Academic Stress, Family Environment and Self Esteem as Predictors of Depression and Suicide Ideation in Adolescents

A Thesis Submitted

To

Sikkim University

In Partial Fulfilment of the Requirement for the

Degree of Doctor of Philosophy

By

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March 2021

DECLARATION

I declare that the thesis entitled "**Academic stress, family environment and self esteem as predictors of depression and suicide ideation in adolescents**" submitted to Sikkim University for the Degree of **Doctor of Philosophy in Psychology** is my original research work carried out by me during the period from August 2016 to February 2021 under the supervision of **Dr. Satyananda Panda**, Associate Professor and Head, Department of Psychology, Sikkim University. Any part or content of the thesis has not been submitted to this or any other University or Institution for the award of any degree or diploma.

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"Academic stress, family environment and self esteem as predictors of depression and suicide ideation in adolescents"

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ACKNOWLEDGEMENTS

A lot of hope, prayers and support has been placed on me graciously by many while pursuing my Ph.D. research study.

First and foremost, with utmost respect and gratefulness I thank my Guide and Supervisor, **Dr. Satyananda Panda**, **Associate Professor and Head, Department of Psychology, Sikkim University, Gangtok** for this opportunity to do my research work, his invaluable suggestions and dedication has always been fruitful. His ability to confront with any crisis with immense patience and meticulous way of problem solving has immensely helped in maintaining my composure hence leading to a successful completion of my work. It gives me profound joy and pride to be regarded as his student. Thank you, Sir.

I would like to thank Dr. Saurabh Maheshwari and Dr. Namrata, Assistant Professor, Department of Psychology, Sikkim University, Gangtok for their indispensable inputs during the various stages of my research work.

I am forever indebted to the principals of Loreto Convent, St Joseph's College (school department), St. Roberts Higher Secondary school and Nepali Girls Higher Secondary school. Thank you for allowing me to conduct my research. I thank all the participants for being generous with their time.

I would also like to dedicate my research work to Reverend Sister Geraldine for her support and prayers. It is through her that I found the will of God to start this journey.

My sincere apologies to my family, especially my Mother, Father and Husband for all the troubles I have put you through during the entire duration of my research work. I thank you with the deepest corner of my heart for being so supportive and patient with me in the entire process. This work is as much as yours as is mine.

Lastly, my gratitude extends to my friendsfor always looking out for me and being the source of constant support in my life.

Ms. Sumnima Rai

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LIST OF ABBREVIATIONS

ASSc	Academic Stress Scale
ANOVA	Analysis of Variance
APA	American Psychiatric Association
BDI-II	Beck Depression Inventory-II
BSS	Beck Scale for Suicide Ideation
CBT	Cognitive Behavioural Therapy
CDI	Children Depression Inventory
CESD	Centre for Epidemiologic Studies Depression Scale
DAS	Depression, Anxiety, and Stress
DASS	Depression Anxiety and Stress Scale
DesTeen	Depression Scale for Teenagers
DSM-IV-TR	Diagnostic and Statistical Manual of Mental Disorders Fourth Edition-Text Revision
EA	Experiential Avoidance
ELS	Early Life Stress
FES	Family Environment Scale
GAS	General Adaptation Syndrome
GHQ	General Health Questionnaire
GTA	Gorkhaland Territorial Administration
HIS	Hispanic Stress Inventory
ICD-10	International Classification of Diseases, Tenth Revision
MANCOVA	Multiple Analysis of Covariance

MHB	Mental Health Battery
MINI-KID	Mini International Neuro-Psychiatric Interview for Children and Adolescents
NCHS	National Centre for Health Statistics
NCRB	National Crime Records Bureau
NIMHANS	National Institute of Mental Health and Neurosciences
NLE	Negative Life Events
NLT	Name Letter Task
NMHP	National Mental Health Program
NMHS	National Mental Health Survey
PHQ	Patient Health Questionnaire
SCL-80	Depression Subscale of Symptom Checklist 80
SEM	Structural Equation Modelling
SPSS	Statistical Package for Social Science
SSI	Beck Scale for Suicide Ideation
UCLA	University of California at Los Angeles
UNESCO	United Nations Educational, Scientific and CulturalOrganization
USA	United States of America
WHO	World Health Organization

ABSTRACT

The present research was carried out to examine the role of academic stress, family environment and self-esteem on depression and suicide ideation in adolescents. The purpose of the study was to examine the role of several variables like academic stress, family environment, and self-esteem as predictors of depression among middle to late adolescents comprising of the age group of 15- 20 years and the role of depression in suicide ideation. 400 male and female high school students from urban and rural areas, ICSE board and STATE board were selected for the study. The assessment was done with the help of the Academic Stress Scale (ASS), Family Environment Scale (FES), Beck Depression Inventory-II (BDI-II), Rosenberg Self –Esteem Scale and the Beck Scale for Suicide Ideation (BSI). The quantitative data was interpreted using the norms of the tests and the raw scores were obtained. Scores for the quantitative analysis were analyzed using the statistical package for social science (SPSS) version 20. Descriptive statistics such as percentage mean and the standard deviation was used. Data were calculated by using the Levine test, Multiple Analysis of Variance (MANOVA), Carl Pearson Correlations, Regression, and t- test.

The results indicated that there was no significant correlation between academic stress, depression, and suicide ideation. The various dimensions of the family environment scale, which includes dimensions like cohesion dimension, expressiveness dimension, acceptance, and caring dimension, independence dimension, active-recreational orientation dimension, organization dimension, control dimension of family environment scale, had no significant correlation with depression and suicide ideation. A significant negative correlation between the conflict dimension of the family environment scale and depression was found in the study. The research study also indicated that there was no significant correlation between the

conflict dimension of the family environment scale and suicide ideation. The results indicated a significant difference in self-esteem where the self-esteem of girls being higher than boys is. There was no significant difference between boys and girls in terms of dimensions of cohesion, expressiveness, conflict, acceptance, active-recreation, organization, and control in the family environment scale, although there was a significant difference between boys and girls in the independence dimension of the family environment scale. A significant difference was found between boys and girls in depression where the scores of the girls indicated higher than boys. The interpreted scores also revealed that no significant difference existed between boys and girls in suicide ideation.

Keywords: Academic Stress, Family Environment, Cohesion, Expressiveness, Depression, Suicide ideation

Research Accumulated

Chapter I: Introduction

Chapter-I includes the theoretical background ofthe study, meaning, and definition of the various keywords, theories associated with the variables; academic stress, family environment, self-esteem, depression, and suicide ideation, the assessment and screening process of depression.

Chapter II: Review of Related Literature

Chapter –II will include a review of related literature of academic stress, family environment, self-esteem, depression and suicide ideation.

Chapter III: The Present Study

Chapter III will comprise the significance of the study, objectives, and hypotheses.

Chapter IV: Methodology

Chapter- IV will comprise of the problems of the research, objectives, hypotheses, variables, research design, sample, tools used for the collection of the data, data collection methods, the various statistical techniques applied for interpretation of data and conclusion.

Chapter V: Data Analysis, Results, Discussion and Interpretation

Chapter- V will include results, discussion and interpretation of academic stress, different dimensions of the family environment, self-esteem, depression, and suicide ideation.

Chapter VI: Summary, Conclusion, and Suggestions for Further Research

Chapter-VI will comprise the main findings of the research work, limitations of the research work, chapter summary and suggestions for further research.

CHAPTER I

INTRODUCTION

Theoretical Background of the Study

Adolescence marks a transitional period during which they experience emotional turmoil. The various stages can be divided into the early, middle, and late adolescence marked by significant changes in development as well as in behaviour. Adolescence is a period of extreme vulnerability to risk-taking behaviour due to the complex interaction of senses in context to immature and uncontrollable behavioural abilities typical in this developmental period. Apart from the hormonal changes that mark the beginning of puberty, various factors can affect the emotional status of an adolescent. During this stage, societal norms can cause high disapproval among adolescents and can give rise to risky health behaviours in them. Moreover, academic stress and peer pressure to excel can also affect their emotional well-being as peers play an important role in the emotional and social development of adolescents. Relationships also tend to shape the emotional status of adolescents. During puberty, family relationships undergo reorganization, as teens want independence. This tends to shift them to friendships and social interactions where they value the trust, support, and closeness experienced in romantic relationships. Therefore, the type of environment that family offers plays a crucial role in the emotional development of an adolescent. Therefore, emotional imbalances can make adolescents vulnerable to one of the most crippling disorders called depression. It is one of the major causes of morbidity among adolescents across the world prone to suicide ideation.

Academic Stress, Family Environment and Self Esteem as Predictors of Depression and Suicide Ideation

Aristotle (1941) described the adolescent stage as being passionate and at the same time divulging in impulsions. Adolescence marks the development of self-control and the capacity to make vital life decisions while transitioning from childhood to adulthood. Plato (1953) described adolescent boys as easily excitable and highly argumentative. Mohanty and Mohanty (1997) explained that adolescence in India is considered as a phase that is difficult to define based on a particular definition of age. Kundu and Basu (1998) have labelled this age of adolescence as being important as this is the period where there is psychological and physical development apart from continuous mental development. The age group for adolescence can be between 11 years to 18 years for females and 12 years to 18 years for males. However, there are other theorists like Mascarenhas (1999) who have classified the age of adolescence between 12 to 20 years and also adds that delayed adolescence can go up to the age of 21 years and in some cases 25 years. He further divides the period of adolescence into three stages: early adolescence falls in the age group of 10 to 12 years; middle adolescence ranges between 12 to 16 years, and late adolescence falls in the age group between 16 years to 19 years. Chandrasekhar (2000) explains adolescence as a period of anxiety and adjustment with the changes that occur at that age. Many factors like family problems and their actions may trigger them towards depression and resort to drugs as a means of escaping from depression and anxiety.

Das (2000) in his article said that the term adolescence is derived from the Latin word "adolescere" which translates as "to grow". Das (2000) explains adolescence as a transition period where pubertal maturation can cause changes in the physical, cognitive, social, and intellectual development as well as in personality

marked by independence. This period is also termed as "youth". Mehta (2000) also pinpoints the age of adolescence ranging between 12 years to 18 years.

Coleman (2006) defined the stage of adolescence as a stage of development transitioning from childhood to adulthood. Sexual changes occurring due to puberty mark the beginning of this stage usually between the ages of 11 years to 13 years.

Saunders and Frazier (2017) explained the period of adolescence as the beginning of the hormonal changes that occur in boys and girls. These hormonal changes make them vulnerable to increased moodiness with experiences of biased interpretations, poor judgment, self-criticality, and emotion-based coping. These features may increase depression and suicide ideation among adolescents. As discussed above, academic pressures, family expectations, social difficulties, and stress can also be the c

National Crime Records Bureau (2014) in their study stated that accidental deaths and suicide in India have reported on an average of more than one lac. People commit suicide every year and 1,31,666 people committed suicide in the year 2014. States like Tamil Nadu, Maharashtra, and West Bengal top the charts when it comes to suicide with 12.4%, 12.2%, and 10.9% respectively. Between the ages of 14 years to 18 years, 4682 boys and 4548 girls committed suicide and a 6.1% suicide rate accounted for among students.

1.1.1 Stress Defined

Stress can be defined as a feeling of physical or emotional tension that can come due to any thought or event that can make a person frustrated, angry, or even nervous. Stress is the reaction of a person's body towards demand or challenge that

requires a response or an adjustment. Using the psychological lens, stress can be defined as a feeling of pressure and emotional and psychological pain. It is a normal part of life and described as a degree to which one feels overwhelmed. Stress can be externally arising from psychological, social, or environmental conditions or internal due to illness or any medical procedure (Fink, 2016).

Martin (2002) described stress as a phenomenon arising from life experiences that have a positive or negative impact. During the 17th century, the word "stress" was used to mean the terms straits, hardships, affliction, or adversity that could cause short-term illness or any disease. Peplau (1968) and Ionna (2016) in their article described stress as a factor concerning everyday life and can be both the stimulus and the reaction. Selye (1965) portrayed stress as a reaction to the changes that humans face in their everyday life. On the contrary, Speileberg (1980) displayed stress as a stimulus in response to a change or life event or a transaction considering a myriad of factors that may be personal, environmental, or social in nature.

McGrath (1976) explained that stress is an adaptive response to the unconscious or conscious threat. It is a result of a "perceived" threat that may not be related to actual environmental situations. Another definition is given by Shaikh et al. (2004) that stress is an inability to cope in certain situations that can cause psychological pressure, helplessness, word load, and mental pressure.

Pestonjee and Muncherji (1999) defined stress as a consequence and response towards an action or any situation that demands the person to act psychologically. Pestonjee (1992) defined the term 'stress' as a variety of responses that range from psychological reactions to external forces to the subjects. Humans are subjected to phenomenological experiences related to events termed as "stressful".

1.1.1.1 Theories of Stress

Bernard and Krupat (1994) explained the Biopsychosocial model of stress is one of the most comprehensive models. This model specifies three components; external, internal, and the interaction between them. Bernard and Krupat (1994) also justified this point by explaining that a person's health problem is associated with stress due to the frustrating workplace situations, the workplace, and demands of the job and its responsibilities. Canon (1932) agrees with the external component of the model and states that the stress reaction is elicited by a wide spectrum of psychosocial stimuli that threaten to disrupt the human homeostasis both physiologically and emotionally. The interruption theory by Mandler (1982) described stress as a transition between the internal component and interaction factors of stress. Lazarus and Launier (1978) stated the Biopsychosocial model of stress is the interaction between internal and external components that involves a person's cognitive processes.

Selye (1985) said that one cannot specify stress and that it can stem from a wide variety of stressors that may be external or internal factors and further focused on the internal aspects of stress. He gave the generalized adaptation theory that attempts to understand stress as a reaction of the body to any demand that may arise. These demands can vary from minor physical injury to exposure to extreme weather conditions. He further explained that a person subjected to stress goes through the three phases of adaptation which includes the alarm stage, the resistance stage, and the exhaustion stage that he termed as General Adaptation Syndrome (GAS):

a. *The alarm stage:* This stage is marked by the fight-or-flight response to a physical reaction like the change in the hormonal levels of the body along with the

psychological reactions like alertness, increased anxiety levels, and triggering of defensive behaviour.

b. *The resistance stage:* In this stage, the body tries to adapt itself to the stressor. This stage is marked by a continuous arousal state and this high level of hormones could upset homeostasis in prolonged conditions. It may harm the internal organs making an individual vulnerable to diseases.

c. *The exhaustion stage:* The final stage embarks with the inability to resist stress anymore and breakdown occurs. Selye noted that in humans, many diseases precipitated by stress occur during this phase called "diseases of adaptation". The physical reaction involves depletion of adrenal glands and psychological symptoms would include distortion in cognition.

Lazarus and DeLongis (1983) developed two models of stress which are life events and daily hassles. The life event model explains that a certain event that happens in one's life brings about changes in the person involving him to adapt which in turn causes stress. The second model is the daily hassles include a wide variety of stressful situations that an individual deals with in his or her daily life like lack of family time.

Stress theory by Lazarus (1991) known as the comprehensive emotion theory revolves around the concept of two forms of appraisals which are the primary and the secondary appraisal in individual-environment interaction. Primary appraisal occurs when any stressful factor or stressor is threatening a goal and secondary appraisal occurs as a coping option. Lazarus and Folkman (1984) gave three distinctive types of stress that are led by patterns of the primary and secondary appraisal. Psychological

damage or loss referred to as harm that has already taken place. The anticipation of harm is called threat and challenge arises from demands that an individual feels like mastering.

1.1.1.2 Types of Stress

Selye (1956, 1978) classified stress as being positive and negative which he termed as eustress and distress respectively. Selye (1978) explained distress as a negative reaction to stressful situations such as anger, anxiety, and even depression in some cases. A positive reaction or eustress makes a person happy and motivated. Bisht (1987) classified stress into 13 different categories:

a. Existential Stress: This type of stress occurs when a person faces a threat in his/her existence due to the demands of society.

b. Achievement Stress: This type of stress is associated with the demand to perform well and achieve something like the need to perform well in academics, at the workplace, and in competitions in any field.

c. Academic Stress: This kind of stress may stem up from various ranges of academic situations like examination, failure, competition for grades, interpersonal relationships, etc.

d. Self-Concept Stress: This type of stress arises from the concept or perception of self that may differ from the others in the society thus leading to stress.

e. Self- actualization Stress: This type of stress comes from not fulfilling one's desire and not being satisfied with his/her own work. This type of stress may also arise when

a person is not aware of his/her capability and cannot live to the expectations of the self.

f. Physical Stress: This type of stress would arise from the changes in the physical structure and functioning of an individual. Adolescents may experience this type of stress as they are subjected to physical changes occurring during puberty. The changes in their physical structure make them more conscious of it.

g. Social Stress: Social stress stems from the demands of a society that a person may not be able to live. The person needs to fulfil the demands in his or her interpersonal relationships with peers and society.

h. Role Stress: Role stress comes with the roles that a person has to perform in the organization as role-based on self-expectation and others at the workplace and role adjustment at home within a family where change is witnessed in the attitudes.

i. Institutional Stress: Students, staff, and employees of an institution experience such stress where they have to adjust to the institutional set-up, and inability to cope up leads to stress.

j. Family Stress: The responsibilities that the individual has to take up in his/her family give rise to such kind of stress. If the person cannot adjust to the various situations that the family faces, such type of stress occurs.

k. Financial Stress: Financial strain in the family or a person under financial constraints may experience this kind of stress. Adolescents in school face this type of stress when the individual comes from lower socio-economic status and the lack of finance may make the adolescent suffer from this type of stress.

l. Vocational Stress: In a workplace, when there is workload or no work, it may cause vocational stress in an individual. Poor working conditions or an unethical working environment also leads to such type of stress.

m. Superstition Stress: Superstitious beliefs give rise to dilemmas in thinking and conflict in decision-making and may cause stress in the individual.

According to the American Psychiatric Association (APA) (2013), stress can be categorized into three types: Acute stress, episodic acute stress, and chronic stress. Acute stress is a common form of stress that comes from the pressures of the past. The duration of this type of stress is short. Episodic acute stress is a little more severe than acute stress. The person is in constant stress with the chances of relief being slim to none. Chronic stress is long-term stress which might be due to traumatic experiences in childhood or any chronic illness. Everyday stressors when ignored can lead to chronic stress. Any person suffering from this type of stress just lives with it and does not look for ways to deal with it. Caplan (1975) defined occupational stress as the situations at one's workplace that might be a threat to the individual. Ross and Altmair (1994) stated occupational stress arising because of the working conditions of the person where the expectations exceed the ability of the person.

1.1.1.3 Academic Stress

Mental distress is associated with academic demands that may exceed the adaptive abilities of a student. They may face difficulties in solving simple assignments, stress due to academic failure, or challenges faced in their career. In this competitive world, there is a cut-throat competition to excel, and that gives rise to stress among students. Nowadays, students are subjected to huge demands from the

family as well as society to excel academically. Research also suggests that students may feel stressed and in turn, depressed due to high academic expectations (Bhujade, 2017). Academic stress includes a wide range of stress that may occur because of not only academic pressure but also various other factors like conduct, interpersonal relationship with peers, teachers while competing with other classmates, and expectations from parents and teachers to excel in co-curricular activities. Scott Sheldon (2008) explains academic stress because of academic-related demands that are difficult to cope up by the individual that leads to serious psycho-socio-emotional health problems.

Academic stress is a mental distress mainly caused by frustration which is anticipated and associated with failure in academics or even when the person has an awareness of possibility of academic failure (Gupta & Khan, 1987). An event can act as a challenge or a threat to an individual. A challenging factor can motivate a person, can lead to positive outcomes, and improved task performance while threat or distress can result in anxiety, depression, social dysfunction, and even suicidal intention in them (Lazarus & Folkman, 1984).

Misra and Kean (2000) stated the common causes of academic stress as anxiety, ineffective time management, and lack of satisfaction in the completion of activities apart from academics acts as strong predictors of academic stress. Stress arises as a result of the body's responses to the academic demands of a person and one's inability to meet those demands.

Academic stress is caused by many factors related to academics inclusive of expectations and demands of teachers, parents, tight school schedules, low

performance in academics, not enough time in dealing with multiple responsibilities of school and poo study habits. (Banerjee, 2011).

Among all the age groups, adolescents are more vulnerable to suffer from depression due to academic-related stress. Several studies have been conducted in order to identify academic stress as one of the main predictors of depression in adolescents. Kaur and Sharma (2014) conducted a study on a sample of 200 adolescents and the results indicated that academic conflict, pressure, and anxiety are the dimensions of academic stress positively correlated with depression. There was a significant gender difference in terms of academic frustration with no gender difference in the other dimensions of academic stress. Females exhibited higher levels of academic frustration than males (Kaur & Sharma, 2014). The National Crime Records Bureau (2014) recorded 1.8 % of students committed suicide due to exam failure.

Sagar and Singh (2017) conducted a study to understand the level of academic stress among higher secondary school students. 180 participants were taken into consideration for the study. The findings showed that there was a significant difference betweenthe academic stress of male and female students and no significant difference among the different streams of education like arts, commerce, and science.

1.1.1.4 Causes of Academic Stress

A study conducted by Krishna and Agarwal (1960) found that the failure of a student in examinations could not be associated with one single factor as more than one factor might be contributing towards the failure or the success of the student.

Bhattacharya and Deb (2012) conducted a study in Kolkata with 374 male and female adolescents from 11^{th} and 12^{th} standard. The results of the study showed that adolescents faced 46.2% parental pressure to excel in the examinations. Gender differences were also seen where female adolescents experienced more parental pressures than male adolescents with 53.2% and 39% respectively.

Lal (2014) categorized the causes of academic stress into different categories:

a. *Academics:* The difficulty in achieving expected academic levels and the inability to cope up with the expectations can lead to academic stress among students.

b. *Dating:* Here, the stress occurs when the individual is not successful in getting a date or breaks up with the date.

c. *Environment:* The inability to adjust to a new environment such as school, getting into a new institution, or transferring from a different board or to a new city gives rise to stress among adolescents.

d. *Extracurricular activities: W*hen a person experiences a gap between the desire to participate in extracurricular activities and the opportunities to do so, stress occurs.

e. *Peers:* The student faces stress when the pressure from the peer group intensifies. The stress of identifying oneself and complying with the expectations from the peers about various choices like dressing up or a certain kind of behaviour that the peers expect can lead to stress.

f. *Parental pressure:* Adolescents face demands not only from society, school, and peers but also from their parents. The pressure from parents to get good grades in

school and excelling in other areas apart from academics leads to stress among students.

Goodman (1993) categorized stress in adolescents into academic, time, financial, external, or internal factors. Kadapatti and Vijyalaxmi (2012) researched to find out stress among 360 pre-university students consisting of both males and females. The results indicated that poor study habits, high aspiration, study problems, change in the language of instruction, and poor socio-economic conditions are some of the factors that are responsible for academic stress among students.

Monteiro and Sebastian (2010) conducted research to study various factors like parental pressure, the educational system that the students presently study in, and the correlation impact it had on adolescents. The sample consisted of 100 participants between the ages range of 14 years to 18 years who belonged to rural and urban areas of Mangalore, India. The results of the study indicated that the students who were residing in urban areas experienced more stress than the participants from the rural area.

Yumba (2008) conducted a study in order to see various sources of stress due to academics and conducted the test on 100 female and male undergraduates as participants. The results of the study showed that a wide range of factors mainly courses overloads, evaluation procedures were the major academic stressors, and personal, family, and social factors were the least stressful factors among all the stressors. Ibrahim et al. (2017) conducted a study on 250 students to understand the stress and academic programs in Nigeria. The results of the study indicated that academic programs, college type, and marital status significantly increase the level of stress in students.

Poor academic performance is another causal factor for academic stress among students. Bjorkman (2007) conducted a study on 268 students from standard 6 to 8. The results showed a correlation between the grade point average of the students and the perceived level of stress.

Nandamuri and Gowthami (2011) conducted a study to understand the components of academic stress among postgraduate management students. The study consisted of 500 participants. The study results concluded that curriculum and instructions were found to be the most important factor that causes stress among students.

Chan (1999) exhibited that students under the pressure to perform well had a declined interest in studies. Cheng (2001) studied factors that lead to academic stress in students and some of them are poor social and interpersonal skills, competition among peers, academic pressure, and inability to manage time.

1.1.2 Family Defined

Family is the initial institution where a person starts his or her learning process. It is considered the most important part of social influences and one of the first social scenarios that a person comes across. The behaviour, thought process, and perceptions of a person are greatly influenced by his or her family. Members of the family-like parents and siblings play a vital role in shaping the personality of the child.

The basic unit of the society that we live in is family. This is the unit where one learns strength and courage that guide him or her to survive in the outside world.

It is very essential and critical for family members to manage effectively their children before they step into the outside world (Moore, 2007).

Yap et al. (2014) conducted a literature review regarding parental factors influencing depression disorders. Results of the review study revealed that parental factors like inter-parental conflict, over-involvement of the parents, and warmth act as risk factors for depression as well as anxiety among adolescents.

Moore (2007) concluded that the origin of the family is still not clear. Sonawat (2001) in his article "Understanding families in India" has described family as a basic unit of study in various disciplines such as psychology, sociology, economics, etc. Ozguven (1993) explained that in Turkish society, the family is considered as a unit that is based on a marriage that initiates social bonds and kinship ties. Different roles are taken up by the members and hence, influence one another to meet the various social, cultural, economic, and psychological bonds.

Zabriskie and McCormink (2001) explained family are one unit directed towards a certain goal. All the family members are interconnected and have an influence on adolescents in shaping them. The environment within and around them also influences them.

1.1.2.1 Types of Family

Gokce et al. (2003) stated that before the era of the industrial revolution, the family structure consisted of traditional types that were extended and introverted. Gunindi et al. (2012) in their study have explained the differentiation of the families. They also defined the concept of family structures. Variables may include the number of married couples and the generations living in the same household.

Budak (2000) explained that an extended family is a kinship group beyond the nucleus family consisting of relatives like grandparents living in one household as one larger unit. Reports from UNESCO (1992) as cited by Sharma (2013) classified family into different types, like based on marriage (monogamous or polygamous), based on location (patrilocal or matrilocal or avunculocal), based on the authority of the household (either patriarchy or matriarchy) and based on the composition of the kin living together (nuclear or joint). A nuclear family is a term to define the type of family group consisting of a mother, father, and their children. Joint family and extended family consist of mother, father, their children along with other members like grandparents (one or more), blood relatives like aunts and uncles, cousins all living in the same house (Reiss, 1988).

Conjugal that is a nuclear type of family structure consists of the spouses and the children (Smith, 2017). A single-parent family is also recognized where the structure includes only one parent who has the sole custody of his/her child/children or where the custody of the child is divided equally between the separated parents (Braver & Lamb, 2018). When a family has mixed parents or stepparents where one or both the parents have remarried to another person with children and blends the former and the later family, it is known as blended family structure.

1.1.2.2 Family and Adolescents

The interpersonal relationship of a parent with the adolescent initiates feelings of acceptance that give a positive outcome and helps in the identity development of the adolescent that leads to high self-esteem in them (Hauser et al., 1984; Allison & Sabatelli, 1988; Eccles et al., 1991). Erik Erikson who was a Neo-Freudian developed 8 stages of psychosocial development where he explained that each stage is a

developmental milestone that a person goes through having certain characteristics. One of his stages explains the age of adolescence that he considers the age between 13 years to 19 years. He explains the stage as being a stage of "fidelity" where a person can adapt himself/herself well to the changes in and around the environment. If the adolescent adapts well, then he/she will develop a sense of identity or else a sense of role confusion. According to Erik Erikson, the adaptations that an adolescent makes in this phase also depend upon the relationship with their parents. Parental pressures can hamper the child as researched by Rubin (2005). When a parent's expectation from the child is too high, it becomes counterproductive and they are unable to cope up with the expectations leaving them helpless and lonely. The author outlined that in a "Draw A Story" assessment, the child drew a series of drawings that mostly depicted a boy in lonely situations and portrayed helplessness. Many conflict issues in the family like divorce, re-marriage, and blended type of family influences the adolescent in such a way that they get unmotivated and undergo emotional turmoil to adjust to new situations or environment (Magano& Gouws, 2012). A study was conducted on 585 adolescents to find out the relationship between the members of the family and participation of the adolescent while making decisions in the family. The results showed that the socio-economic conditions of the family, cohesion among the family members, and effective communication between parents and adolescents were related to the decision-making ability of the adolescent.

According to an investigation conducted by Henry (1994), the perception of the adolescent towards the family system characteristics, parental behaviours, and family life satisfaction is positively related to family bonding, flexibility in the family, and the support from the parents. Another study conducted by Berner (1992) shows the importance of open communication which also acts as the main factor for

harmonious relationships between parents and adolescents. Effective parenting helps in the better transition of adolescents from childhood to early adulthood and can avoid many risks associated with it which includes emotional distress, anxiety, and depression (Stern &Zevon, 1990; Cohen et al., 1996). Effective parenting is also associated with effective positive communication, openness, and lesser problems in parent-adolescent relationships (Bhushan &Shirali, 1993). Dunlop, Burns, and Bermingham (2001) conducted a longitudinal study to explore the link between the structure of the family, self-image, and relationship of parent and child along with gender as a variable. The study was conducted in three intervals and lasted over 10 years that covered the years of adolescence to early adulthood. The findings of the study illustrated a consistent relationship between high parental care and low overprotective control by the parents accompanied by a better self-image that was even stronger among participants from intact families.

Field (2002) studied the relationship of 89 adolescents with their parents and peers. The study was administered with the help of a comprehensive questionnaire to find out the difference in perceptions among adolescents in terms of relationship quality rated as high or as low. The results indicated that adolescents who had rated high parental and peer relationships had more friends, greater bonding in the family with lower levels of depression and drug use along with high-grade points.

Lasko et al. (1996) conducted a study in which 455 adolescents were examined using self-report scales on depression, intimacy, social support, self-esteem, parental happiness, and risk-taking behaviour, conducted another study. The findings of the study were such that adolescents who were depressed were found to be less intimate with their parents. They received less social support from their parents and

peers and had low self-esteem. Adolescents who reported that their parents are unhappy also showed similar results.

1.1.3 Self-Esteem Defined

Self-esteem: It can be defined as self-respect, the realization of self-worth, a positive attitude, and confidence in the abilities of the self.

Mondrea (2006) explains self-esteem as the image of what an individual is, what he or she wants to be, and what he or she has to do in order to accomplish their goals. It is the result of negative and positive perceptions that one has about oneself. Self-esteem is the result of the social comparison and the received feedback from others whether positive or negative that evaluates one's qualities and performances (Dobrescu, 2013).

Scarneci (2009) states that self-esteem is the product of confidence that one possesses and the respect that one has for himself or herself. It is one's subjective evaluation of his or her worth, whether good or bad. It can range from educational or job outcomes to good interpersonal relationships with friends or partners. Erickson (1968) explained self-identity to be formed by undergoing a developmental crisis during adolescence, which he labels the stage between identity and role confusion. He distinguished the adaptive stage as identity cohesion and the maladaptive stage as identity confusion. He further states that role confusion occurs if the adolescent is not supported and properly guided by the people, he/she is socializing with, which can include family members and friends. Self-esteem of children varies according to external factors like age, the gender of the person, physical traits of the person, and also the ever-fluctuating hormones (Muntean, 2006).

Santrock (1996) mentioned that self-esteem is a psychological variable with implications in various scenarios such as alcohol abuse, substance (drug) abuse, delinquent behaviours, depression, aggressive, hostile behaviour, and dysfunction in life. According to many types of researches done on self-esteem, it stated that it is associated with body image among young girls more than boys. Girls who mature faster were more likely to be involved in the consumption of alcohol and drugs being sexually active sooner and having problems at school with their peer groups. The sudden changes in their physical maturity and appearance, occurring during the adolescent stage also add to their stress levels (Adams, 2009).

