

**Connectedness to school among adolescents:
Implications for mental health**

A Dissertation Submitted

To

Sikkim University



In Partial Fulfilment of the Requirement for the
Degree of Master of Philosophy

By

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DECLARATION

The work embodied in the dissertation entitled '*Connectedness to school among adolescents: Implications for mental health*' was conducted at the Department of Psychology under School of Human Sciences, Sikkim University, in partial fulfilment of the required for the award of M.Phil degree of Sikkim University. The work has not been submitted in part or full to this or any other university or institution, for any degree or diploma.

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CONNECTEDNESS TO SCHOOL AMONG ADOLESCENTS:

IMPLICATIONS FOR MENTAL HEALTH

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This is to certify that the dissertation entitled '*Connectedness to school among adolescents: Implications for mental health*' submitted by **Ms. Shalinta Rai** (Roll No. 16MPPS04 and Reg. No.16/M.Phil/PSY/05) in partial fulfilment of the requirement for the award of M.Phil degree in Psychology of Sikkim University has not been previously submitted for the award of any degree/diploma of this or any other University and it is her original work. She has been working under my supervision.

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Abstract

Adolescent mental health has been one of the growing concerns worldwide. It is a period of physical, social and psychological transition. This transition period can be an especially vulnerable time for adolescents as it also coincides with the onset of many depressive and anxiety disorders. Research has found that school connectedness is important interrelated factors during transition that can positively promote the development of students. The current study aimed to examine the relationship between school connectedness and mental health of students during middle, secondary and senior secondary grades, and whether this relationship varies across gender. Data was collected using Psychological Sense of School Membership and Beck's Anxiety Inventory, Beck's Depression Inventory and Beck's Hopelessness Scale from 200 students aged 11-18 years. Regression analysis was used to determine the school connectedness as predictor of students' mental health at each point of time. The findings showed that for middle grade, school subscale negatively predicted anxiety, for secondary grade, teacher subscale negatively predicted anxiety, teacher and student subscales negatively predicted hopelessness, and for grade 11-12, self subscale negatively predicted anxiety, and self and teachers negatively predicted depression.

CHAPTER 1

Introduction

1.1 Background

Adolescent mental health has been one of the growing concerns for psychologists and educationists worldwide. It is estimated that around 20% of the world's youngsters have mental health problems such as anxiety, stress, and depression largely contributing to the global burden of disease for people aged 12-18 (Costello, Egger, & Angold, 2005). The national figure also reports the prevalence of psychiatric morbidity in the range between 14.4% and 31.7% (World Health Organization [WHO], 2005).

Adolescence is the period of transition from childhood to adulthood or 10-19 years of age (World Health Organization [WHO], 2011). The word adolescence derives from a Latin word 'adolescere' which means 'to grow up'. It is a transitional stage of physical and psychological development that occurs during the period from puberty to adulthood. Erikson (1968) defines adolescent as the period of physical, cognitive, and psychological transition, which makes it a crucial phase of life in the development of an individual. Adolescence is, thus, a complex, multi-system transitional process involving progression from maturity and social dependency of childhood into adulthood with goals and expectations (Steinberg, 2002; Greenfield, Keller, Fuligni, & Maynard, 2003).

Adolescence physical, cognitive and social changes are influenced by the variety of internal and external factors including heredity, gender, race, body mass, environmental influences, societal norms and beliefs (American Psychological Association, 2002; Steinberg, 2014; Styne, 2004). These factors either help in growing or make them vulnerable. Among many external factors, the role of school connectedness has received increased attention over the past few years. "School connectedness is the extent to which students feel personally accepted, respected,

included, and supported by others in the school social environment” (Goodenow, 1993). It is argued to be important for adolescents as they rely less on the family as part of the individuation process and come to rely more on extra-familial relationships such as those found in schools, with friends, and others (Goodenow, 1993).

There is considerable evidence suggesting that school connectedness is a powerful predictor for adolescents’ physical, educational, and socio-emotional well-being (Anderman, 2002; Catalano et al., 2004; Resnick et al., 1997).

Under this backdrop, the present study aims at understanding the role of school connectedness in adolescents’ mental health such as anxiety, depression and hopelessness. In addition to this, how demographic factors gender and grade affect the relationship between school connectedness and anxiety, depression, and hopelessness.

1.2 School Connectedness

Adolescents spend most of their time in their school rather than any other gathering. School provides students with a social gathering where relationships can be formed, it is the connection the students have with their school during adolescence that promotes long-term positive youth development, less behavioural problem, and greater emotional wellbeing. School connectedness is a concept to address school bonding, student engagement, teacher support and school climate for understanding the meaning of school connectedness as students believe that adults in the school care about their learning and about them as individuals.

The term School Connectedness was initially used by National Longitudinal Study of Adolescent Health, US (1997) the study was designed to provide an understanding of factors that influence the mental health behaviour (Blum & Rinehart, 1997). The connectedness was examined into student’s sense of safety, rule fairness, teacher support, and belonging. Therefore, school connectedness has been identified as an important protective factor for risk-taking behaviour (Resnick et al., 1993).

School connectedness is also addressed as school attachment or school bonding (Miller, 1992). It consists of two components; attachment, characterized by close relationships and commitment characterized by an investment in school and doing well. School connectedness is a belief held by students that the adults and peers in the school care about them as an individual.

Goodenow (1993) defined school connectedness as the extent to which students feel personally accepted, respected, included, and supported by others in their school social environment. Centre for Disease Control and Prevention (2009) defined “school connectedness as the belief held by students that adults in the school care about them and also their learning”. School connectedness is a belief shared by the student that they are surrounded by people who believe in them and care for them.

School Connectedness includes several factors such as teachers, peer group, staff, self, and others. When students feel that they receive empathy, attention and praise from their school setting, they feel a sense of belonging and support that leads to healthy growth and development (Whitlock, 2003). The belief children have about themselves and their abilities is created by the extent to which they recognize that the adults and other are involved in their lives and that they are taken care (Blum & Libbey, 2004) and children that have the feeling of being supported are more engaged in school and learning (Croninger & Lee, 2001).

Lohmeier and Lee (2011) proposed school connectedness as a collection of values and behaviours related to a student’s belongingness, relatedness, and connectedness in association with their school, teachers, adults, and peers.

The school comprises of teachers, peers, staffs and the school environment. Each of these aspects of the school plays an equal and important role in promoting school connectedness in students.

Researchers have shown that when teachers are supportive of the child’s decision and provide suggestions, surrounded with peers who are close, friendly and others in the school who make them feel they are a proud member of the community, when they are involved in various school extra-curricular activities, when parents are equally a part of the school curriculum, all these help the child learn and develop better

connectedness towards their school. Moreover, they show good results in their academics and maintain good relationship inside the school and with their families and others (Willms, 2000).

Connectedness is conceptualized as a psychological state of belonging in which the youth perceive they and the others are cared for, trusted and respected by a collection of adults that they believe hold power to make decisions. The role of school connectedness plays in protecting against health-compromising behaviour and enhances academic success. Studies have found that students who have a problem with their friends were found to experience more internalizing behaviour and feel less connected.

Similarly, students who perceive their teachers to be more caring and have greater involvement report greater sense of belonging, academic and psychological adjustment and feel more competent and have higher self-worth and low level of internalizing behaviour (Baker, Grant, & Morlock, 2008).

1.2.1 Theoretical Perspectives

Maslow theory of belonging suggests that a sense of belonging to a social peer group enhances student's academic achievement. The need of belonging is very strong especially during the childhood and deficiency in this level can result in the child's ability to form and maintain emotionally significant relationship in general. Students who are a part of a group in early adolescence have a greater interest and are likely to enjoy school more, unlike students who are not a part of any social group and they tend to be less engaged to their school. Lack of interactions, human relationships and the sense of belonging may result in depression or loneliness while an abundance of love and community often sustain people through difficult times (Maslow, 1987).

Attachment theory

This theory states that through early parent-child interaction, foundations for bonding is developed which may then extend to forming relationships with others like friends, teachers and others. Research shows that bonding with adults apart from parents has

positive effects in the childhood (Werner & Smith, 1992). The relationship between school and teachers and adults within the school environment is an important addition to the attachment theory, and this has been used to explain the association between the connection within the school and problematic behaviour.

Social Control Theory

Hirschi (1969) proposed the theory of Social Control. This theory explained the causes of delinquent behaviour in young people. He stated that the relationship between people or organization promote conformity and act as inhibitors to delinquent and risky behaviour. Hirschi conceptualized parents, peers and school bonds as primary dimensions. According to this theory, the risky and antisocial behaviour is a result of weak social bonds, low attachment, commitment, involvement and beliefs.

Self-Control Theory

This theory was conceptualized by Gottfredson and Hirschi (1990). This theory states that poor school bonding does not cause risky behaviour but is rather an outcome of low self-control.

Social Development Model

Social development model was proposed by Catalano & Hawkins (1996). This model suggests that relationships with pro-social others including friends and school are associated with low risk-taking and highlights the importance of attachment and commitment to the group. According to this model, when social groups produce a relationship with the corresponding degree of attachment and commitment and promote positive behaviour, children are likely adolescents behave in ways that are consistent with these standards and values (Hawkins et al., 1999). This model focuses on the importance of attachment, commitment, involvement and belief.

1.3 Anxiety

Anxiety is a negative mood state characterized by bodily symptoms of physical tension and by apprehensions about the future (American Psychiatric Association, 2000; Barlow, 2002). In other words, anxiety is an emotion which is characterized by an unpleasant state of inner turmoil, often is accompanied by nervous behaviours such as pacing back and forth, causing insomnia, dizziness, fatigue and worries.

Anxiety may cause psychiatric and physiological symptoms. The behavioural effects of anxiety may include withdrawal from situations which have provoked anxiety or negative feelings in the past, changes in sleeping patterns, changes in habits, increase or decrease in food intake, and increased motor tension. The emotional effects of anxiety may include feelings of apprehension or dread, trouble concentrating, feeling tense or jumpy, anticipating the worst, irritability, restlessness, watching for signs of danger, and, feeling like your mind gone blank as well as nightmares/bad dreams, obsessions about sensations.

The cognitive effects of anxiety may include thoughts about suspected dangers, such as fear of dying. When anxiety is experienced on a regular basis, the individual may be suffering from Anxiety disorder. There are various types of anxiety disorders such as generalized anxiety disorder, panic disorder, specific phobia, obsessive-compulsive disorder and social phobia.

The cause of anxiety disorders is a combination of genetic and environmental factors. Risk factors include history of child abuse, family abuse, and family history of mental disorders and also the relationship the child shares in the school. Research shows that children who feel they do not belong to the school and share good relationship with the teachers and peers are prone to suffering from anxiety (Resnick et al., 1997).

Freud (1926) explained anxiety as an everyday phenomenon and as a way of explaining neurosis. He gave two explanations to it. In the first formulation, anxiety has been explained to be transformed libido, the transformation coming about from the repression. In the second formulation, anxiety is explained as a signal from ego about real, existing potential danger. Freud reversed the signal anxiety repression link

and viewed repression as occurring because of the anxiety experienced. In psychoanalytic context, anxiety is a significant aspect of handling a threatening environment and is also necessary for the development of neurotic behaviour. In Freud's conceptualization, anxiety is either inherited or learned at birth.

Behavioural theory suggests that organisms learn to avoid noxious situations through some other mediating mechanism, and this mediating mechanism is called fear or anxiety. The theories of anxiety origin lie in the learning area that derived originally from Pavlov and Watson, where their main function was to explain punishment. After Pavlov's classical conditioning, the analysis was that after several pairing of unconditioned stimulus develops conditioned responses, this conditioned response to either fear or anxiety and is seen as acquired drives. This theory explains that when an individual is faced with the threat of discomfort, an increase in their primary drives leads to anxiety only if they have autonomic components. Once established fear or anxiety can function as a secondary drive and establish new behaviour through drive reduction.

Cognitive theory suggests that people who are high and low in anxiety, they differ in structure (content) and processes of cognition. He offers two reasons why those high in trait anxiety worry more than those who are low. Firstly they have more frequent and more highly organized sets of worries in long-term memory. Secondly, the worries of the highly anxious may be more accessible because their negative mood states assist mood state-dependent retrieval. According to this theory, it shows that people with high and low anxiety also differ in cognitive appraisal of ambiguity. This theory draws importance of taking into consideration the cognitive system as well as the physiological and behavioural.

1.4 Hopelessness

Hopelessness is an emotion characterized by lack of hope, optimism and passion. An individual feeling hopeless has no expectation for future success. It often contributes low or dark mood causing the person to have a negative perspective on self, others and personal circumstances. Hopelessness is defined as "the expectation that highly desirable outcomes will not occur and that one is powerless to change the situation"

(Schneider, 2012). Hopelessness can be distinguished by withdrawn motivation, lack of interest, negative thoughts about future or negative view of themselves. These feelings worsen depending on the individual's mood.

Individual feeling hopeless lose interest in important activities, objects or people. They may no longer value things that were important to them. This emotion is often associated with lack of inspiration as well as feeling powerless, helpless, abandonment and isolated. Numerous studies indicate that hopelessness is closely associated with poor mental, emotional and physical health.

Hopelessness is the anticipation that highly desired outcomes will not occur or that highly aversive outcomes will occur and that one cannot change this situation. It was suggested that when the expectancies of hopelessness increases, the goal-directed behaviour of an individual decrease (Fowles, 1993). Some of the common symptoms of hopelessness include apathy, lack of energy, and delay initiation of responses.

When individual face negative, stressful and dissatisfying life events they are most likely to suffer from hopelessness, also hopelessness is reported as symptoms of various mental health conditions including anxiety, depression, bipolar disorder, eating disorder, post-traumatic stress disorder, substance abuse and suicidal ideation. People suffering from depression often show signs of hopelessness which can lead the person having thoughts of committing suicide. Hopelessness not only affects the person's emotional balance, well being and stability but it also lowers the person's motivation of seeking help.

Hopelessness itself can lead to many negative outcomes such as suicides, depression, anxiety, risk-taking behaviour, high level of violence (Brozina, 2006; Duke et al., 2011). Bolland et al. (2005) study on African-American youth found that gender, factors that causes traumatic stress and worry, pro-social connectedness towards religion, community and warmth towards mother predicted changes in the hopelessness symptoms.

In addition higher level of hopelessness is seen in adolescents from the urban areas leading to more engagement in violent behaviour, risk-taking behaviours, substance

abuse, sexual risk-taking behaviour and more accidental injuries (Stoddard et al., 2011; Bolland, 2003). However, Bolland, (2003) found that adolescents belonging from low-income neighborhood scored high on hopelessness as compared to the ones from the affluent communities, suggesting that adolescents belonging from low-income communities are less likely to think about their future resulting to a greater likelihood of developing hopelessness (Bolland, 2007).

Kashani et al., (1989); Spirito et al., (1988); Bolland et al., (2001) reported that hopelessness has often been associated with negative effect that includes violence, depression, school problems, substance abuse, risky sexual behaviours, and accidental injury. Moreover, high level of hope during adolescence has been related with academic achievement, social acceptance, feelings of self-worth, and overall psychological well-being (Gilman et al., 2006; Miller and Powers, 1988; Snyder et al., 1997).

1.5 Depression

Depression is a state of low mood and aversion to activity that can affect a person's thoughts behaviour, feeling and sense of wellbeing (Salmans, 1997). It is a common medical illness that affects how one feels, how one thinks and acts. A depressive disorder is not a passing blue mood but rather persistent feelings of sadness and worthlessness and a lack of desire to engage in formerly pleasurable activities. Some of the various types of depression include Postpartum depression, Psychotic depression, seasonal affective disorder, bipolar disorder and mixed affective episodes.

Depression is a mood disorder which prevents individuals from leading a normal life, at work socially or within their family. Seligman (1973) referred to depression as the 'common cold' of psychiatry because of its frequency of diagnosis. It is usually quite easy to see when someone is depressed. Depression causes a feeling of sadness, loss of interest in activities, helpless, dejected, worthless, anxious or empty. Other symptoms include guilt, irritability or anger, ashamed and restlessness. It can lead to a variety of emotional and physical problems and can decrease a person's ability to function at work and at home. Other symptoms include loss of appetite, overeating,

inability to concentrate, make decisions, excessive sleeping, fatigue, insomnia, pains and digestive problems and reduced energy.

Research has suggested that depression is caused by a combination of genetic, biological, environmental and psychological factors. Depression can happen at any age. In recent studies, it is shown that occurrence of depression starts in children and adolescents although sometimes it is present with more irritability than a low mood. Many chronic mood and anxiety disorders in adults begin as high levels of anxiety in children. It can also be triggered by factors such as trauma, person's lifestyle, relationship and financial status can influence whether the person will develop depression later in life.

Behaviorism emphasized the importance of how one's behaviour is shaped by the environment. The focus is on observable behaviour and the conditions through which individuals learn their behaviour; therefore, depression is the result of a person's interaction with his/her environment. Operant conditioning states that depression is caused by the removal of positive reinforcement from the environment and classical conditioning states that depression is learned through associating certain stimuli with the negative emotional state. Also, depression can be caused by inadvertent reinforcement of depressed behaviour by others (Lewinsohn, 1974).

Freud (1917) proposed that many cases of depression were caused due to biological factors. He also stated that some cases of depression could be linked to loss or rejection of parents. He later stated that the tendency to internalize loss objects was normal and that depression is simply due to the excessive severe superego. Thus, he stated that depressive phase occurs only when the individual's superego or conscience is dominant. And in contrast, the manic phase occurs when the individual's ego or rational mind asserts itself and feels in control.

Beck (1967) identifies three mechanisms responsible for depression: The cognitive triad (negative automatic thinking), negative schemas, and error in logic. The cognitive triad is of three forms of negative i.e. helpless and critical. These are the typical thinking of individuals suffering from depression and they are negative thoughts about self, the world, and the future. These thoughts are automatic in people

suffering from depression and it occurs spontaneously. For example, a person suffering from depression will view themselves as helpless, worthless, and not adequate, they see the world as an obstacle that cannot be handled, and they see their future to be bleak and totally hopeless. These components interact and interfere with the normal cognitive process leading to impairment in perception, memory and problem-solving.

