Family Environment and Academic Stress as Predictors of Depression in Adolescents

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By

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DECLARATION

The work embodied in the dissertation entitled *'Family Environment and Academic Stress as Predictors of Depression in Adolescents'* 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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We recommend this dissertation to be placed before the examiners for evaluation.

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Family Environment and Academic Stress as Predictors of Depression in Adolescents

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ABSTRACT

Adolescents comprise nearly one-fifth of the total population of India. It is a transitional stage from childhood to adulthood and is a time of major changes in all areas of functioning. Academic matters are the most important sources of chronic stress in young people and have significant associations with mental health problems, such as depression, anxiety and suicidal ideation. There is an increasing concern regarding study pressure and its relationships with mental health problems among adolescents in India. Suicide is the third leading cause of death among adolescents, and unrevealed depression is a major cause. Academic stress may be a contributing factor in depression. Sikkim has continued to report higher suicide rates since last 3 years. Mental illness including depression has been the one of the reason for the increasing suicides in the state. Leading cause of suicide was found to be problems in family and majority of people committed suicide belongs to the age group of 15-29 years. So, undiagnosed adolescent depression can have potentially long term serious consequences along with increased risk of suicide.

The study seeks to understand whether the family environment and academic stress are linked up and contribute to depression in adolescents. A total of 200 senior secondary students randomly selected from 4 government senior secondary schools of East and South districts of Sikkim participated in the study. Family Environment Scale (FES) by Harpreet Bhatia and N.K. Chadha, Academic Stress Scale by Rajendran and Kaliappan, and Beck Depression Inventory (BDI-II) by Beck, Steer and Brown were used for the purpose of the study. The data were analyzed using Descriptive statistics, Carl Pearson Correlation, Regression, and independent t-test. The results showed that the family environment of adolescents was intact. Cohesion in family can reduce the risk of academic stress and depression in adolescents. The participants experience high levels of academic stress and mild levels of depression. Boys were found to be more academically stressed than girls. There was no significant gender difference in family environment as well as depression of adolescents. This result provides a direction to parents, teachers and counselors to provide better career opportunities to adolescents, listen to them carefully, respect their career choices, provide them proper guidance in a proper manner for options related to vocation, try to know their interests in which field they want to go and make their counseling wherever necessary.

CHAPTER I

INTRODUCTION

Adolescence, which means "to grow" or "to develop towards maturity (Feixa, 2011), is the most crucial period of human growth. After the sudden growth in infancy, adolescence is the second and the final growth spring in the lifecycle. It is a time of rapid physical change that includes periods of abrupt growth and the emergence of secondary sexual characteristics, along with sometimes prominent changes in mood and behavior.

As the population of India moves towards the 1.25 billion mark, our estimated number of adolescents is 243 million. If one were to extrapolate the prevalence figures to a reasonable and approximate 20 %, in India alone, the numbers would be 48 million or about 5 crore adolescents, in need of therapeutic mental health services (Naik, 2015).

Adolescents are generally perceived as a healthy age group, and yet 20 percent of them, in any given period, experience a mental health problem, most commonly depression or anxiety. In many settings, suicide is among the leading cause of death in young people (WHO, 2003).

Adolescents face health challenges that pediatric and adult physicians alike are often ill-equipped to handle. Rapid physical and emotional growth, as well as the frequently conflicting and influential cultural messages they receive from the outside world, account for the unique nature of their health concerns. Without proper education and support, adolescents lack the knowledge and confidence to make decisions (Mates & Allison, 1992).

Despite an increase in the awareness of adolescent problems, their issues are not being given adequate attention. This is due to the faulty notion that "turbulence during adolescence is normative and therefore their problems and symptoms can be dismissed as passing phenomena" (Sonpar, 1982).

1.1 Family Environment Defined

Family is the most important institution that man has devised to regulate and integrate his behavior as he strives to satisfy his basic needs. Family plays an important role in the overall development and well-being of its members. The Family is the first to affect the individual. It is the family which gives the child his first experience of living. The influence of the family on the child is therefore immense. Parents are the chief architects in shaping the personality of their child. Secure bonds between parents and their children allow them freedom to grow, explore and gain experience. The influence of other agencies although important must build upon the groundwork furnished by the family (Bhatia & Chadha, 1993).

It is of great importance as we know a man could be physically fit only if he is mentally fit. It is also important because only a mentally healthy person can create healthy environment in our society. Many parents have difficulty handling the adolescent's push for autonomy, leading to increased parent-adolescent conflicts (Santrock, 2011). When family relationships are marked by friction and feeling of insecurity, adolescents will be deprived of the opportunity to develop poise and more mature pattern of behavior (Hurlock, 1981).

Many parents come to a crossroads with their children sometime between the ages of 14 and 18, where teens start to pull away from family-related activities. Famous

developmental Psychologist, Erik Erikson, best describes this phase. Erikson states that there are 8 major psychological and social stages a person will go through within their life, two of which are very important in understanding the process a teen is going through. One of the stages in his theory is his second stage which he calls "The Will or Autonomy vs. Shame and Guilt Stage." This stage is also known as the "terrible two's". It's a stage when a child is really processing and working out their sense of self and independence. While most parents accept the terrible two's as a normal part of the learning process, they are often caught off guard when the pattern repeats itself in the teenage years.

Erikson defines this adolescent phase as "The Fidelity or Identity vs. Role Confusion." In this stage, it is as if the teen reverts back to their childhood and needs to re-work out their sense of identity, autonomy, and independence once again. However, it is in a new and different form that they are replicating and understanding how to grow in their independence as an adolescent or young adult. This is the stage where more often than not, there is much tension between child and parent(s). The adolescent may begin to explore the bounds of their freedom by spending more time with friends, becoming busier on weekends, breaking curfew, and confining themselves to their rooms during the rare minutes that they are at home. They may express "they need space" and that they "are sick of their parents breathing down their neck", etc. The "need for space" or "search for identity", can be very hard for a lot of parents to understand because it seems as if parents are losing their children. However, it is healthy to understand and recognize that this isn't necessarily a loss but rather a growth spurt. By giving their child some freedom and space, they enable their teen to grow and process through everything they've learned as a child. This is their

"launching" pad or the "action" time where they can finally practice all their parents have taught them during childhood (Harder, 2009).

The busy life we live in this fast modern era being as a barrier for children to expresses their feelings. Either because nobody in the family could find out time to spend with children or the communication gap between parents and children make them hesitate to open up their inner feelings and there is always a sense of shame and guilt, and a feeling that the problems they experience are theirs alone. These beliefs prevent them to seeking help from parents and teachers. These suppressed feelings may cause the problem more badly. It will lead the child to find an environment where s/he gets some sort of relaxation. It is not necessary that they would find a good peer to share their sufferings. Rather, either they turn to their friends, who are equally ignorant and end up by strengthening their misconceptions or they would go with any kind of adaptive as well as maladaptive behavior patterns which s/he feels comfortable to go along with. Despite of these family problems substance abuse, peer group pressure, infatuations towards other sex, physical and psychological changes and learning disability etc can be a reason for the maladaptive behaviors.

1.2 Stress Defined

Along with the improvements during the scientific era and the rapid development of information, competitiveness among people has become increasingly intense. As a consequence, people have become busier and, therefore, stress is a natural consequence. Even though appropriate stress is a juncture for self-growth, it is also a motivation for people to progress actively. It not only affects our thoughts and

feelings but our behavioral models, as well. However, overstress causes problems and discomfort, and can have serious effects on people.

Stress is considered as a negative process that accounts emotional, cognitive, behavioral and physiological functioning related to adjustment with stressors (Bernstein et. al, 2008). Stressors are certain circumstances that disturb or threaten an individual's daily functioning to work and function properly to make adjustments (Auerbach & Grambling, 1998).

Distress and strain have been used to describe the reactions of a stressful event but many to refer to the negative emotional response still use stress. Stress is often considered as the process between person and environment. Stress is a process in which "environmental demands tax or exceed the adaptive capacity of an organism, resulting in psychological and biological changes that may place a person at risk for disease" (Cohen, Kessler, & Gordon; 1995). Stress and its wings such as anxiety, depression, burnout etc have been affecting people of different age from different professions. People often need to seek medical or motivational guidance in order to cope with the situation and adapt effective measures (Keinan & Perlberg, 1986).

The word *stress* defines all kind of repulsive and obnoxious feelings in general. In broader aspect, we use the word to define the sense of anxiety or panic or tension about anything. Stress can be classified in following types from which a broader understanding is perceived (Hillman, 2015).

Acute Stress: One of the major types of stress is acute stress when the individual suddenly confronts the stressful situation and needs to react immediately. This kind of situation elevates the level of blood pressure due to increased heartbeats along with

the sudden rise of specific neurotransmitters and hormones such as adrenaline and nor-epinephrine or cortisol respectively. However, this kind of stress is effective to deal with threats and danger due to the stiff readiness of the muscles. American Psychological Association (2001) stated the types of stress closely related to the Hillman's type and nature. An additive in the later is Episodic Acute Stress. This is somewhat similar to acute stress and the individual takes significantly longer time to cope with the situation. This type leaves the victim dismantled in every aspect and he swings between the right and wrong decisions.

Chronic Stress: This sort of stress occurs when the reasons and effects of the acute stress are exaggerated for a longer period. This is worse than the former where the elevated state of both internal and external conditions does not get chance to decreased. The risk of this kind of stress is higher than the mentioned one as it makes the individual predisposed to illness.

Eustress: There is a predominant concept of stress saying it bad. Not all types of stress are bad or affect the individual adversely. Stress sometimes makes one ready to learn from the mistakes from which the present situation had taken place. On occasion, stress motivates to appear for the events. Eustress is a kind of the same that leaves the individual ready to look upon the strategies to undertake the stressful situations.

The demanding situations are inevitable in daily life. One needs to look upon it carefully to make them move on a correct path.

1.3 **Academic Stress Defined**

The modern world, which is said to be a world of achievements, is also a world of stress. One finds stress everywhere, whether it be within the family, business organization/enterprise or any other social or economic activity. Stress is a subject which is hard to avoid.

Stress is defined as burdens, pressures, anxieties and worries. Everyone has had it or has it in one point in their high school life. The importance of tile students in the education process is unquestionable. This is because of all the human factors in the educational system, the students occupy the key position and it is only through them that the ultimate process of education takes place. The students today are facing with new challenges in education calling for greater effort from students. In addition there are heavy demands made by the society on students to perform various roles, many of which are undefined, inconsistent and unachievable in the present socio-cultural, economic and bureaucratic contexts of our society, causing heavy stress on students mainly high school students. Unfortunately stress is a common part of life as we begin the new millennium, something few of us can avoid altogether. Partly for this reason and partly for both physical health and psychological well being, stress has become an important topic of research in psychology. Stress exists from the change in an individual's thinking and their lifestyle nowadays. Now, individuals have changed in their perceptions and the way they interpret this life. Students in their teens are the ones who are going through the transitional phase, which is an intermediate of childhood and adulthood.

Stress is believed to be caused by the various problems that exist such as problems at school, financial problems, family problems and problems in their surroundings. Teenagers also experience stress because they are sometimes trapped between making

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decisions which is to follow rules and orders or to be free and discover the world like they should. Teenagers in the previous days were trained for things that were suitable with their age so that they can use it to manage their lives. But now teenagers have to follow their parents' desires which are preparing them to compete in the social system where the society is scrambling towards modernization so that they are not left behind. If it is not managed well, stress can ignite psychological disturbances among them when they are grown up. These disturbances will cause stress to the teenagers in the future if they are not overcome now (Lal, 2014).

Academic stress occurs with the anticipated thoughts of a failure in academic performances. This tags along with the awareness of the possibility of academic failures or poor grades. The thoughts and awareness are subsumes which leads towards a mental distress (Verma & Gupta, 1990). According to Kouzma and Kennedy (2004), situations and events, which take place at schools such as tests, grades, studying, play a consequential role for stress. Apart from those both self and environmentally induces drives to achieve success are another source of mental stress. Moreover, academic stress increases the risk factor for psychopathology. Students who suffer from higher level of academic stress are more likely to undergo series of depression (Wenz-Gross & Siperstein, 1997).

Stress arises due to the demands on a person and that person's inability to meet those demands. Academic stress arises due to academic factors such as heavy school schedule, unrealistic expectation and demands of parents and teachers, low academic performance, poor study habits and not having enough time to deal with school's multiple priorities (Banerjee, 2011). A person's response towards stress depends on whether an event is appraised as a challenge or a threat. Challenging stimulus can lead

to positive outcomes such as motivation and improved task performance while threatening ones or distress can result in anxiety, depression, social dysfunction and even suicidal intention (Lazarus & Folkman, 1984).

School-going children are able to identify the stressors in their lives and they have reported "school" as a major stressor particularly, negative feelings about school and negative experiences in school (Nelms, 1999). Personal inadequacy, fear of failure, interpersonal difficulties and inadequate study facilities are found to be contributory to the high academic stress levels (Rajendran & Kaliappan, 1990). Dinesh (2010) carried out a study on 420 children in the age range of 4-17 year and reported that more than 90% of the school children were facing above normal levels of stress in each age group. Majority of the children in the age group 13 to 15 years showed moderate to severe level of stress.

Academic stress is responsible for several negative and impeding outcomes. These outcomes play as the precluding elements of one's emotional and informational maturity. These include both depression and physical illness (Macgeorge, Samster, & Gillihan, 2005). Schools are places where one first learns to confront stressful events. The student undergoes stress and other negative mental conditions if the ripples within the mind are not solved thereafter the mental health problems are being identified. Here, the school activities take the lead for many students and experience depression (Youth Risk Behavior Surveillance, 2007). Any kind of psychological problems among students regarding academic performances vary from 2% to 50%. One student in every 10 has serious mental conflicts occurring from several factors often needs professional guidance. These two are the most common evil factors

among the student population. 25% of the population reports the symptoms of depression at any given time (Beck & Young, 1978).

Negative experiences such as poor performances, feedback from parents and teachers about work acquired from institutional setting are likely to increase depression (Liu & Lu, 2012). The academic stress has reached a proliferation of interest among various scholars and got significant place in many articles, books and journals. The basic demands of a school setting is understanding what teacher is saying, finding ways to comply with basic strategies to achieve success, competing with co-students and fulfilling the expectations. These demands often exceed the inner resources of the students and as a result, they perceive stress (Bisht, 1989). Academic stress is the major factor anticipated as the ground of varied academic performances. This plays the role of a forecaster for future academic performances that helps to reflect the hazardous brunt of a student (Endler et al., 1994). Causes of academic stress on students can be many. It is not only the academic pressure but also several other factors which are equally liable to generate stress. However, academic pressure is the most considerable source of the academic stress among students. Few other identified sources are fear of falling behind others and course curriculum, motivation to study, time management ability etc. (Tyrrell, 1992). There are few other causes of academic stress, which adversely affect the student such as academics, dating, environment, extracurricular activities, peers and parental pressure (Lal, 2014):

- *Academics:* Increasing the level of difficulty in academic performances help the student acquire the stress managing techniques. When one is not able to achieve these techniques undergoes stress that affects the future performances.

- *Dating:* Both adolescence and adulthood are the stage of the span to fanaticize about romantic relationships. This has two facets, formerly the stress occurs when the individual fails to get someone to date and later the stress recurs if she gets abandoned by her date.

- *Environment:* The school environment comes into account of the stressors if the students step into tertiary education from the matriculating one that enables the student in shifting school building or leaving home to stay at institutional hostels.

- *Extracurricular activities:* Some students want to engage themselves in co-curricular events but face hindrance due to either lack of opportunities from the institutes or restrictions from family.

- *Peers:* The influence of peer group can be either stressful or joyful. The urge to comply with one's group often makes one stressed in order to maintain the pressure about dress, behavior, choice of friends etc.

- *Parental pressure:* Finally, the continuous demands from the parents to achieve good grades and success not only in the academics but in other areas too drown the students in pool of stress.

Adolescence is the phase of a life span when the individual starts maneuvering his psychosocial developments through the search for both social and sexual identity. This is the stage when the peer groups too help to develop a self-concept but if it goes adverse influence of anti-social activities can be pertinent (Papalia, Olds, & Feldman, 2004).

1.3.1 Sources of Academic Stress

Academic stress among students has long been researched on and researchers have identified different sources responsible for it. Information load, high expectations of

students, parents and teachers, academic pressure, high competitiveness, limited time are some of the important sources which create tension, pressure, fear and anxiety among students.

