

**An Investigation of the association between Bonding Family Social
Capital and Bonding Peer Social Capital and Adolescent Suicide Risk.**

By

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of Arts in Health Promotion - Psychology in the School of Psychology in the
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DECLARATION

I declare that this dissertation is my own work. It is being submitted for the partial fulfillment of the degree Master of Arts in Health Promotion- Psychology at the University of KwaZulu Natal. It has not been submitted before for any other degree or examination at any other university.

.....
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.....
Date

DEDICATION

I would firstly like to thank my Lord and Saviour, Jesus Christ, for His love and faithfulness in my life. Because of Your Grace, I am.

To my Mum, you are an extraordinary woman and I am eternally grateful and blessed to be your daughter. Thank you for all that you have done in bringing me to this point in my life.

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ABSTRACT

The popularity of social capital and its potential benefit to understanding the complex arena of mental health research, has increased exponentially, despite the lack of consensus over a conceptual and empirical definition. Due to the escalation in adolescent suicide rates globally, the following research study sort to understand the association between Bonding Family Social Capital and Bonding Peer Social Capital and adolescent suicide risk. The sample was made up of 259 adolescent learners, from grades nine to eleven, from a school in the Durban Metropolitan area. The results of the study confirmed the hypothesis that adolescents categorized as being ‘at risk’ (i.e. had suicide ideation and/or attempt suicide) had lower mean Bonding Family Social Capital and Bonding Peer Social Capital then those adolescents categorized as ‘not at risk’ (i.e. did not have suicide ideation and/or attempted suicide). These findings are essentially supportive of contemporary multidisciplinary evidence indicating that supportive family and peer networks can serve as a protective buffer against adolescent suicide risk.

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CHAPTER ONE

INTRODUCTION

1.1. General Introduction

Global suicide rates have increased 60% in the past forty five years, which now sees one million people dying due to this self inflicted act, worldwide each year (WHO, 2004).

Subsequent to this elevation in suicide rates, adolescent suicide has emerged as a significant global public health problem (Bridge, Goldstein, Brent, 2006).

Elevated suicide rates have been associated with social dysfunction and have been explicitly or implicitly taken as symptomatic of what is wrong with society, with higher suicide rates being reflective of a lack of social cohesion and a disintegration of social bonds (Mayer, 2004). Evidence of the link between the breakdown of societal bonds and suicide risk is seen in the low and middle income parts of Asia. Rapid urbanization and social change combined with the effects of urban poverty and unemployment have emerged as risk factors for adolescent suicide due to its creation and perpetuation of issues such as socio-economic deprivation and family disruption. New research has indicated that suicide is now the leading cause of death in young women in Asia, and accounts for up to half of all adolescent deaths in young adult women (Patel, Flisher, Nikapota, Malhotra, 2008). Based on the idea that communities function well or poorly in relation to the ways in which people interact, social capital emphasizes the quality of interactions among people in different contexts of life (Mignone & O'Neil, 2005). High levels of Social Capital have been shown to correlate with low rates of successful suicide (Withers, Rochelle, O'Brien, 2006). Research has indicated that communities with high levels of social capital are more effective at exercising social control over deviant health behaviours (Poortinga, 2006). In particular, supportive social relationships in the family (Borowsky & Resnick, 2001; Locke & Newcomb, 2005) and peer network have been shown to act as a protective mechanism against suicide risk (Bertera, 2007).

The aim of this research study was therefore to investigate the potential protective benefits that social capital would have against adolescent suicide risk. The challenge however, of finding a universal definition for the term social capital is made clear during the review of literature on social capital. The lack of a widely accepted empirical measure, increased the difficulty of simply reviewing literature that would be easily generalizeable to this research project.

1.2 Definitions

Definitions of regularly used terms with regard to suicide are defined below for the purpose of this study:

1.2.1 Suicide: Psychologically, suicide may be viewed as escape behaviour resulting from the interaction of the individual's inner emotional make-up with external stress or extreme pressure (Reese, 1968). A less sympathetic definition views it as an individual act by one who is bent on self-destruction (Holinger & Offer, 1982). And, while the behaviouristic approach may view suicide as problem- solving behaviour based on erroneous assumptions and conclusions (Reese, 1968), it is ultimately the human act of self-inflicting one's own life cessation, an act that is unchangeable and irreversible (Kgosimore & Makofane, 2006).

1.2.2 Suicidal Behaviour: According to Kgosimore and Makofane (2006), suicidal behaviour is best conceptualized as being ordered along a continuum of increasing severity, ranging from suicide ideation which involves thinking of ending one's life, to developing a plan, obtaining the means to commit suicide, and attempting to kill oneself, to completed suicide.

1.2.3 Suicide Ideation: Suicide ideation is assumed to precede a suicide attempt and completion. Even though an individual may contemplate suicide, they may receive the support they require to help them cope with their situation and hence circumvent a suicide attempt. The person who eventually attempts suicide may be deficient in this

social support (Meehan, 2004). Therefore specific ideation is more closely associated with risk for attempted suicide. Eighty five percent of all adolescents in the USA think about suicide at some time, while 50% were found to make a plan or seriously consider suicide as a means of solving their problems (Kgosimore & Makofane, 2006).

1.2.4 Non Fatal Suicide Attempt: Defined as self-inflicted behaviour that is intended to result in death but fails (Kgosimore & Makofane, 2006). It is estimated that for every completed suicide there are 50 to 150 attempts (Ayyash-Abdo, 2002). Repeated suicide attempts elevate the risk of subsequent suicide completion 10- 60 (Bridge, Goldstein, & Brent, 2006).

1.2.5 ‘At risk’ and ‘Not at risk’ Group: The ‘at risk’ group in this study was defined as those adolescents who had suicide ideation and/or non-fatal suicide attempt, while adolescents that had no suicide ideation or attempt were defined as being ‘not at risk’.

1.3 Outline of research report

In the following Chapter, Chapter two, relevant literature pertaining to adolescent suicide is reviewed. Emphasis is placed on the protective effects of the family and peer network in relation to adolescent suicide risk. The relevance of the theoretical framework of the study i.e. Durkheim’s theory of Suicide and Social Capital, are also investigated and discussed.

The third chapter details the research methodology of the study. The aim and objectives of the study as well as the hypotheses, research questions, sampling methods, data collection techniques and analysis are outlined. The ethical considerations of the study conclude this chapter.

The results of the statistical analyses of the study are presented in the fourth chapter. This chapter first presents the statistical analyses for the total sample of learner, followed by the analyses for the ‘at risk’ group.

The fifth chapter of this report discusses the statistical analyses presented in chapter four in relation to the hypotheses, theoretical framework and available literature. The limitations of the study are noted, followed by the implications for interventions and recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

“My report card is in my arithmetic book”

This was a note written shortly before an 11 year old; Ohio sixth grader put a .45 caliber automatic to his head, pulled the trigger, and killed himself.

The operative question, is what factors evolved into a burden, too much to bear, in the life of young person that he or she has seen no alternative but self destruction? (Reese, 1968)

The fact that the young do kill themselves is in itself a sizeable social and personal tragedy. Young people have limited life experience and less emotional- cognitive development than adults (Gutierrez, 2006), leading to less developed problem solving capabilities. They are therefore more vulnerable to making rash decisions to often transitory circumstances, which, in the case of suicide, ultimately leads to a permanent solution.

2.2 International Suicide Rates

Adolescent suicide has been ranked among the top 10 causes of death in the world (Ayyash-Abdo, 2002), and accounts for almost one million fatalities globally every year (WHO, 2004). It is estimated that for every completed suicide there are as many as 50 to 150 attempts (Ayyash-Abdo, 2002). Estimates by the World Health Organization (2004) suggest that suicide rates could rise to 1.5 million per year by 2020. Data analyzed from WHO statistics indicate that suicide deaths are unevenly distributed between countries, social-economic sectors and across time (Burrows, Vaez, Butchart & Laflamme, 2003). This is because the prevalence of this major universal problem varies according to race, nation, gender, socio -demographics and culture. Lithuania and Russia have the highest

reported suicide rates internationally, followed by New Zealand, Latvia and Ireland. Portugal, on the other hand, has the lowest reported suicide rates, followed by Italy, Mexico, and Spain (WHO cited in Bridge, Goldstein & Brent, 2006). There is a relatively constant predominance of suicide rates in males over suicide rates in females i.e 3.2:1 in 1950 and 3.9:1 in 2002. The only exception is China, where suicide rates in females are consistently higher than males (WHO, 2004).

Suicide is the third leading cause of death among young people aged 15 to 24 in the US. (CDC, 2006). US statistics indicate that even though suicide rates for adults and the elderly have declined, suicide rates for adolescents aged 15-24 have tripled in the past century (Cutler, Glaeser & Norberg, 2000). For every adolescent suicide, there are 400 non fatal attempted suicides, 100 requiring medical attention and 30 requiring hospitalization (Cutler, Glaeser & Norberg, 2000).

2.3 Suicide Rates in South Africa

Information regarding the epidemiological profile of suicide in South Africa is scant as there was no systematic mortality data collection prior to the National Non- natural Mortality Surveillance System (MCR, 2004). The NMSS report of 1999 indicated that suicide accounted for 8% of all deaths in South Africa. However, in 2004, death by suicide, accounted for 11.24% of the mortality rate of this population. Of these, 79.2% were males, 43.3% were Blacks, 38.4% were Whites, 15.9% were Coloureds and 2% were Asians. The average age for those who committed suicide was 36.3 years. Hanging was found to be the most frequently used method (36.2%), closely followed by shooting (35%), poisoning (9.8%), gassing (6.5%) and burning (4.1%). It was found that 45% of people who successfully committed suicide had positive levels of alcohol in their blood. Consistent with international trends, male suicide rates in South Africa are higher than female suicide rates, with the exception of the age group 0-14, where the suicide rates for male and female are equal. Suicide was ranked tenth as a cause of premature mortality burden in South Africa in 2000, for males, and nineteenth for females (MCR, 2004).

Peak hours for suicide were reported as: 10h00 – 12h00 (11.5%); 17h00 – 19h00 (11.2%); 07h00 (11.1%). The peak days for suicide were reported as: Sunday (16.1%); Monday (15.6%); and Saturday (14.5%). The peak month for suicide was reported as: October (9.4%); December (9.4%); and January (8.7%). The leading external cause of death for suicide in the age group 0-14 and 15-24 was hanging, 64.3% and 57.9% respectively (MRC, 2004).

Whilst suicide rates are most often highest among whites and men, both the magnitude and distribution of suicide in South Africa have been found to vary considerably for different age, race and sex groups within and across cities in South Africa (Burrows & Laflamme, 2006). An earlier study conducted by Burrows (2005), explored the importance of living area circumstances for suicide mortality in Tshwane, (using data from three sources Stats SA, NIMSS, Police records). Results of the study found that Black males and females, as well as Indian females had the highest reported suicide rates between the ages 14-24. Adolescents from working class backgrounds with limited employment opportunities were also found to be at high risk for suicide (Burrows, 2005). Findings from this study promoted Burrows & Laflamme (2006), to further investigate suicide mortality in South Africa by conducting a city level comparison across socio-demographic groups. Results from this study validated normative findings that suicide rates are highest among whites in all cities except for men in the Nelson Mandela Metropolitan area and men and women in Buffalo City, for whom rates were found to highest amongst Asians and then whites. Gender suicide rates were found to be congruent with global norms, with suicide rates being significantly higher among men than women for all cities in South Africa (Burrows & Laflamme, 2006).

2.4 Determinants of Suicide

Based on statistics retrieved from a WHO (2004) survey on youth suicide rates in 29 countries, Bridge, Goldstein and Brent (2006), noticed a trend in the increase of suicide rates from childhood to adolescence possibly due to a greater prevalence of psychopathology (primarily depression) in adolescents as compared to children. Psychiatric disorders were present in nearly 90% of adolescent having successfully completed suicide and poses a nine fold increased risk of suicide (Bridge, Goldstein & Brent, 2006). The study conducted by Yoder, Hoyt and Whitbeck (1998) that considered risk factors associated with suicidal ideation and the likelihood of a suicide attempt in a sample of 297 homeless and runaway adolescents from Iowa, Kansas, Missouri and Nebraska (USA), found that adolescents with mentally ill biological relatives are more likely to be mentally ill, thereby increasing their risk for suicidal behaviour. Although the neurobiology of suicide is a well-researched area, little work has been done in younger samples (Bridge, Goldstein & Brent, 2006).

According to Pinto et al. (1997) cited in Gutierrez (2006) “The best prediction of future risk behaviour is a history of past behaviours” (p. 129). According to Shaffer (1988), nearly half of all suicides are preceded by an attempt at suicide that does not end in death. Those with a history of such attempts are 23 times more likely to eventually end their own lives than those without. Repeated suicide attempts appear to be related to increased vulnerability and likelihood of self harm according to results of a study conducted by Rosenberg, Sengupta & Welford (2005), which examined 16, 644 adolescent self-reported non-fatal suicide attempts and their relationship to other health risk factors in New Hampshire. Repeated non-fatal suicide attempts were also found to elevate the risk of subsequent suicide completion 10- 60 fold in both case-control and prospective studies (Bridge, Goldstein & Brent, 2006). A study by Scocco, De Girolamo, Vilagut and Alonso (2008), investigated the prevalence of suicide ideation, plans and attempts among 4712 respondents as part of the World Health Organization World Mental Health Survey. Among those with suicide ideation, the probability of ever making a plan was 24.6%

(4.0) and attempt was 18.2% (4.5). The probability of making an attempt for those with suicide ideation, and having made a suicide plan was nearly 50%.

Suicide attempts among adolescents have been shown to be associated with the loss of a family member or friend to suicide (Borowsky & Resnick, 2001; Cutler, Glaeser & Norberg, 2000; Herrera, Dahlblom, Dahlgren & Kullgren, 2006). Gould et al. (1990) cited in Bridge, Goldstein and Brent (2006), have indicated that, “a small but statistically significant number of adolescent suicide completions occur in time- space clusters, consistent with the mechanisms of contagion and imitation” (p. 381). A study on the relationship between suicide and friendships among American adolescents conducted by Bearman and Moody (2004), using data on 13 465 adolescents from the National Longitudinal Survey of Adolescent Health, found that having a friend who had committed suicide increased the likelihood of suicidal ideation and attempts for both boys and girls. However, a study, conducted by Watkins and Gutierrez (2003), using 268 high school students in an urban area of Illinois, examining the relationship between exposure to adolescent suicide and subsequent suicide risk, failed to support any of the hypothesized differences between exposed and unexposed adolescents of differing relationship categories on measures of suicide risk.

2.5 Suicide risk factors simplified: Who is at risk?

According to Frierson, Melikian and Wadman (2002) cited in Kgosimore and Makafane (2006) although the prediction of suicide is not an exact science, certain behavioural, psychological and demographic factors can however be linked to an increase in suicide risk. These factors are found in the mnemonic, SAD PERSONS.

S- Sex: Women attempt non-fatal suicide more frequently than men, yet men are much more likely to engage in successful completed suicide than women.

A- Age: People are more likely to attempt suicide if they are under 25 or over 45 years of age.

