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# A Study on Depression in Bangladeshi Children as a Function of Gender, Family Structure and Age

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University of Rajshahi

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# **A STUDY ON DEPRESSION IN BANGLADESHI CHILDREN AS A FUNCTION OF GENDER, FAMILY STRUCTURE AND AGE**



Thesis  
Submitted to the Department of Psychology,  
University of Rajshahi for the Degree of  
Doctor of Philosophy in Psychology

**Submitted By**  
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June, 2009

## DECLARATION

This thesis entitled “A STUDY ON DEPRESSION IN BANGLADESHI CHILDREN AS A FUNCTION OF GENDER, FAMILY STRUCTURE AND AGE” constitutes the independent and original work of the author. This work has neither been submitted before, nor is being simultaneously submitted elsewhere in any form for award of any degree.

June, 2009

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## CERTIFICATE

It is my great pleasure to certify that the thesis entitled, **“A STUDY ON DEPRESSION IN BANGLADESHI CHILDREN AS A FUNCTION OF GENDER, FAMILY STRUCTURE AND AGE”** submitted by Eva Tania Chowdhury for the degree of Doctor of Philosophy in Psychology has been done under my supervision and it is the product of her own effort. I strongly recommend this thesis for examination.

June, 2009

*Nazma Afroz*  
30.06.2009

**Professor Dr. Nazma Afroz**  
Department of Psychology  
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Bangladesh

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I will deem my labour amply rewarded if this humble attempt proves useful, interesting and a matter of 'dear delight' to the fellow scholars in appreciating this work.

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June, 2009

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## ABSTRACT

This study investigated children's depression in the context of Bangladesh. Three independent variables used in this study were gender, family structure and age. Gender included boys and girls. Family structure included joint family and nuclear family. A total of 480 respondents were collected from nuclear and joint family. They were equally divided into boys and girls. Then they were equally subdivided into three age groups such as 10-years age group, 13-years age group and 16-years age group. Children's depression rating scale was used for data collection. The major objective was to conduct an empirical investigation for the explanation of childhood depression with reference to gender, family structure and age. The hypothesis formulated for this study were (i) girl would express significantly more symptoms of depression disorders as compared to boys, (ii) children belonging to nuclear family would express significantly more depressive symptoms of depressive disorders as compared to the children belonging to joint family and (iii) children with 16-years of age would express significantly more depressive symptoms as compared to the children of 13-years of age and 10-years of age respectively.

Several theories of depression were described for providing a basis of this investigations. These are: (1) Learned Helpness Model, (2) Defective Social Skills Model, (3) Depression as a Developmental Process, (4) Social Class Vulnerability Theory of Depression, (5) Cognitive Theory of Depression, (6) Self-control Model of Depression. A short review of relevant literature was given. The study used a factorial design

involving two levels of gender (boy/girl), two levels of family structure (nuclear/joint) and three levels of age (10-years/13-years/16-years). The Analysis of Variance (ANOVA) was used for the competition of data.

The results showed that regardless of family structure and age, main effect of gender was statistically significant. Again, it was found that regardless of gender and family structure the main effect of age was statistically significant. However, the main effect of family structure was not significant. Two way interaction effects between gender and family structure. Moreover, a three-way interaction involving gender, family structure and age was statistically significant. It was found that girls reported higher depression than boys. In case of age, it was found that 16-years old respondents reported highest depressive depression followed by 13-years old respondents and least by 10-years old respondents. In case of joint and nuclear family, it was found that girls reported higher depression than boys but both boys and girls of joint family reported more depression than the boys and girls of nuclear family. These findings showed that family structure and gender are positively related for producing depression in our society. Similarly, age was found to play a major role in the development of depression. It was found that depression in boys and girls increases with the increase in age.