As discussed above, self-esteem is how an individual likes or esteems him or her. It is a time of increased self-scrutiny with fluctuating self-esteem during adolescence. Many factors tend to influence self-esteem among adolescents. They include unsupportive parents or family members, friends who play an influential role in shaping their life. Many studies have tried to understand the predictors of self-esteem. Edington (1970) conducted a literature review and found that there exists a relation between urban or rural areas related to the educational status of adolescents which in turn affects their self-esteem. Another study conducted by Spellman (1996) assessed the relationship between life stress, psychological functioning, and the role of self-esteem and social support. The study included 58 children and the results showed that children and adolescents with high levels of self-esteem had moderate psychological dysfunction.

Adolescents living with single parents have the ability to adapt better that in turn leads to the possibility of having high self-esteem. It was further noticed that boys who had high self-esteem viewed their parents as being warm, helpful, loving,

and forgiving. The home environment variables like tolerance, understanding, fair punishments, clear rules and regulations, respect among the family members, and less hostility contribute to high self-esteem. The boys with low self-esteem had permissive parents, authoritarian, and careless parents (Kassam- Adams, Fleisher, & Winston, 2009). The authoritarian style of parenting helps the child develop adapting skills regarding stress and helps the child to have better psychological preparation and have higher self-esteem. The other styles result in undesirable behaviours such as delinquency from the indifferent style of growth, dependency on parents from the dictatorial style of growth, and immature or irresponsible social behaviour from an indulgent style of growth (Steinberg, Elmen, & Mounts,1989).

According to Berk (2006), parental support can help a child to develop four types of self-esteem:

1) Open child- who has high and stable self-esteem and who receives unconditional as well as conditioned behaviour support.

2) Abandoned child- who has low and stable self-esteem without any personal unconditional and conditional behaviour support

3) Spoiled child- who has high and unstable self-esteem and who benefits only from personal unconditional support without any conditional support behaviour.

4) Trained child- who has low and unstable self-esteem who benefits from only conditional support behaviour without the person's unconditional support.

Other factors like academic stress and achievements also affect the self-esteem of the individual.

Hoglund (1995) examined gender differences in the stability of self-esteem and the relationship between academic achievement and self-esteem in males and females between 8-14 years of age. The results of the study indicated a positive relationship between self-esteem and academic achievement for females at all ages and for males, it was at the ages of 12 years and 14 years. Dobrescu (2013) also points out that evaluation techniques in educational institutions and increasing one's social network led to the social comparison that either increases or decreases self-esteem. Expectations from the teachers regarding an adolescent's performance, restrictions, and regulations, social mobility of parents lead to changes in the self-image of the child. Marsh et al. (2009) further denote that positive school outcomes can increase the self-esteem of the individual.

1.1.4 Depression Defined

Depression: It is a state of conditions that are associated with irritable mood, lowered or elevated mood with a persistent feeling of loneliness, sadness, guilt, low self-worth, and loss of interest. The symptoms include significant weight loss or gain, insomnia or hypersomnia, fatigue, feelings of excessive inappropriate guilt and worthlessness, diminished ability to concentrate without the effect of any factor like the use of any substance abuse or alcohol.

Depression originates from the Latin word "deprimere" which translates "to press down". A person may feel depressed, worried, anxious at some point in time, and unwilling to perform the daily activities of life; however, they recover after a period. If he or she fails to come back to "normalcy" or if the symptoms get prolonged, it hampers the person's social, personal, vocational, or occupational life then he or she can be diagnosed with "clinical depression". A person suffering from

depression tends to generally lack self-esteem, self-confidence which can be evoked by episodes of guilt and hopelessness that is unreasonable. It can be the cause of permanent impairment in one's life affecting the normal functioning of an individual. Clinical depression is marked by patterns of negative, depressive thoughts including hopelessness, helplessness, and worthlessness as outlined by Knaus (2006).

It is possible that a person suffering from depression will have experienced traumatic events in his or her past. Those past events had triggered stress that later on acted as a dispositional factor for the onset of depression. Depression can be viewed as a persistent and recurring mental health disorder that can cause various crippling conditions like anxiety (Pettit & Joiner, 2006).

In India, depression is a major public health concern that is majorly contributing to the morbidity rate among the Indian population. There have been cases of depression affecting all the genders of the society in a diverse age range in both urban as well as rural areas. The World Health Organization (WHO) organized an awareness program on "Depression- Let's Talk" on the auspicious day of "World Health Day" in 2017 (WHO, 2017). It was observed that India has over 18% of the total population affected by depression (WHO, 2017). As it is a developing nation, the country has been subjected to rapid urbanization and socio-demographic transition, and as such diseases like depression affect the population largely and are likely to increase in the coming years. According to the National Mental Health Survey (NMHS) (2015-2016), in India, 1 in every 20 people over the age of 18 years have suffered (at least once in their lifetime) from depression counting to a total of over 45 million people suffering from depression in 2015 (Murthy, 2017). The rate of depression has increased significantly over the years in India as well (Nandi et al.,

2005). The NMHS (2015-2016) has reported a prevalence rate of 0.8% for depression among 13-17 years old children.

- Depression can be diagnosed as mild, moderate, or severe and the symptoms vary accordingly among individuals. Moderate to severe depression can be disabling which can be a substantial threat to a person's health. Apart from distress, there are various other symptoms that include: Individual's inability to participate in work and social activity.

- Feeling sad almost every day

- Markedly reduced interest or pleasure in almost all activities that previously the person found pleasure in

- Decline or slow in the thought process

- Feelings of worthlessness

- Reduced self-confidence and self-esteem

- Abnormal changes in sleep patterns (Hypersomnia or Insomnia) nearly every day

- Appetite changes (Binge eating or reduced appetite and/or weight)

- Has a negative view of oneself and society at large

- Being easily irritable and dependent on a substance is a symptom that can be seen in adolescence

- Suicide Ideation

Depression can harm a person's personal, social, vocational, or occupational life. According to a study conducted by WHO, in India, nearly two-thirds of the individuals with depressive disorder reported disability of varying severity across domains of work-life (67.3%), social life (68.6%), and family life (70.2%) (Murthy, 2017). Over 50% of individuals with depressive disorder in India reported that their condition interfered with their daily activities (Murthy, 2017). 77% of relatives, including family members of the persons suffering from this disorder, experienced some burden with respect to disruption of family routine, financial conditions, interactions, and leisure activities (Chakrabarti et al., 1995).

1.1.4.1 Depression Epidemiology

The World Health Organization has ranked depression as the fourth leading cause of disability worldwide and states that by the year 2020 it is going to be the second leading cause of disability worldwide. The world mental health survey was conducted in 17 countries and the results declare that on average about 1 in 20 people reported an episode of depression (Murray & Lopez, 1996).

The prevalence of depression also varies from region to region. For example, in Japan, it is approximately 3% and 16.9 % in the United States of America (Andrade et al., 2003). Several studies were conducted in India and it was found that 33572 participants reported episodes of depression. It was reported to be 7.9 to 8.9 per thousand populations and was nearly twice in urban areas (Reddy & Chandrashekhar, 1998). In a study done in south India, it was reported that there was a prevalence of 0.1% depression in the age range of 14-16 years (Srinath et al., 2005). Another community-based study on school children conducted in north India reported an annual depression incidence rate of 1.61 per 1000 children (Malhotra et al., 2009).

Several risk factors that acted as predictors of depression were associated with adolescents such as the death of a family member, change in residence, failure in the examination, end of a serious relationship, etc. (Patel et al., 1998). Other factors that contribute towards depression also include stress in school and family, family history of mental illness, etc. (Krishnakumar & Geeta, 2006).

Studies in terms of socio-demographic variables indicate that depression is more common in females (Sethi & Prakash, 1979; Poongothai et al., 2009; Nandi et al., 1979), the younger generation (Ponnudurai et al., 1981), and the population of lower socioeconomic background (Bagadia et al., 1973). Studies have also shown that parental loss before the age of 18 years, parental disharmony, and eldest birth order are some of the factors that contributed to depression in subjects (Bagadia et al., 1973).

The treatment for depression is not acceptable in society especially in countries where mental health is considered a social stigma. Fewer than 25 percent of people across the world have access to treatments for depression (Chen et al., 2005). In some countries, less than 10 % of people suffering from depression receive any form of treatment (Chisholm et al., 2004). An international survey with 84,850 respondents from around 17 countries found that treatment for mental health is much needed and is of great concern (McDaid & Park, 2011).

1.1.4.2 Screening and Assessment of Depression

A major depressive disorder is diagnosed based on the relative signs and symptoms that prevail in the person suffering from it. DSM-IV-TR (American Psychiatric Association, 2000) depicts that any person suffering from major

depressive disorder should have at least five of the given nine specific depressive symptoms that include depressed mood most of the day, diminished interest in activities once derived pleasure from, significant weight loss or gain, insomnia or hypersomnia, feelings of guilt, etc. These symptoms must be present nearly every day for at least two weeks along with the fact that these symptoms should impair the person significantly in the areas of social, vocational, personal, occupational, and other important areas of functioning.

The signs and symptoms of depression in adolescents are quite different from the conventional symptoms, as they may not show the obvious signs of depression. Some signs include lowered self-esteem and instead of being sad and depressed most of the day, they may become impulsive, unable to control emotions giving rise to feelings of pessimism, anger, guilt, irritability, and anxiety, lowered energy levels, reduced motivation, and poor concentration and memory.

Apart from the DSM-IV-TR, another way of deriving a checklist is through The International Classification of Diseases, Tenth Revision, or ICD-10. which was developed by the World Health Organization. There are other forms of reporting depressive symptoms like a self-report, parental report, instruments that were clinically developed, and semi-structured interviews (Gilbody et al., 2007).

Many instruments and diagnostics screenings have been developed to screen depression. Screening instruments such as the Patient Health Questionnaire may help in the diagnosis of depression (Mitchell & Coyne, 2007). Another important and widely used screening inventory is the Beck Depression Inventory-II, which has 21 items consisting of statements that help in diagnosing depression (Beck, Steer, & Brown, 1996).

1.1.4.3 Depression and Intervention

Depression is one of the disorders that is challenging to recognize. Over the years there has been a significant increase in the recognition, treatment, and in turn prevention of depressive disorders. Depending upon the severity and nature of depression, there is a wide range of effective treatments available (Donohue & Pincus, 2007). There are effective ways of treating depression, which include medications, biological interventions, therapies, and rehabilitation techniques that occur in stages or even in combined treatment forms of medication and therapies. Various studies have reported that antidepressant medications and psychotherapies are effective in treating moderate and severe forms of depression (American Psychiatric Association, 2000; DeRubies et al., 2005; Dimidjian et al., 2006).

Biological interventions like Electroconvulsive therapy and antidepressant medications are prescribed to individuals who are suffering from a severe or life-threatening depressive disorder. The use of medication like antidepressants has increased greatly during the past decade (Rigler et al., 2003). There has been significant prevention of recurrence of symptoms associated with depression if it is maintained with effective medication (American Psychiatric Association, 2000). Various studies have shown a positive correlation between the treatment of depressive symptoms and the use of medications.

Nierenberg and Dececco (2001)in their study concluded for 25% to 60% of people suffering from depression, medications such as antidepressants have proven to be helpful. Another study by Gitlin (2002) found that response rates to a single antidepressant medication were found to be 60% to 70%, compared to placebos response rates of 30%. Many studies and researches have also shown the effectiveness

of psychological interventions apart from biological interventions. Few researchers (Bortolotti et al., 2008; Cuijpers et al., 2009) found that psychological forms of interventions are quite effective and significantly linked to clinical improvement in depressive symptoms. Other researchers (Leichsenring, 2001; Leichsenring&Rabung, 2008) stated that several researchers have found that psychodynamic therapy is effective in treating depression. Another major form of therapy that has been proven to be effective in treating patients with depressive symptoms is CBT (Cognitive Behavioural Therapy).

The principle behind this type of therapy is that a change in the thinking process (cognition) leads to a change in the behaviour of a person. Cognitive behavioural therapy aims to diminish distress by modifying the cognitive process and the content, which realigns thinking with reality (Longmore & Worrell, 2007). The different types and forms of treatment for depression are very much in practice; however, the stigma surrounding depression in India makes a huge gap in terms of treatment. India is slowly moving towards acceptance in the treatment of disorders like depression. Mental health camps and programs like the National Mental Health Program (NMHP) exists where public mental health is taken into consideration.

1.1.5 Suicide Ideation Defined

A recurrent and persisting thought of committing suicide is termed as Suicide ideation. The correlation between depression and suicide ideation has been found positive in most of the studies that have been conducted all over the world. Suicide is the third leading cause of death among adolescents between the ages of 15 years to 19 years old (National Centre for Health Statistics, 1994).

According to WHO, depression, and suicide are closely linked, and depression can lead to suicide. The association of depression and suicides are well established and studies have shown the probability of deaths from suicide among depressed hospitalized patients to be 15% (Simon &VonKorff, 1998). Suicide is rapidly becoming a growing public health concern as there has been a parallel increase in suicide and depression in the adolescent age group (Weller, Weller, &Svadjian, 1996). In India, 2% of those who commit suicide suffer from a major depressive disorder and this proves that depression is strongly linked with suicide (Manoranjannitham et al., 2010). Based on global suicidal rates, India with a rate of 10.6/100,000 ranks 43 as reported in 2009 (WHO suicide rates).

1.1.5.1 Suicide Ideation Epidemiology

Suicide in 2004 was the 8th leading cause of mortality among people aged 15-44 years (WHO, 2008). Eastern European countries such as Belarus, Estonia, and Lithuania have the highest suicide rates. Sri Lanka also has been reported to have high suicide rates (Gururaj et al., 2004). Rates of suicide are higher in northern parts of Japan and in northern countries of Europe as compared to the southern countries, although the UK and Hungary have a significant number of suicidal rates (Hawton& Van Heeringen, 2000). There are countries with lower rates of suicide like Latin America and some countries of Asia like Thailand. The occurrence of suicide was linked to lower socioeconomic status (WHO, 2002).

The suicide rate in India is on a rise, consistent with the rise in the global trend. According to the National Crime Records Bureau, in India, the rates of committed suicides were seen as risen to 8.9 per 100,000 from the previous 6.3 per 100,000 during 1978. This shows an increase of 41.3% in a decade along with a

growth rate of 4.1% every year (Radhakrishnan & Andrade, 2012). There was a decline in the rate of suicide between the years 1999 to 2002 and a mixed trend during the years 2003 to 2006, but then there was a rapid increase in the rate of suicide from 2006 to 2010. There was a 1.7% increase in the suicide rate since 2008 as reported by the National Crime Records Bureau (Radhakrishnan & Andrade, 2012). Suicide incidences are underreported in rural areas and hence, the rates vary in different states or regions of India. The average annual suicide rate ranged from 62/100,000 to about 95/100,000 among the general population (Joseph et al., 2003).

Young people are more at risk as they are considered to be a vulnerable group. A study in India showed that the age range of 15-29 years showed the maximum suicide rate which was 38/100,000 population whereas the age group of 30 to 44 years group was 34/100,000 population. For the age group of 45-59 years, it was 18/100,000 population and 7/100,000 population for above 60 years of age (Gururaj et al., 2001). This report by NIMHANS was similar to a report which was given by the NCRB in 2009 (National Crime Records Bureau) which shows that suicide was seen in the largest proportion in the youth who lies in the ages of 15-29 years which was 34.5% and then it was followed by people who were in the range of 30-44 years (34.2%) (Radhakrishnan & Andrade, 2012). Several other studies also indicated the risk of suicide among young adults between the age range of 15-39 years as the most vulnerable among all the other age groups (Vijayakumar & Rajkumar 1999). Suicide ideation is also more common in the age range of 16-45 years in a study conducted in a general hospital setting (Unni& Mani, 1996).

CHAPTER II

REVIEW OF RELATED LITERATURE

A review of the literature is the initial and the most important part of the research. It helps in understanding the topic of the researcher. The comprehensive studies include the previous research done by other scholars and researchers related to the research topic. It also gives a general idea of the various issues that have been looked into while researching the topic and the research limitations that have been witnessed by the researchers during their time of the investigation. The literature review describes how the proposed research is relevant to the prior studies done on the research topic. It comprises scholarly articles, survey books, or any relevant sources that are relevant to the area of research. It also shows the relevance and originality of the research to be conducted. Most importantly, the literature review gives an idea of the research gap and identifies inconsistencies. A review of the literature includes an overview of the studies that were conducted prior to guiding a researcher in investigating the research problem. A review of literature has a huge impact on research work as well as it helps in defining the research problem. It also aids in seeking new topics and sub-topics of inquiry, avoiding approaches that might be a dead-end, identifying any underlying insights for future research, and also supporting the ground theory (Gall, Borg, & Gall, 1996).

Hart (1998) outlines the importance of the literature review as it helps in understanding what has been done and what needs to be done further while conducting the research on a particular research topic. It helps in defining new variables that are important for the study and relevant to the topic. It also attains a new and fresh perspective to the study demarcating the main context of the problem or the objective.

According to the Western Sydney Education (2017), the review of literature has mainly three features:

Features	Description
Purpose	The purpose of the literature review is not only to understand the research topic but also to help the researcher in identifying the relationship of previous works in context to its contribution to the research topic. It also helps the researcher to place his or her research within the context of previous literature so that they understand why further research is needed as well as helps the researcher for any future scope of research.
Content	The content of the review of the literature would include a critical evaluation of research work that was previously done on the topic. The studies would include topics that show relevance to the current research and imparts clarity and focus to the research problem.

Structure	The basic structure comprises an introduction, body, and conclusion. The introduction clearly establishes the purpose and focus of the literature review. The body can be divided into subheadings consisting of main points of the sources or studies that are relevant to the current research topic along with analysis, interpretation, and critical evaluation of the studies conducted previously. The main objectives of the studies are also included in the body. The conclusion should summarize the key findings of the study taken from the literature emphasizing the significance.

Areas of the Chapter

The study has covered five broad areas of interest that were taken up for the research;academic stress, family environment, self-esteem, depression, and suicide ideation, and the related variables are also considered in the study.

2.1 ACADEMIC STRESS AND DEPRESSION IN ADOLESCENTS

Cole (1991) conducted a study in China among school students going to public and private schools and the results indicated that children who faced difficulties in their studies were humiliated and shamed by their parents, teachers, and peers. This poor academic performance contributed to depression among the children.

A study conducted on Korean students by Juon et al. (1994) examined various factors contributing to suicidal behaviour among 9886 high school adolescents. The results revealed that students who reported high levels of stress regarding academic

performance were more likely to have suicidal thoughts rather than those who did not report academic stress.

Danaher-Nash (1994) examined acculturative stress and depression among Hispanic males who were homeless. 100 Hispanic men comprising 50 homeless and 50 non – homeless were taken up for the study. They were assessed using a demographic questionnaire, the Hispanic Stress Inventory, and the Center for Epidemiologic Studies Depression Scale. The results of the study showed no relation between depression, acculturative stress, and duration of homelessness. Age, as predicted, was found to have a significant correlation to stress and depression. The level of acculturative stress and depression was significant in the study but occupation, economic level of stress was found insignificant. The results further demonstrated no significant differences between Mexican and non-Mexican-born homeless participants in depression and acculturative stress.

Chen (1995) correlated academic achievement significantly with depression. The results of the study indicated that depressed children have more academic problems than children who were not depressed. The study also revealed that students who had academic difficulties in school were often victims of criticisms and received feedback that de-motivated them and this contributed to the development of feelings of depression in them. D'Mello (1997) stated that education was a major source of stress for students and was a predictive factor for suicide deaths as revealed by psychiatrists.

Bandura, Freeman, and Lightsey (1999) showed a correlation of -.31 for academic achievement and depression for a sample of 282 students. This shows that poor academic performance among adolescents is strongly linked to the prevalence

of depression among them. Ho, Tay, and Kang (1999) conducted a similar study in Singapore that showed academic difficulties as being a predictor for suicidal behaviour among young people who had attempted suicide.

Misra et al. (2000) conducted a study on perceived academic stress among male and female college students and compared the perceptions of stress among the faculty and students. The study was conducted on 249 students and 67 faculty members with the mean age being 21 years for students and 42 years for faculty members. The results of the study indicated differences in the perceptions of stressors and reaction to stressors between the students and faculty members. The students experienced higher levels of stress and frequent reaction to stressors as compared to the faculty members. The study also proved that the stress varied according to the year in the school and the gender.

For measuring mental health, Mental Health Battery was used developed by Singh and Gupta (2000). For measuring the achievement percentage, marks obtained by students in the last grade were taken into consideration. The results of the study indicated that academic stress had a significant negative correlation with academic achievement and mental health of adolescents while academic achievement had a significant positive correlation with mental health.

In order to examine the impact of academic stress on the achievement and mental health of adolescents, about 400 students between the age range of 13 years to 18 years were randomly selected from different schools in Agra, Uttar Pradesh. Out of which 200 participants were males and 200 participants were females. For measuring the level of academic stress among the participants, a stress scale was used developed by Sinha, Sharma, and Mahendra (2001).

Govaerts and Gregoire (2004) conducted a study on the cognitive appraisal process of adolescents and their relationship with academic stress. The study was conducted on 100 adolescents with the mean age being 16.9 years in 145 situations of academic stress. The adolescent boys saw themselves as having more resources to cope with academic stress than girls. There were group differences when it came to perceiving stress as there was one group that was labelled as a high-risk appraisal group who demonstrated high-level stress than other groups. Kaura (2004) conducted a similar study in India and found that the associated examination system to be one of the sources of stress for children and adolescents.

A study was conducted among public and government high school students to study the relationship between overall adjustment and stress due to academics or academic stress. The results concluded that public school students significantly higher in academic stress(Hussain, Kumar, & Husain, 2008).

Rao (2008) conducted research to study academic stress and adolescent distress among 12th standard students in Chennai. The study results showed that amajority of students suffered from academic stress and reported high rates of depression, and anxiety. Different groups of students have experienced academic distress expressed in different ways in terms of anxiety and depression. The factors like busy schedules, the experience of stress, somatic symptoms, attitudes, belief, the role of god, hard work, and education reform were also highlighted in terms of academic distress.

Arun and Chavan (2009) carried out a cross-sectional study to find out the relationship between academic stress, psychological health, and the occurrence of suicidal thoughts in students. It also studied the correlation between the variables. The

study was conducted on 2402 students from the seventh standard to 12th standard using the GHQ 12 item scale, money problem checklist, suicide risk eleven, and socio-demographic scale. The data was then statistically analyzed using chi-square and Spearman's correlation. The results of the study showed that out of a total of 2402 participants, 1078 (44.8%) suffered from psychological problems, 1201 (50%) students perceived problems in their academics and 930 (37%) reported having an academic decline. 180 (7.4%) students thought that their life was a burden, 122 (5%) reported having suicidal ideas, and 8 (0.33%) students even attempted suicide. The study also reported that academic problems and an unsupportive environment made students perceive their life as a burden and even had higher rates of suicide ideation.

Bhasin, Sharma, and Saini (2010) studied the relationship of depression, anxiety, and stress on 242 adolescent participants belonging to affluent families and who studied in ninth standard to 12th standard. 21 item Depression Anxiety and Stress Scale was used to collect the data. The investigation led to the conclusion that there exists a significant correlation between depression, anxiety, and stress. Females had more significant levels of depression than males. In addition, the 10th standard and 12th standard students had significantly more levels of depression than 9th and 11th standard students did. There exists an inverse relationship between academic performance with depression, anxiety, and stress among the students.

Agarwal (2011) studied on academic achievement and mental health of male and female adolescents. Significant differences were found between academic achievement and mental health of male and female adolescents.

Deb et al. (2012) conducted a study in Kolkata and the results showed that two-thirds of the students reported stress because of academic pressure and no

difference was seen across variables like gender, age, grade, and other personal factors.

Khanehkeshi and Basavarajappa (2012) compared the difference between boys and girls in high school students of 1st and 3rd grades. in terms of academic stress and depression. 120 students comprising 60 boys and 60 girls, with 40 students in 1st grade, 40 students in 2nd grade, and 40 students in 3rd grade. A scale for assessing academic stress developed bySinha, Sharma, and Malhotra in 2001and Kovacs 1992was used for collecting data. The study concluded that grades had a significant effect on grades while it was insignificant when it came to depression. Also, a significant male and female student difference was seen in their perception of depression and academic stress.

Liu and Lu (2012) conducted another study to investigate the association between academic stress among 368 Chinese students from high school and the prevalence of depressive symptoms. The sample was divided into two groups comprising 90% and 10% respectively. The first group of 90% showed that academic stress occurred due to lack of achievement in academics and is a strong predictor of depressive symptoms in them. On a contrary, the second group of 10% of students did not find academic stress as a predictor of depression. The study concluded that academic stress among adolescents as a result of the lack of good performance is associated with depressive symptoms.

Huang (2013) analyzed 24,557 participants and the results showed a correlation between poor academic achievement and subsequent depression.

A study done by Kim and Park (2013) examined the effects of academic stress and response styles of depression among adolescents. The study was conducted on 419 high school students in two high schools. The CES-D Scale (9Radloff) was used. The academic stress scale for adolescents (Lee, Kim, &Wachholtz, 2016) and the Response style questionnaire were used for academic stress and response style respectively. The results showed that the levels of academic stress for both boys and girls, rumination response style increased the level of depression, whereas the distraction response style decreased the level of depression

Kaur and Sharma (2014) conducted a study on 200 adolescents studying in the 11th standard to investigate the relationship between academic stress and depression using the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) and Scale of Academic stress (Bisht, 1995). The results concluded that there is a significant correlation between academic stress and depression. As academic stress increased among adolescents, depression also increased among them. However, there was no significant difference between genders in perceiving depression but a higher level of academic frustration is seen among girls.

Deb, Strodl, and Sun (2015) researched to investigatehigh school students of India on variables like mental health and academic stress along with the associations between academic stress and psychosocial factors.They conducted the study on 190 students from grades 11 and 12 from three government-aided and three private schools in Kolkata, India. The data was conducted with the help of GHQ and structured questionnaires which were specially designed. Results of the study were such that nearly two-thirds of the students (63.5%) reported stress due to academic pressure with no significant difference across gender, age, grade, and several other

personal factors. Out of all the participants, 66% of the students reported being pressured by their parents for better academic performance. Academic stress and psychiatric problems were positively correlated with pressure from the parents to excel in academics and school examination-related anxiety was positively related to psychiatric problems.

A study was conducted to assess gender differences and academic stress on adolescents. The findings of which were such that itindicated that there was a significant difference between the female adolescents and male adolescents in academic stress wherein female adolescents scored more in academic stress (Dhull& Kumari 2015). A study was conducted in Tamil Nadu on 12th standard students comprising 250 students. The study revealed that the academic stress among male students was higher than females. The urban students faced academic stress higher than rural students did. The government school students' academic stress is less than private school students are. The students who have taken science have more academic stress than other streams (Prabu, 2015).

Jayanthi, Thirunavukarasu, and Rajkumar (2015) conducted a cross-sectionalon 1120 adolescents who were in higher secondary schools in the state of Tamil Nadu. The study was to examine the relationship between variables like depression and academic stress. Scales like MESS (Modified Educational Stress Scale) was employed. The results of the study gave indication that those adolescents who had academic stress were in 2.4 times greater risk of depression.

Masood, Rashid, Musarrat, and Mazzahir (2016) conducted a study to measure the role of anxiety and non-clinical depression as predictors of academic stress. The study was conducted on 650 medical students of the first year and final year from six

major medical colleges in Punjab. The results showed that depression and anxiety were prevalent at 67.9% and 83.9% respectively among first year and final year students. There was a significant correlation between anxiety, academic stress, and depression. The analysis revealed that depression was a significant predictor of academic stress but it was not the case for anxiety. Females were more prone to developing anxiety and depression and have been reported to have greater academic stress than males. The study further revealed significant distress among medical students in terms of both anxiety and depression. The prevalence of symptoms was higher among females than in males.

A study conducted by Park et al. (2016) revealed that academic stress increases depression and suicide ideation among adolescents who experienced higher levels of academic stress and academic difficulty.

Chellamuthu and Kadhiravan (2017) conducted a study to investigate the role of academic stress in determining the mental health of students. The study was conducted on 200 students in private and government high schools in Salem in the state of Tamil Nadu. The scales employed was Positive mental health scale and Educational Stress Scale for Adolescents. Students who belonged to private schools had higher scores in academic stress. Private school students had higher mental health status than their counterparts. There was also a significant relationship between mental health and academic stress.

A study conducted by Sandal et al. (2017) investigated the status of mental health and looked for symptoms of depression, anxiety, and stress (DAS) among school-going adolescents in Chandigarh, India. The results of the study showed that DAS is prevalent among adolescents and the overall comorbidity of depression was

higher and highly prevalent among girls than boys. Therefore, the study suggested that early identification of DAS can prevent adolescents from getting prone to psychiatric disorders.

Sharma and Pandey (2017) aimed to see if there is any relationship between stress, anxiety, academic achievements and depression. The study was conducted on 120 participants comprising of 60 boys and 60 girls who were students of class XI of government schools located in rural areas of Mahasamund district of Chhattisgarh. The anxiety, depression, and stress scale were used to measure the variables and it was seen that there was a significant but negative relationship between anxiety and depression.Stress and academic achievement were found to have a positive association with each other. It was hence concluded that the mental health conditions of the students affect academic achievements.

Liu (2017) conducted a study to identify the relationship between academic stress, depression, and anxiety symptoms among adolescents in Shenzhen, China. The study showed that females with poor academic performance, not living in their own accommodation and disrupted family background were risk factors for depression. Academic stress was reported consistently as being the strongest risk factor for depressive and anxious symptoms in adolescents from Shenzhen, China.

2.2 FAMILY ENVIRONMENT AND DEPRESSION IN ADOLESCENTS

Robertson and Simons (1989) studied the link between family environment, self-esteem, and depression among 300 adolescents through the interview method. The findings of the study suggested that perceived parental rejection was the only family factor associated with depressive symptoms among adolescents. Parental

rejection perceived by the adolescents had both a direct and an indirect effect on their self-esteem.

Another study conducted by Furman and Holmbeck (1995) on 96 adolescents found that positive adolescent-parent relationships led to positive adjustment by the adolescent.

Hollis (1996) conducted a study to assess if there was any effect of depression and specific influences of the family relationship on the risk of suicidal behaviour of the adolescents. The study was conducted to compare 284 cases of suicidal behaviour with 3054 non-suicidal control. The results showed that every variable in the family context has an independent association with suicidal behaviour. An operationally defined depressive syndrome holds the odd ratio of 4.4, family discord holds the ratio of 1.5, disturbed mother-child relationship holds the ratio of 1.5 and familial lack of warmth holds the ratio of 1.6. The study concluded that family relationship difficulties contribute to the risk of depression and suicidal behaviour.

Sheebar et al. (1997) conducted a longitudinal study to investigate the relationships between family support, family conflict, and adolescent depressive symptoms. The study was conducted on 231 female and 189 male adolescents and their mothers. The study revealed that less supportive parents and more conflict in the family environment were associated with greater depressive symptoms among adolescents studied over a period of 1 year. The result suggested that the quality of family interactions is significant for understanding the development of depressive symptoms in adolescents.

Pinquart and Srugies (1998) conducted a study to examine the intensity of conflict between adolescents and their parents. The study was conducted on a sample size of 202 adolescents between the age ranges of 14-19 years. The results of the study showed that adolescents had more conflict with their mothers than with their fathers.

Another study conducted by Shiner and Marmorstein (1998) assessed the family functioning of adolescents with a history of depression, considering the maternal history of depression. The study was conducted to make a comparison between three groups of adolescents; ever- depressed adolescents with ever-depressed mothers, ever-depressed adolescents with never-depressed mothers, and never-depressed control adolescents. The results concluded that a greater proportion of ever-depressed adolescents with ever depressed mothers had disrupted family functioning than control adolescents with a rate of 47% and 18% respectively. Ever-depressed adolescents with ever-depressed mothers described poorer family functioning as compared to never- depressed adolescents and controls reporting family difficulties, particularly in terms of the father-adolescent relationship.