According to Beck, people suffering from depression are very prone to developing negative self-schema. They possess a set of beliefs and expectation about themselves that are generally negative and pessimistic. He claims that negative schema may be acquired in childhood due to some traumatic events. Experience such as the death of a parent or a sibling, parental rejection, criticism, neglect, abuse, bullying could lead to developing of the negative schema. Once negative schema develops people become prone to making logical errors in their thinking and they tend to focus selectively on certain aspects of a situation while ignoring equally relevant information.

1.6 Organization of the work

The first chapter is discussing about the background of the study. It discusses about the concepts used in the study, the second chapter discusses various literature reviews on the variables and the relationship between them. This chapter explains thoroughly the previous researches done on the topic and their analysis. The third chapter discussed the rationale of the study, research questions, the operational definitions and the delimitation of the study. The fourth chapter discusses the methodology of the study, the fifth chapter discusses the results and analysis of the study, followed by chapter sixth the discussion and then the seventh chapter consisting of conclusion and summary.

CHAPTER 2

Review of Literature

The previous chapter provided the introduction of the variables school connectedness, depression, anxiety and hopelessness among the adolescents. The chapter comprised of definitions, theories and factors that influence school connectedness, depression, anxiety, and hopelessness.

Literature review is an evaluation of the existing literature available for the topic one researches on. It provides the summary of the earlier researches that helps the researcher while doing the present study. It also provides an overview of the writings for journals, articles, websites, books etc.

This chapter is divided into six sections. Section 2.1 discusses literature on school connectedness and mental health. Section 2.2 Components of school connectedness. Section 2.3 discusses the literature of grade as a factor influencing the relationship between school connectedness and depression, anxiety, and hopelessness. Section 2.4 discusses the literature of gender as a factor that influences the relationship between school connectedness and depression, anxiety, and hopelessness. Section 2.5 discusses the relationship between school connectedness, anxiety, depression and hopelessness.

2.1 School Connectedness and Mental Health

Goodenow (1993) defined psychological school membership as student's sense of being accepted, respected, included and supported by others in school. School connectedness was conceptualized as the affective and interpersonal aspect of the school experience, which includes students' sense of safety, belonging at the school, and teacher fairness and supports (Resnick et al., 1997), also school belonging is one of the socio environmental factor that has been recognized as the protective factor for all youth (Eisenberg & Resnick, 2006; Hatzenbueler, 2011; Ueno, 2005).

School connectedness as defined by Hamilton and colleague (2012) the belief shared by the students, teachers and other adults within the school care about them as individuals and about their learning. Libbey (2004) definition emphasized that positive relationship with peers and adults in school as well as perception of belonging.

The term school connectedness has been broadly labeled closely similar constructs such as perceptions of school climate, sense of belonging to school, psychological school membership, peer support (Bernat & Resnick, 2009; Goodenow, 1993; Waters, Cross, & Shaw, 2010). Essentially, school connectedness is described as a quality of social relationship or social bonds within the school communities (Rowe, Stewart & Patterson, 2007). Being more highly connected to school has been associated with fewer mental health problems (Shochet et al., 2008; Waters, Cross & Shaw, in press) and less involvement in problematic behavior (Resnick et al., 1997).

Researchers have used the term school connectedness as a concept to address school bonding, student engagement, teacher support and school climate for understanding the meaning of school connectedness as the extent to which students believe that adults in the school care about their learning and about them as individuals. Adolescents with strong support and resource, self is seen as attainable and achievable (Osterman, 2006). According to Hurtado and Carter (1997) sense of belonging is a psychological factor that focuses on the student's subjective feelings of connection to the institution.

Following this Maestas, Vaquera & Munoz Zehr, (2007) argued that sense of belonging taps into the feelings or perception of group membership. When students are offered choices in their classroom setting, chances are there will be increase in their motivational and academic engagement, which allows them to form personal connections encouraging them to be active, consequently, increasing their belongingness to school (Ingels, Scott, Lindmark, Frankel, & Myers, 1992).

Goodenow, (1993) described sense of belonging in educational environments as students' sense of being accepted, valued, included, and encouraged by others (teacher and peers) in the academic classroom setting and of feeling oneself to be an

important part of the life and activity of the class. More than simple perceived liking or warmth, it also involves support and respect for personal autonomy and for the student as an individual.

Goodenow proposed that a sense of belonging at school reflects the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment. Students who personally invest in school and believe that good education is important in reaching their goals, engaged in performing well in homework and other school activities have an increased sense of connectedness to school (Blum, McNeely & Rinehart, 2002). Goodenow (1992) suggested that belonging and support may be especially important for academic motivation, engagement, and performance of adolescents coming from ethnic minorities and economically less advantaged families.

Goodenow (1993a) stated that one of the reasons why there is a poor fit between the opportunities provided by middle school environment and the developmental needs of adolescents is that the student's need of belonging and support are not fulfilled leading to a decrease in student's academic motivation. Many negative behavioural, psychological, and social outcomes including mental illness, criminal tendency, and social isolation are explained by the lack of sense of belonging. Many of the researchers have agreed that the need for belonging is very important for the students to function well in all kinds of learning environment (Cornell & Wellborn, 1991; Deci & Ryan, 1991; Osterman, 2000).

Osterman, (2000) reported that students who experience a sense of belonging in educational environments are more motivated, more engaged in school and classroom activities, and more dedicated to school, also connectedness was greater among younger female students with better academic performance and greater extracurricular involvement, students with greater self-rated physical attractiveness, students with more friends and students whose parents were more involved with school (Thompson et al., 2006).

School connectedness has been shown as a protective factor in a healthy development of youth (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; Klem & Connell, 2004; McNeely & Falci, 2004). School connectedness plays a role

in determining the negative and positive outcome in the child later development, stronger the connectedness to school leads to less psychological problems and fewer behavioural problems (Hamilton et al., 2012), also a protective factor for early conduct problem and has been found to compensate for poor quality family relationships (Loukas, Roalson, & Herrera, 2010). Waters et al. (2009) suggested that students who are higher in school connectedness are likely to attend school regularly and achieve higher academically comparatively to the students who score lower in school connectedness engage in smoking drinking and drug use.

Research has demonstrated that when students do not feel they are wanted or belong to the school they are more likely to behave erratically to the norms and values of the school showing internalizing behaviour (Bond et al., 2007; Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004; Johnson, Crosnoe, & Elder, 2001; Resnick et al., 1997; Shochet, Dadds, Ham, & Montague, 2006). Similarly, weaker connection to school reported of being at risk for failure (Catalano et al., 2004).

Supportive figures in school environment may reduce and lessen the harmful effects of negative school climate on student's outcomes through the provision of emotional support to the students (Rhodes, 2005). Nair et al., (2004) reports of only 3% of the school going students suffered from depression as compared to the school dropouts with 11.2% with extreme depression.

Numerous research findings suggest that students' psychological needs for acceptance, support, and belonging are important in educational setting (Osterman, 2000; Blum & Libbey, 2004). Low school connectedness predicts negative result in adolescents where they are more prone to internalizing symptoms that are harmful (Langille, Rasic, Kisely, Flowerdew, & Cobbett, 2012). Resnick and colleagues (1997) concluded in their study that school connectedness is one of the protective factors for young people.

In a longitudinal study of data on 3,459 students (Lester, Waters & Cross, 2013) studied the relationship between mental health and feeling connected to school, path analysis suggested a reciprocal relationship between school connectedness and mental health wherein higher the level of feeling connected to school was associated

with low level of depression, anxiety, in opposition increased anxiety and depression was associated with decrease in connected to school.

Adolescent depression may be prevented by strong relationship with others such as family, peers which gives them warmth, support and where communication is involved (Hall-Lande, Eisenberg, Christenson, & Neumark Sztainer, 2007), also when there is a strong connection to school and relationship with people involved like teachers, staffs (Murray & Pianta, 2007).

A study was conducted to see the difference in the school climate in schools of China and in the United States (Zhang, Huang & Bear, 2013), the sample was collected from elementary, middle and high school students, results showed that Chinese students in all the 3 grade level scored significantly higher as compared to the children from the United States in the 4 subscales Teacher Students relation, Student- Student relation, School liking and Fairness of school rules. There was a significant difference in how Chinese student perceive school climate and how the students from the States perceive school climate, the possible chances are the difference can be attributed to the cultural difference in respect to academics, authority, behaviour of students and teacher in class room setting, social values.

Differing to this research, a cross cultural study (Sass, Villarreal & McWhirter, 2011) between the United States and the Chilean adolescents, results showed that the connectedness to school, teachers and self in future factors were non-invariant across groups, whereas the factors of connectedness to peers and self-in-the-present were invariant across groups. Such similar researches have been performed on different ethnic and cultural background to see the difference in how they perceive school connectedness.

A qualitative study (Picou, 2015) was conducted on 13 students of Alaska native, the results showed that the students did not attribute their perception of connectedness to school to racial ethnic identity, but on how the teachers were with them, teachers who provided encouragement, peers who accepted them as the native and representative of their Alaska Native cultural heritage, and hard working families who support and encourage them to perform well in school.

A survey data of 598 students from Asian and Pacific Islander student body was analyzed to assess their level of school connectedness and violent attitude and behaviour. There was no significant relationship between school connectedness and violent behaviour and attitude in students from Japanese and other ancestries, on the other hand Native Hawaiian and Filipino students showed that their school connectedness level seemed to have opposite association with violent behaviour and attitudes whereas it has the opposite association for Pacific Islander and Caucasian students (Spriggs et al., 2007).

2.2 Components of School Connectedness

School connectedness is a multidimensional construct that consists of how involved students are at their school, how academically motivated they are, how positive they feel about school, and the quality of students' relationships with their teachers and peers (Chung-Do, Goebert, Chang, & Fumigani, 2015). When students feel connected to their school they develop positive relationship with adults, increase involvement in positive behaviour, avoid behaviours that harm their life such as violence or drug use.

Goodenow (1993) suggested five components of school connectedness: School, Other People, Teachers, Students and Self. *School* component explains the relationship the child has with her/his school, whether she feels accepted by the school, whether she feels she belongs to the school, and if she is involved in the school activities. The *Other people* component talks about the member associated with the school like non teaching staffs, administrators and the relationship the student has with them. *Teachers* component focuses on the relationship the student has with his/her teachers. This component explains how they feel about their relationship with teachers, whether they receive the respect they deserve from the teachers, if they are cared and loved by their teachers. *Students* component majorly focuses on the relationship the student has with his/her classmates. This component explains the belief the student has for the classmates, and the belief they are accepted by the other students of the school. *Self* component talks about the student's sense of identity.

2.2.1 School Environment

School environment affects the child's connectedness to school, teachers, administrators and other involved in the school. Schools are meant to provide the child with safe environment which can develop them emotionally, academically, and behaviorally (Blum, 2004). Students who perceive their classroom as an autonomy-supportive environment report high level of engagement and valuing of school (Ryan & Connell, 1989). The classroom environment created by the teacher and instructional approach used by them have a significant influence on student sense of school belonging (Anderman, 2003). A literature review (Markham et al., 2010) provided evidence that adolescent's connection to their school protects them from early and frequent sexual activity.

Students with disciplinary problems often have decreased sense of belongingness which increases and carries on when they are restricted from school activities and social interactions. Participation of the student in non-academic curricular activities is equally vital as those activities which are academic (Anderman & Freeman, 2004), and this participation results in high level of belongingness felt by the student. Children actively avoid school if they have an unpleasant climate in their school or when they feel out of place.

Negative school environment can result into the child's involvement in delinquent behaviour or risk for violent behaviour, however, when the teachers, parents, staffs and the children are collectively involved, this could result in changing the school's environment and making the place more pleasant for the children. Engagement of the students in the school activity is one of the most important components of connectedness. The feeling of being connected to the primary learning environment is important at any school level, but it is especially important during adolescence.

Students who report of being less engaged both emotionally and behaviorally in school and school-related activities exhibit more depressive symptoms especially hopelessness as compared those students who engage regularly (Li & Lerner, 2011), and lower risk of substance abuse and an involvement in delinquent behaviour (Li & Zhang et al., 2011), symptoms of social isolation, such as depression, suicide

attempts and low self-esteem (Hall-Lande, Eisenberg, Christenson, & Neumark-Sztainer, 2007), on contrary when students feel more close to school they report low depressive symptoms in late adolescence (Monahan, 2010).

Crosnoe et al., (2002) found that students who have higher bond with teachers and academic achievement reduced the effect of deviant peers on externalizing problems, including drug use and delinquency. Researchers have shown that involvement in school activities help students recover from negative adverse experience. Those adolescents who have faced negative and adverse life experience, school experience becomes essential for emotional and social development for youth (Gilligan, 2001).

Furthermore, Rosenfeld, Richman, and Bowen (1998) found that students who receive little support from the school had lower self esteem and less supported by their peers to overcome school problems, on the contrary to this analysis, a study showed that adolescents who perceive strong peer connection in school are more likely to classify below the problem behaviour, which means that that students who have strong school friends connection more likely to have increase social skills and are more responsible as compared to those students who have weaker peer affiliation and deviant peer connection.

Researchers have found that students who are treated fairly in classroom, held students in high standards, and communicated that each student is a valued member of the class, all report of having increased level of engagement in academics and better satisfaction (Baker, 2006; Montalvo, Mansfield, & Miller, 2007). Students who feel connected at school are not as likely as their less connected counterpart to use substances, demonstrate emotional anguish, be involved in violent or deviant behavior, attempt suicide or entertain suicidal thoughts, use a weapon, engage in sexual intercourse at an early age or become pregnant.

2.2.2 Peers

Adolescents are more likely to settle for part time jobs and chores and display normative behaviour as compared to those with poor, deviant group (Merritt &

Synder, 2015). This shows that school peer affiliation is one of the other important protective factors in school environment.

Lynch, Lerner and Leventhal (2013) investigated peer relation in school setting. Findings showed that the quality of their relationship is related specifically to school engagement and differs according to the developmental stage of the children and their school experience. Eisenberg, Sztainer and Perry (2003) found that few students who report of peer harassment or any form of mistreatment disliked school and did not want to be a part of the school thereby missing out the facilities of education advancement and resulted in low school belongingness. Another study focused on the level and change in positive relationship in school, findings revealed that negative peers are the predictors of problem behaviours in the later developmental stage (Fleming, Catalano, Haggerty, & Abbot, 2010).

Finn (1993) found that students who are rejected by peers become disengaged and avoid educational setting. In addition, the child facing peer rejection restricts the child's ability to participate in the educational setting and reduces the learning experience making an impact on the child's academic performance.

2.2.3 Teachers

Teachers play an important role in the trajectory of students throughout the formal schooling experience (Baker, Grant and Morlock, 2008). Students are more interested in learning and have greater appreciation for the school when their needs are supported by the adults within the school (Niemic & Ryan, 2009; Ryan & Deci, 2000), and students whose needs for autonomy, competence and relatedness are met they will internalize their behaviour and value their school and show self determined behaviour (Davis, 2003). Additionally students who had teachers who communicated and provided student's with positive feedbacks are more likely to behave in a responsible manner (Decker, Dona, & Christenson, 2007; Wentzel, 2003).

A review (Kidger, Araya, Donovan, & Gunnell, 2012) examining emotional health showed that teacher's support, and additional components of school environment

such as happiness with school, feeling safe at school and feeling close to people at school have an opposite relationship with suicidal emotional health and suicidal behaviours. Wilson (2001) found that school where the child understands care and supportive interpersonal relationship and has the ability to be self-sufficient have an influence in class and eventually decreases the rate of drug use and delinquency.

When the teachers form a positive bond with the students, the classroom becomes a supportive space in which the students engage in academically and socially productive ways (Hamre & Pianta, 2001). Teachers who support students in the learning environment can positively impact their social and academic outcomes, which are important for the long-term trajectory of school and eventually employment (Baker et al., 2008; Connor et al., 2011; Silver et al., 2005). The quality of the teacher-students relationship provides a base for influencing student's future social interactions that could affect their perception of their school as a healthy environment (Baker, Dilly, Aupperlee, & Patil, 2003).

Humensky et al. (2010) research indicate that high levels of depressive symptoms were significantly associated with higher levels of reporting that feeling down or sad affects the ability to do well in school, also, higher levels of depressive symptoms were not significantly associated with problems with teachers. Rhodes & Mulhall (2003) and found that students who reported decline in their relationship with the teachers reported of having their depression level increased, in contrast, students who reported better level of teacher-student relationship showed decrease in their depression level and increase in their self esteem. Furthermore teacher support predicted lower depressive symptoms in adolescents (Reddy et al, 2007) suggesting that teacher support is associated with depression among adolescents.

Poor student- teacher relationship not only affects student's behaviour but also shows impacts on the child's self perception. The finding also indicated that students consider their relationship with their teacher as an influence on their self, their interest and their academic goal (Ozer et al., 2008). Similarly, if the student- teacher relationship is marked by conflict and stress, this can perpetuate challenging student behaviour and contribute to poor school belongingness and related outcomes (Baker, Grant, & Morlock, 2008; Hamre & Pianta, 2001; Myers & Pianta, 2008).

In addition poorer school relationships are related to conduct problems, decreased health status and less participation in extra-curricular activities (Brookmeyer, Fanti, & Henrich, 2006; Loukas, Suzuki, & Horton, 2006; McNeely & Falci, 2004; McNeely, Nonnemaker, & Blum, 2002). A student's perception of positive teacher-student relationships has been associated with fewer symptoms of depression (LaRusso, Romer and Selma, 2008).

2.2.4 Others

Adult's support towards the students helps them build and motivate them to put in effort in their academics and also promote school belongingness (Baker et al., 2001; Davis, 2003; Finn, 1989; Skinner, Furrer, Marchland, & Kindermann, 2008). Therefore adults must fulfill all the three needs of the students to increase their sense of belongingness for the school, they must promote proper autonomy and provide children with opportunity to share and take responsibility for their learning and outcomes (Baker et al., 2001; Davis) and getting along well with the teachers of the school has been associated with fewer depressive symptoms (Joyce & Early, 2014).