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# **CHAPTER -I**

## **INTRODUCTION**

Traditional Classification of Depression

- 1) Learned Helplessness Model
- 2) Defective Social Skills Model
- 3) Depression as a Developmental Process
- 4) Social class vulnerability theory of depression
- 5) Cognitive Theory of Depression
- 6) Self-Control Model of Depression

Review of Literature

Objects of the Study

Rationale of the Study

Need of the Study

Formulation of Hypothesis

Design of the Study

# CHAPTER ONE

## INTRODUCTION

Depression may be identified as a clinical disease. It stands for sadness. It refers to low spirit. It represents the psychopathological conditions of the individuals. It is accompanied with a large number of mental symptoms. Most important of these symptoms are agitation, loss of energy, fatigue, feelings of worthlessness, self reproach, excess or inappropriate guilt, suicidal tendency and insomnia. The present study has attempted to conduct a study on depression in children. Several independent variables have been identified. These are gender, family structure and age. Gender represents boys and girls. Family structure represents joint family and nuclear family. Age represents children of 10, 13 and 16 years. The effects of these independent variables were investigated. Thus the purpose of the study was to conduct an empirical investigation on depression in Bangladeshi children.

The study on depression in children is a recent origin. Previously, it was believed that depression was exclusively a disease of Adults. But it is now believed that children may be affected by depressive mood. A short review of depression in children is given below.

A comprehensive review of depression in children has been provided by Nolen-Hoeksema & Girgus (1994). They have reported empirical findings about depression in children. They found the existence of depression as a disorder in children. They utilized the studies of depression in adults as models. They found that the depression in adults and children are potentially related. The investigators analyzed the traces of historical trends of childhood depression. They found four significant view points

for the study of depressive disorders in children. The first view point was that depression is as a clinical disorder in children is different from adults. The second view point was that children's depression, in addition to adult-like symptoms, may express special feature unique to children. The third view point is that children with depression may present a picture different from adults. The fourth view point is that childhood depression can be diagnosed using the same criteria as those used for adults.

Toolan (1962) has made a difference between adult's depression and childhood depression. According to him, adult's depression may be identified as mask depression. But depression of children is unmasked and direct. Glaser (1968) and Cytryn and Mcknew (1972, 1980) reported similar findings. They found enuresis, learning disabilities and hyperactivity as evidence of a masked depression affect.

Spitzer *et al.* (1977) said that childhood depression may be measured using the same criteria as those of adult. They used DSM-III, DSM-III-R, DSM-IV and other research criteria for the identification of childhood depression. Similar criteria were used by Cantwell and Carlson (1983), Kovacs and Beck (1977) and Weller *et al.* (1984). They conducted a large number of studies using specific criteria and careful design. The findings of these investigations have greatly extended the present knowledge of childhood depression.

The study on childhood depression may be viewed from several perspectives. These are psychodynamic perspective cognitive perspective, behavioural perspective, familial perspective, genetic perspective and biological perspective Abraham (1960) and Freud (1957) have provided

theoretical basis for psychodynamic perspective. According to them, when anger is turned inward, the children suffer from depression. But Akiskul and Mckinney (1975) found these explanations inadequate for the study on depression in children. They reported that boys and girls with high scores of depressive symptoms expressed hostility in outward direction. This indicates that these boys and girls expressed their anger outwardly rather than inwardly. Wegner and Wheatley (1999) found that anger is turned on the self in case of major depression of bereaved children.

Bring, E. (1965) conducted an investigation using the cognitive perspective of childhood depression. The finding of this study showed that self-esteem may replace anger as the central force. Thus depression may be created in children. Lewis (1986) supported this cognitive perspective of childhood depression. It was found that self esteem may play the important role for causing depression in children.

Kraemer (1986) showed that loss of objects for separation from parents may be the inherent cause of childhood depression. Beardslee *et al.* (1987) showed that loss of objects may create final stress in children causing depression. This may be a factor in the response to subsequent episodes of loss. This feeling may prolong depression in children.

Beck (1976) found negative thoughts of self as factors for causing prolong depression in children. Keller *et al.* (1987) found increased helplessness in children as basic factor for causing depression. The depressed children experience suicidality. This may cause cognitive abnormalities. As a result, the children may express a variety of depressive symptoms.

Seligman and Peterson (1986) found learned helplessness as the basic factor for causing depression in children. McCracken (1992) showed that learned helplessness is a great hindrance for adaptation to aversive stimuli.

As a result, the children are exposed to these stimuli and experience stress resulting in major depression. The investigators concluded that learned helplessness may create negative attributional style. It is consistent with depressive symptoms for both childhood and adult depression.

Lazarus (1968) and Lewinsohn (1974) used behavioural model of depression. They found loss of reinforcement as the source of depression in children. In such cases, child cannot use his adaptive resources appropriately. As a result, children suffer from reduced social competences. The children experience depression.