Sources/stressors influencing students can be categorized as academic, financial, time or health related and self-imposed (Goodman, 1993). Research studies reveal that lack of parental help, congenial examination system, living up to parental expectation, attitude of the teachers and fear of examination were the stress causing factors. One of the most common causes of academic stress is anxiety (Misra & McKean, 2000). She revealed that anxiety, ineffective time management and a lack of satisfying activities outside of academia were strong predictors of academic stress.

Despite disagreement about the predominant cause of academic stress, researchers agree that the most common form of anxiety causing academic stress is achievement anxiety. Achievement anxiety is a fear of failure in an academic setting that arises when parents, teachers or the student's own expectations exceed what the student believes he/she can realistically achieve. Sources of achievement anxiety include failure to satisfy ambitious or overly critical parents' expectations in early childhood as well as early exposure to overachieving siblings or peers. Seeing others receive praise and rewards for their achievements can give students a false impression of what teachers and parents expect of them. Other important sources of academic stress in school children are imposing excessively high self-expectations and the great expectation of parents for achieving good marks in their examination. Students now have more home work than ever before and if the child fails to do home work as per the expectations of their teachers, the result is the cumulative academic stress.

Kadapatti and Vijyaluxmi (2012) found that high aspiration, poor study habits, more study problems, change in medium of instruction and low socio-economic conditions are the factors responsible for academic stress. To fall short of their own or others' expectations in school, job, athletics, or any other activity one risks both external and internal costs: threat to academic or career prospects, disapproval, rejection, humiliation, guilt, and a blow to the self-esteem (Schafer, 1996).

According to Wilks (2008), time management issues, financial burdens, interactions with teachers, personal goals, social activities, adjustment to the campus environment, lack of support networks are some of the sources of stress among students. In addition to these, assignments, examinations, school curriculum, overcrowded classrooms, the pressure to perform well in a limited time make the academic environment extremely stressful.

Many of school life's demands cause stress especially academic burden, financial problems, adjustment to the school environment, high expectations, limited opportunities and fear of examinations and when a student feels academically stressed, it can affect everything he does. Stress can cause how he feels, how he thinks, how he behaves and how his body works.

1.3.2 Effects of Academic Stress

Students today face increasing amounts of school work, assignment deadlines, and exams. By having all this stress and thoughts in their heads they will probably not be able to focus on school work and studying for exams. All the school assignments will take most of their "free time" and being able to play sports, having hobbies and socializing with others will no longer exist because they won't have the time to enjoy

life. This stress can be really hard to deal with and if the students are not careful they may end up making bad decisions that can affect their future such as dropping out of school or falling into drugs. It is "cultural truism" that stress is associated with impairment of health and the negative emotional experiences associated with stress are detrimental to "quality of life and sense of well-being" (Sinha, 2000).

Poor academic performance, diminished peer popularity, depression, attention difficulties, somatic complaints and substance abuse are commonly observed problems among the victims of academic stress without being aware of how to cope with them (Sinha, 2000).

A number of researchers have discovered that excessive amounts of stress are associated with many harmful correlates in the lives of school students.

Physiological effects

The direct physiological effect of stress can be observed in biological damage that results from a prolonged stress response (McEwen, 2005). These functions include our working memory, self-regulation and cognitive flexibility. Executive functions are critical for reasoning, planning and problem solving, and for regulating emotions and attention. They are essential to academic success.

Academic stress may cause poor sleep. Many studies demonstrate that students consistently fail to get healthy amounts of sleep and the leading causes for this phenomenon are an excess of homework and stress.

Several harmful consequences are associated with too little sleep, such as cognitive impairment, interpersonal difficulty, and, reciprocally, higher stress (Carskadon,

Acebo, & Jenni, 2004). Bhinderwala in an article "Signs your baby is stressed" (The Times of India, 2014, March 8) explains symptoms of stress include temper tantrums, sleep disorder and loss of immunity.

Psychological effects

Stress is a significant risk factor for many mental health problems, such as anxiety and depression. Stress can also affect our emotional well-being and emotional intelligence. It negatively impacts our ability to intuit other people's feelings, convey our own feelings and communicate. Stress can prevent us from being aware of and controlling our emotions, getting along with others, adapting to change, and maintaining a positive mood. Stress is related to reduced self-concept, low self-esteem and low self-worth.

High levels stress can:

• Affect decision-making, creating impulsivity

• Increase likelihood of making mistake

• Cause us to ignore cues

• Interfere with personal relationships

• Lower productivity

How can a student having such psychological problems caused by academic stress be happy and lead a good and balanced life? Negative emotional experiences associated with stress are detrimental to happiness and overall well-being.

Children and adolescents face enormous pressure from parents and teachers to work hard and do well to score good marks. Therefore, examinations symbolize emotional

trauma and anxiety. Jain (1996) highlights that students are overburdened with homework, tuition classes, and scholarship examinations. Pushy and over enthusiastic parents consciously or unconsciously make them more prone to stress, early burnout, and depression (Mukherjee, 2003). Other sources of stress for adolescents include their social interactions with teachers and peers, financial difficulties at home, marital problems between parents, the status of being physically ill, disabled, or suffering from emotional difficulties, (Bauwens & Hourcade, 1992). These factors have an adverse impact on the psychological well-being of adolescents. Mental turmoil and resulting stress lead to physical manifestations, including stuttering, giddiness, fainting, palpitations, headache, migraines, gastro-intestinal complaints, sleep difficulties and bed-wetting. Depression, anxiety and behavioural disorders are the most common manifestations of stress in Indian children (Pillai et al., 2008). Higher incidences of school refusal, dropping out, truancy, and running away from home and suicide attempts can also be the unfortunate result of extreme stress and inability to cope with it (Singh, 2002).

1.4 Depression Defined

Unless we lead a truly charmed existence, our daily lives bring some events that make us feel sad or disappointed. A poor grade, breaking up with one's romantic partner, failure to get a promotion- these and many other events tip our emotional balance toward sadness (Baron, 2008).

Depression in adolescents is an under recognized mental health problem because they be indecisive to disclose their feelings and seldom seek psychiatric help. One of the factors that make depression so difficult to diagnose in adolescents is the common

behavior changes that are normally associated with the hormonal changes of this period. It has only been in recent years that the medical community has acknowledged childhood depression and viewed it as a condition which requires intervention. Care givers and teachers may not easily recognize the depressive symptoms. Single largest contributor to the global burden of disease in the age group 15-45 years is depression (Bansal, Goyal & Srivastava, 2009).

In typical depressive episodes of all three varieties (i.e. mild, moderate and severe) the individual usually suffers from depressed mood, loss of interests and enjoyment and reduced energy leading to increased fatigability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are:

a. Reduced concentration and attention

b. Reduced self-esteem and self confidence

c. Ideas of guilt and unworthiness (even in a mild type of episode)

d. Break and pessimistic views of the future

e. Ideas and acts of self-ham or suicide

f. Disturbed sleep

g. Diminished appetite

In addition, depression disorders with a pediatric onset tend to be more chronic and debilitating than depression beginning in adulthood. Fortunately, we now have an array of evidence-based Just 40 years ago; many physicians doubted the existence of significant depressive disorders in children, primarily because they believed that children lacked the mature psychological and cognitive structure necessary to experience these problems. However, a growing body of evidence has confirmed that

children and adolescents not only experience the whole spectrum of mood disorders but also suffer from the significant morbidity and mortality associated with them. Suicide has become a growing public health concern as successive generations have shown a parallel increase of suicide and depression in the pediatric age group (Weller & Svadjian, 1996). Childhood depression, like the depression of adults, can encompass a spectrum of symptoms ranging from normal responses of sadness and disappointment in stressful life events to severe impairment caused by clinical depression that may or may not include evidence of mania (Weller et al., 1996).

Prevention of Depression

The literature on prevention of depression in youth has grown substantially in the past decade but has been plagued by methodological limitations; therefore, identification of effective preventive strategies remains in its early stages. Programs that have been universally applied to community samples have been largely, but not entirely, ineffectual. In general, programs with interventions delivered by the research team, psychologists, or extensively trained group leaders, have been associated with the greatest success. Skill sets taught in some of the more effective interventions have included cognitive restructuring, problem solving, stress management, and accessing social support. Programs that have offered less training or for which interventions were delivered by nonmetal health professionals (e.g., teachers) have tended to produce less favorable outcomes (Clarke et al., 1995).

The most successful strategy identified thus far involves both targeting at-risk cohorts and utilizing expert clinicians to deliver treatments. Research has repeatedly documented increased prevalence of major depression in the offspring of depressed

parents. Programs that specifically target children of depressed parents have been more effective (Nomura et al., 2002). An alternative strategy for identifying risk involves screening adolescents for depression and applying interventions specifically to teens with sub syndrome depression. This strategy has been associated with reduced risk for depression onset, as well as a significant delay in onset of depression. Selecting a well-established risk factor (parental depression, sub syndrome depression), examining the mechanisms by which risk is imposed, and attempting to augment protective factors is a sound model for conducting prevention research (Brent et al., 2001).

Epidemiology of Depression

Depressive symptoms are common in pediatric clinical settings, with 5 to 10 percent of children and adolescents presenting with sub symptoms of major depressive disorder (MDD) (Brent et. al. 2001). MDD is estimated to affect two percent of children aged 6 to 12 years and 4 to 8 percent of adolescents aged 13 to 17 years. In children, the ratio of boys to girls is 1:1, but in teens, the ratio changes to 1:2. Dysthymic disorder (DD), which constitutes a more chronic, milder form of depression, has been reported to afflict 0.6 to 1.7 percent of children and 1.6 to 8 percent of adolescents. The risk of depression increases significantly after puberty (particularly in girls), and by age 18, the cumulative incidence is 20 percent (American Academy of Child and Adolescents Psychiatry, 2007).

Risk Factors of Depression

A family history of depression has consistently been found as a risk factor for the disorder. High-risk, adoption, and twin studies have demonstrated that MDD is caused

by the interaction of genetic and environmental risk factors, with interplay between life stressors and a serotonin transporter polymorphism reported as one causal pathway (Weissman, Walk, & Wiskramaratre, 1999). Sub symptoms of depression, low self-esteem, and anxiety have all been found to increase the probability of developing depression. Academic struggles and family turmoil are also prospective predictors of depression for teenagers. Consistent with cognitive models of depression, a negative attribution style in combination with negative life events can lead to the development of depression (Haskin, 2008).

Screening and Assessment of Depression

Primary care providers should screen all youth for depression by asking about key symptoms, including sad or irritable mood and anhedonia or the inability to experience pleasure and have fun. In youngsters, readily observable changes associated with onset of depression might include deteriorating academic performance, weight or appetite loss or gain, social withdrawal, changes in sleep, increased defiance (related to irritability), and discontinuation of previously preferred activities. Teenagers with increased negative moods should be further assessed for changes in thinking to a more negative view of themselves, the world, and the future. Asking about suicidal ideation and screening for safety are also important parts of the interview.

The clinical presentation of depression in youth resembles that in adults with some differences stemming from developmental considerations. For instance, children are more likely than adults to exhibit mood liability or irritability and display indirect or behavioral manifestations of disturbed mood, such as temper outbursts, somatic

complaints, social withdrawal, or diminished frustration tolerance. They are less likely than adults to explicitly complain of feeling depressed and unlikely to exhibit melancholic symptoms, including depressed mood worse in the morning, early morning awakening, marked psychomotor retardation, significant weight loss, and excessive guilt.

Depression in youth may be accompanied by hallucinations or delusions, although rarely. Psychotic depression in children has been associated with a family history of bipolar and depression with psychotic features, more severe depression, greater long-term risk, resistance to antidepressants, and increased risk of future onset of bipolar disorder (Fombonne et al., 2001).Youth with seasonal affective disorder (SAD) mainly have symptoms of depression during seasons with less daylight. SAD should be differentiated from depression triggered by school stress because both usually coincide with the school calendar.

A diagnosis of a depressive disorder would be considered if the youth demonstrated markedly impaired functioning in social, academic, or family domains. Functionality can be readily and objectively assessed using the Children's Global Assessment Scale or Global Assessment of Functioning. Complaints of significant emotional distress in the child would also merit further investigation for depressive symptoms. Screening can be facilitated by using depressive symptom checklists derived from the Diagnostic and Statistical manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR) or The International Classification of Diseases, Tenth Revision (Icd-10), clinician-based instruments, or youth or parent self-reports. Examples of widely used and well-validated screening checklists include the Child

Depression Inventory, as well as the Reynold's Adolescent Depression Scale (American Academy or Child and Adolescent Psychiatry, 2007).

Youth do not always readily report on emotional or behavioral manifestations of psychiatric disorders. They might deny the existence of these symptoms or behaviors or simply have difficulty articulating their thoughts and feelings. The use of open-ended or indirect questions is recommended in pediatric interviews, as the information collected is likely to be more comprehensive and reliable. Direct or closed-ended questions tend to elicit more limited and potentially biased responses from children and teens, due to their leading nature and the tendency of youth to be suggestible. Collateral information from parents, alternative caregivers, and teachers is often essential for confirming or ruling out depression or other psychiatric or behavioral disorders. The onset and course of a mood disorder may be determined through the use of a mood diary or timeline, using significant life events as anchors. A mood timeline can enable the provider, child, and parents to identify environmental triggers, as well as co-morbid conditions (Cook, Peterson, & Sheldon, 2009).

OPERATIONAL DEFINITION

The variables used in the study are explained below:

Adolescence: Adolescence is the period in human growth and development that occurs after childhood and before adulthood, specifically from ages between 10 to 19 years (Naik, 2015).

Family Environment: Grolnick and Slowiaczek (1994) defined family environment as the environment in which the family lives as a setting of learning which has vital effects on the child.

Academic Stress: Academic stress is a mental distress with respect to some anticipated frustration associated with academic failure or even an awareness of possibility of such failure (Gupta & Khan, 1987).

Depression: According to Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2013), depression is a mood disorder characterized by the presence of sad, empty, or irritable feelings, accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function.

CHAPTER II

REVIEW OF RELATED LITERATURE

The term 'review' means to organize the knowledge of the specific areas of research in order to evolve an edifice of knowledge to show that the study should be an addition to existing knowledge of the field. It is very essential for a researcher in any field of human knowledge to know complete and thorough information of the work done in her country and abroad in the specific area of her research. This acquaints her with up-to-date knowledge and techniques relevant to her work. It develops her insight into the problem and save her from unnecessary trial and error.

The review of related literature serves a variety of purposes in research and assures familiarity with both, previous theory and research to the investigator. In short we can say that the review of related literature serves few major functions:

1. It provides the conceptual frame of reference for contemplated research.
2. It provides an understanding of status of research in problem area.
3. It provides an estimate of probability of success of contemplated research and the significance or usefulness of the findings and assumptions of the decision made to continue.
4. Finally, it provides specific information needed to state the definitions, assumptions, limitations and hypotheses of the research.

The literature refers to the knowledge of a particular area of investigation in any discipline which includes theoretical, practical and research studies. The investigators constantly go on adding to the vast stores of knowledge with the result that it makes possible the progress in all areas of human endeavor. The review of literature reveals

what problems have already been investigated, what questions have been answered, what issues still remain to be subjected to research.

This is essential for every researcher to do before she finally selects problem for investigation. The review of literature guides her thinking and makes it possible for her to identify the most relevant methods and tools of study. Review of literature is a significant and essential part of research process and therefore, every research work includes a section exclusively devoted to the review of concerned literature. According to Tuckman (1978), the reference to the relevant literature helps the researcher in:

a) Discovering important variables in the field of study

b) Distinguishing what has been done from what needs to done, and

c) Formulating the hypothesis.

In fact, research begins with some original ideas and concepts that are interrelated through an anticipated relationship called hypothesis. These expectations are tested by collecting the relevant data and the results based on these data are interpreted and extended by converting them into new concepts.

Despite efforts, the investigator could not find much in the educational literature directly related to the problem in hand but researcher did come across quite a few studies indirectly showing a connection with certain facts of the problem.

2.1 Family Environment and Academic Stress in Adolescents

Deb et al. (2010) conducted a study to better understand anxiety among adolescents in Kolkata city, India. Specifically, the study compared anxiety across gender, school type, socio-economic background and mothers' employment status. The study also

examined adolescents' perceptions of quality time with their parents. A group of 460 adolescents (220 boys and 240 girls), aged 13-17 years were recruited to participate in the study via a multi-stage sampling technique. The data were collected using a self-report semi-structured questionnaire and a standardized psychological test, the State-Trait Anxiety Inventory. Results show that anxiety was prevalent in the sample with 20.1% of boys and 17.9% of girls found to be suffering from high anxiety. More boys were anxious than girls ($p<0.01$). Adolescents from Bengali medium schools were more anxious than adolescents from English medium schools ($p<0.01$). Adolescents belonging to the middle class (middle socio-economic group) suffered more anxiety than those from both high and low socio-economic groups ($p<0.01$). Adolescents with working mothers were found to be more anxious ($p<0.01$). Results also show that a substantial proportion of the adolescents perceived they did not receive quality time from fathers (32.1%) and mothers (21.3%). A large number of them also did not feel comfortable to share their personal issues with their parents (60.0% for fathers and 40.0% for mothers).