Equally adult's expression of interest and caring, positive feedback provides a sense of relatedness and competence (Baker et al., 2001; Roeser et al., 1998). Adults who provide students with guidance and support reduce the effects of disadvantages they face in other areas. (Croninger & Lee, 2000). Students who are more close to the adults of the school feel more motivated to do their homework, engage in class and more likely to value school (Mc Neely, 2013, Blum, 2005).

Students who form better relationships with other members of the school like counselors, psychologists, librarians, office staffs, custodians etc, they help the child develop sense of importance and serve as a role model which predicts psychological wellbeing (McMahon, Singh, Garner, & Benhorin, 2004; Blum, 2005; DuBois, Holloway, Valentine, & Cooper, 2002; Grossman & Rhodes, 2002).

2.2.5 Self

One's sense of self worth has shown to have an effect on one's ability to be successful, and is shown similar to school setting. Connectedness to self emerges during adolescence as a sense of self that establishes unique relationship with teachers, friends and family (Harter, 1999). Adolescent's self esteem informs their connectedness to self in primarily present oriented. Since adolescents have feeling about and engage in activities directed towards themselves and their ability to think abstractly results in segregating of present self and future self (Harter, 1999), with future self tied most closely to conventional and individualistic world.

Researchers have shown that various aspect of belongingness has often been linked with self esteem, self efficacy (Battistich et al., 1995, Ryan et al., 1994), and general perception of the quality of life (Green, Forehand, Beck, & Vosk, 1980). Osterman (2000) explained that when one experiences belonging and relatedness, it is associated with one's positive attitude towards self and others. Baumeister and Leary (1995) when people consider themselves to be a part of a group, their helping behaviour increases leading to increased cooperation.

2.3 Grade influencing School connectedness, Anxiety, Depression and Hopelessness

Transitioning from primary to middle and high school can bring changes in a student's life. They are vulnerable because of increased social and academic demands (Fulk et al., 2008). A study taken place in Turkey, Ocak (2004) found that there was negative correlation between the undesirable behaviour of 4th and 5th grade primary school students and their levels of sense of belonging to school.

And a study on high school students in the US, Shears, Edwards and Stanley (2006) concluded in their study that there was a negative correlation between the level of sense of belonging to school and alcohol and substance use. The early adolescence (ages 10-15) is generally understood to represent a vital stage of adolescence development. The physical, cognitive, and social changes which occur at this age as

well as increased expectations at school have potential for overloading the adjustment ability of a young student.

Flook, Repetti, and Ullman, (2005) In their three-year longitudinal study involving 248 students, found that lack of peer acceptance reported in the fourth grade predicted lower self-concept and internalizing symptoms (e.g. shyness, loneliness, negative emotions such as sadness and anxiety) in the fifth grade and, in a longer period, predicted lower academic performance in the sixth grade, when fourth grade academic performance was controlled. Path analysis on the same data revealed that almost 25% of the variance in students' academic performance in sixth grade was explained by lack of peer acceptance in the fourth grade. Children who showed low school connectedness in late middle school was associated with high level of anxiety/ depressive symptoms and marijuana use in high school and post high school and middle school students with low school connectedness were less highly to complete high school (Bond et al., 2007).

Extensive research has been done on student's level of school connectedness from middle school to senior secondary school. Multiple studies have focused majorly in the students transitioning from middle school to secondary school. The level of connectedness differs majorly on the basis of the student's grade. Some consider the ninth grade transition critical to their high school career (Fulk, 2003; Neild, Stoner-Eby, & Furstenberg, 2008). This transition is accompanied by disruption in relationship between teachers, parents, peer; yet they are in need for strong relationship with other (Newman et al., 2007), as a result to this transition students may experience decline in grade, motivation and also school belongingness (Eccles, 2004; Heck and Mahoe 2006; Isakson & Jarvis, 1999).

Research has pointed to these years as having the highest rates of disengagement, boredom, alienation, disruptive behavior, and disenchantment of students (Frydenberg, Care, Freeman, & Chan, 2009). Cross sectional study of US students of grade 7-12 resulted to students scoring high in school connectedness was associated with less emotional distress and suicidality (Resnick et al., 1997).

In the same way, Moore and Bates (2008) conducted a study to investigate the Australian Year 12 students' sense of connectedness to their schools, families, and

peers, and examine associations between connectedness and emotional wellbeing. The results found there was a high level of depression, anxiety and stress among Year 12 students, with higher negative affect associated with lower levels of family, peer and school connectedness. The results also suggested that there are significant numbers of at-risk young people in their final year of school, who feel lonely and disconnected from peers, and who maintain concerning levels of depression, anxiety and stress in first year of university. Indication of need to intervene was found (Lester, Waters & Cross, 2013) during the first two years of transition to secondary school to improve student's social and mental health outcome.

2.4 Gender influencing School connectedness, Anxiety, Depression and Hopelessness

The relationship between gender and school connectedness is complex. Gender is one of the factors that show a difference in the level of school connectedness, anxiety, hopelessness and depression. Several studies indicate that girls tend to report better school connectedness than boys (Voelkl, 1997). Langille et al., (2015) found when depression was controlled; high school connectedness was independently associated with decrease in suicidal ideation in both the genders and suicidal attempts in girls. In boys, high the connectedness, it was no longer protective for suicidal attempts when risk of depression was included.

Asbridge et al., (2014) results demonstrated that gender differences may exist for associations of school connectedness but connectedness may be more important for boys than for girls in this area of adolescent health. Studies have shown that the indicator for poor school connectedness among females included feelings for the parents, not engaging in their school work, low satisfaction with school and poor affiliation with the school. Among males, poor school connectedness reflected not feeling safe at school, feeling of being treated unfairly at school (Andersen et al., 2006).

Moreover a study by Bonny et al., 2000, McNeely et al., 2002 reported that female students feel less connected to school as compared to male students, also male students reported more problems related to school as compared to female students (Franson, 2014). On the contrary, Crespo et al., (2013) study reported that girls who

feel more connected to school might also invest more in future oriented planning and thinking than boys. Johnson, Crosnoe & Thaden (2006) suggests that the relationship changes overtime with girls reporting greater school attachment than the boys in the middle school and boys report greater attachment and connectedness than girls in high school.

Frey, Ruchkin, Martin, and Schwab-Stone (2009) found an interaction between gender and school connectedness and the analysis suggested that male students who became disengaged from school were at particular risk for deviance. In addition, Shochet, Dadds, Ham, and Montague (2006) on the contrary found that school connectedness predicted anxiety for girls, but not boys. Girls report of having higher depressive symptoms as compared to boys (Harris et al., 2006), Similarly Bhasin, Saini & Sharma (2010) reports that depression was significantly more in female students as compared to the male students.

2.5 Relationship between School connectedness, Anxiety, Depression and Hopelessness

Longitudinal studies have provided evidence that strong sense of school connectedness leads to positive young adulthood resulting in low rate of substance abuse, better mental health and higher school completion rate (Monahan, 2010), engage in healthy behaviour and succeed academically (Rosenfled, Richmond & Bowen, 1998), these healthy behaviour include school attendance (Rosenfled, Richmond & Bowen, 1998), staying in school longer (Battin- Pearson et al., 2000), and higher test scores and grades (Klem & Connell, 2004, Barber & Olsen, 1997).

Reviews (Whitlock et al., 2014) suggested that largely school connectedness was associated with reduced in suicidal thoughts and behaviours, on contrary students with weak sense of school connectedness have poorer school related outcomes (Baker et al., 2001; Newman, Newman, Griffen, O'Connor, & Spas, 2007).

When students do not feel properly integrated in their school community, they are more likely to form relationships with more deviant peers, which can foster greater

externalizing behaviours (Dornbusch et al., 2001). A large sample of adolescents was studied by Shochet, Dadds, Ham, and Montague (2006), the results found a moderate relationship between depression and school connectedness, evidence was also found that suggested low level of school connectedness predict later depressive symptoms. Kumar & Chandrasekharan (2000) found that the adolescents had significantly higher levels of depression, hopelessness, lethality of event, and stressful life events resulting to higher number of suicide risk behaviour (Sharma et al., 2008).

An analysis of The National Co-morbidity Study, a representative sample of the US (1995) found that the onset of depression prior to age 16 had a reduced likelihood of graduating from high school (Kessler, Foster, Saunders & Stang, 1995). With regard to dealing with other students, anxiety was associated with higher levels of problems dealing with other students. In other words, school connectedness provides positive emotions and cognition and helps them pursue their goals later in their life.

More specifically since school bonding has been linked with academic achievement, those students who feel they are committed to their school, and succeed in their academics feel attached to the school may be less likely to drop out from the school as compared to those students who feel they are not a part of school and perform bad. Low academic performance of the students mediate the association between less bond they feel towards their school and eventually leading to dropping out of the school (Harachi, Abbott, Catalano, & Haggerty, 1996; Hawkins, Catalano, & Miller, 1992).

Similarly Garnier et al., (1997) hypothesized and demonstrated that academic potential was an important mediator between family and personal background factor and school experience such as achievement was another predictor from dropping out. Students who report feeling highly connected to their school demonstrate better academic achievement, effort, participation than those who report of less connected to school, and overall detachment (Goodenow, 1993; Hagborg, 1998).

There are numerous of literature that suggests that higher the school connectedness results to less depressive outcomes. Many factors are associated with depression in

adolescents; those who perform low academically are at risk of depression, substance abuse, engage in alcohol, or adolescent living with a single parent. Horton et al., (2006) study showed that school connectedness was however not predictive of depressive symptoms and thus did not intervene the school environment effect on early adolescent's emotional problem.

A longitudinal study of 2000 students in 3 Australian state showed that low school connectedness predicted depressive symptoms after 1 year in both girls and boys (Dadds et al., 2006), whereas another study found that participants with low school connectedness but baseline good at social connectedness were at risk of an elevated risk of anxiety or depressive symptoms 2 years later (Bond et al., 2007), differing from this research, a study conducted by Millings et al., (2012) showed negative relationship between school connectedness and depressive symptoms.

A research conducted by Anderman (2002) on 60,000 students concluded that a sense of belonging to school predicts lower depression and social rejection, fewer school problems, greater optimism and high grades. Similarly, elevated level of baseline depressive symptoms was the result of higher level of conduct disorder, but showed no relationship between depressive symptoms and school connectedness (Ripperger, Loukas & Horton, 2008). Students who feel uncared for and disconnected from their schools may be more likely to feel isolated and unsafe leading to symptoms of depression and anxiety (LaRusso, Romer, & Selman, 2008; Resnick et al., 1997).

Kamble and Dalbert (2011) emphasized the importance of the individual and subjective experience of justice of the teachers behavior for adolescent behavior, the results indicated that the more, the students endorsed their belief in personal just world, the more they felt treated justly by their teachers and their parents alike, and the less distress at school and depressive symptoms they experienced. When individual reported of higher level of connectedness, they also reported of increase in their optimism and lower level of depression (Anderman, 2002).

Researchers have revealed a positive correlation between school connectedness and emotional well-being. This led to the finding of negative correlations which showed

that when mental illness increases, the level of school connectedness among adolescents decreases. Depression and anxiety have been discovered to be inversely associated with children who are more highly connected to school (Waters & Cross, 2010). Resnick et al. (1997) also found school connectedness to be negatively correlated with emotional distress (Shocet et al., 2006).

There has been very limited research that has looked at the relationship between school connectedness and hopelessness. School experience provides adolescents with positive emotions and cognition which helps them pursue their future goals resulting to hope for themselves (Gilligan, 2002); youths who are less involved both emotionally and behaviorally in school and school related events exhibit depressive symptoms and hopelessness symptoms (Li & Lerner, 2011).

CHAPTER 3

THE PRESENT STUDY

3.1 Rationale of the present study

The present study aims understand the relationship between school connectedness and mental health specifically, anxiety, depression, and hopelessness among school-going adolescents. School connectedness has been understood to encompass a range of aspects pertaining to a learner's sense of belonging to the school. School connectedness has been considered to be an important factor in reducing the likelihood that the adolescents will indulge in activities that are considered to affect their health. The risk that includes social isolation (ignored, bullied or teased), lack of safety the child feels at school and poor classroom management.

The causes and consequences of school connectedness have been widely researched. Most outcome research show that school connectedness and its relationship with school based variables or the developmental variables that are directly associated with mental health functioning. However, there is little research on the relation between school connectedness and adolescent mental health symptoms in general and more specifically with depression and anxiety symptoms for adolescents (Sochet et al., 2006), particularly in India.

Moreover, it is worthwhile to gain a better understanding of factors that could lead to higher levels of school connectedness and conversely risk factors that affect negatively levels of school connectedness (Thompson et al., 2006). Further, adolescents experience and react to contexts in different ways depending on individual characteristics (Kuperminc et al., 2001).

The current study considered group differences in the association between school connectedness and adolescent anxiety, depressive and hopelessness symptoms particularly for gender and age-grade. Prior research suggests that disadvantaged

groups perceive a more negative school climate compared to their other peers and have weaker relationships with school. Moreover, they are at increased risk for maltreatment and bullying at school and lower perceptions of school connectedness. Such experiences among disadvantaged youth may create emotional distress.

Students transitioning from primary school to senior secondary school experience new social environment from new set of teachers to classmates, this transition from primary to senior secondary have reported to drop the level of school connectedness among the students, which is later associated with anxiety and depression. Therefore, research is necessary to understand group differences among various grades to assess their level of school connectedness and its association with anxiety, depressive and hopelessness symptoms.

3.2 Research Questions

Under this backdrop, the present study has following research questions:

1. To what extent adolescents perceive connectedness towards their school?
2. Is there any association between school connectedness and anxiety, depression and hopelessness in adolescents?
3. How does school connectedness associates with anxiety, depression and hopelessness symptoms in adolescents?
4. Does relationship between school connectedness, anxiety, depression and hopelessness symptoms differ across gender and grade?

3.3 Objectives of the study

1. To investigate the extent to which school connectedness is associated with anxiety, depression and hopelessness in adolescence.
2. To study whether the relationship between the school connectedness and anxiety, depression and hopelessness symptoms varies across gender and grade.

3.4 Operational Definition

School connectedness: The extent, to which students personally feel accepted, respected, included, and supported by others in the school social environment.

Adolescents: A young person aged from 11-18 who is transitioning from a child to an adult.

3.5 Delimitation of the study

1. 30 participants were excluded from the study due to some of the missing answers in the questionnaire.
2. Since the study focuses on adolescents, those students who were above 18 years and still studying were excluded.
3. The distribution of the questionnaire was done in groups and in classroom setting.

CHAPTER 4

Methodology

4.1 Background

The previous chapter discussed about the literature review related to the school connectedness, depression, anxiety and hopelessness. The importance of reviewing the literature of previous research helps in the understanding of the topic being researched currently. Review of literature is one form of sources from where one can understand and evaluate the current topic. The reviews of the previous studies shows that school connectedness among the students play an important role in understanding the students presently and its effect on them through their adulthood. Students who show poor connectedness to their school show high level of at risk behaviours as compared to those with high level of school connectedness.

Often students show high depressive symptoms, high level of anxiety resulting to at-risk behaviour such as violence, substance abuse, suicide etc. Student also report of feeling unwanted by their peers, teachers which results to them feeling hopeless about their relationships and their future which also results in dropping out from school, involvement in violent activities, substance abuse and other at-risk behaviour.

This chapter will focus on the methodology used in this research. This chapter will help in understanding various kinds of research methods that can be applied in the studies, brief about what is research design and methods of collecting data. This chapter will explore the sample size used in the research; the instrumentation used in collecting the data, procedure, difficulties faced during the data collection and statistical analysis.

This chapter consists of—sections. Section 4.1 gives a brief introduction of the chapter. Section 4.2 explains what research is and different types of research methods.

Section 4.3 will discuss about the various research design used in previous studies. This section will also discuss the research design being used in the current study. Section 4.4 explains about the population and sample of this research. Section 4.5 explains the instrumentation used Section 4.6 explains about the pilot study conducted before the final research. Section 4.7 explains about the procedure of how the sample will be collected and how the research will be conducted. Section 4.8 will discuss about the statistics being used in the research for analysis of the data.

4.2 Research and types of methods

According to Woody (1927), research comprises of defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions; and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis, thus research is an original contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment.

West (2002) stated that research can be defined as a systematic and objective analysis and recording of controlled observations that may lead to development of organizations, principles and possibility ultimate control of events. Research is equally important for social scientists in understanding the social relationships and seeking answers to various social problems. Levin (1988) Social research is a systematic method of exploring, analyzing, and conceptualizing social life in order to extend, correct verify knowledge aid in the constitution of theory or in practice of an art.

The basic types of research are as follows:

1. Descriptive research: This type of research describes the state of affairs as it exists at present. The main characteristic of descriptive research is the researcher has no control over the variables, and he can only report about what has happened and what is happening. This research uses survey and fact findings.
2. Analytical research: This type of research uses the available information, facts and analyzes the details to make critical evaluation.

3. Applied research: This research focuses on finding the immediate solution for a problem facing the society or organization. The aim of this research is finding a solution for the practical problem.

4. Fundamental research: this research focuses on the generalization and formulation of a theory. The aim of this research is finding more information and thus adding to the already existing organized body of scientific knowledge.

5. Qualitative research is a method used to gain an understanding of underlying reasons, opinions. Qualitative research helps the researcher gather in-depth information required for the research. It provides insights into the problem. Data collection for qualitative research varies from using unstructured or semi structured techniques, amongst them the most common methods include focus group, individual interview and participation/observations. The sample size is generally small when using qualitative research methods.

6. Quantitative research is a method used to quantify the problem by generating numerical data or those data that can be transformed into statistics. This method is used to quantify attitudes, opinions, and behaviours, and generalize results from a larger sample population. Quantitative method use measurable data to formulate facts. This method is more structured as compared to qualitative method. Methods for data collection include various forms of survey such as online surveys, paper survey, and online polls.