Mitchell *et al.* (1989) used familial perspective of depression. They found that family interaction may play important role in causing depression in children. According to them, psychopathology in family can significantly contribute to depression. They found parental depression as a risk factor for the development of Psychopathology in children. The depressed mothers may produce depressed children.

Merikanga *et al.*, (1988) showed that alcohol dependent mothers have depressed children. It was found that parental disorders were highly correlated with major depressive disorder in children. Findings of the investigation showed that family environment may provide increased risk for childhood depression.

Similar findings have been reported by Beardslee *et al.* (1983), Hammen *et al.* (1987) and Weissman *et al.* (1984). They found that family environment is responsible for affective disorder in children. The findings of these studies indicate a familial loading of psychopathology of mood disorder in children.

RacGrant *et al.* (1989) reported that increased marital discord may appear as risk factors in mood disorders of children. Schwartz *et al.* (1990) reported that high expressed emotion in mother may cause depression in children.

Strober and Carlson (1982) showed that faulty social and environmental interactions may cause depression in children. This is responsible for genetic inheritance of depression. It indicates that environmental problems may lead to the development of depressive symptoms in children. These investigators conducted several studies on monozygotic twins. These twins were raised apart from their biological parents. The adoptive parents were without psychopathology. It was found that these twins developed psychopathology of mood disorders. These findings supported a genetic theory of depression in children.

Siever and Davis (1986) conducted a study on genetic transmission of depression. The results showed that catecholamines, dopamine and norepinephrine are involved in the regulation of depressive symptoms related with sleep, appetite and mood disorder of children.

It is, therefore, evident from the above research findings that depression may affect children due to genetic, biological, psychodynamic, cognitive and environmental factors. The research findings also reported that some children under environmental stress may move slowly from dysthymia to



depressive disorder. It is also reported that some children without stress condition may move into an acute depressive episode.

In the perspectives of these findings, it is argued that depression in children is well-known to the investigators. Hence the present study has been designed to conduct empirical study to identify the depressive conditions of children coming from joint family as well as nuclear family with reference to their gender variation and age differentiation.

### **Traditional Classification of Depression:**

**1) Unipolar versus bipolar depression:** This is the traditional classification of depression. This classification was introduced by Kraepelin (1913) Unipolar depression refers to mental illness. It is associated with some stressful events occurring in the environment. Bipolar depression is related with genetical and biological origin. In fact, it is unipolar depression when it is due to nurture. But the depression is bipolar when it is related with nature. According to Leonhard (1957), depression with manic-phase is called unipolar depression but depression without manic-phase is called bipolar depression. Manic depression is characterised by excessive irritability, heightened energy and activity, expensive self-esteem in terms of delusions of grandour, talkativeness, decreased need for sleep and impulsive behaviour. Unipolar and bipolar depression may be distinguished in terms of genetic transmission, demographic characteristics, course of illness, psychological differences, symptomatic differences, biological processes and response to treatment.

**2) Neurotic versus Psychotic Depression:** This dichotomy of depression has been included in the edition of the International Classification of Disorders (ICD). Psychotic depression includes endogenous depression.

It is severe type of depression. It is accompanied by hallucination and delusion but neurotic depression refers to reactive depression. It is also called characterological depression. It is chronic type of depression. It is non-endogenous in nature. It is a mild type of depression. This depression is secondary to characterological disorders. No hallucination or delusion is found in neurotic depression. Winokur, Black and Nasrallah (1987) showed that neurotic depressives were younger, had more suicide attempts, had fewer memory deficits and delusions. They defined neurotic depressives as having a pre-existing diagnosis such as substance abuse, anxiety disorder, somatisation disorder, personality disorder or a family history of alcoholism.

