, Rissmiller, Nelson, & Beck, 2002). The alpha coefficient for the current sample in this study is 0.81

4.2.3.4. Parental Style Scale

This scale was adapted by Steinberg et al. (1991). For this study it was derived from a South African adapted version in a study by Denbi (2009). It describes the parenting styles of parents towards their children. The scale had a total of 10 items. The scales are categorized into parental warmth and parental control. The participants are requested to rate at which level their parents exercise their warmth and control. Examples of items are as follows *"He or she keeps pushing me to do my best in whatever I do*", *"I can count on him/her to help me out, if I have some kind of problem"*. The participants are expected to rate their answers on a usually true or usually false basis. Scores for the parenting styles are interpreted continuously. According to Denbi (2009) the reliability coefficients attained for the measures were 0.81 and 0.77 for father and mother acceptance/involvement subscales respectively, and for the current study it was 0.53.

4.2.3.5. Parental Punitiveness Scale

Parental Punitiveness Scale was developed by Ingoldsby et al. (2003). It is used to measure the respondents' perceptions that their parents use verbal and physical threats and behaviours. The items were taken from existing measures by Ingoldsby et al. (2003) in their study of the relationship between parenting behaviours and adolescent outcomes. Items such as *"Hits me when he/she thinks I am doing*

something wrong" were scored on a four-point Likert scale (ranging from "strongly disagree" to "strongly agree"). The scale's reliability was 0.93 in Ingoldsby et al.'s (2003) study. In the study by Denbi (2009) within South African population, the reliability coefficient obtained for the scale was 0.82. In this study, the alpha coefficient was 0.76.

4.1.3.6. Resilience Scale

The Resilience Scale is a highly popular instrument designed by Wagnild and Young (1993) to measure psychological resilience (Wagnild & Young, 1993). The scale consists of 25 items. The Resilience Scale is made out of two subscales which are personal competence (a collection of behaviours including concentration, intensity, persistence, and self-sufficiency that assist overall wellbeing when faced with challenges) and acceptance of self and life (the act of accepting the process of life and being able to handle life adversities). Items such as "*my belief in myself gets me through hard times*" and "*I have self-discipline*". It is answered on a Likert type scale from "strongly agree" to "strongly disagree" to items such as *"when I make plans, I follow through with them".* The scale scores were interpreted in a continuous level. Its alpha coefficient in previous studies was 0.90 (Heilemann, Lee, & Kury, 2003) and for the current study the alpha reliability was 0.86.

4.1.4. Procedure for data collection in Phase I study

During Phase I, consent was first required from the Limpopo Department of Education, the school principal and the participants prior to data collection. Data collection was conducted in a local school (name withheld). During the collection of data, the principal instructed the researcher to explain the research aims to the school

health worker who would later introduce the researcher to the students. The researcher substantiated and explained in a broad manner the purposes of the research to the learners. Issues of confidentiality of the study and voluntary participation were mentioned. The learners were urged to ask questions from the researcher if a need arose. The administration process took 35-40 minutes to complete. About 72 learners completed the questionnaire without missing variables. The completion of the data collection was done by including adolescents around the Mokopane town. The data collection began in August 2011 and was completed in September 2011.

The collection of the data among participants who had engaged in parasuicide was done in Voortrekker Hospital in Mokopane Town, Limpopo Province, South Africa after getting the approval from the Limpopo Department of Health. The participants were recruited as they presented at the hospital after a parasuicide. The researcher being the psychologist had access to the participants because they would be referred for psychological counselling. The data collection was done from 2010 November to March 2012. Participants' consent was sought before they answered the questionnaire. Due to the sensitivity and confidentiality of the research subject, the researcher administered the questionnaire and assisted the participants with filling in the questionnaire. There was no need to translate the questionnaire in the current study because all the participants were able to speak Grade 8 equivalent English.

4.1.5. Statistical methods used in Phase I study.

Statistical calculations were performed using the Statistical Package for Social Scientists Version 21 and Amos 21. The data was inspected for consistency in answering schemas. Data analysis was conducted in the following steps: Firstly, descriptive analysis procedures were performed to describe demographic information

in terms of percentages, means, and standard deviations. T-tests were done to assess for group differences in variables. Correlations were also used to assess for a relationship among variables.

In the Structural Equation Modelling (SEM), these variables were tested by hypothesising a model depicting the influence of hope (agency and pathway), self-esteem, parental styles (parental warmth, parental control, and punitiveness), resilience (acceptance of life, and personal competence) on parasuicidal behaviour. In this model, the following hypothesised paths were tested: 1) hope has a direct effect on parasuicidal behaviour; 2) agency and pathway have a direct effect on parasuicidal behaviour; 3) self-esteem has a direct effect on parasuicidal behaviour; 4) parental warmth has a direct effect on parasuicidal behaviour; 5) parental control has a direct effect on parasuicidal behaviour; 6) parental punitiveness has a direct effect on parasuicidal behaviour; 7) resilience has a direct effect on parasuicidal behaviour; and, 8) acceptance of life and personal competence has a direct effect on parasuicidal behaviour.

The resulting model consists of seven exogenous variables and one endogenous variable. The exogenous variables are as follows: agency, pathway-hope; self-esteem, personal competence, acceptance of life, and resilience. The endogenous variable is parasuicide.

Preceding the testing of the hypothesised model, assumptions such as the sample size were examined. Although no definitive standard for a minimum sample size exists for studies that use SEM, some researchers suggest the use of 100-200 cases or 10-20 cases per observed variable in the model (Quintana & Maxwell, 1999). As mentioned previously, there are 8 observed variables in this study. The sample size

of 116 was adequate, since the rule of thumb for SEM is that modelling requires at least 10 observations per indicator (Nunnally, 1967).

Structural equation modelling (SEM) specifically relies on several statistical tests to determine if the model fits the data. There are specific measures that can be calculated to determine the goodness of fit. Although a set of indices statistics was developed to fit the model (Hu & Bentler, 1999; Quintana & Maxwell, 1999), in this study, the measures of model fit included the chi-square test, chi-square degrees of freedom ratio, the Bentler comparative fit index (CFI) (Bentler, 1990), the parsimony ratio, and the Root Mean Square Error of Approximation (RMSEA) (which is an estimate of discrepancy per degree of freedom in the model).

The Root Mean Square Error of Approximation (RMSEA) is based on the assumption that a perfect model fit is unrealistic and the reality can only be approximated (Raykov & Marcoulides, 2000). RMSEA values range from 0 to 1 with a smaller RMSEA value indicating a better model fit. According to Hu and Bentler (1999), acceptable model fit is indicated by an RMSEA value of 0.06 or less. Moreover, Byrne (1998) summarises the acceptable level of a model based on RMSEA as follows: Values of RMSEA less than 0.05 indicate a good fit, values ranging from 0.05 to 0.08 represent a reasonable error of approximation, values between 0.08 to .10 point to a mediocre fit, and those greater than 0.10 points to an inadequate fit. The value of RMSEA in this study was .063, indicating a reasonable error of approximation fit.

The closer the Goodness of Fit IndexFI is to 1.00, the better the fit of the model to the data is. The adjusted goodness of fit statistic is based on a correction for the number of degrees of freedom in a less restricted model obtained by freeing more

parameters. Both the GFI and the AGFI are less sensitive to sample size than the chi-square statistic. The values of GFI, AGFI, NFI, and CFI exceeded 0.9, showing a good model fit.

The parsimony ratio is important when interpreting the data because the statistic takes into consideration the number of parameters estimated in the model. The smaller the number of parameters necessary to specify the model, the more parsimonious the model is and the simpler the interpretation of the model will be. It should be noted that more than one model may accurately describe the data and that a number of fit indices should be used to determine the fit of the various models (Biddle & Marlin, 1987). When the analysis fails to fit the observed model structure with the theoretical structure, the researcher has to evaluate ways to improve the model by exploring which parameters might be freed that had been fixed and which might be fixed that had been freed. In this instance Parental Styles (warmth, control) and Parental Punitiveness was removed to modify the model to improve the fit.

Because the model fit was acceptable, the parameter estimates (i.e., regression weights) were examined. The ratio of each parameter estimate to its standard error is distributed as a z statistic. It is significant at the 0.05 level if its value exceeds 1.96, and at the 0.01 level it its value exceeds 2.56 (Hoyle, 1995). Unstandardised parameter estimates retain scaling information of variables and can only be interpreted with reference to the scales of the variables. Standardised parameter estimates are transformations of unstandardised estimates that remove scaling and can be used for informal comparisons of parameters throughout the model.

4.1.6. Ethical considerations for Phase I study

Ethical clearance for the study was sought from the North-West University Higher Degrees Committee. The ethical clearance reference number is NWU-00115-10-A3. The Limpopo Department of Education and Department of Health (ref: 4/2/2) also gave approval for the collection of data at the school and at the hospital. Ethical principles that were specifically upheld during this study include informed consent, which was obtained from the parents, learners and patients at the hospital. All information in the form of completed questionnaires was private, and other data obtained from the participants will remain confidential and when published, will not be identifiable as theirs. Anonymity was upheld by alerting the participants not to write their names when responding to the questionnaires. The researcher ensured that the participants are protected from being physically or psychologically harmed by the research process by ensuring that those who were physically in pain be excluded from this study. Participants were informed of all the aspects of the research, and the researcher remained available throughout to provide explanations should there be enquiries. The researcher never forced the participants to participate in the study or bribed them with money. The participants were told that they have a right to withdraw their participation from the study if the need arose.

4.2. PHASE II STUDY

4.2.1 Research design

Due to the difficulty with finding and keeping participants in this study, phase II of the study utilised a pre-test post-test design without a control group (Snyder et al., 1997). In this design, variables are measured at a two time intervals; one before the intervention and one after the intervention (Leedy & Ormrod, 2005). Changes in the outcome are usually presumed to be the results of the intervention (Leedy & Ormrod,

2005). This design helps researchers to investigate participants in detail using techniques such as interviewing, observation and conducting assessments. The use of this design is evidenced in a study by Almond et al. (2010) who measured the achievement of students with disabilities after using technology-enabled and universally designed assessments. Another study almost similar to this one is by Robinson et al (2014) in which they used a pre-test post-test design without a control group in a suicide ideation intervention study.

Other authors who used this design include Roberts, Brittin, and deClifford (1995), who measured the effects on respiratory capacity of frail, elderly women lying on boomerang pillows for 10 minutes. Just like in the current study, these authors adopted this design because it was difficult to find participants. For this reason, this study utilized only five participants.

The use of a pretest-posttest design in this study was adopted from the study by Charlton and Walston (1998) (see Chapter 2, pp 18-45) in which they conducted research on four paranoid delusional patients to test the theory and hypotheses. The findings of the study by Charlton and Walston (1998) were found to be credible and could be replicated in future studies. These authors encourage doing formal individual case studies in five stages: namely contextual theory, specific hypothesis, case finding, hypothesis testing and analysis (All these stages will be discussed in their respective sections throughout the methodology section). (See Figure 1 for a pre-test post-test design without a control group).

Figure 1: Design for Phase II of the study

4.2.2. Participants

Case finding refers to the process of locating pure cases, meaning cases with no discernible abnormality except for the fact that the person has attempted suicide. In order to recruit the right participants, history files were investigated, assessment for long-term mood disorders, psychosis or personality disorders were conducted to eliminate any factors that may disturb the intervention. The participants were recruited as they came to see the psychologist for assessment after being hospitalised due to a parasuicide. Purposive sampling was used. This phase of the study utilised data from five participants. Of the participants two were males and three were females. Their ages ranged from 17-19, with a mean age of 18.6. (See Appendix A for participant's details).

4.2.3. Instruments

Charlton and Watson (1998) stressed that case studies should not be used in isolation, but should be intergrated with other scientific methods and sources of

evidence. The following instruments were regarded as suitable to test the hypotheses of the study. The scales used in the Phase II study were the Hope Scale, Rosenberg Self-Esteem Scale, and Modified Scale for Suicide Ideations, and the Resilience Scale. For comprehensive details of the scales see Phase I study.

4.2.4. Procedure for Phase II study.

Participants' consent and assent were sought prior to data collection. The author is a Clinical Psychologist and was involved in the process of data collection and in the intervention process. The intervention process was conducted in Voortrekker Hospital, which is in Mokopane Town, South Africa. The intervention included 8-10 sessions of 1hr30 minutes for each participant. The Parasuicide Assertiveness Training process is explained below.

4.3.4.1 Implementation of the Parasuicide Assertiveness Training (PAT)

A. Assessment

Initially the researcher had to identify specific inclusion criteria by using a measurement scale. The participants were assessed for their suicidal risk using a Sad Person's Scale. Another important aspect was to assess for suicide risk using a Sad Persons Scale (See Appendix F). This scale was mainly used for adults, but can now be used for young adolescents (Junhke, 1996). Its main aim is to offer a more accurate prediction for suicidal risk by assessing the known risk factors.

This following is a description of the scale: "S" stands for sex, "A" stands for age, "D" stands for depression. Does the patient have symptomatology or a diagnosis of depression? "P" refers to a previous attempt. Has the person attempted before and if

so, what means did they use and what factors where involved, how did they survive the attempt? "E" stands for ethanol abuse. "R" stands for rational thinking. Is the patient thinking rationally? "S" stands for social support deficit. Does the patient have a support system? "O" is for organised plan. Does the patient have a thought out plan for taking the steps to act on the thoughts? "N" is for no spouse. Is the patient without a spouse? "S" is for sickness. Does the person have a medical or physical illness? These letters represent 10 areas of assessment. The scoring for this is as follows: 0-2 equals little risk, 3-4 equals following patient closely, 5-6 equals strongly considering hospitalisation, and 7-10 equals a very high risk requiring hospitalisation of the adolescent. Among the research participants, the prevalent score was 3-4, which means that the patient could be sent home, with a recommendation to follow-up.

Only those who scored on the level of needing help were included in the treatment phases, as they could be seen on an outpatient basis. Further inclusion criteria included that the participants had to be between the age of 13 and 19. They had to be able to get parental consent, or give own consent or assent. They had to have no physical pain. Participants had to be conscious, awake and alert and without any perceptual distortions induced by the method used during parasuicide, such as poison ingestion, or self-hanging. They had to have no mentally disability of any sort.

Furthermore the risks and benefits of withdrawing a study participant from the study were articulated and agreed upon and they were as follows. If the participants missed two successive appointments with no valid reason and continued to be uncooperative and showed a lack of interest in continuing, the participant would be dismissed from the sessions. If the participant engaged in another suicide attempt the participant was excused and not seen in therapy as part of this intervention. Participants were considered for hospitalisation if there were increased related

symptoms such as stomach problems, breathing problems etc. or severe suicidal ideations. If there was a recurrence of a suicidal attempt and a lack of treatment response, the participant was excused.

In case if there are increases in the suicidal thoughts to a level where a person poses a risk to him or herself or others, the participant would be admitted to the ward with the use of the Mental Health Care Act form used for voluntary or involuntary admission. The researcher, being a Clinical Psychologist, would contact a medical doctor to assist with further screening and admission. The social worker would be involved to contact the family of the participant regarding the participant's admission and the reasons.