Using data from three waves of the National Survey of Families and Households (N=1,963), Musick and Meier (2010) examined associations between adolescent family experiences and young adult well-being across a range of indicators, including schooling, substance use, and family-related transitions. They compared children living with both biological parents, but whose parents differ in how often they argue, to children in stepfather and single-mother families, and assessed the extent to which differences can be understood in terms of family income and parenting practices. Findings suggest that parental conflict is associated with children's poorer academic achievement, increased substance use, and early family formation and dissolution.

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Living in single mother and stepfather families tend to be more strongly associated with their indicators of well-being, although differences between these family types and living with high conflict continuously married parents are often statistically indistinguishable. Income and parenting largely do not account for associations between adolescent family type and later life outcomes. They concluded that while children do better, on average, living with two biological married parents, the advantages of two-parent families are not shared equally by all.

Chawla (2012) conducted a study to test the relationship between family environment and academic achievements. The participants of the study were included two hundred students i.e. 100 boys and 100 girls -- randomly selected from the 9th standard of Marathi medium schools of Nasik City. Family Environment Scale by Dr. Harpreet Bhatia and Dr. N.K. Chadha (1993) was used for the purpose of data collection. Second semester (yearly) marks of 9th standard were taken. Data analysis was done by using Pearson correlation coefficient. Findings of the study revealed that family environment score was positively correlated with the academic achievement of the students.

Bartwal and Raj (2013) conducted a study on Academic stress among school going adolescents in relation to their emotional intelligence. The present study was aimed at examining the relationship between academic stress and emotional intelligence of school going adolescents. The sample consisted of 200 students (100 urban and 100 rural area), further subdivided into 50 male and 50 female students in these areas. The data were collected from different senior secondary schools of District Bathinda (Punjab). The investigation revealed that the academic stress experienced by both

male and female adolescents is similar, high score on EI can deal in a better way with the academic stress.

Lal (2013) in his study tried to examine academic stress among adolescent in relation to intelligence and demographic factors. The objective of the study were to compare the academic stress of Senior Secondary School students, to examine the academic stress of male and female students of Sr. Sec. School, to examine the academic stress of rural and urban students of Sr. Sec. School, and to examine the academic stress of govt. and private sr. sec. school students. The sample consisted of 200 students of high school of Government managed and privately managed institutions of Hisar. The tools used were Students Academic stress scale by Dr. Abha Rani Bist and Intelligence Test by Dr. R.K. Ojha. The results showed no significant difference in academic stress of average and low I.Q. students. There was a significant difference in academic stress of male and female students. But no significant difference in academic stress of rural and urban institutions students. Also there was no significant difference in academic stress of Government and private senior secondary school students.

Wang and Sheikh-Khalil (2014) conducted a study that conceptualized parental involvement as a multidimensional construct-including school-based involvement, home-based involvement, and academic socialization-and examined the effects of different types of parental involvement in 10th grade on student achievement and depression in 11th grade (approximately ages 15-17 years). In addition, this study tested whether parental involvement influenced adolescent outcomes by increasing their academic engagement in school. A total of 1,056 adolescents participated in the study (51% males; 53% European American, 40% African American, and 7% other).

Parental involvement was found to improve academic and emotional functioning among adolescents. In addition, parental involvement predicted adolescent academic success and mental health both directly and indirectly through behavioral and emotional engagement.

Kenchapanvar, Soubhagya and Avargerimath (2015) conducted a study that makes an attempt to examine the influence of Family environment on Study involvement of Adolescent students. The influence of various dimensions constituting the Family environment on Study involvement is assessed using Family Environment Scale and Study involvement Inventory. A sample of 110 students studying in the IX Class were administered the above Scales. The results indicate that many dimensions of Family environment like Cohesion(r=0.36), Expressiveness(r=0.39) and Acceptance and Caring (r=0.29) have a significant positive relationship with Study involvement of Adolescents; whereas dimensions like Conflict (r=-0.25) had an inverse relationship with Study involvement of adolescents. Multiple step-wise regression indicated that Cohesion has emerged as the strongest predictor of Study involvement.

2.2 Family Environment and Depression in Adolescents

Lau and Kwok (2000) examined the relationships among family environment, depression and self-concept of adolescents in Hong Kong. The study involved a total of 2,706 adolescents. Results showed that all the three domains of family environment (relationship, personal growth and system maintenance) correlated significantly with the three depression aspects (emotionality, lack of positive experience and physiological irritation). The relationship domain of Family Environment Scale (FES) appeared to correlate more strongly than the other two domains with the depression aspects. The Family Environment Scale domains also correlated strongly and

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positively with the four domains of self- concept: academic, appearance, social and general. Both the relationship domain and system maintenance domain correlated more strongly than the personal growth domain with the self-concept domains. Regression analyses showed that family relationship was most predictive of various aspects of depression and self-concept. Sex difference was found in the prediction of both boys' and girls' depression and self-concept. With boys, system maintenance was predictive only of self-concept. With girls, personal growth was predictive of depression, and personal growth and system maintenance were predictive of self-concept. Analysis of variance showed that students high on family relationship, personal growth and system maintenance were low in different depression aspects, but high in various self-concept domains. It was concluded that a cohesive, orderly and achieving family environment is conducive to more positive development in adolescents, in terms of lower depression and higher self-concept.

Rudolph, Kurlakowsky and Conley (2001) demonstrated that family disruption, as well as exposure to chronic stressful circumstances within the family, peer and school settings, predicted decrease in perceptions of control and increase in helpless behaviour in academic and social situations. These maladaptive beliefs and behaviour were in turn associated with depression.

Aydin and Oztutuncu (2001) conducted study to examine adolescents' negative thoughts, depressive mood and family environment. For the study 311 students with age range of 16-17 years were selected. The Family Environment Scale, the Automatic Thoughts Questionnaire and the Beck Depression Inventory (BDI) were used to collect data. Results of the study showed that family cohesion was found to be related to the degree of negative thoughts and depressive mood of the adolescents.

Meyerson et al. (2002) conducted research to find out the contributions of sexual abuse, physical abuse, family cohesion and family conflict in predicting the psychological functioning of adolescents. For the study 131 adolescents (age ranges from 16-18 years) were selected. Adolescents were administered with psychological assessment tools to assess abuse history, family environment characteristics and current adjustment. Results of the study demonstrated that physically abused females perceived their family environments as more conflictual and less cohesive than females without physical and sexual abuse. Also it was found that physically abused males reported more conflict than males without physical abuse, but did not differ with regard to family cohesion. Multiple regression analyses showed that family conflict, family cohesion, and history of sexual and physical abuse predicted depression and distress.

Seguin et al. (2003) conducted a case control study on adolescent depression, family psychopathology and parent/child relations. Three types of adolescents were interviewed in this study. First type of adolescents were currently depressed and have at least one parent who had/or is still experiencing a mood disorder, second were currently depressed adolescents whose parents were never diagnosed with a mood disorder, and third one were the never-depressed control adolescents. All participants were administered the Schedule for Affective Disorders and Schizophrenia-Children's version or Structured Clinical Interview for DSM-IV, the Beck Depression Inventory, The Parental Bonding Instrument and the Life Events Checklist. Results showed that parental psychopathology, parent-child relations and life events were all relevant factors in adolescent depression and they should be considered in combination for assessment, prevention and intervention efforts.

Truong (2003) conducted study to examine emotional autonomy, the family environment and adolescent depression. For the study, a sample of 46 adolescents was taken which constituted 23 depressed and 23 non-clinical adolescents and their parents. Results of the study demonstrated that the adolescents who were depressed reported higher levels of emotional autonomy than non-clinical adolescents. Also results showed that depressed adolescents had families in which parents reported greater levels of parental expressed emotion, maladaptive levels of cohesion and adaptability compared to non-clinical adolescents.

Sagrestano et al. (2003) conducted longitudinal research on familial risk factors for depression among inner-city African American adolescents. For this research, a sample 302 urban, low-income, African American adolescents (age 9-15 years) and their parents were selected and 2 waves of data collection were used. Results of data showed that 7.3% of parents and 3% of children at Time 1 and 5.4% of parents and 2.8% of children at Time 2 were clinically depressed. Regression analyses demonstrated that changes in family functioning were concurrently associated with changes in depression for both children and parents. Specifically, increases in conflict and decreases in parental monitoring were associated with increases in child depressive symptomatology, and increases in conflict and decreases in positive parenting were associated with increases in parental depressive symptomatology.

Hammack et al. (2004) conducted study to examine the role of family stress as a mediator of the relationship between poverty and depressed mood among African American adolescents. For the study 1,704 low income African American adolescents were taken. Results of the study showed that approximately half of the adolescents (47%) reported clinical depressive symptoms. Also it was found that females reported

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higher levels of family stress and higher poverty index, and these were related to increased rates of depresses mood. It also showed that family stress significantly mediated the relationship between poverty and adolescent depressed mood by explaining 50% of the total effect.

Abbott, Hall and Meredith (2005) conducted study to examine the influences of family on adolescents' well functioning. More than 300 hundred adolescents were surveyed about family influences on adolescent positive development outcomes and healthy life choices. Results of the study demonstrated that parental warmth, teen religiosity, parental monitoring and a low occurrence of stressful life events were related to adolescent depression, participation in risky behaviours and parental teen conflict.

Lee et al. (2006) conducted research to examine the perceptions of school and family contributing to depression and suicide ideation in Hong Kong adolescents in two studies. In Study 1, among 327 Hong Kong Chinese female students ages 13-18 years, 47% reported some suicide ideation. Suicide ideation was significantly associated with depression, test anxiety, academic self- concept, and adolescents' perceived parental dissatisfaction with academic performance. The correlation between test anxiety and depression was especially high ($r = 0.51$). Study 2 examined how three different aspects of perceived family relationship were associated with depression and suicide ideation. Among 371 Hong Kong Chinese adolescents (age 14-20 years) 52.6% reported suicide ideation. Low levels of family cohesion, support and high levels of parent- adolescent conflict were positively related to depression and suicide ideation in both the genders. Across both studies, depression mediated associations between academic and family-related variables and suicide ideation.

Herman, Ostrander and Tucker (2007) conducted study to examine the relationship between family cohesion, family conflict and depression for African American and European American adolescents (age ranges from 12 to 17 years) and also to find out the influence of cognitive variables on these relationships. Results of the study showed that low family cohesion was associated with depression for African American adolescents, whereas high family conflict was predictor of depression for European American adolescents. Also it was found that high self-discrepancy (a cognitive variable) mediated the effect for the European American adolescents, but not for African American adolescents.

McGraw et al. (2008) conducted research to investigate Australian year 12 (the final year of secondary schooling) students' sense of connectedness to their schools, families and peers, and examine associations between connectedness and emotional well-being. Year 12 students (492 male and 449 females) from ten secondary schools in Victoria, Australia participated in phase one of the study. The study found high levels of depression, anxiety and stress among year 12 students, with higher negative affect associated with lower levels of family, peer and school connectedness. Results suggested that there were 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.

Sharma, Verma and Malhotra (2008) conducted study to examine the role of pathogenic family patterns in the development of anxiety. Results of the study concluded that poor family environment in terms of parental hostility, rejection and inconsistencies can all contribute to psychological problems viz. anxiety, stress, neuroticism, depression and many others.

Sharma, Grover and Chaturvedi (2008) tried to study the prevalence of suicidal behavior and its epidemiological correlates amongst adolescent students in south Delhi. A cross-sectional study was conducted in three schools and two colleges in south Delhi. A total of 550 adolescent students aged 14 to 19 years selected by cluster sampling. Analysis was done by using Proportions, chi square test, bivariate logistic regression. In the results about 15.8% reported having thought of attempting suicide, while 28 (5.1%) had actually attempted suicide, both being more in females than in males. Statistically significant associations were observed with the age of the student, living status of parents, working status of mother, and whether the student was working part-time. The two variables found significant on multivariate analysis were female gender and the number of role models the student had ever seen smoking or drinking. In conclusion the prevalence of suicide-risk behavior was found to be quite high and is a matter that should evoke public health concern.

Mason et al. (2009) conducted a study that examined components of adolescents' social environment (social network, extracurricular activities, and family relationships) in association with depression. A total of 332 adolescents presenting for a routine medical check-up were self-assessed for social network risk (i.e., smoking habits of best male and female friends), extracurricular activity level (i.e., participation in organized sports teams, clubs, etc.), family relationship quality (i.e., cohesion and conflict), and symptoms of depression (i.e., minimal, mild, moderate/severe). Results of a forward linear regression modeling indicate that social environment components were associated with a significant proportion of the variance in adolescent depression (Adjusted $R2 = .177$, $p< .05$). Specifically, adolescent females ($b = .166$, $p<.01$) and those having more smokers in their social network ($b =$

.107, p<.05) presented with significantly greater depression symptoms. Conversely, adolescents who engaged in more extracurricular activities (b = -.118, p<.05) and experienced higher quality family relationships (b = -.368, p<.001) presented with significantly lower depressive symptoms.

Bagi and Kumar (2014) conducted a study to find out the relationship between family environment and subjective wellbeing of adolescents. Sample of present study comprised 100 college students between the ages of 18-24 years old. Family environment scale (FES) by Dr. Harpreet Bhatia & Dr. N. k. Chadha and PGI general Wellbeing Measure developed by Dr. Santosh K. Verma & Ms. Amita Verma were used for the purpose of the study. Descriptive statistics and Pearson product moment correlation statistical analysis were used between FAS and PGIWBGM with the help of SPSS 11.5. Results indicated that there were significant positive correlation between cohesion and expressiveness, cohesion and conflict, acceptance and caring. Subjective Wellbeing was not significantly correlated with any of the factor of family environment. It can be concluded that family environment does not necessarily imply subjective wellbeing of adolescent.

Biglan et al. (2014) conducted a study on the role of experiential avoidance in the relationship between family conflict and depression among early adolescents. Experiential avoidance (EA) consists of efforts to control or avoid unwanted emotions, upsetting memories, troubling thoughts, or physical pain and the contexts that occasion them, even when doing so creates problems over the long run. While substantial evidence finds EA to be a risk factor for diverse psychological problems, most of that evidence comes from research with adults. This paper presents longitudinal findings from a study of adolescents that examined the relationships

between EA, family conflict and depression. The data were obtained from students in grades 6, 7, and 8 (81.8% white, with Hispanic students the largest group of minority participants-8.8%). The analysis included latent growth models of family conflict, adolescent EA, and adolescent depression: all showed acceptable fit; mean intercepts and slopes (with their respective variances) were significant. The results suggest that EA is associated with depression and is more likely in families with high conflict. Female adolescents had higher EA and were differentially affected by family conflict.

Kaur and Sapra (2014) conducted a study that aimed to investigate the relationship among depression, family environment and self concept of adolescents. The sample consisted of 200 adolescents (100 males and 100 females) of age group 14 -17 years, studying in the secondary schools of Ambala. Mental Depression Scale (Dubey, 2006), Family Environment Scale (Bhatia & Chadha, 1993) and Self Concept Questionnaire (Saraswat, 2010) were used to collect data. Results revealed that depression is negatively and significantly correlated with four dimensions of family environment namely cohesion, active recreational orientation, independence and organization whereas it is positively correlated with conflict in the family. Significant differences were found in the family environment and self concept of adolescents scoring high and low on depression.

A study conducted by Sharma and Khan (2014) examined the relationship between depression and family environment among adolescents in Chandigarh. For the collection of data Beck Depression Inventory-II and Family Environment Scale were used. For the analysis of data statistical techniques like t-test, Pearson product moment correlation and stepwise multiple regression were used. Correlation analysis showed that depression was found to be significantly and negatively correlated with

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cohesion, expressiveness, independence and recreational orientation dimensions of family environment. No significant gender difference was observed on the variable of depression. Boys and girls significantly differed only on organization dimension of family environment. Regression analysis showed that expressiveness, cohesion and independence significantly contributed to depression independently as well as conjointly. This demonstrated that adolescents having families high on expressiveness, cohesion and independence exhibited lower level of depression. Results of the present study demonstrated that congenial family environment is necessary for the overall development of adolescents.