**3) Reactive versus Endogenous Depression:** Reactive depression follows environmental event. The event may be stressful. Gillespie (1929) found that reactive depression is associated with the environment. Paykel *et al.* (1969) found that reactive depression is preceded by stressful event. Endogenous depression, on the other hand, has biological etiology. It is autonomous in the case of emergence. It is independent from precipitancy life events. It is associated with a particular cluster of symptoms such as loss of weight, terminal insomnia, psychomotor retardation and guilt. Hirschfeld (1981) made a comparison between reactive and endogenous depression. The investigator reported that reactive depression had more depressed mood, more suicidal ideation, more anger and self-pity and more alcohol and drug abuse as compared to endogenous depression. Benjamin-sen (1981) showed that reactive depression is caused by a large number of stressful events preceding the episode. Billings *et al.* (1983) and Brown and Harris (1978) showed that the stressful events are more common reactive depression. Castello

(1982) showed that stressful events are more evident in reactive depression as compared to endogenous depression. Pearlin and Schooler (1978) found discrete stressful events in reactive depression. These are identified as financial and marital problems. Parker *et al.* (1989) showed considerable evidences for endogenous depression. They reported that the most characteristic features of the endogenous syndrome are severity, psychomotor retardation, lack of precipitant and failure to react to pleasant events, older age and lack of adequate personality. Some vegetative symptoms associated with endogenous depression were terminal insomnia, agitation, diurnal variation and weight loss.

**4) Primary versus Secondary Depression:** Robins and Guze (1972) have investigated the distinction between primary and secondary depression. They defined primary depression as biological dysfunctions. It may be accompanied by other psychiatric disorders. The persons with the symptom of primary depression have homogenous demographic characteristic. Secondary depression, on the other hand, may occur after pre-existing psychotic disorder or after life-threatening medical illness. The pre-existing psychiatric disorders include anxiety disorders, schizophrenia, alcoholism, drug dependency antisocial personality and homosexuality. Weissman (1977) reported that individuals with secondary depression tend to have less severe depression. They tend to have their first episode at a younger age. Furthermore, they tend to have histories of more psychiatric illness in their families.

#### **Modern Classification of Depression:**

American Psychiatric Association has provided modern classification of depression. It's purpose was to provide out group for research in primary

*affective disorder*. Thus DSM-III (1980) DSM-III-R (1987) and DSM-IV (1994) were developed as classificatory system used in the United States. Its main purpose was to produce a theoretical diagnostic system. The diagnostic system was used by the clinicians from a variety of theoretical orientation.

The modern classification of depression is the central to both DSM-III-R and DSM-IV. It is related with the concept of Major depression. This classification is based on the categorization of mood disorders. These classifications are also associated with depression such as feelings of hopelessness and social withdrawal. It considers aspect of mental illness. It is a heterogenous category. It includes medication-responsive and biologically based depression. Some important types and subtypes of depression in DSM-III-R and DSM-IV are discussed below.

1) Atypical depression- It is defined as a sudden dysphoric reaction of frustration in a normal personality. Over sleeping and over eating are two symptoms of this type. This hysteroed dysphoria is now being termed as atypical depression. It should be considered as a sub type for major depression. Atypical depression tends to occur at younger ages. Atypical depression is characterised by such symptoms as (i) Mood reactivity, (ii) Significant weight gain and increase in appetite, (iii) Hypersomnia, (iv) Heavy feelings in arms or legs, (v) long standing pattern of interpersonal rejecting sensitivity resulting in significant mood disturbance or social and occupational impairment, (vi) with catatonic feature during the same episode.

2) Melancholia- It falls within the category of indeogenous depression. The clinicians have traditionally believed melancholic patients to be more

responsive to medications. There is evidence that melancholic symptom features predict good response to ECT and to tricycles antidepressants among severely depressed patient (Russ and Weissenburger, 1994).

3) Psychotic depression- psychotic depression is more dignoistically stable. It tends to be associated with significant live events. Parker *et al.* (1991a, 1991b) observed that psychotic depression in United States have focused on hallucinations and delusions. Psychotic depression may be distinguished in the perspective of unitary view and linary view of depression. When psychotic depression occurs on a single continuum with varying degrees of severity. It is called unitary view. When psychotic depression is considered on a separate diagnostic entity, it is called bionary view. Several researchers (e.g. Bellini *et al.*, 1992) have investigated demographic variables for the diagnosis of psychopathic depression. The effective treatment for psychotic depressed patients needs the combination of amitriptyline and perphenazine (Spiker *et al.*, 1985). Parker *et al.* (1992) reported a result of meta-analysis of the literature and concluded that ECT had efficiency to a combination of drug treatment.

4) Dysthymic disorder- Dysthymic is a long-term mild depression. It is first symptomatic development occurs in childhood. It is generally woven into the personality of the individual. Social skill development and identity are intermixed with it. Hence, dysthymic individual's normal way of seeing themselves and their world is very negative. Their social abilities are impaired.