4.3 Research Design

Research design is a systematic way of solving the research problem; it is understood as a science of studying how a research is done scientifically. In research methodology we study the various steps adopted by the researcher in studying his/her research problem. Selltitz (1962) defined research design as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. Research design is a conceptual structure within which the research is conducted; it constitutes the design for the collection, measurement and analysis of data. The design includes what the

researcher does from writing the hypothesis and its implication to final analysis of data. The design includes what the study is about, where the study will take place, where the data can be collected, the techniques, sample size and how the data will be analyzed.

Research design is a well thought process and should be prepared well, it stands for advance planning of methods to be adopted for collecting data and the techniques to be used in the analysis of the data. The reliability of the study is firmly based on the foundation of the research design any error could result to upset the entire project.

AlMakadma & Mikler (2015) researched on school related risk behaviours as well as their association with the school environment, school and home connectedness. The researcher selected the sample on the availability of the participants and a self administered survey. The researcher used regression analysis that suggested that school student connectedness reduced the odds for all risk behaviors.

Similarly youth are particularly likely to develop depressive symptoms and social anxiety (Hawker & Boulton, 2003) because they tend to internalize negative peer messages (Troop-Gordon & Ladd, 2005). Adekunle (2014) used stratified random sampling to investigate school connectedness, emotional intelligence and locus of control as predictors of academic achievement among school going. The results indicated that school connectedness, locus of control and emotional intelligence were effective in determining academic achievement among the students.

A qualitative study by Biag (2014) discussed about the three dimensions of school connectedness in urban low- income middle school. The method of collecting sample was individual interview of teachers and students. Their analysis revealed that school personnel cared for student's needs sometimes at the expense of holding them accountable to rigorous standard.

A longitudinal study done by Loukas et al., (2013) discussed about the role of school connectedness as a moderator or associations between overt and relational forms of peer victimization and early adolescent's subsequent adjustment problems. Regression analysis was performed on the data which resulted to showing that school

connectedness was associated with decrease in adolescents conduct problem across time and buffer the impact of overt victimization on girl's subsequent conduct problems. Another results showed that overt, but not relational victimization predicted increases in boy's and girl's conduct problems and social anxiety and girls depressive symptoms across the 1 year period.

A number of studies indicate that early adolescents' reports of school connectedness are associated with fewer subsequent externalizing problems, such as conduct problems (Loukas, Ripperger- Suhler, & Horton, 2009) and internalizing problems, such as depressive symptoms and anxiety (Shochet, Dadds, Ham, & Montague, 2006). Lester et al., (2013) conducted a longitudinal study was conducted, with 3459 students as the participants for the study during the transition from primary to secondary school to explore the association between feeling connectedness to school and mental health prior to and over the transition period. Questionnaires were collected at four time points from Grade 7 to the end of Grade 9. Path analysis was used to model relationships between school connectedness, depression and anxiety. The results suggested reciprocal relationship between school connectedness and mental health where increased connectedness to school is associated with decreased depression and anxiety, increased depression and anxiety is associated with decreased connectedness to school.

The research design adopted in this study will be a quantitative research with the use of questionnaires. To validate the objectives Pearson's Correlation and Regression Analysis was used. The Pearson's Correlation was performed to see the association between the variables. After performing the correlation, two-way ANOVA was performed using 2*3 research designs to compare the mean differences between groups. Two-way ANOVA allowed to examine if there is an interaction between the two independent variables (gender and grade) on the dependent variable (school connectedness, anxiety, depression and hopelessness).

Regression analysis was performed to see if school connectedness predicts the anxiety, depression and hopelessness amongst adolescents.

4.4 Sample

In research sample is a set of data that are collected or selected from a population of interest. A sample is a smaller collection of units from a population used to determine truths about the population (Field, 2005). The *target population* is the total group of individuals from which the sample might be drawn. The term population means the total number of people living in a society. A population consists of people living together and is known to have similar characteristics. A *sample* is the group of people who take part in the investigation. The people who take part are referred to as “participants”.

The purpose of sampling is to generalize the finding to the target population. Since it is difficult to include the entire population as a part of the study, researchers select sample on a small group that is more likely to be a representative of the target population interested in. Sample surveys are an important tool for collecting and analyzing information from selected individuals. They are widely accepted as a key tool for conducting and applying basic social science research methodology (Rossi, Wright, and Anderson, 1983).

In this study the population is limited to one state, and the population focuses on the adolescents from age 6 to age 18, studying in middle school, secondary school and senior secondary school. The sampling method used for this study is Stratified random sampling. Stratified sampling refers to the sampling that involves the division of a population into smaller groups known as strata. The strata are formed based on members' shared attributes or characteristics. A random sample from each stratum is taken in a number proportional to the stratum's size when compared to the population. These subsets of the strata are then grouped together to form a random sample.

Robson (1993) tells us that stratified random sampling is an efficient choice because the means of the stratified samples are likely to be closer to the mean of the population overall. Similarly, Leary (1995) indicates that a stratified random sample typically reflects the characteristics of the population as a whole.

Certain criteria were included in this study during selection of the schools:

- (1) Schools that fall under rural areas were cancelled,

- (2) Schools where English language was a challenge was cancelled,
- (3) Single gender schools were cancelled out from the schools list.

After thorough investigation, 4 schools were selected on the basis of co-ed government school, English medium school, senior secondary school and the location.

Participants for the study were selected with the help of the teacher in charge; selected students were first enquired about their age and then considered for participation for the study. Since the study required a broad range of students to study their connectedness to school, students that fall under high achiever or low achievers were selected for the study. The questionnaires were administered in groups with the help of teacher in charge.

For this research, 200 students were approached for the study, out of which 60 students were selected from grade 6-8, with 30 boys and 30 girls. Since this group consisted of 3 classes, 10 students from each class were taken for the study. Similarly, for the second group, 9-10 grade 30 boys and 30 girls were selected. 30 students were selected from each class, with 15 boys and 15 girls respectively. Lastly, 80 students were selected in total, with 40 students from grade 11, 20 boys and 20 girls and 40 from grade 12, 20 boys and 20 girls.

Table 1 Sampling of the participants

Gender/ Grade	Boys	Girls	Total
Grade 6-8	30	30	60
Grade 9-10	30	30	60
Grade 11-12	40	40	80
Total	100	100	200

4.4 Tools used

Standardized questionnaires are used to collect the data from the participants. These questionnaires help the researcher in completing their research.

4 standardized tests were used by the researcher for fulfilling the purpose of the study. (i) Psychological Sense of School Membership, (ii) Beck's Anxiety Inventory, (iii) Beck's Depression Inventory and (iv) Beck's Hopelessness Scale.

Psychological Sense of School Membership

To assess the adolescent connectedness to school, Psychological Sense of School Membership (PSSM) was developed by Carol Goodenow (1993). This scale is a self-report questionnaire consisting of 18 items and is scored in 5 point Likert response scale: 1= not at all true to 5= completely true. This scale consists of 5 dimensions: *School* (I feel like a real part of the school.), *Staffs* (People here notice when I'm good at something), *Teachers* (Most teachers at this school are interested in me), *Self* (It is hard for people like me to be accepted here) and *Students* (Other students in this school take my opinions seriously). The PSSM scale has been found to have good internal consistency reliability with a Cronbach's α of .875 in one study and .884 in another. Generally, the internal consistency reliability was acceptable for different samples, ranging from .77 to .88. Higher scores on the PSSM scale reflect higher levels of perceived school connectedness.

Beck's Anxiety Inventory

To assessment for Anxiety, Beck's Anxiety Inventory developed by Aaron T. Beck and Robert A. Steer (1993). This is a self reported inventory with 21 items for both adolescents and adults. It is a 4 point scale with the following correspondence "Not at all" (0 points); "Mildly; it did not bother me much" (1); "Moderately; it was very unpleasant, but I could stand it" (2); and "Severely; I could barely stand it" (3). BAI reported high internal consistency reliability Cronbach's α of .92 and another found slightly higher .94.

Beck's Depression Inventory

To assess the depressive symptoms among adolescents: Beck's Depression Inventory (BDI-II) developed by Aaron T. Beck, Robert A. Steer and Gregory K. Brown. There are three versions of the BDI—the original BDI, first published in 1961 and later revised in 1978 as the BDI-1A, and the BDI-II, published in 1996. This scale comprises of 21 items, and is a self-report multiple-choice inventory for both adults and adolescents aged 13 years and older. This scale is a 4 point scale rating ranging

from 0-3 based on severity of each item. Alpha coefficient of the BDI-II for the outpatient was .92 and for college student, .93.

Beck's Hopelessness Scale

To assess the hopelessness: Beck's Hopelessness Scale developed by Aaron T. Beck and Robert A. Steer (1974). This scale consists of 20 true and false statements that assess the extent of negative expectancies about the immediate and long range future. Each of the 20 items is scored 1 or 0. Out of 20 items, 11 are keyed true and 9 are keyed false to indicate endorsement of pessimism about the future. The Kuder-Richardson (KR-20) reliabilities for the suicide ideators, suicide attempters, alcoholics, heroin addicts, single episode Major Depression Disorder, recurrent-episode Major Depression Disorder, and Dysthymic Disorders were .92, .93, .91, .82, .92, .92 and .87 respectively. BHS shows high internal consistency.

4.5 Pilot study

A pilot study was performed on 30 students to check the reliability of the tests being used in the study. After the completion of the data collection for the pilot study, SPSS was used to analyze the data. The reliability score for school connectedness showed .868 cronbach's alpha. Reliability for each of the dimensions was also checked. The dimension "school" had the cronbach's alpha of .731, reliability for the dimension "other people" had the cronbach's alpha of .780, reliability for "student" dimension had the cronbach's alpha of .225, reliability for "teacher" dimension had the cronbach's alpha of .252 and reliability of "self" dimension had the cronbach's alpha of .595 Beck's Anxiety Inventory showed the reliability score of .700 cronbach's alpha.

4.6 Procedure

The data was collected from four different schools located in East Sikkim. The questionnaires were submitted to the principals of each school for checking the content of the questionnaire, a certificate of confidentiality was provided to the principal stating that the sample collected from their school will be kept confidential,

and will identity will be kept anonymous. Before handing out the questionnaires to the students, the students were asked about their willingness to participate in the study. After selecting the students, they were given a small summary of the test highlighting the purpose of the study. Along with the questionnaires, a consent form was given to the students, the consent form included the details about the researcher and confidentiality letter stating their participation identity would be kept a secret and also their answers. The test was administered in groups of 15 to avoid any disturbance, with the supervision of the teacher in charge.

Difficulties faced during the data collection were:

1. Non cooperation from few of the schools and their principals.
2. Language barrier between the researcher and the students.
3. Time management was essential, but was not managed properly by the institutions.
4. Few questions were rated as not appropriate by the teachers and students.

4.7 Statistical Analysis

Quantitative data in research is analyzed with the help of Statistical Package for Social Science (SPSS). In this research SPSS was used to analyze the data to validate the objectives of this research. The statistics used in this research are descriptive statistics including mean, standard deviation, and inferential statistics using ANOVA, Pearson's Correlation, and Regression Analysis.

Descriptive statistic provides the basic summary of the sample and the measures. Descriptive statistic describes what the data shows. It helps in quantifying the large sample into simpler form. Inferential statistic is used to make inferences from the data to more general condition. It is used to infer from the sample data of what is actual population.

Descriptive statistics include central tendency with mean, median and mode. Central tendency of a distribution is an estimate of the centre of the distribution value. Mean, Median and Mode are the most popular averages Mean is also known as arithmetic average and is the most common measure of central tendency and may be defined as the value which we get by dividing the total of the values of various given items in a

series by the total number of items. Its chief use consists in summarizing the essential features of a series and in enabling data to be compared. Median is the value of the middle item of series when it is arranged in ascending or descending order of magnitude. It is not frequently used in sampling statistics. Mode is the most commonly or frequently occurring value in a series. Mode is the size of the item which has the maximum frequency. Mode is positional average and is not affected by the values of extreme items. Therefore, useful in all situations where we want to eliminate the effect of extreme variations. Standard deviation is the accurate estimate of dispersion (spread of value among the central tendency) because and outlier can greatly amplify the range.

Pearson's Correlation is denoted by "r". It is one of the most common methods of assessing the association between two variables. The range of correlation is from +1 to -1 through 0. Coefficient +1 indicates the positive correlation which means when one variable increases the other variable also increase and -1 indicates the negative correlation which states that increase in one variable results to decrease in the other. 0 denotes when there is no correlation between the variables. There are 3 types of correlation:

- (i) Positive and Negative Correlation: the correlation between the variables depends on its direction of change, it is said to be a positive correlation if both the variables move in the same direction, and if the variables move in opposite direction it is then said to be a negative correlation.
- (ii) Simple, Partial and Multiple Correlation: when there is only two variables used in the research the study is said to be a simple correlation. When three or more variables are used in the study it is then called a multiple correlation and the study would be considered partial when there are more than two variables, but only two of the variables are considered that are influencing each other, such that the effect of the other influencing variable is kept constant.
- (iii) Linear and Non-Linear Correlation: linear correlation is said when the amount of change in one variable and the change in the other variable bear a constant ratio and in

non linear correlation the change in one variable does not bear the constant ratio of change with the other variable.

ANOVA stands for Analysis of Variance; it is a set of techniques for studying the cause and effect of one or more factors on a single dependent variable. ANOVA technique is used when the independent variables are of nominal scale (categorical) and the dependent variable is metric (continuous), or at least interval scaled (Nargundkar, 2003). The ANOVA technique focuses on the behaviour of the variance within a set of data. The basic principle is to test for difference among the means of the populations by examining the amount of variation within each of these samples, relative to the amount of variation between the samples. While using ANOVA it is assumed that each of the samples is drawn from a normal population and that each of these populations has the same variance.

Regression Analysis is a statistical process of estimating the relationship among the variables. It helps to understand how the dependent variable changes when one of the independent variable varies and not the other independent variables, and infer casual relationship between the dependent and independent variable. It is widely used in forecasting and prediction. Regression analysis is also used to understand which among the independent variable are related to the dependent variable. Linear Regression model or bivariate is designed to study the relationship between a pair and variables that appear in a data set, and Multiple Linear Regression model is designed to study the relationship between one variable and several other variables. In both the cases there is a random selection of sample from the population.

Summary

This chapter gives a brief about the methodology being adopted in this research work. This chapter explains the total number of 200 students as the participants for the study with 100 male and 100 female students from different grade. There are 60 participants from grade 6-8 as one group, 60 students from 9-10 as the second group and 80 students from grade 11-12 as the third group. Total of 4 government schools were selected through stratified random sampling. The questionnaires were distributed with the consent from the school principal as well as the students participating in it. The sampling was done through groups. Correlation, Regression analysis and Two-way

ANOVA were performed to analyze the data using the Statistical Package for Social Science.

CHAPTER 5

RESULTS AND INTERPRETATIONS

5.1 Introduction

This chapter provides presentation, analysis, and interpretation of the data. This would help to answer the research questions that were asked in the second chapter and discussion in the next chapter. Along with descriptive statistics, data was analyzed using Two Way ANOVA, Pearson Correlation and Stepwise Multiple Regression. Two Way ANOVA was used to make comparisons between gender and grade with respect to school connectedness, anxiety, depression, hopelessness. Pearson Correlation was used to examine the relationship between school connectedness and its subscales with anxiety, depression and hopelessness. Stepwise Multiple Regression was used to find out if any of the subscales of school connectedness predicted anxiety, depression and hopelessness in adolescence.

This chapter is divided into six sections. Section 5.1 gives a small introduction of the chapter; Section 5.2 discusses the sample profile of the participants. Section 5.3 deals with the descriptive statistics of school connectedness and its subscales, depression, anxiety and hopelessness. Section 5.4 discusses the relationship between school connectedness and its subscales with anxiety, depression, and hopelessness. Section 5.5 describes the comparison between groups. Section 5.6 deals with the regression analysis.

5.2 Sample Profile

It is important to know the demographic profile of the respondents. This gives an understanding of the respondent's background and helps in analyzing their behaviour in the given context. The sample was collected from students of four government senior secondary schools of Sikkim.

Table 5.1 describes the sample profile (sex and grade) of students who participated in this study. A total number of samples were 200 including boys and girls across middle, secondary and senior secondary grades. The mean age was 15.24 of the respondents.

Table 5.1
Demographic profile of the respondents (n=200)

Variable	No. of respondents	%
Gender		
Male	100	50
Female	100	50
Grade		
Middle (6-8)	60	30
Secondary (9-10)	60	30
Senior Secondary (11-12)	80	40

The above mentioned table indicated that out of 200 students, 100 (50%) were boys and 100 (50%) were girls. Since, these students belonged to various grades, thus, 60 (30%) were from middle and secondary, whereas 80 (40%) were from senior secondary grades.

5.3 Descriptive Statistics and Prevalence of School Connectedness, Depression, Anxiety and Hopelessness

There were four variables school connectedness, depression, anxiety and hopelessness in the present study. To measure school connectedness Psychological Sense of School Membership was used. This test has 5 subscales to measure school connectedness; the subscales are School, Self, Students, Teachers and Other people. For variables depression, Beck's Depression Inventory was used. This scale measures an

individual's depressive symptoms ranging from mild, moderate to high. For anxiety, Beck's Anxiety Inventory was used. This test measures the individual's anxiety level from minimal, mild, moderate and high. For hopelessness, the Beck's Hopelessness Scale was used. The test measures the individual's level of hopelessness from minimal, mild, moderate and severe. This section represents the descriptive statistics (mean and standard deviation) calculated for the above mentioned variables.

5.3.1 Descriptive Statistics and Prevalence of School Connectedness, Depression, Anxiety and Hopelessness.

This section describes the descriptive statistics (mean and standard deviation) and prevalence of school connectedness, depression, anxiety and hopelessness. Prevalence of school connectedness ranged using median value (61): below 61=low, 61=moderate, above 61=high. For anxiety, prevalence ranged 0-7=minimal, 8-15=mild, 16-25=moderate, 26-63=severe. Depression ranged 0-13=minimal, 14-19=mild, 20-28=moderate, 29-63=severe. Hopelessness ranged 0-3=minimal, 4-8=mild, 9-14=moderate, more than 14=severe.