To minimize the risk of future suicidality, an "anti-suicide contract" was constructed to encourage the participant to not engage in parasuicidal behaviours by signing the contract. Both the client and the therapist signed and kept a copy of this contract, referred to as the Anti-suicide contract (See Appendix E). The aspects of an agreement are consistent with recommended treatments for suicidal patients and include: commitment that they will not harm themselves, or will contact the clinician or an identified person if they feel unable to maintain their own safety. The contract provided the opportunity for both research participant and the researcher to commit to actions that decrease suicidality, and not being undecided about this goal. The participant's support systems were informed on how to access crisis care, including the treating professionals if need be, in a way of contacting the hospital if there is increases in suicidal behaviours.

After the participants were introduced to the intervention, different issues were discussed in sessions depending on the needs of the participant. The

psychologist/author and the participants discussed a theme, for example self-esteem, and then described ways in which an individual can increase his/her self-esteem. Behavioural techniques included homework assignments, diary keeping, role play of situations, self-reward and feedback. The participants were encouraged to be involved in their therapy for change to occur. To help the participants to be physically involved in the intervention they were given a booklet specifying the topics discussed in the session so that they can write what they have learned. This was done to encourage involvement, keep focus and to help the implementation of skills learned in real-life situations.

The psychologist/author played a facilitative role in the sessions with the use of the Carl Rogers principle of helping, including rapport building, active listening, attending, and displaying congruence, unconditional positive regard, warmth, and genuineness. The researcher used these skills to establish rapport and assist the client to open up in a warm, accepting environment. According to the Schneidman theory of psycheache, these individuals find it difficult to speak, perhaps due to fear of stigmatisation and abandonment, hence the need to use the above skills. Words such as *"It appears as if you are going through a difficult time currently in your life", "it seems as if you are in pain", "would you please share with me what is making you cry today"* were used to facilitate conversations. Where there were some observable scars or physical symptoms, they were acknowledged and the patient was made aware that the researcher was attending to him/her. This helped to facilitate therapeutic conversations. The process followed to implement this intervention will be discussed below.

1st Session

This step entailed coming to understand the event leading to the parasuicide. This step was taken with total caution and increased height of concentration. This is the area where role players in the event leading to the parasuicide were mentioned. Problem situations are also explained. Emotions, conflicts, anger, insight or lack of insight are displayed and expressed here. This step helped the author to have an idea of whom (secondary clients) to engage in the long-term intervention of the patients. Whether this is the first or second attempt was explored here. For all the participants, this was their first parasuicide, although they have all had long-term suicidal ideations. Emotional expressions such as crying and venting occurred during this session.

It seemed important that before the participant is discharged from the hospital, the role players in the event leading to the suicide attempt, such as care givers ("supportive people") are contacted where possible to psycho-educate on the events from a psychosocial perspective, to assess modes of communication, as well as to foster psychosocial support.

In cases where it appeared that the role players in the event do not seem to understand their role in precipitating the attempt, the patient was kept in the hospital so that the social worker could also get involved in the case. Otherwise the patient was discharged with a follow-up date in the next seven days. An anti-suicide contract was also signed. In summary, psychosocial problem situations noted as similar for all the patients were poor problem solving skills, poor self-esteem/poor self-concepts, anxiety about the future, low insight into their functioning and how it affects others, low resilience, and low agency and pathway thinking. Poor communication skills and poor regulation of emotions were also prevalent.

The second session for follow up was scheduled after seven days from last hospital contact. The researcher experienced challenges with missed appointments. In the event of a missed appointment, the researcher contacted the participants telephonically, and they would express reasons such as being fine and not needing any further counselling or getting counselling from their church. Some cited a lack of finances for a taxi or being busy at school, or relocation. Consequently, only five participants were willing to continue with intervention and were seen for the second sessions and up to the completion of the intervention.

2nd Session

This session began with a follow-up from the last session. Depending on what happened the previous week, sessions began with assessing the patient's insight. Instilling insight ensured that they were able to understand their psychological processes. The patients were encouraged to speak as freely as possible, saying whatever comes to mind. The researcher's task was to listen in an empathic way, paying attention to the feeling component of the material, including any discomfort or anxiety that the patient experienced. The researcher looked for patterns in the patient's material that suggested recurrent conflicts that the patient may be unaware of. The researcher commented on what the patient said and asked questions in order to further the patient's self-understanding.

The researcher asked questions to help the patients to become aware of fears and expectations that he/she may not have been consciously aware of previously. This also helped the participants to realise the influence of his/her behaviour on the environment or other people in their lives and how he/she is influenced by that environment in turn. After this awareness had been achieved, goals for therapy were

established. This was done after explaining the process of therapy and gaining a verbal contract of compliance.

3rd Session

The third session focused more on the here and now. Readiness for intervention was explored in this session and explanations regarding session's procedures were given. The third parties which would be included in the sessions were also discussed; including issues such as how much should be disclosed. It is important to note that the clients were seen as individuals. They all had different situations, yet they showed the same psychosocial factors, therefore the intervention generally followed the process mentioned below, although not specifically in the order of sessions. Furthermore, the problem situations were handled in a more integrated manner. For the purpose of this report, skills training and the manner in which it was presented are explained as research variables.

Self-esteem training

The most important technique involved in intervening and increasing self-esteem was the normalisation of feelings of worthlessness or inability to achieve anything. Normalisation is a technique emphasised by Carl Rogers in his principles of client-centered therapy. This technique included acknowledging the process or the frame of reference of the client and accepting their feelings. Statements used are usually framed like this: "It's normal to feel like a failure at times" or "It's okay to feel as if no one values you sometimes".

Although these statements are utilised, they should not continue indefinitely because they will foster self-pity and unwillingness to change. Another client-centered technique is used later on, namely Motivational Interviewing (MI). It was developed by William R. Miller and Stephen Rolnic in the 1980s (Corey, 2009; 2013). This approach is a directive client-centered counselling style to elicit behaviour change by helping clients to explore and resolve ambivalence. This approach seemed necessary to deal with self-esteem issues because of the self-doubt, self-criticism, and at times self-hate embedded in negative self-esteem. The use of MI was employed to help the participants to adopt self-responsibility and to tap into their abilities, strength, resources and competencies, encouraging them to have a healthy desire for positive change. The researcher used techniques such as open-ended questions, reflective listening, affirmation, support, and responded to resistance in a non-confrontational manner. Participants' own motivation to change was encouraged so that they can adhere to the interventions lessons when at home or in other environments.

The rationale for using MI was to help participants accept their real weaknesses, mistakes, and failures without self-denigration, self-hate or loathing. Participants were encouraged to stop berating themselves by asking them "What is the harm in that mistake?" They were helped to recognise, believe, and enjoy compliments they received without being grandiose. They were also taught skills to accept conflicting opinions. The researcher engaged in role play with the participant, for example arguing on a certain issue. Patients were encouraged to listen to others who disagree with them, and to express their views without feeling inferior or that they have to convince others that they are right. Each role play followed with reflection on their feelings and how they think they could have behaved better. In

addition to MI, insight-oriented techniques, mindfulness, problem solving skills, and thought restructuring techniques were utilised.

Homework included diary keeping, recording events in their lives that caused a feeling of inferiority, how they felt, how they reacted, the consequences of their reaction, and how they could have reacted better. Over the coming sessions, these steps were repeated many times to ensure integration into their daily lives. Each repetition seemed to strengthen self-acceptance and weakened low self-esteem, negative emotions and cognitive distortions.

Hope training

This session was aimed at developing future goals. Research has found that increasing goals for the future increased anticipated behaviour sequences (Snyder, 1994; Snyder et al., 1997). As such, goals are the anchors of hope. The intervention was focused on helping patients establish goals for the future and developing ways in which the goals would be achieved. Due to the age group of the participants, goals focused on academic issues, job prospects, relationships and other age appropriate goals. The goals were either short-term or long-term. The goals had to be attainable, but should require certain planning and involvement from the patients to achieve them. These goals had to begin with goals of therapy and had to extend to their general lives. Patients were encouraged to use self- affirming statement such as ''I know I can do this'' and ''I will finish this''. Over time the participants tended to be more hopeful and to develop a positive outlook on the future, and this then combined with a better self-concept.

Homework included diary keeping to record steps they have made to meet certain goals, and whether there was success or no success, participants were

encouraged to applaud themselves for goals that form part of the process of achievement, no matter how small the steps made seemed. *For one participant who had been suspended from the university, efforts made included writing a letter of apology to the University Registrar for re-acceptance.* This assisted him to feel in control of the situation, as well as to increase self-efficacy and to change cognitive distortions, such being a failure. It helped him to be hopeful. Upcoming sessions drew from the increase in self-esteem and the hopefulness about the future.

Resilience training

The resilience intervention consisted of encouraging self-competence and acceptance of self and life, which are two main components of resilience according to Wagnild and Young (1993). The five essential characteristics of resilience such as meaningful life (purpose), perseverance, self-reliance, equanimity and existential aloneness (i.e. coming home to yourself) were also included in the treatment intervention. The main aim of this session was to help patients develop strong psychological processes to address painful life situations. The treatment included implementing aspects such as cognitive restructuring, being mindful, accepting, problem solving skills, establishing goals. Motivational interviewing was used to increase personal self-competence by instilling the insight that the participant can achieve his/her goals on his/her own, even when there are hardships along the way. This included focusing on a life event that failed and the feelings of hurt that had been experienced. Participants were encouraged to take up that life event or a similar one with structured plans and make a commitment to persevere when faced with difficulty. In the process of doing this, participants were assisted to come to acceptance of their life and the self by encouraging them to accept mistakes, challenges, problems, and their deficiencies, but also to learn skills to overcome these challenges.

The outcome of this phase was to help participants to learn stress-busting tools that can be applied immediately to enhance personal resilience, to enhance the ability to prevent stress that negatively affects life, to increase adaptability and confidence when experiencing tough times and to increase better coping with stressful life events, to remain calm and healthy, to experience more hope, optimism and positivity and so better cope with life demands and events.

To assess progress, follow-ups were constantly conducted during the intervention process. Participants were encouraged to continue even when faced with difficulty without judgement. Self-reward was encouraged, no matter how minute the progress made seemed. For one participant aged 17, the life event was living without his parents after they died and having to adjust living with an uncle who was not available to him. During the intervention the participant learned the steps to grief appropriately and discovered techniques of how to positively adjust to living with his uncle by being more independent, seeking for help from other family members and focusing his energy in his music. This appeared to increase his resilience, which started to extend to other life events.

Parenting guidance

For the purpose of sustaining participants' wellness, parents or caregivers were included in the intervention process. This intervention was optional, based on the need of the participants. A family-based crisis intervention, which is an intervention designed to adequately soothe patients before discharge so that they can return home safely with their families, was adopted for this study. By providing guidance, support and counselling throughout this crisis, the process of psychological help may change a possibly deadly act into a useful and worthwhile growth experience for the adolescent

and the whole family. Methods such as parental guidance, family therapy techniques such as structural family therapy, role changing and rules establishment were followed so that the participant could go home to a supporting environment.

Parental guidance included employing techniques such as insight-oriented parenting skills facilitation. Rather than "instructing" the parents about appropriate parenting, the researcher encouraged the parents to explore the strengths and limitations of their own strategies, and guided them toward developing optimal approaches. Simple life situations were revisited, such as instead of pushing a participant to engage in activities at home, rather encouraging the mother or father to get involved in that activity with the child to encourage cohesion and attachment. These activities were also meant to increase contact, unity and parental involvement in the participants' lives. Some parents would say things like "*I have given birth to her, she is now supposed to serve me*, or things such as *"I don't have time to be talking to children"*.

Parents are encouraged to recognise that suicidal behaviour is a part of the reaction to a dysfunction at a particular level of functioning and can be controlled with the involvement of the family. The structural family technique was utilised to reduce symptoms of dysfunction, and to bring about structural change within the family by modifying the family's transactional rules and developing more appropriate rules.

Other goals of therapy included to help initiate and to catalyse a healing process that will enable the participants to accept changes in both individual and family existence; to decrease the amount of destructive family interaction, such as playing the blaming game or enmeshment or disengagement. Furthermore, to deal with the inevitable anxiety that accompanies the growth and development of the

adolescent, psycho-education on the stages of human development was offered to make contact, to help put into perspective adolescent behaviours and to provide hope.

Parents or caregivers were involved in at least 2-4 sessions to ensure that they gain insight into the intervention process. These meetings helped to reveal the impact of the intervention on the participant and on the parents as well. The researcher experienced challenges because some parents did not see any need for therapy, they viewed parasuicide as a spoilt manner of dealing with problems, or they believed in beating the suicidal ideations out of the adolescent. Statements such as *"she is spoilt, or she likes attention"* were uttered by some parents. However, with continuous sessions, there was a cognitive shift to acceptance that the interventions should continue.

Termination of the intervention

After completion of the intervention, participants were given time to implement the skills learned, for instance two weeks. They were given a date for follow-up. On this date a post-treatment assessment was done using the same questionnaire that was given at the beginning of the intervention. This was done for the purpose of doing a comparison in terms of the participant's psychological processes before and after the intervention.

At the end of intervention, it seemed necessary that the researcher speaks with the participants about likely scenarios that may increase suicide risk again, and to rehearse strategies and develop alternative reactions and behaviours more appropriate and effective than becoming suicidal. Beck et al., (1999), as well as Brent and Poling (1997) made suggestions in this regard. After all the intervention sessions had been completed, participants were given a booklet that required them to write and explain

what they had learned during the sessions. Questions such as *"What did you learn about hope?"* were included. One participant answered that *"hope is something you hold on to that will help you when you have difficult situation*" while another participant viewed being hopeful as a belief that *"everything will be fine, and having faith that you will pull through out of the difficult situations"*. This was done to reengage patients with what they have learned during the sessions so as to continue enhancing these skills (See the example of the participant responses in Appendix C).

4.3.5. Statistical methods used in Phase II study

In the analysis stage, statistical calculations were performed using the Statistical Package for Social Scientists Version 21. The statistical test employed in this study was a paired sample t-test, which is used to compare two groups of scores and their means. The selection of this statistical test was done on the basis of the study by de Winter (2013), confirming the usage of paired t-test with a smaller sample. De Winter (2013) proved that these statistics can be used with five participants. Paired t-test is usable in studies that employ the pre-test post-test design without a control group (Özdemir & Çakmak 2008). Because participants at the pre-test are the same participants at the post-test, the scores between pre-test and post-test are meaningfully related. If the repeated samples t-test is significant or the mean is higher at the post-test than at the pre-test, it is concluded that the intervention had a tangible and positive effect on the participants.