It is important to note that dysthymic disorder tends to have a poor response to pharmacological treatment. Thus dysthymic disorder does not

respond well to antidepressants. Its treatment takes longer time. According to Keller and Lavori (1984), dysthymic disorder usually results in the development of major depression at some point of time. When major depression is super imposed on dysthymic disorder, the resulting complex is termed double depression. Frances *et al.* (1989), however, thought that the relapse of dysthymic disorder into major depression is a purely definitional construct and double depression, in fact, represents a distinct disorder. However the DSM-IV committee members considered two separate dysthymic disorders more distinctly from major depression. They eliminated some of the negative symptoms included in DSM-III-R. These are changes in appetite and sleep, low self-esteem, social withdrawal, irritability, anger, and decreased defectiveness and productivity.

**5) Seasonal Affective Disorder-** The concept of Seasonal Affective Disorder (SAD) states that there is a relationship between incidents and the season of the year. For example, Lesler (1971) found that incidents of suicide is positively related with various times of the year. Bauer and Dunner (1993) conducted extensive study and found specific time for the development of depressive symptoms. In the save of various season. They also pointed-out the time of remission of successive episodes. Rosen and Rosenthal (1991) have suggested that there may be seasonal variations in mood and behaviour in the general population as well as those diagnosed with affective disorders. Allen *et al.* (1993) observed that there is a greater prevalence of affective disorder within the families of SAD patients. It is observed that SAD and other subtypes of depression overlap in symptomatology. However, it is difficult to identify SAD as a distinct disorder. It is due to lack of evidence or specific treatment. It is also due

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to poor understanding of its underlying processes. Hence extensive research is necessary to identify the underlying processes of seasonal affective disorder. These would make it possible to demonstrate the specificity and uniqueness of the SAD. As a result the seasonal affective disorder would merit a diagnosis of its own.

**6) Organic Mood Disorder-** This organic mood disorder is a type of mood disturbance following brain dysfunction. In DSM-III-R, organic mental disorders included a variety of cognitive affective and personality changes. These were thought to have their etiological base in some time of brain dysfunction. This organic mood disorders encompassed a range of affective symptoms including persistent depressed mood. This might be attributed to a specific organic factor. The work group of DSM-IV found relationship between central nervous system and psychiatric disorder According to Fogel (1990), organic mood disorder requires the exclusion of caused organic factors. World Health Organization (1989, p. 30) characterizes the organic syndromes as those that can be attributed to an independently diagnosable cerebral or systemic disease. Jenkins (1993) found that a combination of psychological interventions improves the emotional and social functioning of individuals who have suffered brain trauma. Hence, considerable research work is required to determine the readily identifiable physiological causes of depression.

**7) Minor variations of mood disorder-** These are mild forms of depression. They occur within three months of the known tremor. These are called adjustment disorder with depressed mood. It is also called adjustment disorder with mixed anxiety and depressed mood. These disorders include (i) premenstrual dysphonic disorder, (ii) minor

depressive disorder and (iii) recurrent brief depression disorder. Each of these three disorders have specific criteria.

**8) DSM-IV and ICD-10-** The major criterion of classification in the ICD is the occurrence of a single episode versus multiple episodes of depressions. DSM-IV has adopted these principles only for major depression. The difference in classification of mood disorders between DSM-IV and ICD-10 are related to cerebral or systemic disease. The DSM IV implicitly classifies these as secondary mood disorders. But the classification in ICD-10 is primarily based on the identified or presumed etiology. DSM-IV relies on the symptoms observed as the primary factor in diagnoses.

The classificatory system of depression provides the exact nature of depression. In its simplicity meaning, depression stands for sadness. It refers to low spirit in individuals. In its psychological sense, depression is a clinical symptoms of mental aberration. It refers to the psychopathology of individuals. It is a type of clinically identified psychopathological symptom. It is accompanied with a large number of mental disorders. It is said that primate people did not suffer from depression (Dean, 1985). Nozick (1981) showed that depression is a psychological disease due to modernization. In the context of these findings, the present study on depression in children have been designed in the social, economic, political and cultural context of Bangladesh. It is important to note that Bangladesh is a developing country in south Asia. The country is rapidly changing in its social political, economic and cultural field due to rapid industrialization. The poor economic condition is supposed to deprive the children in society of proper education, proper nutrition and proper medical facility. It is argued that these might aggrieve the condition of the



people in general and children in particular. It is supposed that these social conditions may create depression in children. In the perspective of these psychological functioning, it is thought that the children in Bangladesh might suffer from depressive affects in their socialization process.