D- Depression: The presence of depressive symptoms- especially feelings of hopelessness, worthlessness, helplessness- along with the absence of future plans place people at high risk of suicide.

P- Previous attempt: Persons who have made a prior suicide attempts are at high risk of suicide. About half the people who successfully complete suicide have previously attempted suicide.

E- Ethanol and drug abuse: Persons who abuse and/or are addicted to alcohol, drugs, or both are at risk of suicide.

R- Rational thinking loss: Suicide risk is high when judgment and rational thought are impaired. Such an impairment may take the form of a loss of concentration, difficulty in doing school work, bizarre or irrational thoughts, failure to live up to expectations, self criticism, pessimism, preoccupation with death, a lack of concentration, confusion, and unwarranted conclusions.

S- Social support loss: A person whose family member, lover or close friend has recently died; has recently broken up with a lover; has been recently been alienated from a family member, lover, or close friend; or is showing signs of increased isolation or social withdrawal is at risk of committing suicide.

O- Organized plan: The individual who has made a fairly detailed plan about when, where and how the suicide would be committed or has offhanded comments about not being around or about death should be considered at risk of committing suicide.

N- No lover, mate or spouse: Separation, divorce, being widowed or single, puts an individual at a higher risk of suicide.

S- Sickness: Chronic, debilitating, severe and painful illness and disease are a suicide risk factor.

2.6 The interplay between risk and protective factors in suicide risk

Suicide risk is a complex, multidimensional construct that is affected by the interplay of a myriad of factors. This is indicative of the fact that while the commonly asked question after a suicide is “why did he or she do it when they have so much to live for?”, the converse question that can be asked when people are faced with overwhelming number of problems is “why are they not suicidal?” These situational differences hinge on the interaction between risk and protective factors. Regardless of the array of situational difficulties facing the individual, when risk factors are stronger, the individual is more likely to be attracted to the escape offered by the ability to end one’s life. Similarly, a decrease in risk factors or an increase in protective factors is more likely to result in a resiliency to overcome life’s situational difficulties (Gutierrez, 2006).

Resilience defined as the “process of capacity for, or outcome of successful adaption despite challenging or threatening circumstances” (Rogers & Rose, 2002), has become an important concept in mental health theory and research (Walsh, 2002). This approach recognizes the potential for personal and relational transformation and growth that can be forged through adversity (Walsh, 2002). Resilient adolescents have within their character or environment, protective factors that help to buffer them from negative forces or stresses to which they are exposed (Rodgers & Rose, 2002). Research relevant to the focus of this study, indicates that individuals who have supportive networks are believed to be buffered from the negative impact of chronic and event stressors (Kimbrough, Molock & Walton, 1996).

Dense family and peer social networks have been shown to be a protective buffer against adolescent suicide risk. Protective factors emerging from these dense networks may include family closeness and connectedness, quality and number of friendships, as well as social support and integration.

2.6.1 Peer and Family networks as a protective factor against adolescent suicide risk.

Among the factors that influence adolescent health, the most prominent are families, peers and schools (Hall-Lande, 2007).

The following review of literature looks at the relationship between suicide and, peer and family relationships.

Hall- Lande (2007), explored the relationship between feelings of social isolation in adolescence and specific health risks including depressive symptoms, low self-esteem, suicidal ideation, and suicide attempts. The mediating influence of protective factors (family connectedness, school connectedness, academic achievement) on this relationship were also examined. The sample used in the study consisted of 4,746 pupils in grades 7-12 from 31 public schools, in the Midwestern metropolitan area in the USA. The data was analyzed using logistic regression. The results indicated that 8.1% (6.3 % girls and 9.9% boys) of the sample experienced feelings of social isolation. Students who reported feelings of social isolation had elevated odds of suicide attempts, then non-isolated adolescents. One of the strongest protective influences was a feeling of connection with family, particularly against suicide attempts in socially isolated adolescents. Whenever family connectedness was included in the data analysis model, the relationship between suicide attempts and social isolation was no longer significant in either boys or girls. This finding is suggestive of the fact that despite the negative health effects that are commonly associated with social isolation such as decreased self esteem and increased depressive symptoms which are established antecedents to suicidal ideation and attempts, the protective elements of family connectedness provided a buffer against suicide attempts. These effects were different across gender. Family connectedness was the only protective factor that influenced the relationship between social isolation and suicide attempts for girls. Although family connectedness did emerge as a protective factor for suicide for boys, other factors such as academic achievement and school protectiveness were also found to be protective. A contributing reason for these differences lies in the fact that girls describe closeness and intimacy as a fundamental quality in a relationship. Family relationships may fulfill a need for intimacy that is important for these girls. The degree

of emotional intimacy needed to influence psychological well being in socially isolated girls may not be achieved through relationships with school staff or a sense of achievement.

A study by Kerr, King and Preuss (2006), examined the relevance of multiple sources of social support (from family and peers) to psychiatric impairment in 220 adolescents (152 females and 68 males) aged between 12 and 18 years who had been psychiatrically hospitalized, either in a university based or private hospital in Midwestern United States. All had made a suicide attempt or had expressed suicidal intent, or significant suicidal ideation. A central finding was that female adolescents' perception of low family support were related to greater levels of hopelessness, depressive symptoms, and suicidal ideation. Variations in perceived family support were not related to hopelessness, depression severity or suicidal ideation among male participants. Perceptions of peer support were also related to suicidal adolescents' psychopathology in gender specific ways. Surprisingly, greater levels of perceived peer support were associated with higher levels of hopelessness, depressive symptoms and suicidal ideation among males, independent of variations in family support. A possible reason for this finding is that negatively perceived peer networks, more so than a negatively perceived family networks is related to adolescent malfunction (Bertera, 2007). It is therefore possible that suicidal youth affiliate with, and are negatively influenced by depressed and suicidal peers. Peer support failed to have a significant effect on female psychopathology after controlling for family support (Kerr, King & Preuss, 2006). In addition, age related trends in suicidal adolescents' perceived social support were consistent with normative findings i.e. higher peer support was associated with increased age, while age was not associated with levels of perceived family support across adolescence. A possible explanation for this finding which is congruent with the findings in male participants in the study by Hall-Lande (2007) is that traditionally adolescence involves the movement away from the family unit toward an identity within the peer group. More especially and consistent with research is that male adolescents are more susceptible to peer influence, both positive and negative.

Bertera (2007), investigated the role of positive and negative social exchanges between adolescents, their peers and family as predictors of suicide ideation using a random sample of 1591 adolescents from the US national comorbidity survey. The results suggest that the level of negative social exchanges from family but not peers was positively associated with suicide ideation scores even after controlling for other effects. The only buffering effect observed was positive exchanges with peers, which was inversely associated with suicide ideation, indicating the central role that peers have during adolescence. In addition, although mood disorder episodes were the largest single predictor of suicide ideation in the model, negative social exchanges from family were a close second. This highlights the critical influence that parents and other family members can have on adolescent suicide. Furthermore, negative social exchanges between younger adolescents and family members were more strongly associated with higher suicide ideation scores than in older adolescents. Positive exchanges with peers had a buffering effect on suicide ideation in older but not younger adolescents. The converse was true for positive exchanges between adolescents and family members which served as a buffer against suicide ideation risk in younger but not older adolescents. Noteworthy, is the finding that negative social exchanges from peers were not associated with suicide ideation. This contrasts with the findings by Kerr, King and Preuss (2006). This can be explained simply by the fact that while family relationships are formal and obligatory, peer relationships are generally informal and easier to end if they are perceived as non-supportive.

Adolescent suicidal ideation and its relationship to other variables (i.e. relationship quality with parents/friends, intimacy with parents, closeness to siblings, well being, happiness, anger, depression, drugs and grade point average), were tapped by a self-report questionnaire administered to 88 high school seniors (Field & Saunders, 2001). Eighteen percent responded positively to the statement “sometimes I feel suicidal”. Those who reported suicidal ideation were found to differ from those who did not on a number of variables including family relationships (quality of relationships with mother, intimacy with parents, and closeness to siblings) and peer relations (quality of peer relations, popularity, and number of friends). The group with suicide ideation attained lower mean

and standard deviation scores on relationship with mother, intimacy with parents, closeness to siblings, peer relations, popularity, number of friends, anger, and grade point average, happiness and well-being. On variables where a lower score in the study's designed measurement instrument is more optimal (maternal depression, depression, cigarettes, marijuana, cocaine), the adolescents with suicide ideation scored higher than those adolescents with no suicide. This study did not seem to optimize the data set as only a univariate t test comparing the two groups (with no results were discussed aside from the findings on the means and standard deviations) and a stepwise regression with suicide ideation as the dependent variable, were used. The stepwise regression reported the following variances (i.e. happiness- 46%, number of friends-11%, anger- 5%, marijuana and marijuana use- 4%).

2.6.1.1 Peers as a protective factor against adolescent suicide risk

Adolescence is a period characterized by crucial needs for close friendships, emotional fulfillment, and emotional independence. According to developmentalists, it is during this phase that adolescents turn to their peers for the emotional support that was previously provided by their parents (Ayyash-Abdo, 2002). Close peer relationships offer many protective benefits, consistently being associated with emotional well being in adolescence which in it self has been linked to a reduction in suicide risk (Helliwell, 2004).

Bearman and Moody (2004), analyzed friendship data on 13 465 adolescents from the American National Longitudinal Survey of Adolescent Health to explore the relationship between friendship and suicide risk. This data allowed for the measurement of adolescent social network position, the quality of adolescents' social relations with peers, and the structural position adolescents occupy in the adolescent social world. In order to access the relative impact of social factors on the suicide risk of adolescent males and females, a logistic regression model was used and suicide risk (measured as suicide ideation and suicide attempt) was modeled separately for males and females. Independent variables

included demographic characteristics, school and community of the adolescent, religion, family and household relationships, network intransitivity (measured the structure of the extended social networks in which the adolescents were embedded) and personal characteristics such as depression, self esteem, frequency of drunkenness and grade point average were also investigated. The results of the study were as follows: Knowing a friend (but not a family member) who had attempted suicide was a significant predictor of moving from thought to action. For girls, being socially isolated from peers (where social isolation was defined as those adolescents who had no friends to name, received no friendship nominations from others, or named as a friend a person who had no other friends) or having intransitive friendships, (in particular when the adolescents' friends were not friends with each other) substantially increased the odds of thinking about suicide. Drawing on Durkheim's theory of suicide, socially isolated adolescents may internalize isolation from their peers as low self-worth. In addition, adolescents whose friends are not friends with each other are subject to competing normative pressures that lower effective normative regulation and increase suicidal ideation (Bearman, 1991).

Being in a school with dense social networks lowered the risk of suicide risk in girls. What is of particular interest is that social network effects for girls overwhelmed other variables in the model and appeared to play an unusually significant role in adolescent female suicide risk. These variables however did not have a significant effect on suicide ideation in boys. For adolescent males who had contemplated suicide, those who attended schools with few social ties were at increased risk of attempting suicide relative to those with tightly knit friendship networks.

Consistent with the findings of Bearman and Moody (2004), Springer, Parcel, Baumler, & Ross (2006), using the Youth risk behaviour survey on 1007 male and female from 16 schools in El Salvador, found that perceived school social cohesion held different associations with suicide ideation for girls and boys. Girls who perceived low social cohesion at school were 2-3 times as likely to report suicidal ideation. Conversely, female students with perceptions of high social cohesion at school were less likely to report

suicidal ideation. However, there was no significant relationship between suicide ideation and school social cohesion for males.

Suicide clustering (three or more suicides have been influenced by their association with prior suicide victim/s, accounts for 1- 13% of adolescent suicide and is two to four times more common among adolescents that are in other age groups (Johansson, Lindqvist & Eriksson, 2006). A Swedish study conducted by Johansson, Lindqvist & Eriksson (2006) examined all suicides from 1981 through to 2000 (n= 88) among individuals aged 13 through 19 years, using information from the Department of Forensic Medicine. Two different suicide clusters including six teenagers were confirmed. The first cluster consisted of three teenagers who knew each other and committed suicide by hanging within an 11-month period. Two lived in the same industrial community adjacent to a city (with a population of approximately 40, 000) where the third victim lived. The second cluster consisted of three adolescents who also knew each other. Two committed suicide by jumping of the same tower and the third committed suicide by hanging within a 17-month period and included the name of the second suicide victim in her note. They lived on the same block in the same city (with a population of approximately 100,000).

According to Johansson, Lindqvist & Eriksson (2006), the possible mechanisms behind suicide clustering are contagion or imitation, which could be transmitted by personal communication or media influences. In addition, exposure to suicide may induce or exacerbate depression in vulnerable adolescents, which may in turn manifest as suicidal behaviour through the mechanism of complicated bereavement.

According to Durkheim, high suicide rates that cluster in a particular geographical space only do so because weak social integration and regulation cohabitate. In other words, suicide results from weakened social relations that connect and regulate individual actions (Haynie, South & Bose, 2006).

Durkheim's link between adolescent's access to social capital and suicide ideation, is also depicted in studies on geographically mobile adolescents (adolescents that change residential addresses and schools regularly) (Haynie, South & Bose, 2006).

According to Durkheim, suicide rate is a social fact that can be interpreted as an indicator of social solidarity (social cohesion) within a society (Bearman, 1991). Social solidarity and social relations (and therefore access to social capital) are disrupted through migration or residential mobility because individuals are more likely to experience a lack of peer social integration when they move from one location to another. They therefore experience new challenges such as victimization (because they are perceived as alone, weak or compliant), and substance abuse, because they lack social integration and regulation (Haynie, South & Bose, 2006).

Haynie, South and Bose (2006), conducted a study in 1994 and 1995, using Add Health (a multiwave survey of U.S. adolescents, their parent, friends, neighborhoods, and their schools) involving all students attending 132 high schools and middle schools (grades 7 through to 12) that were selected with unequal probability of selection but incorporating systematic sampling methods and implicit stratification sampling. The results of the study indicated that there was a significant difference in the likelihood of attempting suicide between geographically stable and geographically mobile females. Geographically mobile females were 60% more likely to attempt suicide than their counterparts. Both geographically mobile males and females significantly differed from their counterparts on measures of peer network structure and composition, reported having fewer close friends and personal intimacy, and were less likely to be selected as friends or identified as close friends by their classmates as they were generally less popular and were less likely to be the center of peer social networks. Whilst both male and female geographically mobile adolescents were found to be significantly more likely to be isolated, higher levels of isolation were reported in females. . Geographically mobile adolescent males were not found to be at significant risk for attempted suicide. Controlling for demographic and socioeconomic characteristics, social isolation from peers was found to be significantly associated with adolescent female suicide attempts, doubling the risk of suicide attempt.

Consistent with the findings of Borowsky and Resnick, 2001; Cutler, Glaeser and Norberg, 2000; Herrera Dahlblom, Dahlgren and Kullgren, 2006; Bridge, Goldstein and Brent, 2006, a significant positive effect of having a friend who had committed suicide, raises the risk factor tree fold.