To determine the effect of the intervention, the Cohen *d* statistics was used to confirm the effect sizes of the results pre-post intervention as recommended by de Winter (2013); Mcmillan and Foley (2011), as well as MacLehose et al. (2000). Cohen *d* statistics is the most frequently used measure of effect size and is often used

in experiments where one wishes to compare the mean and standard deviations of a research condition to another by conducting a calculation with software to generate the effect size, for example in pre-test post-test conditions. In simpler terms, the effect size is utilized for calculating the magnitude of the difference between two times, it is particularly valuable for quantifying the effectiveness of a particular intervention, relative to some comparison. Size effects allows the researcher to understand how well did the intervention work. (Cohen, 1992). The calculations of the effects sizes were generated in Cohen *d* software in a page referred to as Psychometrica. Cohen (1977) originally gave guidelines as to what constitutes a small, medium, and large effect. He gave the guidelines of 0.2 as small, 0.5 as medium, and 0.8 and higher as large.

This means that a small effect size indicates that there is a real effect, for example something is really happening within the individual, but it can only be seen through careful study or examination, for instance a change in the individual's self-esteem or psychological functioning. A 'medium' effect size is an effect that is big enough, and/or consistent enough, that you may be able to see it physically 'with the naked eye'. For example, just by looking at a room full of people, you'd probably be able to tell that on average that the men are taller than the women. A large effect size is substantial and visible, tangible and requires no further examination, e.g. Individuals who were below 40 kilograms of body weight and diagnosed with HIV/AIDS have gained weight since beginning antiretroviral medications as compared to those who did not begin antiretroviral medications.

Cohen (1977) further states that when interpreting effect sizes (whether Cohen's d or others), the author should always contextualise the effect sizes in relation to similar research in other areas to give the reader a sense of where the result stands relative to the field of study. According to Cohen (1977) there is usually no absolutely

"big" or absolutely "small" effect. There are only meaningful effects relative to the research area under investigation (Denis, 2012). This suggestion seemed relevant for this study, as the effect may not be seen with the naked eye, therefore needing thorough careful study.

4.3.6. Ethical considerations

Issues such as the main aim of the intervention were explained to get informed consent. Other issues such as procedures and projected period of the intervention process were discussed. Issues such as potential risks, discomfort or adverse effects were discussed. Measures put in place to remedy the adverse effects would include hospitalization, or withdrawal from the intervention with referral to another clinician for further psychotherapy. In particular, they were informed that confidentiality will not be maintained if they are at imminent risk. Additional limits to confidentiality for minors were made clear to them, their parents or guardians. To ensure further assurance of confidentiality issues of data coding, disposal, sharing and archiving were explained. Data disposal would be archived by the researcher and be destroyed after five years.

Anonymity was ensured by encouraging the participants not to write their names on the questionnaires. Furthermore to ensure privacy, the participants were known by code names such as case two or five. Due to the sensitive nature of the issues discussed in intervention sessions, participants were emotional at times. In such instances these events were normalised and clients were made aware of the importance of this process in therapy to facilitate healing and progress. To avoid the issue of multiple roles (researcher and therapist) in this study, it seemed necessary to ensure that the benefits outweigh the risk, meaning that the psychological and overall

well-being of the participants was emphasised as the main outcome of the sessions by also mentioning that their participation was voluntary and withdrawal was allowed at any time.

The purposes and content of the intervention was explained to the primary participants in this study. Furthermore, as part of the consent process, the researcher consulted with relevant family members, guardians, or friends. The conversations included the risks inherent when study participants are suicidal. The procedures for handling increases in suicidal ideation were explained; as well as the criteria for withdrawal from the intervention; the risks and benefits of the treatment and conditions were also discussed. In some cases where family members, guardians or friends were invited during the intervention phase their roles in the treatment were clearly explained to the primary participants

CHAPTER 5: RESULTS

This section first reports the results of Phase I. The t-test for all variables compared group differences (non-attempters and attempters) and gender differences (male and females). Thereafter the hypothesised model for all the variables for the SEM model within the correlations result is presented. Then the SEM results are presented and their regression weights are outlined. Lastly, the results for Phase II, the intervention, are revealed. All the results in this study are presented in the form of tables and figures.

5.1. RESULTS OF PHASE I STUDY

5.1.1. Psychosocial factors of parasuicide of attempters compared to non-attempters

Hypothesis one stated that attempters will differ significantly from non-attempters on psychosocial measures (hope, self-esteem, parenting styles, and resilience) and parasuicidal behaviour. The testing of this hypothesis entailed using an independent sample t-test (See Table 2 for comprehensive results).

Table 2

Means, standard deviations, and summary of the independent sample t-test for all variables under investigation.

	Non-attempters N(150)		Attempters N(116)			
	M	**SD**	**M**	**SD**	**T**	**p**
Agency	23.63	6.12	11.90	4.45	17.37	.000**
Pathway	24.06	6.21	9.77	5.97	18.90	.000**
Hope	67.33	13.06	46.13	12.31	16.29	.000**
Self-esteem	19.05	4.51	9.82	4.28	3.91	.000**
Parasuicide	12.43	6.94	23.75	6.23	-13.7	.000**
Parental Warmth	15.12	7.51	20.35	8.50	3.434	.000**
Parental Control	10.95	2.27	33.65	36.94	7.48	.000**
Parental Punitiveness	18.46	5.83	18.47	8.50	.011	ns
Personal Competence	86.43	21.11	56.34	15.10	12.73	.000**
AoSL	38.21	10.50	23.94	7.80	12.70	.001**
Resilience	122.35	30.03	80.45	22.05	13.11	.001**

AoSL-Acceptance of Self and Life. *P < .005, **P< .001

The study revealed statistical differences on hope $t(264)=16.39$, $p <.000$. The subscales of hope, which is agency thinking $t(264)=17.37$, $p <.000$ and pathway thinking $t(264)=18.90$, $p < .000$, were statistically significant. The mean scores revealed that non-attempters scored high on hope ($\bar{x}= 67.33$, SD =13.06), agency

thinking ($\bar{x}$= 23.63, SD =6.12), and pathway thinking ($\bar{x}$= 24.06, SD =6.21) compared to attempters, who scored low on hope ($\bar{x}$= 46.13, SD =12.31), agency thinking ($\bar{x}$= 11.90, SD =4.45) and pathway thinking ($\bar{x}$ = 9.77, SD =5.97).

The study also revealed statistically significant differences on self-esteem $t(264)=3.91$, $p<.000$. The mean differences did reveal that non-attempters scored higher on self-esteem ($\bar{x}$= 19.05, SD =4.51) than attempters ($\bar{x}$= 9.82, SD =4.28).

Results also showed a significant statistical differences on parasuicidal behaviour $t(264)=-13.78$, $p<.000$. The mean difference further indicated that attempters scored higher on parasuicide ($\bar{x}$= 23.75, SD =6.23) than non-attempters ($\bar{x}$= 12.43, SD = 6.94).

In addition, the study revealed significant statistical differences on parenting styles subscales such as parental warmth $t(264)= -7.39$, $p<.000$, parental control $t(264)= 7.48$, p<.000. There was no significant statistical differences for parenting punitiveness $t(264)= 011$, $p<$.ns.

Furthermore, the mean difference regarding parenting styles showed that attempters scored high on parental warmth ($\bar{x}$= 20.35, SD =3.91), parental control ($\bar{x}$=33.65, SD=36.94) and parenting punitiveness ($\bar{x}$= 18.47, SD =5.83) as compared to non-attempters on parental warmth ($\bar{x}$= 7.58, SD =1.21), parental control ($\bar{x}$= 10.95, SD =2.27), and parenting punitiveness ($\bar{x}$= 18.46, SD =8.50).

Significant statistical differences were also revealed on resilience $t(264)=$ 13.11, $p<.000$, as well as on the subscales personal competence $t(264)= 12.73$, $p<.000$ and acceptance of self and life $t(264)= 12.73$, $p<.000$. This study indicates that non-attempters reported high on resilience ($\bar{x}$= 122.35, SD =30.03), its subscales personal

competence ($\bar{x}$= 86.43, SD =21.11) and acceptance of self and life ($\bar{x}$= 38.21, SD =10.50), in comparison to attempters in resilience ($\bar{x}$= 80.45, SD =22.05), personal competence ($\bar{x}$= 56.34, SD =15.10) and acceptance of self and life ($\bar{x}$= 23.94, SD 7.80). Due to the non-statistical significance of parenting punitiveness, this hypothesis is partially accepted.

5.1.2. Influence of psychosocial factors on parasuicide

Hypothesis two, that psychosocial factors (hope, self-esteem, parental styles, parental punitiveness, parental control and resilience) will have a significant independent influence on adolescent parasuicidal behaviour was tested utilising correlations and Structural Equation Modelling. (See Table 3 for the correlation results) (Table 4 for the fit indices of the Structural Equation Modelling) (Table 5 for the regression weights) (Figure 2 for the SEM path analysis).

Table 3

Correlations for the model's independent and dependent variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Parasuicide	1										
2.Agency	-.29**	1									
3. Pathway	-.25**	-.21**	1								
4. Hope	-.21**	.74**	.86**	1							
5. Self-esteem	-.32**	.39**	.34**	.27**	1						
6. Warmth	.06	-.08	-.06	-.09	.03	1					
7. Control	.17	-.04	-.14	-.15	-.08	-.21	1				
8. Punitiveness	-.01	-.05	-.01	-.01	.01	.64	-.26	1			
9. Personal Comp.	-.24**	.42**	.43**	.43**	.33**	-.05	-.08**	.03**	1		
10. AOSL	-.26**	.39**	.39**	.38**	.25**	.00**	-.16**	.06**	.83**	1	
11. Resilience	-.26**	.44**	.43**	.43**	.31**	-.03	-.10**	.04**	98**	.92**	1

****. Correlation is significant at the 0.01 level (2-tailed).**
AoSL-Acceptance of Self and Life. Personal Competence, Parental Punitiveness, Parental Control.

Significant at *P < .005, **P< .001

Initially, correlations were performed to determine the independent influence of psychosocial variables on parasuicidal behaviour. This correlation was conducted to inform the SEM on which variables to include in the model. In other words, significant correlations found among the model variables provided a basis for the proposed SEM model, as well as the intervention programme.

The analysis revealed that parasuicidal behaviour was significantly correlated with agency $r(116) = -.29$, $p<.001$; pathway $r(116) = -.25$, $p< .001$; hope $r(116) = -.21$, $p < .001$, self-esteem $r(116) = -.32$, $p < .001$; personal competence $r(116) = -.24$, $p <$

.001; acceptance of life $r(116) = -.26$, $p < .001$; and resilience $r(116) = -.26$, $p < .001$. There were no significant statistical correlations to parental warmth $r(116) r =. 06$, p < ns; parental control $r(116) =.17$, $p <$ ns; or parental punitiveness $r(116) = -.01$, $p <$ ns. The correlation results indicated that parental warmth, control and punitiveness should not be included in the SEM analysis due to the non-significant relationships; therefore the scales were excluded from the study analysis.

To confirm the model fit in the SEM, fit indices such as the chi-square, Root Mean Square Error of Approximation (RMSEA), Goodness of Fit, Chi-Square differences and many more were tested. For the results see Table 4 below.

Table 4.

Summary of Fit Indices of the Model for the full Structural Equation Model

Model	df	χ^2	χ^2/df	RMSEA	CFI	GFI	AGFI	NFI	RMR	AIC
1.	28	133.26	47.65	.063	.00	.34	.16	.00	68.14	1350	.261

Only correlated variables were used in the path analysis. The fit analysis revealed that the indices reached their optimal values and were within the recommended state. The Chi-square did not reveal any statistical difference, which means that the model is a good fit. The value of the Chi-square statistics over the degree of freedom was within the normal ranges. The RMSEA value of .063 is still within the range of good fits. Therefore the hypothesised model fits the data for the overall sample. Because the model fits, the path analysis was generated (See Figure 2 below for the path analysis).

Figure 1

Path Diagram of the Hypothesised Psychosocial Factors of Adolescent Parasuicide

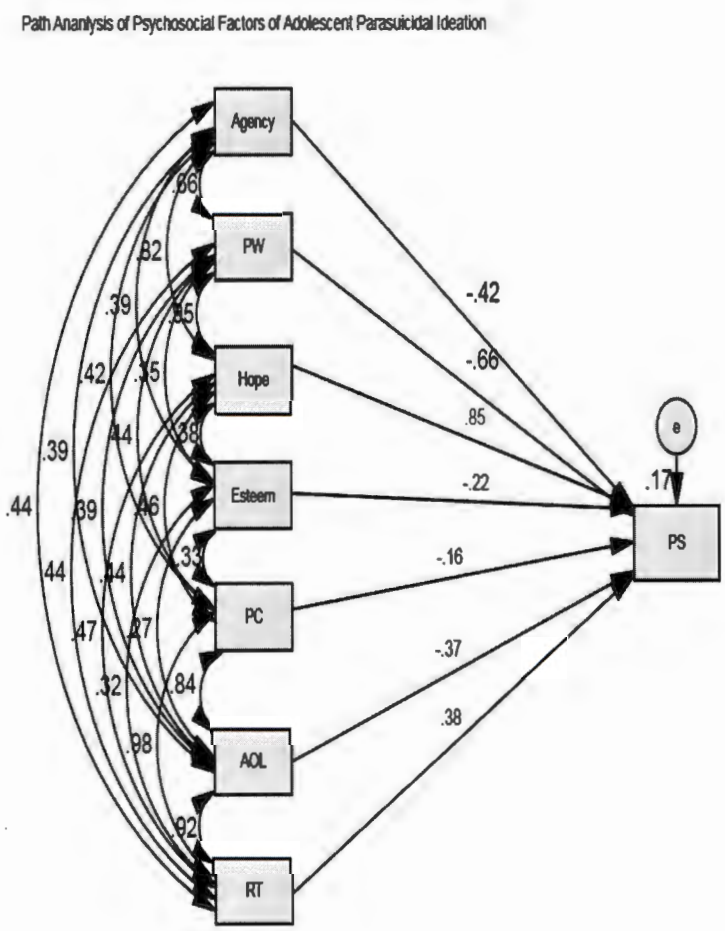

Table 5

Standardised regression coefficients of the variables on the SEM

Direct Effects	Estimate	S.E.	C.R.	*p*
PS<---Hope	.848	.412	1.465	.143 ns
PS<---Esteem	-.220	.166	-2.321	.020 ns
PS<---PC	-.159	.354	-.186	.853 ns
PS<---AoSL	-.373	.352	-.847	.397 ns
PS<---RT	.385	.343	.317	.751 ns
PS<---PW	-.662	.455	-1.516	.130 ns
PS<---Agency	-.424	.329	-1.798	.072 ns

PS –Parasuicide, PC –Personal Competence, AoSL-Acceptance of Self and Life, RT –Resilience Total, PW-Pathway.

Although the paths analyses were insignificant, the psychosocial variables did have direct effects on parasuicide. The determinants of parasuicide as indicated by the total causal effect in Table 5 were hope (β = .848, p <ns), its subscales agency (β = -.424, p <ns) and pathway thinking (β = -.662, p <ns); self-esteem (β = -.220, p< ns), resilience (β =.385, p> ns), and its subscales personal competence (β = -.159, p> ns) and acceptance of self and life (β =-.373, p < ns). This model explains approximately 17% of variance in parasuicide. For all the results see the path diagram (Figure 2) and Table 5 above. With these results the hypothesis that psychosocial factors (hope, self-esteem, parental styles, parental punitiveness, parental control and resilience) have a significant independent influence on adolescent parasuicidal behaviour is partially accepted.