It is thought that modern concept of depression stems from various approaches. These approaches are also known as depression theories. A short description and a critical analysis of these approaches are given below-

**1) Learned Helplessness Model:** This model of depression has been developed by Seligman (1974). Seligman conducted a series of studies on dogs to understand the mechanism of depression. The purpose of these investigations was to explain various learning processes. The study was included with the phenomenon of escape or avoidance learning. The animals were trained to learn escape or avoid unpleasant experiences. Electric shock was used to create such situation. The results showed that the confined dogs who received shock were later unable to escape similar shocks when escape was available but the dogs who were not confined tried to flee the shock when escape was available. Thus the confined animals passively received the punishment and were depressed. On the basis of these findings, Seligman (1975) developed a model of depression in human beings. It is known as learned helplessness model of depression. In case of human beings, depression is caused by learning. If a person experiences events that are uncontrollable, the feelings of helplessness occur in him. Thus the previous experiences of ineffectiveness in controlling aversive events may cause depression. In other words, if a person is told that he has no way out to avoid the

unpleasant situations, he develops depressive symptoms. This process of symptom development of depressive mood is based on learned helplessness of model of depression.

Glass and Singer (1972) conducted several studies on the model of learned helplessness. They showed that the development of learned helplessness is related with the nature of control in reducing stress. According to them, expectation and cognitive set is the key element in producing depression. Maier and Seligman (1976) showed that nature of voluntary responses determines the intensity of depression. In a traumatic situation, expectation serves as incentive. It motivates the person to face the situation. In the absence of motivation, voluntary responses will decrease. Hence, subsequent learning will be more difficult resulting in depressive symptom Seligman (1975) has provided several experimental findings about the mechanism of depression. He has suggested that a traumatic event causes a highlighted state of emotionally. This is called fear. This fear continues in the person until he learns that he can or cannot control the trauma. If the person learns that he can control the trauma, the fear is reduced. If the subjects learn that he cannot control the trauma, fear decreases and depress in results. According to Seligman (1975), the ultimate extension of learned help less ness is death. Thus depression is causally related with aversive experiences over which the person has no control.

The learned helplessness model of depression has several shortcomings. These are stated below.

- 1) The theory has failed to explain the amount of control necessary to produced depression.

- 2) The uncontrollable aversive events necessary to produce depression has not been explained adequately.
- 3) This theory is not clear about emotional and behavioural responses that preceded helplessness. Again the theory did not provide clear explanation about what conditions may preclude helplessness.
- 4) The theory is based on animal experimental work. Hence, it is a mechanical process. But depression in human beings is a cognitive Process. Hence the generalization from animal learning to human learning is not proper.
- 5) This theory of learned helplessness is based on escape for avoidance learning. So it is less convincing to extend this theory for explaining human behaviour with depression symbol.
- 6) The concept of aversiveness is assessed in terms of response latencies and number of correct traits. This cannot be associated with human depression (Hiroto and Seligman, 1975)
- 7) Orne (1962) showed that research design with animals requires a large inferential leap. It is a trivial laboratory behaviour. Hence this previous laboratory behaviour is not logical to generalize for explaining complex behaviours of human beings.
- 8) Escape behaviour in experimental procedure of learned helplessness model may appear as demand characteristic to the subject. The subjects may think that they are helping experiment. Hence escape behaviour no longer indicates an aversive experience leading to depression

9) Seligman's animal experiment can not be extended into the area of social behaviour. It is expected that an aversive experience may develop a special type of depression. It is argued that depression characteristically involves interpersonal relationship. But Seligman's experiments do not represent interpersonal relationship. Seligman has neglected this sensitive human factor. This indicates that Seligman's experiment fails to account for human elements associated with depression. In conclusion, it may be said that Seligman's theory of depression is an important contribution in clinical psychology. Abramson, Seligman and Teasdale (1978) have provided attributional reformulation of learned helplessness theory. This attributional reformation states that lack of control to internal factors leads to lower self-esteem. This leads to more prolong helplessness effects. Thus depression may occur. A depression prone individual will attribute bad outcomes of internal factors. Thus depressed persons attribute bad outcomes to internal, stable and global causes. It is expected that this theory of depression as learned helplessness model would invite new research in many direction.