2.6.1.2 The Family as a risk and protective influence against adolescent suicide risk

The family can be seen as a protective factor, defined as, “those variables that predict and are strongly correlated with lower levels of suicidality” (Locke & Newcomb, 2005, p. 324).

According to the family resilience approach, stressful crises and persistent challenges influence the whole family. In turn, key family processes mediate the recovery and resilience of vulnerable members as well as the family unit. As the family becomes more resourceful (i.e. gains more social capital), its ability to meet future challenges is enhanced (Walsh, 2002).

Family connectedness, defined as a sense of closeness and caring from family members, is one of the most powerful contributors to positive outcomes and psychological health of adolescents. The influence of family connectedness through its elements of family or parental closeness, warmth support or responsiveness have been shown to result in fewer adolescent suicide attempts in families with high levels of family connectedness than those with lower levels of family connectedness (Hall- Lande, 2007).

Adolescents reporting strong social support from family and friends have also been shown to demonstrate increased levels of resilience and decreased levels of suicide. Perceptions of positive relationships with family and friends are associated with lower levels of suicide ideation and suicide attempts (Hall- Lande, 2007).

Research conducted by Borowsky and Resnick (2001), to identify risk and protective factors for suicide attempts among African American, Hispanic, and white male and female adolescents in the United States of America, using data from the National Longitudinal Study of Adolescent Health conducted in 1995 and 1996, indicate that perceived parent and family connectedness were significantly protective for adolescent suicide across age and race/ethnic groups (i.e. African American, Hispanic and White adolescents). Perceived parent and family connectedness were measured on the following dimensions viz. the number of people living in the household (Household Density); suicidal behaviour of a family member; the presence of a parent before school, after school, at bedtime, or at dinner time (parental presence); closeness to mother and/or father; perceived caring by mother and/or father; satisfaction with the relationship to mother and/or father; feeling loved and wanted by family members; discussion of personal problems with parent in the last month; number of different activities engaged in with mother and/or father in the past month (parent-adolescent activities); and mother's or father's expectations to complete high school and college (parental school expectations).

The results of this study indicated that "Household Density" was a significant protective factor against suicide attempts for African American and Hispanic boys. "Parental presence" was significant for white girls only. "Parent-adolescent activities" were found to be significant for white girls and boys but twice as more significant for the white girls than it was for the white boys. "Parental school expectations" were only significant for white boys.

These findings indicate that although perceived parent and family connectedness, as a whole, may be seen as a protective factor against adolescent suicide, the different dimensions used by Borowsky and Resnick (2001) to measure it, have specific associations with certain race/ethnic groups. This therefore highlights the need for a better understanding of factors that predict and protect against suicidal behaviour among racial/ethnic groups in order to identify culturally responsive prevention and intervention strategies (Borowsky & Resnick, 2001).

Consistent with the findings of Borowsky and Resnick (2001), Locke and Newcomb (2005), also found that having a good relationship with parents acted as a protective factor against adolescent suicidality for 349 adolescent Latino males recruited from the Los Angeles area.

The presence of siblings as a protective factor against adolescent suicide has been rarely looked at. Twins represent a unique sibling relationship. They not only share the same family and social environment, but also share a higher level of closeness. Tomassini, Juel, Holm and Christensen (2003), identified same sex twins born from 1870 to 1930 and established date and cause of death from 1943 to 1993 through the Danish registry of causes of death. They included 21 653 individual twins alive on January 1943, 13318 (62%) of whom died during the follow-up.

They calculated the expected number of suicides in the twin population by multiplying the observed person years with suicide rates for Denmark, stratified for sex, one year age group, and five year calendar period. Standardized suicide rates were calculated as the observed number of suicides divided by the expected number of suicides. The results indicated that suicide risk for twins was consistently lower for both men and women in all six 10 year birth cohorts. All strata consistently showed a reduced suicide risk for twins, indicating no age or cohort differences. Suicide rate was of similar size in monozygotic and dizygotic twins. This study supports the hypothesis that strong family ties reduce the risk of suicidal behaviour.

The family unit can also be seen as a risk factor where risk factor is defined as “those variables that predict and are strongly correlated with higher levels of suicidality” (Locke & Newcomb, 2005, p. 324).

Dysfunctional family backgrounds have been found to contribute to suicide in adolescents (Agerbo, Nordentoft & Mortensen, 2002; Herrera, Dahlblom, Dahlgren &

Kullgren, 2005). A study conducted by Herrera, Dahlblom, Dahlgren and Kullgren (2005) involving eight Nicaraguan females aged between 12 and 19 admitted to hospital after attempting suicide found that absent fathers or a lack of a relationship with a father, conflicts with or between parents, unhappy childhoods, and negative reactions from parents were found to be precipitants to adolescent suicide. The loss of a parent to death (especially before twelve years of age) or divorce, and living away from both biological parents have all been shown to be risk factors for adolescent suicide for both males and females (Bridge, Goldstein & Brent, 2006).

Springer, Parcel and Baumler (2006) using the Youth Risk Behaviour Survey on 1007 males and females from 16 schools in El Salvador, found that perceived parental support held different levels of association for male and female adolescents. Male students who reported low parental social support were significantly more likely to report suicidal ideation. While significant associations between suicide ideation and low school social cohesion were found for females.

According to Agerbo, Nordentoft and Mortensen (2002), the link between family related risk/protective factors and their relative importance in suicide in adolescents has been poorly understood because current knowledge stems from studies of risk factors in people that have attempted suicide or studies of psychological autopsy (the construction of a psychological profile of the deceased from family and friends) which is subject to recall bias.

2.6.1.3 Conclusion

From the review of relevant literature, there has been a number of international studies which have explored the role of peers and family as both risk and protective factors against adolescent suicide (Agerbo, Nordentoft & Mortensen, 2002; Borowsky & Resnick, 2001; Bridge, Goldstein & Brent, 2006; Helliwell, 2004; Herrera, Dahlblom, Dahlgren & Kullgren, 2005; Kirkcaldy, Eysenck & Siefen, 2004; Locke & Newcomb 2005; Mignone & O'Neil, 2005; Springer, Parcel & Baumler, 2006). There appears, however, to be a paucity of local studies, which have investigated these

influences. This study therefore aims to provide local knowledge on the relationship between suicide risk and family and peer connectedness. In this study, family and peer connectedness is understood using the concept of social capital.

2.7 THEORETICAL FRAMEWORK

2.7.1 SOCIAL CAPITAL

A universal, all encompassing, and precise definition for the term Social Capital has eluded academics and policy makers the world over, despite its exponential gain in popularity, in public discourse over the last two decades (Kawachi, Kim, Coutts & Subramanian, 2004; Narayan, 1999; Poortinga, 2006; Portes, 2000). Much of this debate stems from the fact that social capital, though exported from sociology (Portes, 2000), has been applied to a variety of intellectual traditions with diverging epistemological, ontological and methodological applications.

2.7.1.1. The origins of Social Capital

For the purpose of theorizing, conceptualizing and operationalizing, the concept of social capital, we begin by reviewing the work of three of its principle propagators viz. Bourdieu, Coleman and Putnam (Pelling & High, 2005; Portes, 2000).

The French sociologist, Pierre Bourdieu provided the first systematic (Portes, 1998) and methodical analysis of social capital (Withers, Rochelle & O'Brein, 2006), conceptualizing social capital as “the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Carpiano, 2006, p. 167). Bourdieu explained social capital as the networks of social ties to which a person has access to (Withers, Rochelle & O'Brein, 2006), and which is developed through social bonding in these social networks (Carpiano, 2006). The emphasis is on social capital as a resource

that a person can accumulate thereby enabling the individual to develop social leverage, which offers information that can be used to maintain or improve an individual's quality of life and social mobility (Carpiano, 2006). In this context, social capital is viewed as an attribute of the individual i.e. social capital is seen as a resource which the individual can use for his or her benefit. However, the social capital that is available to an individual is dependent on the network size, the resources held by its members, and the individual's class location, suggesting differential access to capital.

Like Bourdieu, the American sociologist James Coleman, also focused on the benefits that an individual or small groups (such as families and peers) could accrue by virtue of their ties with others (Portes, 2000). Unlike Bourdieu, Coleman defined social capital by its function theorizing that social capital "is not a single entity but a variety of different entities, with two elements in common: they consist of some aspect of social structures, and they facilitate certain actions of actors- whether persons or corporate actors within the structure" (Kunitz, 2004, p. 69). He emphasized that social capital was an endowment of the social structure and not individuals (Farr, 2004), as Bourdieu had proposed. According to Coleman, social capital resides in the forms of social organization that produce something of value for the individuals involved. He proposed that individuals embedded in dense and bounded social networks are more likely to accumulate social capital. Individuals can access social capital by the investment they create through involvement in social relationships and networks. These investments in turn generate social capital as a resource upon which individuals may draw to enhance their opportunities. In particular, Coleman identified the obligations, expectations, and trustworthiness embodied in social structures, the potential for information that inheres in social relations, and the norms and effective sanctions within communities as potent types of social capital i.e. while social capital facilitated the pursuit of certain goals, it restricted the pursuit of others (Furstenberg & Hughes, 1995).

Robert Putnam's work on social capital accelerated its popularity in public discourse. Drawing on Coleman's idea of social capital being a benefit for "public good", Putnam escalated the idea of social capital as a community attribute or a collectively held

resource (Withers, Rochelle & O'Brein, 2006), by defining social capital as “features of social life-networks, norms and trust-that enable participants to act together more effectively to pursue shared objectives” (Pelling & High, 2005, p. 3), where the emphasis is on the actual social networks (formed and tied together by social cohesion) which is regarded as social capital (Carpiano, 2006). However, Putnam’s definition of social capital was beset with contradictions and inconsistencies (Carpiano, 2006; Leonard, 2004). This is due to the fact that throughout Putnam’s work the concept of social capital in the community is ascribed only to highly positive connotations of being an encompassing network of beneficial and pleasant interactions. However, Putnam’s empirical study examining the community networks and relationships in a Catholic community in West Belfast, set against the political conflict in Northern Island, indicated, that social capital within the community had the ability to exclude as well as include community members within its networks. In addition, social capital can also be a restraint to an individual’s actions and choices. This facilitated Putnam’s introduction of the concepts of bonding and bridging capital in an attempt to explain these anomalies (Leonard, 2004).

2.7.1.2 Bonding and Bridging

2.7.1.2.1 Bonding Social Capital

Bonding social capital exists at the local level and refers to networks of family, friends and neighbours (Middleton, Murie & Groves, 2005) i.e. *within* community relations (Harpham, Grant & Thomas, 2002). It refers to “trusting and co-operative relations between members of a network who are similar in terms of social identity (e.g. race and ethnicity)” (Kawachi, Kim, Coutts & Subramanian, 2004, p. 682). Bonding social capital occurs among homogenous populations and only benefits those with internal access (Leonard, 2004). For example, those individuals who belong to a particular social network and as a result have access to certain resources, through facilities of the private or public sector, are much more likely to be included in the societal processes that allowed this preferential access, than those who do not have such access (Narayan, 1999). While bonding social capital may be exclusionary, the use of such social capital is non-rivalrous in that one person’s use does not diminish it’s availability for others (Adler &

Kwon, 2002). Bonding social capital focuses on the internal structure of the social network and the “linkages among individuals or groups within the collectivity and, specifically, in those features that give the collectivity cohesiveness and thereby facilitate the pursuit of collective goals” (Adler & Kwon, 2002, p.21). It is seen to intensifies existing support networks (Harpham, Grant & Thomas, 2002). However, the characteristics of bonding social capital i.e. tight bonds of trust, reciprocity and solidarity, that are meant to benefit the members of a particular social network, may in fact also prevent “out of the box thinkers” from reaching their full potential (Leonard, 2004).

2.7.1.2.1.1 Indicators of Bonding Social Capital

The following cognitive indicators discussed, are a review of just some key identifiers that may be used when determining levels of bonding social capital within a particular network. The following indicators are by no means a comprehensive list as the instruments/questions used to determine bonding social capital in empirical research differs according to the context of the study. Measurement of social capital is highly variable, leaving the concept open to the critique that it is a catch all term for a variety of social connections and normative circumstances (Irwin, Fitzpatrick, LaGory & Ritchey, 2007).

➤ Trust/Trustworthiness

Despite the exclusion of the term social trust within the core definition of social capital, norms of trustworthiness are seen as a universal necessity of dense social networks. It is for this reason that Helliwel and Putnam (2004), advocate social trust (i.e. the belief that other members in an individual’s social network can be trusted), as a strong empirical index of bonding social capital. High levels of social trust in settings of dense social networks often provide the crucial mechanism through which social capital affects aggregate outcomes (Helliwel & Putnam, 2004).

➤ Reciprocity

Within the economic paradigm, social capital is seen as primarily the accumulation of obligations from others according to the norm of reciprocity (Portes, 2000). It refers to

the mutual recognition of obligations to give and receive, drawing individuals belonging to the same social network, into dense web of expectations, which modify their ability to pursue their own selfish interests. Social networks rich in social capital are precisely those where reciprocity acts as the amalgam between the different spheres of the social network. These relationships are ultimately based on the norm of trust. Those individuals who are unable to repay favours may therefore be deemed as untrustworthy and may in turn find themselves being excluded from social networks (Leonard, 2004).

➤ **Voluntary associations or the voluntary formation of social ties within one's social network**

The formation of voluntary associations or social ties between individuals belonging to the same social networks is so instrumental to the development of social capital that Inglehart defines social capital as, "a culture of trust and tolerance, in which extensive networks of voluntary associations emerge" (Adler & Kwon, 2002, p. 20).

A unique characteristic of social capital is that it is relational and intangible. In order for a person "to possess social capital, a person must be related to others, and it is those others, not himself, who are the actual source of his or her advantage" (Portes, 2000; Narayan, 1999). It is an attribute of the social structure or network in which an individual is embedded. It exists only when shared and is not the private property of any of the persons who benefit from it (Narayan, 1999). Social capital cannot be generated by individuals acting in isolation, but instead depends on a propensity for sociability and a capacity to form new associations and networks (Simpson, 2005). Strong intimate ties are important contributors to social capital because of the trust and reciprocity they promote between people who know one another well. However, interactions limited to one's known associates can limit one's potential to expand beyond the realm of the known (Simpson, 2005). For example, research by Irwin Irwin, Fitzpatrick, Lagory and Ritchey (2007), found that most groups of homeless individuals in their study, engaged with bonding situations where the association is with someone in a similar life situation, which may inhibit positive effects of group membership.

➤ **Social integration/connectedness**

Social integration can be analyzed into two basic elements i.e. social support and social control. Social support provides the social bond that attaches individuals to common goals and shared social causes. A strongly integrated society has control mechanisms such as religion and social norms, which are communicated to the individual constantly (such as the condemnation of suicide and one's soul burning in hell if suicide is committed), thus preventing an individual from committing suicide. In contrast, a poorly integrated society has no social bonding and the individual is left to draw on his or her own resources and may therefore experience feelings of loneliness and despair, and a diminished sense of belonging (Thorlindsson & Bjarnason, 1998).