The relationship of family environment to adolescents' depression and self-concept was studied by Lau and Kwok (2000). The study was conducted on 2706 adolescents with the help of assessments like the multi-dimensional depression scale-Reynolds Adolescent Depression Scales (Reynolds, 2004), the multidimensional family environment scale, and the multi-domain multi-perspective self-concept inventory. The results of the study showed that all three domains of the family environment had a correlation that was significant with three aspects of depression.Students who had high scores on the domains of family environment like

personal growth, system maintenance, and family relationships, had high scores in various domains of self-concept while they had low scores in different aspects of depression.

Aydin and Oztutuneu (2001) studied to examine the relationship between negative thoughts, depressive mood, and family environment in adolescents. 311 students between the age ranges of 16 years to 17 years were selected for the study. The study was assessed using, Automatic Thought Questionnaire, The Family Environment Scale, and the Beck Depression Inventory, and the results of the study showed that family cohesion was related to the degree of negative thoughts and depressive mood among adolescents.

McLean (2006) studied the influence of family, peer, gender, genetics on adolescents' depression development in South Africa. 385 adolescents comprising 114 boys and 271 girls (11th grade) were considered for the study. The study used the Goldberg Depression Scale and the Adolescent Life Perspective Questionnaire and the findings of the study indicated that negative family relations and negative peer relations contributed to the development of depression in adolescents. There was no difference between male and female adolescents in depression.

Seguin et al. (2003) investigated family psychopathology and the relationship between family members in depression development among adolescents. Three groups of adolescents were taken into consideration for this study; the currently depressed adolescents who had at least one parent who experienced or still experiencing a mood disorder, adolescents who came under the category of currently depressed and whose parents were not diagnosed with any previous case of mood disorder, and adolescents who were in the category of never depressed. The findings

of the study revealed that parental psychopathology, parent-child relations, and life events are all relevant predictors in adolescent depression.

Sun et al. (2004) conducted research to explore the relationship between parent-adolescent communication and shyness, self-esteem, and depression in adolescents. 928 adolescents were employed as participants for the study. The findings of this exploration showedparent-adolescent communication quality and pattern have different predictive effects on depression, self-esteem, and shyness of adolescents.

Herman, Tucker, and Ostrander (2007) conducted a research to understand whether ethnic groups vary in variables like negative cognitions, family environments and depressive symptoms. The researchers investigated the associations between family cohesion, family conflict, and depression among various African American and European American adolescents between the age ranges of 12-17 years. The results revealed that low family cohesion was associated with depression among African American adolescents and high family conflict predicted depression in European American adolescents.

Wang, Xie, Li, and Zhu (2008) conducted research to explore relationships between family communication patterns, types, and the correlation between coping styles, and wellbeing among 1,135 university students in Henan. The findings of the study showed significant difference in the variables likefamily communication patterns between male and female students with different parental education levels or students from different types of universities.

Another study was conducted by Usha and Lakshmi (2008) with a sample of 500 students from six schools in Kerala to study the influence of parenting style and self-compression. The results revealed that the parenting style had a significant effect on the mental health of adolescents studying in aided schools while it was not significant for government school students.

Mason et al. (2009) examined adolescents on various components of extracurricular activities, family relationships, social environment, and its relationship with depression. 322 adolescents were present for the routine medical check-up and were self-assessed for any factors of social network risk which includes factors like smoking habits etc, domains of the family relationship like conflict and cohesion, and depressive symptoms. The findings of the study indicated that those adolescents who scored low in depressive symptoms had a higher quality of family relationships and were more into extra-curricular activities.

A literature review of 22 articles about adolescent depression showed that family conflict can lead to the development of depressive symptoms among adolescents. An unresolved family conflict is related to greater depressive symptoms. The father-adolescent conflict was found to be more strongly related to depressive symptoms than mother-adolescent conflict (Cook et al. 2009).

Singh and Udainiya (2009) conducted a study on 100 adolescents from joint and nuclear families. The investigation was carried out to see the effects of different types of family and gender on the adolescents' well-being and self-efficacy. It was found that there existed a significant effect of the type of family and gender on the self-efficacy of the adolescents, but gender and the type of family did not show any significant effect on the wellbeing measures.

An et al. (2010) did a comparative study of the influence of various parental factors which included being satisfied with one's family, having an ailment and being satisfied with one's health on suicide ideation among adolescents. Other parental variables like fathers' satisfaction with health, insufficient sleep of mothers, history of parents' suicide ideation, and satisfaction with the family, and suicide ideation were also compared. The study was conducted on 2965 adolescents between the age ranges of 15- 18 years along with their parents. Gender as a factor was also assessed. The results of the study revealed that adolescents with suicide ideation had a significant difference with the non-suicidal adolescents on family factors. Females were at high risk when it came to factors like insufficient sleep, dissatisfaction with one's health, and dissatisfaction with family. The psychosocial factors were found to have more influence on adolescent suicide ideation than genetic factors.

Desha, Nicholson, and Ziviani (2011) researched adolescent depression and the time that they spent with the parents and siblings. The result of the study was such that the time spent with parents and siblings was directly linked with the severity of symptoms of depression.

Lipps et al. (2012) examined the relationship between parenting practices and depression among 10th-grade adolescents from Jamaica. The data was measured using the Parenting Practices Scale and the Beck Depression Inventory-II. The results showed that 52.1 % of adolescents had mild to severe symptoms of depression and 29.1% reported having moderate to severe symptoms of depression. Authoritative and Permissive style of parenting was also associated with lower levels of depressive symptoms among adolescents.

Zgambo et al. (2012) did a review of the literature to study depression among Chinese children and adolescents. The results of the review showed that the prevalence of depression symptoms in Chinese children and adolescents was high. due to the factors that include family relations, social factors, peer relations, gender, age, obesity, body image, and ethnicity.

Gate et al. (2013) conducted research to find out the relationship between adverse family environment and depression in adolescents. 163 mother-adolescent pairs were taken up for the study and the results showed that depression was related to low levels of positive maternal behaviour.

Sigfusdottier (2013) in his study examined depressed mood and anger as a mediator in family violence or conflict and sexual abuse with suicide ideations and attempted suicide among adolescents. The sample size was 9085 participants who were high school students of Iceland during the year 2004. The age of the participants ranged from 16 years to 19 years. Agnew's general strain theory was used as the theoretical framework for the study. The findings reveal that anger and depressed moods mediated conflicts or family violence along with variables like sexual abuse and also related to attempts of suicide among adolescents. It was further noted that on investigating the relationship between mediating pathways, sexual abuse, and family violence or conflict on suicide ideation, depressed mood acted as a single independent factor in mediating suicide ideation role but anger did not.

Bagi and Kumar (2014)examined relationships in between subjective well-being and family environmentof adolescents. Data were analyzed using statistics such as Pearson product-moment correlation and descriptive statistics. Results indicated that there was a significant positive correlation between expressiveness and cohesion,

acceptance and caring along with conflict and cohesion. However, there was no significant positive relationship between subjective well-being and any of the family environment dimensions.

Biglan et al. (2014) conducted a study to examine the experiential avoidance's role on family conflict and depression in early adolescents who were in grades 6, 7, & 8. The results of the study showed that depression is associated with experiential avoidance and it is present in families who had high conflict. Adolescents who were female had significantly higherexperiential avoidance than male adolescents had and were differentially affected by conflicts in the family.

Lin et al. (2014) analyzed suicide ideation among adolescents who came from distinct families with different school backgrounds. The study had 979 participants from elementary schools in Miaoli, Taiwan. The variables of the study included suicide ideation, depression, demographic characteristics, family, and school. The results of the study were such that 175 students exhibited 17.9% depression and 146 students showed 14.9% contemplating thoughts about suicide. The independent factor that was the most important for predicting suicide was depression which had a 3.7-fold risk, followed by a quarrelsome family environment rather than children who lived in a harmonious environment. The children who were depressed and witnessed family conflicts showed 27 times high risks for suicide ideation than non-depressed participants living in a harmonious environment.

A study conducted by Sharma and Mazmanian (2014) examines the relationship between family environment and depression among adolescents in Chandigarh. BDI and FES was used as scales for the study. The findings were such that there was a significant negative correlation between depression and dimensions

of family environment like expressiveness, independence, recreational orientation and cohesion. There was a significant difference between girls and boys only on the organization dimension. Those adolescents who had scored high on cohesion, expressiveness and independence had low scores in depression.Furthermore,a congenial family environment is necessary for the proper overall development of adolescents.

Kenchappanavar et al. (2015)did a study to see family environment's influence on the study involvement of adolescent students. The sample consisted of 110 students of class IX and data were analyzed by multiple stepwise regression. Results indicated a positive relationship between dimensions like cohesion, expressiveness, and acceptance and caring with study involvement and cohesion as the strongest predictor of study involvement, whereas, there was an inverse relationship between study involvement and conflict.

Van et al. (2016) conducted a study to examine the impact of family relationships and friendships in the development of depressive symptoms among adolescents exposed to Early life stress (ELS) including family adversities. 771 adolescents were taken comprising of 477 boys and 322 girls from a longitudinal study of 3 years. The results showed that family support acted as a mediating link between stress and the development of late adolescent depressive symptoms among boys and girls by the age of 17 years. Therefore, healthy family environments help to reduce depression and stress among adolescents.

Strong family support acts as a protective factor for the risk of development of depressive and anxiety symptoms in adolescents. Ahookhosh et al. (2017) conducted a study in Iran to study the prevalence of hopelessness and depression among

adolescents as mediated by disrupted family relationships. The sample comprised of adolescents, 30 males and 90 females who attempted suicide and were hospitalized for self-poisoning. The results of the study showed that weak family cohesion exerted negative effects on adolescents and made them prone to depression and positively associated with suicide ideation.

2.3 SELF-ESTEEM AND DEPRESSION IN ADOLESCENTS

Robertson and Simons (1989) studied the link between family environment, self-esteem, and depression among adolescents. 300 adolescents were chosen for the study and data was collected through an interview method. Self-esteem displayed a strong association with depression. Perceptions of self-worth can always act as a variable over time, for some people with dramatic reductions in self-esteem can cause depressive symptoms.

A study conducted by Lou (1999) investigated the stress and mental health condition of secondary school students. 2,986 students between the age ranges of 15 years to 19 years were taken into consideration for the study. The study resulted that adolescents in Urban China who experienced mental health problems and stress were social oriented.

McGee et al. (2001) examined the longitudinal relationship between hopelessness along with self-esteem and thoughts of delf harm in mid childhood years and suicide ideation during the ages of 21 and 18. A separate model for boys and girls was established. The chosen variables showed a relationship in a way that during childhood, low self-esteem and feelings of hopelessness had a strong link to self-harm

and suicide ideation in early adulthood. There was a small but significant effect was also seen in self-esteem on suicide ideation among females.

Otsuki et al. (2003) examined the relationship between self-esteem and depression with tobacco, alcohol, and other drugs (ATOD) among 4,300 Asian American high school students of California. There were five subgroups of Chinese, Japanese, Korean, Filipino, and Vietnamese students. The correlations revealed that factors like cigarette, alcohol, and marijuana use correlated with high depression and low levels of self-esteem in females than it did in males. It was also found that depression among females had a significant relation with alcohol and tobacco use but self-esteem was not related. However, marijuana use did not significantly contribute to depression and self-esteem.

Trzesniewski et al. (2006) conducted a longitudinal study that resulted in the findings that low self-esteem between the ages of 11 years and 15 years increases the probability of having major depressive disorder at the age of 26 years.

Dixon and Kurpius (2008) examined the interrelationship among 4 variables which were depression, stress, college students mattering, and self-esteem. 256 females and 199 males between the age range of 18 to 23 years participated in the study. Women reported to have greater depression, mattering, and college stress. Stress and depression accounted for 13.8% and 39.4% by sex, self-esteem, and mattering. 49.1% of the variance was accounted for in the full model which included sex, self-esteem, and mattering enhancing the prediction of depression by stress.

Orth, Robins, and Roberts (2008) conducted two longitudinal data sets studies with respect to two models,the data sets were conducted repeatedly between the ages

of 15 to 21 years and 18 to 21 years. The findings of the study showed that subsequent levels of depression were predicted by self-esteem but self-esteem was not predicted by depression.

Dehart et al. (2009) conducted a qualitative study that went for 30 days on self-esteem, interpersonal interactions, and consumption of alcohol among students of Loyola University, Chicago. The data were analyzed through multilevel analysis and it was revealed that adolescent students who had low self-esteem drank more during the days as they had experienced more negative interpersonal interactions. Those students who had high self-esteem in contrast drank more during the days when they had experienced positive interpersonal interactions. It further implicated that people who had low implicit self-esteem may unintentionally drink as a way of regulating the unfulfilled need to be accepted while the adolescents who had high implicit self-esteem may drink as a way of enhancing their positive interpersonal experiences.

Yaacob et al. (2009) studied 1,407 secondary school students with ages ranging from 13 years to 17 years on the degree of relationship between stress, self-esteem, and loneliness. The findings of the study showed that stress, self-esteem, and loneliness have a moderate but significant relationship with depression.

Li et al. (2010) studied to find out the relationship between mental health, self-esteem, and physical health among 1,945 Chinese adolescents between the ages of 12 years and 19 years. The results of the study gave a clear indication that self-esteem among adolescents had correlated with the mental as well as the physical health of the adolescents and self-esteem was a predictor of mental as well as physical health.

Kuhlberg, Peña, and Zayas (2010) studied 226 Latino adolescents with a previous history of suicide attempts through path analysis. The findings suggested an association between suicide and self-esteem. Low self-esteem in individuals may act as a contributing factor for attempting and committing suicide.

Grotmol et al. (2010) did a longitudinal study for 10 years among 631 Norwegian adolescents to study if self-esteem and parental bonding acted as predictors of severe depressive symptoms. The findings of the study revealed that low self-esteem was a mediator between depressive symptoms and parental bonding.

Sowislo et al. (2012) carried out longitudinal studies to investigate the relationship between low self-esteem with depression and anxiety. 77kinds of research on depression and 18 on anxiety were taken for the study. The participants for the study were from childhood till old age.Results showed that there was a significantly strong effect of self-esteem on depression. It was also revealed that the effect had no significant association with gender, age, measures of self-esteem and depression, or even the time gap between assessments. The study further proposed that interventions designed to increaseself-esteem might have a chance of reducing the risk of depression.

Mahoney, Edelman, and Cremer (2013) tried to associate implicit and explicit self-esteem along with their interaction withloneliness, depressive symptoms and suicide ideation. 95 female students for Netherland were taken up for the study and variables were measured using NLT, Rosenberg Self-esteem Scale, Beck Depression Inventory, Heilbron and Prinstein Suicide ideation Scale, and UCLA Loneliness Scale-Revised. The result of the study found out that damage in self-esteem was consistently associated with loneliness, increased levels of depressive symptoms, and

suicide ideation. The study revealed that specifically damaged self-esteem was a significant marker for depressive symptoms, loneliness, and suicide ideation among adolescents.

Isomaa et al. (2013) examined associations between self-esteem, social anxiety, and depression through a prospective population cohort study. The participants consisted of 2070 adolescents of 15 years of age inclusive of 1,167 girls and 903 boys. The participants were from two cities in Finland and came for a 2-year follow-up. The findings of the study were that self-esteem was related to depressive symptoms and low self-esteem might have acted as the indicator for various forms of psychopathology internalization.

Steiger et al. (2014) conducted a longitudinal study on 1.527 adolescents to investigate the effect of low self-esteem on depression.Self-esteem was assessed every year from the age of 12 years to 16years while depression was assessed at the ages of 16 years and 35 years. The results showed that individuals with low self-esteem and who had entered the adolescent years were more likely to show depression later when they are adults. Low self-esteem acts as a predictor of depression in adolescence and young adulthood.

Schone, Tandler, and Pelster (2015) conducted a research study to examine contingent self-esteem and vulnerability to depression. The study was conducted on 1888 students aged 10-16 years using SEKJ (Selbstwertinventar fur Kinder Und Jugendliche) for self-esteem and DIKJ (Depressionsinventar fur Kinder and Jugendliche) for depressive symptoms. The findings of the research study revealed that there was an emergence of gender difference after the age of 10 or 11 years, wherefemales had higher scores on the contingent of self-esteem as well as depressive

symptoms and had lower scores on self-esteem than their male counterparts. The study also suggested an influence of contingent self-esteem on depressive symptoms.

Babore et al. (2016) attempted to study the characteristics of symptoms of depression during early adolescents, to explore self-esteem levels and perceived paternal as well as maternal emotional availability as predictors of depressive symptoms. The study was conducted on 594 adolescents with 50 percent females with the mean age of 12.11 years. The findings showed a slight high but not statistically significant levels of depressive symptoms in girl participants. Further, it was noted that self-esteem was by far the most relevant predictor of depression followed by maternal and paternal emotional availability.

Manna et al. (2016) conducted a study to find out the relationship between low self-esteem, depression, and anxiety disorders. The study was conducted on adolescents aged 11 to 14 years. The findings of the study suggested that the effect of self-esteem on depressive and anxiety symptoms was significantly higher than the effects of anxiety and depression on self-esteem. The findings further revealed that both the genders were positively associated with anxiety and self-esteem; however, girls tend to report higher levels of anxiety than boys.

Moksnes et al. (2016) also conducted a cross-sectional study to investigate the domains of self-esteem and stress on depressive symptoms in Norwegian adolescents. About 1239 adolescents were considered for the study and results showed that girls scored higher on stressor domains like peer pressure, school performance, and conflict while boys scored higher on the domain of self-esteem. Self-esteem was found to be a strong moderator between the stressor and depressive interactions playing a significant role in the experience of depression among adolescents.

Depression among adolescents can impair their educational as well as social life. This can also act as a risk factor for substance abuse and suicide ideation. Fiorilli et al. (2019) conducted a study to investigate the association between self-esteem of an adolescent in terms of quality of relationships, negative emotions management and control over life events, and the manifestation of depressive symptoms among them. 182 Italian adolescents between 10 to 14 years from three Italian schools were included in the study. The research results indicated self-esteem as an important factor in the development of depressive symptoms among adolescents. In particular, issues with family members and friends increased depressed mood among adolescents and negative impact on their sense of identity and self-esteem.

2.4 DEPRESSION IN ADOLESCENTS

Rutter (1976) found out that only 1 in 9, children of 10 years of age reported feelings of depreciation, moodiness, depression, and misery when they were compared to adolescents aged between 14 to 15 years who had 40 % prevalence. Almost 8% of the participants reported having feelings of suicide when it was compared to their parents' feelings of depression and misery depicting more common in adolescents.

Inamdar et al. (1979) studied adolescents who were hospitalized, and the study results showed that adolescents have different patterns of depression than depressed adults and they do not show the usual patterns of slow thoughts, loss of appetite, diminished libido, and irritability.

According to the study done by Mezzich (1979) adolescents with depression fear social abandonment and they experience social frustration more than adults do.

They also show acting out behaviours like running away from their homes and show aggressiveness.

Gotlib (1984) examined the relationship between a few self-report assessments of other forms of psychopathology and self-reported depression in subclinical populations. The participants taken for the study were 475 undergraduate students comprising 147 males and 296 females in the University of Western Ontario. The measures used were Beck Depression Inventory, D-30 Scale, Dysfunctional Attitude Scale, Trait Anxiety Inventory, Multiple Affect Adjective Check List, Symptom Check List-Revised, and Rathus Assertiveness Schedule. The results of the study showed moderate to strong correlations that were all significant for all measures employed in this study. It was concluded that self-report measures of adolescents depicted types of maladaptive functioning that might assess dysphoria, malaise, or general psychological distress. The results indicated that the depressed students in the study would have been engaged in different types of maladaptive functioning and would also have been labelled as anxious, unassertive, attitudinally dysfunctional rather than being labelled as depressed. Thus, according to the study, Beck Depression Inventory was more of a measure of general psychopathology rather than a specific measure of depression when it was measured among psychiatrically normal students.

Connelly et al. (1993) conducted a study wherein the results depicted that 18.1% and 50% of high school adolescent students experienced depression in some form. Adolescents are perceived to be healthy amongst other age groups and still, 20 percent of the adolescents experience mental health problems among which the most

common are depression or anxiety. According to a study done by Yang and Clum (1994), depression had a direct influence on suicide ideation.

Upmanyu and Upmanyu (1994) conducted research to investigate the relation of depression to sex-role orientation and hopelessness among 100 female (16 years to 20 years) and 100 male (17 years to 20 years) students. The participants were assessed using the Bem Sex-Role Inventory, The Beck Depression Inventory, and Hopelessness scale. The results of the study indicated that females than males exhibited depressive symptoms more. The gender difference was evident as females had a mean value of 22.26 and males had 17.18 on hopelessness. It was further noted that in respondents with a lower-than-average level of hopelessness, sex-role orientation was not important when it came to gender differences.Sex–role orientation affected differences in gender in respondents who had higher than average levels of hopelessness. Severe depression tendency was seen in female respondents who had masculine orientation than males did. Lastly, both the males and females that had undifferentiated sex-role orientation and high hopelessness had a higher tendency towards depression.

De Man (1999) examined a relationship between suicide ideation and variables which included age, gender, self-esteem, locus of control, stress, social support health, alcohol use, drug use, and anomy. The effect of depression was removed. 200 English- Canadian participants including 104 boys and 96 girls who studied in two regional high schools with the age range of 12 to 18 years with the mean age of 14.9 years and SD of 1.6 participated in the study. In addition, 558 French Canadian participants included 272 boys and 286 girls with the age range of 11 years to 18 years with a mean of 14.0 and SD of 1.5 participated in the study. The

correlation analysis showed that there was a reduction in the relationship between almost all the variables and suicide ideation when the effect of depression was removed. Partial correlation analysis of the relationship of suicide ideation with individual variables also revealed that there was a significant loss for all correlations except with health and alcohol use. The multiple regression analysis identified depression with 36.8% as the single predictor for suicide ideation.

Kalia and Sheoran (2000) investigated the effect of caste, gender, and residence on depression. The study was conducted on 80 students who were in 8th standard from Rohtak district in Haryana and were equally divided based on their case, sex, and residence. The scale used for the administration was the Children's Depression Scale. The findings of the study indicated that the female students scored significantly higher on the full 'D' scale than male students. The students belonging to the scheduled caste category scored significantly high on self-esteem, sickness, death, total depression, and the full 'D' scale. However, no significant difference was seen among rural as well as urban students on subscales of depression.

Takakura and Sakihara (2001) tried to determine the psychosocial factors which were associated with the depressive symptoms which were persistent among high school students of Okinawa, Japan. 3,202 high school students from 12 different public senior high schools participated in the study. The study was conducted with the help of measures like the Centre for Epidemiologic Studies depression scale. The students were also asked to report if any time in the immediate past week they had depressive symptoms and whether those symptoms persisted for 5 to 7 days. The variables examined were perceived social support, life stressors, health practices, locus of control, and self-esteem. The result of the study showed that depressive

symptoms had a positive association with life stressors that included friends, family, and teachers. The association between persistent depressive symptoms with variables like friends, family, and teachers was found positive. Positive health practices showed significant negative associations between depressive symptoms and variables like internal locus of control, high self-esteem, and social support.

Ganguli (2003) examined factors like growth, beliefs, emotions, ambitions, and their relationships with teachers or parents of 230 adolescents studying in 8th and 9th grades. The participants were from rural areas of Maharashtra. The findings suggested that 57 male students who made 58.76% and 61 female students who made 60.9% felt changes in their mood. It was also found that female students (80.4 %) felt more depressed as compared to male students. The most common variable associated with depression was found to be loneliness.

Seguin et al. (2003) conducted a case study under a controlled setting. The study was conducted to investigate adolescent depression, parent-child relations, and family psychopathology. Three groups of adolescents were taken up for the study. The first type of adolescents had at least one parent who has had or was still experiencing mood disorder and those adolescents were currently depressed. The second group of adolescents was those who were currently depressed, and their parents were never diagnosed with mood disorders. Lastly, the third group of adolescents was never depressed. The participants were administered using a Schedule for affective disorders and schizophrenia- children's version or structured clinical interview for the DSM-IV, the parental bonding instrument, the life events checklist, and Beck Depression Inventory. The results showed that life events, parent-child relationships, and parental psychopathology were all factors that were relevant

in adolescents' depression and that it was an important factor to consider for prevention, assessment, and intervention efforts.

Galambos, Leadbeater, and Baker (2004) conducted a study on a sample of 1,322 adolescents within the age range of 12 years to 19 years of age. The research was conducted to examine differences in gender and various factors that pose a risk for depressive symptoms and major depressive episodes. The results of the study were such that there was a significant difference in gender with girls having more levels of depressive symptoms and the prevalence of major depressive episodes than boys. No significant increase was seen in the depressive symptoms among early adolescents. The decrease in the level of social support and increase in smoking was related directly to depressive symptoms.

Hammack, Robinson, Crawford, and Li (2004) examined the role of family stress as a mediator between poverty and depressed mood. The study was administered among African American adolescents. 1,704 adolescent participants came from low-income backgrounds. The findings of the study were such that almost half of the adolescents, 47%, made the report of clinical depression. In the gender field, it was noted that females had higher levels of family stress and scored high on the poverty index. These factors were related to increased levels of depressed mood. Family stress scored 50%, which also indicated as a significant mediator between poverty and depressed mood in adolescents.

Nair, Paul, and John (2004) researched to study the prevalence of depression among adolescents in Kerala. The finding of the study was such that 22.4% of girls and 12.8% of school-going boys had depression. It was also further revealed that girls who had dropped out of school (11.2%) had severe depression that was comparatively

more than school-going girls (2.8%).Greca and Harrison (2005) studied multiple levels of adolescents' interpersonal functioning which included general peer relations (i.e. peer crowd affiliation and peer victimization), romantic relationships, and qualities of best friendships as predictors of social anxiety and depression. 421 adolescents were taken up for the study and measured under qualities of best friendship, romantic relationships, peer crowd affiliation, and peer victimization. The result of the study demonstrated that adolescents' feeling of social anxiety was protected by factors like peer crowd affiliations (low and high status), positive qualities in best friendships, and the presence of dating relationships and high social anxiety was related to relational victimization and negative interactions in best friendships. The results further showed that high-status peer crowd affiliation gained protection against depressive affect. Depressive symptoms were predicted by relational victimization, negative qualities of best friendships, and romantic relationships.

Macphee and Andrews (2006) conducted a study to understand the risk factors for depression among 2,014 early adolescents of the age range of 12 years and 13 years. The results of the study showed that self-esteem to be the strongest predictor of depression in male and female adolescents along with another predictor being parental behaviour.

Krishnakumar and Geeta (2006) did a retrospective study to evaluate the risk factors, co-morbidity of depressive disorders, and the clinical features among the children in Calicut, Kerala. DSM IV was used as the diagnostic base for Major Depressive Disorder, Single Episode. The study was conducted on 26 boys and 19 girls. The analysis revealed that 18 % (8) had mild depressive symptoms, 56% (25)

had moderate depressive symptoms and 26% (12) had severe depressive symptoms. 73% of the children (33) with the depressive disorder had experienced stress at school or in the family and 18 % of the children had experienced stress both in school as well as within the family.

Saluja et al. (2006) did a cross-sectional study in determining the prevalence, risk behaviours, and risk factors concerning depressive symptoms in a nationally representative sample of young adolescents of the United States. The survey which was school-based was collected through the measures of self-administered questionnaires from the grades of 6, 8, and 10. The participants consisted of 9,863 students. The result of the study indicated 18% of the participants reported having symptoms of depression. 25% of females reported having depressive symptoms while 10 % of males reported having depressive symptoms. The depressive symptoms increased as the age increased in both males and females.

Sidhu (2006) examined depression in late childhood and early adolescence. 1000 students were taken into consideration for the study. They were assessed using the Children's Depression Inventory for late childhood and Beck's Depression Inventory for early adolescence. The results of the study showed that female and male children in late childhood had high rates of depressive symptoms in the Children Depression Inventory. However, differences were seen in the severity of the symptoms. Females had more symptoms of depression like spells of crying, loss of libido, loss of concentration than males did. Males had a lower prevalence of depression than females. Females and males' difference during adolescence was seen in depression. Females reported spells of crying, sleep disturbances, fatigability,

diurnal variations, psychomotor retardation, self-depreciation, and suicidal thought symptoms more than males during early adolescence.

Asal and Fattah (2007) studied the prevalence, various symptoms along with the risk factors of depression among students who were in high school in Saudi Arabia.The total number of participants was 490 where 306 were males (62.4%) and 184 were females (37.6%) with the age ranging from 16 years to 20 years. The study was done through a survey method between January to May 2005 in Saudi Arabia. The measure used for the study was the Arabic version of the Beck Depression Inventory. The results of the study showed that the girls had a 1.5 times higher prevalence of depression than did boys. The data were analyzed using the multivariate logistic regression analysis and it was analyzed that the most significant risk factor was gender, the order of birth, previous history of psychiatric illness, relative loss history, and history in the family with chronic disease. The factor analysis resulted in the revelation that factors like agitation, self-criticalness, and energy loss had the highest scores in total. Energy loss, self-criticality, feeling of punishment, and agitation had the highest scores in males while agitation, self- criticalness, and crying were high among females.

Revah et al. (2007) conducted a cross-sectional study on depression among 402 adolescents within the age range of 13 years to 20 years was taken up for the study. They had attended the outpatient clinic or were hospitalized between November 2003 and May 2004 at 15 medical centers in France, Brussels, and Geneva. The results of the study showed that 126 adolescents suffered from depression, 139 adolescents had experienced depressive episodes but not Major Depressive Disorders and 137 adolescents did not suffer from depression.

Bettge et al. (2008) did a study to investigate risk factors, depressive symptoms, the co-morbidity, and the impact of depression on adolescents' daily life in Germany. The results indicated that the depressive symptoms had a high prevalence in self-reports and parents. High depression correlated with a high number of psychosocial risks that existed in the family and the increase in the protective factors of the adolescents led to the decrease of depressive symptoms. All the adolescents had a high risk of additional mental health problems even if only half of the boys and girls with high depression were considered as significantly impaired.

Bansal, Goyal, and Srivastava (2009) conducted a cross-sectional, one-time observational study to study the prevalence of depression among adolescents in a public school. The results indicated that certain factors likethe inability to cope up with studies, getting beaten up at home, and fights between parentshad a high correlation with stress and economic difficulty. Physical punishment at school and parental fights showed high significance in the Beck Depression Inventory that indicated depression.

Chabrol and Choquet (2009) evaluated the depressive symptoms' incidence and suicide ideation in school students. 1,547 high school students from Haute-Garonne, France were taken as participants through random sampling. The participants consisted of 854 girls with a mean age of 16.9 and 693 boys with a mean age of 17.4. The assessment was done with the help of the Center for Epidemiological Studies- Depression Scale and the 3 items subscale which measured suicide ideation which was proposed by Garrison. The result of the study demonstrated 13% of boys and 14% of girls had occasional suicide ideation and 19% of boys and 34% girls

reported of having moderate to severe depressive symptoms. The results also indicated a strong relationship between suicide ideation and depressive symptoms.

Charbonneau, Mezulis, and Hyde (2009) studied gender differences in stress and emotional reactivity in adolescents' depressive symptoms. The research was conducted on 315 adolescents and the resultswere such that stressful events acted as a significant mediator for the gender difference in depression. A significant gender difference was also found for emotional reactivity.

Ghaderi, Kumar, and Kumar (2009) conducted a study to compare Indian students and Iranian students on the account of experiences of stress, anxiety, and depression. The participants consisted of 160 students (80 Indian and 80 Iranian) studying postgraduate and Ph.D. courses in various departments of the University of Mysore. The participants for the study included both male and female students. The scale used to assess depression, anxiety and stress was The Depression Anxiety Stress Scale. The result of the study showed that depression, anxiety, and stress among Indian students were significantly high compared to Iranian students. There were no significant gender differences found.