Table 5.2

Mean, SD, and Prevalence of School Connectedness, Beck's Anxiety Inventory, Beck's Depression Inventory, Beck's Hopelessness Scale (n=200)

Variables	M	SD
School connectedness	60.88	8.52
Beck's Anxiety Inventory	20.80	7.99
Beck's Depression Inventory	21.57	9.41
Beck's Hopelessness Scale	5.89	2.87

Table 5.2 showed that after comparing the mean and standard deviation, the standard deviation is less than one-third of the mean. This shows that the sample is normally distributed. Result also showed that school connectedness for overall sample was of moderate level (M=60.88, SD=8.52), anxiety was moderate (M= 20.80, SD=7.99), moderately depressed (M= 21.57, SD=9.41) and hopelessness was of mild level (M=5.89, SD=2.87).

5.3.2 Descriptive Statistics for Subscales of School Connectedness

The Psychological Sense of School Membership (PSSM) scale had five subscales named school, other people, students, teachers, and self. Table 4.3 showed the mean and SD for these five subscales of school connectedness.

Table 5.3

Mean and SD for Subscales of School Connectedness (n=200)

Subscale	M	SD	Range
School	12.01	3.90	2-20
Other people	5.47	2.51	1-10
Students	1.32	1.02	0-4
Teachers	8.58	3.24	0-15
Self	8.50	3.19	1-15

From the above mentioned table, while school subscale showed the highest mean score (M=12.01, SD=3.90), followed by teacher subscale (M= 8.58, SD= 3.24), self subscale (M=8.50, SD=3.19) and other people subscale (M=5.47, SD=2.51). The students subscale had a lowest meanscore (M=1.32, SD=1.02). Result also showed that participants had scored low on subscales of school connectedness.

5.4 Correlation between School Connectedness, Anxiety, Depression and Hopelessness

School connectedness is associated with several behavioural and emotional outcomes. In general, researchers tend to view school connectedness on a continuum. In other words, higher school connectedness is associated with good outcomes and lower school connectedness is associated with poor outcomes. This section examined the relationship of school connectedness and its subscales with anxiety, depression and hopelessness of adolescence. To examine this relationship, Pearson Correlation was computed.

Table 5.4

Relationship of Subscales of Grade Connectedness with Depression, Anxiety and Hopelessness

School Connectedness/Subscale	Beck's Anxiety Inventory	Beck's Depression Inventory	Beck's Hopelessness Scale
School	-.139	-.049	0.58
Other people	-.056	0.38	.057
Students	-.012	-.041	-.192**
Teachers	-.131	-.180*	-.147*
Self	-.165*	-.146	-.115
School Connectedness	-.193**	-.162*	-.165*

* p <.05, **p < .01

Table 5.4 showed that school connectedness was significantly negatively associated with anxiety (r=-.193, p <.01), depression (r=-.162, p <.05), and hopelessness (r=-

.165, $p < .05$). However, strength of the relationship is weak. With regard to subscales of school connectedness, self is significantly negatively associated with anxiety ($r = -.165$, $p < .05$), teachers subscale is significantly negatively associated with depression ($r = -.180$, $p < .05$), and students and teachers are significantly negatively associated with hopelessness ($r = -.192$, $p < .01$) and ($r = -.147$, $p < .05$) respectively.

5.5 Analysis of the Variance

This section examines the school connectedness across gender and grade. In this study, there were two factors gender, which had two levels, boys and girls. Another factor was grade, which had three levels middle, secondary, and senior secondary. Thus, two-way ANOVA was performed using 2*3 research design to compare the mean differences between groups. Two-way ANOVA allowed to examine if there is an interaction between the two independent variables (gender and grade) on the dependent variable (school connectedness, anxiety, depression and hopelessness).

Table 5.5

Analysis of Variance for Anxiety as a function of Gender and Grade

* $p < .05$

Variables	Mean square	df	F
Gender	234.0	1	3.7*
Grade	121.1	2	1.9
Gender*Grade	59.7	2	.95

The result showed that gender showed main effect on anxiety at $F = 3.7$, $p < 0.05$. There was no significant main effect of grade on anxiety $F = 1.9$, $p > 0.05$.

Table 5.6

Analysis of Variance for Depression as a function of Gender and Grade

Variables	Mean square	df	F
Gender	.12	1	.01
Grade	156.9	2	1.7
Gender*Grade	176.7	2	2.0

The results for gender and grade showed no main effect, and interaction effect on depression.

Table 5.7

Analysis of Variance for School Connectedness as a function of Gender and Grade

Variables	Mean square	df	F
Gender	57.61	1	.81
Grade	112.07	2	1.5
Gender*Grade	270.735	2	3.8*

*p < .05

The result showed that the main effect of gender was not significant: $F=0.81$, $p > 0.05$. Similarly, the main effect of the grade was not significant: $F=1.58$, $p > 0.05$. There was a significant interaction between gender and grade: $F=3.87$, $p < 0.05$. This interaction is displayed in the graph 5.1, showing that for girls, school connectedness declined in secondary grade than in middle grade and that this effect was higher for boys.

Graph 5.1

Analysis of Variance for School Connectedness as a function of Gender and Grade

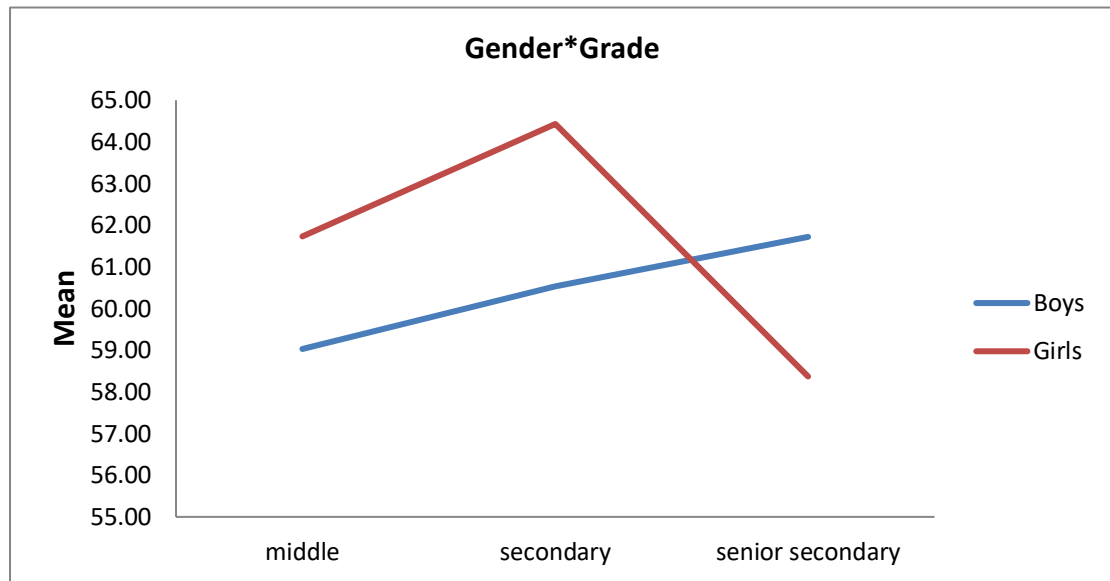


Table 5.8

Analysis of Variance for Hopelessness as a function of Gender and Grade

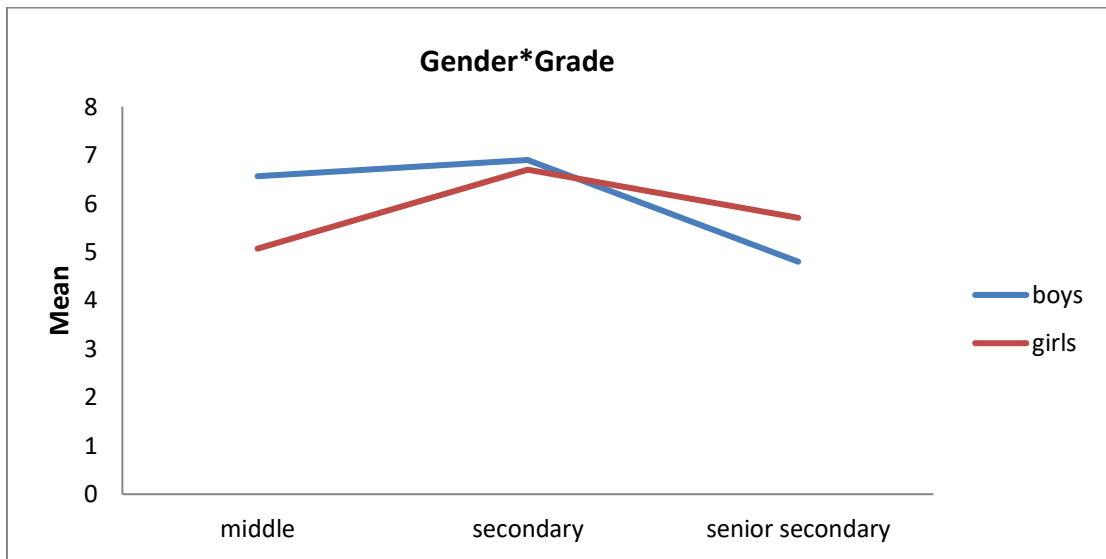
Variables	Mean square	df	F
Gender	3.49	1	.449
Grade	41.38	2	5.3**
Gender*Grade	24.71	2	3.1*

**p < 0.01, * p < 0.05

The results showed that grade has a main effect on hopelessness $F=5.3$, $p < 0.01$. There was a significant interaction between gender and grade $F=3.1$, $p < 0.05$. This interaction is displayed in graph 5.2, showing that for boys, hopelessness was higher in secondary grade as compared to the girls.

Graph 5.2

Analysis of Variance for Hopelessness as a function of Gender and Grade



5.8(a) Tukey test

This section examines the significant difference between the groups with each other. The three groups are middle grade, secondary grade and senior secondary grade, this test is used to see if there is any difference between these three groups with hopelessness.

Table 5.8(a) Comparisons of Hopelessness across three grades (Tukey Test)

	Middle	Secondary	Senior Secondary
Middle	-	ns	ns
Secondary	-	-	*
Senior Secondary	-	-	-

** p < .01, * p < .05, ns – Not significant.

The result indicates that there is a significant difference between the secondary and senior secondary grade at p<.05 level.

5.6 Multiple Regression Analysis

Literature suggests that school connectedness may be a significant determinant of adolescent mental health. Most importantly, grade transitions have been found to have a significant effect on the psychological, social and intellectual functioning of students. This section investigated that whether school connectedness can predict anxiety, depression and hopelessness among adolescents. Stepwise multiple regression analysis was computed.

Table 5.9

Stepwise Multiple Regression Analysis of Subscales of School connectedness and Anxiety for Middle Grade

Model	β	R	Adjusted R ²	F
School	-.27**	.27	0.05	4.62*

Table 5.9 showed that for grade 6-8, school subscale significantly negatively predicted anxiety; however, 5% of the variance in anxiety was explained by the model.

Table 5.10

Stepwise Multiple Regression Analysis of Subscales of School connectedness and Anxiety for Secondary Grade

Model	β	R	Adjusted R ²	F
Teacher	-.25**	.25	0.04	4.02*

Table 5.10 showed that for 9-10, teachers subscale significantly negatively predicted anxiety; however, 4% of the variance in anxiety was explained by the model.

Table 5.11

Stepwise Multiple Regression Analysis of Subscales of School connectedness and Hopelessness for Grade 9-10

Model	β	R	Adjusted R ²	F
Teacher	-.28*	.39	.12	5.13**
Students	-.27*			

* p <.05, **p < .01

Table 5.11 showed that for grade 9-10, teacher and students subscales significantly negatively predicted hopelessness. 12% of the variance in hopelessness was explained by the model.

Table 5.12

Stepwise Multiple Regression Analysis of Subscales of School connectedness and Anxiety for Senior Secondary Grade

Model	β	R	Adjusted R ²	F
Self	-.36**	.36	0.11	11.68**

* p <.05, **p < .01

Table 5.12 showed that for grade 11-12, self subscale significantly negatively predicted anxiety; however, 11% of the variance in anxiety was explained by the model.

Table 5.13

Stepwise Multiple Regression Analysis of Subscales of School connectedness and Depression for Grade 11-12

Model	β	R	Adjusted R ²	F
Self	-.23*	.33	.09	4.92**

Teacher	-.23*
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* $p < .05$, ** $p < .01$

Table 5.13 showed that for grade 11-12, self and teacher subscales significantly negatively predicted depression. 9% of the variance in depression was explained by the model.

CHAPTER 6

Discussion

This chapter is divided into 5 sections. Section 6.1 discusses result of school connectedness, anxiety, depression and hopelessness. Section 6.2 discusses the relationship between school connectedness anxiety, depression and hopelessness. Section 6.3 discusses the result for school connectedness across grade and gender. Section 6.4 discusses the result for hopelessness across gender and grade. Section 6.5 discusses the result for anxiety across gender and grade. Section 6.6 discusses whether school connectedness predicts anxiety, depression and hopelessness.

6.1 School connectedness, anxiety, depression and hopelessness

One of aims of the study was to investigate the level of school connectedness, anxiety, depression, and hopelessness among adolescence. The overall results for level of school connectedness, anxiety, depression and hopelessness showed that the students reported of moderate level of school connectedness, moderate level of anxiety, moderate level of depression and mild level of hopelessness.

The result also showed that students scored more on the ‘school’ subscale, which means that they feel like they belong to the school and feel they are cared for in the school environment. Since school environment affects the child’s relation with teachers, school and others associated with the school, it helps them develop emotionally, academically and behaviourally (Blum, 2004).

Students reporting of better relationship with their school display low symptoms of depression, risky behaviours and it also help them recover from negative adverse experience (Crosnoe, 2002). Lower levels of school engagement appeared to contribute to lower academic competence and higher levels of risk behaviors in later schooling (Pears, et al., 2013). Cognitive school engagement was also found to be

linked to lower levels of risk behaviors such as substance use, externalizing behaviors, and deviant peer associations (Pears, et, 2013).

The students scored lowest in the subscale *students*. This subscale explains the relationship one shares with the other students of the class or school. Scoring low on the subscale means that the students share a very little connection with other students of the school. Students who are often rejected from their peers become disengaged and avoid the educational setting this restricts the child's ability to participate and reduces the learning experience which makes an impact on the child's academic performance (Finn, 1993), and also if the students face maltreatment from their peers at school they are less likely like being around in the school, resulting to feeling less connected to their school (Eisenberg&Neumark-Stainer, 2003).

6.2 Relationship between school connectedness, anxiety, depression, and hopelessness.

Another aim of the study was to examine the relationship between school connectedness, anxiety, depression, hopelessness. Result showed that school connectedness was negatively related to anxiety. Similar finding was found in Resnick et al. (1997) study. They found that students who feel uncared and disconnected from their school, are more likely to display symptoms of anxiety. Waters & Cross (2010) found negative correlation between school connectedness and mental health, where the finding show as mental illness increases, the level of school connectedness decreases. Similarly, Depression and anxiety have also shown to be inversely associated with high level of school connectedness.

The result also showed that school connectedness was negatively associated with depression. In other words, students who reported low school connectedness might be prone to depression. Millings et al.,(2012) also found negative relationship between school connectedness and depressive symptoms.

Similarly, Shocher, Dadds, Ham and Montague (2006) reported that school connectedness and depression is moderately associated, where low level of school connectedness later predicted depressive symptoms among the adolescents. Monahan

(2010) also reported that when students feel more close to school they report low depressive symptoms in late adolescence.

Results also showed that school connectedness was also negatively associated with hopelessness. Since low school connectedness can cause depression, hopelessness is one of the symptoms that occur simultaneously with depression causing the person to feel worthless and not wanted, this can be explained with the help of Seligman's theory of learned helplessness theory of depression which states that when an individual is exposed to uncontrollable and aversive environmental stimuli, this leads to the belief that the situation which is unavoidable, develops sense of helplessness, and this helplessness later develop into depression.

Regarding school connectedness subscales, it was found that self was negatively associated with anxiety. Self in this scale talks about how one perceive him/her in the present. The results suggest that students who perceive positive about themselves are self motivated are less likely to suffer from anxiety as compared to those students who consider low of themselves. Students when perceive themselves to be positive they perform well in school and maintain good relationship, but when they perceive themselves negatively, they are likely to perform bad in school resulting to poor academic achievement.

MacBeth & Gumley (2012) identified that when one is concerned about self it was indicated that it was a good predictor of mental wellbeing. Werner et al (2012) provided evidence that one's self contributed to the development and maintenance of anxiety. One's sense of self-worth has shown constantly to have an effect on one's ability to be successful, and this is no different in the school setting. The school environment has an impact on students' sense of belonging and, therefore, will affect their academic success.

The subscale teacher is shown to be negatively associated with depression. The result explained that when a teacher student relationship is not proper or if the relationship shared by the student with its teachers is not satisfactory, students are more likely to show symptoms of depression. When a student's expectations are not met by the teachers there is an adverse effect on the student's performance and relationships.

Poor student- teacher relationship not only affects student's behaviour but also shows impacts on the child's self-perception (Ozer et al., 2008), also when their relationship is marked with conflicts and stress, it reflects on the child's connectedness to their school and bring about other negative outcomes (Baker, Grant, & Morlock, 2008; Hamre & Pianta, 2001; Myers & Pianta, 2008).

Rhodes and Mulhall (2003) stated that when a child reports a decline in their relationship with their teachers they reported increased depressive symptoms than compared to those who had better relationship with their teachers. Lack of support from the teachers can have a negative impact on their social and academic outcomes, which is somehow very important in a long run.

A teacher's opinion can bring changes in a child's behaviour and emotional health, and when emotional ties between them are wrecked, it may result to the child facing numerous problems in the future. Osterman (2000) suggested that being rejected, ignored or excluded can often lead to negative feeling of anxiety, depression and loneliness.