Lewis et al. (2015) in their study 'Gender differences in adolescent depression: Differential female susceptibility to stressors affecting family functioning' aimed to examine associations between family-based stressors and depressive symptoms in adolescents. Participants were 10–14 year olds who participated in a large Australian population study (n = 6,552). Depressive symptoms and pubertal development were assessed using the self-report Short Mood and Feelings Questionnaire and the Pubertal Development Scale. Three indicators of stress exposure were examined- low emotional closeness to parents, residential and school transitions, and family conflict. The effect of gender, stress exposure and the interaction of gender and stress exposure on depressive symptoms were tested using multivariate logistic regression. They found that high family conflict, residential instability and low emotional closeness with parents were independently associated with adolescent depressive symptoms. There was a significant gender by emotional closeness interaction; females reporting low emotional closeness to their parents were 2.3 times more likely to report high depressive symptoms than females reporting high emotional connections with parents.

2.3 Academic Stress and Depression in Adolescents

Ghaderi, Kumar and Kumar (2009) conducted study to compare the experiences of stress, anxiety and depression among Indian and Iranian students. The data was collected from students studying in different departments of University of Mysore, Mysore, studying post graduate and Ph.D. degree courses. The sample comprised of 80 Indian and 80 Iranian, both male and female students. The Depression Anxiety Stress Scale (DASS) was used to measure depression, anxiety and stress. The findings revealed that depression, anxiety and stress level of Indian students were significantly higher than those of Iranian students. Furthermore, gender differences were not found significant.

Al-Gelban, Al-Amri and Mostafa (2009) conducted a cross-sectional study on secondary school girls in Abba city, Aseer Region, Saudi Arabia, using the Arabic version of the Depression Anxiety and Stress Scale to determine the prevalence of symptoms of depression, anxiety and stress. 545 female students recruited in this study, 73.4% had the symptoms of at least one of the three studied disorders and 50.1% had at least two disorders. The prevalence of symptoms of depression, anxiety and stress was 41.5%, 66.2% and 52.5% respectively. The majority of symptoms were mild to moderate in severity. The scores for depression, anxiety, and stress were positively and significantly correlated. There was no significant association found between the girls' socio demographic characteristics and the scores of the three studied disorders.

Bansal, Goyal and Srivastava (2009) examined the prevalence of depression among adolescent students. Results of the study showed that 15.2% of school-going

adolescents were found to be having evidence of distress, 18.4% were depressed and 5.6% students were detected to have both depression and distress. Certain factors like parental fights, beating at home and inability to cope up with studies were found to be significantly associated with higher distress. Economic difficulty, physical punishment at school, teasing at school and parental fights were significantly associated with depression.

Gray-Stanley et al. (2010) conducted study to examine the contribution of work support and locus of control in the prediction of work stress and depression among professionals. Results of the study demonstrated that work stress was positively associated with depression, while resources (work social support and internal locus of control) were negatively associated with depression.

Bhasin, Sharma and Saini (2010) conducted study to examine the relationship among depression, anxiety and stress on a sample of 242 adolescent students belonging to class 9th-12th and the sample belong to affluent families. For data collection 21-item Depression Anxiety and Stress Seale was used. The results of the study indicated that the scores in the three domains depression, anxiety and stress were found to be remarkably correlated and depression was significantly more among the females than the males. Depression, anxiety and stress were all significantly higher among the board classes i.e. 10th and 12th as compared to the classes 9th and 11th. Also it was found that depression, anxiety and stress were having an inverse relationship with the academic performance of the students.

Antonio et al. (2010) conducted study to investigate the relationship between depression and stress among university students. Results of the study showed that the

prevalence of depression was found to be 47.2 % and it was significantly related with severity of the stress of academic stressors.

Skipworth (2011) conducted research to examine the effects of perceived stress levels on depression outcomes in college students and to evaluate the influence of health related behaviours on this relationship. A random sample of 20,000 students was drawn from 62,476 students enrolled at Arizona State University (ASU). Results of the study showed that there were more female participants than males and both averaged 23 years of age. Analysis showed that there were more significant correlations between health factors and having perceived depression than with having real or diagnosed depression. Logistic regression analysis showed that out of all variables and behaviours studied, only high levels of stress, poor general health, substance use, and gender (female) resulted in significant odds in predicting that a participant would be in one of the depression categories.

Liu and Lu (2012) conducted study to examine the different effects of Chinese high school students' academic stress on their depressive symptoms and the moderating effects of gender and students' perceptions of school climate on the relationships between their academic stress and depressive symptoms. Results of the study showed that students' perceptions of academic stress from lack of achievement positively predicted their depressive symptoms.

Moreira and Furegato (2013) conducted study to investigate the relationship between stress and depression in students of nursing. For the collection of data, The Perceived Stress Scale and Beck Depression Inventory were administered on 88 students. Results of the study showed that 69.8% have no depression, 18.2% showed symptoms

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of dysphoria, 6.8% were moderately depressed and 5.7% reported severe depression. A significant relationship was found between stress and depression.

Jayanthi, Thirunavukarasu and Rajkumar (2014) conducted a study on Academic stress and depression among adolescents. A cross-sectional study was conducted at higher secondary schools in Tamil Nadu. 1120 adolescents were included in the study after screening by MINI-kid tool. Modified Educational Stress Scale for adolescents was administered to all children. The result showed that adolescents who had academic stress were at 2.4 times (95% CI=0.9-2.4) (P<0.001) higher risk of depression than adolescents without academic stress. In conclusion Adolescents with severe academic stress need to be identified early as interventions to reduce academic stress is likely to affect the occurrence and severity of depression.

Kaur et al. (2014) conducted a study to determine the prevalence and correlates of depression among school-going adolescents in Malaysia. Data from the Malaysia Global School-based Health Survey (GSHS) 2012 were analyzed with additional data from the validated DASS21 (Depression, Anxiety, and Stress) questionnaire. The study revealed that 17.7% of respondents had depressive symptoms. Multivariate analysis further showed that feeling lonely (adjusted odds ratio [aOR] = 2.99; 95% CI = 2.57-3.47), Indian ethnicity (aOR = 2.00; 95% CI = 1.63-2.44), using drugs (aOR = 1.85; 95% CI = 1.21-2.82), and being bullied (aOR = 1.79; 95% CI = 1.60-1.99) were significantly associated with depressive symptoms. Lack of parental supervision, alcohol use, and tobacco use were also significant risk factors. Addressing depressive symptoms among adolescents may have implications for managing their risks of being bullied and substance use. This study also highlights the need to further investigate depressive symptoms among adolescents of Indian ethnicity.

A study conducted by Kaur and Sharma (2014) examined the depression among adolescents in relation to their academic stress. A sample of 200 adolescents (studying in XI class) was assessed with Beck Depression Inventory- II and Scale of Academic Stress. Results of the study showed that depression was significantly and positively correlated with academic stress and its dimensions i.e. academic frustration, academic conflict, academic pressure and academic anxiety. This demonstrated that as the academic stress increases among adolescents, depression also increases among them.

The above written studies showed the relationship between depression and academic stress. Nash (1994) showed no relationship between stress and depression, but other studies showed positive relationship between academic stress and depression (Moreira & Furegato, 2013; Skipworth, 2011; Antonio et al., 2010).

2.4 Gender and Depression in Adolescents

Jaggi (2008) conducted study to find out the psychosocial aspects of happiness among adolescents. For the study 400 adolescents (200 boys and 200 girls) from various schools of Chandigarh were selected. Results of the study showed that happiness was found to be positively correlated to positive mental state, daily uplifts, confrontive coping, seeking social support, planful problem solving, positive reappraisal, perceived social support and perceived family environment. Also it was found that happiness was negatively and significantly correlated to stress symptoms, daily hassles, escape avoidance, depression, state anger, trait anger, anger in, anger out, total anger expressed, neuroticism, psychoticism, and externality. Also no significant gender differences were found on dimensions of happiness, positive and negative affect, daily uplifts, personality dimensions (extraversion and neuroticism), social

desirability, locus of control, state anger, trait anger, anger in. anger out, total anger expressed and depression.

Charbonneau, Mezulis and Hyde (2009) conducted study to examine the role of stress and emotional reactivity for gender differences in adolescents' depressive symptoms. A sample of 315 adolescents was taken for the study. Results of the study showed that stressful events significantly mediated gender differences in depression. Results also showed that significant gender differences were found on emotional reactivity.

Upmanyu et al. (2010) conducted study to examine gender differences in negative cognition, stress, social support and depression. 200 males and 200 females in the age range of 15-17 years participated in the study. Zung's Self Rating Depression Scale, Automatic Thought Questionnaire, Perceived Stress Scale and Social Support Questionnaire were used as a measure of depression, negative cognition, stress and social support. The study revealed that male and female adolescents did not differ on depression, negative cognition and stress. The females were found to be higher on perceived social support both qualitatively and quantitatively than males.

Fonseca-Pedrero et al. (2011) conducted research to investigate the prevalence of depressive symptoms in Spanish adolescents. For the study 1,683 adolescents with mean age of 15.9 years were administered with Reynolds Adolescent Depression Scale (RADS). Results of the study indicated that 2.5% adolescents scored higher than the cut-off point of 77 on the Reynolds Adolescent Depression Scale which showed a clear severity in the depressive symptomatology. Female adolescents obtained higher scores on the Reynolds Adolescent Depression Scale, Dysphoria and Somatic Complaints subscales than males. Also it was found that adolescents with age

ranges from 17 to 19 showed more score on Dysphoria subscale as compared to adolescents with age of 14 to 16.

Tiwari and Ruhela (2012) conducted study to examine the relationship between social isolation and depression among adolescents and examine the prevalent gender differences in the social isolation and depression. The sample of the study consisted of 300 adolescent (150 boys and 150 girls) in age ranging from 16-18 years from Delhi. Social isolation and depression were measured by using Youth Problem Inventory. The results of the study showed that social isolation and depression were positively correlated. Also results indicated that boys and girls were significantly differing on depression and social isolation. Girls were high on rate of depression and social isolation as compared to boys.

Sharma (2014) conducted a study to examine the effect of gender and stream on depression, among adolescents. A sample of 300 adolescents (150 boys and 150 girls studying in XI class pursuing science, arts and commerce streams) was taken from Government Model Senior Secondary Schools of Chandigarh by using stratified random sampling technique. Beck Depression Inventory-II was used for data collection. For the analysis of data 2X3 ANOVA was used and t-test was employed wherever F-ratio was significant. The results demonstrated that gender and stream had significant interaction effect on depression among adolescents. Both were dependent on each other to affect the depression score of students. Also, gender and stream differences emerged on depression. Girls showed higher score on depression as compared to boys, and arts students were more depressed as compared to science and commerce students. Further, it was observed that science, arts and commerce stream boys were not differed significantly on depression but girls in science, arts and

commerce streams showed significant difference on depression and it was favoured by arts girls. In case of science and commerce streams no significant gender differences occurred. But in arts stream, significant gender differences were observed on depression with preponderance of girls over boys. Results of the study indicated a clear effect of gender and stream on depression among adolescents.

Some studies showed that adolescent females are at significantly greater risk than males for depression (Tiwari & Ruhela, 2012; Fonseca-Pedrero et al., 2011) but some showed male and female adolescents did not differ on depression (Upmanyu et al., 2010; Jaggi, 2008).

2.5 Family Environment, Academic Stress and Depression

Arun and Chavan (2009) conducted a cross-sectional study on school students in urban area of Chandigarh city. School students in India have a high stress level and high rate of deliberate self-harm. The present study was conducted to find out stress, psychological health, and presence of suicidal ideas in school students and to find out any correlation between these variables. Data was collected from 2402 students from classes VII to XII on socio-demographic scale, 12-item general health questionnaire, Mooney problem checklist, and suicide risk eleven -a visual analogue scale. Statistical analysis used was chi square and Spearman's correlation. Out of 2402 students, 1078 (45.8%) had psychological problems, half (1201 students) perceived problems in their role as students, 930 (45%) reported academic decline, 180 (8.82%) students reported that life was a burden, 122 (6%) reported suicidal ideas and 8 (0.39%) students reported suicidal attempt. There was significant correlation between student's perception of life as a burden and class they were studying, mother's working status, psychological problems and problems students experienced in relation to study, peers,

future planning and with parents. Students with academic problems and unsupportive environment at home perceived life as a burden and had higher rates of suicidal ideations.

Dhuria et al. (2009) conducted a study aimed to assess the mental health status and some determinants in senior secondary school children in Delhi. A cross-sectional study was carried out on a sample of 458 children, selected by 2-stage sampling. Goldberg's General Health Questionnaire containing 60 items (GHQ-60) was used for assessment of mental health. GHQ was administered to 239 boys and 219 girls in the age group of 15 to 20 years. Of 458 students, 113 (24.7%) had a score>or=16, the cutoff score, indicating mental morbidity among them. Among boys and girls, 28.5% and 20.5%, respectively, had some component of mental morbidity. Morbidity was significantly higher in children hailing from nuclear families and among children who had either failed or those who had scored highest in the class.

Bhasin, Sharma and Saini (2010) conducted a school based study on Depression, anxiety and stress among adolescent students belonging to affluent families. The objective of the study was to assess depression, anxiety and stress (DAS) among adolescent school students belonging to affluent families and the factors associated with high levels of DAS. 242 adolescent students belonging to class 9-12th selected for the study. DASS-21 questionnaire was used for assessing DAS. The scores in the three domains (DAS) were found to be remarkably correlated. It was seen that depression was significantly more among the females (mean rank 132.5) than the males (mean rank 113.2), p=0.03. Depression (p=0.025), Anxiety (0.005) and Stress (p<0.001) were all significantly higher among the 'board classes' i.e., 10th and 12th as compared to the classes 9th and 11th. All the three (DAS) were found to have an

inverse relationship with the academic performance of the students. Depression and Stress were found to be significantly associated with the number of adverse events in the student's life that occurred in last one year. In conclusion a significant proportion of the students were found to be having high levels of DAS and several important factors were found to be associated with them. Proactive steps at the school-level and community-level and steps for improved parent-adolescent communication are needed for amelioration of the problem.

Chhabra and Sodhi (2011) tried to study the prevalence of psychosocial problems in male adolescents and find out various factors contributing to psycho-social ill health. For this 500 adolescents were interviewed using a pre-tested structured questionnaire to elicit the information about the psychosocial problems including depression, suicidal thoughts and suicidal attempts. Association of academic performance, family problems, psychological problems and substance abuse was also included. The results showed more than one third (39.6%) adolescents were having psychological problems. These problems were significantly higher in middle adolescence (14-16 years), large extended families (> 8 members) and lower socioeconomic status. Residence had no significant relation to psychological problems in the adolescents. On correlation, these adolescents with psychological problems were having significantly more academic problems, family disputes, domestic violence, lesser number of close friends and greater substance abuse. Considering that male adolescents from large families with lesser education and lower income had higher prevalence of psychosocial problems, it is essential for health care planners to design comprehensive family and health education programs for the adolescents. The family

support, teacher student rapport and peer group communication should be strengthened to counteract unsafe behaviours in the adolescents.

Kumar et al. (2012) conducted a cross sectional study to find the prevalence of depression, suicidal ideation and associated socio-demographic factors among adolescent students. 3141 students aged between 15 to 19 years from residential and non-residential government and private schools and colleges from Davangere participated in the study. The self administered questionnaire of Beck's depression inventory II was used to evaluate the depression status and suicidal ideation was analyzed using item number 9 of BDI. The prevalence of depression in the study group was 57.7%. The prevalence of suicidal ideation was significantly (P =0.000) more among depressed (41.7%) compared to non-depressed (11.4%). Residential school students were more depressed (74.5%) than non-residential school students (52.1%, P = 0.000). Students from joint family were less depressed (40.1%) compared to those from nuclear family (63.3%, P =0.000). Moderate depression was the commonest type followed by mild, severe and extreme types. Age, sex, class, recent academic performance, mother's education level, factors at home like quarrel, financial, alcoholism and chronic illness in parents showed significant relationship with prevalence of depression. Depressed students had problem getting along with parents, siblings, friends and teachers. Parent's education level and occupation status had no association with depression rates. To conclude the prevalence of depression in adolescent students of the study group was high and suicidal ideation was significantly high among the depressed students.

Gap in Literature - The review of current state of literature unraveled relationships between family environment, academic stress and depression among adolescents but

indicated that very few studies have been done on the role of different dimensions of family environment i.e. cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization and control as well as academic stress will contribute significantly in predicting depression among adolescents conjointly as well as independently. Also, not much work has been done to study gender differences on all these variables in adolescent students, particularly, in India. Moreover, one can notice small or large gaps in the research literature which need to be bridged by researches. Present study is a small effort in this direction.