5.1.3. Psychosocial factors and parasuicide according to gender differences

Hypothesis three stated that there will be a significant difference of psychosocial factors and parasuicide according to gender differences was tested using an independent sample t-test. (See Table 6 for the results).

Table 6.

Means, standard deviations, and summary for the independent sample t-test for all variables under investigation according to gender differences

	Males N(42)		Females N(74)			
	M	**SD**	**M**	**SD**	**T**	**p**
Agency	12.71	5.23	11.43	3.91	1.382	ns
Pathway	13.38	7.05	12.91	5.31	.380	ns
Hope	28.21	15.29	24.34	8.31	1.520	ns
Self-esteem	9.98	4.98	9.74	3.84	.262	ns
Parasuicide	23.81	7.33	23.73	5.55	.061	ns
Parental Warmth	7.64	1.69	8.42	3.47	1.745	ns
Parental Control	10.05	3.71	8.82	3.47	1.745	ns
Parental Punitiveness	15.12	7.51	20.35	8.50	3.434	.000**
Personal Competence	63.47	18.87	56.22	13.43	2.154	ns
AoSL	23.30	8.29	20.62	6.07	1.839	ns
Resilience	86.79	26.52	76.85	18.30	2.193	ns

The study indicated that there was no significant statistical difference on hope $t(114)=1.52$, $p<$ns, and the subscales agency thinking $t(114)=1.38$,p<ns and pathways thinking $t(114)=.38$, p<ns. The different mean scores revealed that males had slightly higher hope ($\bar{x}$= 28.21, SD =15.29), higher agency thinking ($\bar{x}$= 12.71, SD =5.23) and higher pathway thinking ($\bar{x}$= 13.38, SD =7.05) in comparison to females who reported slightly lower hope ($\bar{x}$= 24.34, SD =8.31), pathway thinking ($\bar{x}$= 12.91, SD =5.31) and agency thinking ($\bar{x}$= 11.43, SD =3.91).

The study also indicated that self-esteem did not reach a statistical significance $t(114)=.262$,$p<$ns. The mean scores revealed that males reported a slightly higher self-esteem ($\bar{x}$= 9.98, SD =4.98) than females ($\bar{x}$= 9.74, SD =3.84).

The study also revealed a non-significant statistical difference on parasuicidal behaviour $t(114)=061$, $p<$ns. Mean scores reveal that males reported slightly higher parasuicide ($\bar{x}$= 23.81, SD =7.33) than females ($\bar{x}$= 23.73, SD =5.55).

The study also indicated that parental warmth did not reach statistical significance $t(114)=2.56$, $p<$ns. In addition, parental control also did not reach statistical significance $t(114)=1.75$, $p<$ns. There was significant statistical difference on parental punitiveness $t(114)=3.43$, $p < 001$.

Mean scores on parenting styles revealed different results. Males scored lower on parental warmth ($\bar{x}$= 7.64, SD =1.69) in comparison to females' parental warmth ($\bar{x}$= 8.42, SD =1.49). Male scores on parental control were higher ($\bar{x}$=10.05, SD=3.71) in comparison to females ($\bar{x}$= 8.82, SD =3.46). Female scores on parental punitiveness ($\bar{x}$= 20.35, SD =8.50) were higher in comparison to the males' score ($\bar{x}$= 15.12, SD =7.51).

The study further revealed no statistical significant results on resilience $t(114)=2.15$, $p<$ns and its subscales acceptance of self and life $t(114)=1.83$, $p<$ns and personal competence $t(114)=2.19$, $p<$ns. The mean scores revealed that males scored higher in overall resilience ($\bar{x}$= 86.97, SD =26.52) than females ($\bar{x}$= 76.85, SD =18.30). Males scored higher on acceptance of self and life ($\bar{x}$= 23.30, SD =8.29) and females scores were lower ($\bar{x}$= 20.62, SD =6.07), and males had higher scores of personal competence ($\bar{x}$= 63.47, SD =18.87) than females ($\bar{x}$= 56.22, SD =13.43). From these results the hypothesis that there would be a significant statistical difference regarding psychosocial factors and parasuicide according to gender differences was partially accepted.

5.2. RESULTS OF PHASE II OF THE STUDY

Phase II of this study was used to implement an intervention with the assessment of the participants done at pre-test and post-test intervention.

5.2.1. Psychosocial factors and parasuicide at pre-test and post-test conditions

The hypothesis that stated that there will be a significant effect of psycho-educational intervention on parasuicidal behaviour and psychosocial factors of adolescents was tested using a paired t-test and the Cohen *d* effect sizes. See the results in Table 7 below.

Table 7

Paired sample t-test for the variables measured at pre-test and post-test conditions

Variables	Pre-test		Post -test				
	M	SD	M	SD	t	p	*Effec tsizes*
Agency	22.4	6.22	22.8	5.71	-.1.86	.13	0.67
Pathway	22.0	7.93	26.8	3.11	-.1.00	.37	0.80
Hope	54.0	25.26	63.4	17.99	-.1.90	.13	0.43
Self-esteem	18.0	6.59	21.0	3.67	-.1.27	.27	0.56
Resilience	126.6	27.24	151.8	9.88	-.2.43.	.07*	1.23
PC	88.8	19.71	103.8	9.83	-.3.03	.03**	0.96
AoSL	37.8	8.81	48.0	4.63	-.1.75	.15	1.45
Parasuicide	11.4	10.87	2.0	2.82	2.11	.10	-1.18

Pc=Personal competence. AoSL =Acceptance of Self and Life. Significant at **p<05 *p<001

***t*: paired t-test statistics**

The study indicated non-significant results on overall hope $t(4)$=-.1.90, p < ns; d = 0.67. There was also no statistically significant differences on pathway thinking $t(4)$= -.1.00, p < ns; d = 0.80, and agency thinking $t(4)$=-.1.86, p < ns; d = 0.43. The mean scores indicated that participants scored slightly higher on hope in post-test ($\bar{x}$= 63.4, SD =17.99) than in pre-test ($\bar{x}$= 54.0, SD =25.26). The mean difference does show that agency thinking increased slightly in the post-test ($\bar{x}$= 22.8, SD =5.71) compared to the pre-test ($\bar{x}$=22.4, SD =6.22). Mean scores also revealed that pathway

thinking also increased slightly in post-test ($\bar{x}$= 26.8, SD =3.11) compared to the pre-test ($\bar{x}$= 22.0, SD =7.93).

Self-esteem did not reach statistical significance $t(4)$= -.1.27, p < ns; Cohen d = 0.56. The mean scores of self-esteem indicated an improvement of the scores in post-test ($\bar{x}$= 21.0, SD =3.67) as compared to pre-test ($\bar{x}$= 18.0, SD =6.59).

The study revealed that there was statistical significant difference on resilience $t(4)$= -.2.43, p< 01; Cohen d = 1.23 and its subscales acceptance of self and life $t(4)$= -.3.03, p < ns; Cohen d = 0.96 and personal competence $t(4)$= -.1.75, p < .05; Cohen d = 1.45. The mean revealed that post-test scores of resilience ($\bar{x}$= 151.8, SD =9.88), and its subscales personal competence ($\bar{x}$= 103.8, SD =9.83), and acceptance of self and life ($\bar{x}$= 48.0, SD =4.63) were higher in comparison to pre-test scores of resilience ($\bar{x}$= 126.6, SD =27.24) acceptance of self and life ($\bar{x}$= 37.8.8, SD =9.71) and personal competence ($\bar{x}$= 88.8, SD =19.71).

The study also indicated that there is no statistically significant differences on parasuicide $t(4)$= 2.11, p < ns; Cohen d = -.1.18. The mean score for the parasuicidal behaviour showed a decline in post-test ($\bar{x}$= 2.0., SD=2.82) as compared to pre-test ($\bar{x}$= 11.4, SD =10.87) conditions. Although the results were not all statistically significant, the effect size for this analysis ranging from d = 0. 43 to 1.23 was found to exceed Cohen's (1977, 1988) convention for a large effect meaning that the intervention did have a small to large size effect on the psychosocial factors and parasuicide therefore causing a positive difference. Based on these results, the hypothesis for Phase II study which stated that there will be a significant effect of psycho-educational intervention on parasuicidal behaviour and psychosocial factors of adolescents is partially accepted.

CHAPTER 6: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

6.1. DISCUSSIONS

The main purpose of this study was to explore and determine the psychosocial factors of adolescent parasuicide, followed by the development of an intervention method for parasuicidal adolescents and then testing the efficacy of the intervention process among adolescents who have attempted suicide. The psychosocial factors studied in Phase I of this study were hope, self-esteem, parental styles, and resilience. The intervention method developed was implemented and assessed in Phase II. This intervention method was referred to as the Parasuicide Assertiveness Training (PAT). In other words, four hypotheses were tested in this study. Hypotheses 1-3 were tested in the Phase I study while hypothesis 4 was tested in the Phase II study. All the hypotheses were partially accepted. The discussions of the findings are presented below.

6.2. PSYCHOSOCIAL FACTORS OF PARASUICIDE ADOLESCENTS AS COMPARED TO NON-ATTEMPTERS.

Hypothesis one: Attempters will differ significantly from non-attempters on psychosocial measures (hope, self-esteem, parenting styles, and resilience) and parasuicidal behaviour.

Beginning with hope, previous research has explained hope as an effective emotional state that assists individuals to still continue living even when experiencing distressing problems (Phillips-Salimi et al., 2007; Peleg et al., 2009). In this current study non-attempters reported having more hope with its subscales agency thinking and pathway thinking than attempters. These findings are consistent with previous

research by Kaslow et al. (2004), which revealed that among African American male and female's non-attempters and attempters, non-attempters reported higher levels of hope than attempters. Another study that concurs with these findings is by Meadows et al. (2005), which was conducted among women in abusive relationship and found that women who reported high levels of hope were less likely to attempt suicide, but those who reported low hope were more likely to attempt suicide. Similarly, most researchers are in consensus that a strong association exists between hopelessness or low pathway and agency thinking with depression, which is usually a precedence of parasuicidal behaviour (Goldston et al., 2001; Klonsky et al., 2012). It is therefore not surprising to find that attempters had low hope compared to non-attempters. These findings suggest a need to include hope in the intervention methods aimed at preventing potential parasuicide, as well as preventing the reattempting of suicide.

The current study also found that non-attempters reported higher self-esteem than attempters. This finding is supported by Santos et al. (2009) who revealed that lower self-concept was found among the parasuicide group than the non-attempters group. Another study conducted in South African by George (2005) revealed that an adolescent with low self-esteem may see life as not worth living and may perceive everyday stressors as overwhelming as compared to an adolescent with high self-esteem. These results do demonstrate that self-esteem is an important personal factor to seriously consider when assisting a parasuicidal adolescent.

Regarding parental styles, the findings revealed reports of high parental warmth by attempters as compared to non-attempters. This finding leaves much to be asked, because previous research has reported that parents who display less warmth usually have children with psychological distress that may be linked to higher rates of suicidal behaviour (Connor & Rueter, 2006). However, other research stated that

parents who provide too much warmth are usually permissive, have a *laissez faire* attitude, leaving their adolescents with an inability to regulate and control emotions. If faced with distressing life events such individuals may resort to a suicide attempt (Curran et al., 1999). There is, however, no further research supporting the findings that high parental warmth does influence parasuicidal behaviour. It is therefore deducted that perhaps other factors are also associated with parental warmth, causing this parental style to be associated with parasuicidal behaviour. Future studies that can be both qualitative and quantitative are suggested to confirm the factors surrounding these findings. Otherwise this finding may be attributed to the participant's state of mind when answering the questions; perhaps the questions were answered in a socially desirable manner.

Other findings revealed that attempters reported higher parental control compared to non-attempters. In agreement with this finding, research has found that parents who show strong psychological control, inconsistent control, lack of expression of affection and covert marital hostility have adolescents with high suicide ideations (Florenzano, et al., 2011). Not enough research has been conducted on the concept of parental control and parasuicide. It is therefore suggested that studies of this nature are conducted. It may even be necessary to consider developing scales from an African cultural context to avoid errors and bias when participants are responding to the questions.

In terms of parental punitiveness, the difference was not statistically significant between the two groups, but the mean difference revealed that attempters reported a marginally higher parental punitiveness than non-attempters. Previous literature agrees with these findings. In a study by Liu et al. (2005), 14% of Chinese rural adolescents reported being beaten by parents during the past year and these adolescents who

reported physical retribution by parents during the past year were at a greater risk for suicide attempts than those who did not report physical punishment by parents. In other research, where there are families with two children, the sibling who alleged to receive less parental warmth and more parental aggression reported higher suicidal ideation than the sibling who did not report experiencing such negative harsh and punitive parenting behaviours (Wagner & Cohen, 1994). Because punitiveness and its methods has been a topic of controversy for decades, this study does bring to light a need to integrate this issue into parenting guidance. Perhaps there is a need to make parents aware of methods of punitiveness without influencing the child to parasuicidal behaviour.

The findings also indicated that non-attempters had more resilience than attempters. These results are in line with previous studies where the resilience of attempters and non-attempters were compared. Non-attempters reported having high acceptance of self and life and personal competence than attempters. Although previous studies did not use the Wagnild and Young Resilience scale, the results of this study were in agreement with previous studies that utilised other resilience scales. A study by Roy et al. (2007) revealed that patients with a previous history of engaging in parasuicide had significantly lower resilience scale scores than non-attempters.

Another study that concurs with the findings were undertaken among 20 patients who had never engaged in parasuicide and found that they had significantly higher mean resilience scores than the patients who had engaged in parasuicide. Furthermore, in another study among inmates, those who had never attempted suicide had considerably higher resilience scores than the other inmates who had engaged in parasuicide (Roy et al., 2011). A study conducted in South Africa by George (2009) among 590 learners found that adolescents with low resilience had severe suicidal

ideations. These findings indicate a need to take cognisance of the resilience concept when dealing with a suicidal patient in clinical practice. Since few resilience and suicide studies have been conducted in South Africa, this study encourages research on this concept to increase the body of literature.

6.3. INFLUENCE OF PSYCHOSOCIAL FACTORS ON ADOLESCENT PARASUICIDE.

Hypothesis two: Psychosocial factors (hope, self-esteem, parental styles, parental punitiveness, parental control and resilience) will have an independent influence on adolescent parasuicidal behaviour.