2.7.1.2.2 Bridging Social Capital

The relationships and trust formed by bonding social capital may not precipitate action in addressing problems beyond the sphere of that particular network. Collective action is regarded as a product of bridging capital (Larsen, Harlan, Bolin, Hackett, Hope, Kirby, Nelson, Rex & Wolf, 2004). Bridging social capital refers to “social relationships of exchange, often of associations between people with shared interests or goals but contrasting social identity” (Pelling & Hugh, 2005, p. 3). It occurs when members of one group connect or form horizontal ties with members of other groups with similar economic power and social status, to seek access or support or to gain information i.e. extra (outside) community relations (Larsen, Harlan, Bolin, Hackett, Hope, Kirby, Nelson, Rex & Wolf, 2004). The most common links are manifested through civic organizations, religious groups and work (Middleton, Murie & Groves, 2005).

2.7.1.3 Social Capital and Mental Health

The popularity of social capital in public health research has increased exponentially in the recent decade. There is strong database of empirical research that suggests that social capital could be a significant determinant of some health outcomes such as lower suicide rates (Poortinga, 2006). The basic premise of the association between social capital and

mental health is that an increase in social capital reduces the prevalence of mental disorders (Henderson & Whiteford, 2003).

2.7.2 DURKHEIM'S THEORY OF SUICIDE

2.7.2.1 Introduction

Durkheim's theory of suicide provides a theoretical basis for understanding how suicide and social capital can be linked. He hypothesized that those who live in societies with high levels of social capital are more likely to have dense social networks characterized by wider networks of social support, a greater amount of time spent socializing with friends, higher levels of subjective well being and greater involvement in voluntary associations (Mayer, 2004).

Durkheim's aim to identify the structural aspects of social positions occupied by individuals, that subjected them as a category to varying suicidal risk (Bearman, 1991), led to his focus on the consequences of integration and regulation (Thorlindsson & Bjarnason, 1998). Social structure is defined as the intersection of these two independent parameters (Thorlindsson & Bjarnason, 1998).

2.7.2.2 Integration

Integration is defined as "the extent` of social relations binding a person or group to others such that they are exposed to the moral demands of that group" (Thorlindsson & Bjarnason, 1998, p. 95) . The level of an individual's social integration within a network ranges on a continuum from complete embeddedness in a group (high bonding social capital) to complete isolation without social relations (low bonding social capital) (Bearman, 1991). High levels of integration, fosters strong social bonds and common social values between individuals in a social network. Too little integration leads to a state of loneliness and despair (Thorlindsson & Bjarnason, 1998). According to Durkheim, integration has two basic tenets i.e. social support and social control. Social support "provides the social bonds that attaches individuals to common goals and shared social causes" (Thorlindsson & Bjarnason, 1998, p. 96). Instead of an individual relying

solely on his or her own resources, they are able to draw from the resource of the collective when they experience depletion or exhaustion of resources in their pool. In a poorly integrated society, a person may be forced to rely solely on his or her resources and may therefore experience feelings associated with isolation (Thorlindsson & Bjarnason, 1998).

For Durkheim, integration meant integration into the major social institutions of family, religion and politics. He proposed that integration into these institutions acts as a deterrent to deviant behavior and protects the individual against adverse social effects. However at the same time, Durkheim recognized that integrations into pathogenic social groups could increase an individual's propensity for disaster (Thorlindsson & Bjarnason, 1998).

Durkheim posits that a strongly integrated society "holds the individual under its control, considers them at its service and thus forbids them to dispose willfully of themselves" (cited in Thorlindsson & Bjarnason, 1998, p. 96). Social control draws an individual towards others in their social network, fashioning them in the image of the beliefs, norms and standards of acceptableness (Thorlindsson & Bjarnason, 1998).

2.7.2.3 Regulation

Regulation, on the other hand is defined "as the normative or moral demands placed on an individual that come with membership in a group" (Thorlindsson & Bjarnason, 1998, p. 95). The extent to which the society, to which the individual belongs, regulates the individual will determine his or her meaning of life. Underregulation causes individuals to become lost in the disarray of social life leading them to become destined for a sense of futility and despair (Thorlindsson & Bjarnason, 1998). Overregulation may relegate individuals to the periphery of society, causing them to be viewed as merely role occupants (Bearman, 1991).

Durkheim's model of social structure, defined by the independent parameters of integration and regulation led to his deduction that each of these four social positions

yielded a unique form of suicide (Bearman, 1991). Ideally, under desirable social circumstances, integration and regulations coexist in a symbiotic relationship, with each providing the context through which the other is reproduced. However, under less ideal social conditions, the imbalances between these two parameters leads to abnormal forms which in turn foster the emergence of four different representations of suicide i.e. Altruistic, Egoistic, Anomic and Fatalistic suicide (Bearman, 1991).

2.7.2.4 The Four Forms of Suicide

The following table reflects these abnormalities

Table 1. Forms of suicide (Bearman, 1991)

INTEGRATION	REGULATION	
	Low	High
High	Anomic	Altruistic
Low	Egoistic	Fatalistic

2.7.2.4.1 Egoistic Suicide

According to Durkheim, the division of labor (brought about by increases in material and moral density) together with functional differentiation and specialization has led to the destruction of traditional forms of moral integration (Emirbayer, 1996). This has led to a hierarchy in society with individuals needing to find occupancy in a distinct position in society. People undergo the process of individuation and a ‘turning inward’ thereby releasing them from the bonds of collectiveness. Since each person is different and unique, there is no common social regulator. Each individual pursues highly individuated ends using others in their social network merely as a means to their end. In this context, there is no integration as there are only weak, superficial ties that link these individuals to others in their social surroundings (Bearman, 1991). The normative demands and moral regulation initially placed on these individuals decreases proportionately with their individuation and an increase in the number of social networks they are involved in because of their marginal involvement in each. Here the absence of integration prevents

moral regulation (Bearman, 1991). Parents in modern societies that experience the stressors of providing for children in this technologically advanced era, may be susceptible to egoistic suicide. This social situation in turn creates a deficiency of social capital within the family network thereby perpetuating the consequences of such a social context.

2.7.2.4.2 Altruistic Suicide

Within this social context, individuals become integrated into a society and take on the identity of that society. Enormous energy is spent in these individuals losing their previous identity (Bearman, 1991). Despite high levels of integration and regulation, these individuals, for example military personnel, may experience cognitive dissonance between their previous identity and that of the social network they find themselves in.

2.7.2.4.3 Anomic Suicide

Durkheim formulated that this concept was based on the premise that people who have an overwhelming innate desire to achieve but who lack the ability to attain these goals may find themselves in a constant state of incongruency. He argues that because people cannot limit their desires and passions, they must be limited by a legitimated authority. But when society or an individual's network is in a state of flux, they are unable to perform the function of regulation even though the individual is socially integrated (Thorlindsson & Bjarnason, 1998). The absence of clear rules of behavior creates a state in which the individual is faced with uncertainty, which fosters feelings of meaninglessness and a sense of injustice, because the individual lacks the essential tools to construct the social in a meaningful way and is forced to rely on resources that are insufficient (Thorlindsson & Bjarnason, 1998). According to Bearman (1991, p. 517), "anomie as dissonance resulting from the occupancy of social groups that are disjoint at the level of social integration may be characteristic of the position of modern adolescents". The typical modern adolescent expends a substantial amount of personal resources (e.g. time and energy) away from the adults in their familial social network who have the authority to regulate their social actions. These adolescents are often members of two or more separate social networks (e.g. family of origin and peers), each network having its own

sets of norms, values etc. The adolescent is nevertheless integrated into these different social networks and is therefore subject to each social networks normative demands and regulation, giving rise to feelings of contradiction and incongruency. The adolescent who finds him or herself embedded on a daily basis in worlds of conflicting expectations and values may find it difficult to function in this anomic social position. So while the adolescent is integrated into society, the group network of family and peers is segregated. The more groups of differing normative standards that an individual belongs to, the more the normative influence of each group is lessened. Adolescents who are highly integrated into two social networks, such that their inter group network is segregated are more likely to feel dissonance than those whose personal networks, though multiple, are interwoven. Therefore, normative dissonance yields normlessness, the absence of regulation, despite integration (Bearman, 1991).

2.7.2.4.4 Fatalism

The individual, who occupies this social sphere, has no identity beyond the role that he or she must occupy. For example, the adolescent who comes from an over-achieving family. This individual may find themselves having no identity other than being apart of that familial network. He or she may find themselves at the periphery of their familial network, with failed efforts to secure a central role within the group. They therefore have identity only as a role occupant without social ties and therefore purpose. The role, but not the individual who occupies it, is significant to the others that surround him or her (Bearman, 1991).

2.7.2.5 Conclusion

Family and peer integration and regulation may have different meanings for different family and peer group members. For example a high level of regulation in a patriarchal society may lead to fatalism in females. In addition, family and peer integration and regulation can have different meanings for adolescents. Family regulation can act as a protective mechanism against pathogenic peer groups, insulating them from the harmful

effect of becoming deeply integrated into the pathogenic peer groups (Thorlindsson & Bjarnason, 1998).

From the review of literature on social capital and Durkheim, it is clearly evident that the essential features of social capital e.g. dense networks of reciprocal social relations, and norms of trustworthiness, seem identical with the core features of integration such as strong social ties, shared values, and conformity to expectations of the social network to which an individual belongs. This together with the stronger form of social control and support appears to correspond with the Putnam's bonding social capital (Mayer, 2004).

The following quote from Durkheim illustrates this relationship,

“The bond that unites them with the common cause attaches them to life and the lofty goal the envisage prevents their feeling personal troubles so deeply. There is, in short, in a cohesive and animated society a constant interchange of ideas and feelings from all to each and each to all, something like a mutual moral support, which instead of throwing the individual on his own resources, leads him to share in the more collective energy and supports his own when exhausted” (Durkheim 1951, p. 209-10 cited in Mayer, 2004).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This study uses a quantitative design involving hypothesis testing. Since this study examines a relatively new area of research, it is exploratory in nature. Given that it is cross-sectional in nature, inferences about causality can not be drawn.

3.2 Aims and Objectives

The broad aims of the research is to investigate whether family and peer connectedness, within the framework of bonding social capital, act as protective factors against adolescent suicide risk, in a sample of school going adolescents in the Durban Metropolitan area.

Investigation and analysis was done on two different levels. The first level being the total sample (N=259). The second level contained the sample of adolescents who were identified as being 'at risk' (N=51), i.e. defined as those adolescents who had suicide ideation and/or suicide attempt. This level of analysis was done as those who had attempted suicide were considered at greater risk given the literature which suggests that people who have attempted suicide are more likely to successfully commit suicide than those with only suicide ideation (Bridge, Goldstein & Brent, 2006; Kgosimore & Makafane, 2006; Rosenberg, Sengupta & Wolford, 2005; Shaffer, 1998) .

In achieving this aim, two primary objectives of the research were:

1. To determine whether higher levels of bonding family social capital are associated with lower levels of suicide risk in the adolescent population.
2. To determine whether higher levels of bonding peer capital are associated with lower levels of suicide risk in the adolescent population.

3.3 Research Questions

Is there an association between bonding family social capital and adolescent suicidal risk?

Is there an association between bonding peer social capital influence and adolescent suicidal risk?

3.4 Hypotheses

1. Those adolescents who are not categorized as being ‘at risk’ for suicide (never had suicide ideation and/or never attempted suicide) have higher levels of bonding family social capital than those who categorized as being ‘at risk’ (had suicide ideation and/or attempt).
2. Those adolescents who are not categorized as being ‘at risk’ (never had suicide ideation and/or never attempted suicide) have higher levels of bonding peer social capital than those who categorized as being ‘at risk’ (had suicide ideation and/or attempt).
3. Of those adolescents categorized ‘at risk’, those adolescents who reported an attempted suicide have lower bonding family social capital and bonding peer social capital than those adolescents who reported suicide ideation only.

3.5 Methodology

3.5.1. Sample

Sea Cow Lake Secondary, a multiracial school that uses English as the medium of communication was selected owing to issues of access and proximity. The rationale pertaining to choice of language correlates to the language of the researcher as well as to the research instrument. The research method comprised a cross sectional survey utilizing self administered questionnaires.

The initial sample frame included 300 learners using convenience volunteer sampling. Learners were asked to participate in the study from grades nine, ten and eleven. Learners were told that their participation was voluntary and that non-participation would not affect them negatively in any way and they could withdraw from the study at any time.

The final sample consisted of 259 individuals of whom 145 (56%) were female and 114 (44%) were male. Respondents were from grades nine (12%), ten (42.1%) and eleven (45.9%) and included 81.1% Black/African learners, 14.3% Asian/Indian learners and 4.6% Coloured/Mixed race learners. Grade 12 learners were not included in the sample as they were on study break during the time of data collection.

3.5.2 Procedure and Data Collection

During the planning stage of the research project, a meeting was held with the school principle to discuss the nature of the study and as well as the nature of the data that would be required from learners of the school. Following this meeting and consultation with other staff members, the principle consented for the learners to participate in the study. A letter confirming that the school agreed to participate in the study was obtained and is attached as Appendix A.

Thereafter, the superintendent responsible for the school district was contacted to attain permission from the Department of Education to conduct the study. The research proposal was submitted to the research office of the Department of Education (DOE)

offices in Pietermaritzburg. After review, the members of the research office consented subject to the DOE receiving a copy of the research study upon completion. They advised that the study should be unobtrusive, not disrupting the operational functioning of the school, including impending examination schedules. The letter of approval from the Department of Education is attached as appendix B. Due to the non invasive nature of the study, parental consent was not obtained individually. Instead, parental assent for the study was obtained by the school governing body on behalf on the parents.

As per parameters of engagement set out by the school's deputy principal, the self administered survey was administered during the flexi-periods at school. Questionnaires were administered in multiple group settings upon receiving informed assent from the learners (see Appendix C for informed assent form). Upon completion of the surveys, the questionnaires were stored in a locked cupboard within the Department of Psychology at the University of Kwa-Zulu Natal.

3.5.2.1. Pilot Study

A pilot study was conducted prior to the commencement of the actual study using a small representative sample from the school in order to assess the validity of the instrument. Clarity of instructions and questions, administration time and layout, were assessed.

Twenty learners from grades ten, eleven and twelve were randomly selected and asked to participate in the pilot study. Ethical issues highlighting issues of confidentiality, anonymity and the opportunity to withdraw from the study were discussed with the learners. The availability of follow-up counseling at the University of Kwa-Zulu Natal's Psychology Clinic as well as other referral sources was highlighted.

After the completion of the questionnaires, a focus group was held with the 20 learners. The aim of this focus group was to establish any misunderstandings or queries arising from the questionnaire that would possibly impede the eliciting of accurate information from the research instrument. No concerns regarding the research instruments were raised.

The average time taken to complete the questionnaire was also established at between 20-30 minutes.

3.5.2.2 Main Study

After attaining approval from the ethics committee of the University of KwaZulu-Natal and the Department of Education, preparatory talks with the key personal at the school facilitated the administering of the questionnaires during several days in the months of September 2006.

Under the guidance and supervision of the class teacher, the questionnaires were administered. Forty one learners chose not to participate in the study due to complaints pertaining to questionnaire length.