Significance of the Study

Adolescents comprise nearly one-fifth of the total population of India. It is a transitional stage from childhood to adulthood and is a time of major changes in all areas of functioning. Academic matters are the most important sources of chronic stress in young people and have significant associations with mental health problems, such as depression, anxiety and suicidal ideation (Ang & Huan, 2006). There is an increasing concern regarding study pressure and its relationships with mental health problems among adolescents in India. Suicide is the third leading cause of death among adolescents, and unrevealed depression is a major cause. Academic stress may be a contributing factor in depression.

Family environment largely affects the student's motivation and attitudes towards education and learning. Families with constant conflicts are characterized by a lack of parent – child communication and in-depth understanding of each other's expectations (Liu & Chen, 1994) affecting the study involvement of students. The common behavior changes that are normally associated with the hormonal changes of this period make depression so difficult to diagnose. Adolescent depression not only

interferes with emotional, social, and academic functioning but also is a proven risk factor for school absenteeism, educational under achievement, substance abuse and suicidal behaviour.

Sikkim has continued to report higher suicide rates since last 3 years. Mental illness including depression has been the one of the reason for the increasing suicides in the state (NCRB Report, 2013). According to NCRB Report (2014) & Sikkim Human Development Report (2014), leading cause of suicide was found to be problems in family and majority of people committed suicide belongs to the age group of 15-29 years. So, undiagnosed adolescent depression can have potentially long term serious consequences along with increased risk of suicide.

The problem of the present investigation has been identified as, **"Family environment and academic stress as predictors of depression in adolescents".** The above mentioned aspects provided guidelines for the present study which attempts to investigate the following objective:

Objective of the Study

The main objective of the research is to investigate whether the family environment and academic stress are linked up and contribute to depression among adolescents.

Hypotheses of the Study

Keeping in view the above broad objective of the study, the following hypotheses have been framed:

1. A significant correlation would exist between different dimensions of family environment, academic stress and depression among adolescents.

2. Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance and Caring, Independence, Active-recreational Orientation, Organization and Control as well as depression will contribute significantly in predicting academic stress among adolescents conjointly as well as independently.

3. Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance and Caring, Independence, Active-recreational Orientation, Organization and Control as well as academic stress will contribute significantly in predicting depression among adolescents conjointly as well as independently.

4. There would be significant gender difference on variables of family environment among adolescents.

5. There would be significant gender difference on academic stress among adolescents.

6. There would be significant gender difference on depression among adolescents.

CHAPTER III

METHODOLOGY

This chapter deals with the research approach method and procedure followed in this study, the sampling design, a brief discussion of tools in the study and statistical design employed for analysis and interpretation of data. A research is equally important as reading books. Both scientific and non-scientific fields of study require research for a better reality with knowledge. The everyday problems those arise seek for their solutions and suggestions. Scientists are among several ordinary people who take initiatives to find their causes, explanations and implications. The effective yet abstract phenomena are undertaken to both understand and realize by a research. Avenues of research open a door for the readers to know about the phenomena in a systematic way. The foremost aims of a research are to invent new and relevant facts, to verify and test them and to analyze an event in order to see its cause and effect relationship, to develop new scientific tools, concepts and theories to solve and understand problems, to find solutions to them and to overcome upcoming ones (Rajasekar, Philominathan & Chinnathambi, 2013). Research is a technical term which is priory used as an academic activity. Clifford Woody suggests a research should comprise defining a problem, formulating hypothesis, collecting, organizing and evaluating data, making deduction, drawing a conclusion and finally testing if they are similar to the formulated hypothesis (Fisher, 1930). Adding to these, research is a scientific study focused to an inquiry aiming to learn new facts, idea with a systematic collection, analysis and interpretation of data. All of the activities lead us to generate a new knowledge and solve problems (Degu & Yigzaw, 2006).

Method adopted

The adopted method for conducting a research study should always be valid and appropriate to the nature of the problem of the study. It also should comply with the kind of data that the problem of the study demands. The investigator adopted a normative method in which the survey technique would be used to find out the academic stress and symptoms of depression among school and college going students.

The survey is a method to gather information from a sample of individuals. This is one of those techniques, which provide an important source of basic scientific knowledge. A quality survey is the one, which is determined by its purpose and the way it is conducted on the sample. A survey should be carried out to get statistical and calculative information about the individuals (Scheuren, 2004). The investigator conducted the survey by using questionnaires as the tools to gather data and information. A questionnaire is a document containing several questions, which is designed to elicit information from the individuals for appropriate analysis (Babbie, 1990). The investigator was provided accurate data from an adequate number of school students by the survey method with the help of the questionnaires.

Depression can affect all ages, communities or race. Young people in their transition to adulthood particularly suffer from depression, since late adolescence and early adulthood are the stages of life devoted to making major choices in multiple fields of their life. The challenges include exploring or developing their identity e.g. making career choices, navigating the transition from a state of full dependence to a state of semi dependence on their parents, creating social relationships in a different

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environment. At the college level, academic pressures are increasing day by day and at each successive level. Students are adjusting emotionally to complex life changes. The challenges of colleges, leaving home for the first time, learning to live independently, forming new relationships, and irregular sleep could be the risk factors for students and depression itself is proven risk factor for absenteeism, educational under achievement and substance abuse.

Table 3.1

Variables Used in the Study

Sl. No.	Independent Variables		Dependent Variable
1.	Gender	Boys	Depression
		Girls	
2.	Family Environment	Cohesion	
		Expressiveness	
		Conflict	
		Acceptance and Caring	
		Independence	
		Active-Recreational Orientation	
		Organization	

		Control	
3.	Academic Stress	-	

Geographical Area

The data was collected from various Senior Secondary Schools located in East and South districts of Sikkim, India.

Location map of the study
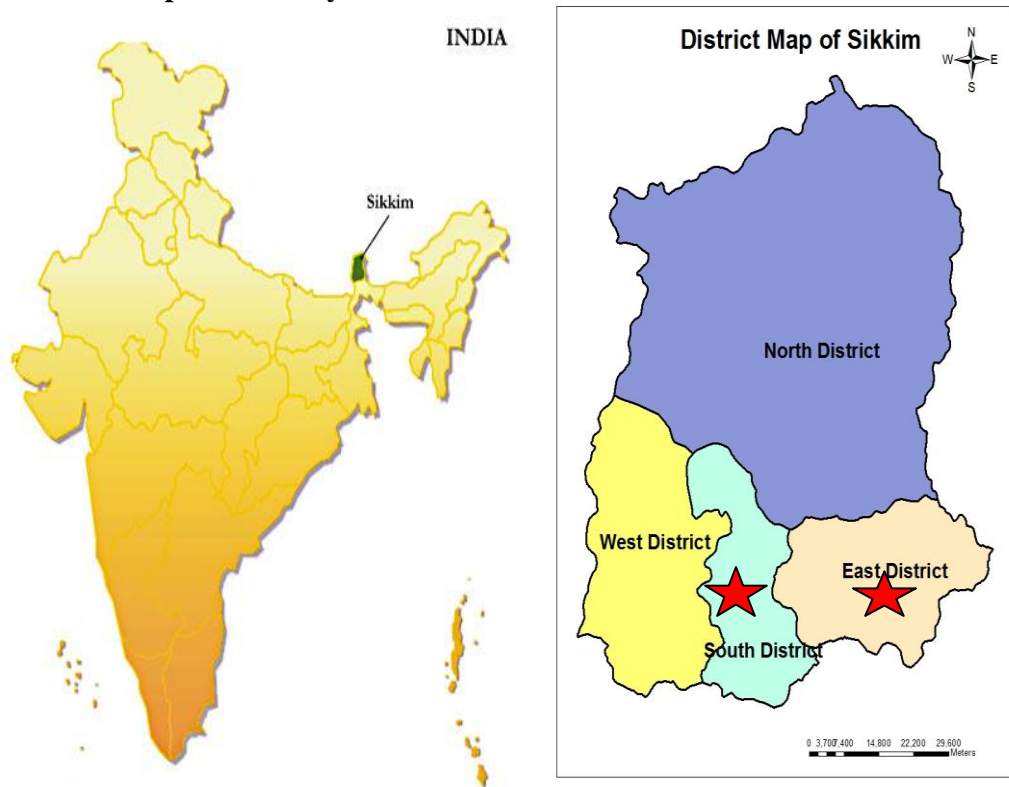
Design of the Study

For the present study, descriptive survey method was used to find out family environment and academic stress as predictors of depression among adolescents.

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Sample

A sample is a small group, which represents all the traits and characteristics of the population. The technique of sampling also enables on to test the performance of the questionnaire and the investigator and to test for difference between alternative forms of the questionnaire (Deming, 1943).

In the social sciences, it is not possible to collect data from every respondent relevant to the study but only form some fractional part of the respondents. The process of selecting the fractional part is called sampling. A good sample is one which is unbiased and representative of the whole population.

A non -clinical sample consisted of 200 (two hundred) adolescents including 100 boys and 100 girls participated in the study. The participants of the study were selected randomly from XI and XII grade students of four different government senior secondary schools located in East and South districts of Sikkim. The mean age of the adolescents was 17.65 with a SD of 1.16. Student participation was voluntary and none received compensation for taking part in the study. The selected subjects were required to be (a) showing no evidence of acute confused state, brain damage, alcoholism, or substance abuse, and (b) not currently in treatment for a diagnosed psychiatric disorder. The participants were contacted individually and were assured of anonymity and confidentiality. The sample in this study was selected on random basis. Details about the number of sample are given below:

Table 3.2

Split-up of the Sample

Sl. No.	Districts of Sikkim	Govt. Senior Secondary Schools	Boys	Girls	Total
1.	East	Government Senior Secondary School, Bajoghari	50	50	100
		West Point Senior Secondary School, Gangtok			
2.	South	V.C.G. Senior Secondary School, Ravangla	50	50	100
		Government Senior Secondary School, Namchi			
Total:			100	100	200

Sample Inclusion Criteria:

- Government Senior Secondary Schools (Co-educational, State Board Government Senior Secondary Schools of Sikkim)

- Students willing to participate in the study

- Students studying in 11th-12th standard (adolescents)

- Students belonging to the age group of 16-20 years

- Students who are day scholars

- Students who are living with both parents.

Sample Exclusion Criteria:

- Private Senior Secondary Schools

- Students not willing to participate

- Students studying in other grades

- Students who are hostellers

- Students from broken families

Measures

In the area of social science research, especially in psychology, different psychological tests and tools are developed to measure different aspects of human behavior and the complexity of personality. A research tool is the instrument with which the researcher measures the variables and uses them for data collection in his study. Following tools were used to collect the data from the participants in the present research:

Table 3.3

List of Research Tools Used

Aspect studies	*Name of Questionnaire/Scale*	*Developed by*
Demographic Characteristics	Socio-demographic datasheet	Self (2016)
Family Environment	Family Environment Scale	Bhatia & Chadha (1993)
Academic Stress	Academic Stress Scale	Rajendran & Kaliappan (1990)

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Depression	Beck Depression Inventory II	Beck, Steer, & Brown (1996)

1. *Socio-Demographic Data Sheet:*

The Socio-demographic data sheet includes personal details, family background and medical background of the subject. The personal details regarding the name, age, sex, education, academic performance etc. were included. The family history of the subject consists of type of family, education, nature of employment, socio-economic status, etc.

2. *Family Environment Scale (Bhatia & Chadha, 1993):*

This family environment scale is based on the family environment scale by Moos (1974). This scale consists of three dimensions which have been taken from Moos'scale. Although the concept of dimensions has been taken from Moos' scale, all the subscales in each dimension have been operationally defined with certain modifications of original definitions. Three of the original subscales have been dropped, and one new subscale has been added by the author. The dimensions, along with their operational definitions and contents, were given to eight judges. After making the suggested changes and modifications, they have been again given to five other judges. Only those dimensions and contents of the dimensions having at-least 75 percent agreement have been retained. These are:

Relationship Dimensions:

1. Cohesion: Degree of commitment, help, and support family members provide for one another.

2. Expressiveness: Extent to which family members are encouraged to act openly and express their feelings and thoughts directly.

3. Conflict: Amount of openly expressed aggression and conflict among family members.

4. Acceptance and Caring: Extent to which the members are unconditionally accepted and the degree to which caring is expressed in the family.

Personal Growth Dimensions:

5. Independence: Extent to which family members are assertive and independently take their own decisions

6. Active-Recreational Orientation: Extent of participation in social and recreational activities

System Maintenance Dimension:

7. Organization: Degree of importance of clear organization structure in planning family activities and responsibilities.

8. Control: Degree of limit setting within a family.

Spilt-half reliability has been found for the present scale. For this purpose, the present scale has been split into two halves. The scores of each dimension have also been split into two halves. The scores for each of these halves have been then correlated. From this self correlation of the half-tests, the reliability coefficient of the whole test has estimated using the Spearman-Brown Prophecy formula. The split-half reliabilities for

the subscales were calculated and ranged from 0.48 to 0.92, with an overall test reliability coefficient of 0.95.

Both face and content validity have been tested by giving the scale to eighteen experts to evaluate the test items. Only those items with at-least 75 percent agreement among the judges have been retained. For content validity, the dimensions of the family environment have been selected and clearly defined for the purpose of measuring the specific aspects of the environment. These definitions have been also subjected to the judgment of the eight experts in the first step, and five experts in the second step.

3. *Academic Stress Scale (Rajendran & Kaliappan, 1990):*

The completion is over growing with the increasing rate of literacy. Hence, the pressures over academic performances are leading towards the virtue for betterment. The students are tense situation due to their parents' wish and simultaneously a constant feedback from teachers. On the contrary, teachers should be the guide to eliminate the stress and tides of tension from them. The investigator recognized academic stress in the educational institutions. Academic stress is an easily noticeable factor accounting for variation in academic performances and success. A constant fear of failure, poor interpersonal relation, and worry about examination results are the common factors to induce stress among the students. Rajendran and Kaliappan (1990) developed the Academic Stress Scale in regards of the original idea by Kim (1970). The scale was used to assess the factors like personal inadequacy, fear of failure, interpersonal difficulties with teachers, teacher-pupil relationship and inadequate study facilities with a four point scale of measurement in terms of 'No Stress' to 'Extreme Stress'. There are 40 items with the highest score of 160 (4x40) and 32

(4x8) as the least. The higher the value of the score, the more the level of academic stress and vice-versa. There are several methods available to measure the reliability and validity of the test scale but the developers used the item analysis with item validity followed by the content validity of the scale.

4. *Beck Depression Inventory II (Beck, Steer & Brown, 1996):*

The Beck Depression Inventory (BDI) is a commonly used instrument for quantifying levels of depression. The Beck's Depression Inventory (RDI, BDI-II) created by Dr. Aaron T. Beck. After the American Psychiatric Association (APA) published the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition (DSM-IV), the Beck Depression Inventory (BDI) was revised in 1996 to reflect changes to the diagnostic criteria for Major Depressive Disorder, becoming the BDI-II. The BDI test includes a 21 item self-report using a four-point scale ranging which ranges from 0 (symptom not present) to 3 (symptom very intense. The test takes approximately 5 to 10 minutes to complete. There is a short version of the test consisting of 7 items intended to be used by primary care providers. The Beck Depression Inventory II is a depression rating scale that can be used in individuals that are ages 13 years and older. The BDI test is widely known and has been tested for content, concurrent, and constructs validity. High concurrent validity ratings are given between the BDI and other depression instruments as the Minnesota Multiphasic Personality Inventory and the Hamilton Depression Scale; 0.77 correlation rating was calculated when compared with inventory and psychiatric ratings. The BDI has also showed high construct validity with the medical symptoms it measures. Beck's study reported a coefficient alpha rating of .92 for outpatients and .93 for college student samples. The BDI-II positively correlated with the Hamilton Depression Rating Scale, r = 0.71, had a one-

week test–retest reliability of r = 0.93 and an internal consistency α=.91. According to the scoring key a score 30 indicates severe depression.

Procedure

The preliminary step of the data collection process includes making a work plan for administering the tools to the concerned sample, and getting permission from concerned authorities for carrying out the investigation. The investigator personally visited the institutions included in the sample in order to obtain data. Permission from the principals of the respective institutes was taken before hand. The date and time of the data collection was purely depended on the convenience of both students and school authority. A good rapport was established with the participants and the purpose and value of the study were well explained. Participants were assured of confidentiality of their responses as the collected data will be used for academic and research purpose. This was essential in order to get attain the motivation from the students to do the task accurately. The test was administered individually on two hundred students studying in XI & XII classes. The participants were first given a personal data sheet (Socio Demographic Data-sheet) and requested to respond all the parts. A clear instruction was delivered by the investigator about responding to all the items or parts of the questionnaires they get. Then, Family Environment Scale was provided to them for responding according to the instructions. Thereafter, Academic Stress Scale was provided and they were asked to answer according to the instruction following the scale from 'No Stress' to 'Extreme Stress'. The investigator helped the participants whenever they felt ambiguous about any item. After the completion of the first scale, they were provided time to rest for 10 minutes. Following that, BDI-II was given and was asked to tick the proper option as per their choice in terms of scale 0-3.