Zuniga et al. (2009) conducted a study to find if depression and family conflicts are related to adolescents. 342 participants with a mean age of 13.4 years were taken for study. They were administered on the Family Environment Scale and Beck depression inventory. The data were analyzed using Pearson's product-moment correlation method and ANOVA. The study indicated that depression had significant negative correlations with family cohesion, and it was noted that the significance was only with the effects of relations.

Deb and Chakraborty (2010) conducted research among adolescents who were from Kolkata. It was reported that 25% of adolescent girls and 10% of adolescent boys were suffering from severe depression. Loneliness and high expectations from the parents for better performance in the academic field were the main predictors of depression.

Upmanyu et al. (2010) conducted a study to examine differences in gender-based variables like negative cognition, stress, social support, and depression. There were 400 participants comprising 200 males and 200 females within the ages of 15 years and 17 years. The scales used to measure included Zung's self-rating depression scale, Automatic thought questionnaire, Social support questionnaire, and Perceived stress scale. The findings reported that males and females had no differences in depression, negative cognition as well as stress. It was found that females scored high on perceived social support both qualitatively and quantitatively than males did.

Auerbach et al. (2011) investigated the relationship between social support, stress, and depressive symptoms. 258 adolescents were taken as participants for the study. The study resulted in the finding that lack of parental support and classmate support has a significant role in predicting depression in adolescents.

Joseph (2011) conducted a study in South India. It was found that 79.2% of adolescents were depressed out of which 41.2% were found to be suffering from moderate depression. 26.6% of adolescents were suffering from mild depression. It was also observed that the prevalence and severity of depression increased significantly with the age of the individuals.

Black, Roberts, and Li-Leng (2012) conducted a study on a sample of South Australian adolescents within the age range of 13 years to 18 years to find the prevalence of depression. The findings of the research revealed that 18% of adolescents were assessed positive for depression, 41 % reported low mood and 20% showed mood disorder occurring occasionally or frequent self-harm. It was further revealed that females were more depressed (23%) than males (11.8%).

Goodwin, Mrug, Borch, and Cillessen (2012) studied the role of peer selection and socialization in depression among adolescents. 367 adolescents from 6th to 11th grade were taken up for the study. The result of the study showed that the students selected those friends who had similar levels of depression.

Marcus et al. (2012) cited that depression is the leading mental disorder affecting 350 million people worldwide and people under the age of 20 years are at high risk. Depression correlates with suicidal thoughts and there are studies conducted in revealing the truth.

Tiwari and Ruhela (2012) examined the relationship between social isolation and depression in adolescents along with gender differences in those variables. 300 adolescents consisting of 150 girls and 150 boys from Delhi within the age of 16 years and 18 years were taken in for the study. The study was done using the Youth Problem Inventory and the results showed that girls had scored high on depression and social isolation when they were compared to boys.

Araya et al. (2013) studied depression among school students (Santiago, Chile) through randomized clinical trials. 2,512 secondary school students from 22 schools and 66 classes were taken under consideration for the study. The assessment

was done using Beck Depression Inventory-II at 3 months and 12 months after the completion of the intervention. The results of the study were such that 1291 participants were in the control group and 1221 were in the intervention group. There was no significant clinical difference in the mean depression scores between the two groups or for other outcomes after 3 months of completion of the intervention. There was no significant difference seen in any outcome after 12 months of completion of the intervention.

Gupta and Basak (2013) illustrated that in West Bengal, depression had a prevalence rate of 45.3% among adolescents which was mostly categorized as mild type (34%), 6 % fell under the category of moderate type and 5.3% fell under the category of severe depression type.

Choi and Jang (2014) investigated the structural relationship between life stress, suicide ideation, and depression. 285 students were selected from five middle schools located in Gyeongsangbukdo and Seoul, Korea. The SPSS analysis was done to analyzethe causal relationship between the latent variables and it showed that suicide ideation was influenced by depression being a direct factor and life stress, an indirect factor. Depression acted as a mediator between stress and suicide ideation that were statistically significant.

Othieno et al. (2014) did a cross-sectional study on the prevalence and socio-demographic correlates of depression among students in Kenya. 923 Nairobi students comprising 525 males and 365 females were selected through random sampling and were interviewed. The depressive symptoms in them were assessed using the Centre for Epidemiological Studies Short Depression Scale – 10. The results of the study revealed that the moderate depressive symptom prevailed among 33.5% males and

39% females and the prevalence of severe depression was 5.3% in males and 5.1% in female participants.

A study was conducted to examine the effect of stream and gender on depression in adolescents. The tool used was Beck Depression Inventory-II, and data was analyzed through 2X3 ANOVA and t-test. Results showed a significant interaction effect of gender and stream on depression and both depended on each other to affect the depression score. Boys showed lower scores than girls and art students were more depressed than science and commerce students. The findings of the study showed a clear effect of gender and stream on depression among adolescents (Sharma, 2014).

Vashisht et al. (2014) carried out cross-sectional research to examine the prevalence of depression along with the socio-environmental risk factors that are associated with it on adolescents who go to schools. The scales used for the study included the depression subscale of symptom checklist 80 (SCL 80) and a self-report questionnaire was used to assess the effect of socio-environmental factors. Results indicated that 29.9% of adolescents had depression with a cut-off score of >13. Most of the students who belonged to the depression syndrome group were also suffering fromthe mild category, followed by the moderate category. Depression was associated with increasing age, urban students, and low socioeconomic status.

Verma, Jain, and Roy (2014) carried out a cross-sectional questionnaire-based study among 321 students of class 12 across various education boards in Raipur city. The study assessed the prevalence and grades of depression. Chi-square test was used as a statistical tool and the results indicated that 40.49% of students were mildly depressed and 19% had major depression. The percentage of students with depression

was highest among students of the I.C.S.E. board and females were found to be more depressed than males.

Depression is also prevalent among adolescents in Uganda and to study this, Sserunjogi et al. (2016) conducted a cross-sectional study using descriptive design toanalyze the prevalence of depression among Uganda school-going adolescents. 519 students participated in the study by filling of standardized questionnaires and screened for depression using the Children Depression Inventory (CDI) and Mini International Neuro-Psychiatric Interview for Children and Adolescents 2.0 (MINI-KID) for adolescents who scored cut-off of 19 in CDI. The results of the study showed that significant symptoms of depression prevailed among the school-going adolescents in Uganda that may progress to severe depression and thus, require urgent intervention to treat and prevent depression.

Depressive symptoms among adolescents in Germany is a major public concern. To investigate this, Wartberg, Kriston, and Thomasius (2018) conducted a study among 1001 adolescents between the age 12 to 17 years between August and September 2017 in a two-week telephonic interview about their psychosocial features through the DesTeen instrument that included questions regarding feelings of worthlessness, loss of interest, depressed mood, cognitive symptoms and guilt feelings. The results revealed that depressive symptoms prevailed mostly among girls in terms of poorer academic performance, negative feelings about their body image, low family functioning, and interpersonal trust. Therefore, it can be concluded from the study that German adolescents do suffer from depressive symptoms and problems related to social media use them.

2.5 DEPRESSION AND SUICIDE IDEATION IN ADOLESCENTS

Murray (1973) conducted research to examine suicidal and depressive feelings among students in college with the help of a questionnaire. The results were such that over 40 % percent of the college students had the thought of killing themselves while less than 10% denied feeling discouraged deeply and feeling unhappy. The reports also suggested that the students told their friends about such thoughts and the friends belonged to the same sex as the respondents. The various variables of locus of control, social desirability, and anxiety test measures were not related to suicidal thoughts and depressive feelings. The data of the study correlates with the other literature that indicates the manifestation of deeply dysphoric thoughts. The results of the study also indicated that people were most likely to experience such thoughts during some point in their lives and even among people who were considered to be normal, such thoughts may direct a person towards self-destruction. The investigator of the study had questions about the utility of reported suicidal thoughts and depressive feelings as predictors of suicidal behaviour.

Leonard (1974) conducted a similar study investigating the relationship between depression and suicidality on 38 male and 52 female inpatients from a voluntary psychiatric hospital located in the university medical school. The age range was from 15 -66 years. The educational level of the participants was high with 55 % having at least some college education. The results of the study indicated that suicidality ratings for 90 in patients correlated with 5 possible indices of depression, Minnesota Multiphasic personality inventory, self-ratings of depression, depression scale, alcohol, and drug use. Depression and suicidality emerged as a multidimensional factor structure and relatively independent factor. The suicidal

factor was not accompanied by indications of depressive affect, but it was by control of dependency problems and physical disequilibrium. Overt depressive measures were related to suicidality in specific and complex ways. The possible covert depressive measures of drug use and alcohol did not correlate or had a negative correlation with suicidality. It was also noted that depression was widely present among people who did not commit suicide. The reported depression in committed suicides may also have been due to the bias views of the observer as depression was an expected variable.

Dubow et al. (1989) stated that predictors of suicidal thoughts and behaviours included family discord, lack of support, and dysfunction in the family.

Kandel, Raveis, and Davies (1991) conducted research to study suicide ideation in adolescents and its link to depression, substance abuse, and other risk factors. The study was conducted on 597 students, 9^{th} and 11^{th} standard studying in urban schools. The results of the study indicated depressive symptoms as the strongest predictors of suicide ideation among other factors like drug involvement and delinquency.

Mitchell and Rosenthal (1992) in their study reported that family conflict was high in people who expressed suicide ideas with/ or depressive symptoms.

Juon et al. (1994) conducted a study on more than 9000 adolescents from high school in Korea. The results revealed depression as the strongest predictor of suicidal behaviour. The scores showed that students with high scores inthe depression variablewere more likely to attempt suicide and more likely to have suicidal ideas with a chance of 5.31 than those participants who had low scores in depression.

Dori and Overholser (1999) examined the relationship between depression, hopelessness, and self-esteem on suicidal behaviour in 3 groups of adolescent psychiatric in-patients with depression. The 3 groups comprised depressed adolescents who had never attempted suicide, adolescents who were depressed and who had once attempted suicide, and adolescents who were depressed and also had attempted suicideon several occasions and were compared with each other. 90 adolescent psychiatric inpatients from the adolescent unit of a private psychiatric hospital that was in the suburbs of a large metropolitan area. The age of the patients ranged from 13 years to 18 years. The results showed that suicidal adolescents experienced greater hopelessness and depression than non-suicidal adolescents. It was seen that all the 3 groups of depressed adolescents reported having low levels of self-esteem which was similar to each other. It was also revealed that the various strategies that focused on reducing feelings of depression and hopelessness could be beneficial for treating suicidal adolescents.

Stewart et al. (1999) conducted a study on adolescents from Hong Kong, found that there was a variety of stressors and depression among them, and reported a 33 % prediction of suicide ideation. Depression acted as a mediator between other stressors and suicide ideation.

Hesketh, Ding, and Jenkins (2002) examined the relationship between depression and attempted suicide and identified socio-demographic associations through the quantified rates and severity of self-reported depression and suicide ideation inmiddle–school students. There were 1,576 questionnaires that were all completed. The analysis revealed that 1/3rd of the students had suffered symptoms of severe depression, among them, 16% admitted to having suicidal ideation and 9% of

them admitted to having attempted suicide. The variables that were independently associated with severe depression included gender, poor self-reported academic performance, and rural residence. Suicide ideation and attempted suicide were also associated with similar factors. It was also seen that depression was less common in participants without siblings. The people who showed help-seeking patterns relied on friends and parents and there was a low level of the professional help-seeking pattern which was around 1% and 30% of the participants did not seek any help for psychological problems.

According to Kuo, Gallo, and Eaton (2004), the reason for no significant association between depression and new incidence of suicide ideation maybe because suicide ideation was one of the diagnostic criteria for depression and not because suicide ideation was not associated with depression. Their study also found that the association between suicidal behaviour and hopelessness was stronger than the association between depressive episodes or substance abuse and suicidal behaviours.

Sen (2004) researched adolescent propensity for depressed mood and seeking help and the differences in gender and race. The sample consisted of more than 9000 adolescents from 6th grade to 10th grade from different racial backgrounds like non-Hispanic whites, non-Hispanic blacks, Hispanics, and Asians. The aim of the study was to see the likelihood of seeking help and the source of seeking help. The results of the study showed that female adolescents were more likely to suffer from depressed moods than adolescent males. However, adolescent males were less likely to seek help than female adolescents. Blacks were at lower risk of self-injury; however, all minority groups were likely to suffer from depressed mood as compared to non-Hispanic whites. Asians and Blacks were more prone to not seeking help.

Kisch, Leino, and Silverman (2005) also conducted a study where the findings of the study showed that many students despite having depressive symptoms did not commit suicide and fewer attempted suicide.

Konick and Gutierrez (2005) tested college students on a model forsuicide ideation by studying various risk factors like depressive symptoms, hopelessness, and NLE,which were believed to be a common factor that correlated with suicide ideation in college students. The participants included 345 undergraduates within the age range of 18 to 40 years with an average age of 19 with an SD OF 2.02, where 231 were females making 67% of the total. The students were assessed using four self-report questionnaires. The data were analyzed using hierarchical regression in order to construct a risk model of suicide ideation. The findings of the analysis were such that hopelessness and depressive symptoms were predictors of suicide ideation among college students also NLE having an impact on suicidal thoughts through variables like depressive symptoms and hopelessness. It was also revealed that depressive symptoms had a stronger influence on suicide ideation than hopelessness. Depressive symptoms fully mediated the relationship between hopelessness and NLE, but hopelessness acted as a partial mediator in determining the relationship between depressive symptoms and NLE.Wilburn and Smith (2005) in their study indicated thatself–esteem and negative stress significantly correlated with suicide ideation.

Kerr, Preuss, and King (2006) conducted research to study the perceptions of social support from peers, family, and non-family adults concerning psychopathology reports obtained from 220 suicidal adolescents who were hospitalized for psychiatric problems. It was noted that for females, variables like depression, hopelessness, and suicide ideation were negatively correlated with family support, however, for males, it

was revealed that peer support was positively associated with depressive symptoms and suicide ideation. It was also seen that males perceived less peer support than females.

Liu (2006) examined the severity of depression and the relationship between friends' suicide attempts and an adolescent's own attempt to commit suicide and if there were any gender differences existed in this interrelationship. The findings suggested that friends' suicide attempts and adolescent depression each acted as a predictor for an adolescent's own attempt in committing suicide and it was prevalent in both boys and girls. Another significant finding of the study was that highly depressed adolescents were less likely to attempt suicide when their friends attempted suicide than low or non-depressed adolescents and this was observed mainly in adolescent boys. The last finding of the study showed that in adolescent girls, depression reduced the relationship between an adolescent's own suicide attempt and friends' suicidal attempt although this relationship was not statistically significant.

Shahar et al. (2006) examined the role of hopelessness and depression in suicidality. It was a systematic examination of the various causal models relevant to these variables. The data were treated with Structural Equation Modelling (SEM). The analysis revealed no longitudinal associations between depressive symptoms, hopelessness, and suicide ideation; however, they were synchronous.

Sun and Hui (2007) investigated the predictors of suicide ideation among the variables like family, school, peer, and psychological factors that were included in the study. The study was conducted on 1,358 Hong Kong Chinese adolescents with 680 boys and 678 girls. They were divided into younger age groups of 694 with a mean age of 12.3 years and older age groups of 664 with a mean age of 15.4 years. The

analysis revealed family cohesion and sense of school belonging as being the main predictors of self-esteem as well as depression. The results also showed that depression was a strong mediator for suicide ideation. Peer support was important in the prediction of suicide ideation among girls and younger adolescents while peer conflict was an important predictor for suicide ideation among older adolescents. Variables like family conflict, teacher support, and academic pressure did not correlate significantly in predicting suicide ideation.

Vanderwerker et al. (2007) conducted a study to investigate the risk factors for suicidality between African American and White patients vulnerable to suicide and the results showed that anxiety was one of the best predictors of suicidality and not major depressive disorders. The study concluded that white patients who were already at high risk for suicidality due to factors like substance abuse, illness, and anxiety predicted suicidality while major depressive disorder was not a predictor.

Law and Liu (2008) examined suicide in China and it resulted in several findings such as rural suicides outnumbered urban suicides in the ratio of 3:1.Many young adults and older adult suicides had occurred. The national suicide rate was high which was two or three times compared to the global average and the most prominent finding was that a low rate of psychiatric illness, depression in particular existed in suicide victims. It was suggested that these trends resulted from a high number of rural, young females who experienced acute financial or even acute interpersonal crisis, and then they would impulsively attempt suicide by consuming lethal pesticides or poisons. Factors like cultural –socioeconomic disadvantages among the Chinese rural females and cultural attitudes toward suicide were noted.

Kumar et al. (2012) examined through a cross-sectional study the prevalence of depression and suicide ideation and socio-demographic variables on adolescent students. The sample consisted of 3141 students from government residential and non-residential and private residential and non-residential schools and colleges. Suicide ideation was more among depressed students. Depression was found to be higher in students from residential schools as well as nuclear families. Depressed students had problems with their parents, siblings, friends, and teachers.

Suicide Ideation is the recurrent thought of committing suicide. Suicide ideation has been linked to depression, which often has been correlated to various factors like family discord, social influences, academic pressures, peer relationships, etc. One such study was done on a cross-sectional basis on 36,757 French adolescents (18,593 girls and 18,164 boys) who were all 17 years of age. They were examined on socio-demographic characteristics, drug use, family variables, depression, suicide ideations, and attempts. The results showed that the correlation of depression was more in girls (10.4%) than in boys (4.5%), 16.2% reported suicide ideation in one year and 8.2% also reported lifetime attempts of suicide.A negative relationship between parents and family discord was both associated with increased suicide risk in depressed adolescents (Consoli et al., 2013).

Lamis and Jahn (2013) examined the relationship between parent-child conflict, depression, anxiety sensitivity, and suicide ideation among undergraduate college students in Atlanta, USA. Transition theory was applied for this study and the results showed that depressive symptoms predicted suicide rumination uniquely and positively. It was also suggested to assess parent-child conflict in relation to their levels of depression and anxiety when one is being assessed for suicide risk.

Joffe et al. (2014) conducted a longitudinal study to examine the prevalence of suicide ideation or suicidal behaviour during the years 1983 to 1987 and also its association with future mental health in 2001 among 1248 Canadian adolescents aged between the age of 12 to 16 years. It was reported that among them 13.3% had suicidal ideation or suicidal behaviour. Major depression and other mental health predictors were explained through respondent sex and adolescent emotional problems that were reported between the years 1983 to 1987.

McLoughlin, Gould, and Malone (2015) in their article reviewed the past decade of research on teenage suicide from 2003 to 2014. Suicide in teenagers was found to be a major public health concern globally. Native and indigenous ethnic minority teens were found to have a significantly increased risk of suicide in comparison to general population peers.

Although this fact is known that bullying among adolescents is associated with suicide ideation, there is little evidence about the impacts of bullying and depression on suicide ideation. To study this impact, Hesapçıoğlu, Meraler, and Ercan (2018) conducted a study in Fujian province among 20,509 students from high school selected through stratified multistage sampling. They were asked to complete questionnaires on their health status and bullying categories of victimization, perpetration, and both. The results revealed a strong relationship between categories of bullying associated with increased suicide ideation risk. Besides, suicide ideation showed a relationship with perpetration among depressed adolescents and it can be concluded that bullying is associated with suicide ideation risk and affected by depression among adolescent students.

Hill et al. (2018) also conducted a study to examine the relationship between anxiety and suicide ideation through perceived burdensomeness and depressive symptoms. About 80 adolescents were included in the study between ages 13 to 19 years. The results indicated that a significant relationship exists between anxiety and suicide ideation through perceived burdensomeness and depressive symptoms and mental health professionals should work with adolescents feeling elevated anxiety through regular assessment for perceived suicide ideation and perceived burdensomeness.

2.6 SUICIDE IDEATION AND GENDER

The prevalence of suicide ideation in a community sample in France showed 14% for boys and 23% for girls (Choquet& Menke, 1990). Gender differences in terms of suicide ideation are a relatively important topic that has been researched. There have been various studies to show the correlation between gender and suicide ideation. One such study conducted analyzed that females have a greater fear of death and injury whereas males have a greater fear of social disapproval over having suicidal thoughts, which may account for a greater rate of suicide among males (Rich, Kirkpatrick, Bonner &Jans, 1992).

Lewinsohn et al. (1993) related that females possessed more risk factors for attempting suicide and were more vulnerable to suicidal risk factors than males. The ratio of attempted suicide was 1.2 times higher in women than in men in some studies (Bhatia, Aggarwal, & Aggarwal, 2000).

Kebede and Lem (1999) attempted to study suicide ideation and attempted suicide on 10,203 adults in Addis Ababa. The studies revealed that most of the

attempts (66%) occurred when the participants were under the age of 25 years. The men preferred to hang themselves while women preferred poisoning. Although no significant correlation existed between suicide attempts and sex, religion, or ethnic group, it was seen that suicide ideation was more common in men than in women.

Cheng and Lee (2000) conducted a study on suicide and concluded that the rates of suicide in most countries such as Denmark have a higher prevalence in males than in females. China is one of the exceptional countries which has high suicide rates among females compared to males, prevailing especially in young women in rural areas.

Kumar and Chandrasekaran (2000) conducted a study that showed that females outnumbered males when it came to suicide attempts. Tomori, Zalar, and Plesnicar (2000) in their study investigated suicide attempts and ideation among 4,590 high school students within the age range of 14 years to 19 years. The results indicated that girls reported suicide ideation and attempt along with other problems more than boys did.

Allison et al. (2001) conducted a study on young adolescent male and female students with the mean age of 13.5 years. The study showed that suicide ideation was reported more frequently by females than males that explained the high mean depression scores in females. Females had a significantly higher risk of suicide ideation even at moderate depression levels than did males.

Gururaj and Isaac (2001) conducted a study and found that that a higher incidence of suicide was found among women than in men in India but various other studies resulted in contrast findings. One such study concluded that the male to female

ratio was 1.78 in India in 2008 and 2009. In young men and women in the years 1991-1997, the ratio was 1.3 (Mayer &Ziaian, 2002).

Beautrais (2002) investigated gender issues in youth suicidal behaviour and found that there were gender differences in youth suicidal behaviour that were evident in childhood and persisted throughout adolescence and young adulthood. In western countries, young females were likely to report twice as young males on suicide ideation and suicide attempt behaviour.

The case of a higher rate of female suicide incidence in India may be related to marriage (Gururaj et al., 2004) and dowry demands (Kumar, 2004). Suicide ideation and an attempt are more common in females, but completion of suicide is more common in males (Phillips et al., 2004). Other studies although showed a different perspective where the male to female ratio was 1.63:1 (Srivastava et al., 2004) and 1.13:1 (Das et al., 2008).

Turner, Kaplan, and Badger (2004) found that epidemiological data showed high rates of suicide attempts among adolescents. Their reviews on the various research work done indicated that few studies have addressed the psychosocial, cultural, and family factors in correlation to suicide attempts. The authors did a review of 31 Hispanic adolescent females who were getting mental health services in which 14 females had attempted suicide during the last five years of their life, and 17 of them had never attempted suicide. The various demographic profiles, levels of depression, the type of family or self-esteem of the two groups of girls did not differ, but the mutuality between the girls who attempted suicide and their mothers were low.

Ulusoy and Demir (2005) studied suicide ideation among 726 high schools (Ankara, Turkey) participants within the age range between 17 to 18 years of age. The study shows that suicide ideation was found significantly more in adolescent females than males. Furthermore, there was a significant relationship existing between gender, cigarette smoking and achievements at school, depression or anxiety, and suicide ideation. Kerr, Preuss, and King (2006) reported that hopelessness, depression, and suicidal thoughts were all related to perceived family support among girls whereas peer support strongly correlated with depression and suicidal thoughts among boys. Park et al. (2006) conducted a study to identify the best predictor of suicide ideation among males and females. The result of the study concluded that for females the predictors of suicide ideation included a victim of bullying behaviour and sexual orientation.

Yoder et al. (2006) examined the various factors of suicide ideation on 212 American Indian youth who were 12 years of age. The results revealed that females were twice more likely to have suicide ideation than males. The results further indicated that factors like gender, negative life events, self-esteem, enculturation, perceived discrimination, and drug use all correlated with the possibility of suicide ideation. Waldrop et al. (2007) also reported suicide ideation is positively associated with females and age.

Mann and Currier (2008) found out that 877,000 people died because of suicide worldwide in 2002. The findings of the study revealed that death by suicide among men was four times more likely than in women, but it's the women who make more nonfatal suicide attempts than men. Many factors were associated with suicide and suicide attempts and it was noted that more than 90% of suicides had a

diagnosable psychiatric disorder at the time of their death, mood disorders being one of the most common variables. Other disorders that act as a predictor for suicidal behaviour include psychotic disorders, alcohol and substance use disorders, personality disorders, and cluster B in particular. Other variables include a family history of suicide and attempted suicide, history of previous suicidal behaviour, traits like aggressiveness, hopelessness, and even pessimism, previous history of child abuse, head injury, etc. Current stressors also act as a risk factor for suicidal behaviour. Some of the stressors include current life events, episodes of psychiatric illness, depressive episodes.

Brown and Bakken (2012) studied self-cutting and suicide ideation among adolescents and gender differences. The study included 2,639 high school students from the Delaware youth risk behaviour survey. Results indicated females having higher rates of non-suicidal self-injury than males. There were significant gender differences in non-suicidal self-injury and suicidal thoughts.

Chau, Kabuth, and Chau (2014) conducted another study on gender and family disparities in a suicide attempt in adolescents. The study was done using questionnaires on 1,559 middle school adolescents from north-eastern France. The results indicated that girls had a higher risk of suicide ideation than boys did.

Strandheim et al. (2014) conducted a study and revealed that 17 percent of students had reported having suicidal thoughts, out of which 14.2 % were boys and 19.5% were girls.

Zhai et al. (2015) examined the association between suicide ideation and family environment among 5,483 Chinese university students. Out of 5,483 students,

476 students had suicide ideation, where girls had more suicide ideation than boys did. It was indicated that the prevalence of suicide ideation was observed among the students with poor family structure and relationships, unstable work of parents, and improper parenting styles.

McLoughlin, Gould, and Malone (2015) in their article reviewed the past decade of research on teenage suicide from 2003 to 2014. The gender observation revealed that suicide ideation in females is higher although the suicide completion rate is higher in males.

Alsalman (2016) studied gender differences in suicide ideation among college students in Kuwait. The study was done using the Beck scale for suicide ideation on 284 males and 300 female undergraduate students. The results of the study revealed significant gender differences in scores with females obtaining higher scores than males on suicide ideation.

Weiss et al. (2016) conducted a study to reveal gender differences in suicidal risk factors among individuals with mood disorders. The sample of the study included 268 women and 154 men. The result of the study concluded that men had a greater suicide risk than women. Factors that predicted suicide risk differed by gender. Anxiety predicted suicide risk for men but not for women while childhood adversity was more strongly associated with suicide risk for women than for men, Severity of depression was the primary predictor for both the gender.

Ibrahim, Amit, Din, and Ong (2017) conducted research on psychological factors associated with youth and gender differences in Malaysia.The study was carried out among 232 youths within the age range of 15 to 25 years from urban

areas of Malaysia. The results of the study showed that suicide ideation was higher among male participants compared to female participants. Age was the predicting factor for male participants while depression, loss of motivation, and hopelessness were some predictors for female participants.

Ibrahim et al. (2017) conducted another study to investigate and compare the gender differences in terms of suicide ideation among adolescents in Malaysia. A cross-sectional study was conducted in the selected urban areas of Malaysia comprising 232 adolescents between ages 15 to 25 years. The results showed that male participants showed higher levels of suicide ideation as compared to female counterparts. Age was the predictor for males of suicide ideation whereas hopelessness, loss of motivation, and depression were predictors for females of suicide ideation. Therefore, from the study, it can be concluded that early identification of adolescents experiencing hopelessness and depression can help prevent suicide ideation and related problems among them before they tend to occur.

A cohort study was conducted by Sigurdson et al. (2018) and examined representative samples from 1998 to 2012 when the outcome measures were reassessed. The results showed that bullied subjects showed more self-harm, suicide ideation, and suicidal attempts irrespective of gender. From adolescence to adulthood, females showed a decreasing trend in suicide ideation while males showed an opposite trend. Therefore, it can be concluded that bullying during the adolescent period strongly influences self-harm and suicidal behaviour and requires preventive efforts for reducing the risk of suicidality irrespective of gender.

CHAPTER III

THE PRESENT STUDY

Rationale of the Study

Depression is the layman term for major depressive disorder with essential features of depressed mood or the loss of interest or pleasure in nearly all activities (although children and adolescents may be in a more irritable than sad mood) along with experiences of at least 4 additional symptoms which include depressed and irritable mood most of the day, nearly every day, there is a significant weight gain or loss, Hypersomnia or insomnia occurring nearly every day, fatigue, feeling worthless, too muchor inappropriate guilt (which may be delusional) nearly every day, recurrent thoughts of death, diminished ability to think or concentrate or indecisiveness, nearly every day and all of these symptoms should not be due to any other factor like substance abuse, etc. Adolescence is the period of turmoil for the person passing through the phase, there are various issues that come up concerning family, interpersonal relationships, academics, self-esteem, and confidence that might affect adolescence that may be the triggering factor that pushes a person towards Depression. Suicide Ideation, the recurring thought of committing suicide has been linked to Depression and is a matter of concern when it comes to adolescents.

3.2 Statement of the Problem

The study is carried out to see the Role of Academic stress, Family environment, and Self-esteem on Depression and Suicide ideation in Adolescents.

The purpose of the study was to see the role of several variables like academic stress, family environment, and self-esteem on depression in middle to late adolescents comprising of the age group of 15- 20 years and the role of depression on suicide ideation.

3.3 Objectives of the study

Objective 1: To identify the frequency and percentage of demographic variables in school-going adolescents.

Objective 2: To explore if there is any relationship between academic stress, different dimensions of family environment, self-esteem, depression, and suicide ideation in school-going adolescents.

Objective 3: To determine academic stress, different dimensions of family environment, and self-esteem as predictors of depression and suicide ideation in school-going adolescents.

Objective 4: To make a gender-wise comparison on the variables of academic stress, different dimensions of family environment, self-esteem, depression, and suicide ideation in school-going adolescents.

Objective 5: To evaluate the main effect of the selected demographic variables on depression and suicide ideation in school-going adolescents.

3.4 Hypotheses

Hypothesis 1: A significant correlation would exist between academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization,

and control), self-esteem, depression, and suicide ideation among school-going adolescents.

Hypothesis 2: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Depression among school-going adolescents.

Hypothesis 3: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Suicide ideation among school-going adolescents.

Hypothesis 4: There would exist a significant difference in the interaction of academic stress, family environment, and self-esteem on depression and suicide ideation in school-going adolescents.

Hypothesis 5: There would exist a significant difference between school-going adolescent boys and girls on academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression, and suicide ideation.

Hypothesis 6: Selected socio-demographic variables would provide the best predictor relationship for depression in school-going adolescents.

Hypothesis 7: Selected socio-demographic variables would provide the best predictor relationship for suicide ideation in school-going adolescents.

3.5 Operational Definition of Variables Used

1. Adolescence: A period of transition of both physical and psychological development, generally from puberty to adulthood. The stages of the adolescent period are divided into three according to the ages. Early adolescence starts from 12years-14years, middle adolescence starts from 15years to 17 years and late adolescence starts from 18 years to 20 years (The American Academy of Pediatrics, 2015).

2. Family environment: Circumstances and social conditions within families concerning the interpersonal relationship within the family, personal growth of the adolescent in the family, rules, and regulations, the way the family functions as a system and maintains the various norms of the family (Enrique, Howk, &Huitt, 2007).