3.5.3. Data Collection Methods

3.5.3.1. Informed Assent Form

Each learner was required to complete an informed assent form (Appendix C). It detailed the rationale behind the research study in a clear and concise manner, emphasizing how the study could be useful to inform intervention programmes to reduce risk behaviours in adolescents. Issues of confidentiality, anonymity and voluntary participation were highlighted.

3.5.3.2 Measures

Each learner completed a self-administered questionnaire consisting of three scales that measured youth risk behaviour and bonding family social capital and bonding peer social capital.

3.5.3.2.1 The South African Youth Risk Survey

The first scale is the South African youth health risk survey (Appendix D), which has been adapted for the South African context by the Human Science Research Council

(HSRC) in partnership with the Medical Research Council (MRC); from the US youth risk behaviour survey. The questionnaire was designed to obtain data from youth about behaviours that might have an adverse effect on their health thereby providing insight into youth risk behaviours. The questionnaire was developed in English and has been pre tested for face and construct validity (Flisher, Reddy, Muller & Lombard, 2003). Health risk behaviours examined by the scale include aggression, victimization, suicide risk, episodic heavy drinking, illicit drug abuse and sexual behaviour.

Consistent with the aims of this study, the focus was on items 16 to 20, which measure suicide risk. Four of the five questions offered a dichotomous response (yes/no), while one of the five questions required a response using an ordinal scale.

Items 1-4 of the South African Youth Risk Survey requested demographic data that included age, gender, grade in school and race. The variable race (item 3) included 4 categories namely, Black\African, Asian/Indian, Coloured/ Mixed Race, and White. These categories are consistent with the social and historical context of South African Society.

The inclusion of these demographic details was obtained purely for the purpose of adding to the current scant body of suicide research in South Africa, with the aim of understanding and thereby constructing relevant interventions for suicide prevention.

3.4.3.2.2 The Bonding Family and Bonding Peer Social Capital Measures

The second and third scales measured family social capital and peer social capital (Appendix E & F respectively). Poortinga (2006) originally used these scales as one scale. The Cronbach's reliability coefficient for this unified scale, on 7988 adults in England, as part of the 2000 Health survey for England (HSE), was $\alpha = 0.87$ (Poortinga, 2006). For the purpose of this study, the scale has been divided into two scales so as to measure family social capital and peer social capital separately. Cronbach's reliability coefficient was calculated individually for these two scales.

3.4.3.2.2.1 Reliability Analysis for Bonding Family Social Capital and Bonding Peer Social Capital Measures (N=259)

Cronbach's alpha was computed to test the internal consistency of the total sample. The Cronbach's alpha for items relating to Bonding Peer Social Capital and Bonding Family Social Capital are greater than 0.90, indicating a high degree of internal consistency. Further, the items relating to each variable correlate highly with each other, indicating that the items together measure the same construct.

Table 2: Item-Total Statistics for Bonding Peer Social Capital

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha for all items
SCP1	17.53	48.041	0.728	0.943	
SCP2	17.54	46.551	0.782	0.939	
SCP3	17.68	45.405	0.829	0.935	
SCP4	17.68	45.582	0.845	0.934	0.945
SCP5	17.54	44.861	0.816	0.936	
SCP6	17.63	44.799	0.844	0.934	
SCP7	17.56	44.232	0.864	0.932	

Table 3: Item-Total Statistics for Bonding Family Social Capital

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha for all items
SCF1	18.69	41.255	0.687	0.941	
SCF2	18.49	40.290	0.813	0.930	
SCF3	18.78	39.748	0.782	0.933	
SCF4	18.64	39.301	0.836	0.927	0.940
SCF5	18.57	39.788	0.820	0.929	
SCF6	18.55	39.745	0.836	0.928	
SCF7	18.52	39.196	0.847	0.926	

3.5.4 Data Analysis

Congruent with the aims and objectives of the study, the researcher investigated the relationship between the independent variables (Bonding Family Social Capital and Bonding Peer Social Capital) and the dependent variable of suicide risk. 'At risk' learners were defined as those who had suicide ideation and includes learners who reported having attempted suicide as well as those who reported suicide ideation but had not attempted suicide. 'Not at risk' learners were defined as those having no suicide ideation or previous suicide attempts.

The data was analyzed using the Statistical Package for the Social Sciences (SPSS version 15.0 for Windows). After capturing the data electronically on SPSS, the data was checked to ensure that it had been entered correctly.

Analyses were first performed on the full sample of adolescents (N=259) and then on the sample consisting only of those adolescents who were categorized as being 'at risk'.

Frequencies were used to examine the frequencies and distribution of the variables of the total sample. The socio-demographic variables included age, gender, race and grade.

For the total sample, an independent samples t-test was used to determine whether differences in mean scores existed between males and females with regards to Bonding Family Social Capital and Bonding Peer Social Capital. Pearson's correlation analysis was done to identify the nature and extent of the relationship between the continuous variables of age, Bonding Family Social Capital and Bonding Peer Social Capital.

The responses to questions Items 17 and 18 on the Youth Risk Behaviour Survey were assigned numeric values as A(Yes)=1, B(No)=0 while the responses to questions 19 and 20 were assigned the values A=1, B=2, C=3, D=4, E=5.

The responses to the questions relating to Social Capital – Family and Social Capital – Peers were assigned numeric values as 1=Definitely not true, 2=Not True, 3=Partly True, 4=Certainly True.

The responses to Items 17 and 18 of the Youth Risk Behaviour Survey i.e. ‘During the past 12 months, did you ever seriously consider committing suicide?’ ‘During the past 12 months, did you make a plan about how you would attempt suicide?’ respectively, were used to classify the ‘at risk’ and ‘not at risk’ groups. Those who selected ‘0’ to the statement were classified as ‘Not at risk’ with no suicide ideation, while those who selected ‘1’ were classified as ‘at risk’ with Suicide ideation

Respondents who answered A to Items 19 or 20 on the Youth Risk survey, were assigned a value of 0= no suicide attempt. Respondents who answered B=2, C=2, D=3, E=5 were assigned a value of 1= suicide attempt.

Pearson correlation was also used to compare the relationship between Bonding Family Social Capital and Bonding Peer Social Capital. An independent samples t-test was then used to determine whether differences existed between ‘at risk’ and ‘not at risk’ adolescents with regards to Bonding Family Social Capital and Bonding Peer Social Capital.

Analyses were then performed on the sub-sample of the ‘at risk’ group (n=51). SPSS frequencies were used to examine the frequencies and distribution of the variables of the sub-sample. The biographical profiles of ‘at risk’ students in terms of their age, gender and grade was determined using frequency distribution tables. Descriptive statistics for the at-risk adolescents were then calculated using SPSS. These frequency tables indicated the frequencies of the ‘at risk’ adolescents in relation to the items on the Youth Risk Behaviour Survey.

For the sub-sample, an independent sample t-test was used to determine whether differences in Bonding Family Social Capital and Bonding Peer Social Capital existed between adolescents who had suicide ideation and did not attempt suicide against those who attempted suicide.

3.6 Ethical Considerations

3.6.1 Informed Consent

The Research Ethics committee of the University of KwaZulu Natal and the Department of Education of KwaZulu Natal provided written ethical approval for the research study. Parental assent was obtained from the participating school's principle, and the school's governing body on behalf on the parents, during the planning phase of the research study. Prior to the commencement of the research questionnaires, informed consent was obtained from each learner.

3.6.2 Anonymity and Confidentiality

Of paramount importance is the protection of the learner's interests and well being which was achieved by the protection of their identity. Anonymity and confidentiality were assured for all learners during the data collection and research phases of the study. Anonymity of each learner was achieved as the researcher could not identify a given response with a given learner.

Confidentiality was achieved by keeping the learner's responses accessible only to the researcher and research supervisor, as well as the data only being presented in an aggregate form.

3.6.3 Coercion

No form of coercion for learners to participate in the research study was used. Learners were assured that their involvement or lack of involvement in the research study was entirely voluntary and that non-participation would not lead to any form of prejudice.

3.6.4 Deception

No form of deception was used in the study

3.6. 5 Physical harm, Psychological abuse, Stress or Legal Jeopardy

This research study did not contain any catalyst that may have resulted in physical harm, psychological abuse or increasing an individual's risk of attempting suicide. However, because of the sensitive nature of the topic being researched, learners were provided with the details of the University of KwaZulu Natal's Psychology Clinic as well as other independent agencies, should any trauma or concerns arise due as a result of completing the questionnaires.

CHAPTER FOUR

RESULTS

4.1 Introduction

The hypotheses in this study related to the central question of the relationship between Bonding Family Social Capital and Bonding Peer Social Capital and adolescent suicide risk. ‘At risk’ adolescents are defined as those learners who had suicide ideation and includes learners who reported having attempted suicide as well as those who reported suicide ideation but had not attempted suicide. ‘Not at risk’ learners are defined as those learners having no suicide ideation or previous suicide attempts. In addition, a further level of analysis was done on the ‘at risk’ sub-sample to assess whether those who had attempted suicide, and were considered to be even greater risk than those with suicide ideation only, had lower levels of bonding family and peer social capital.

In this chapter, the results of the statistical analyses used to test the hypotheses of the study are presented. Adolescent suicide risk behaviours for the full sample are first reported. Subsequently, intercorrelations between measures of Bonding Family Social Capital and Bonding Peer Social Capital are highlighted. Results for the analyses on the ‘at risk’ sub-group are finally presented. A statistical level of significance of $p \leq 0.05$ is used as the acceptable level for the purpose of this study.

4.1.1 Abbreviations Key

Mean = M

Standard Deviation= SD

Degrees of Freedom= df

Number of adolescents= n

4.2 Adolescent Suicide Risk Behaviours of the Full Sample

4.2.1 Demographic Profile

Table 4 shows the demographic variables of the participants in the study. It shows the distribution of respondents to gender, age, grade and race.

The age of participants ranged from 14 years to 18+ years. A total of 11.2% of the participants were 14 years while 23.9% were 15 years. The largest percentage of participants (26.6%), were 16 years. 17% were 17 years and 20.8% were 18 years or older.

Female participants constituted 56% of the sample while male participants constituted 44%.

The largest proportion of participants i.e. 45.6%, were 11th graders, while 42.1% were from the 10th grader and 12% were from the 9th grade.

In terms of race, 81.1% of participants were Black/African, while 14.3% were Asian/Indian and 4.6% were Coloured/Mixed race. There were no White participants.

A total of 19.7% of the participants were identified as being ‘at risk’ of suicide. These were the proportion of participants who reported having attempted suicide previously (6.2%) as well as those who had not previously attempted suicide but reported suicide ideation (13.5%).

Table 4: Demographic characteristics of participants (N = 259)

Characteristic	Category	Frequency	Percentage of total sample
Age	14 years	29	11.2%
	15 years	62	23.9%
	16 years	69	26.6%
	17 years	45	17.4%
	18 years or older	54	20.8%
Gender	Female	145	56.0%
	Male	114	44.0%
Grade	9th grade	31	12.0%
	10th grade	109	42.1%
	11th grade	119	45.9%
Race	Black African	210	81.1%
	Asian Indian	37	14.3%
	Coloured Mixed race	12	4.6%
Adolescent Suicide Risk	Ideation, Attempted suicide	16	6.2%
	Ideation, Did not attempt suicide	35	13.5%
	No ideation/previous attempts	208	80.3%

4.2.2 Gender Differences in Bonding Family Social Capital and Bonding Peer Social Capital (N=259)

Table 5 reflects the results of the T-test between male and female learners with regards to Bonding Family Social Capital and Bonding Peer Social Capital.

There is no significant difference in the mean scores ($p < 0.05$) in Bonding Family Social Capital between male and female learners. The mean Bonding Family Social Capital is $M = 3.10$ for both male ($SD = 0.93$) and female ($SD = 1.14$) learners.

There is no significant difference in the mean scores ($p < 0.05$) in Bonding Peer Social Capital between male and female learners. The mean value for male learners is $M = 2.87$, ($SD = 0.94$) and the mean value for female learners $M = 2.98$ ($SD = 1.25$).

Table 5: Comparison of Bonding Family Social Capital and Bonding Peer Social Capital between male and female learners using the T-test (N=259)

	Gender	n	Mean (M)	Std. Deviation (SD)	t	df	p
Bonding Family Social Capital	Female	145	3.10	1.14	0.027	256.69	0.978
	Male	114	3.10	0.93			
Bonding Peer Social Capital	Female	145	2.98	1.25	0.770	257	0.442
	Male	114	2.87	0.94			

4.2.3 Correlations between Age, Bonding Family Social Capital and Bonding Peer Social Capital

Pearson correlation was computed to investigate the relationship between Bonding Family Social Capital and Bonding Peer Social Capital. Table 6 reflects the results of the Pearson correlation test. Age is significantly correlated with both Bonding Family Social Capital and Bonding Peer Social Capital ($p < 0.05$). There is a weak negative relationship between age and Bonding Family Social Capital ($r = -0.192$) indicating a weak correlation between age and Bonding Family Social Capital. However, older learners have a lower Bonding Family Social Capital while younger learners have a higher Bonding Family Social Capital

There is also a weak negative relationship between age and Bonding Peer Social Capital ($r = -0.192$) indicating a weak correlation between age and Bonding Peer Social Capital. However, again older learners have a lower Bonding Peer Social Capital while younger learners have a higher Bonding Peer Social Capital

Table 6: Pearson Correlation between Bonding Family Social Capital and Bonding Peer Social Capital with age of learners (N=259)

		Bonding Family Social Capital	Bonding Peer Social Capital
Age	Pearson r	-0.192	-0.181
	p	0.002*	0.003*
	N	259	259

* significant at the 0.05 level

4.2.4 Intercorrelations between Bonding Family Social Capital and Bonding Peer Social Capital

The Pearson Correlation between Bonding Family Social Capital and Bonding Peer Social Capital is significant at the 99% level ($p < 0.01$). These results are reflected in Table 7. There is a strong positive relationship between the two variables indicating that both Bonding Family Social Capital and Bonding Peer Social Capital can be predicted from each other. Adolescents who have a high mean Bonding Family Social Capital will also have a high mean Bonding Peer Social Capital and vice versa.

Table 7: Pearson Correlation between Bonding Family Social Capital and Bonding Peer Social Capital (N=259)

		Bonding Family Social Capital
Bonding Peer Social Capital	Pearson r	0.791
	p	0.001*
	N	259

* significant at the 0.01 level

4.2.5 Differences in Bonding Family Social Capital and Bonding Peer Social Capital for 'at risk' and 'not at risk' learners' using the total sample.

The independent samples t-test was computed to compare the differences between learners who are 'at risk' and those who are 'not at risk' with regards to their mean scores on Bonding Family Social Capital and Bonding Peer Social Capital.

Table 8 reflects that there is a significant difference at the 95% level in the Bonding Family Social Capital between learners who are ‘at risk’ of adolescent suicide and those who are ‘not at risk’ ($p < 0.05$). ‘At risk’ learners have a lower mean Bonding Family Social Capital ($M = 2.81$, $SD = 1.07$) than those learners who are ‘not at risk’ ($M = 3.17$, $SD = 1.03$).