**2) Defective Social Skills Model:** This model of depression has been developed by Lewinsohn (1974). Major concepts of this theory are based on conventional learning theory. The guiding assumption underlying this theory is that depression is a function of positive reinforcement. In this view, depression is seen as a continuous variable. It ranges from profound states to mild occurrences. It depends on the dynamic process of response reinforcement.

Lewinsohn (1974) has stated the response-reinforcement contingency as a function of three sets of variables. These are- (i) potentially reinforcement events in individuals, (ii) number of potentially reinforcing events

*available in the environment*, and (iii) the social skill available for

eliciting these reinforces.

MacPhellany and Lewinsohn (1974) showed that the intensity of depression is a function of positive reinforcement. The total amount of positive reinforcement is measured by obtained pleasure, activity level and potential reinforcement. This finding provides support to the view that depression varies as a function of amount of positive reinforcement. It shows that depressed individuals are significantly slower to respond to negative social reaction. It is also found that depressed persons show greater autonomic response to aversive stimuli. They show greater tendency to avoid such situations. In other words, depressed individuals have larger autonomic responses to aversive stimuli.

Lewinsohn theory of depression is based on the concept of social skill. Social skill is defined as the ability to emit behaviours that are reinforced by others. It is assumed that when one is receiving adequate social reinforcement, one has social skill. Hence, it is hypothesized that the depressed individuals have less social skill and as such they are less able to elicit positive reinforcement from the social environment. Youngren and Lewinsohn (1980) identified four factors of social skill that is uniquely related to depression. These are given below.

- i) The depressive persons show less social activity. They feel more discomfort and less pleasure in performing social activity.
- ii) They feel more discomfort in being assertive.
- iii) They feel more discomfort and become upset when they are engaged in negative thought about personal interaction.

- iv) They feel more deficient interpersonal style and group interactions.

This theory of depression identified as defective social skill model may be criticized on several reasons. First, the theory has failed to differentiate between lack of social skill and lack of control as causal element in the etiology of depression. Secondly, this theory is wrong at the conceptual level. Lewinsohn is not correct in using extinction. It is an intermittent schedule of reinforcement that can lead to increase or to decrease the amount of reinforcement in behaviour causing depression. In spite of these limitations, it is true that Lewinsohn and its associates (1969) were successful to conduct a series of experimental designed to understand that relationship between social skills and depression. The major contribution of this theory lies in the elaborate quantification of the commonly observed fact that depressed people engage in less social interaction and receive little satisfaction from it.

**3) Depression as a Developmental Process:** Hokanson (1970) has conceptualized the theory of depression as a developmental process. He used the concepts of friendly counter responses and aggressive counter responses as the mechanism for the development of depression. This theory has been developed in the perspectives of social learning experiment. The concept of arousal reduction of social learning is the basis for the formulation of developmental process of theory of depression. Hokanson (1970) showed that a response may be instrumental in terminating or avoiding interpersonal aversiveness. When this response is reinforced, it can serve as a classically conditioned stimulus for arousal reduction. When an individual uses aggress in such a condition is developed. Such a direct action helps the individual to experience the

relief from tension. Thus a classical conditioning process may help to achieve the arousal reduction. In the analogous way, a friendly or masochistic behaviour which is reinforced could serve the same function.

Thus the development process of depression has used a two person interaction procedure (Stone and Hokanson 1969). Here the contingencies are so arranged that a masochistic response (a moderate self-shock) may be instrumental in avoiding a more severe shock. This leads the person to a progressive increase in the masochistic responses. Thus this developmental process revives a type of depression where self-punishing behaviour may be used to avoid or reduce external aversiveness on the social milieu. Such a depression may result from a social learning concept. Here a person finds the self-punishing behaviour to be affective as means of gaining control over a threatening and hostile environment.