The findings revealed that, overall, hope had a direct effect on parasuicidal behaviour. Agency and pathway had a negative effect on parasuicide. Nonetheless, focusing on overall hope, the findings are in agreement with the study by Dogra et al. (2011) who stressed that the meaning in life and reasons for living act as stress buffers and could predict the ability to cope with life adversity and help to generate hope or hopelessness, which in turn leads to either rebuff or accept parasuicide. Furthermore, research has found that hope is a useful factor and plays an important role in preventing, influencing, buffering against and intervening in parasuicidal behaviour (Meadows et al., 2005). Kwok and Shek (2008) established in their study that hopelessness correlates with a higher risk of suicidal behaviour. Goldston et al. (2001) also found that a strong association exists between hopelessness or low pathway and agency thinkers and depression, which usually precedes parasuicidal behaviour. The results of this study show that hope, whether as an influencing or a protective factor, is useful in the cognitive and emotional process of parasuicide, therefore any

intervention method to be developed and implemented has to include hope as an intervention factor.

Self-esteem had negative direct effects on parasuicidal behaviour. In line with this finding, studies by George (2005); Mashego et al. (2003); Hawton et al. (2002); Lundh et al. (2007); Bhar et al (2008) and Manani and Sharma (2013) revealed that self-esteem was negatively related to parasuicidal behaviour among adolescents. Bhar, Ghahramanlou-Holloway, Brown and Beck (2008) explain that within the perspective of depression, low self-esteem may increase the possibility of parasuicide. It is the assumptions of this study that perhaps self-esteem may also play a moderating role in parasuicidal behaviour, hence the negative association found in the current study.

Other studies that examined self-esteem and suicidal behaviour conceptualised self-esteem as having double dimensions (implicit and explicit self-esteem). These studies were able to generate a positive association of self-esteem with suicidal behaviour (Bhar, Brown & Beck, 2008). This study, however, conceptualised self-esteem in a single dimension, thereby bringing out the negative associations. Future studies are encouraged to study self-esteem in two dimensions. A study by Bhar, Brown and Beck (2008) mentions that sample age has an influence on self-esteem. Assessing self-esteem among adolescents make it difficult to get a true reflection of the concept because of development and the psychological awareness that is still occurring. But when explored among adults in their early 30s, an independent influence of self-esteem on suicidal behaviour is revealed. This could be the case in this current study, seeing that the participants are adolescents. This study encourages perhaps the development of the self-esteem scale tailored for adolescents in order to be able to get a true reflection of adolescent self-esteem.

Other findings are in contrast with the previous research, which states that a negative self-esteem exposes adolescents to depression and other psychological difficulties, causing adolescents with low self-esteem to probably engage in parasuicide (Claes et al., 2010 Santos et al., 2009; Manani & Sharma, 2013). Because of the two dimensions of self-esteem in some previous studies, it was found that adolescents with low explicit self-esteem are more prone to parasuicide than those with implicit self-esteem (Creemers et al., 2012). These two differing opinions require further investigation through qualitative research, which will assist with extracting themes of self-esteem that have not yet been discovered in research. Even with these contrasting findings, the inclusion of self-esteem in parasuicidal intervention research is still relevant.

Parental warmth, control and punitiveness had a negative relationship with parasuicide, meaning that these variables do not strongly influence parasuicide among the adolescents in this current study. These results are in contrast with the findings of other previous studies that highlighted that parents who are authoritarian, who give low warmth, and are more harsh, controlling, not nurturing and engaged in punitive behaviours such as beating with intense aggression, will have adolescents who are prone to engage in parasuicide (Liu et al., 2005; Florenzano et al,, 2011). Due to the non-significant nature of these variables, they were not included in the structural equation model analysis of the variables; therefore they will not be discussed further.

A direct influence of resilience on parasuicide was discovered. Most research is in agreement with the current results, stating that high resilience comes as a result of positive appraisal of any negative situation and causes low suicidality (Johnson et al., 2010). Furthermore, Johnson et al. (2010) established that stressful situations are known to influence appraisals; these researchers suggests that when an adolescents is

in a stressful situations, he/she will negatively appraise the situations, leading to low resilience, which then causes parasuicidal behaviour. Most studies have implicated resilience in parasuicide (George, 2005, 2009; Roy et al, 2011), making it a subject not to ignore when studying parasuicide.

It is interesting to note that there were relationships between the psychosocial variables of this study. These correlations, which were positive and significant, depicted an interplay or connectedness of variables. This state of variables was instrumental in the formulation of interventions from a biopsychosocial perspective. Resilience appeared to be strongly correlated with hope and self-esteem. This confirmed the assumptions of the biopsychosocial model from a general system principle that an individual's functioning is interconnected, and if one aspect is not functioning well, there will be a disturbance in other aspects of functioning (Engel, 1980). For example, if an adolescent's level of hope is affected, self-esteem and resilience may also be influenced. Furthermore, these findings have brought out an assumption that there may be both linear and joint influence of variables on parasuicide, suggesting that future studies should assess these variables in such a manner.

6.4. PSYCHOSOCIAL FACTORS OF PARASUICIDE ACCORDING TO GENDER DIFFERENCES.

Hypothesis three: There is a statistically significant difference in the psychosocial factors and parasuicide between genders.

This study has found that adolescent males and females differ in their pattern of psychosocial factors that predict parasuicide and in the factors predicting vulnerability. Although the differences are weak statistically for most variables, there

are some mean variances worth discussing. Moreover, the gender difference revealed in this study is in agreement with the differential susceptibility hypothesis which stresses that gender differences causes individuals to vary in the degree to which they are affected by experiences or the qualities of the environment they are exposed.

In this study males reported slightly higher parasuicidal behaviour than females. These findings were inconsistent with previous studies that explain that adolescent females are twice as likely as males to report suicidal ideation and suicide attempt behaviour (Beautrais, 2002; Kaess et al. 2011). Despite the fact that females make more suicide attempts than males, males are three- to fourfold more likely to die by suicide than females (Beautrais, 2002; Canetto & Sakinofsky, 1998). The death of more males than females has been attributed to the fact that males use more lethal methods of suicide than females. From a theoretical perspective, employing the interpersonal theory of suicide, it was found in previous studies that perceived burdensomeness increased suicide ideation in both genders, while higher thwarted belongingness increased suicide ideation only in females. In females, thwarted belongingness was related to perceived burdensomeness, while greater physical health was significantly associated with greater thwarted belongingness in males, but not in females (Donker, Batterham, Van Orden & Christensen, 2014). It is important to note that gender differences in adolescent suicidal behaviour may not be explained solely or predominantly by method choice. Issues such as culture maybe implicated. Future studies should include the exploration of culture in relation to parasuicidal behaviour.

Considering the other emotional and behavioural factors that are regarded as gender specific in research (Kaess et al., 2011), males had slightly higher hope – both agency and pathway - when compared with females. Because hopelessness is associated with depression, a study revealed that depressive symptoms and female

gender were significantly more associated with suicidal behaviour than with males (Austad et al., 2013). According to Sadock et al. (2015) Major Depression Disorders are found more often among females, mostly due to hormonal differences, which constitute psychosocial stressors for females.

Males also had slightly higher self-esteem than females. Although no study that linked self-esteem and suicidal behaviour according to gender differences could be found, recent research explain that males have slightly higher global self-esteem scores than females (Quatman & Watson, 2001). However, another study found no gender differences on self-esteem (Ahmad et al., 2013).

Regarding parental styles, males reported lower parental warmth in comparison with females. These results is in agreement with a study by Kausar and Shafique (2008), which found that females perceive their parents as having more warmth than males, therefore causing females to have more positive socio-emotional adjustment than males. According to Steinberg and Silverberg (1986), females who experience parental warmth were more autonomous and independent compared to boys, who exhibit emotional dysregulation and low self-esteem.

Males also perceive their parents as more controlling than females. Present studies are in disagreement with this finding. A study conducted in Pakistan revealed that females were more controlled than males. Males were allowed to roam around, whereas females would be overprotected from the outside world (Kausar & Shafique, 2008). Another study recorded that males experienced lower parental control and greater parental permissiveness than women in most studies, hence the delinquency, emotional dysregulation, and parasuicide (Bingham et al, 2006).

This study has found that females considered their parents to be more punitive than males. These results were not in line with previous studies, because previous research has found that males tend to perceive their parents as more punitive in comparison with females (Kauser & Shafique, 2006). Furthermore, males who experienced punitive parenting styles will have aggression, conduct disorders, oppositional defiant disorders and emotional dyregulations, which may lead to suicide ideations (Kauser & Shafique, 2006). It is important to note that parenting styles are also influenced by culture, what is acceptable in one culture in terms of parenting styles may not be acceptable in other cultures. For instance, a study found that Asians in America are more punitive, whereas Caucasians provide more warmth, therefore exposing Asian adolescents to abnormal delinquent behaviours (Chang, 2007). Any study that is conducted on parenting styles should always take culture into consideration so that findings are generalised.

Males reported being more resilient than females, they reported to have more personal competence and acceptance of self and life than females. An older study by Pearlin and Schooler (1978) revealed that males were better prepared with more emotional resources (e.g. self-esteem and emotional regulations) than females. Meaning that compounded by other factors, socialisation better prepares males with effective psychological resources, protecting them from the otherwise harmful influence of stressors on wellbeing, increasing functional resilience. Recent research has hinted at an element of genetic inheritability of resilience by males, rather than females (Boardman et al., 2008). This finding requires further investigations as there can be many influential factors involved in this assumption.

Other current studies confirm the finding that males have higher resilience than females (Deb & Arora, 2009; Morano, 2010; von Soest et al., 2010; Yu et al., 2011;

Waaktaar & Torgersen, 2012; Stratta et al., 2013; Abukari & Laser, 2013). The result of this study, with the backing of recent evidence, suggests that males have higher levels of resilience than females. A variety of indicators of resilience, such as acceptance of self and life and personal competence, were tested in this study revealing such results. The reason for this finding is not well documented but it is important to be cautious of issues such as social desirability, response set by adolescent males because of cultural expectations to appear stronger and never weaker.

6.5. PARASUICIDE ASSERTIVE TRAINING PROGRAMMES (PAT)

Hypothesis four: There will be a significant effect of psycho-educational intervention on parasuicidal behaviour and psychosocial factors of adolescents.

Although not all the results did reach statistical significance, this study revealed differences in scores of psychosocial variables and parasuicide in pre-test post-test. The effect sizes ranged from small to large effects of interventions meaning that the intervention did have an effect on the psychosocial factors and parasuicidal behaviour.

The findings revealed hope and its dimensions (agency and pathway) increased after the intervention. The fact that hope is strongly associated with suicide has been well established in early research literature (Beck, Brown, Berchick, Stewart, & Steer, 1990; Beck, Steer, Kovacs, & Garrison, 1985; Elliott & Frude, 2001; Soloff, Lynch, Kelly, Malone, & Mann, 2000; George, 2005) making interventions for hope necessary when attending to a parasuicidal person. Although there is scarcity of hope intervention studies in relation to suicidal behaviour, a few available intervention studies conducted were in an experimental and control group format, and this study is

in a case format, this section will discuss the findings in both group and individual context. In one study conducted among suicidal adolescents, problem solving intervention was implemented to increase hope, and the results revealed an increase in problem-solving skills and an ability to cope with everyday problems (McLeavey, Daly, Ludgate, & Murray, 1994). Another study revealed improvement in hopelessness after the implementation of integrative treatment. This treatment was a combination of assertive community treatment, antipsychotic medication, family psychoeducation, and social skills training, and a follow-up at a community mental health centre (Nordentoft et al., 2002). Also in agreement with these results, a recent study which tested the effects of a specifically designed, eight-module Internet-based programme on suicidal ideation among secondary school students revealed decreased levels of suicidal ideation, depressive symptoms and hopelessness over the course of the intervention (Robinson et al, 2014).

Other studies in which hope was the only variable have shown interesting results, for instance a study in which there were eight sessions aimed at enhancing hope among adolescents and children revealed that there were modest gains in hope (McDermott & Hastings, 2000). These authors explain that an 8-week session was not sufficient time to instil high hope, it required more time. This finding leads to a suggestion that future intervention studies with an increment in the number of sessions for the efficacy of the interventions. Another study that utilised a pre-test post-test design without a control group, found that among children who were taught hope skills over a period of seven sessions, the evaluation of the programme revealed significant gains in hope scores (Snyder et al., 1997).

Intervention aimed at increasing self-esteem had a medium effect on the self-esteem of the adolescents revealing a slightly higher self-esteem after the intervention

in comparison with before the intervention. In agreement with this finding, previous studies have explained that adolescents who were involved in self-esteem interventions which included self-talk and modification of negative thinking, the use of more positive thinking, communication, problem solving, and perception, facilitated improvements in self-esteem and cognitions regarding one's self-perception (Barrett, Webster, & Wallis, 1999). In another intervention study, Kashani and Bayat (2010) found that social skills training increased the amount of assertiveness and self-esteem in adolescents who were less assertive. It appears from the findings of this study that these adolescents were able to have feelings of worth about themselves by stating their emotions, beliefs and thoughts, instead of internalising their emotions.

Regarding interventions of parasuicide with the use of self-esteem, the studies are scarce, but other research has explained that participants displayed significant increases in levels of self-esteem and corresponding significant decreases in depressive symptoms (usually related to parasuicide) and psychopathology associated with schizophrenia after implementing a cognitive behavioural intervention (Oestrich, Austin & Lykke, 2007, Waite, McManus, & Shafran, 2012). Because most research explains that self-esteem is implicated in suicidal behaviour, this study makes a conclusion that when self-esteem is increased, psychopathological behaviours will tend to decrease. The scarcity of studies in this area suggests a future need to study self-esteem interventions in suicidal individuals, and assess if there is a direct change in parasuicide when self-esteem is improved.

Resilience had increased significantly after the intervention. The dimensions of resilience – acceptance of self and life and personal competence - had also increased after interventions with a large effect size. Similar results were found in a study conducted among adolescents with learning problems. It was found that intervention

to foster resilience helped the adolescents with specific learning difficulties, because there was strengthening and building of personal protective factors (Wong & Lee, 2005). Another study conducted among a sample of vulnerable children focusing on the psychosocial intervention of resilience; there were increases in resilience post-intervention among these children (Olowokere & Okanlawon, 2014). Other studies that targeted resilience to decrease repeated attempts at parasuicide are scarce; most present studies are more preventative in nature. Nevertheless, this study suggests that future treatment of suicidal individuals should include increasing resilience resources to prevent repeat parasuicide or even death.

Parasuicide thoughts and behaviours were found to have declined after the intervention in comparison with before the intervention. In a way the study showed that hope, self-esteem and resilience intervention had a positive effect on the adolescents, thereby decreasing a need to repeat parasuicide. However it is important to note that most intervention studies conducted do not specifically explain whether an intervention did directly reduce parasuicide, but most studies noted a decrease in the need to reattempt suicide after intervention processes (Hirsch, Walsh & Draper, 1982; Nordentoft et al., 2002). For instance, a study by Carter, Clover and Whyte (2005) found that an intervention using postcards and letters to clients reduced recurrence of hospital-treated parasuicide. Harrington et al. (1998) and Harrington et al, (2000) discovered that home-based family interventions with adolescents who had poisoned themselves were discovered by two studies to be efficient in reducing suicidal thoughts. A study in which Cognitive Behavioural Therapy and a combination of pharmacotherapy was implemented among adolescents also reported a reduction in repeat parasuicide (Spirito et al, 2011).