Table 8 further reflects that there is a significant difference at the 95% level in the Bonding Peer Social Capital between learners who are ‘at risk’ of adolescent suicide and those who are not ($p < 0.05$). Again, ‘at risk’ learners have a lower mean in terms of the Bonding Peer Social Capital ($M = 2.64$, $SD = 1.24$) than those learners who are ‘not at risk’ ($M = 3.01$, $SD = 1.28$).

Table 8: Comparison of Bonding Family Social Capital and Bonding Peer Social Capital between learners who are ‘at risk’ and those who are not using the T-test (N=259)

	Adolescent Suicide Risk	n	Mean (M)	Std. Deviation (SD)	t	Df	p
Bonding Family Social Capital	‘at risk’	51	2.81	1.07	-2.234	257	0.026*
	‘Not at risk’	208	3.17	1.03			
Bonding Peer Social Capital	‘at risk’	51	2.64	1.24	-2.125	257	0.035*
	‘Not at risk’	208	3.01	1.08			

* significant at the 0.05 level

4.3 Analyses of Adolescents who are ‘at risk’ of suicide (N=51)

4.3.1 Biographical Profile of ‘at risk’ Adolescents.

4.3.1.1 Age

The data in table 9 reflects the age profile of ‘at risk’ learners. A total of 25.5% of ‘at risk’ learners are 15 years, while 23.5% are 16 years and 27.5% are 17 years

Table 9: Comparison of Age and Adolescents who were ‘at risk’

Age	Frequency	Percent
14 years	2	3.9
15 years	13	25.5
16 years	12	23.5
17 years	14	27.5
18 years or older	10	19.6
Total	51	100.0

4.3.1.2 Gender

The data in Table 10 reflects the gender profile of learners who are ‘at risk’. A total of 60.8% of female learners were categorized as ‘at risk’ as compared to 39.2% of the male learners.

Table 10: Comparison of Gender and Adolescents who were ‘at risk’

Gender	Frequency	Percent
Female	31	60.8
Male	20	39.2
Total	51	100.0

4.3.1.3 Grade

The results in Table 11 reflect that the largest proportion of ‘at risk’ learners are from Grade 11 while 29.4% are from Grade 10 and 11.8% are from grade 9.

Table 11: Comparison of Grade and Adolescents who were ‘at risk’

Grade	Frequency	Percent
9th grade	6	11.8
10th grade	15	29.4
11th grade	30	58.8
Total	51	100.0

4.3.2 Descriptive Statistics of ‘at risk’ adolescents: Frequency Tables between ‘at risk’ adolescents and Items from the Youth Risk Survey

4.3.2.1 Youth Risk Survey 19 – Number of Attempted Suicide

The results in Table 12 reflect the number of times that ‘at risk’ learners actually attempted suicide. A total of 68.6% of the learners did not attempt suicide while 25.5% made 2 or 3 attempts and 5.9% made at least 4 attempts

Table 12: Comparison of between Youth Risk Survey Item 19 (Number of suicide attempts) and Adolescents who were ‘at risk’

No of times attempted suicide	Frequency	Percent
0 times	35	68.6
2 or 3 times	13	25.5
4 or 5 times	2	3.9
6 or more times	1	2.0
Total	51	100.0

4.3.2.2 Youth Risk Survey 20- Requirement of treatment after suicide attempt

The results in Table 13 show that of the 16 learners who attempted suicide, 25% required medical treatment while 75% required no treatment

Table 13: Comparison between Youth Risk Survey Item 20 (the requirement for treatment after a suicide attempt or not) and Adolescents who were ‘at risk’

Youth Risk Survey Item 20	Frequency	Percent
Required treatment after suicide attempt	4	25
No treatment required after suicide attempt	12	75
Total	16	100.0

4.3.3 Differences in Bonding Family Social Capital and Bonding Peer Social Capital between adolescents with ideation but did not attempt suicide and those with ideation/and did attempt for the ‘at risk’ group.

Table 14 reflects that there is no significant difference in the Bonding Family Social Capital or the Bonding Peer Social Capital at the 95% level ($p < 0.05$) within the Suicide ideation group between those who attempted suicide and those who did not attempt suicide.

Table 14: Comparison of Bonding Family Social Capital and Bonding Peer Social Capital between learners who had suicide ideation and did not attempt suicide against those who attempted suicide using the T-test (N=51)

	Adolescent Suicide Ideation	n	Mean (M)	Std. Deviation (SD)	t	df	P
Bonding Family Social Capital	Did not attempt suicide	35	2.75	1.14	-0.614	49	.542
	Attempted Suicide	16	2.95	.93			
Bonding Peer Social Capital	Did not attempt suicide	35	2.66	1.25	0.214	49	.831
	Attempted Suicide	16	2.58	1.26			

* significant at the 0.05 level

CHAPTER FIVE **DISCUSSION**

5.1 Introduction

In this chapter, the results from chapter four are discussed in relation to the hypotheses of the study and relevant literature and theoretical framework. The relationship between bonding family and bonding peer social capital, using the total sample, is first explored. This included an analysis of the gender and age differences in bonding family social capital and bonding peer social capital. The intercorrelation between family social capital and peer social capital is then discussed before examining the differences in bonding family social capital and bonding peer social capital for ‘at risk’ and ‘not at risk’ learners of the total sample. The biographical profiles of ‘at risk’ students in terms of their age, gender and grade are then discussed as well as the lack of any significant differences in bonding peer and family social capital between those who had attempted suicide and those with suicide ideation only. Finally, the limitations of the study are discussed, ending with recommendations for future use.

5.2 Demographic profile of the total sample of Adolescents (N= 259)

5.2.1 Gender Differences in Bonding Family Social Capital and Bonding Peer Social Capital for the Total Sample

The results of this study indicated that there was no significant difference in the means between the genders in bonding family social capital and bonding peer social capital. These findings are consistent with that of Poortinga (2006), who found no gender differences in bonding social capital when investigating the health effects of bonding social capital on 7988 adults in England.

5.2.2 Age Differences in Bonding Family Social Capital and Bonding Peer Social Capital for the Total Sample.

The results of the study indicated that older adolescents had a lower Bonding Family Social Capital while younger adolescents had a higher Bonding Family Social Capital. Similarly, older adolescents were found to have had a lower Bonding Peer Social Capital while younger adolescents were found to have had a higher Bonding Peer Social Capital.

Traditionally, within developmental psychology, adolescence has been viewed as a phase during which adolescents turn to their peers for the emotional support that was previously provided by their parents (Ayyash-Abdo, 2002) i.e. a movement away from the family unit toward an identity within their group. By this reasoning, it would be expected that globally for all adolescents, there would be a difference in the levels of Bonding Family Social Capital and Bonding Peer Social Capital, with older adolescents tending to have higher Bonding Peer Social Capital and lower Bonding Family Social Capital and younger adolescents tending to have a higher Bonding Family Social Capital and a lower Bonding Family Social Capital. Although not explaining fully, contemporary developmentalists, Breinbauer and Maddaleno (2005), provide an alternate and practical viewpoint that provides a supportive theoretical basis for the findings of this study. They argue that given the significant psychological and social growth taking place during this phase, it is over simplistic, to view adolescence as one homogenous phase, generalisable to all adolescents. Instead, the adolescent years should be viewed as a series of stages during which different biological, cognitive and socio-emotional changes occur with differences in development attributable to gender, ethnic culture, religious beliefs and other factors that vary around the world. In fact, this paradigm of thinking views late adolescence as a time associated with decreased peer social capital, which is consistent with the findings of the study that shows a decrease in Bonding Peer Social Capital from early adolescents to late adolescents. Older adolescence is typically accompanied by an increase in emotional autonomy and independence (Breinbauer & Maddaleno (2005). This developmental move towards independence combined with the added pressure of academics and the choice of future vocations, may result in an isolation that prevents

them from activating the resources of social capital available to them. The possibility of older adolescents initiating access to other forms of social capital besides peers, even if only for a limited period and extent, may also be worth investigating, since this would allow them to gain access, support, and information from members that are outside their group that they could not have otherwise accessed from members within their group (e.g. religious institutions, or universities career counselors) (Larsen, Harlan, Bolin, Hackett, Hope, Kirby, Nelson, Rex & Wolf, 2004).

The low levels of both Bonding Family Social Capital and Bonding Peer Social Capital in the older adolescents of this study may also be explained using Durkheim's concept of egoism, which falls on the low end of Durkheim's integration continuum (Johnson, 1965). Egoism exists when the common conscience is weak (i.e. there are few common threads bonding members of a group together), interaction is limited (no extra curricular activities due to academic performance pressure), and dedication to self interests rather than to those of the collective (e.g. older adolescents being preoccupied with their new 'identities' and therefore privileges, that they will take on after leaving school as opposed to younger adolescents' first arriving at secondary school with the greater need to form stronger bonds for the purpose of gaining access to resources that would not otherwise be attainable with out these ties). According to Durkheim, these groups are more susceptible to suicide because when an individual has weak integration, 'life drives no meaning and purpose from the group, and is readily surrendered' (Johnson, 1965, p. 876). This is also consistent with the later findings of the study that show older adolescents, with lower Bonding Family Social Capital and Bonding Peer Social Capital having more suicide risk than the younger adolescents, with higher Bonding Family Social Capital and Bonding Peer Social Capital.

5.3 Intercorrelations between Bonding Family Social Capital and Bonding Peer Social Capital

The results of the study indicate that adolescents who have a high mean Bonding Family Social Capital were found to also have a high mean Bonding Peer Social Capital. Similarly, adolescents who have a low mean Bonding Family Social Capital were also found to have a low mean Bonding Peer Social Capital.

A possible explanation for these findings is found in Coleman's (Furstenberg & Hughes, 1995) proposition that individuals who are already embedded in dense and bounded social networks are more likely to accumulate social capital through their involvement in these social relationships and networks. These investments in turn generate social capital as a resource upon which individuals may draw to enhance their opportunities i.e. it may be argued that adolescents with high Bonding Family Social Capital are integrated into their family social networks through which they also access social capital at the peer level. This access to bonding social capital at the family and peer level may in turn be seen to intensify existing support networks (Harpham, Grant & Thomas, 2002), thereby leading to higher levels of Bonding Social Capital at each level.

5.4 Differences in Bonding Family Social Capital and Bonding Peer Social Capital for 'at risk' and 'not at risk' learners' using the total sample.

Of the total sample of 259 adolescents, 208 (80.3%) of adolescents were found to be 'not at risk' (i.e. did not report suicide ideation or attempted suicide), while 51(19.7%) were found to be 'at risk' (i.e. reported feelings of suicide ideation and/or attempted suicide).

The results of the study indicated that those adolescents who were categorized as being not 'at risk' had a significantly ($p < 0.05$) higher Bonding Family Social Capital than those adolescents who were categorized as being 'at risk'.

Similarly, the results also indicated that those adolescents who were categorized as being not 'at risk' had a significantly ($p < 0.05$) higher Bonding Peer Social Capital than those adolescents who were categorized as being 'at risk'.

5.4.1 The link between Social Capital and Adolescent Suicide Risk

The above findings indicate that a relationship between suicide risk (ideation and attempt) and social capital exists. These findings are consistent with available research. The theoretical framework for this study i.e. Durkheim's theory of suicide, provides a theoretical basis for understanding how suicide and social capital can be linked. While Durkheim never used the contemporary language of social capital, there is a significant overlap between Durkheimian philosophies and the modern tenets of social capital and its importance in understanding suicide risk (Irwin, Fitzpatrick, LaGory & Ritchey, 2007). This is made evident in Durkheim's proposition that when social bonds disintegrate (i.e. there is a decrease in bonding social capital), an individual becomes detached from social life, resulting in an increase in suicide risk.

Following in the Durkheimian paradigm of thought, the contemporary theorist, Putnam's (Mayer, 2004) examination of suicide trends over the last half of the twentieth century, concurs by further extrapolating this link between levels of social capital and suicide risk. He explained that the epidemic of suicide among American youth in the last 50 years of the last century coincided with an equally remarkable decline in suicide among older groups. According to Putnam, 'as the twentieth century ended, Americans born and raised in the 1920's and 1930's were about half as likely to commit suicide whereas Americans born and raised in the 1970's and 1980's were three or four times more likely to commit suicide.' (Putnam, 2000, p. 262 cited in Mayer, 2004). He attributed this difference in suicide rates to different levels of social capital between what he called "well- integrated" older generation and the "less-integrated" younger generation. Putnam attributes this phenomenon to the "rampant individualism" of American adolescents, which, according to Putnam, places them towards the lower spectrum of Bonding Social Capital, causing social isolation and placing them 'at risk' of what Durkheim calls

egoistic suicide (Mayer, 2004). In its extreme form, egoistic suicide, according to Durkheim (Bearman, 1991), is the suicide of a highly individuated person with weak bonds to others across all spheres of social life. It represents the loss of social cohesion due to an individual's lack of integration into his/hers primary social networks (Kunitz, 2004), and is regarded as a consequence of the deterioration of social bonds (Kushner & Sterk, 2005). Durkheim focused on egoistic suicide because he regarded it as a statistically viable measure of the decline in social capital in modern society (Kushner & Sterk, 2005).

5.4.2 Bonding Family Social Capital, Bonding Peer Social Capital and Suicide Risk

In the review of relevant literature, the family network is often regarded as a “well spring” of social capital generation or degeneration (Edwards, Franklin & Holland, 2003).

According to the social capitalist theorist Coleman, families are placed centre stage as a primordial organization and can be viewed as exemplars of ‘Bonding Social Capital’ and a positive feature of social capital generation. He identified social capital as a resource within the family that is inherent in the structure of intergenerational relationships, especially the relationship between parents and their children (Edwards, Franklin & Holland, 2003). Density, derived from the quantity and intensity of family relationships, attaches family members to one another and to common goals and strengthens collective sentiments (Thorlindsson & Bjarnaon, 1998). There is a continuity of emotional bonds between parents and the adolescent as opposed to emotional distancing, that buffers the adolescent from psycho-social stressors (Baer, 2002) that may increase suicide risk (i.e. ideation and attempt) in adolescents. The link between Bonding Family Social Capital in relation to suicide risk in adolescents found in this study is supported by a study by Hall-Lande (2007), who, using a sample consisting of 4,746 pupils in grades 7-12 from 31 public schools in the USA, found that family connectedness, provided a buffer against suicide attempts.