3. Academic stress: Mental distress concerning some anticipated frustration associated with simple assignment difficulties, academic failure, or academic challenges.

4. Self-esteem: Self-respect, the realization of self-worth, positive attitude, and confidence in the abilities of the self (Enrique, Howk, &Huitt, 2007).

5. Depression: Depressed, sometimes irritable mood most of the day nearly every day with symptoms of significant weight loss or gain, insomnia or Hypersomnia, fatigue, feelings of excessive inappropriate guilt and worthlessness, diminished ability to concentrate without the effect of any factor like the use of any substance (National Institute of Mental Health, 2016).

6. Suicide ideation: Recurrent thoughts about or an unusual preoccupation with suicide ranging from fleeting thoughts to extensive thoughts to detailed planning, role-playing, and incomplete attempts (Gliatto& Rai, 1999).

CHAPTER IV

METHODOLOGY

Research methods are the various methodology used in the field of research which integrates various plans, and calculations utilized. Every individual technique which is utilized by the researcher during an exploration study is research methods. They are arranged, are deemed logical, and esteemed as being biased. They incorporate various hypothetical deductions techniques, exploratory comprehensive reviews, include various numerical plans, measurable methodology, etc. Research methods help us conduct tests, gather information, and also lead us to the discoverer of a solution for a problem. Especially, researches like logical research techniques helpin the clarifications of gathered truths, drawn estimations, and wide perceptions and not on thinking alone. These research methods acknowledge those clarifications which can be confirmed by investigators through the process of research. While the research methodology is taking up a precise approach to tackling the issue. Research about the procedural methods is a study taking into account how research is supposed to be done. The range of procedures by which researchers and/or investigators approach their work of clarifying, portraying, and anticipating new findings is called research methodology. (Rajasekar, Philominathan, &Chinnathambi, 2013).

4.1 Procedure

The technique of the study can be considered as the rationale or master of the method of research that tosses light on how the study is to be conducted. It demonstrates how the whole real parts of the exploration think about the samples, method, measures, and statistical design; and so, on cooperate trying to address the

research targets. The method of the review is like a design plot. The Procedure of the review can be viewed as an understanding of rationale in an arrangement of techniques that enhances the validity of information for a given research issue. As indicated by Mouton (1996), the research configuration serves to "plan, structure and execute" the exploration to augment the "validity of the findings". It gives directions from the hidden philosophical presumptions to the research plan and data collection. This is the most basic part of the methodology and insight about research configuration embraced for this review has been introduced.

4.2 Design of the Study

The study is done with the method of quantitative analysis. The data was collected from various Senior Secondary Schools located in the Darjeeling district of West Bengal, India. Middle and late adolescents who lie in the age group of 15 years to 20 years were taken for the study.

A socio-demographic detail was given to fill out before any assessment was taken. Quantitative analysis was done using Academic Stress Scale (Rajendran &Kaliappan, 1990), Family Environment Scale (Bhatia & Chadha, 1993), Beck Depression Inventory-II (BDI-II) (Beck, Steer, & Brown, 1996), Rosenberg Self – Esteem Scale (Rosenberg, 1960) and Beck Scale for Suicide Ideation (BSI; Beck, & Steer, 1991) on each participant. The data were interpreted using the norms of the tests and the raw scores were obtained. The scores for the quantitative data were analyzed using a statistical package for social science (SPSS) version 20. Descriptive statistics like percentage mean and the standard deviation was used. Data were calculated by using multiple analysis of covariance (MANCOVA) and Carl Pearson Correlations, Regression, and t-test.

4.3 Geographical Area

Darjeeling with a population of 1,846,823 (937,259 male and 909,564 female) located in the lesser Himalaya at an elevation of 6,700 ft is a municipal town of West Bengal. Darjeeling district has a length from north to south of 18 miles (29 km) and a breadth from east to west of 16 miles (26 km) with Kurseong, Kalimpong, and Siliguri as the sub-divisional headquarters of the district. The entire hill region falls under the Gorkhaland Territorial Administration (GTA), a semi-autonomous administrative body under the state government of West Bengal (Darjeeling Municipal Corporation, 2011).

Location Map of the Study

Map of Darjeeling

Source:
Mouryan (2017).http://www.censusindia.net/results/2001maps/wbengal01.html
Retrieved on 12.03.2018

4.4 Sampling Procedure

A population of class X, XI, and XII students studying in recognized schools of Darjeeling was taken into consideration for the present study. It was assumed that this city being district head-quarter has students from all sections of society and truly represents the high and intermediate school population. In the present study, a frame of all recognized high and intermediate schools of Darjeeling was prepared. Out of that, a sample of fourconvent schools was randomly drawn. These schools were recognized and the students were from the different socio-economic status group of the society. Purposive sampling was carried out to include the participants in the study. The sample comprised of 400 students(200 boys and 200 girls) within the age range of 15 to 20 years (Age Mean= 17.71,& SD= 0.91)fulfilling the inclusion and exclusion criteria for the study. School-wise break-up of the sample for the main study has been given in Table 4.1.

Table 4.1: School-wise Break-up of the Sample (N=400)

Sl. No.	**Name of the Schools**	**No. of Students Selected**		
		Boys	**Girls**	**Total**
1.	Loreto Convent, Darjeeling, W.B.	--	100	100
2.	Nepali Girls' Higher Secondary School, Darjeeling, W.B.	--	100	100
3.	St. Joseph School, Darjeeling, W.B.	100	--	100
4.	St Robert’s Higher Secondary School, Darjeeling, W.B.	100	--	100
Total		**200**	**200**	**400**

This sample of the students was utilized for the final study to obtain data on different variables under study. There were some exclusion and inclusion criteria when the sample was collected, they are:

Sample Inclusion Criteria

1. 11th and 12th standard students
2. Students falling in the age range of 15 years to 20 years
3. Students who were day scholars
4. Both boys and girls from Darjeeling district, West Bengal
5. Students studying in Private and Public English medium schools
6. Students from urban and rural areas
7. Parents of the students who were living together

Sample Exclusion Criteria

1. Participants with a history of psychotic symptoms
2. Participants diagnosed with any other medical condition
3. Participants staying in a hostel or as paying guest
4. Participants under the influence of lifelong medication
5. Participants having previous knowledge or exposure to the test

Ethical Considerations

1. Participation was voluntary and anonymous.
2. All participants were assured of confidentiality and were also informed to assert this right to withdraw at any time.
3. All the personal information of the participants has been locked in their respective files and was assessed only by the researcher.

4. The participants' details will be destroyed few years after the study.

4.5 Explanation about the Input

The objective of the study was to find out the relationship between academic stress, family environment, self-esteem, depression, and suicide ideation in middle to late adolescents (with the age range of 15 to 20 years). The assessment was done as a quantitative analysis with assessments comprising of Academic Stress Scale (Rajendran &Kaliappan, 1990), Family Environment Scale (Bhatia & Chadha, 1993), Beck Depression Inventory-II (BDI-II) (Beck, Steer,& Brown, 1996), Rosenberg Self-Esteem Scale (Rosenberg, 1960), and Beck Scale for Suicide Ideation (BSI; Beck & Steer, 1991).

4.6 Tools Used

The aim of the study was to see the role of Academic stress, Family environment, and Self-esteem on Depression and Suicide ideation in Adolescents. The tools used for the study included:

1) Socio-demographic Data-sheet (Self, 2016)
2) Academic Stress Scale (Rajendran &Kaliappan, 1990)
3) Family Environment Scale (Bhatia & Chadha, 1993)
4) Rosenberg Self-Esteem scale (Rosenberg, 1960)
5) The Beck Depression Inventory-II (Beck, Steer, & Brown, 1996)
6) The Beck Scale for Suicide Ideation (Beck, Steer, & Ranieri, 1988)

Table 4.2: List of Research Tools Used

Aspect Studies	Name of Questionnaire/Scale	Developed by
Socio-Demographic Details	Socio-Demographic Datasheet	Self (2016)
Academic Stress	Academic Stress Scale	Rajendran &Kaliappan (1990)
Family Environment	Family Environment Scale	Bhatia & Chadha (1993)
Self-Esteem	Rosenberg Self- Esteem Scale	Rosenberg (1960)
Depression	Beck Depression Inventory	Beck, Steer,& Brown (1996)
Suicide Ideation	Beck Scale for Suicide Ideation	Beck, Steer,& Ranieri (1988)

1. Socio-Demographic Datasheet (Self, 2016)

The personal data sheet includes various aspects of demographic details of the participant's background. The details are inclusive of name, age, gender, religion, social groups, family history, etc. The family history of the subject comprises of the family member, relationship with the respondent, sex, age, education, occupation and nature of work, income, and so on (Volanen, Lahelma, Silventoinen, &Suominen, 2014). highlighted the absence of studies investigating the proportional impact of socio-demographic factors and proposed the investigation of basic demographical factors, for sample, age and education, work-life factors, for sample, business, and financial status, and family life factors, for sample, marital status and number of dependents.

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

The Academic Stress Scale is 40 items rating scale that was developed with the sole purpose of identifying academic stress among students. The Indian adaptation of the initial scale which was done by Kim (1970) was done by Rajendran and Kaliappan in 1990. They assessed 400 subjects using the scale.

There are 40 items on the scale and are classified into five areas with eight items in each:

a) Personal Inadequacy

b) Fear of Failure

c) Interpersonal difficulties with teachers

d) Teacher-pupil relationship/Teaching methods

e) Inadequate study facilities.

Table 4.3: Tool Profile for Academic Stress

Academic Stress Scale

Authors	Rajendran &Kaliappan (1990)
Nature	Verbal
Group/Individual	Group/Individual
Duration	20 minutes
Structure	40 statements
Reliability	Test – retest reliability= .82
Validity	Content validity through Item analysis

Procedure for Academic Stress Scale:

The examiner begins with the introduction to the test, that the test does not have any right or wrong answer and that the participants are supposed to tick any option from “no stress”, “slight stress”, moderate stress”, “high stress” and extreme stress”, for each of the 40 statements that they relate to the most.

Instructions:

“You are provided with Academic stress scale, and, there are 40 statements in this scale with five options provided to you which ranges from “no stress (NS)”, “slight stress (SS)”, moderate stress (MS)”, “high stress (HS)” and extreme stress (ES)” for each of the statements, you need to read the statements carefully and tick one of the options which you feel relates with you the most, there are no right or wrong answers”.

Scoring:

There are 40 items with 5 options for responses for each item. Each response carries the value of “0”, “1”, “2”, “3”, and “4” for “no stress (NS)”, “slight stress (SS)”, moderate stress (MS)”, “high stress (HS)” and extreme stress (ES)” respectively. There are 40 items on the scale with the highest score of 160 (4x40) and 32 (4x8) as the least.

Reliability and Validity of the Test:

The test-retest correlation of 50 students with an interval of 20 days has been found to be 0.82.

The content validity of the tool was based on the scrutiny of the experts and item validity was obtained through item analysis.

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

The family Environment Scale (Bhatia & Chadha, 1993) has 3 dimensions which are:

1) Relationship dimension has four subscales like Cohesion, Expressiveness, Conflict, and Acceptance and Caring.
2) Personal Growth Dimension has two subscales which are Independence and Active-Recreational Orientation:
3) System Maintenance Dimension has two subscales which are Organization and Control.

Table 4.4: Item Distribution of the Family Environment Scale

Sl. No.	Sub Scales	Item Numbers
1.	Cohesion	Positive statements are: 1, 9, 24, 37, 43, 55, 60, 63, 66 and 69.
		Negative statements are: 17, 31, and 49.
2.	Expressiveness	Positive statements are: 10, 25, 38, 44, and 56.
		Negative statements are: 2, 18, 32, and 50.
3.	Conflict	Positive statements are: 11, 19, 39,51, 61, and 67.
		Negative statements are: 3, 26, 33, 45, 57, and 64.
4.	Acceptance and Caring	Positive statements are: 8, 16, 36, 42, 48, 54, 59, and 62.
		Negative statements are: 23, 30, 65, and 68.
5.	Independence	Positive statements are: 4, 27, 46, and 52.
		Negative statements are: 12, 20, 34, 40, and 58.
6.	Active– Recreational Orientation	Positive statements are: 5, 13, 21, 28, and 47.
		Negative statements are: 33, 41 and 53.
7.	Organization	Positive statements are: 14.
		Negative statements are: 6.
8.	Control	Positive statements are: 7 and 22.
		Negative statements are: 15 and 29.

Table 4.5: Tool Profile for the Family Environment

Family Environment Scale

Authors	Bhatia & Chadha (1993)
Nature	Verbal
Group/ Individual	Group/ Individual
Duration	25-35 minutes
Structure	69 Items
Reliability	Split –half reliability of .95
Validity	Face validity and content validity

Procedure for Family Environment Scale:

The Family environment scale comprises 69 items or statements with options ranging from "Strongly agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree" for each statement that they feel relates to them the most.

Instructions:

"You are provided with the Family environment scale, there are 69 statements in this scale with five options provided to you which are "Strongly agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree". Please read the statements carefully and tick the option that you feel relates with your situation the most. There are no right or wrong answers".

Scoring:

The Family environment scale is scored according to the positive and negative scores. Positive scores are scored with "5", "4", "3", "2", and "1" for "Strongly

agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree" respectively and the negative scores are scored with "1", "2", "3", "4" and "5" for "Strongly agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree" respectively.

The FES has 3 dimensions further divided into 8 subscales and each of the subscales has its own specific items for positive and negative statements that have to be calculated separately.

4) Relationship Dimension:
    1) Cohesion:
        a) Positive statements are: 1, 9, 24, 37, 43, 55, 60, 63, 66 and 69.
        b) Negative statements are: 17, 31, and 49.
    2) Expressiveness:
        a) Positive statements are: 10, 25, 38, 44 and 56.
        b) Negative statements are: 2, 18, 32, and 50.
    3) Conflict:
        a) Positive statements are: 11, 19, 39, 51, 61 and 67.
        b) Negative statements are: 3, 26, 33, 45, 57 and 64.
    4) Acceptance and Caring:
        a) Positive statements are: 8, 16, 36, 42, 48, 54, 59 and 62.
        b) Negative statements are: 23, 30, 65, and 68.
5) Personal Growth Dimension:
    5) Independence:
        a) Positive statements are: 4, 27, 46, and 52.
        b) Negative statements are: 12, 20, 34, 40 and 58.
    6) Active-Recreational Orientation:
        a) Positive statements are: 5, 13, 21, 28, and 47.

b) Negative statements are: 35, 41, and 53.

6) System Maintenance Dimension:

7) Organization:

a) Positive statements are: 14.

b) Negative statements are: 6.

8) Control:

a) Positive statements are: 7 and 22.

b) Negative statements are: 15 and 29.

All the items sum up to a total of 69.

Table4.6: Scoring (Family Environment Scale)

Positive Items	Response	Negative Items
5	Strongly Agree	1
4	Agree	2
3	Neutral	3
2	Disagree	4
1	Strongly Disagree	5

Reliability of the Test

The Split-half reliability was found for the scale. The scale was split into two halves along with the scores of each dimension. The correlation was done on each of the scores for each of the dimensions. The reliability coefficient was estimated on the whole test using the Spearman-Brown Prophecy formula. The reliability coefficient are cohesion- 0.92, expressiveness- 0.88, conflict- 0.84, acceptance and caring- 0.86, independence-0.70, active –recreational Orientation- 0.48, Organization- 0.75 and Control- 0.48. The overall test reliability coefficient was 0.95.

Validity of the Test

Face validity and content validity were tested by eighteen experts who were given the test to evaluate the test items. Items with 75 percent agreement among the experts were retained in the test. The various dimensions of the family environment were selected and were given a clear definition for content validity.

4. Rosenberg Self- Esteem Scale (Rosenberg, 1960)

The scale consists of 10 items that measure self-worth via both positive and negative feelings about the self. All the items are answered using a 4-point Likert Scale which ranges from strongly agree to strongly disagree.

Table4.7: Tool Profile for Self-esteem

Rosenberg Self-Esteem Scale

Author	Rosenberg (1960)
Nature	Verbal
Group/ Individual	Group/ Individual
Duration	10-15 minutes
Structure	10 Statements
Reliability	Test-retest reliability= .85
Validity	Internal consistency= .77, and reproducibility= .90

Procedure for Rosenberg Self-Esteem Scale:

The introduction for Rosenberg'sself-esteem scale is given. The Rosenberg self-esteem scale has 10 statements and each statement has 4 options which range

from “Strongly agree”, “Agree”, Disagree” and “Strongly disagree” that the participants can select from that they feel relates with them the most.

Instructions:

“The Rosenberg self-esteem scaleis presented before you, and, this scale has 10 statements in regard to your self-esteem, each statement has 4 options “Strongly agree”, “Agree”, Disagree” and “Strongly disagree”. You can choose any option that you feel relates to you the most. There are no wrong or right answers”.

Scoring:

“Strongly agree” is 1 point, “Disagree” is 2 points, “Agree” is 3 points, and “Strongly agree” is 4 points. Items 2,5,6,8 and 9 are reverse scored. A higher score indicates higher self-esteem.

Reliability and Validity of the Scale

The Rosenberg Self-esteem Scale has an internal consistency of 0.77, minimum coefficient of reproducibility was 0.90 (Rosenberg, 1965). The high school student studies showed an alpha coefficient was 0.72. The test-retest reliability for two weeks interval was 0.85.

5. Beck Depression Inventory (Beck, Steer, & Brown, 1996)

The Beck Depression Inventory- Second edition (BDI-II) is a self-report instrument with 21 items that measure the severity of depression in adults and adolescents with the age range of 13 years and older. The second revision was done after the initial revision of BDI-IA (Beck, Rush, Shaw, & Emery, 1979). In the second revision of BDI-II, four items were replaced by new items which would

include typical symptoms of depression. This test was developed to assess the presence and the degree of depressive symptoms which is consistent with the DSM-IV.

Table 4.8: Tool Profile for Depression

Beck Depression Inventory BDI-II

Authors	Beck, Steer,& Brown (1996)
Nature	Verbal
Group/Individual	Group/ Individual
Duration	15 minutes
Structure	21 items
Reliability	.92 as Internal consistency reliability, test-retest reliability .93
Validity	Construct validity of .93

Procedure for Beck Depression Inventory-II

The examiner begins with the introduction to the test. The Beck Depression Inventory-II consists of 21 items, each item has its statements that relate to the topic of the item, although there are 4 statements in each item. Item numbers 16 and 18 have sub-statements in each of the statements. The participants are asked to select or circle one statement from each item that describes the way they have been feeling during the past two weeks including the day they are being assessed and if there is more than one statement that they relate to, they need to select or circle the one statement that they feel relates to them the most.

Instructions:

"This is the Beck Depression Inventory-II, and this questionnaire consists of 21 groups of statements. Please read carefully each group of statements and then pick out one statement in each group that best describes the way you have been feeling during the past two weeks, including today, circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group including item 16 or item 18".

Scoring

The BDI-II is scored by adding the ratings for the given 21 items. Each item is scored on a 4-point rating scale ranging from 0 to 3. If a participant has made multiple choices for an item, the alternative with the highest rating is used. The maximum score is 63. Special attention must be paid to the correct scoring of the changes in the sleeping pattern (item 16) and changes in Appetite (item 18). Each of these items in BDI II contains seven options which can be rated in order as: 0, 1a,1b,2a,2b,3a,3b to differentiate between increase and decrease in behaviour or motivation.

Table 4.9: The Interpretation of Scores (BDI-II)

TOTAL SCORES	RANGE
0-13	MINIMAL
14-19	MILD
20-28	MODERATE
29-63	SEVERE

Reliability

26 outpatients in Philadelphia were administered using BDI-II during their first and second therapy sessions which took place a week apart. The test-retest correlation was found to be .93 which was significant. The 21-item analysis of the BDI-II was also done on 500 outpatients and 120 college students. The coefficient alpha for the outpatients of BDI-II was found to be .92 and for the 120 students was found to be .93 which was higher than .86 of BDI-IA (Beck et al., 1988).

Validity

A comparison was made by clinicians and researchers for BDI-IA and BDI-II via calibration study on 191 outpatients who were administered using BDI-IA and BDI-II. The correlation was found to be .93.

6. The Beck Scale for Suicide Ideation (Beck & Steer, 1988)

The Beck Scale for Suicide Ideation (1993) was used to measure the extent of suicide ideation among students. This test has 21 items and each item comprises three choices with a degree of self-destructive thinking on a 3-point scale which ranges from 0 to 2.

Table 4.10: Tool Profile of Beck Scale for Suicide Ideation

The Beck Scale for Suicide Ideation (BSS)

Authors	Beck, Steer,& Ranieri (1988)
Nature	Verbal
Group/Individual	Individual
Duration	10 minutes

Structure	21 items
Reliability	Internal Consistency Reliability: 0.90, test-retest: 0.54
Validity	Content, Concurrent, Construct, Discriminate, Factorial, predictive Validity

Interpretation of the Scale

The Beck Scale for Suicide Ideation (BSS; Beck & Steer, 1988) is a self-report measure. The BSS has 21 items self-report questionnaire that can be administered to adolescents and adults. The scale depends on five measurements on the intensity of self-destructive ideation, active self-destructive desire, suicide arranging, passive suicide desire, and covering.

Procedure for Beck Scale for Suicide Ideation

The examiner starts with an Introduction after the scale is handed out to the participants. The Beck Scale for Suicide Ideation consists of 21 items and 3 statements labelled 0, 1, and 2 respectively in each item from which the participants are asked to circle the statement that they agree the most with, that they have been feeling for the past week including the day that they are being assessed. The participants are asked to read the instructions carefully before filling out the scale. If the participant has circled 0 (zero) statements in both groups 4 and 5, they need to skip down to group 20 but if they have circled either 1 or 2 in either group 4 and 5 then they need to continue with group 6. There are no right or wrong answers.

Instructions:

"The Beck scale for suicide ideation is presented before you.Please read carefully each group of statements below. Circle the one statement in each group that best describes how you have been feeling for the past week, including today. Be sure

to read all of the statements in each group before making a choice. If you have circled the 0 statement in both groups 4 and 5 then skip down to group 20 but if you have circled 1 or 2 in either group 4 or 5 then continue with group 6. There are no right or wrong answers".

Scoring

The first five BSS items serve as a screen for suicide ideation. If a participant circles the 0 statements in both items 4 and 5, then he or she is instructed to skip the next BSS items, otherwise the participant continues with the rest of the items. Every participant is asked to rate item 20 and any participant who has previously attempted suicide is requested to rate item 21. For a participant who was rated on all the items, the severity of suicide ideation is calculated by summing the ratings for the first 19 items. The total score on Beck Scale for Suicide Ideation (BSS)can range from 0 to 38 points.

Reliability of the Scale

The BSS has high internal reliability with Cronbach's alpha coefficients ranging from 0.87 to 0.90 (Beck&Steer, 1991). The test-retest reliability for BSS was drawn, the correlation between the first test and the retest was found to be .54 which suggests having moderate test-retest reliability.

Validity of the Scale

The correlation between the SSI and the BSS was found to be ranging from .90 to .94 which shows the relevance of the BSS with the clinically rated SSI. The concurrent validity of the BSS was evaluated with the suicide ideation symptom item in BDI and the correlation was .58 and .69 for 50 inpatients and 25 outpatients

respectively which shows the significance of the items in the two tests. There was also concurrent validity drawn for suicide ideation samples on 19 respondents who had taken SSI as well. The correlation for those 19 respondents was found to be .32. (Beck, Steer, &Ranieri, 1988).

4.7 Preparation of Data Collection

The researcher got consent from the Principals of the concerned schools with the end goal of accumulation of information. At that point, different questionnaires were appropriated individually to the subjects after getting the consent of the subject. Good compatibility was built up with them before asking for them to top off the surveys. Awesome care was taken to eject any misguided judgments concerning a proposed plan. Subjects were guaranteed the privacy of their reactions and asked to augment their co-operation. For making surveys considerably simpler to comprehend, the guidelines were perpetually disclosed to the subjects. Each subject, on a normal, took around one hour and fifteen to thirty minutes to top off the surveys. At last, the questionnaires were collected from the respondents after which scoring and further research were gone ahead. However, subjects who did not satisfactorily fill questionnaires were excluded from the study.

4.8 Precautions for Data Collection

- Instructions were clear.
- The participant fulfilled the necessary details before the test.
- External distractionswere avoided.
- The participants were informed not to ask questions in between the assessments, andall the doubtswere clarified before the assessments start.

4.9 Statistical Analyses

The statistical analysis was carried out using Statistical Package for Social Science (SPSS) version 20. Descriptive statistics like percentage,the mean, and the standard deviation wasused. Data were calculated by using multiple analysis of covariance (MANCOVA) and Carl Pearson Correlations, Regression, and t-test.

Graphical Representation

The graphical portrayal was done to demonstrate the obtained results because of different groups. The accompanying diagrams were utilized to highlight the acquired outcomes:

Pie-Diagram

Pie-graph was utilized to divide the entire space of factors; age, social group, community, religion, family members, family type, family occupation, and parent's income evaluate to identify their frequency and percentage.

Bar-Diagram

A bar diagram was utilized to represent the distinction in the mean on academic stress, family environment, self-esteem, depression, and suicide ideation scores of male and female adolescents.

CHAPTER V

ANALYSIS AND INTERPRETATION OF THE DATA

The previous chapter on methodology dealt with the overall research design, instruments used, sample size, sampling method, data collection procedure, description of the variables, and various tests employed during the present study. This chapter focuses on the statistical analysis of the collected data obtained from the 400 school-going adolescents to understand the objectives defined in the methodology. The main objective of the present study was to understand the relationship between academic stress, family environment, self-esteem, depression, and suicide ideation in adolescents. Data was obtained using quantitative methods for adolescent students (age range was between 15 to 20 years) attending various senior secondary schools located in the Darjeeling district of West Bengal, India. Thus, the present study exclusively covers the adolescents' point of view.

The data have been delineated in the form of tables and figures as the interpretation of the results of the survey obtained as part of the research. The data were evaluated in an orderly fashion by counting the frequency of responses along with the mean of each factor evaluated from the review of the literature. They include: i) Academic stress, ii) Family environment, iii) Self-esteem, iv) Depression, and v) Suicide ideation. Data collected from the respondents were analyzed using appropriate statistical tests assessing the interrelationships between different variables of the study. All the analyses were conducted using SPSS software. The collected data were evaluated using descriptive statistics (frequency, percentage, mean and standard deviation), correlation, t-test, MANCOVA, and hierarchical regression.

Statistical Interpretation Section:

The analysis of data and interpretation of results has been divided into four sections which are presented below:

Section I: Descriptive Analysis

As the first step in understanding the type of respondents, the demographics were assessed. Within this, age, social group, religion, family type, occupation of both parents of the respondents were recorded. These help in generalizing the study results in a better manner.

Section II: Correlation Analysis

Correlation (denoted as 'r') is used to measure the strength of association between the dependent variables (depression and suicide ideation) with independent variables such as academic stress, family environment (cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization, and control) and self-esteem.

Section III:Regression Analysis

Regression analysis is a mathematical measure of the average relationship between two or more variables in terms of the original units of the data. Even though correlation gives an idea about the extent of association within the variables, however, it is unable to discuss the cause of the association, therefore, hierarchical regression analysis was conducted to indicate the cause-and-effect relationship between the variables. The factors corresponding to the cause were taken as an independent variable, whereas, the variables corresponding to the effects were taken as the

dependent variables. Thus, regression analysis conveyed any relationship present between the dependent and independent variables.

Section IV: Inferential Analysis

The aim of the inferential analysis was to determine the significance of the association between depression, suicide ideation and academic stress, family environment (generated using factor analysis), self-esteem, and interaction of all three independent variables using multivariate analysis of covariance (MANCOVA). In addition, the differences due to gender on the variables of academic stress, family environment, self-esteem, depression, and suicide ideation were also evaluated.

A detailed description of section-wise analysis and interpretation is presented below:

Section I: Descriptive Analysis

5.1 Socio-Demographic Variables

The demographic factors are known to influence the behaviour and perceptions of students. The present study, therefore, analysed the demographic characteristics of its respondents such as their family type, social categories, type of religion followed, father's and mother's occupation, age of the respondents. The demographic profile has been presented using frequency analysis.

Table 5.1: Frequency and Percentage of Age Group of School-going Adolescents (N=400)

Categories (Age)	Boys (N=200)	Girls (N=200)	Total (400)	
	Frequency	Frequency	Frequency	Percentage
16	*0*	*36*	*36*	*9*
17	*44*	*88*	*132*	*33*
18	*76*	*68*	*144*	*36*
19	*80*	*8*	*88*	*22*

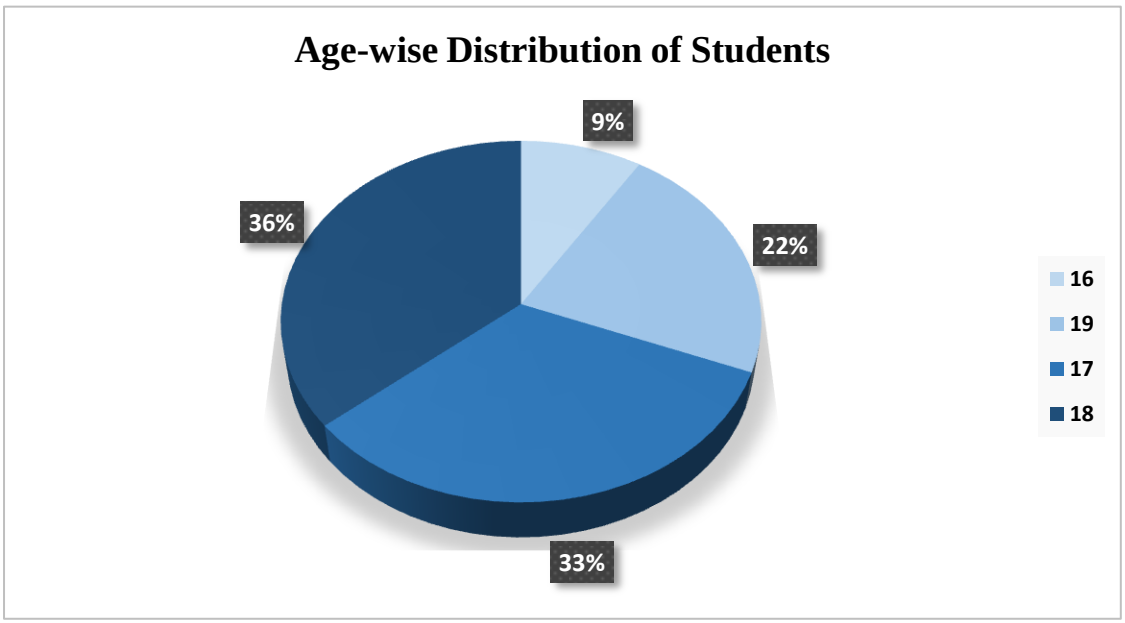

Figure5.1: Age-wise Percentage of the Sample (N=400)

5.1.1 Age-wise Distribution

The age of the adolescents was estimatedby dividing them into four age categories. Table 5.1 presents the frequency and percentage of the age group of school students (N=400). It is evident from the Table that 36% of them were 18 years old,

while another 33% belonged to the age group of 17 years. About 22% of them were 19 years old, while only 9% were aged 16 years. The majority of the boys belonged to the age group of 19 years, whereas, there were no boys of 16 years of age in the group. The number of 17 years girls was double the number of boys of the same age group.