From the current and previous findings, this study makes the conclusion that intervention to prevent reattempts is necessary. Although no direct influence of interventions on parasuicide could be determined statistically, it appears that contact with parasuicidal adolescents is able to effect changes in the individual perception about their environment and situations, thereby decreasing a desire to die. Research into therapy explains that the empathy and care that someone receives after engaging in a parasuicide usually determines the positive outcome of desiring to live (Prinstein et al., 2008). This is probably because empathy in therapy decreases the psycheache as explained by Schneidman (1993), and a sense of burdensomeness as explained by Joiner (2005) therefore decreasing a need to escape (Baumeister, 1990) and increasing the adolescents belongingness (Joiner, 2005). PAT is also supported by the biopsychosocial model, which explains that an effect in one area of functioning will affect another functioning. In this instance, it appears that the increase in self-esteem affected the increase in hope therefore reducing repeat parasuicide. Deducing from the findings of this study, interventions such as PAT to instil skills for living appears necessary and valid in order to lessen recidivism of parasuicide.

6.6. CONCLUSIONS

This study offers the following conclusions:

The study revealed that there are differences in the psychosocial factors between attempters and non-attempters. Attempters reported lower hope (agency and pathway), self-esteem and resilience than non-attempters. Moreover, attempters reported higher parental control, higher punitiveness and lower warmth than non-attempters. As expected, attempters reported higher parasuicide than non-attempters. The results of this study show the dynamics in the patterns of the psychosocial factors

of parasuicidal adolescents as compared to non-attempters, therefore guiding the researcher in the process of creating an intervention.

The study also reveals the influence of the psychosocial factors on adolescent parasuicide. The SEM results did show the strength of the influence of the variables. The results did reveal the positive and negative direct effects of the psychosocial factors on the parasuicide. These results also assisted the researcher which psychosocial factors included in the intervention have to be strengthened.

This study reveals the differences of psychosocial factors and adolescent parasuicide according to gender differences. In these instances, males were found to have slightly higher parasuicide, hope, self-esteem, resilience, parental warmth, and parental control than females. In addition, females were found to perceive their parents as being more punitive than males. These differences in gender distribution guided the intervention on how to handle participants of different genders.

The study goes further to show that PAT interventions had an effect on improving the psychosocial factors, as well as the need to engage in repeat suicide attempt among adolescents. This intervention programme assisted the adolescents in improving psychosocial skills such as self-esteem, hope, resilience. A parenting skills intervention for the parents of some of the participants was also included to sensitise them about parasuicide and assist with modifications in parenting behaviours. PAT needed to focus on strengthening the skills of problem solving, emotional regulations, peer and family connectedness, to correct negative distortions about the self and the environment.

This study brings understanding of the factors involved in parasuicide and how treatment should occur. Mental health professionals can derive some knowledge from

this study regarding influential factors, treatment plans and developing interventions tailored to adolescents. As it is, this study opens up avenues for replication within different environments using different methodologies, such as action research.

6.7. RECOMMENDATIONS OF THE STUDY

Current researchers in South Africa have omitted parasuicide intervention as an important tool to prevent suicide mortality. In order to be effective in parasuicide intervention, clinical psychologists are encouraged to engage in formulating intervention in the form of action research. Based on the findings of this study, the following are recommended:

It is recommended that the results of this study be used to inform policy makers on health planning, modifying current interventions for suicidal patients, as for suicide prevention. This study also recommends educating adolescents about psychological therapy to increase their knowledge base and improve help-seeking behaviours to prevent any truancy from therapy and further parasuicide.

To prevent reattempt of suicide, it is recommended that clinicians who are helping these adolescents make the intervention accessible and developmentally tailored for adolescents to avoid truancy from therapy. An eclectic approach is encouraged to be used in the psychological intervention of adolescents. It is also important for the clinical psychologists to be culturally aware of different cultures in which this adolescent comes from; this assists in engaging the parents of adolescents properly without appearing disrespectful.

The use of the individualized intervention is useful as it allows freedom of emotional expression, confidentiality, and individual attention. Although recommended for future use, this study encourages the use of group intervention to help parasuicidal adolescents. This would also assist them with a sense of belonging, support and collective healing.

Based on the above recommendation, it would be necessary that an institutionalization model in South Africa is started. This is because there are clinics that specifically cater for specialised conditions such as eating disorders and substance abuse, but none for suicidal adolescents. This study suggest that a structured institution to house these adolescents while providing holistic family and individual interventions may be necessary to prevent relapses, truancies, and complete suicide.

Otherwise, because of truancy from therapy after the first contact, it is important that when an adolescent is seen for an intervention, therapy techniques should be intense and loaded with the hope of positively strengthening whatever is negative within the adolescent to prevent reattempts or death by suicide.

Because the intervention proposed in this study can also be used as a preventative strategy, the following is recommended:

Preventative awareness campaigns regarding suicidal behaviours in the schools can be created. Assessment methods by using the psychosocial factors and parasuicide behaviours questionnaire should be implemented to assess for potential parasuicidal behaviour and to further assist those adolescents who may be on the borderline to engage in parasuicide. For this to occur, both the Department of Health and Department of Education would have to work together to mobilize human resources to achieve this.

Finally, due to the evolving of technology, internet based parasuicide interventions strengthening psychosocial skills maybe necessary because of the easy access adolescents have to internet.

6.8. IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Because of the scarcity in literature on parasuicide intervention within South Africa, this study recommends that researchers conducts other studies to contribute to the theoretical understanding of the development of an intervention programme for parasuicide. Interventions studies that are longitudinal are necessary to assess the effects of the interventions in the long run.

It is recommended that other life factors that can influence parasuicide and how they can be included in intervention be explored, i.e. personality factors, body image, and cultural factors.

Studies that explore the factors that influence adolescents' disfavour of therapy or their attitudes towards psychotherapy for parasuicidal adolescents should also be considered. Action research on PAT is recommended for the modification and betterment of these interventions.

Since this is one of the first studies to utilise the Wagnild and Young Resilience Scale among a population of parasuicidal adolescents within South Africa, it is recommended that other studies that employ other new scales or constructs be conducted. In South Africa, there is a scarcity in the development of scales, and thus far, measurements of parasuicide, hope and self-esteem are Eurocentric, leaving a gap

that needs to be filled in research. If this is done, the body of literature in the growing field of parasuicide and its contributors will be positively impacted.

Furthermore, this study recommends that the findings from future research conducted within a larger sample should lead to the development and implementation of training programmes for adolescents, parents, and teachers on how to recognise and manage adolescents with psychosocial stressors to avoid an actual suicide attempt. These groups can profit from being trained and empowered to build and develop the necessary abilities to reinforce and support each other in handling suicidal behaviour with efficacy.

This study's findings suggest that it is vital that psychotherapeutic hope interventions to achieve a reduction in parasuicidal behaviour be implemented therefore depicting a need for research to understand the importance of hope as a target of intervention in attempts to reduce repeated suicidal behaviour.

Other studies may need to focus on determining if hope is an etiological factor or simply a risk factor for suicidal behaviour. Furthermore other researches to determine the possibility of a differentiation between elements of hopelessness impacted upon parasuicide should perhaps be conducted.

Finally other studies that will focus on examining the direct influence of psychosocial interventions on the parasuicidal behaviours are encouraged by this study.

6.9. STRENGTH AND LIMITATIONS OF THE STUDY

The strengths of this study include the fact that the results report on the influence of factors across a broad spectrum of psychosocial variables using psychometrically reliable and valid measures. In addition, the inclusion of non-attempters and attempters for comparison purposes makes this study unique compared to other studies in South Africa. Furthermore, the inclusion of the intervention process measured using a pre-test post-test design to test the efficacy of the intervention gives this study credibility and enhances opportunity for replications. The use of Cohen *d* effect sizes in the determination of the intervention effect, showing the direction of an effect, and specifically how large the effect is, is not confounded by sample size.

Even with these strengths, there are several limitations to the study worth considering. When interpreting the results it is very important to note that Phase I respondents were not recruited in a systematic way, but that a sample of convenience was used and this limits the generalisability of these findings. Because the 'attempter' participants were "a hard to find and sustain group", this resulted in an unequal number for the baseline sample. In a more representative sample the psychosocial factors as compared to parasuicide might have reflected differently.

In Phase II, the intervention was only implemented with five participants within a hospital setting. The inability to sustain recruited participants due to other uncontrollable factors caused this study to yield results that could have been significant if the population size was bigger. If more adolescents participated, the implementation of the interventions could have been conducted in groups, with a control group for comparison purposes in pre-test post-test, making the results

generalisable. However, the results of this study can assist future plans to replicate studies of this nature.

Lack of direct parental assessments of their parenting styles may have affected the results. Perhaps adolescents answered the questions in a socially desirable manner, not offering a true reflection of exact parenting styles. Future studies may focus on administering a parenting style scale among parents of the adolescents to get their subjective views regarding their parenting styles.

Although the parasuicide scale used was reliable and valid within a South African context, the lack of a South African parasuicide scale led to the usage of a western developed scale; perhaps if the scale used was South African in nature, it would have revealed different results.

The study limited its variables to hope, self-esteem, parenting styles and resilience, but neglected factors such as race, personality, peer influences and other psychosocial factors worth considering as influential to parasuicide. There is a need to study these factors and more to get different viewpoints of parasuicide factors to be able to develop effective and broad intervention.

Even though the results cannot be generalised to all parasuicidal adolescents in the Limpopo province, they support the notion that an interactive number of factors contribute to the variance in parasuicide, and that intervention to alter the negative processes involving these psychosocial factors may be able to decrease the need to engage in parasuicide.

Finally this study stresses that although the current findings can guide and inspire the practice of parasuicide interventions, but much can still be achieved that is useful.

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APPENDIX A: DETAILS OF PARTICIPANTS

Below find a brief description of each case.

Case 1: *A female of 21 years old, with severe suicidal ideations. The method of parasuicide used was overdosing on pills. The participant had symptoms of a mood disorder, but it is not fully diagnosable. Psychosocial stressors were mentioned, including a poor relationship with her mother. There was also a poor relationship with her boyfriend. She had complaints of somatic problems such as headaches, insomnia, and anxiety. The participant had fear of abandonment.*

Case 2: *A 19-year-old male who lives with both of his parents, who are currently having marital problems. The method of parasuicide used was ingesting grinded bottles mixed with solid food. This behaviour was alleged to be due to his expulsion from the university because of behavioural problems. He had been accused of rape by a female student on the campus. There are reports of previous arrests due to petty crimes. Feelings of anger, disappointment and self-pity were prominent.*

Case 3: *A 17-year-old male with a history of several instances of parasuicidal behaviour. His parents both passed away within 6 months of each other. He was the primary caregiver of his ill parents until their death. He had never received any psychosocial counselling during and after the death of his parents. He reported feelings of loss, sadness, abandonment, loneliness, a negative outlook on the future, as well as inability to cope with being parentified. No family support was present; instead he had to fend for himself. He has been experiencing problems at school; his performance at school is currently affected.*

Case 4: *A 17-year-old female going through a number of psychosocial stressors such as matric exams, family and relationship problems. Family problems include sibling rivalry, disengagement of parents, and family roles being made her responsibility. She reported not being able to cope and feeling overwhelmed. This was a first suicide attempt. The method used to attempt suicide was overdosing on pain medication.*

Case 5: *A 20-year-old female with a history of failing matric exams. She has not been able to cope well with the results. The client reported sad mood all the time and an inability to accept the results. Relationship problems with her boyfriend were also reported. Mode of the parasuicidal behaviour was organophosphate poisoning.*

The above described cases were all referred to the psychologist by the medical officer. All the patients had been admitted to hospital for detoxification, stomach pumping and for overnight observation while they wait for a psychological assessment the next day.

APPENDIX B: INTERVENTION TEMPLATE

Parasuicide Assertive Training

This intervention process was developed based on the baseline results of this study were psychosocial factors were assessed. The influence of the psychosocial factors such as hope, self-esteem, resilience, and parenting styles on parasuicide was explored to inform the intervention phase. Hope, self-esteem, and resilience were found to be significantly associated with parasuicide. Parenting styles was included in the intervention but excluded from the further statistical analysis because of the statistical non-significance. This intervention took between 8-10 sessions with 1hr30 minutes for each participant.

Intervention was conducted per variable:

- For hope, participants were trained in increasing hope.
- For self-esteem, participants were trained in increasing self-esteem.
- For resilience, participants were trained in increasing resilience.
- A parenting or caregiver guidance was also implemented to improve parent-adolescent relationship.

Inclusion criteria of participants included the following:

- Participant must have engaged in a parasuicide.
- Further inclusion criteria included that the participants had to be between the age of 13 and 19.
- They had to be able to get parental consent, or give own consent or assent.
- They had to have no physical pain.

- Participants had to be conscious, awake and alert and without any perceptual distortions induced by the method used during parasuicide, such as poison ingestion, or self-hanging.
- They had to have no other mentally disability or condition.
- Participants must have scored 3-4 and beyond on the Sad Persons Scale
- Participants must have agreed to sign an Anti-Suicide contract

Exclusion criteria included the following:

- If the participants missed two successive appointments with no valid reason
- Continued to be uncooperative and showed a lack of interest in continuing,
- If the participant engaged in another suicide attempt the participant was excused and not seen in therapy as part of this intervention.
- Participants were considered for hospitalization if there were increased related symptoms such as stomach problems, breathing problems etc. or severe suicidal ideations.

The intervention process was broken down in sessions, with each session having a theme to be discussed and activities to be involved in focusing on the improvement of the psychosocial factors and decreasing parasuicidal behaviours. For the explanation on what each session contained, see the breakdown of the sessions below.

First session: This session was utilized for the preparation and orientation of the participants to interventions.

- Establish the beginning of therapeutic alliances and allowing for expression of emotions using the Carl Rogers therapeutic skills.
- Reduce the initial anxiety and misconceptions about engaging in intervention.

- Provide information on methods and procedures to be employed and to establish consensus goals, and
- Explain the impact and benefit of the activities.
- Discuss rules of the sessions, such as attendance, progress of sessions i.e. progress will depend on the client's integrations in daily living of aspects of intervention.

2nd Session

- This session began with a follow-up from the last session.
- Assessment of the participant insight into the psychological process was explored.
- Assistance with instilling insight to help the participants to become aware of their fears and expectations that he/she may not have been consciously aware of previously.
- Goals of intervention were established.
- A verbal contract of compliance to intervention was agreed upon.

3rd Session

- Follow up on the last session was done
- Discussions focussed on the progress of the client since the parasuicide.
- The third parties which would be included in the sessions were also discussed.
- Issues such as how much should be disclosed during parents or caregivers session were discussed.