Results show that the subscales students and teachers are negatively associated with hopelessness. As children become adolescents they spend more time with peers and less time with adults. When students feel they are not a part of a group, this result in them staying away from social gathering, class activities and later developing into something major. Staying aloof from the rest can build a feeling of being an outcast and the child might develop a feeling of not being wanted, and also when they are not shown enough support, this feeling can result to feeling worthless and hopeless and gradually developing into depression. There is increasing substantiation that students' experience of belonging to their school, including close relationships with school social groups, and school based activities significantly assists motivation and academic achievement (Ryan & Stiller, 1994).

Moreover a study by Kirsa et al. (2016) confirms that when students are less attached to their peers, they are more likely to feel hopeless. Relationship with peers is defined as one of the best developmental factor in a student's life; this relationship helps the individual develop socially, emotionally, psychologically and so on.

This overall development helps the child be a better person in later life, but if this factor is affected negatively, the child is more likely to suffer emotionally and psychologically and sometimes also behaviorally. Another finding revealed that negative peers are the predictors of problem behaviours in the later developmental stage (Fleming, Catalano, Haggerty, & Abbot, 2010). In addition, when a child faces peer rejection, it reflects on the child's ability to perform.

The quality of the teacher-students relationship provides a base for influencing student's future social interactions that could affect their perception of their school as a healthy environment (Baker, Dilly, Aupperlee, & Patil, 2003). A healthy relationship shared between teachers-student help the student look forward to their future with aspiration and hope, more positive response leads to hopeful results for the future, teachers who support students in the learning environment can positively impact their social and academic outcomes (Baker et al., 2008; Connor et al., 2011).

However if this relation is affected, students lose focus in their studies resulting to lack of interest in classrooms, less attentive, and likewise losing focus overall, this could result to child's indecisiveness behaviour and being involved in activities which could affect the child's future. When teachers show less supporting behaviour, and do not provide students with their personal autonomy, this can result to the child having doubt on one self and also developing the feeling of being worthless.

Getting along with teachers was associated with fewer depressive symptoms offering primary support for the impact of a positive student-teacher relationship on adolescent depression (Reddy et al., 2003). Similar results have been found in studies using stronger measures of teacher support. For example, Reddy and colleagues (2003) conducted a study to measure teacher-student relationship and used a version of the teacher support sub-scale of the Classroom Environment Scale and found that when the teacher's support increases the student's showed decreased depressive symptoms.

6.3 School Connectedness across gender and grade

The results obtained from the study showed that neither do grade nor gender have an effect on the level of school connectedness. This states that student's sense of belonging to their school remains the same as they progress from middle school to senior secondary school; also the boys and girls had no significant difference in the results. But the result also suggests that there is an interaction effect between gender and grade on school connectedness. The interaction effect is shown in the secondary grade, the graph shows that girls from secondary grade have lower level of connection to their school when they transition to senior secondary grade, similarly boys when transitioning from middle to secondary grade show higher level of connectedness towards their school.

Gilligan (1982) argued that relatedness and connection is more important for girls, and the relationship between school connectedness and academic motivation is stronger in female than that of the males, this transition change the way the girls view the world and relationship. Research suggests that the level of school connectedness across gender changes over time, with girls reporting greater school attachment in middle school than the boys, and boys reporting of greater attachment and connectedness than girls in high school (Johnson, Crosnoe, & Thaden, 2006; McNeely et al., 2002).

6.4 Hopelessness across Gender and Grade

The results for hopelessness showed grade had an effect on the level of hopelessness where the secondary grade students scored more on hopelessness as compared to the other grades. The interaction effect is shown in the secondary grade, which means that when boys transition from middle grade to secondary grade, their level of hopelessness decrease, whereas for girls when they transition from secondary grade to senior secondary grade their level of hopelessness increases.

Haydar (2013) reported that secondary level boys tend to have high hopelessness as compared to the girls. The possible reason for boys scoring more on hopelessness

could be due to low socio-economic group, or societal responsibilities of gender role. Ozmen and his colleagues (2008) found in their studies that children of lower level as social-economic families receive less share from social welfare, therefore result to more hopelessness.

Further, post hoc test was done to see if there was any difference between middle grade, secondary grade and senior secondary grade. The test results showed that there was a significant difference between secondary grade and senior secondary grade on hopelessness.

6.5 Anxiety across Gender and Grade

The results obtained in this study showed grade showed no significant effect on anxiety but significant difference between the boys and girls on the anxiety was seen. Girls scored more on anxiety as compared to the boys. Lewinsohn et al., (1998) reported that females are twice as likely to suffer from anxiety disorder as compared to males. Possibilities may vary, but the reason could be the cultural upbringing and the responsibilities of gender roles in our society. Girls in our culture are programmed to take responsibilities and roles from a very young age, from taking care of the household to managing a family. Costello et al., (2003) also reported that adolescent girls tend to show more number of worries, separation anxiety and higher level of generalized anxiety.

According to Lewinsohn (1998), a framework was established to understand the difference in anxiety level among the gender. The first suggested that the prevalence of anxiety in females is genetically and biologically determined. And the second stated that gender differences in anxiety are linked to the different experiences and role of men and women. Bakhla et al., (2013) results also show that girls report of significant high level of anxiety as compared to the boys.

6.6 School Connectedness as predictor of anxiety, depression, and hopelessness

Lastly, the study aimed at investigating whether subscales of school connectedness predicted anxiety, depression, and hopelessness among adolescents. The results displayed that for middle grade, 5% of the variance in anxiety was reported by self subscale. De Wit et al., (2011) reported that when students report of lower self esteem, it is related to an increase in their anxiety. Global self worth and high self worth is reported of being a protective factor against anxiety symptoms as a protective factor against anxiety symptoms (Compas, 1987).

Similarly, for secondary grade, anxiety is explained with 5% of the variance by teachers subscale. Poor teacher relationship is related to declines in psychological adjustment such as self-esteem, and mental health problems such as symptoms of depression, anxiety, and suicidality (Loukas & Robinson, 2004; Ozer & Weinstein, 2004).

Hopelessness is explained with 12% of the variance by teachers and students subscale. The quality of the teacher-students relationship provides a base for influencing student's future interactions (Baker, Dilly, Aupperlee, & Patil, 2003). Poor student- teacher relationship not only affects student's behaviour but also shows impacts on the child's self perception. Results for senior secondary grade showed that 11% of the variance in anxiety was explained by self subscale, and 9% of variance in depression was explained by the subscale self and teachers.

Teacher support moderated the relationship between adolescents' anxiety and depressive symptoms (Arora et al., 2017). Reddy, Rhodes, and Mulhall (2003) found that when students report decline in teacher-student relationship, they also report increase in depression. The more students feel their teacher's care about them, the fewer depressed feelings they account to.

CHAPTER 7

Summary and Conclusion

7.1 Summary

Over the years school connectedness has been considered one of the factors that influence a student's mental health. With an increase in daily stress, adolescents are becoming more prone to emotional problems and behavioural problems resulting to their poor mental health and poor school performance. School connectedness appears to be related to behaviour control, conduct problems (Loukas et al., 2006), and academic performance (Goodenow, 1993).

The first objective of the study was to understand the relationship between school connectedness, anxiety, depression and hopelessness. The scales used for this study included Psychological Sense of School Membership by Goodenow (1993), Beck's Depression Scale (1961), Beck's Anxiety Inventory (1988) and Beck's Hopelessness Scale (1974) all developed by Beck and Steer.

Pearson's correlation was performed to find the association between the variables, and the result showed that School connectedness negatively predicted anxiety, depression and hopelessness. On further analysis, subscales of school connectedness also showed association with the variables anxiety, depression and hopelessness, the results were that subscales self, teacher, and students were negatively associated with anxiety, depression and hopelessness.

The second objective was to find out whether school connectedness varied across gender and grade. The statistical analysis two-way ANOVA using the 2*3 research design. The results found for ANOVA showed that there was a variance in anxiety across gender, where the girls reported of higher anxiety as compared to the boys. Whereas grade reported of variance across hopelessness, post-hoc test was performed to see which of the groups differed from each other, results showed that there was a

significant difference between secondary and senior secondary grade. The results showed that the subscale school negatively predicted anxiety among the middle grade students. Similarly, teachers subscale negatively predicted anxiety among the secondary grade students. Teacher and students subscale negatively predicted hopelessness. Also, for the senior secondary grade, self-subscale negatively predicted anxiety and self and teachers negatively predicted depression.

7.2 Conclusion

Adolescent mental health is one of the most growing concerns in today's world. In statistics, Sikkim reports of higher number of suicide rate and a high number of school dropouts among adolescents. For understanding the main reason behind this, the school can be considered an essential factor in understanding the adolescents and their behaviour. Findings suggest that poor level of school connectedness has higher chances of predicting mental health issues such as depression, anxiety among the adolescents. Transitioning from primary to secondary grade can also be considered as another aspect that outcome to changes in the relationship to school that affects the mental health of adolescents.

7.3 Limitations of the study

The first limitation was the sample size of the study. Since this study comprised of only 200 samples, this sample size could be the reason for weak variance among the variables. The second limitation is that this study is limited to only co-ed government schools from the east district of Sikkim. The third limitation is that language efficiency should be kept in mind when conducting the research in a government school. The language barrier could also cause hindrance in answering the questionnaire. The fourth limitation could be time management which is very essential when distributing questionnaire in groups. Conducting survey requires careful time allotment and awareness. Lastly, this limitation is very important when conducting research among adolescents in school premises, the presence of any school authority could result in partiality or bias viewpoint, which would affect the result in later analysis.

7.4. Implications of the study

This study can be useful for counselors, teachers and other related school members to understand the students. It can help develop coping strategies and programs that can help the students who report of a higher level of hopelessness, anxiety or depression. This study can help educators understand the levels of connectedness among different grade and take precautionary actions to deal with students who are at-risk. It can also help build better understanding between the students and teachers and improve their relationship.

7.5 Recommendations for future research

Firstly, working on a large sample and bigger population may give an improved version of result and analysis to understand the terminology school connectedness. Secondly, qualitative studies can also be done to understand the reasons for poor school connectedness and their relationship with increased mental health issues or reasons for understanding why students have better school connectedness. Third, considering other factors like socioeconomic status, family environment, health-related issues can result to possible consequence for mental health problems and low school connectedness. Fourth, a comparative study can be done between the primary and senior secondary schools to understand their level of belongingness to school with relation to their adjustment and mental health. Lastly, school connectedness and mental health status among special needs children attending normal school can be studied along with the teacher-student relationship.

References

- AbdulKarim S. & AlMakadma. (2015). Student, school, parent connectedness, and school risk behaviors of adolescents in Saudi Arabia. *International Journal of Paediatrics and Adolescent Medicine*, 2(3), 128-135
- Andersen, A., Holstein, B. E., & Due, P. (2006). School-related risk factors for drunkenness among adolescents: risk factors differ between socio-economic groups. *European Journal of Public Health*, 17(1), 27–32.
- Anderman, E. M. (2002). School effects on psychological outcomes during adolescence. *Journal of Educational Psychology*. 24(4), 795–809.
- Anderman, L. H., & Freeman, T. M. (2004). Students' sense of belonging in school. In P. R. Pintrich, & M. L. Maehr (Eds.), *Advances in motivation and achievement: Vol. 13. Motivating students, improving schools: The legacy of carol midgley*, 27-63. Greenwich, CT: JAI Press.
- Anderson, L.W., Jacobs, J., Schramm, S., & Splittgerber, F. (2000). School transitions: Beginning of the end or a new beginning? *International Journal of Education*, 33(4), 325–339.
- American Psychological Association (2002). *Developing adolescents: A reference for professionals*. Washington, DC: American Psychological Society.
- Arora, P. G., Baker, C. N., Marchette, L. K., & Stark, K. D. (2017). Components analyses of a school-based cognitive behavioral treatment for youth depression. *Journal of Clinical Child & Adolescent Psychology*, 16, 1–14.
- Baker, J.A., Grant, S., Morlock, L. (2008). The teacher-student relationship as a developmental context for children with internalizing or externalizing behavior problems. *School Psychology Quarterly*, 23(1), 3–15.

- Baker, J.A.; Dilly, L.J.; Aupperlee, J.L.; Patil, S.A. (2003). The development context of school satisfaction: School as psychologically healthy environment. *School Psychology Quarterly, 18*(2), 206-221
- Bakhla, A.K., Sinha, P., Sharan, R., Binay, Y., Verma, V., & Chaudhary, S. (2013). Anxiety in school students: Role of parenting and gender. *Indian Psychiatry Journal, 22*(2), 131-137. doi:10.4103/0972-6748.132927
- Battin-Pearson, S., Newcomb, M. D., Abbott, R. D., Hill, K. G., Catalano, R. F., & Hawkins, J. D. (2000). Predictors of early high school dropout: a test of five theories. *Journal of Educational Psychology, 92*(3), 568-582.
- Battistich, V., Solomon, D., Watson, M., & Schaps, E. (1997). Caring school communities. *Educational Psychologist, 32*(3),137-151.
- Barlow, David H. (2000). "Unraveling the mysteries of anxiety and its disorders from the perspective of emotion theory". *American Psychologist, 55* (11), 1247–63.
- Barber, B. K. & Olsen, J. A. (1997). Socialization in context: connection, regulation, and autonomy in the family, school, and neighborhood, and with peers. *Journal of Adolescent Research, 12*(2), 287-315.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497-529.
- Becker, B. E., & Luthar, S. S. (2002). Social-emotional factors affecting achievement outcomes among disadvantaged students: Closing the achievement gap. *Educational Psychologist, 37*(4), 197-214.
- Beck, A. T. (1967). *Depression: Causes and treatment*. Philadelphia: University of Pennsylvania Press.

- Biag, M. (2016). A Descriptive Analysis of School Connectedness: The Views of School Personnel. *Urban Education, 51(1)* 32–59.
- Blum, J.W., Libbey, H.P. (2004). Wingspread declaration on school connections. *Journal of School Health, 74(7)*, 233–234.
- Bolland, J. M., Lian, B. E., & Formichella, C. M. (2005). The origins of hopelessness among inner-city African-American Adolescents. *American Journal of Community Psychology, 36(3)*, 293–305.
- Bond, L., Butler, H., Thomas, L., Carlin, J., Glover, S., Bowes, G., & Patton, G. (2007). Social and school connectedness in early secondary school as predictors' of late teenage substance use, mental health, and academic outcomes. *The Journal of Adolescent Health, 40(4)*, 357-359
- Bonny, A. E., Britto, M. T., Klostermann, B. K., Hornung, R. W., & Slap, G. B. (2000). School disconnectedness: Identifying adolescents at risk. *Pediatrics, 106(5)*, 1017–1021.
- Bradford-Brown, B., & Klute, C. (2003). Friendships, cliques, and crowds. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence*, 330-348. Malden: Blackwell Publishing.
- Brookmeyer, K.A., Fanti, K.A.,& Henrich,C.C. (2002). Schools, parents and youth violence: A multilevel ecological analysis. *Journal of Clinical Child and Adolescent Psychology, 35(4)*, 504-514
- Brozina K, Abela JRZ. (2006). Symptoms of depression and anxiety in children: Specificity of the hopelessness theory. *Journal of Clinical Child and Adolescent Psychology, 35*, 515–527.
- Buchanan, C. M., Eccles, J., & Becker, J. B. (1992). Are adolescents the victims of raging hormones: Evidence for activational effects of hormones on moods and behavior at adolescence. *Psychological Bulletin, 111(1)*, 62-107

- Catalano, R., Haggerty, K., Oesterle, S., Fleming, C., & Hawkins, J. (2004). The importance of bonding to school for healthy development: Findings from the social development research group. *Journal of School Health, 74*(7), 252–26
- Catalano, R. F., Berglund., L. M., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The ANNALS of the American Academy of Political and Social Science, 594* (1), 98–124.
- Centers for Disease Control and Prevention (2009b). School Connectedness: Strategies for Increasing Protective Factors Among Youth. *Atlanta, GA: United States Department of Health and Human Services.*
- Chung-Do, J., Goebert, D., Chang, J., & Fumigani, A. (2015). Developing a Comprehensive School Connectedness Scale for Program Evaluation. *Journal of School Health, 85*(3), 179-188.
- Compas, B. (1987). Coping with stress during childhood and adolescence. *Psychological Bulletin, 101*, 393-403
- Connell, J. P., & Wellborn, J. G. (1991). Competence, autonomy, and relatedness: A motivational analysis of self-system processes. *The Minnesota Symposia on Child Development: Self-Processes and Development, 23*, 43-77.
- Costello, E. J., Egger, H., Angold, A., (2005). 10-year research update review: the epidemiology of child and adolescent psychiatric disorders: I. Methods and public health burden. *Journal of American Academy of Child and Adolescent Psychiatry, 44*(10), 972-86.
- Crespo, C. A., Paul, E., Kielpokowski, M., & Pryor, J. (2013). Family and school connectedness promotes. *Journal of Adolescence, 36*, 993–1002

- Croniger, R. G. & Lee, V.E. (2001). Social capital and dropping out of high school: benefits to at risk students' support and guidance. *Teacher College Record*, 103(4), 548- 581.
- Crosnoe, R., Johnson, M., & Elder, G. (2004). Intergenerational bonding in school: The behavioural and contextual correlates of student–teacher relationships. *Sociology of Education*, 77, 60–81.
- Davis, H. (2003). Conceptualizing the role and influence of student–teacher relationships on children's social and cognitive development. *Educational Psychologist*, 38, 207–234.
- Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. *Nebraska Symposium on Motivation: Perspectives on Motivation*, 38, 237-288.
- Decker, D. M., Dona, D. P., & Christenson, S. L. (2007). Behaviourally at-risk African-American students: The importance of student-teacher relationships for student outcomes. *Journal of School Psychology*, 45, 83-109.
- De Wit, D., Karioja, K., Rye, B.J., & Shain, M. (2011). Perceptions of declining classmate and teacher support following the transition to high school: Potential correlates of increasing student mental health difficulties. *Psychology in the Schools*, 48(6), 556-572.
- Dornbusch, S. M., Erickson, K. G., Laird, J., (2001). The Relation of Family and School Attachment to Adolescent Deviance in Diverse Groups and Communities. *Journal of Adolescent Research*, 16(4), 396-422
- DuBois, B.L.; Holloway, B.E.; Valentine, J.C.; Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal Community Psychology*, 30(2).