Table 5.2: Frequency and Percentage of Family Type of School-goingAdolescents (N=400)

Categories (Family Type)	**Male (N=200)**	**Female (N=200)**	**Total (400)**	
	Frequency	**Frequency**	**Frequency**	**Percentage**
Nuclear	*135*	*132*	*267*	*66.75*
Joint	*48*	*44*	*92*	*23*
Extended	*17*	*24*	*41*	*10.25*

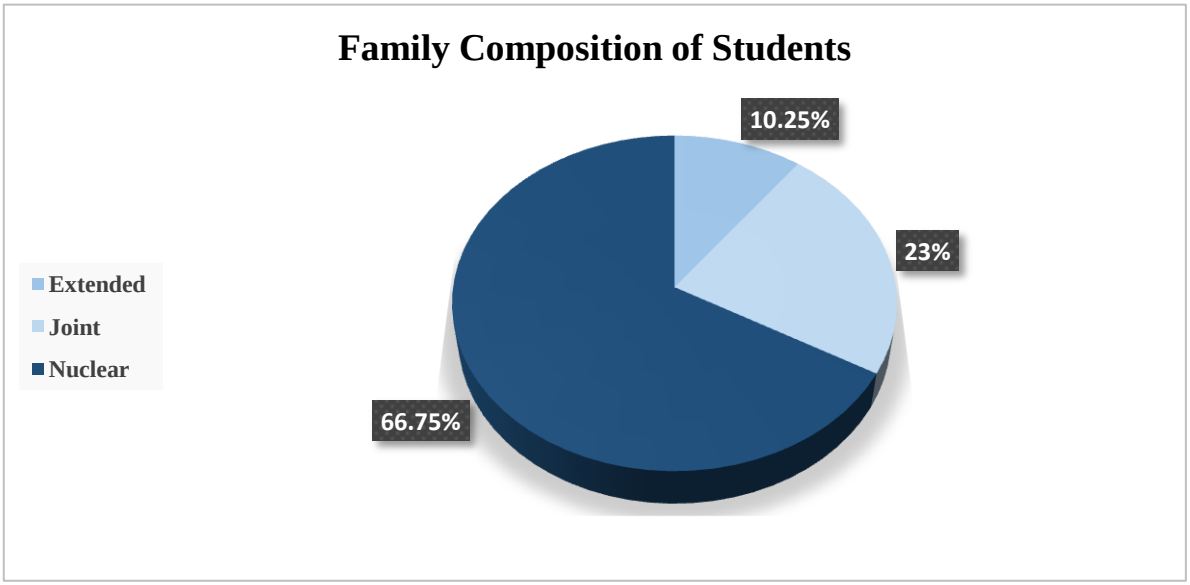

Figure 5.2: Family Type-wise Percentage of the Sample (N=400)

5.1.2 Family Type-wise Distribution

The type of family introduces us to the composition of families, whether nuclear, joint, or extended. Nuclear families typically consist of the primary family members who are parents to their children who are living together under one roof, whereas joint families include three generations living together. Therefore, a joint family comprises the parents of the primary family members and the members of the nuclear family. The concept of the extended family as the name suggests, consists of two or more adults who are related, either by blood or marriage, living in the same homeand working toward common goals. Many extended families include cousins, aunts or uncles, and grandparents living together. Table 5.2 presents the distribution of school students, according to the type of family that they belong to. The majority (66%) of school students belong to nuclear families, followed by 23% of students who stay in joint families (Figure 5.2). Only 10% belong to extended families. Table 5.2 also suggests that more boys belonged to nuclear and joint families compared to girls, however, more girls (n= 17) were living in the extended families than boys (n = 24).

Table 5.3:Frequency and Percentage of Social Group of School-goingAdolescents (N=400)

Categories (Social Group)	Male (N=200)	Female (N=200)	Total (400)	
	Frequency	Frequency	Frequency	Percentage
General (Gen)	*86*	*73*	*159*	*39.75*
Scheduled Caste (SC)	*33*	*33*	*66*	*16.5*
Scheduled Tribe (ST)	*56*	*53*	*109*	*27.25*
Other Backward Classes (OBC)	*25*	*39*	*64*	*16*
Others	*0*	*2*	*2*	*0.5*

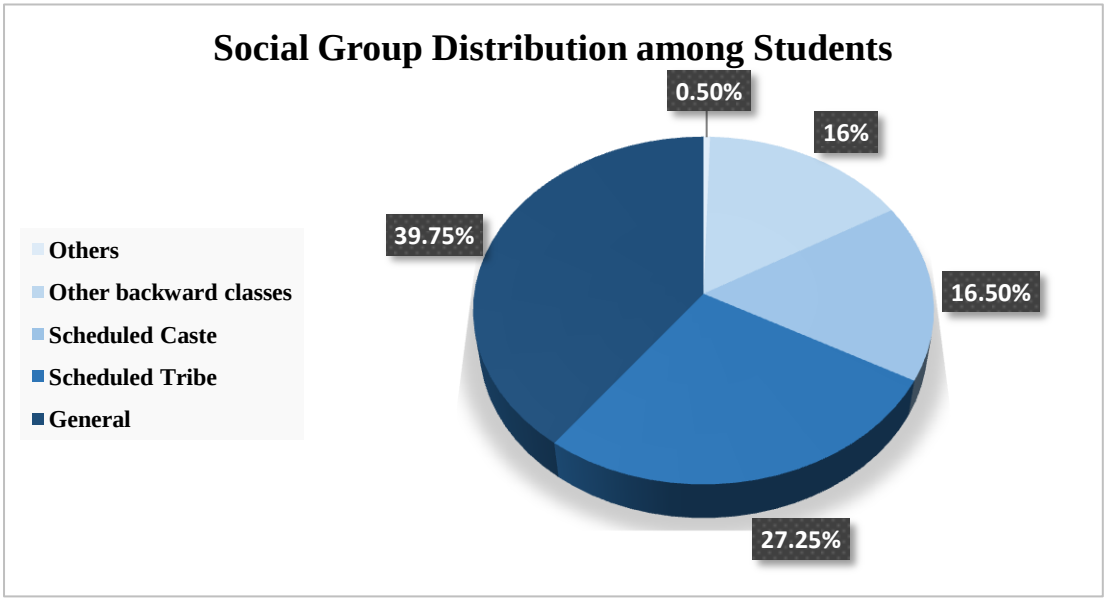

Figure 5.3:Social Group-wise Percentage of the Sample (N=400)

5.1.3 Social Group-wise Distribution

A social caste is a form of stratification typically characterized by hereditary transmission, occupation, or hierarchy status. In India, the caste of an individual is a centuries-old complex social structure that causes restricted social mobility (Sankaram et al., 2017). Therefore, the social group is an important parameter for

understanding any psychological perception. Table 5.3 demonstrates the social status of the school student respondents participating in our study. It can be observed that almost 40% of them belong to the general caste followed by 27% of them belonging to the group of scheduled tribes (Figure 5.3). The number of individuals who belonged to the social group of scheduled caste was almost equal to the number of individuals belonging to other backward classes (both 16%). Even though the individuals belonging to general status were maximum, the boys were more in number compared to girls; however, the reverse was true for other backward classes. There was an equal number of boys and girls belonging to scheduled caste and scheduled tribe.

Table 5.4: Frequency and Percentage of Religion of School-goingAdolescents (N=400)

Categories (Religion)	**Male (N=200)**	**Female (N=200)**	**Total (400)**	
	Frequency	**Frequency**	**Frequency**	**Percentage**
Hindu	*117*	*95*	*212*	*53*
Muslim	*5*	*10*	*15*	*3.75*
Buddhist	*49*	*56*	*105*	*26.25*
Christian	*27*	*31*	*58*	*14.5*
Any Other	*2*	*8*	*10*	*2.5*

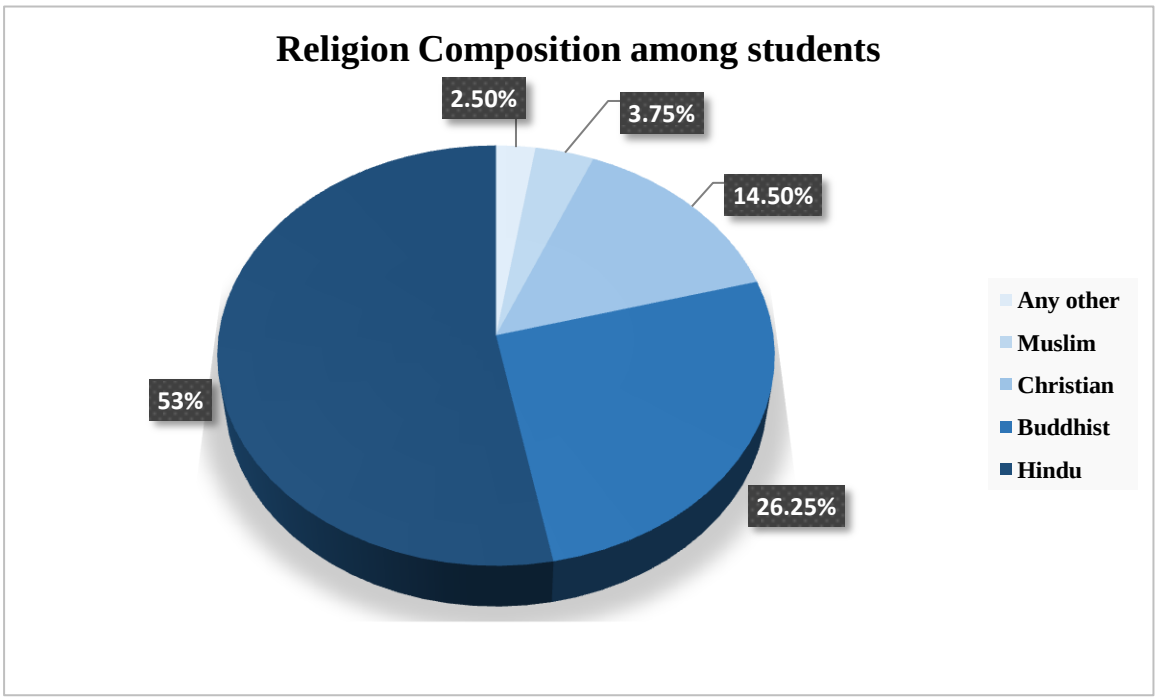

Figure5.4: Religion-wise Percentage of the Sample (N=400)

5.1.4 Religion-wise Distribution

Religion can be defined as the set of beliefs, designated practices, and behavioural patterns of the cultural system followed by a set of people in a common pursuit. India is a land of varied religions. Therefore, it can be assumed that religions will have an impact on the perception of the school students. Table 5.4 presents the distribution of religion of the school students. According to the results, more than half (53%) of the population comprised of Hindus, followed by 26% of students who believed in Buddhism. There were about 14.5% of Christian students among the respondents, whereas only 3.75% followed Islam. More boys (n = 117) were Hindus compared to girls (n = 95) in the participant group, however, more girls were Muslims, Buddhists, and Christians in comparison to boys.

Table 5.5: Frequency and Percentage of Fathers' Occupation of School-going Adolescents (N=400)

Categories (Father's Occupation)	Male (N=200)	Female (N=200)	Total (400)	
	Frequency	Frequency	Frequency	Percentage
Govt Employee	*74*	*59*	*133*	*33.25*
Private Employee	*60*	*33*	*93*	*23.25*
Business	*54*	*38*	*92*	*23*
Teacher	*0*	*13*	*13*	*3.25*
Others	*12*	*57*	*69*	*17.25*

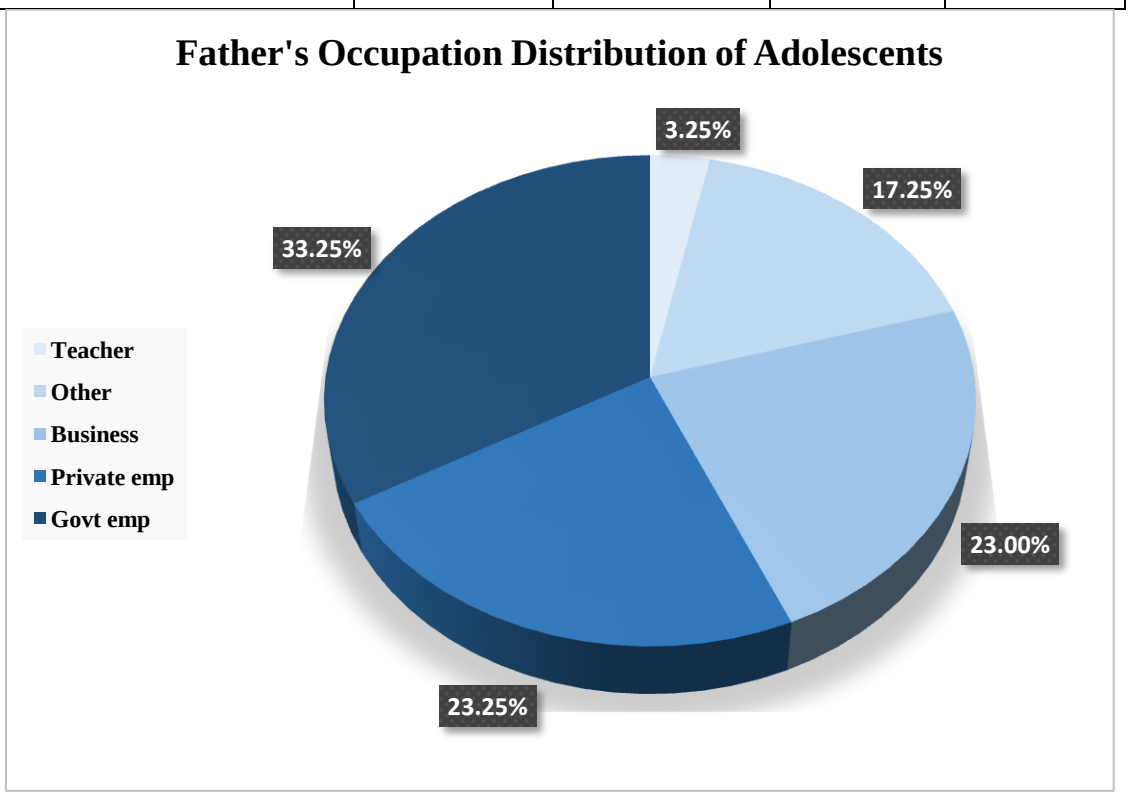

Figure 5.5: Fathers' Occupation-wise Percentage of the Sample (N=400)

5.1.5 Father's Occupation-wise Distribution

The occupation of any individual directly demarcates the economic status of the individual. Moreover, it is also a source of a status symbol and is associated with prestige issues. In India, since the father is mostly the head of the family, the occupation of the father plays a key role in the upbringing and mindset development of the children. Therefore, the occupation of the father is important to know to understand the socioeconomic status of the participating student. Table 5.5 provides the distribution of the type of occupation that their family has. The majority of student's fathers were working as government employees, followed by 23% of individuals whose fathers worked in private organizations (Figure 5.5). Almost an equal number of fathers of participants were in business. Only 3% of participant's fathers were in the teaching profession. More boys (n = 74) than girls (n = 59) showed government employees as their fathers. Similarly, more boy's fathers worked in private firms and were involved in business compared to girls. None of the boys had their father as a teacher, however, about 13 of the girl's father was a teacher.

Table 5.6: Frequency and Percentage of Mother's Occupation of School-going Adolescents (N=400)

Categories (Mother's Occupation)	Male (N=200)	Female (N=200)	Total (400)	
	Frequency	Frequency	Frequency	Percentage
Homemaker	*101*	*95*	*196*	*49*
Nurse	*04*	*09*	*13*	*3.25*
Teacher	*30*	*28*	*58*	*13*
Business	*34*	*18*	*52*	*13*
Government Service	*19*	*26*	*45*	*11.25*
Other	*12*	*24*	*36*	*09*

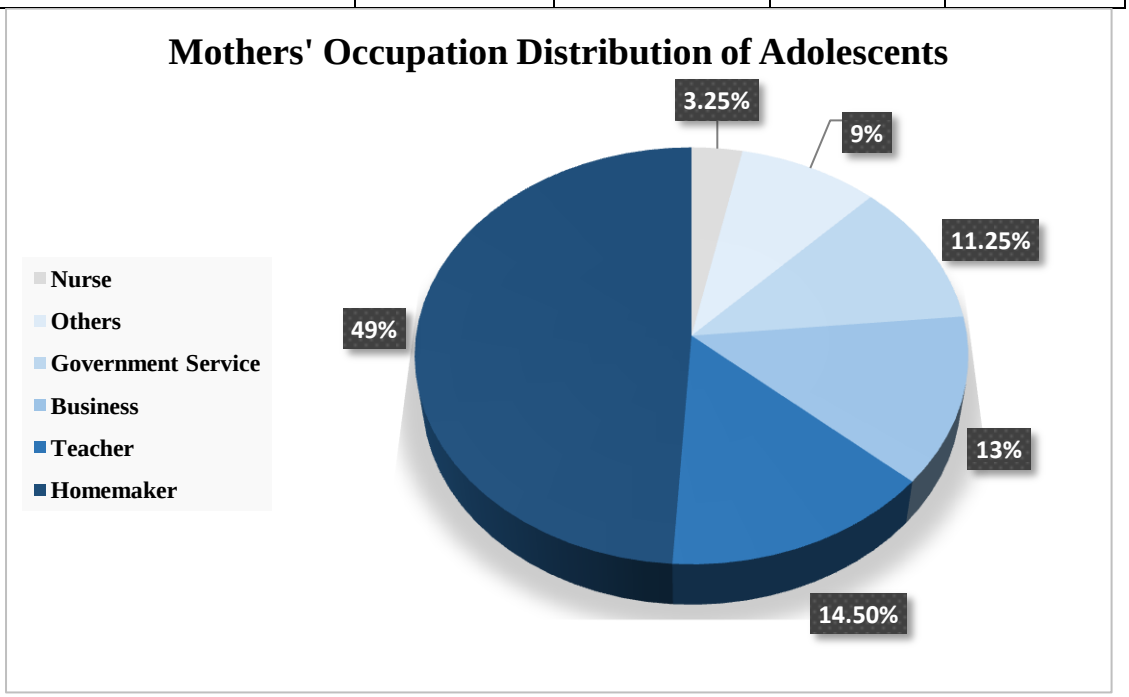

Figure5.6: Mother's Occupation-wise Percentage of the Sample (N=400)

5.1.6 Mother's Occupation-wise Distribution

Dual earning by parents leads to more financial stability and economic independence in the family, therefore, the occupation of the mother is also an important parameter for social wellbeing. Table 5.6 demonstrates the frequency and percentage of the occupation of the mother of the participating child. Almost half of the mothers of the participating students were homemakers, followed by 13 % of them each being teachers or involved in the business. More than 11% of mothers of the total 400 students were working in government institutions. More mothers of the boys compared to the mother of girls were homemakers, teachers, businesswomen, whereas, the mothers of the girls were more in number than the mothers of boys in nursing and government services.

Table 5.7: Mean and SD of the Psychological Study Variables of School-going Adolescents (N=400)

Sl.	Variables	Mean	SD	Interpretation according to scale
1.	**Academic Stress**	63.14	20.87	Not high
2.	**Family Environment**			
a.	Cohesion	50.43	4.59	Average
b.	Expressiveness	32	3.85	Average
c.	Conflict	42.71	6.17	Average
d.	Acceptance & Caring	46.12	5.48	Average
e.	Independence	29.95	3.43	Low
f.	Active-recreational orientation	33.62	4.05	Average
g.	Organization	8.06	1.24	Average
h.	Control	15.18	2.25	Average
3.	**Self-esteem**	24.98	5.07	High
4.	**Depression**	12.3	7.4	Minimal
5.	**Suicide ideation**	1.51	2.59	Low

5.1.7 Psychological Study Variables

The psychological study variables, such as academic stress, family environment, self-esteem, suicide ideation, and depression of the study population were estimated (Table 5.7).

Academic stress can be defined as the anxiety and stress that the child gets from the school and the education system (Prabhu, 2015). It can be observed that the study population was not suffering from high levels of academic stress. Within the relationship dimensions of the family environment scale as elaborated by Bhatia and Chadha (1993), there are three different dimensions such as relationship, personal growth, and system maintenance. The relationship dimension comprises of the following four parameters, cohesion, expressiveness, conflict, and acceptance, and caring, while independence and active-recreational orientation represent personal growth, and organization and control form the part of system maintenance. 'Family cohesion can be described as the degree of commitment and support that the family members provide to each other (Harris &Molock, 2000), while, 'expressiveness' is the level of encouragement for acting openly and expressing their thoughts and feeling directly (Kaur et al., 2006). 'Conflict' as the name suggests evaluates the level of face-to-face expressed rage, aggression, and clashes among the members of the family. 'Acceptance and caring' refers to the unconditional support and consent given to the individual along with the amount of caring expressed within the family, whereas, 'independence' evaluates the assertiveness, self-sufficiency, and the ability to make own decisions. By 'active-recreational orientation', it means the level of individual participating in social and recreational events. The 'organization' factor points to the clarity in creating plans for family events and sharing responsibilities. The 'control' aspect evaluates the presence of rules and processes used for running the family life. The results show that there was an average level of cohesion, expressiveness, conflict, acceptance and caring, active-recreational orientation, organization, and control each in the study population, except independence, in terms of the family environment. However, the level of independence of respondents was

borderline low in this case. The results of the study are similar to the results of Rana and Kapoor (2017), where the majority of female students also had an average amount of expressiveness, conflict, and organization, and low levels of independence in their sample comprising of all 200 female degree college students from Jammu. However, the results of this study were contradictory with respect to cohesion, acceptance and caring, and control from their studies. Moreover, similar to the results of this study were also observed by Bagi and Kumar (2014) in 100 19-year-old college students from the villages of Haryana, with an exception of cohesion, which was low in their case.

In terms of self-esteem, the sample of adolescent children showed a high degree of self-esteem in this study population. Depression in this study sample was below 14, indicating a minimal level. Moreover, the suicide ideation was extremely low in this case. The results of the study are similar to the findings of Lin and Yi (2017) in terms of low levels of depression and moderate to high levels of self-esteem in their study samples of adolescents from Taiwan.

Section II: Correlation Analysis

The main objective of the analysis was to identify any correlation present between dependent variables (suicide ideation and depression) and independent variables such as academic stress, family environment (cohesion, expressiveness, conflict, acceptance and caring, independence, active-recreational orientation, organization, and control) and self-esteem among senior secondary school students studying in Darjeeling, West Bengal. Correlation measures the strength of association between any two variables and ranges between -1 (perfect negative correlation) to 1 (perfect positive correlation). It is interpreted on the absolute value of the correlation

with the Pearson's r value between 0.1 and 0.3 indicating a small level of correlation, 0.3 to 0.5 indicating a mediocre level of correlation, while more than 0.5 indicating a strong relationship between the variables (Cohen, 1988). For the sake of convenience, the inter-correlations have been discussed under the normal grouping of various tested variables.

Table 5.8: Mean, SD, and Coefficient of Correlation between differentStudy Variables among School-going Adolescents (N=400)

Sl. No.	**Variables**	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	Suicide Ideation	1.51	2.59	1											
2	Depression	12.30	7.40	0.01	1										
3	Academic Stress	63.14	20.87	-0.02	0.09	1									
4	Self-esteem	24.98	5.07	-0.04	0.05	0.00	1								
5	Cohesion	50.43	4.59	-0.08	0.04	0.03	-0.15	1							
6	Expressiveness	32.00	3.85	0.04	0.04	0.03	0.06	-0.04	1						
7	Conflict	42.71	6.17	-0.04	0.23	-0.06	-0.08	0.02	0.04	1					
8	Acceptance & Caring	46.12	5.48	-0.08	0.01	0.00	-0.06	0.04	0.03	0.17	1				
9	Independence	29.95	3.43	-0.05	-0.02	-0.09	0.15	-0.01	-0.08	0.06	0.05	1			
10	Active-recreational orientation	33.62	4.05	0.05	0.00	-0.01	0.15	-0.08	0.09	-0.02	-0.07	-0.09	1		
11	Organization	8.06	1.24	0.02	-0.04	0.04	-0.03	0.03	-0.04	0.05	-0.01	-0.02	-0.02	1	
12	Control	15.18	2.25	0.00	-0.03	0.02	-0.02	0.09	0.01	0.07	0.09	0.06	-0.11	0.05	1

*p<0.05, **p<0.01

Hypothesis 1: *A significant correlation would exist between academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression, and suicide ideation among school-going adolescents.*

Table 5.8 represents the coefficient of correlation between academic stress, family environment, self-esteem, depression, and suicide ideation as calculated using Pearson's coefficient. According to the Table 5.8, there was a low level of positive correlation between conflict with depression ($r = 0.23$, $p < 0.01$), self-esteem with independence ($r = 0.15$, $p < 0.01$), acceptance and caring with conflict ($r = 0.17$, $p < 0.01$) and active recreational orientation with self-esteem ($r = 0.15$, $p < 0.01$). However, low but negative correlation was observed between active recreational orientation and control ($r = -0.11$, $p < 0.05$) and cohesion with self-esteem ($r = -0.15$, $p < 0.01$). However, there was no statistically significant correlation existed between the rest of the studied variables ($p > 0.05$). Therefore, Hypothesis 1 that states "There would exist a significant correlation between academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression and suicide ideation among school-going adolescents" was partly accepted.

The results of correlations have been discussed below, according to the variables. Typically, all these factors are known to cause depression as well as suicide ideation.

In relation to academic stress, the results contradict the studies conducted by Jayanthi et al. (2015), where a positive, strong significant relationship was observed between depression and academic stress in the 2432 students of secondary schools in Tamil Nadu. Sharma and Pandey (2017) also reported that there was a correlation between depression, anxiety, stress, and academic achievement. This study was conducted on 120 students aged 16 years studying in government schools at Mahasamund district, Chhattisgarh. Similarly, Masood et al. (2016) also described a significant level of association of anxiety, depression, and academic stress using Pearson product-moment correlation. The study population included 18- to 19-year-old medical students from Punjab.

Khanehkeshi and Basavarajan (2012) also reported a significant association between academic stress and depression in high school boys and girl students. Ang and Huan (2006) showed low levels of significant correlation between academic stress and depression ($r = 0.25$) and suicide ideation ($r = 0.22$) in secondary students of Singapore, however, the correlation between depression and suicide ideation was significantly strong with $r = 0.62$. Recently, Oginyo et al. (2018) described a moderate level ($r = 0.38$) of significant correlation between academic stress and suicide ideation. The sample population comprised of 2500 undergraduates randomly selected from Ebonyi State Universities, Abakaliki, Nigeria, Ibrahim et al. (2017) reported that stress was significantly correlated with suicide ideation in the case of females, instead of males. However, the type of stress was not defined in the study.

The findings of the study are contrary to the above-mentioned studies as it indicates that depression and suicide ideation in school students of Darjeeling was not related to academic stress. There are no studies or reports that describe any kind of

academic or any other form of stress in school children in the district of Darjeeling, West Bengal. Further, the people in Darjeeling could have a laid-back attitude towards academics. Moreover, it can be speculated that the parental pressure is much lower in comparison to other places. As observed in the present study (Table 5.8), there is a much better family environment in the Darjeeling district compared to other places, thereby indicating improved expressions and better communication between the parents and the children.

The family environment has been given a lot of significance by researchers while dealing with depression and suicide (Sander & McCarthy, 2005; Raina &Balodi, 2015;Ahookhosh et al., 2016). Considering the first component of the family environment, i.e., family *cohesion*, Lau and Kwok (2006) and Zgambo et al. (2012) have proposed that the absence of cohesion in the family can be the source of depression, particularly in children. Moreover, it has been recognized as a protective aspect with regards to the suicidal behaviour of the young population (Arria et al., 2009).

Findings of the study show no statistically significant correlation between cohesion and depression as well as cohesion and suicide ideation in the samples of school adolescents from Darjeeling, West Bengal. This can be due to the average level of cohesion observed in the families of the study. It is similar to the findings of Ahoohkhosh et al. (2016), where family cohesion was not correlated with suicide ideation. However, in contradiction, Ahoohkhosh et al. (2016) also reported that cohesion was significantly negatively moderately correlated with depression ($r = -0.35$). The study sample comprised of 14 to 18 years old 120 adolescent (90 girls and 30 boys) participants from Tehran, Iran who had attempted suicide. Moreover, the

results are contradictory to the study conducted by Sharma and Khan (2014), where the sample comprised of randomly chosen 300 adolescents, with an equal number of boys and girls from Government Senior Secondary School in Chandigarh, Punjab. In this study, depression assessed by Beck Depression Inventory-II (BDI-II) was found to be negatively, but significantly correlated with cohesion with $r = -0.269$, $p < 0.01$. Similar results were also observed by Kaur et al. (2006), Herman et al. (2007), and Mason et al. (2009), where depression had a negative, however, a significant correlation with cohesion, respectively. Kaur et al. (2006) conducted their study on randomly selected 200 adolescents studying in the senior secondary schools from Ambala, Punjab, whereas Herman et al. (2007) studied 83 adolescents of African-American and European-American origin and Mason et al. (2009) explored 12 to 21 years of healthy adolescents from Washington DC, USA. In a study of 188 African-American undergraduate US students, Harris and Molock (2000) found family cohesion to be significantly negatively related to depression ($r = -0.27$) and suicide ideation ($r = -0.20$). Along with this, Sharma and Khan (2014) also reported positive correlation between cohesion and expressiveness ($r = 0.46$, $p < 0.01$), independence ($r = 0.40$, $p < 0.01$), organization ($r = 0.34$, $p < 0.01$) and active recreational orientation ($r = 0.31$, $p < 0.01$), all contradictory to the results of this study. Bagi and Kumar (2014) also reported significant positive correlation between cohesion and expressiveness ($r = 0.53$), conflict ($r = 0.31$), acceptance and caring ($r = 0.71$), independence ($r = 0.60$), active recreational orientation ($r = 0.74$) and control ($r = 0.59$) and negative significant correlation with organization ($r = -0.14$).

The next component of the family environment comprises *expressiveness.* Findings show no correlation of expressiveness with any of the study variables, even though there was an average level of expressiveness. Similar study by Kaur et al.

(2006), was seen where expressiveness was unrelated to depression and contradictory to Sharma and Khan (2014), where expressiveness was negatively correlated with depression ($r = -0.271$, $p < 0.01$) and positively correlated with independence ($r = 0.41$, $p < 0.01$), organization ($r = 0.11$, $p < 0.05$) and active recreational orientation ($r = 0.24$, $p < 0.01$). Bagi and Kumar (2014) reported resemblance with the results of this present study in terms of reporting no correlation of expressiveness with conflict and organization. However, their study reported significant correlation between expressiveness and acceptance and sharing ($r = 0.40$), independence ($r = 0.48$), active recreational orientation ($r = 0.51$) and control ($r = 0.36$).

Conflict is the third factor of the family environmental scale. The conflict was reported to be positively significantly correlated with depression which was similar to findings by Kaur et al. (2006), Herman et al. (2007), Yu et al. (2015), and Ahoohkhosh et al. (2016). The findings of their study by Bagi and Kumar (2014) supported the results of the present study by reporting a positive, and low correlation between conflict and acceptance and caring. However, in addition to this, the correlation between conflict and independence ($r = 0.23$), active recreational orientation ($r = 0.23$), organization ($r = 0.27$) and control ($r = 0.20$), which was contradicting. Herman et al. (2007) reported a negative significant correlation of cohesion with conflict. Moreover, Ahoohkhosh et al. (2016) observed a positive correlation between conflict and suicide ideation, contrary to the findings of this study.

Acceptance and caring are the next factors of this scale. Results of the study match with the studies done by Kaur et al. (2006) as there was no significant correlation between acceptance and caring with depression. However, it also

contradicted with Bagi and Kumar (2014), where acceptance and caring was correlated with independence (r = 0.74), active recreational orientation (r = 0.60) and control (r = 0.45). The similarity of the results also showed according to the findings of Bagi and Kumar (2014), with respect to no correlation of acceptance and caring with the organization.

Independence forms one of the critical components of the family environment. The findings were contradictory to studies by Kaur et al. (2006), Sharma and Khan (2014), and Bagi and Kumar (2014), where there was a negative correlation between independence with depression and a positive one with active recreational orientation, cohesion, expressiveness, and conflict. However, the results of the study were similar as a match with Sharma and Khan (2014) with respect to no correlation between independence and organization.