Sufficient time was given to respond to the items of the second questionnaire as well. At the end of the test, the investigator provided the contact details to the participants and well assured them about letting their results know once the findings are well calculated and evaluated.

Table 3.4

Statistical Techniques Used

Sl. No.	Statistical Tools	Assessing Items
1.	Pearson r	Significant relation between academic stress and depression among adolescents
2.	Regression Analysis	Predicting different dimensions of family environment on academic stress and depression among adolescents conjointly and independently
3.	T-test	Difference between adolescents boys and girls in terms of different dimensions of family environment, academic stress and depression

Analysis of the Data

Thus, the total scores obtained from the respondents were computed and calculated by using relevant statistical tools and techniques. The data was analyzed to find out if there were any differences in the independent variable with the account for significant

differences in the dependent variable. The commonly used levels of significance are 0.05 and 0.01. These two levels of significance are engaged to see the significance of the obtained results. The statistical analysis had been computed by using SPSS statistical package version 22. The obtained data and results are graphically represented in the following chapter.

Ethical Considerations

- The school authorities and subjects were briefed about the objectives of the study and their informed consent was obtained.

- Assurance was given to the subjects about the confidentiality of information.

- Data and time of interview was decided as per the convenience of the subjects.

- Subjects were allowed to withdraw themselves when they wish to withdraw themselves during the study period.

CHAPTER IV

RESULTS AND DISCUSSION

After collecting data it has to be analyzed. It is a crucial step in psychological research after which the results can be out-streamed. The data may be adequate, valid and reliable to any extent, it does not serve any worthwhile purpose unless it is carefully and systematically classified, tabulated, scientifically analyzed, intelligently interpreted and rationally concluded. Analysis of data means studying the tabulated material in order to determine inherent facts or meanings. It involves the breaking up of complex factors into simpler parts and putting the parts together in a new arrangement for the purpose of interpretation. So the process of interpretation is also very essential in order to state, what do the results show? What do they mean? What is their significance? What is the answer to original problem?

In this study, an attempt has been made to ascertain the influence of different dimensions of family environment and academic stress on depression in adolescents. Different dimensions of family environment and academic stress have been studied as predictors of depression in adolescents. Data obtained from the respondents of different government senior secondary schools of Sikkim has been analyzed by means of SPSS package. The data were arranged and analyzed in seven sections. The socioeconomic characteristics of the school going adolescent boys and girls selected for the study are profiled in Section I. In Section II, the results of inter-correlations carried out for all the variables have been presented. Section III deals with multiple regression equations for academic stress where as Section IV deals with multiple regression equations for depression. In Section V, gender differences on variables of family environment have been discussed. Similarly, in Section VI gender differences

of adolescents on academic stress have been discussed where as Section VII deals with gender differences on depression.

Section I: *Socioeconomic Characteristics of Adolescents*

Age wise distribution

Adolescence is the years from puberty to adulthood. These years can be roughly divided into three stages: early adolescence, generally ages eleven to fourteen; middle adolescence, fifteen to seventeen; and late adolescence; eighteen to twenty one.

Table 4.1

Age Wise Distribution of Adolescents (N=200)

Age Group	No. of Respondents	%
16	41	20.5%
17	49	24.5%
18	59	29.5%
19	41	20.5%
20	10	5%
Total	200	100

Table 4.1 reveals that most of the adolescence (29.5%) was in the age group of 18 years; while 24.5 per cent belonged to the age between 17 years. 20.5 per cent were in the age group of 16 and 19 years. The sample also included 5 percent of the age of 20 years.

Education wise Distribution

The study was conducted in four different Government Senior secondary Schools located in East and South districts of Sikkim. Two schools from East districts and two from South districts were selected.

Table 4.2

Education Wise Distribution of Adolescents (N=200)

Education	No. of participants	%
XI	92	46%
XII	108	54%
Total	200	100

Table 4.2 reveals that out of 200 adolescents who participated in the study, majority of the adolescents were studying in grade XII (54%) and 46% were studying in grade XI.

Family type of Adolescents

Family is a major factor that determines the development of adolescents, both mentally and physically. The nature of family environment has a very special influence on every aspect of a student's life.

Table 4.3

Family Type of Adolescents (N=200)

Family type	No. of participants	%
Nuclear	128	64%

Joint	72	36%
Total	200	100

From the Table 4.3 it is clear that majority of the students are from nuclear families (64%), followed by joint family (36%).

Social Group of Adolescents

In this modern world, social group or category of a student influences his or her life a lot, especially in academic area of their life.

Table 4.4

Social Group of Adolescents (N=200)

Social group	*No. of respondents*	*%*
General	18	9%
OBC	85	43%
SC	8	4%
ST	77	38%
Others	12	6%
Total	200	100

The results in Table 4.4 shows that most of the students participated in the study belongs to OBC (43%) and ST (38%) category. Whereas 9% of students belong to general category and 4% belongs to SC category.

Community wise Distribution

Sikkim is filled with people who are from a wide variety of communities. Because it shares its border with Nepal, Bhutan and China we can see a mixture of these cultures. The students participated in this study are from different ethnic backgrounds. Like any other factors community we belong also have its contribution to our development.

Table 4.5

Community Wise Distribution of Adolescents (N=200)

Community	No. of Respondents	%
Nepali	120	60%
Lepcha	16	8%
Bhutia	34	17%
Others	30	15%
Total	200	100

Table 4.5 shows the different community the adolescents are from. Results showed that the majority of the participants are from Nepali (60%) community. 17% of the students are from Bhutia community and 8% from Lepcha community.

Religion wise Distribution

Religion and religious moral belief plays an important role in a person's life. Previous researches explained how religious belief help the children form a better personality and better control over impulses and aggression. We can say that to some extend these

belief help people to maintain a healthy reactions to external stimuli and promote mental health stability. Especially religion such as Buddhism helps adolescents to understand the value of true nature of life.

Table 4.6

Religion Wise Distribution of Adolescents (N=200)

Religion	*No. of respondents*	*%*
Hindu	100	50%
Muslim	2	1%
Buddhist	70	35%
Christian	26	13%
Others	2	1%
Total	200	100

From Table 4.6 it is found that half of the total participants follows Hindu (100) religion, the second majority follows Buddhism (35%), followed by Christian (13%), Muslim (1%) and other religion (1%).

Occupation of Parents of Adolescents

Directly or indirectly parent's occupation can influence children's career choices. When the children move into adolescence, they begin to think about various options in their futurer, often looking to their parents either as role models or for career

advice. A parent's approach to this can either inspire teenagers to explore a diverse set of potential occupations or to stick to a path they think their parents will approve of.

Table 4.7

Father's Occupation (N=200)

Father's occupation	No. of respondents	%
Government employee	20	10%
Teacher	5	2%
Business	12	6%
Farming/ forestry	69	34%
Construction/ maintenance	23	12%
Public Service	21	10%
Casual worker	8	4%
Finance	1	1%
Other	6	3%
Not mentioned	35	18%
Total	200	100

From Table 4.7, it is clear that most of the adolescent student's fathers do farming (34%) for a living. 12% of them are engaged in construction or maintenance work. 10% work in public services and another 10% work as government employees. 6% do business and 4% are casual workers. Only 2% work as teachers.

Table 4.8

Mother's Occupation (N=200)

Mother's occupation	No. of respondents	%
Government employee	6	3%
Teacher	5	2%
Business	7	4%
Farming/forestry	10	5%
Construction/ maintenance	1	1%
Public Service	3	1%
Casual worker	3	2%
Homemaker	134	67%
Not mentioned	31	15%
Total	200	100

Table 4.8 reveals that a majority of the participant's mothers are homemakers (67%). Only 4% of them do business and 3% work as government employees. 2% are in teaching profession and another 2% are casual workers. Only 1% of mothers engage in construction work and another 1% mothers are in public services. From the data, it is clear that most of the student's mothers are available for them at home since majority of them are homemakers.

Previous History of Suicide Attempt

Even though adolescents are perceived as a healthy and happy age group, most of them tend to suffer from emotional turbulence at that critical period of their life. Without proper guidance and decision making capability, they tend to solve the problems in the wrong way.

Table 4.9

Previous History of Suicide Attempt in Adolescents (N=200)

Previous history of suicide attempt	*No. of respondents*	*%*
Yes	8	4%
No	192	96%
Total	200	100

One important item included in the demographic data tried to understand the previous history of suicidal attempts in adolescent students. Among the 200 students participated in the study 8 students (4%) reported to have a previous history of suicide attempt in their life.

Section II: *Correlation Coefficients among Different Variables*

Hypothesis I: A significant correlation would exist between family environment dimensions, academic stress and depression among adolescents.

Table 4.10

Correlation Coefficients among Different Dimensions of Family Environment,

Depression and Academic Stress of Adolescents (=200)

Sl No	Dimensions of family environment	1	2	3	4	5	6	7	8	9	10
1.	Cohesion	1									
2.	Expressiveness	.60**	1								
3.	Conflict	.30**	.30**	1							
4.	Acceptance and caring	.61**	.50**	.49**	1						
5.	Independence	.38**	.45**	.24**	.37**	1					
6.	Active-recreational orientation	.59**	.52**	.22**	.43**	.37**	1				
7.	Organization	.35**	.28**	.27**	.32**	.19**	.37**	1			
8.	Control	.27**	.05	.29**	.28**	-.05	.22**	.18*	1		
9.	Depression	-.36**	-.27**	-.18*	-.31**	-.20**	-.26**	-.15*	-.11	1	
10.	Academic stress	-.17*	-.10	-.06	-.13	.08	-.06	-.06	-.03	.26**	1

**Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05 level.

Table 4.10 shows that depression and academic stress of adolescents were significantly and positively correlated with each other at 0.01 level. Depression

showed a significant and negative correlation with cohesion (-.36), expressiveness (-.27), acceptance and caring (-.31), independence (-.20), and active-recreational orientation (-.26) at 0.01 level and with conflict (-.18) and organization (-.15) at 0.05 level. Academic stress showed a significant and negative correlation with only the cohesion (-.17) dimension of family environment. Among different dimensions of family environment cohesion, conflict, acceptance and caring, active-recreational orientation and organization were found to be positively and significantly correlated with each other. Other remaining dimensions of family environment are expressiveness, independence and control. As it can be observed from Table 4.10 that expressiveness is positively and significantly correlated with independence except control.

Responding to the first hypotheses Carl-Pearson correlation was also applied to family environment dimensions, academic stress and depression. Table 4.10 shows that depression and academic stress are significantly and positively correlated with each other at 0.01 level. It shows that when academic stress increases, depression also increases in adolescents. This result is supported by Kaur and Sharma (2014) who concluded from their study that depression was significantly and positively correlated with academic stress and its dimensions i.e. academic frustration, academic conflict, academic pressure and academic anxiety. Adolescents with academic stress were found to have 2.4 times more risk of having depression than the adolescents without academic stress (Jayanthi, Thirunavukarasu & Rajkumar, 2014).

Depression showed a significant negative correlation with cohesion (-.36), expressiveness (-.27), acceptance and caring (-.31), independence (-.20), and active-recreational orientation (-.26) at 0.01 level, with conflict (-.18) and organization (-.15)

at 0.05 level. This negative relationship indicates that adolescents having high cohesiveness, expressiveness and independence in the family showed low level of depression. Also, adolescents who showed more interest in recreational activities exhibited low level of depression. Since majority of the participants were from nuclear families, there are more chances of emotional togetherness and importance is given to express individual feelings. Because of small nuclear family, children were accepted and cared for by both the parents and opportunities for more recreational activities were provided. Also majority of the adolescent's parents were available for them since majority of the participants' fathers are farmers and mothers are house wives, which make them available at home majority of the time. This could also be the reason for decreased depression in participants. When the depression is high, there is less expressiveness which in turn can cause decreased conflicts within the family. Expressiveness and conflict are positively correlated in adolescents. This indicates that adolescents openly express anger if there is any conflict within the family. On the other hand when the depression level is high, there are less expressed conflicts in the family.

Academic stress showed a negative and significant correlation with only the cohesion (-.17) dimension of family environment. This implies greater the cohesion in family, there will be less academic stress in adolescent boys and girls.

Among different dimensions of family environment cohesion, conflict, acceptance and caring, active-recreational orientation and organization were found to be positively and significantly correlated with each other and with rest of the dimensions which are expressiveness, independence and control. Expressiveness and

independence have positive and significant correlation with rest of the dimensions except control.

From the result, it is clear that when cohesion increases rest of the relationship dimensions also increases. Conflict, being a negative dimension also shows positive relation with cohesion, expressiveness and acceptance and caring. This could be because conflict means openly expressed anger among family members, and when there is increased expressiveness in family the possibility of expressing aggression also increases. This again could be increased when there is unconditional acceptance and caring among family members. So that members of the family wouldn't resist expressing their conflicts and disagreements openly. The relationship dimensions of family environment showed positive and significant inter-correlations with each other which shows that there does not exist any disturbance in the family relationship. This result is in consistent with earlier study by Bagi and Kumar (2014) whose results indicated that there were significant positive correlation between cohesion and expressiveness, cohesion and conflict, acceptance and caring.

Results on Personal dimension of the family environment in Table 4.10 showed that adolescents wanted to participate in social and recreational activities independently, since independence and active-recreational orientation was positively and significantly related with each other at 0.01 level. This indicates when the independence or 'the extent to which family members are assertive and independently take their own decision' is higher; it can strengthen the active-recreational orientation within the family. Independence showed a negative non-significant relation with control dimension because the chances to become independent lessen with greater restrictions or limits imposed in the family. Also when independence increases, there

are more possibilities of disagreements in opinion, and expressing the disagreements in the family. Similarly the system maintenance dimensions which are organization and control showed a significant and positive correlation at 0.05 level. Therefore, it can be concluded that most of the dimensions of family environment were significantly correlated with each other which indicates that a conducive family environment will definitely help the psychological development of the child in the expected direction.

With the above mentioned findings, the first hypothesis which states "There is a significant relation between family environment dimensions, academic stress and depression among adolescents" is accepted.

Section III: *Multiple Regression Analysis for Academic Stress*

Hypothesis II: Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance, Caring, Independence, Active-recreational Orientation, Organization and Control as well as depression will contribute significantly in predicting academic stress among adolescents conjointly as well as independently.

Table 4.11 (a)

Summary of Regression Analysis for Academic Stress of Adolescents (N=200)

Model	R square	F	Sig.
Regression	.112	2.649*	.006
Residual			
Total			

Table 4.11 (b)

Coefficients of Regression Analysis for Academic Stress of Adolescents (N=200)

Model 1	Beta	Sig.
Cohesion	-.214	.044
Expressiveness	-.053	.584
Conflict	-.022	.792
Acceptance & caring	-.067	.500
Independence	.202	.015
Active-recreational orientation	.047	.615
Organization	-.004	.955
Control	.060	.447
Model 2		
Cohesion	-.162	.123
Expressiveness	-.046	.624
Conflict	-.016	.844
Acceptance & caring	-.039	.690
Independence	.210	.010
Active-recreational orientation	.059	.518
Organization	-.006	.940
Control	.060	.438
Depression	.235*	.002

A multiple regression was used to predict academic stress from dimensions of family environment and depression. From the above tables (Table 4.11a, 4.11b), it is clear that the full model is statistically significant (F=2.649, Sig=0.006). The first important predictor of academic stress was depression (β=.235, p<.01), followed by independence (β=.210, p=.01) and cohesion (β= -.214, p<.05).

A hierarchical regression was run to predict academic stress from dimensions of family environment and depression. The regression model was found to be statistically significant (F=2.649, sig=0.006). The first important predictor of academic stress was depression (β=.235, p<.01), followed by independence (β=.210, p=.01) and cohesion (β= -.214, p<.05).