Similarly, the family may also be seen as a source of social capital degeneration. Just as various interactions within the family will have a positive effect in the families with strong and supportive relations among family members, various interactions in a dysfunctional family may have serious negative effects on individual family members (Thorlindsson & Bjarnason, 1998). There are a number of features in contemporary life that facilitate the degeneration of social capital within the family. These include changes in a healthy family structure, such as a single parent household, parental substance abuse, “absent” working parents, a decrease of extended family households, as well as, patterns of modern market- led consumption such as generation specific leisure activities (e.g. video games) and youth orientated mass media and communication technology (e.g. the ever popular communication tool, “facebook”). These changes push aside the family as the nucleus of social organization leading youth away from parent-generated norms towards weaker Bonding Family Social Capital and Durkheim’s egoistic suicide risk (Edwards, Franklin & Holland, 2003). This is exemplified in the study by Morano, Cisler and Lemerond (1993), who investigated risk factors for adolescent suicidal behaviour, using a sample of 40 white middle-class adolescents, aged 13-18 from an inpatient psychiatric facility in the USA. Results of the study indicated that suicide attempters reported significantly less family support than non attempters. Additional empirical support is evidenced in a study by Bertera (2007), which investigated the role of positive and negative social exchanges between adolescents and their family and peers, using a random sample of 1591 adolescents from the US National Comorbidity Survey. The study found that the level of negative social exchanges (defined as a lack of socio-emotional support from adolescents social network) within the family was positively associated with suicide ideation scores even after controlling for other effects.

Of additional consequence to this study, is the finding by Bertera (2007), which observed a buffering effect for positive exchanges (socio-emotional support from social network) with peers, which was inversely associated with suicide ideation, indicating the central role that peers have during adolescence. Peer relationships assume an important and central role in the adolescents’ social world (Smedley & Leonard, 2000). The social provisions attributed to friendships consist of intimacy, trust, support. Those attributed to

peer acceptance include companionship and having a sense of connection to the larger group. These features of peer experience play distinctive roles in the adolescents' development as contributors to well-being and in terms of their ameliorative functions for 'at risk' adolescents (Criss, Pettit, Bates, Dodge & Lapp, 2002).

Low levels of peer social capital may have a negative effect on adolescent suicide risk as was found in this study. Negative peer relationships that may involve peer rejection, has been associated with adolescent maladjustment (Smedley & Leonard, 2000). While most adolescents move through adolescence increasing their bonds of attachments to peers, some adolescents fail to connect with others, leading to social isolation (Kreager, 2004). The negative effects of Bonding Peer Social Capital and suicide risk is evidenced by the study by Bearman and Moody (2004). Analyzing friendship data on 13 465 adolescents from the American National Longitudinal Survey of Adolescent Health, the results of the study found that, for girls, being socially isolated from their peers, substantially increased the odds of suicide ideation. For adolescent males who had contemplated suicide, those who attended schools with few social ties were at increased risk of attempting suicide relative to those with tightly knit friendship networks.

5.5 Biographical profiles of 'at risk' students in terms of their age, gender and grade

5.5.1. Comparison between Age and Adolescents who are 'at risk' i.e. those who had suicide ideation and/or attempt

Of the sample that were categorized at being 'at risk', there were fewer learners in the 14 year age group compared to the 15-17 year age groups. The results indicate that the lowest incidence of suicide risk was in the age group 14 years with an incidence of just 3.9% of the total for the 'at risk' group. This is of interest as this age group also reported the highest level of bonding family social capital and bonding peer social capital. This lends credibility to social capital research discussed throughout the span of this study,

which suggests that higher levels of social capital are associated with lower levels of suicide ideation and attempt.

5.5.2 Comparison between Gender and Adolescents who are ‘at risk’ i.e. those who had suicide ideation and/or attempt

Of the adolescents that were categorized as being ‘at risk’ (n=51) the results indicated that within this sample more female adolescents (60.8%) were at suicide risk as compared to males (39.2%). This findings are of interest and there were no gender differences in levels of Bonding Family Social Capital and Bonding Peer Social Capital in the analysis of the total sample (N=259). These findings are, however, consistent with previous research in South Africa which shows that females have higher suicide ideation then their male counterparts (Meehan, 2004). Internationally, completed suicide is, however, greater among males because of their tendency to utilize methods of more potential lethality (Brent, 1998).

5.6 Differences in Bonding Family Social Capital and Bonding Peer Social Capital for “at risk” adolescents

The results indicate that there is no significant difference in the means between the Bonding Family Social Capital and Bonding Peer Social Capital between those adolescents who had suicide ideation but did not attempt suicide and those adolescents who had suicide ideation and had attempted suicide in the ‘at risk’ group. Suicide ideation is viewed as the mildest form of suicidal behaviour along the suicide behaviour continuum but is viewed as a precursor and prerequisite to suicide attempt and risk (Kgosimore and Makofane, 2006). Therefore, it may be expected that that there might have been a difference in Bonding Family Social Capital and Bonding Peer Social Capital between those adolescents who had suicide ideation only and those adolescents for had suicide ideation and suicide attempt. This however, was not the finding of this research study.

Possible reasons for this could be that Bonding Family Social Capital and Bonding Peer Social Capital were already low in the ‘at risk’ group and that other protective and risk factors, not examined in this study, come into play in the more ‘at risk’ adolescents’ life that move their thoughts and action from ideation to attempt.

5.7 Limitations of the Study

- The sample was extracted from a single school in the Durban Metropolitan, KwaZulu Natal, implying that all the learners were of one socio-economic class. This sample is therefore not representative of all South African adolescents. Therefore, these findings can not be generalized or extrapolated to South African adolescents.
- Due to the fact that this sample was drawn from one socio-economic group that was not equally racially representative, there was no exploration of cultural diversity its impact on bonding family and peer social capital and suicide risk.
- The study also relied on self- report measures. These tend to be transient in nature especially when the content of the study requires responses that may be affected by the respondent’s emotional state at the time. These measures are also subject to memory problems and social desirability bias. Findings were only based on anonymous self report with no independent verification of important variables such as whether a subject had actually had suicide ideation or had made an attempt.
- The data collection measures for bonding family social capital and bonding peer social capital were adapted from the Health Survey for England (Poortinga, 2006). As stated earlier, the lack of consensus on an empirical definition of social capital and therefore a standardized measure, indicates that generalizations or inferences to other social capital studies needs to be driven with caution.
- The sample comprised of volunteers and is therefore subject to volunteer bias. Voluntary participation goes directly against a variety of concerns within the scientific paradigm. The scientific goal of generalization is threatened when participants are all the kinds of people who willingly participate due to the fact

- Finally, although this study showed a relationship exists between bonding family social capital and bonding peer social capital and suicide risk, the design of the study does not allow one to determine causality in this relationship.

5.8 Conclusion and Recommendations

Suicide rates for adolescents have tripled in the past century (Cutler, Glaeser & Norberg, 2000). Given Durkheim's postulation that suicide rates are indicative of a particular society's breakdown in social bonds (contemporarily known as a decrease in Bonding Social Capital) (Bearman, 1991), this research study sort to investigate the association of Bonding Social Capital both in relation to suicide risk and to the two most important sources of bonding social capital in an adolescent's life, i.e. their family and peers. The results of the study indicated that there is indeed an association between Bonding Family Social Capital and Bonding Peer Social Capital and suicide risk. Those adolescents categorized as being 'at risk' (i.e. having suicide ideation and/or suicide attempt) were found to have lower levels of Bonding Family Social Capital and Bonding Peer Social Capital, as compared to those adolescents categorized as being 'not at risk' i.e. no suicide ideation and attempt.

The following research project therefore lends evidence to the ongoing contemporary debate as to the possible benefits of Social Capital in Mental Health research. It contributes to the theory of knowledge needed for future interventions in decreasing the adolescent suicide epidemic. A few recommendations that may possibly aid this process, follows:

- In order for the empirical replication and comparison of social capital research to occur, a universally accepted empirical and operational definition of social capital needs to be decided upon. Until then, its potential benefit to mental health research will continue to be vague.

- Although the family and peer group are acknowledged as being an essential source of social capital, both these groups have been largely overlooked in the empirical social capital literature. The detailed examination of these important sources of social capital, in future research, is therefore of paramount importance.
- Bonding Social Capital, in this study, was measured as a positive attribute for the individual. However, the negative aspects precipitated by belonging to a delinquent peer group or dysfunctional family unit need to be investigated in order to provide an additional dimension of understanding of this complex construct.

REFERENCES

- Adler, P. S & Kwon, S. (2002). Social Capital: Prospects for a new concept. *The Academy of Management Review*, 27(1), 17-40.
- Agerbo, E., Nordentoft, M., & Mortensen, P. B. (2002). Familial, psychiatric and socioeconomic risk factors for suicide in young people: nested case- control study. *BMJ*, 325, 74- 78.
- Ayyash-Abdo, H. (2002). Adolescent Suicide: An Ecological Approach. *Psychology in the Schools*, 39(4), 459-475.
- Babbie, E., & Mouton, J. (2001). *The Practice of Social Research*. Cape Town: Oxford University Press Southern Africa.
- Baer, J. (2002). Is Family Cohesion a risk or protective factor during Adolescent Development? *Journal of Marriage and the Family*, 64 (3), 668-675.
- Bearman, P. S. (1991). The Social Structure of Suicide. *Sociological Forum*, 6(3), 501-524.
- Bearman, P. S., & Moody, J. (2004). Suicide and Friendship among American Adolescents. *American Journal of Public Health*, 94(1), 89-95.
- Bertera, E. M. (2007). The Role of Positive and Negative Social Exchanges Between Adolescents, their Peers and Family as Predictors of Suicide Ideation. *Child Adolescence Social Work Journal*, 24, 523-538.
- Borowsky, I. W., & Resnick, M. D. (2001). Adolescent suicide attempts: risks and protectors. *Pediatrics*, 107(3), 485-493.

Breinbauer, C. & Maddeleno, M. (2005). *Youth Choices and Change: Promoting Healthy Behaviours in Adolescents*. Washington D. C.: Scientific and Technical Publication.

Brent, A. D. (1998). Suicide/Suicidal Behaviour. *Gale Encyclopedia of Childhood & Adolescence*.

URL

http://findarticles.com/p/articles/mi_g2602/is_0005/ai_2602000512/print?tag=artBody;coll

April 23, 2008

Bridge, J. A., Goldstein, T. R., & Brent, D. A. (2006). Adolescent suicide and suicidal behaviour. *Journal of Child Psychology and Psychiatry*, 47(3), 372-394.

Burrows, S. (2005). Suicide mortality in the South African context: Exploring the role of social status and environmental circumstances. Department of Public Health Sciences: Sweden.

Burrows, S., & Laflamme, L. (2006). Suicide mortality in South Africa: A city- level comparison across socio-demographic groups. *Social Psychiatry, Psychiatric Epidemiology*, 41, 108-114.

Burrows, S., Vaez, M., Butchart, A., & Laflamme, L. (2003). The share of suicide in injury deaths in the South Africa context: sociodemographic distribution. *Public Health*, 117, 3- 10.

Carpiano, R. M. (2006). Toward a neighborhood resource-based theory of social capital for health: Can Bourdieu and sociology help? *Social Science & Medicine*, 62, 165-175.

Centers for Disease Control and Prevention. (2006). *Suicide Mortality Query*.

URL

<http://.cdc.gov/>

9 January 2006

- Criss, M. M., Pettit, G. S., Bates, J. E., Dodge, K. A., & Lapp, A. L. (2002). Family Adversity, Positive Peer Relationships, and Children's Externalizing Behaviour: A Longitudinal Perspective on Risk and Resilience. *Child Development*, 73(4), 1220-1237.
- Cutler, D. M., Glaeser, E. L., & Norberg, K. E. (2000). Explaining the Rise in Youth Suicide. **NBER Working Paper No. 7713** (Cambridge: National Bureau of economic Research).
- Edwards, R., Franklin, J., & Holland, J. (2003). Families and Social Capital: Exploring the Issues. **ESRC Research Group Working Paper No. 1** (London: Families & Social Capital).
- Emirbayer, M. (1996). Useful Durkheim. *Sociological Theory*, 14(2), 109- 130.
- Farr, J. (2004). Social Capital: A Conceptual History. *Political History*, 32(1), 6-33.
- Field, T., Diego, M., & Saunders, D. E. (2001). Adolescent Suicide Ideation- Statistical Data Included. *Adolescence*, 33, 1-6.
- Fitzpatrick, K. M., Piko, B. F., Wright, D. R., & LaGory, M. (2005). Depressive Symptomatology, Exposure to Violence, and the Role of Social Capital among African American Adolescents. *American Journal of Orthopsychiatry*, 75 (2), 262- 274.
- Flisher, A. J., Reddy, P., Muller, M., & Lombard, C. (2003). Sexual Behaviour of Cape Town High School Students. *South African Medical Journal*, 93, 1261- 1269.

Frey, K. (1998). *Introduction to Resiliency*.

URL

http://www.tucsonresiliency.org/introduction_to_resiliency.pdf/

3 June 2006).

Furstenberg, F. F., & Hughes, M. E. (1995). Social Capital and Successful Development among At- Risk Youth. *Journal of Marriage and the Family*, 57(3), 580-592.

Gutierrez, P.M. (2006). Integratively Assessing Risk and Protective Factors for Adolescent Suicide. *Suicide and Life- Threatening Behaviour*, 36(2), 129- 135.

Hall-Lande, J. A. (2007). Social Isolation, Psychological Health, and Protective Factors in Adolescence. *Adolescence*, 42(166), 265-286.

Harpham, T., Grant, E., & Thomas, E. (2002). Measuring Social Capital within Health Surveys: Key Issues. *Health Policy and Planning*, 17(1), 106-111.

Haynie, D. L., South, S. J., & Bose, S. (2006). Residential Mobility and Attempted Suicide among Adolescents: An Individual- Level Analysis. *The Sociological Quarterly*, 47, 693-721.

Helliwell, J. F. (2004). Well- being and social capital: Does suicide pose a puzzle? **NBER Working Paper**. (Cambridge: National Bureau of economic Research)

Helliwell, J. F., & Putnam, R.D. (2004). The Social Context of Wellbeing. *Philosophical Transactions: Biological Sciences*, 359(1449), 1435- 1446.

Henderson, S., & Whiteford, H. (2003). Commentary: Social Capital and Mental Health. *The Lancet*, 362, 505-506.

- Herrera, A., Dahlblom, K., Dahlgren, L., & Kullgren, G. (2006). Pathways to suicidal behaviour among adolescent girls in Nicaragua. *Social science & Medicine*, 62, 805-814.
- Holinger, P. C. & Offer, D. (1982). Prediction of Adolescent Suicide: A Population Model. *American Journal of Psychiatry*, 139(3), 302-307.
- Irwin, J., Fitzpatrick, K. M., LaGory, M., & Ritchey, F. (2007). Social capital and Suicide Ideation among the Homeless. *Journal of Health Psychology*, 12(5), 750-760.
- Johnson, B. D. (1965). One Cause of Suicide. *American Sociological Review*, 30(6), 875-886.
- Johansson, L., Lindqvist, L., & Eriksson, A. (2006). Teenage Suicide Cluster Formation and Contagion: Implications for Primary Care. *BMC Family Practice*, 7(32), 1-5.
- Kawachi, I., Kim, D., Coutts, A., & Subramanian, S. V. (2004). Commentary: Reconciling the three accounts of social capital. *International Journal of Epidemiology*, 33, 682-690.
- Kerr, D. C. R., King, C. A., & Preuss, L. J. (2006). Suicidal Adolescents' social support from Family and Peers: gender- specific associations with psychopathology. *Journal of Abnormal Child Psychology*, 34, 99-110.
- Kgosimore, D. L., & Makofane, M. D. M. (2006). Self-Directed Violence: A Multidisciplinary Approach to the Prevention and Management of Adolescent Suicidal Behaviour. *Acta Criminologica*, 19(3), 89-101.
- Kimbrough, R. M., Molock, S. D., & Walton, K. (1996). Perception of Social Support, Acculturation, Depression, and Suicidal Ideation Among African American College

Students at Predominantly Black and Predominantly White Universities. *The Journal of Negro Education*, 65(3), 295-307.