Active-recreational orientation has been identified as one of the factors of the family environment. The results contradict the adolescent studies done by Kaur et al. (2006) and Sharma and Khan (2014) between the active-recreational organization and depression, where these factors were negatively correlated with each other. Along with this, Bagi and Kumar (2014) reported active recreational orientation to be correlated with control (r = 0.29), similar to the results of the study and organization (r = -0.22), which was contradictory.

The next aspect of the family environment comprises testing the correlation between the *organization* skills of the students with depression. The results of the study showed an absence of any relationship between these two, similar to Sharma and Khan (2014) and contradicting Kaur et al. (2006), who reported a low but significant correlation between these two. Moreover, Sharma and Khan (2014) also

suggested a positive correlation between organization and active recreational orientation, which was also not observed in this case. Bagi and Kumar (2014) suggested a negative correlation between organization and control, contrary to the results.

The final component of the family environment is termed as '*control*'. The amount of control' observed in the study population, in this case, was not related to depression, similar to the studies by Kaur et al. (2006). However, Yu et al. (2015) reported a significant positive correlation between depression and control.

Self-esteem was found to be significantly negatively correlated with depression by Lin and Yi (2017), Khanehkeshi and Basavarajappa (2012), Manna et al. (2016), and Babore et al. (2016), contradictory to the findings of the study. Robertson and Simons (1989) reported a moderate level of correlation between family conflict, which was not also evident in the findings of the present study.

Depression has been typically associated with suicide ideation. However, the findings of the present study did not show any kind of correlation between depression and suicide ideation. The findings of the study are similar to the study conducted by Kisch, Leino, and Silverman (2005) where the results showed that many students despite having depressive symptoms did not consider suicide and fewer attempted suicide even. Vanderwerker et al. (2007) reported similar findings where anxiety was one of the best predictors of suicidality and not Major depressive disorders. The study resulted that white patients who were already at high risk for suicidality due to factors like substance abuse, illness, and anxiety predicted suicidality while major depressive disorder was not a predictor. According to Kuo, Gallo, and Eaton (2004), if there is no significant association between depression and new incidents of suicide ideation it

may be because suicide ideation is one of the diagnostic criteria for depression and not due because suicide ideation is not associated with depression. Their study also found that the association of suicidal behaviour with hopelessness was stronger than the association of depressive episodes or substance abuse and suicidal behaviours.

Section III: Regression Analysis

Table 5.9: Hierarchical Logistic Regression Analysis of Academic Stress, Different Dimensions of Family Environment and Self-esteem as Predictors of Depression among School-going Adolescents (N=400)

	Model 1			**Model 2**			**Model 3**		
Independent Variables	**Depression**			**Depression**			**Depression**		
	Beta	**SE Beta**	**t**	**Beta**	**SE Beta**	**t**	**Beta**	**SE Beta**	**t**
Academic Stress	0.032	0.018	1.811	0.027	0.017	1.532	0.027	0.017	1.544
Cohesion				0.079	0.079	0.999	0.09	0.08	1.115
Expressiveness				0.087	0.095	0.917	0.084	0.095	0.882
Conflict				-0.285	0.06	-4.756	-0.281	0.06	-4.688
Acceptance				0.068	0.067	1.009	0.07	0.067	1.035
Independence				-0.003	0.091	-0.033	0.008	0.091	0.092
Active recreational				-0.011	0.107	-0.103	-0.023	0.108	-0.211
Organization				-0.188	0.293	-0.64	-0.181	0.294	-0.617
Control				-0.088	0.163	-0.541	-0.091	0.163	-0.557
Self-esteem							0.066	0.074	0.888
R Squared	0.008			0.069			0.071		
Adjusted R Squared	0.006			0.047			0.047		
F	3.279			3.209			2.966		
P	0.071			0.001			0.001		

Table 5.10: Model Summary of the Academic Stress, Different Dimensions of Family Environment and Self-esteem as Predictors of Depression amongSchool-going Adolescents (N=400)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.090[a]	.008	.006	7.378
2	.263[b]	.069	.047	7.221
3	.266[c]	.071	.047	7.223

Hypothesis 2: *The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Depression among school-going adolescents.*

A hierarchical stepwise multivariate analysis was used to analyze the main and interactive factors affecting depression and suicide ideation among Darjeeling school-going adolescents. Table 5.9 and 5.10 presents the model summary and coefficients of the three-step hierarchical regression, showing three models for depression. The primary model (model 1) includes academic stress. Thereafter, the family environment dimensions were at step 2 (model 2) and self-esteem was included in step 3(model 3) respectively. Ideally, the addition of every regressor from model 1 to model 3 should cause an increase in R and R2 values. In this case, academic stress when added as the independent variable in model 1, the results from the regression equation were found ($F(1,398) = 3.279$, $p > 0.05$), which was insignificant with an R2 of 0.008.

With the addition of family environment variables (cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational, organization, and control) to model 1, there was an increase in the R and R2 values to 0.263 and 0.069 respectively ($F (9, 390) = 3.209$ $p < 0.05$). Therefore, according to model 2, Conflict was the only component in the family environment that explained variation in depression. The addition of self-esteem to academic stress and family environment, showed a very minor increase in the R or R2 values, thereby indicating that even though a significant regression was observed in model 3 ($F (10, 389) = 2.966$, $p < 0.05$), self-esteem did not increase any amount of total variation in depression. Thus, it can be suggested that part of Hypothesis 2: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Depression among school-going adolescents was not accepted.

The findings of this study are contradicting to Yaacob et al. (2009) as they reported that stress, loneliness, and self-esteem predicted depression. Sharma and Khan (2014) conducted stepwise hierarchical regression for evaluating the effect of family environment on depression and observed that depression was significantly predicted by expressiveness, cohesion, and independence, contradictory to our results, where the only conflict impacted depression. Similarly, Zhang et al. (2011) also performed hierarchical regression and reported that optimism and cohesion are the significant predictors of depression. Herman et al. (2007) reported that family cohesion predicted depression in African-American adolescents and family conflict in European American students. Babore et al. (2016) evaluated the interaction using a regression model and suggested that self-esteem was one of the major predictors of depression. This study was conducted with594 adolescents from schools in Italy. Lan et al. (2019) and Kang et al. (2013) also suggested that self-esteem and academic

stress also predicted significantly depression, which was not observed in the present findings. The reason for this indifference may be the presence of high levels of self-esteem present in the population of the present study.

Table 5.11: Coefficients of Academic Stress, Different Dimensions of Family Environment and Self-esteem as Predictors of Depression amongSchool-going Adolescents (N=400)

Model	Unstandardized B	Std. Error	Standardized Beta	t-value	Sig.
(Constant)	13.791	8.813		1.565	.118
Academic Stress	.027	.017	.076	1.544	.123
Cohesion	.090	.080	.056	1.115	.266
Expressive	.084	.095	.044	.882	.378
Conflict	-.281	.060	-.234	-4.688	.000
Acceptance	.070	.067	.052	1.035	.301
Independence	.008	.091	.005	.092	.926
Active recreational	-.023	.108	-.011	-.211	.833
Organization	-.181	.294	-.030	-.617	.538
Control	-.091	.163	-.028	-.557	.578
Self-esteem	.066	.074	.045	.888	.375

When the individual effects of the academic stress, various components of family environment, and self-esteem on depression were assessed (Table 5.11), it was observed that conflict had the largest effect with B = -0.281 (t = -4.688, p = 0.000). The degree of depression in adolescents decreased by one unit with every increase in 0.281 units increase in conflict. It can be suggested that only conflict (part of the family environment) was a significant predictor of depression. The following equation can be deduced from the coefficients (Table 5.11):

The amount of predicted depression in the participants =13.791 -0.281 (Conflict).

Thus, it can be suggested that only a part of Hypothesis 2: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Depression among school-going adolescents was accepted.

Table 5.12: Hierarchical Logistic Regression Analysis of Academic Stress, Different Dimensions of Family Environment, Self-esteem and Depression as Predictors of Suicide Ideation among School-going Adolescents (N=400)

	Model 1			**Model 2**			**Model 3**			**Model 4**		
Independent Variables	**Suicide Ideation**			**Suicide Ideation**			**Suicide Ideation**			**Suicide Ideation**		
	Beta	**SE Beta**	**t**	**Beta**	**SE Beta**	**t**	**Beta**	**SE Beta**	**t**	**Beta**	**SE Beta**	**T**
Academic Stress	-0.002	0.006	-0.326	-0.003	0.006	-0.441	-0.003	0.006	-0.463	-0.003	0.006	-0.475
Cohesion				-0.042	0.029	-1.485	-0.048	0.029	-1.681	-0.049	0.029	-1.687
Expressiveness				0.027	0.034	0.803	0.029	0.034	0.86	0.029	0.034	0.849
Conflict				-0.013	0.021	-0.624	-0.015	0.021	-0.718	-0.014	0.022	-0.655
Acceptance				-0.033	0.024	-1.349	-0.034	0.024	-1.396	-0.034	0.024	-1.402
Independence				-0.029	0.032	-0.9	-0.036	0.033	-1.099	-0.036	0.033	-1.098
Activerecreational				0.023	0.038	0.604	0.03	0.039	0.78	0.03	0.039	0.781
Organization				0.058	0.105	0.549	0.054	0.105	0.512	0.054	0.105	0.517
Control				0.023	0.059	0.391	0.024	0.058	0.418	0.025	0.059	0.422
Self-esteem							-0.039	0.026	-1.464	-0.039	0.027	-1.469
Depression										0.003	0.018	0.183
R Squared	0			0.02			0.025			0.025		
Adjusted R Squared	-0.002			-0.003			0			-0.003		
F	0.106			0.866			0.996			0.906		
P	0.745			0.556			0.446			0.534		

Table 5.13: Model Summary of Academic Stress, Different Dimensions of Family Environment, Self-esteem and Depression as Predictors of Suicide Ideation in School-going Adolescents (N=400)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					F Change	df1	df2	Sig. F Change
1	.016[a]	.000	-.002	2.590	0.106	1	398	0.745
2	.140[b]	.020	-.003	2.591	0.866	9	390	0.556
3	.158[c]	.025	.000	2.587	0.996	10	389	0.446
4	.158[d]	.025	-.003	2.590	0.906	11	388	0.534

a. Predictors: (Constant), Academic Stress

b. Predictors: (Constant), Academic Stress, Control, Organization, Acceptance, Expressive, Cohesion, Activerecreational, Conflict, Independence

c. Predictors: (Constant), Academic Stress, Control, Organization, Acceptance, Expressive, Cohesion, Activerecreational, Conflict, Independence, Self-esteem.

d. Predictors: (Constant), Academic Stress, Control, Organization, Acceptance, Expressive, Cohesion, Activerecreational, Conflict, Independence, Self-esteem, Depression.

Hypothesis 3: *The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Suicide ideation among school-going adolescents.*

Similar to Hypothesis 2, another hierarchical stepwise multivariate analysis was conducted to observe the main and interactive effects of academic stress, family environment, self-esteem, and epression on suicide ideation. Table 5.13 represents the model summary of the four-step hierarchical regression, elaborating the four models for suicide ideation. The primary model (model 1) includes Academic stress. Thereafter, the family environment dimensions were added at step 2 (model 2) and self-esteem was included in step 3 (model 3).Finally, Depression was included in step 4 (model 4). An insignificant regression equation was observed in all the models. In model 1, when Academic Stress was added as the independent variable ($F(1,398) = 0.106$, $p > 0.05$), the model exhibited insignificant results. According to model 2, family environment ($F(9,390) = 0.866$, $p > 0.05$) did not cause in any impact. Similarly, in model 3 with the addition of self-esteem ($F(10, 389) = 0.996$, $p > 0.05$) there was no significant impact on suicide ideation. Also, in model 4 with the addition of depression ($F(11, 388) = 0.906$, $p > 0.05$) there was no significant impact on suicide ideation.

Table 5.14: Coefficients of Academic Stress, Different Dimensions of Family Environment, Self-esteem and Depression as Predictors of Suicide Ideation in School-going Adolescents (N=400)

Model	**Unstandardized B**	**Std. Error**	**Standardized Beta**	**t**	**Sig.**
(Constant)	5.835	3.170		1.841	0.066
Academic Stress	-0.003	0.006	-0.024	-0.475	0.635
Cohesion	-0.049	0.029	-0.086	-1.687	0.092
Expressive	0.029	0.034	0.043	0.849	0.396
Conflict	-0.014	0.022	-0.035	-0.655	0.513
Acceptance	-0.034	0.024	-0.072	-1.402	0.162
Independence	-0.036	0.033	-0.056	-1.098	0.273
Activerecreational	0.030	0.039	0.040	0.781	0.435
Organization	0.054	0.105	0.026	0.517	0.606
Control	0.025	0.059	0.022	0.422	0.673
Self-esteem	-0.039	0.027	-0.076	-1.469	0.143
Depression	0.003	0.018	0.010	0.183	0.855

Table 5.14 elaborates the coefficients of the independent variables on suicide ideation. None of the independent variables had any significant impact on suicide ideation. Therefore, it can be suggested that **Hypothesis 3**which states**"**The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Suicide ideation among school-going adolescents" was not accepted.

The results were contrary to other studies such as Ibrahim et al. (2017), where depression was the best predictor of suicide ideation among girls accounting for 34% of the total variation in suicide ideation. Madjar et al. (2018) in their recent study on the hierarchical logistic regression of suicide ideation showed that interaction of gender in suicide ideation was significant in this case.

Section IV: Inferential Analysis

The differences in the perception of study variables with respect to gender were studied by conducting independent samples t-test.

Table 5.15: Interaction of Academic Stress, Family Environment and Self-esteem on Depression and Suicide Ideation (N=400)

Effect	**Wilks' Lambda**	**F**	**Hypothesis df**	**Error df**	**Sig.**
Intercept	0.936	13.505	2	394	0.000
AcademicStress	0.992	1.639	2	394	0.196
FamilyEnvironment	0.990	1.917	2	394	0.148
Self-esteem	0.994	1.119	2	394	0.328
AcademicStress * FamilyEnvironment * Self-esteem	0.997	0.554	2	394	0.575

Hypothesis 4: *There would exist a significant difference in the interaction of academic stress, family environment, and self-esteem on depression, and suicide ideation in school-going adolescents.*

Multivariate analysis of covariance (MANCOVA) was conducted to investigate the interaction between the independent variables (academic stress, family environment

factors, and self-esteem) on the dependent variables (depression and suicide ideation)(Table 5.15). The Wilk's Lambda value was chosen to determine the significance of the interaction for our study. The lambda is a measure of the percent variance in the dependent variables not explained by differences in levels of the independent variable.

Table 5.15 illustrates the results of the multivariate analysis done to test the interaction between the independent psychological variables on depression and suicide ideation. This table shows that there was no statistically significant difference in depression and suicide ideation based on the academic stress, $F(2,394) = 1.63$, $p > 0.0005$; Wilk's $\Lambda = 0.992$. Similarly, no significant interaction was observed between family environment and dependent variables (depression and suicide ideation as a whole) $F(2,394) = 1.91$, $p > 0.0005$; Wilk's $\Lambda = 0.990$, and self-esteem with depression and suicide ideation, $F(2,394) = 1.11$, $p > 0.0005$; Wilk's $\Lambda = 0.994$. Along with this, the combined interaction of academic stress, family environment, and self-esteem was also observed to be statistically insignificant, $F(2,394) = 0.554$, $p > 0.0005$; Wilk's $\Lambda = 0.997$. This may be due to the minimal level of depression and almost nil suicide ideation in the study population. Thus, it can be suggested that **Hypothesis 4** which states: "There would exist a significant difference in the interaction of academic stress, family environment and self-esteem on depression and suicide ideation in school-going adolescents"is not accepted. The findings are supported by Rachel and Eadaoin (2007) where they investigated the predictors of suicide ideation, among the factor's variables like family, school, peer, and psychological factors were included. The study was conducted on 1,358 Hong Kong Chinese adolescents with 680 boys and 678 girls. They were divided into younger age groups of 694 with a mean age of 12.3 years and older age groups of 664 with a mean

age of 15.4 years. The findings suggested that peer support was important in the prediction of suicide ideation among girls and younger adolescents while peer conflict was an important predictor for suicide ideation among older adolescents. Variables like family conflict, teacher support, and academic pressure did not correlate significantly in predicting suicide ideation. Similar to this study was done by Kuo, Gallo, and Eaton (2004) who suggested that the reason for the result of no significant association between depression and new incident of suicide ideation maybe because suicide ideation was one of the diagnostic criteria for depression and not because suicide ideation is not associated with depression. Their study also found that the association of suicidal behaviour with hopelessness was stronger than the association of depressive episodes or substance abuse and suicidal behaviour. Several studies had supported the link between risk for suicide and both depression and hopelessness. However, most of the individuals who have reported being hopeless or depressed never make a suicide attempt.

Thus, although the different measures of depression and hopelessness show good sensitivity in predicting future suicide (low rate of false negatives), they do not exhibit specificity (high rate of false alarm positives) (Stolberg, Clark, &Bonger, 2002; Brown, Beck, Steer, & Grisham, 2000; Beck, Brown, & Steer, 1989; Beck et al., 1985). Another study was done by Gibb, Andover, and Beach (2006) who explained whether college students' (n=230) attitude towards suicide (the extent to which they deem it as an acceptable option under few circumstances) would act as a moderating variable between depressive symptoms and hopelessness along with their levels of suicide ideation. This moderation hypothesis was seen as being supported, but only in men. The results were such that the levels of depressive symptoms and hopelessness in men were related significantly to suicide ideation and it was seen only

on those participants who had a relatively positive attitude towards suicide. Opposite to the study findings, Khanehkeshi and Basavarajappa (2012) reported that there was a significant effect of gender, academic stress, and depression, evaluated using MANOVA as a statistical tool. There have been limited studies in this regard, thereby making it difficult to compare with other studies.

Hypothesis 5: *There would exist a significant difference between school-going adolescent boys and girls on academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression, and suicide ideation.*

Table 5.16: Mean, SD and t-value of School-going Adolescent Boys and Girls on Academic Stress (N=400)

Variable	Gender	N	Mean	SD	t	P	Sig.
Academic Stress	Boys	200	59.92	19.32	-3.119	0.002	Significant
	Girls	200	66.36	21.88			

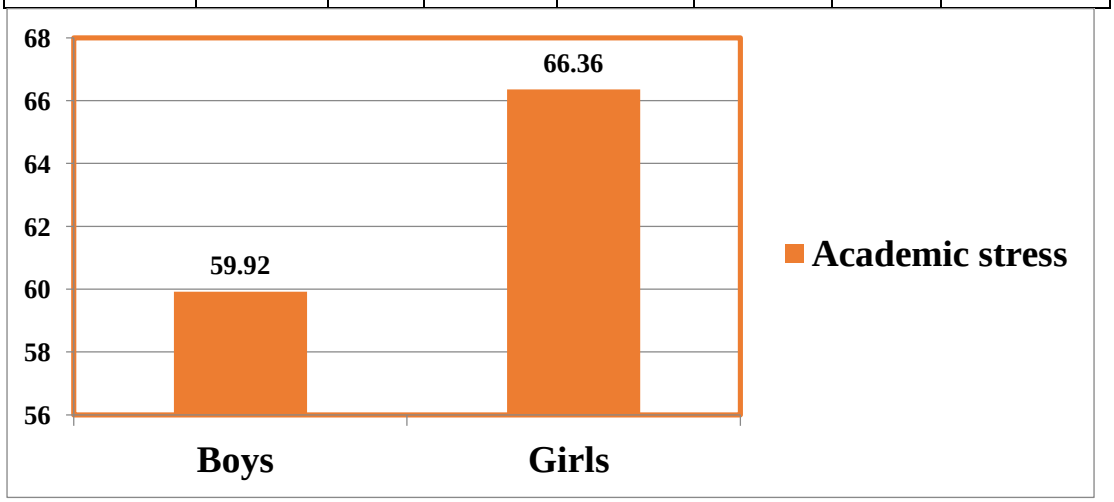

Figure 5.7: Mean Difference of School-going Adolescent Boys and Girls on Academic Stress (N=400)

Table 5.16 presents the results of the t-test conducted to test this hypothesis. This study found that the adolescent girls (66.36 ± 21.88) felt a statistically significantly higher amount of academic stress than the same-aged boys (59.92 ± 19.32), $t = -3.119$, $p < 0.05$. Therefore, **Hypothesis 5** that states "There would exist a significant difference between school-going adolescent boys and girls on academic stress", is accepted. The bar- diagram also shows the same trend.

At the adolescent stage, the academic stress on the population is typically higher due to societal pressures (Prabhu, 2015). The results are similar to the findings of Masood et al. (2016) who also reported higher academic anxiety in girls compared to the boys. In this case, the study population comprised medical students from medical colleges of Punjab. This was also supported by Verma et al. (2002), Yacoob et al. (2009), and Banu et al. (2015). The reason behind this can be the fact that females are more expressive about their emotional behaviour (Misra& Castillo, 2004). Contradictory to our results, Prabhu (2015), Khanehkeshi and Basavarajappa (2012), and Ibrahim et al. (2017) reported that there was no statistical significance in the children due to academic stress or any other stress. The study that was conducted on students studying in class XI in a higher secondary school located in Tamil Nadu, India was evaluated by Prabhu (2015).

Table 5.17: Mean, SD and t-value of School-going Adolescent Boys and Girls on Different Dimensions of Family Environment (N=400)

Variables	**Gender**	**N**	**Mean**	**SD**	**t**	**P**	**Sig.**
Cohesion	Boys	200	50.95	5.20	2.245	0.025	Significant
	Girls	200	49.92	3.81			
Expressiveness	Boys	200	31.72	3.95	-1.455	0.146	Insignificant
	Girls	200	32.28	3.74			
Conflict	Boys	200	43.69	5.51	3.215	0.001	Significant
	Girls	200	41.73	6.62			
Acceptance and caring	Boys	200	45.87	5.73	-0.913	0.362	Insignificant
	Girls	200	46.37	5.20			
Independence	Boys	200	34.26	4.37	3.196	0.002	Significant
	Girls	200	32.98	3.59			
Activerecreational orientation	Boys	200	29.68	3.75	-1.607	0.109	Insignificant
	Girls	200	30.23	3.06			
Organization	Boys	200	8.01	1.33	-0.808	0.420	Insignificant
	Girls	200	8.11	1.13			
Control	Boys	200	15.15	2.19	-0.288	0.773	Insignificant
	Girls	200	15.22	2.30			

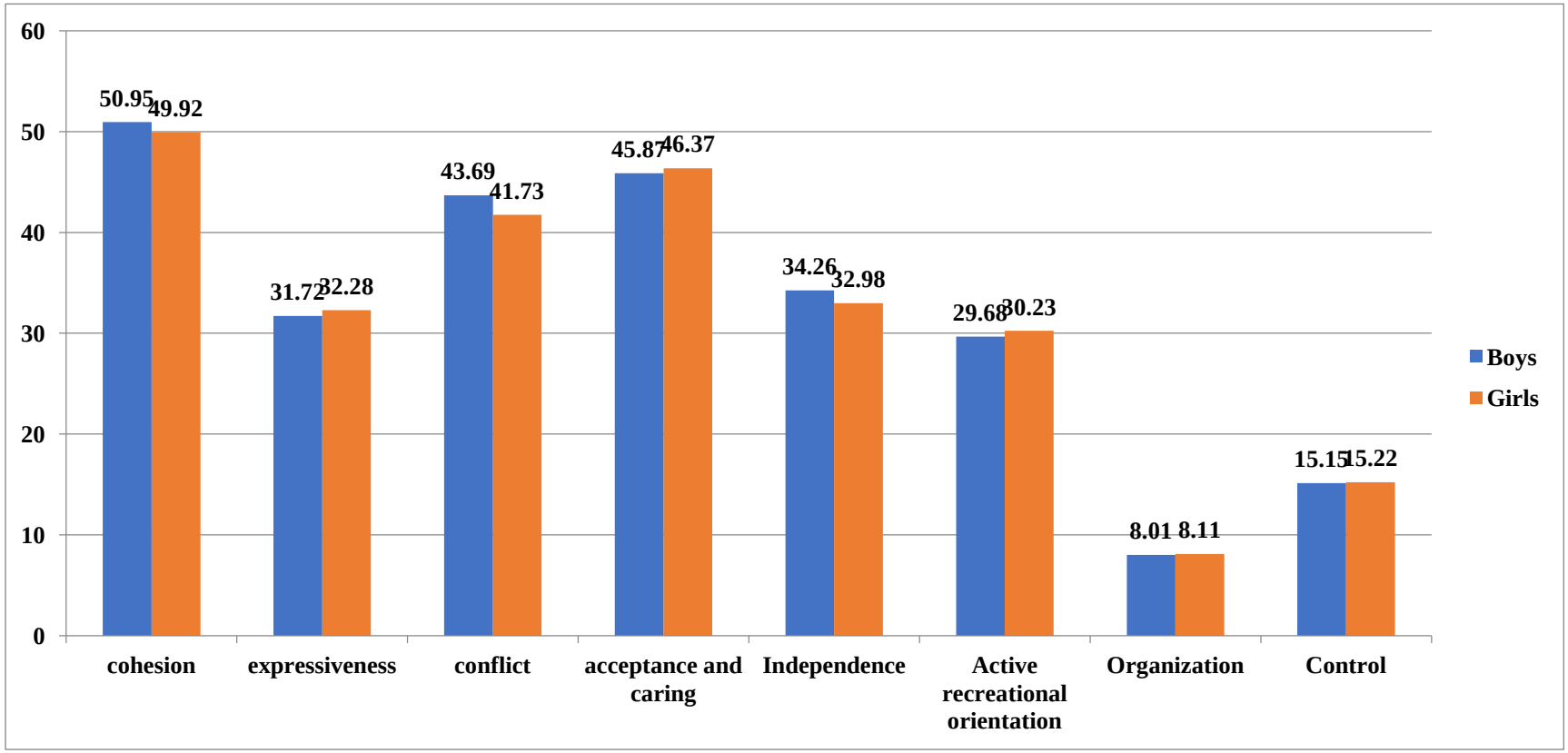

Figure5.8: Mean Difference of School-going Adolescent Boys and Girls on Different Dimensions of Family Environment (N=400)

Table 5.17 demonstrates the results of the t-test conducted to test the differences in the family environment aspects based on the gender of the respondents. The current study observed that there was a statistically significant difference in some parameters such as cohesion, conflict, and independence between the adolescent boys and girls, however, there was no statistical significance in the rest of the factors such as expressiveness, acceptance and caring, active recreational orientation, organization, and control among the boys and girls. The adolescent boys (50.95 ± 5.20) experienced a statistically significantly higher amount of cohesion than the same-aged girls (49.92 ± 3.81), $t = 2.245$, $p < 0.05$. Similarly, conflict was also observed to be higher in boys (43.69 ± 5.51) than girls (41.73 ± 6.62), $t = 3.215$, $p < 0.05$. A similar trend for 'independence' was also observed. The mean level for boys (34.26 ± 4.37) was significantly higher than girls (32.98 ± 3.59) with $t = 3.196$, at $p < 0.05$. Therefore, part of **Hypothesis 5** which states "There would exist a significant difference between school-going adolescent boys and girls on different dimensions of family environment (i.e., cohesion, conflict, and independence) was accepted. However, part of **Hypothesis 5** that states "There would exist a significant difference between school-going adolescent boys and girls on different dimensions of family environment (i.e., expressiveness, acceptance and caring, active recreational orientation, organization, and control) was not accepted.The bar- diagram also shows the same trend.

In this study, the level of cohesion, conflict, and independence of the adolescent boys was found to be significantly higher than the girls. This can be expected as Indian society predominantly follows the patriarchal system and adolescent boys are prioritized over girls. The results of the present study were supported by Savitha and Srimanthi

(2016), where all the components of the family environment, excepting control showed similar values to our population. The study population, in that case, comprised 60 college-going students with low suicide ideation, within the age group of 16 to 19 years, located in Bangalore, India. However, a significant statistical difference between the males and females was observed only in terms of active recreational orientation and no other factors in their study. This is contradicting to the results of the study. However, the results of the t-test between students with severe suicide ideation showed significant differences between the cohesion and independence of their male and female study population. In another study by Sharma and Khan (2014), there were visible significant differences between the organizational values of males and females, however, the rest (expressiveness, independence, and recreational orientation) was insignificantly different. In this case, the study sample comprised of 300 adolescent XI grade Government Model Senior Secondary School students from Chandigarh, Punjab, India.

Table 5.18: Mean, SD and t-value of School-going Adolescent Boys and Girls on Self-esteem (N=400)

Variable	**Gender**	**N**	**Mean**	**Std. Deviation**	**t-values**	**p-values**	**Sig.**
Self-esteem	Boys	200	23.97	5.64	-4.037	0.000	Significant
	Girls	200	25.98	4.20			

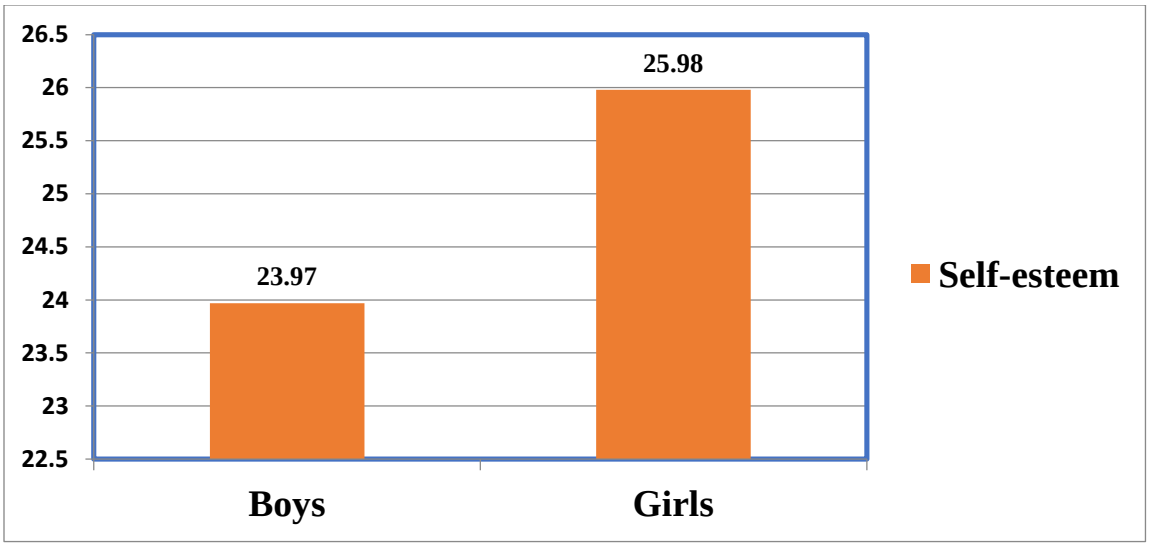

Figure 5.9: MeanDifference of School-going Adolescent Boys and Girls on Self-esteem (N=400)

Table 5.18 illustrates the results of the t-test conducted to test the differences in self-esteem based on the gender of the respondents. The results of the study observed that there was a statistically significant difference between the self-esteem of the girls and boys of the population being studied ($t = -4.03$, $p < 0.05$). The self-esteem of the adolescent girls (25.98 ± 4.20) was higher than the boys (23.97 ± 5.64). Therefore, a part of **Hypothesis5**which states "There exists a significant difference in self-esteem between school-going adolescent boys and girls",was accepted.The bar- diagram also shows the same trend.

Even though Babore et al. (2016) and Yaacob et al. (2009) also reported differences in self-esteem due to gender, the observed self-esteem was higher in women than men. The findings were observed to be similar in thecurrent study population. In

contrast, Lan et al. (2019) testified that self-esteem did not vary significantly between boys and girls.