- Duke, N. N., Borowsky, I. W., Pettingell, S. L., & McMorris, B. J. (2011). Examining youth hopelessness as an independent risk correlate for adolescent delinquency and violence. *Maternal & Child Health Journal, 15*(1), 87-97.
- Eccles, J. S. (2004). Schools, academic motivation, and stage–environment fit. In R. M. Lerner & L. D. Steinberg (Eds.), *Handbook of Adolescent Psychology, 2*, 125–153.
- Elliott, G. R., & Feldman, S. S. (1990). Capturing the adolescent experience. In S.S. Feldman & G.R. Elliot (Eds.), *At the threshold: The developing adolescent*. 1-13. Cambridge: *Harvard University Press*.
- Eisenberg, M. E., & Resnick, M. D. (2006). Suicidality among gay, lesbian and bisexual youth: The role of protective factors. *The Journal of Adolescent Health, 39*, 662–668. <http://dx.doi.org/10.1016/j.jadohealth.2006.04.024>
- Eisenberg, M.E., Sztainer, N.D., Perry, C.L. (2003). Peer harassment, school connectedness, and academic achievement. *Journal of School Health, 73*(8), 311-316.
- Fagan, J., & Pabon, E. (1990). Contributions of delinquency and substance use to school dropout among inner city youths. *Youth & Society, 21*, 306-354.
- Finn, J.D. (1993). School engagement & students at risk. National Center for Education Statistics, Washington, DC. ERIC document ED 362 322.
- Flaspohler, P. D., Elfstrom, J. L., Vanderzee, K. L., Sink, H. E., & Birchmeier, Z. (2009). Stand by me: The effects of peer and teacher support in mitigating the impact of bullying on quality of life. *Psychology in the Schools, 46*, 636 – 649. <http://dx.doi.org/10.1002/pits.20404>.
- Flemming, C. B., Harachi, T. W., Catalano, R. F., Haggerty, K. P., Abbot, R. D.,(1996). Proximal effects of a comprehensive risk and protective factor prevention strategy. Paper presented at 104th annual convention of the American Psychological Association, August. Toronto, Canada.

- Flook, L., Repetti, R. L., & Ullman, J. B. (2005). Classroom social experiences as predictors of academic performance. *Development Psychology, 41*(2), 319-327.
- Ford, C. A., Bearman, P. S., & Moody, J. (1999). Foregone health care among adolescents. *Journal of the American Medical Association, 282*(23), 2227-2234.
- Fowles, D. C. (1993). Behavioral variables in psychopathology: A psychobiological perspective. In P. B. Sutker & H. E. Adams (Eds.), *Comprehensive handbook of psychopathology, 2*, 57–82. New York: Plenum.
- Frasson, M. (2014). The link between School connectedness and alcohol related hospitalization in adulthood- A cohort study. *Centre for Health Equity Studies*.
- Frey, A., Ruchkin, V., Martin, A., & Schwab-Stone, M. (2009). Adolescents in transition: school and family characteristics in the development of violent behaviors entering high school. *Child Psychiatry Human Development, 40*(1), 1-13. doi: 10.1007/s10578-008-0105-x.
- Frydenberg, E., Care, E., Freeman, E., & Chan, E. (2009). Interrelationships between coping, school connectedness and well being. *Australian Journal of Education, 53*(3), 261-276.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology, 95*(1), 148-162.
- Garnier, H. E., Stein, J. A., & Jacobs, J. K. (1997). The process of dropping out of high school: A 19-year perspective. *American Educational Research Journal, 34*, 395-419.
- Gilligan, R (2001). Promoting resilience: a resource guide on working with children in the care system, BAAF, London.
- Gilman, R., Dooley, J., & Florell, D. (2006). Relative level of hope and their relationship with academic and psychological indicators among adolescents. *Journal of Social & Clinical Psychology, 25*, 166-178

- Goodenow, C. (1993a). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence, 13*, 21-43.
- Goodenow, C. (1993b). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools, 30*(1), 79-90.
- Gottfredson, M. R., & Hirschi, T. (1990). A general theory of crime. Palo Alto, CA: Stanford University Press.
- Green, K.D., Forehand, R., Beck, S.J., & Vosk, B. (1980). An assessment of the relationship among measures of Children's social competence and Children's academic achievement. *Child Development, 51*, 1149–1156.
- Greenfield, P. M., Keller, H., Fuligni, A., & Maynard, A. (2003). Cultural pathways through universal development. *Annual Review of Psychology, 54*, 461-490.
- Hall-Lande, J. A., Eisenberg, M. E., Christenson, S. L., & Neumark-Sztainer, D. (2007). Social isolation, psychological health, and protective factors in adolescence. *Adolescence, 42*(166), 265-281.
- Hagborg, W. (1998a). An investigation of a brief measure of school membership. *Adolescence 33*(130), 461-468.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children’s school outcomes through eighth grade. *Child Development, 72*, 625-638.
- Hamilton, H.A., Wekerle.C., Paglia-Boak. A. & Mann, R.E (2011). The role of school connectedness in the link between family involvement with child protective services and adolescent adjustment. *Advances in Mental Health- Promotion, Prevention and Early Intervention, 11*(1), 25-34.

- Harris, K. M., Halpern, C. T., Whitsel, E., Hussey, J., Tabor, J., Entzel, P., & Udry, J. R. (2009). The National Longitudinal Study of Adolescent Health: Research design. Retrieved from <http://www.cpc.unc.edu/projects/addhealth/design>
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.
- Hatzenbuehler, M.L, McLaughlin, K.A, & Nolen-Hoeksema, S. (2008). Emotional regulation and internalizing symptoms in a longitudinal study of sexual minority and heterosexual adolescents. *The Journal of Child Psychology and Psychiatry*, 49(12):1270–1278.10.1111/j.1469-7610.2008.01924.x
- Hatzenbuehler, M. L. (2011). The social environment and suicide attempts in lesbian gay and bisexual youth. *Paediatrics*, 127,896-903.
- Hawker, D. S. J., & Boulton, M. J. (2001). Subtypes of peer harassment and their correlates: A social dominance perspective. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized*. 378–397. New York, Guilford Press.
- Haydar, A., (2013). Depression and Hopelessness in secondary and higher education students. *Khazar Journal of Humanities & Social Sciences*, 16 (1), 5-17.
- Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating sense of belonging in first year college students. *Journal of College Student Retention*, 4(3), 227-56.
- Heck, R.H., & Mahoe, R. (2006). Student Transition to High School and Persistence: Highlighting the Influences of Social Divisions and School Contingencies. *American Journal of Education*, 112(3), 418-446.
- Hong, J. S., & Garbarino, J. (2012). Risk and protective factors for homophobic bullying in schools: An application of the social-ecological framework. *Educational Psychology Review*, 24, 271–285. <http://dx.doi.org/10.1007/s10648-012-9194-y>

- Humensky, J., Kuwabara, S. A., Fogel, J., & Wells, C. (2010). Adolescents with Depressive Symptoms and their Challenges with Learning in School. *The Journal of School Nursing, 26*(5), 377–392.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of campus climate on Latino college students' sense of belonging. *Sociology of Education, 70*, 324- 245.
- Iacovou, S. (2011). "What is the Difference Between Existential Anxiety and so Called Neurotic Anxiety?: 'The sine qua non of true vitality': An Examination of the Difference Between Existential Anxiety and Neurotic Anxiety". *Existential Analysis 22* (2), 356–67.
- Ingels, S. J., Scott, L. A., Lindmark, J.T., Frankel, M.R., & Myers, S.L. (1992). NELS:88 First Follow-Up: Student Component Data File User's Manual. NCES 92-030. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement.
- Joyce, H. D., & Early, T.J. (2014). The impact of school connectedness and teacher support on depressive symptoms in adolescents: A multilevel analysis. *Child Youth Service Review, 1*, 101-107. doi: 10.1016/j.chilyouth.2014.02.005
- Kamble, S. V., & Dalbert, C., (2011). Belief in a just world and wellbeing in Indian School. *International Journal of Psychology, 47*(4), 269-278.
- Kashani, J. H., Dahlmeier, J. M., Borduin, C. M., Soltys, S., & Reid, J.C. (1995). Characteristics of Anger Expression in Depressed Children. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*(3), 322-326
- Kessler, R. C., Foster, C., Saunders, W. B., & Stang, P. (1995). Social consequences of psychiatric disorders 1: educational attainment. *American Journal of Psychiatry, 152*(7), 1026–1032

- Kidger, J., Araya, R., Donovan, J., & Gunnell, D. (2012). The Effect of the School Environment on the Emotional Health of Adolescents: A Systematic Review. *Pediatrics*, *129*(5), 925 - 949.
- Kirsa, I., & Juretic, J., (2016). Hopelessness, Impulsivity and Attachment as Possible Predictors of Nonsuicidal Self-Injury and Suicide Ideations in Croatian College Students. *Addiction and Drug Sensitization (ADS)*. Retrieved on 25/10/2017 <http://hendun.org/journals/ADS/PDF/ADS-16-1-108.pdf> .
- Kidger, J., Heron, J., Leon, D. A., Tilling, K., Lewis, G., & Gunnell, D. (2015). Self-reported school experience as a predictor of self-harm during adolescence: A prospective cohort study in the South West of England (ALSPAC). *Journal of Affective Disorders*, *173*, 163–169. <http://dx.doi.org/10.1016/j.jad.2014.11.003>
- Klem, A. M. & Connell, J. P. (2004). Relationships matter: linking teacher support to student engagement and achievement. *Journal of School Health*, *74*(7), 262-273.
- Kothari, C. R., (1985). *Research methodology: Methods and techniques*. New Age International Publisher.
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin*, *140*, 1073–1137. <http://dx.doi.org/10.1037/a0035618>
- Kumar, S., & Chandrasekharan, R. (2000). A study of psychosocial and clinical factors associated with adolescent suicide attempts. *Indian Journal Psychiatry*, *42*, 237–242.
- Kuperminc, G. P., Leadbeater, B. J., & Blatt, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology*, *39*, 141– 159

- Langille, D., Rasic, D., Kisely, S., Flowerdew, G., & Cobbett, S. (2012). Protective associations of school connectedness with risk of depression in Nova Scotia adolescents. *Canadian Journal of Psychiatry*, 57(12), 759-764.
- Langille, D.B., Asbridge, M., Azagba, S., Flowerdew, G., Rasic, D., & Cragg, A. (2014). Sex differences in associations of school connectedness with adolescent sexual risk-taking in Nova Scotia. *Canada Journal of School Health*, 84(6), 387-395. doi: 10.1111/josh.12161.
- Langille, D.B., Azagba, S., Flowerdew, G., Rasic, D., & Cragg, A. (2015). Associations of School Connectedness with Adolescent Suicidality: Gender Differences and the Role of Risk of Depression. *Canada Journal of Psychiatry*, 60(6), 258-267.
- Laursen, B., Coy, K. C., & Collins, W. A. (1998). Reconsidering changes in parent-child conflict across adolescence: A meta-analysis. *Child Development*, 69(3), 817-832.
- LaRusso, M., Romer, D., & Selman, R. (2008). Teachers as builders of respectful school climates: Implications for adolescent drug use norms and depressive symptoms in high school. *Journal of Youth & Adolescence*, 37, 368-398.
- Loukas, A., & Robinson, S. (2004). Examining the moderating role of perceived school climate in early adolescent adjustment. *Journal of Research on adolescence*, 14(2), 209-233.
- Larson, R. W., Richards, M. H., Moneta, G., Holmbeck, G., & Duckett, E. (1996). Changes in adolescent's daily interactions with their families from ages 10-18: disengagement and transformation. *Development and Psychopathology*, 32(4), 744-754.
- Lewinsohn, P. M., Gotlib, I. H., Lewinsohn, M., Seeley, J. R., & Allen, N. B. (1998). Gender differences in anxiety disorders and anxiety symptoms in adolescents. *Journal of Abnormal Psychology*, 107-109

- Li, Y., & Lerner, R. M. (2011). Developmental trajectories of school engagement across adolescence: Implications for academic achievement, substance use, depression, and delinquency. *Developmental Psychology*, 47 (1), 233–247.
- Libbey, H. P. (2004). Measuring student relationships to school: Attachment, bonding, connectedness, and engagement. *The Journal of School Health*, 74, 274–283. <http://dx.doi.org/10.1111/j.1746-1561.2004.tb08284.x>
- Loukas, A., Suzuki, R., & Horton, K.D (2006). Examining School Connectedness as a Mediator of School Climate Effects. *Journal of Youth and Adolescence*, 38(6), 804-812.
- Lynch, A.D., Lerner, R. M., & Leventhal, T. (2013). Adolescent academic achievement and school engagement: An examination of the role of school-wide peer culture. *Journal of Youth and Adolescence*. 42(6), 6-19.
- MacBeth, A., & Gumley A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32, 545–552.
- Maestas, R., Vaquera, G. S., & Munoz Zehr, L. (2007). Factors impacting sense of belonging at a hispanic-serving institution. *Journal of Hispanic Higher Education*, 6, 237-256.
- Maslow, A. (1968). *Toward a psychology of being*. New York: Van Nostrand Reinhold Company.
- Markham, C. M., Lormand, D., Gloppen, K. M., Peskin, M. F., Flores, B., Low, B., & House, L. D.(2010). Connectedness as a predictor of sexual and reproductive health outcomes for youth. *Journal of Adolescent Health*, 46, S23-S41.
- McMahon, S. D., Singh, J. A., Garner, L. S., & Benhorin, S. (2004). Taking advantage of opportunities: Community involvement, well-being, and urban youth. *Journal of Adolescent Health*, 34, 262 – 265.

- McNeely, C. A., Nonemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the National Longitudinal Study of Adolescent Health. *Journal of School Health, 72*(4), 138-146
- McWhirter, J. J., McWhirter, B. T., McWhirter, E. H., & McWhirter, R. J. (2007). At-risk youth: A comprehensive response, 4. Pacific Grove, CA: Brooks/Cole.
- Millings, A., Buck, R., Montgomery, A., Spears, M., & Stallard, P., (2012). School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. *Journal of Adolescence, 35*(4), 1061-1067
- Millstein, S. G., Irwin, C. E., Adler, N. E., Cohn, L.D., Kegeles, S. M., & Dolcini, M. M. (1992). Health- risk behaviours and health concerns among young adolescents. *Pediatrics, 89*, 422-428.
- Monahan, K. O. (2010). Predictors and consequences of school connectedness: the case for prevention. *The Prevention Researcher, 17*(3), pp. 3-6.
- Montalvo, G. P., Mansfield, E. A., & Miller, R. B. (2007). Liking or disliking the teacher: Student motivation, engagement and achievement. *Evaluation and Research in Education, 20*(3), 144-158. Retrieved from <http://dx.doi.org/10.2167/eri406.0>
- Moore, S., McGraw, K., Fuller, A., & Bates, G. (2008). Family, peer and school connectedness in final year secondary school students. *Australian Psychologist, 43*(1), 27. doi: 10.1080/00050060701668637
- Mullan, D., & Currie, C. (2000). Socio economic equalities in adolescent health. In C. Currie, K. Hurrelmann, W. Settertobulte, R. Smith, & J. Todd (Eds.), Health and health behaviour among young people: a WHO cross- national study (HBSC). *International report, 65-72*. WHO Policy Series: Health Policy for Children and Adolescents, Series No. 1.

- Murray, C., & Pianta RC. 2007. The importance of teacher-student relationships for adolescents with high incidence disabilities. *Theory into Practice*, 46(2):105–112
- Nair, M. K., Paul, M. K., & John, R. (2004). Prevalence of depression among adolescents. *Indian Journal of Pediatrics*, 71, 523-524
- Neild, R. C., Stoner-Eby, S., & Furstenberg, F. (2008). Connecting entrance and departure: The transition to ninth grade and high school dropout. Retrieved on 23/04/2017 from <http://civilrightsproject.ucla.edu/research/k-12-education/school-dropouts/connectedness>.
- Niemiec, C., & Ryan, R.M. (2009). Autonomy, competence, and relatedness in the classroom. Applying self-determination theory to educational practice. *Theory and Research in Education*, 7(2). Sage publications, 133–144 ISSN 1477-8785 doi: 10.1177/1477878509104318
- Newman, B. M., Newman, P. R., Griffen S., O'Connor K., & Spas J. (2007). The relationship of social support to depressive symptoms during the transition to high school. *Adolescence*, 2007:441–459.
- Ocak, B. (2004). An Examination of 4th and 5th primary school students' levels of belonging to school and some socio-demographic variables.
- Osterman, K. F. (2000). Students' need for belonging in the school community. *Review of Educational Research*, 70, 323-367.
- Ozer, E. J., Wolf, J. P., & Kong, C. (2008). Sources of perceived school connection among ethnically-diverse urban adolescents. *Journal of Adolescent Research*, 23, 438-470.
- Ozer, E. J., & Weinstein, R. S., (2004). Urban adolescents' exposure to community violence: The role of support, school safety, and social constraints in a school-based sample of boys and girls. *Journal of Clinical Child and Adolescent Psychology*, 33(3), 463–476.