Self-esteem training

The main aim of this training was to assist with decreasing the participant's sense of worthlessness. Normalisation which is a technique emphasised by Carl Rogers in his principles of client-centered therapy was used. Another client-centered technique used was Motivational Interviewing (MI). The researcher used techniques such as open-ended questions, reflective listening, affirmation, support, and responded to resistance in a non-confrontational manner. Participants' own motivation to change was encouraged so that they can adhere to the interventions lessons when at home or in other environments. Homework given included diary keeping, recording events in their lives that caused a feeling of inferiority, how they felt, how they reacted, the consequences of their reaction, and how they could have reacted better.

Self-Esteem training activities

- Explore Self-Esteem and Assertiveness
- Distinguish between low and high self esteem
- How do we build positive self-esteem
- How do we maintain our self-esteem
- Role plays on self-esteem
- How can we use our self-esteem to overcome daily challenges
- Continued self-assessment is encouraged through giving of homework.

Hope Training.

Follow up on the self-esteem training was done to gauge insight and understanding. The aim of the hope training included developing future goals with means to achieve these goals. The intervention was focused on helping participants establish goals for the future and developing ways in which the goals would be achieved. Homework

included diary keeping to record steps they have made to meet certain goals, and whether there was success or no success, participants were encouraged to applaud themselves for goals that form part of the process of achievement, no matter how small the steps made seemed.

Self-Esteem training activities

- Components of Hope
- What is hope
- How do we gain hope
- How do we keep ourselves hopeful
- Role Plays for self-awareness
- Lessons from the activities were explored
- Homework for self-assessment on goals achieved was given

Resilience Training

Follow up on the hope training was done. The main aim of the resilience training was to encourage self-competence and acceptance of self and life, which are two main components of resilience. The main aim of this session was to help patients develop strong psychological processes to address painful life situations. The intervention included implementing aspects such as cognitive restructuring, being mindful, accepting, problem solving skills, establishing goals. Motivational interviewing was used to increase personal self-competence by instilling the insight that the participant

can achieve his/her goals on his/her own, even when there are hardships along the way.

Evaluation of self-competence and acceptance of self and life by asking the following questions.

- How do you deal with specific challenges such as shame, difficulties, and disappointments?
- Are you able to be persistent in the face of difficulties?
- Do you believe you can do this i.e. pass matric; move on after a painful experience.

Parenting Styles Guidance (optional-dependent on the availability of the parents)

The aim of this session was to encourage healthy parental involvements in their childrens lives. A family-based crisis intervention, which is an intervention designed to sufficiently stabilise patients before discharge so that they can return home safely with their families. Methods such as parental guidance, family therapy techniques such as structural family therapy, role changing and rules establishment were followed so that the participant could go home to a supporting environment.

Termination of the intervention

Follow up on previous sessions and activity is done.

Before termination is conducted, participant's process of intervention is discussed to gauge if the client has insight into future behaviours. Questions and clarifications are welcome. Rehearsing strategies and developing alternative reactions and behaviours more appropriate and effective when faced with stressors through role plays, explanations and psychoeducation was done. After all the intervention sessions had

been completed, participants were given a booklet that required them to write and explain what they had learned during the sessions. Questions such as "What did you learn about hope?" were included.

APPENDIX C

PARASUIDE ASSERTIVENESS TRAINING: RESPONSES FROM PARTICIPANTS.

Hope

What is hope?

Hope is a wish for something to happen, is a want and expectation of something, hope is something that is likely to be good and successful

How do you gain hope?

you gain hope by believing that whatever your expecting will become a reality very soon. you gain hope by hoping

How do you keep hope?

What have you learned from this lesson?

That i must hope and expect better things to happen, that i must never loose hope whatever the obsticles i face I have learned that hope is good

Hope

What is hope?

belief that everything is going to be allright in future because there is GOD and he gives us (mankind) hope

How do you gain hope?

By wishing/Praying that things will turn out for the better in future times and having/gaining a positive outlook

How do you keep hope?

By knowing that GOD is always watching over man kind and everything else in everything.

What have you learned from this lesson?

Not to fall in love before 22, Not to have sex before marriage, parents were always right, GOD is always there where you need him.

by challenging yourself to do things that you think you cant do and not giving up untill you do and accomplish those challenges you set for yourself

What have you learned from this lesson?

To always re-assure ~~myself~~ myself in times of doubt and not be to proud to ask beg for help

Hope

What is hope?

hope is when you think that something that you wish is going to be happen. It like trust when you trust that you will find your anything that you realy need. And if you have problem you can hope that is going be ending.

How do you gain hope?

I gain hope by starting to tell my mother about my proble so then she guide me a lot. She was trying to comfort. And I get a hope that I have to grow for her. And be strong that oneday she can be proud and said my daughter is a doctor, nurse, or something important in life. I hope that I'm going to have successful life and happiness future.

How do you keep hope?

I keep my hope by knowing that through crist all thing are possible. So then I have to follow God but not my friends or something. Because they can teach me something that I dont really need. So even now I told my self I hope that I will succeed all the time in live and in future. So then I have to dont mind for those who talk behind my back & shows that im one step ahead. So I have to trust in God and he will alway be my sheild from danger.

What have you learned from this lesson?

I learned to be strong, and to tell myself that i'm a human being so then i have to be a role model for other people's life. So now Im so strong and i know that to kill yourself is not to sole a problem. But im glad cause i can tell my mother any problem that i have. So this lesson tought me an important things that i wasn't now about it at all.

Hope

What is hope?

Hope is something that you hold on to, that will help you in some kind of difficult situation that you may or are facing in life. Its sort of "Crying out for help", wishing for someone or knowing that some kind of help will come eventually.

How do you gain hope?

By accepting that the situation (difficulties) will pass overtime. Or believing that the pain your facing will go away.

How do you keep hope?

Challenging yourself while your monitor your progress. Meeting short-medium term goals in which you have set up by yourself

What have you learned from this lesson?

I have learnt that hope is one of the tools that would help me overcome tough situations seeming like there's no tomorrow. ~~But~~ hope gives me that belief that as soon as I close my eyes I will surely see a tomorrow. It might not happen now but i'm guaranted that it WILL happen someday.

Hope

What is hope?

→ Hope is the emotional state which promotes the belief in a positive outcome related to events and circumstances in one's life.

→ I personally think that it's a sense belief when everything goes haywire but you still have faith that you will pull through. Hope is seen beyond your situation no matter how tough it is hoping for a better tomorrow. I believe it's one's weapon of preserving from the toughest conditions

How do you gain hope?

By believing in myself and future goals. Crying on over the toughest situation but never allowing myself dwell on it gives me hope. Progressing in life which gives me a sense of faith which is merely hope.

Lesson 2

Self Esteem

What is self-esteem?

The confidence, and positive thing or negative things you feel about yourself

How do you gain self-esteem?

you gain self-esteem by having confidence in yourself, Respecting yourself and always having positive thoughts about yourself

How do you keep your self-esteem high?

By believing in my self and never letting (people) or things PUT me down (verbally, Physically or emotionally

What have you learned from this lesson?

I must always keep my self-esteem high and make sure no one puts my (self-esteem at a low level)

Lesson 2

Self Esteem

What is self-esteem?

It's your inner strength that helps you get over or help you deal or fight the problems or hate that comes in you way to put you down or to destroy you

How do you gain self-esteem?

Firstly by being true to yourself and setting passitive goals that will put you at a higher level in life. For instance ~~when~~ if you are that kind of person who is not talkative or does not stand up for what is right then, then you'll have to stand up pull up your socks and talk for what is rightfully yours.

Lesson 2

Self Esteem

What is self-esteem?

- Reflects a person's overall emotional evaluation of his or her own worth. It is a judgement of oneself as well as an attitude toward the self.
- I personally think its how one views themself and the love they have for themselves regardless of the flaws

How do you gain self-esteem?

Accepting who you are

Hanging out with prople who have similar interest as you; and staying away from those who look down on you

What have you learned from this lesson?

I have learnt with self-esteem I can be whatever I want to be and belive in whatever I want to achieve. loving myself from the inside out and having a sense of work

Lesson 3

Resilience

How is your resilience currently?

- an individuals tendency to cope with stress and adversity. This coping may result in the individual "bouncing back" to a previous state of normal functioning.

- My resilience currently strong; i've bounced back from a suicidal state to actually thriving in myself again. I was pushed to the ground but then I rose again. No matter how tough it was I promised myself to never dwell on situations/conditions I can't change but rather work on to be the best person I can be for myself.

How do you keep your resilience high?

Finding way out of your hardest states; and always looking at the glass as rather half full the half empty. A positive attitude helps keep my resilience high which also involves my mental state of ~~mood~~ mind by interpreting where I am and where I need to be to fully heal. By accepting failure and seen it as a form of helpful feedback.

Lesson 3

Resilience

How is your resilience currently?

My resilience is currently in the lowest point it can ever be, since I hav'nt spoken to any one in days

How do you keep your resilience high?

By focusing on the positive instead of the negative, By clearing my mind, body and soul of the things that keep me down, By opening up to someone who can help me offload my burdens

What can you teach others about resilience?

That it only gets better with time understanding and passaverence and people who can understand and help you keep your resilience high.

Lesson 5:

Any general comments after all the lessons. (Feel free to write anything).

I have somethings that I have not considered in my life and those things can contribute to my resilience positively

APPENDIX D: QUESTIONNAIRE

Enquiry: Matamela Nyambeni
Tel: 015 409 1720
Cell: 073 700 8179
Email: nyambeniasnathm@gmail.com

Date: September 2010.

Research Title: Psychosocial factors of adolescent(s) parasuicide in the Limpopo Province: Implications for interventions.

Dear Learner,

My name is Nyambeni Matamela. I am a post-graduate student of the Faculty of Human Sciences in the North West University (Mafikeng Campus).

With the approval of the department, I will be doing an enquiry into the factors involved in precipitating parasuicide. This study will assist us to understand the different factors that are involved in causing suicide. This study will also focus on developing an intervention programme which will be aimed at assisting adolescents who have attempted suicide.

I am inviting you to participate in this research. I will like you to assist me in filling the questionnaire. I will ask you some questions concerning yourself and the incident that happened, and your answers will help me to fill the forms. This will take about thirty minutes to complete.

You may choose to take part in the study or not. If you decide not to participate in the study, the quality of education you receive in this school will not be affected in any way. Even when you have chosen to participate, you are free to withdraw from the study at any stage you wish.

The questionnaire is completely anonymous, and you cannot be identified in any way. Your name will not be mentioned on the questionnaire. The information you will provide is confidential, and will only be available to my supervisor and myself.

If during the course of the interview you are identified as being at risk for a suicide attempt, you will be referred to the hospital social worker, psychologist or psychiatrist.

The report of the study will be sent to the North West University and the Dept. of Education for their assessment and implementations of the recommendations and they will be communicated to the health policy makers to assist in modifying the interventions that already exist.
If you require any other information about this study, you are welcome to contact me on the numbers and e-mail address above. If you are willing to take part in this study, you are required to sign the consent form attached.

Thank you for your assistance. Yours sincerely, Matamela Nyambeni

Consent form

I, _____,

hereby **consent/ do not consent** to participating in the research on parasuicide being undertaken by Ms Matamela Nyambeni.

Signature:_____

Date:_____

Enquiry: Matamela Nyambeni
Tel: 015 409 1720
Cell: 073 700 8179
Email: nyambeniasnathm@gmail.com

Date: September 2010.

Research Title: Psychosocial factors of adolescent(s) parasuicide in the Limpopo Province: Implications for interventions.

Dear parent,

My name is Nyambeni Matamela. I am a post-graduate student of the Faculty of Human Sciences in the North West University (Mafikeng Campus).

With the approval of the Dept. of Education, I will be doing an enquiry into the factors involved in precipitating parasuicide. This study will assist us to understand the different factors that are involved in causing suicide. This study will also focus on developing an intervention programme which will be aimed at assisting the adolescents who have and wish to attempt suicide.

I am inviting your child to participate in this research. I will like him/her to assist me in filling the questionnaire. This will take about thirty minutes to complete. You may choose to allow your child to take part in the study or not. If you decide not to allow your child to participate in the study, the quality of education your child will receive in this school will not be affected in any way. Even when you have chosen to allow your child to participate, you are free to withdraw your child from the study at any stage you wish.

The questionnaire is completely anonymous, and your child cannot be identified in any way. Your child's name will not be mentioned on the questionnaire. The information your child will provide is confidential, and will only be available to my supervisor and myself.

If during the course of the interview your child is identified as being at risk for a suicide attempt, your child will be referred to the hospital social worker, psychologist or psychiatrist and you will also be informed of issues such as this.

The report of the study will be sent to the North West University and the Dept. of Education for their assessment and implementations of the recommendations and they will be communicated to the health policy makers to assist in modifying the interventions that already exist.

If you require any other information about this study, you are welcome to contact me on the numbers and e-mail address above. If you are willing to allow your child to take part in this study, you are required to sign the consent form attached.

Thank you for your assistance.

Yours sincerely, Matamela Nyambeni

Consent form

I, _____,

Parent /next of kin of learner_____ hereby **consent/ do not consent** to participating in the research on parasuicide being undertaken by Ms Matamela Nyambeni.

Signature:_____

Date:_____

Assent form

I, ----------

A minor patient hereby **assent/do not assent** to participating in the research on parasuicide being undertaken by Ms Matamela N.A.

Signature: ----------

Date: ----------

Adolescent Questionnaires

Dear Participants

This is a social psychology survey and the following questions are designed to measure your response to certain situations. There are many differences of opinions about this subject. We would like to know what you think of the subject. There are no rights or wrong answers; we are only interested in your opinion. It is important you answer every item. Please do not sign your name.

Section A: Biographical Information (Household Economic and Social Status Index (Part I & II) (HESSI)

Instructions: Please answer the following questions about you and your family.