Table 5.19: Mean, SD and t-value of School-going Adolescent Boys and Girls on Depression (N=400)

Variable	Gender	N	Mean	SD	t-values	p-values	Sig.
Depression	Boys	200	10.19	7.14	-5.936	0.000	Significant
	Girls	200	14.41	7.06			

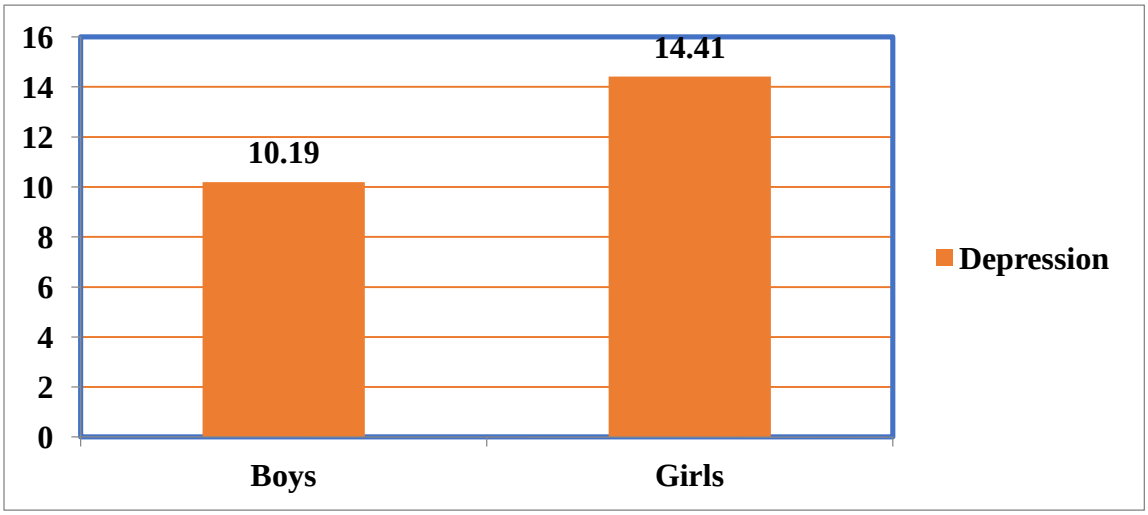

Figure 5.10: Mean Difference of School-going Adolescent Boys and Girls on Depression (N=400)

Table 5.19 exemplifies the results of the t-test conducted to test the differences in depression based on the gender of the respondents. The present study observed that there was a statistically significant difference between the level of depression between the adolescent girls and boys being studied ($t = -5.93$, $p < 0.05$). The degree of depression of

the adolescent girls (14.41 ± 7.06) was higher than the adolescent boys (10.19 ± 7.14). Therefore, a part of **Hypothesis 5** which states"There would exist a significant difference in depression between school-going adolescent boys and girls",is accepted. The bar-diagram also shows the same trend.

The mean of the result display that girls are more depressed than their boy counterparts. The possible reason behind this can be due to assigned to the extra sensitive nature of women towards various issues, starting from an adolescent age. Along with this, Ibrahim et al. (2017) pointed that there is a difference in developmental maturity across the ages, with girls maturing faster than boys. Moreover, the academic stress was also higher in girls in the present study which can have an effect on the level of depression. The previous studies on depression due to gender differences showed a varied level of outcomes in different studies. The findings of the study are supported by findings of Poli et al. (2003), Khanehkeshi and Basavarajappa (2012), Piko and Balázs (2012), and Kang et al. (2013), where women showed more depression than men. Contradictory to the study, Lee et al. (2006), Sharma and Khan (2014), Ibrahim et al. (2017), and Lan et al. (2019) observed no statistically significant differences in the level of depression among adolescent boys and girl students of Chandigarh or Malaysia, respectively.

Table 5.20: Mean, SD and t-value of School-going Adolescent Boys and Girls on Suicide Ideation (N=400)

Variable	**Gender**	**N**	**Mean**	**Std. Deviation**	**t**	**P**	**Sig.**
Suicide ideation	Boys	200	1.36	2.38	-1.16	0.247	Not Significant
	Girls	200	1.66	2.77			

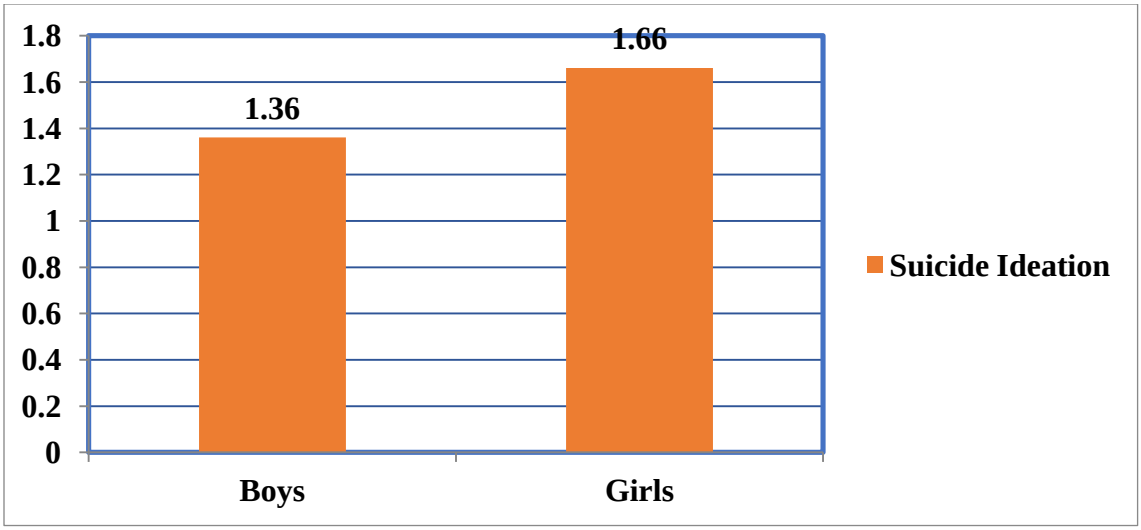

Figure 5.11: Mean Difference between the School-going Adolescent Boys and Girls on Suicide Ideation (N=400)

Table 5.20 embodies the results of the t-test conducted to test the differences in suicide ideation based on the gender of the respondents. The study observed that there was no statistically significant difference between the level of suicide ideation between the girls and boys of the population being studied ($t = -1.16$, $p > 0.05$). However, the degree of suicide ideation of the adolescent girls (1.66 ± 2.77), though insignificant, was comparatively higher than the adolescent boys (1.36 ± 2.38). Therefore, a part of **Hypothesis 5** which states"There would exist a significant difference in suicide ideation between school-going adolescent boys and girls", was not accepted. The bar-diagram also shows the same trend.

The results of the study are supported by findings of Lee et al. (2006) and Brent et al. (2009). Race, ethnicity, and age also did not show any association with suicidal events (Brent et al., 2009). However, Madjar et al. (2018) reported that suicide ideation was more intense in adolescent boys compared to girls. The same was the case with Ibrahim

et al. (2017), where 232 young people aged between 15 to 25 years from urban areas of Malaysia showed significant differences between males and females, with males having a higher tendency of suicide ideation. The reverse was observed to be true, in the case of Alsalman (2016), where females had a higher score of suicide ideation.

Hypothesis 6: *Selected socio-demographic variables would provide the best predictor relationship for depression in school-going adolescents.*

Table 5.21: Hierarchical Logistics Regression Analysis of Selected Socio-Demographic Variables as Predictors of Depression in School-going Adolescents (N=400)

	Model 1		
Independent Variables	**Depression**		
	Beta	**SE Beta**	**t**
Gender	4.21	0.69	6.05
Type of Board	-2.86	0.69	4.11
R Squared	0.118		
Adjusted R Squared	0.114		
F	26.78		
P	0.00		

Table 5.22: Model Summary of Selected Socio-demographic Variables as Predictorsof Depression in School- going Adolescents (N=400)

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.345[a]	.119	.114	6.963
a. Predictors: (Constant), Board1, Gender1				

A hierarchical stepwise multivariate analysis was used to analyze the demographic variables affecting depression in school-going adolescents of Darjeeling. Table 5.21 presents the model summary and coefficients of the hierarchical regression, showing demographic models for depression. In this case, board and gender when added as the independent variable in model 1, a significant regression equation was found ($F(2,397) = 26.789$, $p < 0.000$), with an R^2 of 0.119. The model exhibited a moderate correlation value of 34.5% and accounted for 11.9% of the total variation in depression.

Table 5.23: Coefficients of Selected Socio-Demographic Variables as Predictors of Depression in School-going Adolescents (N=400)

Model	**Unstandardized B**	**Std. Error**	**Standardized Beta**	**t**	**Sig.**
(Constant)	15.351	8.435			
Gender	3.696	0.733	0.250	5.039	0.000
Type of Board	-2.754	0.734	-0.186	-3.752	0.000

When the independent effects of the gender and board of exam on depression were assessed (Table 5.23), it was observed that gender had the largest effect with B = 3.69 ($t = 5.039$, $p = 0.000$), followed by the type of exam board exhibiting a B value of -2.75 ($t = -3.752$, $p = 0.000$). The degree of depression in adolescents increased by one unit with every increase of 3.69 units in gender and decreased by one unit with every increase in 2.75 units in the type of board selected for the examination.

The amount of predicted depression in the participants = 15.351 + 3.696 (Gender) -2.754 (Type of exam board). Thus, it can be suggested that **Hypothesis 6** that states

"Selected socio-demographic variables would provide the best predictor relationship for depression in school-going adolescents" is accepted. The findings are supported by Mason et al. (2009) and Lan et al. (2019), where gender was found to be positively associated with depression. However, researchers reported different factors from the present study findings predicting depression.

Table 5.24: Hierarchical Logistics Regression Analysis of Selected Socio-Demographic Variables as Predictors of Suicide Ideation in School-going Adolescents (N=400)

	Model 1		
Independent Variable	**Suicide ideation**		
	Beta	**SE Beta**	**t**
Gender	0.3	0.258	1.161
Type of board	0.37	0.256	1.43
R Squared	0.008		
Adjusted R Squared	0.003		
F	1.701		
P	0.184		

Table 5.25: Coefficients of Selected Socio-demographic Variables as Predictors of Suicide Ideation (N=400)

Model	**Unstandardized B**	**Std. Error**	**Standardized Beta**	**t**	**Sig.**
(Constant)	5.403	3.189		1.694	0.091
Gender	0.290	0.285	0.056	1.019	0.309
Board	0.309	0.281	0.060	1.098	0.273

Table 5.26: Model Summary ofthe Selected Socio-demographic Variables as Predictors of Suicide Ideation in School-going Adolescents (N=400)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					F Change	df1	df2	Sig. F Change
1	0.092[a]	0.008	0.004	2.582	1.701	2	397	0.184

Hypothesis 7: *Selected socio-demographic variables would provide the best predictor relationship for suicide ideation in school-going adolescents.*

Similar to Hypothesis 6, another hierarchical stepwise multivariate analysis was conducted to observe the main and interactive effects of gender and type of board of examination on suicide ideation. Table 5.24, 5.25, and 5.26 represent the model summary and the coefficients of the hierarchical regression, elaborating the models for suicide ideation. The model includes demographic variables such as gender and the type of board of examination of school that the respondents were attending. In the model, when gender and type of board were added as the independent variable ($F(2,397) = 1.701$, $p > 0.05$), the model exhibited a low correlation value of 9.2% and accounted for only 0.8% of the total variation in suicide ideation. The table suggests that the first step of the hierarchical multivariate analysis shows R^2 is 0.008498 and Adjusted R^2 is0.003503. That means 95% of the variance in Suicide ideation among school-going adolescents was not explained by gender and board of F change is 1.701 and it is insignificant at 0.01 level. Therefore, Hypothesis 7 which states “Selected socio-demographic variables would provide the best predictor relationship for suicide ideation in school-going adolescents” was not accepted

with very low R Squared & Adjusted R Squared and p-value greater than 0.05 this model is insignificant. The demographic variable is not making any significant impact on suicide ideation.

Overview of the Chapter

The study population comprised of adolescent school students of Darjeeling, West Bengal. The family environment was observed to be average for all the study variables except independence, which was found to be lower than the defined standards. The self-esteem of these children was remarkably high with low academic stress, minimal depression, and a low level of suicide ideation. There was hardly any significant correlation of depression or suicidal ideation with academic stress, family environment, or self-esteem, with an exception of conflict being related to depression. Moreover, there was no correlation between depression and suicide ideation in the findings of the study. Only gender, type of board, and conflict were significant predictors of depression. For suicide ideation, none of the variables were found to be significant predictors. There was no statistically significant difference in the interaction of academic stress, family environment, and self-esteem to depression and suicide ideation. However, there was a significant difference in academic stress, cohesion, conflict, and independence, self-esteem, and depression based on the gender of the adolescent.

CHAPTER VI

SUMMARY, CONCLUSION, AND SUGGESTIONS FOR FURTHER RESEARCH

Adolescence is a period of transition and thus a period of emotional turmoil. The various stages can be divided into early, middle, and late adolescence. Marked by significant changes which comprise both growth and development, adolescence is such a period of extreme vulnerability to any sort of positive or negative impact that the person's environment can imprint on the person.

The Rationale of the Study

Depression is the layman term for major depressive disorder with essential features of depressed mood or the loss of interest or pleasure in nearly all activities (although children and adolescents may be in a more irritable than sad mood) along with experiences of at least 4 additional symptoms which include depressed and irritable mood most of the day, nearly every day, significant weight loss or weight gain, Insomnia or Hyper Somnia nearly every day, fatigue nearly every day, feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day, recurrent thoughts of death, diminished ability to think or concentrate or indecisiveness, nearly every day and all of these symptoms should not be due to any other factor like substance abuse, etc. Adolescence is the period of turmoil for the person passing through the phase, there are various issues that come up concerning family, interpersonal relationships, academics, self-esteem, and confidence that might affect adolescence that may be the

triggering factor that pushes a person towards depression. Suicide ideation, the recurring thought of committing suicide has been linked to depression and is a matter of concern when it comes to adolescents.

Adolescents are the future of all societies. Their health physical or mental is of utmost importance. Depression and in turn suicide ideation have been one of the most important reasons for mortality rates today. According to the research by WHO (2004) suicide was the 8th leading cause of mortality for people of 15 years to 44 years of age. Data given by the Registrar General of India (2006) reveals mortality due to suicide by 1, 18,112 people. The suicide rates in India increased by 41.3% (NCRB, 1990). The most vulnerable and at-risk group is the youth, the study by Gururaj and Issac (2001) supports the claims with their results of the study where people within the age range of 15 -29 years fell under maximum suicide rates. The NCRB (2009) also showed that youth within the age of 15-29 years accounted for the largest section which was 34.5% of suicides.

Depression is one of the major factors that facilitate suicide ideation. One in every twenty persons in India over the age of 18 years has suffered from Depression (NMHS, 2015-2016). There have been many risk factors that contribute to depression and suicide ideation. A congenial family environment was a must for the overall development of adolescents. The link between depression and self-esteem was shown in the study conducted by Orth, Robins, and Roberts. Darjeeling with a population of 1,846,823 (937,259 male and 909,564 female) located in the lesser Himalaya at an elevation of 6,700 ft is a municipal town of West Bengal. This entire Darjeeling hill region falls under the Gorkhaland Territorial Administration, which is a semi-autonomous administrative body under the state government of West Bengal.Not much has been studied about the

mental health of the population of Darjeeling especially adolescents. The need for research in the areas of mental health is much required.

Taking all of these factors into consideration, this study proposes to study and understand the best predictor of individual psychological factors like academic stress, family environment dimensions, and self-esteem and their role in depression and suicide ideation.

Statement of the Problem

The study was carried out to see academic stress, family environment, and self-esteem as predictors of depression and suicide ideation in adolescents.

Objectives

Objective 1: To identify the frequency and percentage of demographic variables in school-going adolescents.

Objective 2: To explore if there is any relationship between academic stress, different dimensions of family environment, self-esteem, depression, and suicide ideation in school-going adolescents.

Objective 3: To determine academic stress, different dimensions of family environment, and self-esteem as predictors of depression and suicide ideation in school-going adolescents.

Objective 4: To make a gender-wise comparison on the variables of academic stress, different dimensions of family environment, self-esteem, depression, and suicide ideation in school-going adolescents.

Objective 5: To evaluate the main effect of the selected demographic variables on depression and suicide ideation in school-going adolescents.

3.4 Hypotheses

Hypothesis 1: A significant correlation would exist between academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression, and suicide ideation among school-going adolescents.

Hypothesis 2: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Depression among school-going adolescents.

Hypothesis 3: The hierarchical logistic regression model would provide the best predictor relationships within all the independent variables of Suicide ideation among school-going adolescents.

Hypothesis 4: There would exist a significant difference in the interaction of academic stress, family environment, and self-esteem on depression and suicide ideation in school-going adolescents.

Hypothesis 5: There would exist a significant difference between school-going adolescent boys and girls on academic stress, different dimensions of family environment (i.e., cohesion, expressiveness, conflict, acceptance and caring, independence, active recreational orientation, organization, and control), self-esteem, depression, and suicide ideation.

Hypothesis 6: Selected socio-demographic variables would provide the best predictor relationship for depression in school-going adolescents.

Hypothesis 7: Selected socio-demographic variables would provide the best predictor relationship for suicide ideation in school-going adolescents.

Sample

A population of class X, XI, and XII students studying in recognized schools of Darjeeling was taken into consideration for the present study. It was assumed that this city being district head-quarter has students from all sections of society and truly represents the high and intermediate school population. In the present study, a frame of all recognized high and intermediate schools of Darjeeling was prepared. Out of that, a sample of four convent schools was randomly drawn. These schools were recognized and the students were from different socio-economic status groups of the society. Purposive sampling was carried out to include the participants in the study. The sample comprised of 400 students (200 boys and 200 girls) within the age range of 15 to 20 years (Age Mean= 17.71, & SD= 0.91) fulfilling the inclusion and exclusion criteria for the study.

Tools Used

The following tools were used while assessing the variables:

1) Socio-demographic data-sheet (Self, 2016)
2) Academic Stress Scale (Rajendran &Kaliappan, 1990)
3) Family Environment Scale (Bhatia & Chadha, 1993)
4) Rosenberg Self-esteem Scale (Rosenberg, 1960)

5) The Beck Depression Inventory-II (Beck, Steer, & Brown, 1996)
6) The Beck Scale for Suicide Ideation (Beck, Steer, & Ranieri, 1988)

Procedure for Collection of Data

Permission from the various schools was obtained for the study. The participants were briefed about the purpose of the research and assured that the information that they provide would be strictly confidential and will be used only for this research study. They were also informed that they could leave the assessments any time they feel uncomfortable. Their consent was taken before conducting any assessments.

Scoring and Analysis

The tests were scored according to the norms and conditions which were provided by the authors of the various tests. The interpreted data was analyzed with the help of appropriate statistics using the SPPS version 20 which include descriptive statistics (frequency, percentage, mean and standard deviation) correlation, t-tests, MANCOVA, and hierarchical regression.

Major Findings

Section I: Findings on Socio-demographic Variables

- The hierarchical multivariate analysis revealed that socio-demographic variables of Gender and Type of board contributed significantly to depression the regression model as $F=26.7894$ ($p<.01$).

- The mean value of school-going adolescent boys and girls on depression was found to be 10.19 and 14.41 respectively which revealed that girls reported more depression than boys (N=400).
- Out of 400 school-going adolescents, most of the adolescent girls were 18 years old (36%) while another 33% belonged to the age group of 17 years. About 22% of them were 19 years old, while only 9% aged 16 years. The majority of the boys belonged to the age group of 19 years, whereas, there were no boys of 16 years age in the group.
- Out of 400 school-going adolescents, the majority (66%) of school students belonged to nuclear families, followed by 23% of students who stay in joint families. Only 10% belonged to extended families. More adolescent boys belonged to nuclear and joint families compared to girls, however, more girls (n= 17) were living in extended families than boys (n = 24).
- Out of 400 school-going adolescents, approximately 40% of the participants belong to the general category whereas 27% of them belonging to the group of scheduled tribes. The number of individuals who belonged to the social group of scheduled caste was almost equal to the number of individuals belonging to other backward classes (both 16%).
- Out of 400 school-going adolescents, more than half (53%) of the population comprised of Hindus, followed by 26% of students who were Buddhists. There were about 14.5% of Christian students among the respondents, whereas only 3.75% follow the Islam religion. More boys (n = 117) were Hindus compared to girls (n = 95) in the participant group, however, a greater number of girls were Muslims, Buddhists, and Christians in comparison to adolescent boys.

- Out of 400 school-going adolescents, the majority of student's fathers were working as government employees, followed by 23% of individuals whose fathers worked in private organizations. Almost an equal number of fathers of participants were into various business. Only 3% of participant's fathers were in the teaching profession. More boys (n = 74) than girls (n = 59) showed government employees as their fathers.
- Out of 400 school-going adolescents, almost half of the mothers of the participating students were homemakers, followed by 13 % of them each being teachers or involved in the business. More than 11% of the total 400 student mothers were working in different government institutions.

Section II: Findings of Relationship among Variables

- There was a low level of a positive correlation between the conflict dimension of the family environment with depression of school-going adolescent boys and girls.
- There was a low level of a positive correlation between self-esteem with independence dimension of the family environment of school-going adolescent boys and girls.
- There was a low level of a positive correlation between acceptance and the caring dimension of the family environment with the conflict dimension of the family environment of school-going adolescent boys and girls.
- There was a low level of a positive correlation between the active recreational orientation dimension of the family environment with the self-esteem of school-going adolescent boys and girls.

- There was a low negative correlation between the active recreational orientation dimension of the family environment and control of school-going adolescent boys and girls.
- There was a low negative correlation between the cohesion dimension of the family environment with the self-esteem of school-going adolescent boys and girls.

Section III: Findings on Predicting Variables

- Only the conflict dimension of the family environment was a significant predictor of depression of school-going adolescent boys and girls.

Section IV: Findings on Differences in Gender on Different Variables

- There exist significant differences in gender in terms of academic stress, different dimensions of family environment (i.e., cohesion, conflict, and independence), self-esteem, and depression of school-going adolescent boys and girls.
- The mean values indicate that school-going adolescent girls have more level of academic stress than adolescent boys.
- The mean values indicate that school-going adolescent boys have scored higher in the cohesion dimension of the family environment compared to adolescent girls.
- The mean values indicate that school-going adolescent boys have scored higher in the conflict dimension of the family environment compared to adolescent girls.
- The mean values indicate that school-going adolescent boys have scored higher in the independence dimension of the family environment compared to adolescent girls.

- The mean values indicate that the self-esteem levels among school-going adolescent girls were higher than adolescent boys.
- The mean values indicate that school-going adolescent girls had reported more depression than adolescent boys.

Limitations of Study

- The present study provided an explorative investigation of academic stress, different dimensions of family environment scale, self-esteem on depression, and suicide ideation in school-going adolescents. There is a need to focus and highlight a few limitations of the study so that these factors can be considered while externalizing the findings of the study to the general population.
- There were some limitations to the study and the following points highlight some of them:
- The first and foremost limitation was the sample size. Only 400 participants were taken for the study.
- The second limitation of the present study was that the adolescent participants were taken from only four schools of Darjeeling, West Bengal concerning Gender, Religion, Ages, Family Background, Social Groups, Suicide Ideation, Depression, and the variousIndependent variables.
- The study was limited to 5 variables which were: Academic stress, Different dimensions of Family environment, Self-esteem, Depression, and Suicide ideation.
- The findings of the study are related to school-going adolescents from Darjeeling.

- The measuring tools were also delimited to Academic Stress Scale (Rajendran & Kaliappan, 1990), Family Environment Scale (Bhatia & Chadha, 1993), Beck Depression Inventory-II (BDI-II) (Beck, Steer, & Brown, 1996), Rosenberg Self – Esteem Scale (Rosenberg, 1960) and Beck Scale for Suicide Ideation (BSI; Beck & Steer, 1991).
- The study had limitations in terms of statistical analysis techniques used as Correlation, Regression, MANCOVA, and t-test were used.
- Despite having limitations this study helps one to have an insight on suicide ideation in relation to depression, academic stress, different dimensions of family environment, and self-esteem of school-going adolescents in Darjeeling.
- The present study included only 15 to 20 years of school-going adolescents. The results of the study thus cannot be applied and true for other age groups.
- The investigation was restricted to only four schools of Darjeeling, West Bengal.
- The results might have been different and interesting if other schools of Darjeeling would have been selected.

Conclusion

The current study was designed to identify the role of academic stress, family environment, and self-esteem on depression and suicide ideation in adolescents. The results of the study reveal the following findings:

- The family environment was observed to be average for all the study variables except independence, which was found to be lower than the defined standards.

- The self-esteem of these students was remarkably high with low academic stress, minimal depression, and a low level of suicide ideation.
- There was hardly any significant correlation of depression or suicidal ideation with academic stress, family environment, or self-esteem, with an exception of conflict being related to depression.
- There was no correlation between depression and suicide ideation in the findings of the study.
- Gender, type of board, and conflict were significant predictors of depression.
- There was no statistically significant difference in the interaction of academic stress, family environment, and self-esteem to depression and suicide ideation.
- For suicide ideation, none of the variables were found to be significant predictors.
- There was a significant difference in academic stress, cohesion, conflict, and independence, self-esteem, and depression based on the gender of the adolescents.

Some of the research studies earlier have produced similar results although most of the researches done earlier showed a significant relationship between the variables of academic stress, family environment, and self-esteem on depression and suicide ideation. The results of this study may be so because of the environmental difference of Darjeeling with other areas of India. The parenting style, communication level, level of aspiration, ambitious nature, interpersonal relationships are some of the variables that may have played a part in the outcome of the results. Thus, these may act as the variables that can be categorized as the scope of the study.

Implications of the Study

The study aimed to understand depression and suicide ideation and the best predictor among all the independent variables that would predict depression and suicide ideation. The findings of the study would help students, parents, teachers, members of the family, and society at large in encouraging and motivating their children to lead a healthy life.

It would help adolescents understand depression and suicide ideation and the various criteria provided by the DSM IV-TR and DSM 5 would help the students identify the symptoms and prevent serious circumstances. Not only would it help the adolescents but authorities at home, school and society would benefit from understanding adolescents and depression.

The members of the family would especially come to knowledge about the importance of family bonding and decrease of the conflict within the family that has a significant impact on depression and suicide ideation.

The present study would help authorities of various school boards understand the consequences of academic stress on adolescents. They would understand that adolescents are in a very vulnerable stage of life and that they are struggling to build up their identity and during the process would lose their self-esteem and ultimately would suffer from an identity crisis that might be a predictor for the onset of depression and suicide ideation.

Suggestions for Further Research

Depression and Suicide ideation persist as a growing concern for adolescents all over the globe. The results of the study although did not provide a significant correlation and prediction of academic stress, family environment, and self-esteem, it did produce some interesting results which can be the groundwork for further research in this area. This investigative research like any other research is not complete and perfect but it will help provide basic knowledge for further researches:

- The investigation can be incorporated in other schools, boards of schools, and areas of the Darjeeling district.
- Darjeeling boasts of many different schools in every district and sub-divisions, thus the sample size can be broadened to help generate better and clearer results.
- The present study was based on quantitative analysis; however, a mixed approach might be adopted for the further collection and analysis of the data.
- The study may also be replicated in other areas of West Bengal where the reports of suicide, as well as other psychological problems, are much higher.
- Comparative studies may also be done to out to find the differences between the plain areas and hill stations of West Bengal, different districts of Darjeeling, and various subdivisions of Darjeeling district.
- A comparative study can be carried out to investigate differences in terms of age groups.

- The study may also incorporate other important variables like an interpersonal relationship, peer pressure, loneliness, hopelessness, academic achievement, spouse relationship, sibling relationship, etc.
- The investigative report in these areas provides good scope for further research work and investigation and would make a significant contribution in the future.

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APPENDIX I

INFORMATION AND CONSENT FORM

I hereby give consent to participate in the research study titled **"ACADEMIC STRESS, FAMILY ENVIRONMENT AND SELF ESTEEM AS PREDICTORS OF DEPRESSION AND SUICIDE IDEATION IN ADOLESCENTS"** to be conducted by research scholar Ms. Sumnima Rai, department of psychology, Sikkim University, Gangtok, Sikkim.

I have been informed and updated about the above study and have a clear understanding of the study. I am aware that the information collected will be used for the study and the information about me may be looked at by responsible people.

I am aware of the procedures related to the above study and have been given a chance to clarify any questions that I have. My participation of the study is voluntary and I have not been offered any incentive of any kind for participating for the study and that I have the right to withdraw from the study at any point if I am not comfortable without any consequences.

I agree to participate for the study and have received a signed copy of the consent form.

Name	Name
Signature of the participant	**Signature of the research scholar**
Date and Place	Date and Place

APPENDIX II

SOCIO DEMOGRAPHIC SHEET

Name:

Sex:

Age:

Religion:

Social Group:

School:

Education qualification (standard in which you are studying):

Place of residence:

Staying at home or Staying in a hostel/Paying guest:

Urban or Rural:

Fluency in English (can Read, Understand and Speak in English): 1---2---3---4---5

Any history of mental illness: YES NO

Any history of major physical illness (if yes then please specify):

YES NO

Dependent on any lifelong medication: YES NO

Type of Family: Nuclear/ Joint/ Extended/ Separated Parents

Father's Occupation: (Please specify)

Mother's Occupation: (Please specify)

APPENDIX III

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 "tick mark" in the bracket given against each statement.

If you feel No Stress put a "tick 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 "tick mark" in the 5th bracket (ES).

Sl. 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.					

APPENDIX IV

FAMILY ENVIRONMENT SCALE (FES)

This booklet contains some statements. These statements are about your family, you have to decide which of these statements are applicable to you about your family and which are not. Alongside the statements have FIVE cells. If you which are "Strongly agree" with the statement mark tick under the cell labelled "Strongly Agree". If you "Strongly Disagree" with the statement mark tick under the cell labelled "Strongly Disagree".

Please note: SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree, SD- Strongly Disagree.

Sl. No.	STATEMENTS	SA	A	N	D	SD	score
1	We enjoy doing things together.						
2	Family members often do not express their feeling.						
3	Breaking things in anger is quite common in our family.						
4	Making decisions independently is strongly encouraged in our family.						

APPENDIX V

ROSENBERG SELF-ESTEEM SCALE

Scale:

Instructions: Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

   Strongly Agree Agree Disagree Strongly Disagree

2. At times I think I am no good at all.

   Strongly Agree Agree Disagree Strongly Disagree

3. I feel that I have a number of good qualities.

   Strongly Agree Agree Disagree Strongly Disagree

4. I am able to do things as well as most other people.

   Strongly Agree Agree Disagree Strongly Disagree

5. I feel I do not have much to be proud of.

   Strongly Agree Agree Disagree Strongly Disagree

6. I certainly feel useless at times.

   Strongly Agree Agree Disagree Strongly Disagree

APPENDIX VI

BECK DEPRESSION INVENTORY-II (BDI-II)

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

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

APPENDIX VII

BECK SCALE FOR SUICIDE IDEATION (BSS)

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

1.	0	I have a moderate to strong wish to live.
	1	I have a weak wish to live.
	2	I have no wish to live.
2.	0	I have no wish to die.
	1	I have a weak wish to die.
	2	I have a moderate to strong wish to die.
3.	0	My reasons for living outweigh my reasons for dying.
		My reasons for living or dying are about equal.
	1	My reasons for dying outweigh my reasons for living.
4.	0	I have no desire to kill myself
	1	I have a weak desire to kill myself
	2	I have a moderate to strong desire to kill myself
5.	0	I would try to save my life if I found myself in a life-threatening situation.
	1	I would take a chance on life or death if I found myself in a life-threatening situation.
	2	I would not take the steps necessary to avoid death if I found myself in a life- threatening situation.