- Ozmen, D., Ozmen, E., Ergin, D., Cetinkaya, A. C., Sen, N., Dundar, P. E., & Taskin, E. O. (2007). The association of self-esteem, depression and body satisfaction with obesity among Turkish adolescents. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/17506879>.
- Pathak, R. P., (2011). *Research in Education and Psychology*. Published by Dorling Kindersley (India) Pvt. Ltd, Lincensees of Pearson Education in South Asia
- Pears, K. C., Kim, H. K., Fisher, P. A., & Yoerger, K. (2013). Early school engagement and late elementary outcomes for maltreated children in foster care. *Developmental Psychology*, 49(12), 2201-2211.
- Picou, R. J., (2015). School Connectedness and Racial-Ethnic Identity among Alaska Native Students: An Explanatory Sequential Mixed Methods Study.
- Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., & Jones, J. (1997) the Findings from the National Longitudinal Study on Adolescent Health. (1997). Protecting adolescents from harm. *Journal of the American Medical Association*, 278, 823– 832. <http://dx.doi.org/10.1001/jama.1997.03550100049038>
- Reddy, R., Rhodes, J., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: A latent growth curve study. *Development and Psychopathology*, 15, 119–138
- Rhodes, J. E. (2005). A model of youth mentoring. In DuBois, D. L., Karcher, M. J. (Eds.), *Handbook of youth mentoring*, 30-43. Thousand Oaks, CA:
- Roeser, R. W., Eccles, J. S., & Sameroff, A. J. (1998). Academic and emotional functioning in early adolescence: Longitudinal relations, patterns, and prediction by experience in middle school. *Development and Psychopathology*, 10, 321-352.
- Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioural functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology*, 88, 408-422.

- Rosenfeld, L. B., Richman, J. M., & Bowen, G. L. (1998). Low social support among at-risk adolescents. *Social Work in Education, 20*, 245-260.
- Rossi, P. H., Wright, J. D., & Anderson, A. B., (2013). Handbook of survey research. Academic Press, New York.
- Rowe, F., Stewart, D., & Patterson, C. (2007). Promoting school connectedness through whole school approaches. *Health Education, 107*(6), 524-542. doi:10.1108/09654280710827920
- Ryan, R. M., Stiller, J., & Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *Journal of Early Adolescence, 14*, 226–249
- Salmons, Sandra (1997). Depression: Questions You Have – Answers You Need. People's Medical Society.
- Sass, D.A., Villarreal, C. , McWhirter, F., Benedict, T., McWhirter, H. E., & Karcher, M. J.(2011) A Cross-Cultural Assessment of School Connectedness: Testing Measurement Invariance with United States and Chilean Adolescents. *Journal of Psycho-educational Assessment, 2*.
- Schneider, F. (2012). Applying Social Psychology to Clinical and Counselling Psychology. In Applied social psychology: Understanding and addressing social and practical problems. Thousand Oaks, Calif.: SAGE Publications.
- Seligman, M. E. (1973). Fall into helplessness. *Psychology today, 7*(1), 43-48.
- Selltiz, C., Jahoda, M., Deutsch, M., & Cook, S, W. (1959). *Research Methods in Social Relations*, rev. ed. New York: Holt, Rinehart and Winston, Inc.,
- Sharma, R., Vijay, L., & Chaturvedi, S. (2008). Suicidal behavior amongst adolescent students in South Delhi. *Indian Journal of Psychiatry, 50*,30–33.

- Shears, J., Edwards, R. W. & Stanley, L. (2006). School bondings and substance use in rural communities. *Social Work Research*, 30, 6-18.
- Shochet, I. M., Dadds, M. R., Ham, D., & Montague. R. (2006). School connectedness is an underemphasized parameter in adolescent mental health: Results of a community prediction study. *Journal of Clinical Child and Adolescent Psychology*. 35(2):170–179.
- Skues, J. L., Cunningham, E. G., & Pokharel, T. (2005). The influence of bullying behaviours on sense of school connectedness, motivation, and self-esteem. *Australian Journal of Guidance & Counselling*, 15, 17-26.
- Smokowski, P. R., & Kopasz, K. H. (2005). Bullying in school: An overview of types, effects, family characteristic, and intervention strategies. *Children & Schools*, 27, 101-110. <http://dx.doi.org/10.1093/cs/27.2.101q>
- Spirito, A., Stark, L. J., & Williams, C.(1988). Development of a brief checklist to assess coping in pediatric patients. *Journal of Paediatrics Psychology*, 13, 555–574.
- Spriggs, A. L., Iannotti, R. J., Nansel, T. R. & Haynie, D. L. (2007) Adolescent bullying involvements and perceived family, peer and school relations: commonalities and differences across race/ethnicity. *Journal of Adolescent Health*, 41, 283–293.
- Steinberg, L. (2014). *Age of opportunity: Lessons from the new science of adolescence*. Boston, MA: Houghton Mifflin Harcourt.
- Strongman, K. T., (1995). Theories of Anxiety. *New Zealand Journal of Psychology*, 24(2), 4-10.
- Stoddard, S. A. (2011). Social connections, trajectories of hopelessness, and serious violence in impoverished urban youth. *Journal of Young Adolescence*.
- Styne, D. M. (2004). Puberty, obesity and ethnicity. *Trends in Endocrinology and Metabolism*, 15(10), Retrieved from <http://www.sciencedirect.com>.

- Sylvers, Patrick; Lilienfeld, Scott O.; Laprairie, & Jamie L. (2011). "Differences between trait fear and trait anxiety: Implications for psychopathology". *Clinical Psychology Review*. 31 (1), 122–37.
- Synder, S.M., & Merritt, D.H. (2016). The effect of childhood supervisory neglect on emerging adults drinking. *US National Library Medicine National Institute of Health*. Retrieved on 19/02/2017 from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4832597/>
- Troop-Gordon, W., & Ladd, G. W. (2005) Trajectories of peer victimization and perceptions of the self and schoolmates: Precursors to internalizing and externalizing problems. *Child Development*, 76(5), 1072-1091.
- Thompson, D.R., Iachan, R., Overpeck, M., Ross, J.G., & Gross, L.A.(2006). School connectedness in the health behavior in school-aged children study: the role of student, school, and school neighborhood characteristics. *Journal of School Health*, 76(7), 379-386.
- Voelkl, K. E. (1997). Identification with School. *American Journal of Education*, 105(3)
- Waters, S., Cross, D., & Shaw, T. (2010). Does the nature of schools matter? An exploration of selected school ecology factors on adolescent perceptions of school connectedness. *The British Journal of Educational Psychology*, 80, 381-402
- Weiss, D. D., (2011). Developmental variations in the prevalence and manifestations of anxiety disorders. *The developmental psychopathology of anxiety*, 27–42. , Last CG. Oxford: Oxford University Press;
- Werner, K.H., Jazaieri, H., Goldin, P.R., Ziv, M., Heimberg, R.G. & Gross, J.J. (2012) Selfcompassion and social anxiety disorder. *Anxiety, Stress & Coping: An International Journal*, 25(5), 543-558
- Wentzel, K. R. (2002). Are effective teachers like good parents? Teaching styles and student adjustment in early adolescence. *Child Development*, 73, 287-301.

- Wilson, D. B., Gottfredson, D. C., & Najaka, S. S. (2001). School-based prevention of problem behaviors: A meta-analysis. *Journal of Quantitative Criminology*, 17(3), 247-272.
- Whitlock, J., Wyman, P. A., & Moore, S. R. (2014). Connectedness and suicide prevention in adolescents: Pathways and implications. *Suicide and Life-Threatening Behavior*, 44, 246–272. <http://dx.doi.org/10.1111/sltb.12071>
- Yang, C., Bear, G.G., & Chen, F.F (2013). Students' Perceptions of School Climate in the U.S. and China. *American Psychological Association*, 28 (1) 7–24, doi: 10.1037/spq0000002
- Young, D.H. (2004). Does school connectedness predict bullying? An analysis of perceptions among public middle school students. (Doctoral dissertation, ProQuest Information & Learning). Dissertation Abstracts International Section.
- Zhang, W., Yang, C., Bear, G.G., Chen, F.F., Blank, J.C., & Huang, K. (2013). Students' Perceptions of School Climate in the U.S. and China. *School Psychology Quarterly*, 28(1), 7-24, <http://dx.doi.org/10.1037/spq0000002.supp>
- Zimmerman, M.A., Bingenheimer, J.B., & Notaro, P.C. (2002). Natural mentors and adolescent resiliency: A study with urban youth. *American Journal of Community Psychology*, 30, 221–243.
- Zimmer-Gembeck, M., & Colins, A. (2003). Autonomy development during adolescence. In G. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence*. 174-204. Malden: Blackwell.

INFORMED CONSENT FORM

Full Title of Research: Connectedness to school among adolescents: Implication for mental health.

Name and Address of Researcher: Ms. Shalinta Rai, M. Phil Research Scholar, Department of Psychology, Sikkim University, Gangtok, Sikkim.

Consent

1. I confirm that I have been informed about the procedures of the above study.
2. I understand that my participation is voluntary
3. I am free to withdraw at any time, without giving reason.
4. I was assured that my information will be kept confidential.
5. My signature below indicates that I agree to take part in the above study.
6. I have received a copy of this signed informed consent form.

Name of the Participant:

Signature

I have explained the above and answered all questions asked by the participant:

Name of the Researcher: Ms. Shalinta Rai

Signature:

Date:

Thank you,

Ms. Shalinta Rai

M. Phil Scholar,

Department of Psychology,

Sikkim University, Gangtok (Sikkim)

SOCIO- DEMOGRAPHIC DATA

Name	
Age	
Gender	
Religion	
School	
Phone number	

2

THE PSYCHOLOGICAL SENSE OF SCHOOL MEMBERSHIP

1 I feel like a real part of the school

Not at all	Very little	Somewhat	Not at all true	Completely true

2 People here notice when I'm good at something.

Not at all	Very little	Somewhat	Not at all true	Completely true

3 It is hard for people like me to be accepted here.

Not at all	Very little	Somewhat	Not at all true	Completely true

4 Other students in this school take my opinion seriously

Not at all	Very little	Somewhat	Not at all true	Completely true

5 Most teachers at this school are interested in me.

Not at all	Very little	Somewhat	Not at all true	Completely true

6 Sometimes I feel I don't belong here

Not at all	Very little	Somewhat	Not at all true	Completely true

7 There's at least one teacher or other adults in this school I can talk if I have a problem.

Not at all	Very little	Somewhat	Not at all true	Completely true

8 People at this school are friendly to me.

Not at all	Very little	Somewhat	Not at all true	Completely true

9 Teachers here are not interested in people like me

Not at all	Very little	Somewhat	Not at all true	Completely true

10 I am included in lots of activities at school.

Not at all	Very little	Somewhat	Not at all true	Completely true

11. I am treated with as much respect as other students.

Not at all	Very little	Somewhat	Not at all true	Completely true

12. I feel very different from most other students here.

Not at all	Very little	Somewhat	Not at all true	Completely true

13. I can really be myself at this school.

Not at all	Very little	Somewhat	Not at all true	Completely true

14. The teachers here respect me.

Not at all	Very little	Somewhat	Not at all true	Completely true

15. People here know I can do good work.

Not at all	Very little	Somewhat	Not at all true	Completely true

16. I wish I were in different school.

Not at all	Very little	Somewhat	Not at all true	Completely true

17. I feel proud of belonging to this school.

Not at all	Very little	Somewhat	Not at all true	Completely true

18. Other students here like me the way I am.

Not at all	Very little	Somewhat	Not at all true	Completely true

Beck Anxiety Inventory (BAI)

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.

	Not At All	Mildly but it didn't bother me much	Moderately - it wasn't pleasant at times	Severely - it bothered me a lot
Numbness or tingling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling hot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wobbliness in legs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unable to relax	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of worst happening	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dizzy or lightheaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heart pounding/racing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsteady	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terrified or afraid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nervous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeling of choking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hands trembling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shaky / unsteady	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of losing control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Difficulty in breathing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fear of dying	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indigestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faint / lightheaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Face flushed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hot/cold sweats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



Beck Depression Inventory

Baseline

V 0477

CRTN: _____ CRF number: _____

Page 14

patient inits: _____



Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

<p>1. Sadness</p> <p>0 I do not feel sad.</p> <p>1 I feel sad much of the time.</p> <p>2 I am sad all the time.</p> <p>3 I am so sad or unhappy that I can't stand it.</p> <p>2. Pessimism</p> <p>0 I am not discouraged about my future.</p> <p>1 I feel more discouraged about my future than I used to be.</p> <p>2 I do not expect things to work out for me.</p> <p>3 I feel my future is hopeless and will only get worse.</p> <p>3. Past Failure</p> <p>0 I do not feel like a failure.</p> <p>1 I have failed more than I should have.</p> <p>2 As I look back, I see a lot of failures.</p> <p>3 I feel I am a total failure as a person.</p> <p>4. Loss of Pleasure</p> <p>0 I get as much pleasure as I ever did from the things I enjoy.</p> <p>1 I don't enjoy things as much as I used to.</p> <p>2 I get very little pleasure from the things I used to enjoy.</p> <p>3 I can't get any pleasure from the things I used to enjoy.</p> <p>5. Guilty Feelings</p> <p>0 I don't feel particularly guilty.</p> <p>1 I feel guilty over many things I have done or should have done.</p> <p>2 I feel quite guilty most of the time.</p> <p>3 I feel guilty all of the time.</p>	<p>6. Punishment Feelings</p> <p>0 I don't feel I am being punished.</p> <p>1 I feel I may be punished.</p> <p>2 I expect to be punished.</p> <p>3 I feel I am being punished.</p> <p>7. Self-Dislike</p> <p>0 I feel the same about myself as ever.</p> <p>1 I have lost confidence in myself.</p> <p>2 I am disappointed in myself.</p> <p>3 I dislike myself.</p> <p>8. Self-Criticalness</p> <p>0 I don't criticize or blame myself more than usual.</p> <p>1 I am more critical of myself than I used to be.</p> <p>2 I criticize myself for all of my faults.</p> <p>3 I blame myself for everything bad that happens.</p> <p>9. Suicidal Thoughts or Wishes</p> <p>0 I don't have any thoughts of killing myself.</p> <p>1 I have thoughts of killing myself, but I would not carry them out.</p> <p>2 I would like to kill myself.</p> <p>3 I would kill myself if I had the chance.</p> <p>10. Crying</p> <p>0 I don't cry anymore than I used to.</p> <p>1 I cry more than I used to.</p> <p>2 I cry over every little thing.</p> <p>3 I feel like crying, but I can't.</p>
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Beck Depression Inventory

Baseline

V 0477

CRTN: _____ CRF number: _____

Page 15 patient initials: _____

11. Agitation

- 0 I am no more restless or wound up than usual.
- 1 I feel more restless or wound up than usual.
- 2 I am so restless or agitated that it's hard to stay still.
- 3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

- 0 I have not lost interest in other people or activities.
- 1 I am less interested in other people or things than before.
- 2 I have lost most of my interest in other people or things.
- 3 It's hard to get interested in anything.

13. Indecisiveness

- 0 I make decisions about as well as ever.
- 1 I find it more difficult to make decisions than usual.
- 2 I have much greater difficulty in making decisions than I used to.
- 3 I have trouble making any decisions.

14. Worthlessness

- 0 I do not feel I am worthless.
- 1 I don't consider myself as worthwhile and useful as I used to.
- 2 I feel more worthless as compared to other people.
- 3 I feel utterly worthless.

15. Loss of Energy

- 0 I have as much energy as ever.
- 1 I have less energy than I used to have.
- 2 I don't have enough energy to do very much.
- 3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

- 0 I have not experienced any change in my sleeping pattern.
- 1a I sleep somewhat more than usual.
- 1b I sleep somewhat less than usual.
- 2a I sleep a lot more than usual.
- 2b I sleep a lot less than usual.
- 3a I sleep most of the day.
- 3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

- 0 I am no more irritable than usual.
- 1 I am more irritable than usual.
- 2 I am much more irritable than usual.
- 3 I am irritable all the time.

18. Changes in Appetite

- 0 I have not experienced any change in my appetite.
- 1a My appetite is somewhat less than usual.
- 1b My appetite is somewhat greater than usual.
- 2a My appetite is much less than before.
- 2b My appetite is much greater than usual.
- 3a I have no appetite at all.
- 3b I crave food all the time.

19. Concentration Difficulty

- 0 I can concentrate as well as ever.
- 1 I can't concentrate as well as usual.
- 2 It's hard to keep my mind on anything for very long.
- 3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

- 0 I am no more tired or fatigued than usual.
- 1 I get more tired or fatigued more easily than usual.
- 2 I am too tired or fatigued to do a lot of the things I used to do.
- 3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

- 0 I have not noticed any recent change in my interest in sex.
- 1 I am less interested in sex than I used to be.
- 2 I am much less interested in sex now.
- 3 I have lost interest in sex completely.

Subtotal Page 2

Subtotal Page 1

Total Score

3 4 5 6 7 8 9 10 11 12 A B C D E

NR15645

BECK'S HOPELESSNESS SCALE

This questionnaire consists of a list of twenty statements. Please read the statements carefully one by one.

If the statement describes your attitude for the past week, including today, write 'T' or 'True'. If the statement is false for you, write 'F' or 'False'. Please be sure to read each sentence.

TRUE	FALSE
------	-------

1) I look forward to the future with hope and enthusiasm

T	
---	--

2) I might as well give up because there's nothing I can do to make things better for myself.

	F
--	---

3) When things are going badly, I am helped by knowing that they can't stay that way for ever.

T	
---	--

4) I can't imagine what my life would be like in ten years.

T	
---	--

5) I have enough time to accomplish the things I most want to do.

	F
--	---

6) In the future I expect to succeed in what concerns me most.

T	
---	--

7) My future seems dark to me.

	F
--	---

8) I happen to be particularly lucky and I expect to get more of the good things in life than the average person.

T	
---	--

9) I just don't get the breaks, and there's no reason to believe that I will in the future.

10) My past experiences have prepared me well for my future.

11) All I can see ahead of me is unpleasantness rather than pleasantness.

12) I don't expect to get what I really want.

13) When I look ahead to the future I expect I will be happier than I am now.

14) Things just won't work out the way I want them to.

15) I have great faith in the future.

16) I never get what I want, so it's foolish to want anything.

17) It is very unlikely that I will get any real satisfaction in the future.

18) The future seems vague and uncertain to me.

19) I can look forward to more good times than bad times.

20) There's no use in really trying to get something I want because I probably won't get it.