1. Gender: (1) Male (2) Female

2. How old are you

a. Early adolescence (10-12)

b. Middle adolescence (13-15)

c. Late adolescence (16-19)

3. Which ethnic group do you best identify with?

a. Zulu b. Xhosa c. Sotho d. Tswana e. Pedi f. Ndebele g. Swati h. Tsonga i. Venda j. Other_____

4. Highest Level of education

1. Grade 8-10
2. Grade 11-12
3. Tertiary Education

5. Geographical location

1. Rural
2. Semi/Peri Urban
3. Urban

6. Parental (guardian) marital status.....

7. Parental (guardian) employment status.....

8. Who do you live with at home (tick from the following)

Mother

Father

Brothers

Sisters

Aunts

Uncles

Grandparents

Foster Parents

Guardians/Caregivers

9. In what type of house/home do you live?

0. None, homeless
1. Shack
2. Hostel
3. Room, garage
4. Flat, cottage
5. Home shared with other family (ies)
6. Home that is not shared with other families

10. Does your home have?

a. A Separate Kitchen? (1) No (2) Yes

b. A Separate Bathroom? (1) No (2) Yes

11. In your home how many separate rooms are there just for sleeping?

0 1 2 3 4 or more

12. What type of toilet facilities does your home have?

0. None
1. Pit or Bucket
2. Outside flush toilet
3. Inside flush toilet

13. Do you own or rent a home?

0. Neither
1. Rent
2. Purchasing on Bond
3. Own

14. Does the place you live in have a:

a. Fridge (1) No (2) Yes
b. TV (1) No (2) Yes
c. Telephone or Cell phone (1) No (2) Yes
d. Car (1) No (2) Yes
e. Video recorder (1) No (2) Yes
f. Washing machine (1) No (2) Yes
g. Microwave oven (1) No (2) Yes
h. Oven or stove (1) No (2) Yes

15. How often have you gone hungry because you did not have food?

(1) No, never (2) Sometimes (3) Often (4) All the time

16. What major health problems do you have, e.g. cancer, asthma, diabetes, HIV, hypertension, TB etc?

_____

17. Of your family members living with you, what major health problems do they have?

_____

Section B

Hope Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes how you think about yourself right now and put that number in the blank before each sentence. Please take a few moments to focus on yourself and what is going on in your life at this moment. Once you have this "here and now" set, go ahead and answer each item according to the following scale:

1 = Definitely False, 2 = Mostly False, 3 = Somewhat False, 4 = Slightly False, 5 = Slightly True, 6 = Somewhat True, 7 = Mostly True, 8 = Definitely True

1. I can think of many ways to get out of trouble 1 2 3 4 5 6 7 8
2. I energetically pursue my goals
3. I feel tired most of the time.
4. There are lots of ways around any problem.
5. I am easily downed in an argument.
6. I can think of many ways to get the things in life that are most important to me.
7. I worry about my health.
8. Even when others get discouraged, I know I can find a way to solve the problem
9. My past experiences have prepared me well for my future.
10. I've been pretty successful in life.
11. I usually find myself worrying about something.
12. I meet the goals that I have set for myself.

Section C

Rosenberg Self Esteem Questionnaire

Strongly agree (4) Agree (3) Disagree (2) Strongly Disagree (1)

1. I feel that I am a person of worth, at least on an equal level surface with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure.

4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times
10. At times I think I am no good at all.

Section D

Modified Suicide Ideation Scale

1. Wish to live

    0. Moderate to strong
    1. Weak
    2. None

2. Wish to die
    0. None
    1.Weak
    2. Moderate to strong

3. Reasons for living/dying

    0. For living outweigh for dying
    1. About equal
    2. For dying outweigh for living

4. Desire to make active suicide attempt

    0. None
    1.Weak
    2. Moderate to strong

5. Passive suicidal desire

    0. Would take precautions to save life
    1.Would leave life/death to chance
    2. Would avoid steps necessary to save or maintain life

6. Time dimension: Duration of suicide ideation/wish

0. Brief, brief periods
1.Longer periods
2. Continuous (chronic) or almost continuous

7. Time dimension: Frequency of suicide

0. Rare, occasional
1.Irregular
2. Persistent or continuous

8. Attitude toward ideation/wish

0. Rejecting
1. Ambivalent; indifferent
2. Accepting

9. Control over suicidal action/acting-out wish

0. Has sense of control
1. Unsure of control
2. Has no sense of control

10. Deterrents to active attempt (e.g., family, religion, irreversibility)

0. Would not attempt because of a deterrent
1. Some concern about deterrents
2. Minimal or no concern about deterrents

11. Reason for contemplated attempt

0. To manipulate the environment; get attention, revenge.
1. Combination of 0 and 2.
2. Escape, surcease, and solve problems.

12. Method: Specificity/planning of contemplated attempt

0. Not considered
1. Considered, but details not worked out
2. Details worked out/well formulated

13. Method: Availability/opportunity for contemplated attempt

0. Method not available; no opportunity
1. Method would take time/effort; opportunity not readily available
2a. Method and opportunity available.
2b. Future opportunity or availability of method anticipated

14. Sense of "capability" to carry out attempt

0. No courage, too weak, afraid, incompetent
1. Unsure of courage, competence
2. Sure of competence, courage

15. Expectancy/anticipation of actual attempt

0. No
1. Uncertain, not sure.
2. Yes

16. Actual preparation for contemplated attempt

0. None
1. Partial (e.g., starting to collect pills)
2. Complete (e.g., had pills, loaded gun)

17. Suicide note

0. None
1. Started but not completed; only thought about
2. Completed

18. Final acts in anticipation of death (e.g., insurance, will)

0. None
1. Thought about or made some arrangements
2. Made definite plans or completed arrangements

19. Deception/concealment of contemplated suicide

0. Revealed ideas openly
1. Held back on revealing
2. Attempted to deceive, conceal, and lie

Section E

Parental Style Scale

Parental warmth items

What do you think is usually true or usually false about your **father (stepfather, male guardian) and mother (stepmother, female guardian)**?

1. I can count on him/her to help me out, if I have some kind of problem.

1. Usually true 2. Usually false

2. He/she keeps pushing me to do my best in whatever I do.

1. Usually true 2. Usually false

3. He/she keeps pushing me to think independently.

1. Usually true 2. Usually false

4. When he/she wants me to do something, he explains why.

1. Usually true 2. Usually false

5. When you get a poor grade in school, how often does your father or mother encourage you to try harder?

1. Never 2.Sometimes 3.Usually

Parental control/supervision items

1. How much do your parents try to know where you go at night?

1. Don't try 2. Try a little 3. Try a lot

2. How much do your parents try to know what you do with your free time?

1. Don't try 2. Try a little 3. Try a lot

3. How much do your parents really know where you are most afternoons after school?

1. Don't know 2. Know a little 3. Know a lot

4. How much do your parents really know what you do with your free time?

1. Don't know 2. Know a little 3. Know a lot

5. In a typical week, what is the latest you can stay out on Friday or Saturday night? (Select one box only from the nine choices given below)

(1) Not allowed out (2) Between 9 and 11 (3) As late as I want

F. Parental Punitiveness Scale

1= Disagree strongly
2= Disagree somewhat
3= Agree somewhat
4= Agree strongly

1. Hits me when he/she thinks I am doing something wrong.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

2. Does not give me any peace until I do what he/she says.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

3. Punishes me by not letting me do things that I really enjoy.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

4. Yells at me a lot without a good reason.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

5. Tells me someday I will be punished for my behaviour.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

6. Punishes me by sending me out of the room.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

7. Tells me about all the things he/she has done for me.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

8. This parent avoids looking at me when I have disappointed him/her.

1 = Disagree strongly 2 = Disagree somewhat 3 = Agree somewhat 4 = Agree strongly

G. Resilience Scale

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1". If you are neutral, circle "4", and if you strongly agree, circle "7", etc.

	Strongly Disagree						**Strongly Agree**
1. When I make plans, I follow through with them.	1	2	3	4	5	6	7
2. I usually manage one way or another.	1	2	3	4	5	6	7

3. I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4. Keeping interested in things is important to me.	1	2	3	4	5	6	7
5. I can be on my own if I have to.	1	2	3	4	5	6	7
6. I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7. I usually take things in stride.	1	2	3	4	5	6	7
8. I am friends with myself.	1	2	3	4	5	6	7
9. I feel that I can handle many things at a time.	1	2	3	4	5	6	7
10. I am determined.	1	2	3	4	5	6	7
11. I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12. I take things one day at a time.	1	2	3	4	5	6	7
13. I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14. I have self-discipline.	1	2	3	4	5	6	7
15. I keep interested in things.	1	2	3	4	5	6	7
16. I can usually find something to laugh about.	1	2	3	4	5	6	7
17. My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18. In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
19. I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20. Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21. My life has meaning.	1	2	3	4	5	6	7
22. I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23. When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24. I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25. It's okay if there are people who don't like me.	1	2	3	4	5	6	7

Thank you for being part of this study.....Thank you for being part of this study

APPENDIX E: ANTI-SUICIDE CONTRACT

DEPARTMENT OF PSYCHOLOGY

Anti-suicide contract

As part of my treatment at ....., I ..... (**full name and surname**), understand that my major treatment goal is to **get through current distress**. I understand that **becoming suicidal stands in the way** of achieving this goal and agree **to use my therapy** to reduce my distress.

I understand that this might take time and **therefore refuse to act on urges** to injure or kill myself from today ..... (date) onwards.

I **agree to speak** should I feel unable to resist suicidal impulses.

If all unavailable, I **agree to phone** ..... on the number ..... or go directly to ..... (nearest hospital/clinic). I understand that **my therapist will be available at scheduled times** or as much as possible during times of crises.

I **agree to abide** with this agreement and **acknowledge that I have been given a copy** of this contract.

....
Client/Patient's signature **Date**

....
Therapist's signature **Date**

APPENDIX F: SAD PERSONS SCALE

S – Sex: 1 if male; 0 if female; (more females attempt, more males succeed)

A – Age: 1 if < 20 or > 44

D – Depression: 1 if depression is present

P – Previous attempt: 1 if present

E –Ethanol abuse: 1 if present

R – Rational thinking loss: 1 if present

S – Social Supports lacking: 1 if present

O – Organized Plan: 1 if plan is made and lethal

N – No Spouse: 1 if divorced, widowed, separated, or single

S – Sickness: 1 if chronic, debilitating, and severe

Guidelines for action with the SAD PERSONS scale	
Total points	Proposed clinical action
0 to 2	Send home with follow-up
3 to 4	Close follow-up; consider hospitalization
5 to 6	Strongly consider hospitalization, depending on confidence in the follow-up arrangement
7 to 10	Hospitalize or commit

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Faks: (018) 299-4910
Web: http://www.nwu.ac.za

Ethics Committee
Tel +27 18 299 4850
Fax +27 18 293 5329
Email Ethics@nwu.ac.za

ETHICS APPROVAL OF PROJECT

2010-11-29

This is to certify that the next project was approved by the NWU Ethics Committee:

Project title :
Psychosocial factors of Adolescents' Parasuicide in the Limpopo Province: Implications for interventions

Project leader: Prof ES Idemudia

Ethics number:

NWU-00115-10-A3 Mafikeng Health

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Expiry date:
2015/11/24

The Ethics Committee would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the Ethics Committee for any further enquiries or requests for assistance.

The formal Ethics approval certificate will be sent to you as soon as possible.

Yours sincerely

Me.Marietjie Halgryn
NWU Ethics Secretariate

P.O Box 1707

Lwamondo

0985

04 January 2011

Limpopo Department of Health

16 Dorp Street

Polokwane

0700

Dear Sir/Madam

Request for permission to collect data

Re: Research Proposal: Psychosocial Factors of Adolescent Para-suicidal Behaviour in Limpopo Province, South Africa

My name is Nyambeni Matamela; I am currently associated with the NWU (MC) where I am a PhD student. I am interested in a subject of adolescent parasuicide. With this letter I am applying for permission to include parasuicidal adolescents in the hospital. My proposals have been accepted by the NWU research ethic committee.

With this letter I have attached a proposal, Questionnaires and the NWU ethics clearance letter.

Please contact me for any clarifications needed

Regards

Matamela NA

0737008179

nyambeniasnathm@gmail.com

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF HEALTH & SOCIAL DEVELOPMENT

Enquiries: Selamolela Donald

Ref: 4/2/2

07 February 2011
Nyambeni A
University of North West
Mabatho
2735

Dear Madam

Re: Permission to conduct the study titled: Psychosocial factors of adolescent parasuicide in Limpopo Province: Implications for intervention

1. The above matter refers.
2. The permission to conduct the above mentioned study is hereby granted.
3. Kindly be informed that:-
   - Further arrangement should be made with the targeted institutions.
   - In the course of your study there should not be any action that will disrupt the services
   - After completion of the study, a copy should be submitted to the Department to serves as a resource
   - The researcher should be prepared to assist in the interpretation and implementation of study recommendation where possible

Your cooperation will be highly appreciated

Head of Department
Health and Social Development
Limpopo Province

TSSucd: Selamolela Donald
Date : 31 March 2011

Received: Matamela NA
Date : 31/03/2011

P.O Box 1707

Lwamondo

0985

18 May 2011

Limpopo Department Education

Cnr 113 Biccard and 24 Excellsior Street

Polokwane

0700

Dear Sir/Madam

Request for permission to collect data

Re: Research Proposal: Psychosocial Factors of Adolescent Para-suicidal Behaviour in Limpopo Province, South Africa

My name is Nyambeni Matamela; I am currently associated with the NWU (MC) where I am a PhD student. I am interested in a subject of adolescent parasuicide. With this letter I am applying for permission to include adolescent learners in the schools. My proposals have been accepted by the NWU research ethic committee.

With this letter I have attached a proposal, Questionnaires and the NWU ethics clearance letter.

Please contact me for any clarifications needed

Regards

Matamela NA

0737008179

nyambeniasnathm@gmail.com

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF EDUCATION
OFFICE OF THE HEAD OF DEPARTMENT

Enquiries : Nemalili Eastern(Manager: Office of the HOD)
Tel Ext. : (015) 290 7702

Date : 24 May 2011

Ms.N.A.Matamela
P.O.Box 1707
Lwamando
0985

nyambeniasnathm@gmail.com
0737008179

Dear Madam

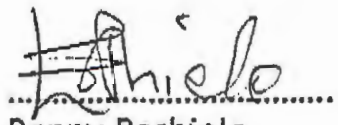
RE: APPLICATION FOR PERMISSION TO CONDUCT RESEARCH: Ms.N.A.MATAMELA

1. Thank you for your letter dated the 18 May 2011 of which the content is noted. We are indeed humbled by the interest displayed by you on matters which of course affects our Education system.
2. In the light of your request, i therefore grant you permission to conduct research in Limpopo Province for your PhD in Psychology (North West University-Mafikeng Campus).
3. It is however important to indicate that prior arrangements to conduct the latter should be arranged in advance so that teaching and learning is not sacrificed.

Cnr 113 Biccard & 24 Excelsior Street, POLOKWANE, 0700 Private bag X9489, POLOKWANE, 0700
Tel.: (015) 290 7602/7655, Fax:: (015) 297 0937, E-mail: mnisivv@edu.limpopo.gov, ramukhadim@edu.limpopo.gov

4. Once more, we wish you all of the best in your studies and assure you of our cooperation in this regard.

Yours Sincerely



24 May 2011

Benny Boshielo
Head of Department-Education
Limpopo Province

Cc: Senior General Manager-District Coordination: Mr.M.Thamaga
All District Senior Managers

1065 Hector Peterson Drive

Unit 5

Mmabatho

31/08/2015

CERTIFICATE OF LANGUAGE EDITING

The thesis entitled

PSYCHOSOCIAL FACTORS INFLUENCING ADOLESCENT PARA-SUICIDAL BEHAVIOUR IN LIMPOPO PROVINCE, SOUTH AFRICA

Submitted by

N.A. MATAMELA

For the degree of

DOCTOR OF PHILOSOPHY IN PSYCHOLOGY

In the

FACULTY OF HUMAN AND SOCIAL SCIENCES
MAFIKENG CAMPUS
NORTH WEST UNIVERSITY

has been edited for language by

Mary Helen Thomas B.Sc.(Hons) P.G.C.E

Helen Thomas

Ms. Helen Thomas
Lecturer
School of Undergraduate Studies