As adolescents move closer to adulthood, parents and children must blend togetherness and independence so that parental control gradually relaxes without breaking the parent-child bond. This means establishing guidelines that are flexible and open to discussion. The mild parent-child conflict that typically occurs facilitates adolescent for identity and autonomy by helping family members learn to express and tolerate disagreement. Parents are good at putting the pressure on their kids. There's just something about them, whether it be their authority, intimidation, or reverse-psychology that allows them to scare the kids into doing whatever they want, particularly when it comes to schoolwork. Unfortunately, pressure can build on kids, and they buckle under the weight of it all. This could manifest itself in the form of insomnia, depression, intense mood swings, or other conditions in students. These could then lead to a loss of interest in other activities, a non-existent social life, or, believe it or not, a drop in grades. From the regression analysis, it was found that among family environment dimensions independence and cohesion predicts academic

stress the most. The major source of academic stress from family could be higher expectations and pressure of parents regarding children's academic life. Achieve better marks, selecting the stream and attending extra tuition classes are some examples. When the cohesion is high, there are greater expressiveness and sense of belonging among family members. The parents are willing to consider their children's needs and wishes. This can control the expectations and pressure from the family. Therefore, it can be said that more cohesion in family can help in reducing academic stress among adolescents. Also the results showed a positive prediction of the family dimension 'independence' towards academic stress.

Section IV: *Regression Analysis for Depression of Adolescents*

Hypothesis III: Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance, Caring, Independence, Active-recreational Orientation, Organization and Control as well as academic stress will contribute significantly in predicting depression among adolescents conjointly as well as independently.

Table 4.12 (a)

Summary of Regression Analysis for Depression of Adolescents (N=200)

Model	R square	F	Sig.
Regression	.193	5.033*	.000
Residual			
Total			

Section Table 4.12 (b)

Coefficients of Regression Analysis for Depression of Adolescents (N=200)

Model 1	Beta	Sig.
Cohesion	-.222*	.029
Expressiveness	-.028	.760
Conflict	-.025	.751
Acceptance & caring	-.119	.207
Independence	-.037	.639
Active-recreational orientation	-.051	.566
Organization	.005	.942
Control	.001	.993
Model 2		
Cohesion	-.176	.078
Expressiveness	-.017	.852
Conflict	-.020	.791
Acceptance & caring	-.105	.257
Independence	-.080	.306

Active-recreational orientation	-.061	.482
Organization	.006	.930
Control	-.012	.869
Academic stress	.214*	.002

A multiple regression was run to predict depression from dimensions of family environment and academic stress. Table 4.12 (a) shows that the regression model produced was statistically significant (F=5.033, sig=0.000). As can be seen in Table 4.12 (b), the cohesion (β= -.222, p<.05) dimension has emerged as the only predicting variable of depression among family environment. Also from the table, it is clear that the first important predictor of depression is academic stress (β= .214, p<.01).

A multiple regression was run to predict depression from dimensions of family environment and academic stress. The regression model produced was statistically significant (F=5.033, sig=0.000). Also from the table it is clear that the first important predictor of depression is academic stress (β= .214, p<.01). Cohesion (β= -.222, p<.05) dimension has emerged as the only predicting variable of depression among family environment.

Stress in moderation may actually be beneficial in academic life but stress is a double-edged sword; lack of proper and consistent rest period under stress, irregular habits may begin to surface. Some examples are diet changes, sleeping patterns, fatigue and anxiety. Stress may also take physical and emotional forms and cause weakness, irritability, and confusion. Gradually, the student feels like becoming helpless in

solving the challenges and hopelessness arises. And before they know, it can turn into severe levels of depression. From the results, academic stress shows a positive prediction towards depression, which means when academic stress increases in adolescents, depression also increases.

The cohesion dimension of family environment showed a negative prediction towards depression, indicating that increased levels of cohesion within the family results in decreased depression in adolescents. Family cohesion (i.e., the emotional bonding among family members and the feeling of closeness) is expressed by feelings of belonging and acceptance within the family system. When there is a sense of belongingness and closeness between the parents and children, it will benefit the children because there will be freedom to share their problems with their parents. Wentzel and Feldman (1996) have found that adolescent perceptions of low cohesion within their families were associated with heightened feelings of depression and reduced social acceptance. Therefore, the third hypothesis stands accepted for cohesion and academic stress.

Altogether, results showed that cohesion dimension emerged as an important predictor for academic stress and depression and with an increase in cohesion among family members, academic stress and depression reduces in adolescents. It can also be said that academic stress and depression are inter-related, indicating when there is more academic stress, there is increased depression among adolescents and vice versa.

Section V: *Gender Difference on Variables of Family Environment*

Hypothesis IV: There would be significant gender difference on variables of family environment among adolescents.

As shown in Table 4.13, it was found that there exists no significant gender difference between family environment dimensions of adolescents. The mean scores of cohesion for male adolescents was 6.36 and of female adolescents was 6.44, t-value was found to be -.94, which is not significant at any level. The same was with all the dimensions of family environment scale which were expressiveness, conflict, independence, Active-recreational Orientation, Organization and control, t-value for all the mentioned dimensions were found to be not significant.

Table 4.13

Mean, SD and t values on Different Dimensions of family environment of Adolescents (N=200)

Variables	Boys		Girls		t- Value	Sig./NS
	Mean	SD	Mean	SD		
Cohesion	49.63	6.36	50.48	6.44	-.94	NS
Expressiveness	30.48	4.83	30.71	4.39	-.35	NS
Conflict	39.51	4.56	38.53	5.21	1.42	NS
Acceptance & caring	41.17	5.07	42.09	5.03	-1.29	NS
Independence	29.65	4.24	30.11	4.30	-.76	NS
Active-recreational orientation	28.12	4.19	28.68	3.80	-.99	NS
Organization	8.11	1.80	7.93	1.62	.74	NS
Control	14.29	2.22	14.74	2.00	-1.51	NS

Graph 4.1

Bar Chart of Mean Scores of Dimensions of Family Environment of Adolescents (200)
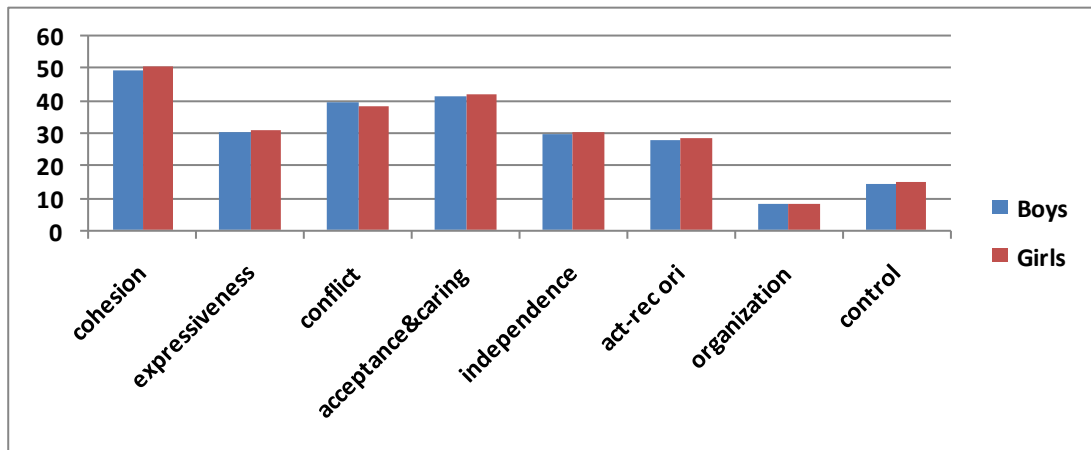
A test for differences using the independent sample t test was used to determine if there is any statistical significance on the difference in dimensions of family environment between boys and girls. It is interesting to note from the results in Table 4.13 that the mean values for all eight dimensions of family environment (cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization and control) were similar for both boys and girls and did not differ significantly. The bar diagram also shows the same trend. Hence, it can be inferred from the results that both adolescent boys and girls had similar perception about different dimensions of their family environment as most of them were from intact families. It can also be said that people in Sikkim has a healthy family tradition of not discriminating between boy and girl, which helps them to provide equal importance to both boys and girls in every aspect. Also, majority of the students are from nuclear families, which means the parents have more time to spend with their

children and take proper care of their needs. Keeping the findings in view, the fourth hypothesis stands rejected.

Section VI: *Gender Difference on Academic Stress of Adolescents*

Hypothesis V: There would be significant gender difference in academic stress of adolescents.

Table 4.14

Mean, SD and t Values on Academic Stress of Adolescents (200)

Variables	*Boys*		*Girls*		*t-value*	*Sig./NS*
	Mean	*SD*	*Mean*	*SD*		
Academic Stress	103.67	24.22	95.86	21.66	2.40*	Sig.

Graph 4.2

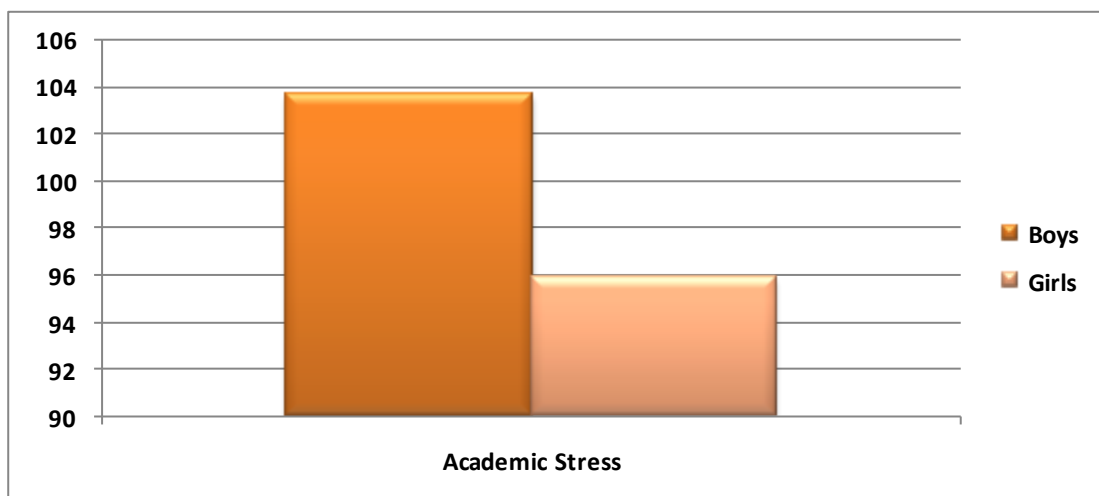**Bar Chart of Academic Stress Mean Scores for Adolescents (200)**

Table 4.14 shows a significant difference between the scores of adolescent boys and girls regarding academic stress. The scores of participants fall on high level of academic stress. When we look at the bar chart which shows the mean difference between boys and girls, boys showed comparatively increased level of academic stress than girls.

Minimal stress is an inevitable part of a healthy competition to succeed in life. As we already know adolescence is a period of stress and storm, it might not be always bearable to them. It is important to know the level of stress among them in order to implement proper coping strategies. In the current study, the level of academic stress among the participants was assessed using independent t test. It is found that the mean score of participants falls under high level of academic stress. Also result show a significant difference between the scores of adolescent boys and girls regarding academic stress (t= 2.40). Bar chart also shows the mean difference between boys and girls. Adolescent boys showed comparatively increased level of academic stress (M= 103.67) than adolescent girls (M= 95.86). This means, adolescent boys are finding their school and academic environment more stressful than girl adolescents. This could be because of many factors. Boys are in general more prone to external distraction during study hours, such as, watching TV, playing video games, surfing internet, participating in sports etc. As a result, they end up in procrastination of work, which in turn will always end in 1th 1hour preparations. Some may take the easy way and cheat in examinations for getting better percentage. All these strategies could increase the pressure in students along with the already existing pressure from parents and teachers. Based on the results, the fifth hypothesis stands accepted.

Section VII: *Gender Difference on Depression of Adolescents*

Hypothesis VII: There would be significant gender difference in depression of adolescents.

Table 4.15

Mean, SD and t Values on Depression of Adolescents (N=200)

Variables	*Boys*		*Girls*		*t-value*	*Sig./NS*
	Mean	*SD*	*Mean*	*SD*		
Depression	18.34	10.10	19.07	9.40	-.53	NS

Graph 4.3

Bar Chart of Depression Mean Scores for Adolescents (N=200)
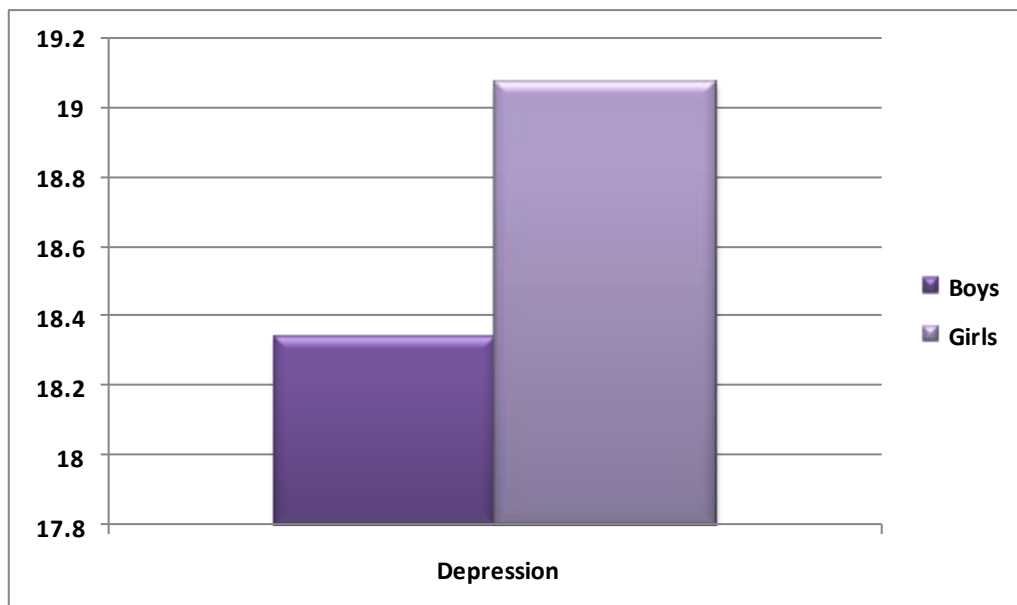
Table 4.15 depicts no significant gender difference in participants' depression as t-value (-.53) is not significant at .05 level. Thus, the postulated null hypothesis is retained. This means that depression is not gender sensitive. But when we look at the graphical representation of mean scores for boys and girls, we can observe that girls are more depressed in comparison to boys.

Depression is a mood disorder which can impair our normal functioning. It affects the thinking pattern of an individual, and also diminishes the potentials of the individual. Depression in adolescents is serious problem because they are the future leaders of the society. Depression can surely affect their academic career negatively. Even relatively mild depressive symptoms can result in impaired functioning in their daily life.

A test for differences using the independent sample t test was used to determine if there is any statistical significance on the difference depression between boys and girls. The depression scores of participants revealed that they suffer from mild depression. Previous studies also showed similar results (Vashisht et al., 2014). The results of independent t test showed that boys and girls did not differ significantly on depression (t = -.53). It is similar to the findings by Sharma and Khan (2014). However, adolescent girls (M = 19.07) exhibited somewhat more depression as compared to boys (M = 18.34), which is consistent with most of the previous studies. Thus, the sixth hypothesis, "There would be a significant gender difference on the variable of depression" stands rejected.

CHAPTER V

SUMMERY, CONCLUSION AND SUGGESTIONS FOR
FURTHER RESEARCH

5.1 Background

Adolescents comprise nearly one-fifth of the total population of India. It is a transitional stage from childhood to adulthood and is a time of major changes in all areas of functioning. Academic matters are the most important sources of chronic stress in young people and have significant associations with mental health problems, such as depression, anxiety and suicidal ideation. There is an increasing concern regarding study pressure and its relationships with mental health problems among adolescents in India. Suicide is the third leading cause of death among adolescents, and unrevealed depression is a major cause. Academic stress may be a contributing factor in depression.

Family environment largely affects the student's motivation and attitudes towards education and learning. Families with constant conflicts are characterized by a lack of parent – child communication and in-depth understanding of each other's expectations which can affect the study involvement of students. The common behavior changes that are normally associated with the hormonal changes of this period make depression so difficult to diagnose. Adolescent depression not only interferes with emotional, social, and academic functioning but also is a proven risk factor for school absenteeism, educational under achievement, substance abuse and suicidal behaviour.

Sikkim has continued to report higher suicide rates since last 3 years. Mental illness including depression has been the one of the reason for the increasing suicides in the state (NCRB Report, 2013). According to NCRB Report (2014) and Sikkim Human

Development Report (2014), leading cause of suicide was found to be problems in family and majority of people committed suicide belongs to the age group of 15-29 years. Therefore, undiagnosed adolescent depression can have potentially long term serious consequences along with increased risk of suicide.

5.2 Objective of the Study

The main objective of the research is to investigate whether the family environment and academic stress are linked up and contribute to depression among adolescents.