Kirkcaldy, B. D., Eysenck, M. W., Siefen, G. R. (2004). Psychological and social predictors of suicidal ideation among young adolescents. *School Psychology International*, 25(3), 301-316.

Kunitz, J. S. (2004). Social Capital and Health. *British Medical Journal*, 69, 61-73.

Kushner, H. I., Sterk, K. E. (2005). The Limits of Social Capital: Durkheim, Suicide, Social Cohesion. *American Journal of Public Health*. 95(7), 1-5.

Larsen, L., Harlan, S. L., Bolin, B., Hackett, E. J., Hope, D., Kirby, A., Nelson, A., Rex, T. R., & Wolf, S. (2004). Bonding and Bridging: Understanding the Relationship between Social Capital and Civic Action. *Journal of Planning Education and Research*, 24, 64-77.

Leonard, M. (2004). Bonding and Bridging Capital: Reflections from Belfast. *Sociology*, 38(5), 927-944.

Locke, T. F., & Newcomb, M. D. (2005). Psychosocial predictors and correlates of suicidality in teenage Latino males. *Hispanic Journal Of Behavioural Sciences*, 27(3), 319-336.

Morano, C.D., Cisler, R. A., & Lemerond, J. (1993). Risk factors for adolescents suicidal behaviour: loss, insufficient familial support and hopelessness. *Adolescence*, 28, 234-245.

Mayer, P. (2004). Suicide and Civic Republicanism: Questioning Durkheim and Putnam. Proceedings of the 2004 Conference of the Australasian Political Studies Association, Adelaide, 29 September- 1 October 2004, pp. 1-20. Adelaide: University of Adelaide.

Medical Research Council South Africa. (2004). *A profile of Fatal injuries in South Africa. 6th Annual Report of the National Injury Mortality Surveillance System.*

URL

<http://www.sahealthinfo.org.za/violence/nimss.htm>.

10 March 2006

Meehan, S. A. (2004). Suicide Ideation in Adolescent South African: The Role of Gender and Coping Strategies. Unpublished master's thesis, University of Witwaterstrand, Gauteng, South Africa.

Middleton, A., Murie, A., & Groves, R. (2005). Social Capital and Neighbourhoods that Work. *Urban Studies*, 42(10), 1711-1738.

Mignone, J., & O'Neil, J. (2005). Social Capital and Youth Suicide Risk Factors in First Nations Communities. *Canadian Journal of Public Health*, 96, 51-54.

Narayan, D. (1999). *Bonds and Bridges: Social Capital and Poverty*. Washington DC: World Bank.

Patel, V., Flisher, A. J., Nikapota, A., & Malhotra, S. (2008). Promoting Child and Adolescent Health in Low and Middle Income Countries. *Journal of Child Psychology and Psychiatry*, 49(3), 313-334.

Pelling, M. & High, (2005). Understanding adoption: What can social capital offer assessments of adaptive capacity? *Global Environmental Change*, 1-12.

Poortinga, W. (2006). Social relations or social capital? Individual and community health effects of bonding social capital. *Social science & Medicine*, 63, 255-270.

- Portes, A. (2000). The Two Meanings of Social Capital. *Sociological Forum*, 15 (1), 1-12.
- Reese, F. D. (1968). School Age Suicide and the Educational Environment. *Theory into Practice*, 7(1), 10-13.
- Rodgers, B., & Rose, H. A. (2002). Risk and Resiliency Factors among Adolescents who experience Marital Transitions. *Journal of Marriage and the Family*, 64(4), 1024-1037.
- Rosenburg, H. J., Sengupta, A., & Wolford, G. L. (2005). Single and Multiple Suicide Attempts and Associated Health Risk Factors in New Hampshire Adolescents. *Suicide and Life- Threatening Behaviour*, 35(5), 547- 557.
- Simpson, L. (2005). Community Informatics and Sustainability: Why Social Capital Matters. *The Journal of Community Informatics*, 1(2), 102-119.
- Scocco, P., De Girolamo, G., Vilagut, G., Alonso, J. (2008). Prevalence of suicide ideation, plans, and attempts and related risk factors in Italy: Results from the European Study on the Epidemiology of Mental Disorders-World Mental Health study. *Comprehensive Psychiatry*, 49(1), 13-21.
- Shaffer, D.J. (1988). The Epidemiology of Teen Suicide: An Examination of Risk Factors, *Journal of Clinical Psychiatry*, 62, 36-41.
- Smedley, B. D., & Leonard, S. (2000). *Promoting Health: Intervention Strategies from Social and Behavioural Research*. Washington D. C.: National Academies Press.
- Springer, A., Parcel, G., Baumler, E., & Ross, M. (2005). Supportive social relationships and adolescent health risk behaviour among secondary school students in El Salvador. *Social science & Medicine*, 62, 1628-1640.

- Streubert, H. J. (1999). *Qualitative research in nursing*. Philadelphia: Lippincott.
- Terzi-Unsal, S., & Kapci, E. G. (2005). Risk Factors for Suicidal Behaviour: Psychosocial Risk factors with Turkish Adolescents. *Social Behaviour and Personality*, 33(6), 593-608.
- Thorlindsson, T., & Bjarnason, T. (1998). Modeling Durkheim on the Micro Level: A Study of Youth Suicidality. *American Sociological Review*, 63 (1), 94-110.
- Tomassini, C., Juel, K., Holm, N. V., & Christensen, K. (2003). Risk of Suicide in Twins: 51 year follow up study. *British Medical Journal*, 327 (7411), 373-4.
- Walsh, F. (2002). A Family Resilience Framework: Innovative Practice Applications. *Family Relations*, 51(2), 130-137.
- Watkins, M. A., & Gutierrez, P. M. (2003). The Relationship Between Exposure to Adolescent Suicide and Subsequent Suicide Risk. *Suicide and life- Threatening Behaviour*, 33(1), 21- 32.
- Withers, S., Rochelle, R., & O'Brien A. P. (2006). Suicide and Social Capital: A Samoan Perspective. *Health Sociology review*. 15 (2), 209-225.
- World Health Organisation. (2004). *Suicide rates and absolute numbers of suicide by country*.
 URL
http://www.who.int/mental_health/prevention/suicide/
 10 March 2006).

Yip, W., Subramanian, S. V., Mitchell, A., Lee, D., Wang, J., & Kawachi, I. (2005). Does Social Capital Enhance Health and Well- Being? Evidence from Rural China. Harvard School of Public Health, 1- 33.

Yoder, K. A., Hoyt, D. R., & Whitbeck, L. B. (1998). Suicidal Behaviour among Homeless and Runaway Adolescents. *Journal of Youth and Adolescence*, 27(6), 753-771.

APPENDIX A

LETTER OF CONSENT FROM THE SCHOOL

Sea Cow Lake Secondary School

TELE/FAX : (031) 564 6010

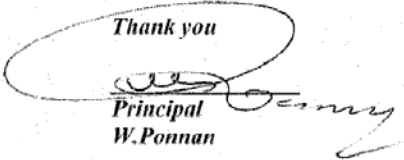
P.O. BOX 74742
ROCHDALE PARK
4034
17 MAY 2006

To:
Prof. I. Petersen

Sir

Permission is hereby granted to conduct your research at the above institution.

Thank you


Principal
W. Ponnar

SEA COW LAKE SEC. SCHOOL
P.O. BOX 74742
ROCHDALE PARK
4034

APPENDIX B

LETTER OF CONSENT FROM THE KWAZULU-NATAL, DEPARTMENT OF EDUCATION



PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI
PROVINSIE KWAZULU-NATAL

DEPARTMENT OF EDUCATION
UMNYANGO WEMFUNDO
DEPARTEMENT VAN ONDERWYS

Tel: 033 341 8523
Fax: 033 341 8512

Private Bag X9137
Pietermaritzburg
3200

228 Pietermaritzburg Street
Pietermaritzburg, 3201

P. 5
No. 4049

INHLONKHOV SI

PIETERMARITZBURG

HEAD OFFICE

Enquiries:
Imibuzo: M Francis
Navisic:

Reference:
Inkomba: 0224003
Verwysing:

Date:
Usuku:
Datum: 2/11/06

To: Keshnie Lalbahadur

RE: APPROVAL TO CONDUCT RESEARCH

Please be informed that your application to conduct research has been approved with the following terms and conditions:

That as a researcher, you must present a copy of the written permission from the Department to the Head of the Institution concerned before any research may be undertaken at a departmental institution bearing in mind that the institution is not obliged to participate if the research is not a departmental project.

~~Research should not be conducted during official contact time, as education programmes should not be interrupted, except in exceptional cases with special approval of the KZNDoE.~~

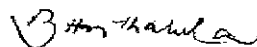
The research is not to be conducted during the fourth school term, except in cases where the KZNDoE deem it necessary to undertake research at schools during that period.

Should you wish to extend the period of research after approval has been granted, an application for extension must be directed to the Director: resource Planning.

The research will be limited to the schools or institutions for which approval has been granted.

A copy of the completed report, dissertation or thesis must be provided to the EMIS Directorate.

Lastly, you must sign the attached declaration that, you are aware of the procedures and will abide by the same.



for SUPERINTENDENT GENERAL
KwaZulu Natal Department of Education

8:45
2006



PROVINCE OF KWAZULU-NATAL
ISIFUNDAZWE SAKWAZULU-NATALI
PROVINSIE KWAZULU-NATAL

DEPARTMENT OF EDUCATION
UMANYANGO WEMFUNDO
DEPARTEMENT VAN ONDERWYS

Tel: 033 341 8523
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228 Pietermaritz Street
Pietermaritzburg, 3201

INHLOKOCHOV SI

PIETERMARITZBURG

HEAD OFFICE

Enquiries:
Imibuzo: M Francis
Nesibho: M Francis

References:
Isibombar: 822408
Yenayisig: M Francis

Date:
Usuku: 21/11/06
Dibano: 21/11/06

RE: PERMISSION TO CONDUCT RESEARCH

TO WHOM IT MAY CONCERN

This is to serve as a notice that Keshnie Lalbahadur has been granted permission to conduct research with the following terms and conditions:

- That as a researcher, he/she must present a copy of the written permission from the Department to the Head of the Institution concerned before any research may be undertaken at a departmental institution.
- Keshnie Lalbahadur has been granted special permission to conduct his/her research during official contact times, as it is believed that their presence would not interrupt education programmes. Should education programmes be interrupted, he/she must, therefore, conduct his/her research during nonofficial contact times.
- No school is expected to participate in the research during the fourth school term, as this is the critical period for schools to focus on their exams.

B M Thabane
for SUPERINTENDENT GENERAL
KwaZulu Natal Department of Education

APPENDIX C

ASSENT FORM

TITLE OF RESEARCH PROJECT: Understanding Youth Health Behaviour

Dear Participant

1. We are requesting your participation in this research study so that we can learn more about the behaviours that put your health at risk. The information you give will help us to develop better programmes to improve the health of young people like yourself.
2. The research will be conducted by Masters Clinical/Counselling/Health Promotion Psychology students from the University of Kwa- Zulu Natal under the supervision of Prof. Petersen.
3. If you agree to participate in this study, you will be asked questions about your health behaviour. Your identity will be anonymous. Following analysis of the data the questionnaires will be destroyed.
4. If you agree to participate, you will contribute to increasing our understanding of risk influences for poor health amongst the youth. This will help us devise ways to reduce risk influences and strengthen protective influences.
5. You are free to withdraw at any stage from participating in the study.
6. You may ask any questions about the study. Prof. Petersen is available on 260- 7423 and Prof. Anna Meyer- Weitz on 260- 7618.
7. Signing your name at the bottom means you agree to participate in this study.

I, _____ agree to participate in the study investigating youth health behaviour. I understand that my participation is entirely voluntary and that I can withdraw at any time. If I have any questions after today, I can call Prof. Petersen on 260- 7423 or Prof. Meyer-Weitz on 260- 7618.

Participant signature

Date

APPENDIX D

YOUTH RISK SURVEY

The following questions are about health behaviour. Please read each statement carefully and place a X in the box next to the response that most describes you. **Please be sure to read each statement carefully.**

1. How old are you?

A	13 years old or younger
B	14 years old
C	15 years old
D	16 years old
E	17 years old
F	18 years old or older

2. What is your sex?

A	Female
B	Male

3. In what grade are you?

A	10 th grade
B	11 th grade
C	12 th grade

4. How do you describe yourself

A	Black African
B	Asian/Indian
C	Coloured/Mixed Race
D	White

The next 5 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they many consider attempting suicide, that is, taking some action to end their own life.

5. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?

A	Yes
B	No

6. During the past 12 months, did you ever **seriously** consider attempting suicide?

A	Yes
B	No

7. During the past 12 months, did you make a plan about how you would attempt suicide?

A	Yes
B	No

8. During the past 12 months, how many times did you actually attempt suicide?

A	0 times
B	1 times
C	2 or 3 times
D	4 or 5 times
E	6 or more times

9. If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdoses that had to be treated by a doctor or nurse?

A	I did not attempt suicide during the past 12 months
B	Yes
C	No

APPENDIX E

SOCIAL CAPITAL- FAMILY

The following questions are about your relationships with your family and peers. Please read the following statements carefully one by one. If the statement definitely does not describe your situation, place an X in the box indicating DEFINITELY NOT TRUE next to this statement. If the statement does not describe your situation, place an X in the box indicating NOT TRUE next to the statement. If the statement partly describes your situation, place an X in the box indicating PARTLY TRUE next to the statement. If the statement definitely describes your situation, place an X in the box indicating DEFINITELY TRUE next to the statement. **Please be sure to read each statement carefully.**

Statement	Definitely not true	Not True	Partly True	Certainly True
1. There are people I know amongst my family who do things to make me happy				
2. There are people I know amongst my family who make me feel loved				
3. There are people I know amongst my family who can be relied on no matter what happens				
4. There are people I know amongst my family who would see that I am taken care of if I needed to be				
5. There are people I know amongst my family who accept me just as I am				
6. There are people I know amongst my family who make me feel an important part of their lives				
7. There are people I know amongst my family who give me support and encouragement				

APPENDIX F

SOCIAL CAPITAL- PEER

Statement	Definitely not true	Not True	Partly true	Certainly True
1. There are people I know amongst my friends who do things to make me happy				
2. There are people I know amongst my friends who make me feel loved				
3. There are people I know amongst my friends who can be relied on no matter what happens				
4. There are people I know amongst my friends who would see that I am taken care of if I needed to be				
5. There are people I know amongst my friends who accept me just as I am				
6. There are people I know amongst my friends who make me feel an important part of their lives				
7. There are people I know amongst my friends who give me support and encouragement				