5.3 Hypotheses of the Study

1. A significant correlation would exist between different dimensions of family environment, academic stress and depression among adolescents.

2. Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance and Caring, Independence, Active-recreational Orientation, Organization and Control as well as depression will contribute significantly in predicting academic stress among adolescents conjointly as well as independently.

3. Different dimensions of family environment i.e. Cohesion, Expressiveness, Conflict, Acceptance and Caring, Independence, Active-recreational Orientation, Organization and Control as well as academic stress will contribute significantly in predicting depression among adolescents conjointly as well as independently.

4. There would be significant gender difference on variables of family environment among adolescents.

5. There would be significant gender difference on academic stress among adolescents.

6. There would be significant gender difference on depression among adolescents.

5.4 Delimitations

The study was delimited to the following**:**

1. The study was delimited to Senior Secondary Schools of East and South districts of Sikkim.

2. The study was delimited to XI-XII standards of school students (boys and girls)

3. The study was further delimited to the variables of family environment, academic stress and depression.

5.5 Sample

A non -clinical sample consisted of 200 (two hundred) adolescents including 100 boys and 100 girls participated in the study. The participants of the study were selected randomly from XI and XII grade students of four different government senior secondary schools located in East and South districts of Sikkim. The age of the subjects ranged from 16 years to 20 years (Mean = 17.65, SD = 1.65).

5.6 Measures

The following tests were used:

1. Socio-demographic data-sheet (self developed)

2. Family Environment Scale (Bhatia & Chadha, 1993)

3. Academic Stress Scale (Rajendran & Kaliappan, 1990)

4. Beck Depression Inventory- II (Beck, Steer & Brown, 1996)

5.7 Analyses

The data obtained from the respondents has been analyzed by means of SPSS package to obtain the following information:

1. Frequency, mean, standard deviation and percentage for various measures.

2. Inter-correlations and hierarchy multiple regression among different variables.

3. Independent sample t-test was also used to compare all the study variables.

5.8 Conclusion

The study reveals the following main findings:

- The family environment of the adolescent students was found to be intact since most of the family environment dimensions showed a significant correlation with each other.

- Greater sense of cohesion within the family can help reduce academic stress and depression in adolescents.

- Academic stress and depression are interrelated in adolescents. When academic stress is high depression also increases and vice versa.

- No significant gender difference between boys and girls regarding family environment and depression.

- Boys were found to be more academically stressed when compared to girls.

- Adolescent students experience high levels of academic stress and mild levels of depression.

Choosing a career is one of the main agenda in one's life. At the adolescent stage, choosing a career creates so many problems. Sometimes individuals make those choices which are not according to their interests, needs and aspirations but fostered from their parents to fulfill their parents' dreams. In such type of situations adolescents choose career according to parents and sometimes due to peer influence. All this leads to dissatisfaction, stress, anxiety, low academic achievement and ultimately depression. In the present study negative relationship was found between depression and career decidedness. This result provides a direction to parents, teachers and counselors to provide better career opportunities to adolescents, listen to them carefully, respect their career choices, provide them proper guidance in a proper manner for options related to vocation, try to know their interests in which field they want to go and make their counseling wherever necessary. Therefore, career counseling should be started at secondary stage. Except this, to overcome depression, workshops on depression and stress management should be conducted.

5.9 Suggestions for Further Research

Research in any field is never a closed book. There is always a persistent need for finding solution to the new problems and testing the variety of solutions to other problems. For further research some suggestions are listed below:

- This type of research can also be extended to all the districts of Sikkim as well as other north-east states of India to gain a clear picture about the adolescents.

- This study may also be replicated in other north-eastern states like Assam, Manipur, Tripura, etc.

- The present study was conducted at senior secondary level (for XI and XII class students). This study may also be replicated at secondary level and college level.

- Depression may be studied in relation to other variables like self-esteem, self-concept, emotional intelligence, personality, peer pressure, aggression, study habits, social stress, family stress, anxiety etc.

- Sample size needs to be increased in order to increase the reliability and generalization of the research.

- Further research can also be conducted on adolescents from different communities of Sikkim, i.e. Nepali, Lepcha and Bhutia.

- A comparative study may be done to find out the differences between government school students and private school students on depression.

- A study may be done to assess prevalence of depression in students from different states.

- An experimental study may also be conducted on a sample of adolescents having severe depression with the use of psychotherapy.

- A comparative study may also be carried out to find the differences between rural and urban area school students on depression.

- Some intervention programme can be developed for reduction and control of academic stress and depression in adolescents.

- A comparative study may be conducted to find out the differences between residential and non-residential students on depression.

Thus, research studies in this area evince good scope and will contribute to make notable contributions in the future.

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<u>CONSENT LETTER</u>

From

_____

_____

_____

I am hereby willing to participate in the study initiated by Ms. Harsha.P.P on "Family Environment and Academic Stress as Predictors of Depression in Adolescents". Ms. Harsha has explained in detail the procedure aspects of the study well in advance. I agree to be the part of the study in my own wish and not by force. I have not been paid any amount by the researcher for the purpose of providing information.

Signature

SOCIO-DEMOGRAPHIC DATA SHEET

1	Name					
2	Address (Present) & Mob.					
3	Name of School					
4	Age					
5	Gender (Put a tick Mark)	Boy		Girl		
6	Family Type					
7	Education					
8	Social group (Put a tick Mark)	General	OBC	SC	ST	Other
9	Community (Put a tick Mark)	Nepali	Lepcha	Bhutia	Any Other	
10	Religion (Put a tick Mark)	Hindu	Muslim	Buddhist	Christian	Any Other
11	Parents Occupation	Father				
		Mother				
12	Previous history of suicide attempt	Yes		No		

FAMILY ENVIRONMENT SCALE (FES)

By – DR. HARPRET BHATIA AND DR. N. K. CHADHA

Department of Psychology,

Delhi University, Delhi.

Name:-	
Age:- **Sex:-** **Family Income**:-	

This booklet contains some statements. These statements are about families, you have to decide which of these statements are applicable to you about your family and which are not. Give us your general impression of your family. There is no right or wrong answers to any statement. Your responses will be kept in strictly confidence and will be used only for research purposes.

Please respond to each statement and do not leave any statement unanswered. Your help will be duly acknowledged.

S.No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	We enjoy doing things together.					
2.	Family members often do not express their feelings.					
3.	Breaking things in anger is quite common in our family.					
4.	Making decisions independently is strongly encouraged in our family.					
5.	In our family everyone is encouraged to play and interact with neighbours.					
6.	Responsibilities are not taken seriously in our family.					
7.	All members of the family are expected to be together for at least one meal in a day.					
8.	Affection is expressed openly, quite often in our family.					
9.	Togetherness is the basic feeling of our family.					
10.	Our feelings of happiness are shared openly with others in our family.					
11.	Beating up people in anger is not seen in our family.					
12.	There are a lot of restrictions in our family.					
13.	Friends and guests are welcome in our family.					
14.	Everyone in our family is well aware of their responsibilities.					

S.No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
15.	Nobody in our family is bothered about rules of any kind.					
16.	Everyone in our family listens to what each one of us has to say.					
17.	Whenever any work comes up, everyone tries to get out of the situation.					
18.	It is difficult to express ourselves openly for fear of someone reacting to it angrily.					
19.	Everyone tries to sort things out if there is a disagreement in the family.					
20.	Thinking for ourselves is not encouraged in our family.					
21.	We often go out together for movies in our family.					
22.	Going for programmes without informing at home is not accepted in our family.					
23.	Nobody bothers to look after anyone else in our family.					
24.	Any new situation that arises is discussed openly in the family in order to get ideas and suggestions from every body.					
25.	We talk about our personal problems to each other in our family.					
26.	When members are angry, they do not talk to each other for days together.					
27.	In our family, members ask for what they need, quite openly.					
28.	Having hobbies is encouraged in our family.					
29.	Quite often members of our family stay out without informing at home.					
30.	Only when we do something well we get praise and attention from others in our family.					
31.	Family members do not get along with each other.					
32.	Complaining about something that we don't like is not accepted in our family.					
33.	Finding faults with each other is quite common in our family.					
34	It is difficult to do something on your own in our family, without someone feeling rejected or left out.					
35	Watching T.V. is our only form of entertainment.					

S.No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
36.	There is plenty of time and attention for everyone in our family.					
37.	Everyone comes together to sort out any new situation that may arise in our family.					
38.	At home we feel free to anything we want to.					
39.	Shouting in anger is not common in our family.					
40.	Everyone is expected to accept all decisions made in the family, whether they like it or not.					
41.	Our family members are just confined to either work or school.					
42.	We are careful not to hurt anyone in the family by making thoughtless remarks.					
43.	Whenever something needs to be done in the house, everyone joins in, happily.					
44.	When any member is feeling upset, he/she talks to someone in the family.					
45.	The members of our family constantly keep bickering over small matters.					
46.	Whenever a marriage takes place in our family the person concerned is asked his/her views.					
47.	We go out often to visit friends or relations.					
48.	In our family if anyone is upset, there is always someone to comfort them.					
49.	There is no sense of closeness in our family.					
50.	Family members often keep their feelings to themselves.					
51.	Whenever anyone in our family is angry with another member, he makes sure to sort out things with him.					
52.	The decision to take on or continue a particular job is taken by the family members concerned in consultation with other family members.					
53.	Joking and laughing is not encouraged in our family.					
54.	When things get tough there is always someone in the family whom we can turn to.					

S.No.	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
55.	When someone is sick in our family everyone participates in looking after the person.					
56.	Expressing an opinion about matters at home is strongly encouraged in our family.					
57.	Whenever a family member does, something well, the other members feel upset about it.					
58.	All major decisions in our family are taken by the elders in our family, without asking anyone else's opinion.					
59.	There is a lot of affection amongst our family members.					
60.	When a family vacation is planned we all give our suggestions.					
61.	Our family believes in not letting differences continue unsorted out.					
62.	If any member gets into trouble he/she gets help and sympathy from other family members.					
63.	When in trouble, all of us stand up for our family members.					
64.	Quite often members of our family fail to arrive at a mutually acceptable solution.					
65.	When anyone makes a mistake, the other members ridicule him.					
66.	In our family, we enjoy sitting together and talking to each other.					
67.	Showing anger by banging doors is rarely seen in our family.					
68.	Members of our family are very critical of each other.					
69.	All of us participate together in family functions/programmers.					

ACADEMIC STRESS SCALE

This scale consists of 40 items describing the stress in your institution/ college life from the various sources. The level of stress you feel for each item can be indicated by marking a ' ✓ ' mark in the bracket given against each statement.

If you feel No Stress put a ' ✓ ' mark in the 1st bracket (NS), Slight Stress in the 2nd (SS), Moderate Stress in the 3rd (MS), High Stress in the 4th (HS) and you feel Extreme Stress put a ' ✓ ' mark in the 5th bracket (ES).

S.No	Statement	NS	SS	MS	HS	ES
1.	Teachers make too many extra demands on students.	( )	( )	( )	( )	( )
2.	Poor interest in some subjects.	( )	( )	( )	( )	( )
3.	Progress reports to parents	( )	( )	( )	( )	( )
4.	The teacher is not humours towards us.	( )	( )	( )	( )	( )
5.	Lack of concentration during study hours.	( )	( )	( )	( )	( )
6.	Difficulty in remembering all that is studied.	( )	( )	( )	( )	( )
7.	Worrying about the examinations.	( )	( )	( )	( )	( )
8.	Lack of self-confidence.	( )	( )	( )	( )	( )
9.	The teachers do not listen to our ideas.	( )	( )	( )	( )	( )
10.	Conflict with friends/college authorities.	( )	( )	( )	( )	( )
11.	Teachers give more punishment in the class.	( )	( )	( )	( )	( )

12.	Worry about results after examinations.	( )	( )	( )	( )	( )
13.	Hesitate to ask the teacher for detailed explanation.	( )	( )	( )	( )	( )
14.	Biased attitude of the teacher.	( )	( )	( )	( )	( )
15.	Inadequate space or room for study at home.	( )	( )	( )	( )	( )
16.	Not knowing how to prepare for the examinations.	( )	( )	( )	( )	( )
17.	Lack of assertiveness (confidence) in the class.	( )	( )	( )	( )	( )
18.	Lack of opportunity to meet teachers.	( )	( )	( )	( )	( )
19.	Teacher shows socio-economic status on students.	( )	( )	( )	( )	( )
20.	Slow in getting along with the curriculum.	( )	( )	( )	( )	( )
21.	Exam papers are tough and not valued well.	( )	( )	( )	( )	( )
22.	Unable to complete the assignment in time.	( )	( )	( )	( )	( )
23.	Lack of communication between teachers and students.	( )	( )	( )	( )	( )
24.	Monotonous (boring or tedious) teaching style by the teacher.	( )	( )	( )	( )	( )
25.	Not enough discussion in the class.	( )	( )	( )	( )	( )
26.	Lack of mutual help among classmates.	( )	( )	( )	( )	( )
27.	Lack of fluency while speaking the language other than the mother tongue.	( )	( )	( )	( )	( )
28.	Difficulty in public speaking.	( )	( )	( )	( )	( )
29.	The teacher is fast and does not use blackboard legibly.	( )	( )	( )	( )	( )
30.	Teachers lacking interest in students.	( )	( )	( )	( )	( )

31.	Examination syllabus is too heavy in some subjects.	( )	( )	( )	( )	( )
32.	Feeling of inferiority.	( )	( )	( )	( )	( )
33.	Unable to discuss Academic failures with parents.	( )	( )	( )	( )	( )
34.	Not able to grasp the subject matter.	( )	( )	( )	( )	( )
35.	Incomplete and confusing study material.	( )	( )	( )	( )	( )
36.	Eleventh hour preparation for the examinations.	( )	( )	( )	( )	( )
37.	Importance of the subject matter.	( )	( )	( )	( )	( )
38.	Difficulty in adjusting with opposite gender.	( )	( )	( )	( )	( )
39.	Inadequate subject knowledge of the teacher.	( )	( )	( )	( )	( )
40.	Inadequate lab and library facilities.	( )	( )	( )	( )	( )

Beck's Depression Inventory (BDI)

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY. Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

This depression inventory can be self-scored. The scoring scale is at the end of the questionnaire.

Client Name _____ Date: _____

Subtotal Page 1 _____ Subtotal Page 2 _____ Total Score _____

Score of 0-13: minimal, 14-19: mild, 20-28: moderate, and 29-63: severe

Sadness
0.I do not feel sad.
1.I feel sad much of the time.
2.I am sad all the time.
3.I am so sad or unhappy that I can't stand it.

Pessimism
0.I am not discouraged about my future.
1.I feel more discouraged about my future than I used to be.
2.I do not expect things to work out for me.
3.I feel my future is hopeless and will only get worse.

Past Failure
0.I do not feel like a failure.
1.I have failed more than I should have.
2.As I look back I see a lot of failures.
3.I feel I am a total failure as a person.

Loss of Pleasure

0. I get as much pleasure as I ever did from the things I enjoy.
1. I don't enjoy things as much as I used to.
2. I get very little pleasure from the things I used to enjoy.
3. I can't get any pleasure from the things I used to enjoy.

Guilty Feelings

1. I don't feel particularly guilty.
2. I feel guilty over many things I have done or should have done
3. I feel guilty most of the time.
4. I feel guilty all the time.

Punishment Feelings

1. I don't feel I am being punished.
2. I feel I may be punished.
3. I expect to be punished.
4. I feel I am being punished.

Self-Dislike

0. I feel the same about myself as ever.
1. I have lost confidence in myself.
2. I am disappointed in myself.
3. I dislike myself.

Self-Criticalness

0. I don't criticize or blame myself more than usual.
1. I am more critical of myself than I used to be.
2. I criticize myself for all of my faults.
3. I blame myself for everything bad than happens.

Suicidal Thoughts or Wishes

0. I don't have any thoughts of killing myself.
1. I have thoughts of killing myself, but I would not carry them out.
2. I would like to kill myself.
3. I would kill myself if I had the chance.

Crying

0. I don't cry anymore than I used to.
1. I cry more than I used to.
2. I cry over every little thing.
3. I feel like crying, but I can't.

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.

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.

Indecisiveness

0. I make decisions about as well as ever.
1. I find it is 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.

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 compare to other people.
3. I feel utterly worthless.

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.

Changes in Sleeping Pattern

1. I have not experienced any change in my sleeping pattern..
1a. I sleep somewhat more than ususal.
1b. I sleep somewhat less than ususal.
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 cant get back to sleep.

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.

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 usual.
2b. My appetite is much greater than usual.
3a. I have no appetite at all.
3b. I crave food all the time.

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.

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.

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.