The developmental process of depression has emphasized the importance of control in understanding human behaviour in the presence of aversive stimuli. It depends on the learning history of the individual. Various coping strategies are learned to be effective in reducing or avoiding interpersonal stresses. Some people learn socially acceptable and adaptive ways to handle such stresses. But some people learned less adaptive ways. These individuals learned that depressive behaviours are affective means to control a hostile environment. This provides a developmental framework and a conceptual skill to understand the process of human beings.

The theory of depression as developmental process has several limitations. It is said that depressed persons may illicit more expressions of support and sympathy from the environment. But it is also true that

they also illicit negative critical responses from depressed person. Hence, the expression of support and sympathy is equivalent to those given to physically ill person.

This support is accompanied by higher rate of silences and direct negative comments. Hence, depressive behaviours do not simplistically lead to reinforcement to like developmental process. Thus Hokanson's concept of developmental process leads to more complex interactions. These behaviours arouse a variety of responses in others. Hence, the theory of depression as developmental process fails to establish its concepts experimentally. Furthermore, experimental verification of this theory is not available. It is true that this theory is based on different learning theories and this theory works as a directive to the future investigation in the area of depression.

**4) Social class vulnerability theory of depression:** This theory of depression was developed by Brown (1979). This theory has attempted to establish a correlation between social environmental factors and clinical depression. For example, Brown and Harris (1978) conducted empirical study and interpreted the experimental data in support of social environmental factors in the development of depression. The investigators reported that personal troubles bare special relationship of social class vulnerability to the development of depression. The main purpose of this theory was established the connective links between life experiences and depression. According to Brown and Harris (1978), social class vulnerability theory of depression may be conceptualized within three factor systems such as provoking agents, vulnerability factors and symptom formation factors.



Provoking agents are capable to produce depression under three conditions. These may be learning a job, divorce or separation and alcoholism. These provoking agents interact with a second set of influences. These are called vulnerability factors. Vulnerability factors increase the risk of depression in the presence of provoking agents. There are four types of vulnerability factors. These are- (a) lack of intimate and confiding relationship, (b) three or more children under age fourteen at home (c) loss of mother before age eleven and (d) lack of employment. The third step consists of symptom formation factors. These are experiences of life events. These help to shape the form and severity of depression. For example, loss of parents may be caused by death or separation. If it is caused by death, this event is correlated with the conditions of psychotic depression. If it is caused by separation, the event is correlated with the condition of neurotic depression.

The presence of these vulnerability factors lead to a sense of hopelessness in the presence of provoking agent. This hopelessness may generalize to form the core of depression disorder. Conversely, the absence of these vulnerability factors is seen to provide a protective influence against the occurrence of depression. Infact, Brown and Harris (1978) strongly support a multi-factor view of depression. It allows for genetic and constitutional as well as social class for depression.

It is argued that low self-esteem and hopelessness are commonly associated with vulnerability factors and provide ground for the development of depression. Thus these experiences may speculate on possible causal factors of depression. For example, a woman who experiences a close confiding relationship with her husband will be much less likely to suffer depression even in the face of provoking agents. This

indicates that the provoking agents play a vital role in the etiology of depression. Thus the issues of low self-esteem and helplessness have offered a possible explanation of depression.

This theory of depression suffers from various limitations. The theory is weak in its methodological approach. This flawness is responsible for misinterpretation of data. Secondly, its etiology is significantly attached with the event which is unwarranted. The four vulnerability factors concern the presents and these have no learning on etiology significantly. It is also said that the correlation between depression and vulnerability factors does not employ a causal relationship. This is because correlation and causation are not the same.

Inspite of above criticisms, it may be said that the social class vulnerability theory of depression has direct reference to worthless self, hopeless future and meaningless world. But this theory is not comprehensive to include all the factors of depression. But it can be rightly said that theoretical interpretations of these model of depression may work as guidelines for future investigations in the multiphase aspects of depression.

**5) Cognitive Theory of Depression:** Beck (1963, 1964, 1967) has formulated this theory. It is a systematic theory of the origin of depression. This theory states that men are disturbed not by things but by the views which they take of them. It also states that meanings are not determined by situations. But we give meanings to the situations. This philosophical thought is the starting point of cognitive model of depression. These cognitive model (Beck *et al.*, 1979) is based upon three concepts to account for depression. These are- (i) cognitive triad,

(ii) schemas and (iii) cognitive errors in terms of faulty information processing.

Cognitive triad consists of three patterns of thought. It accounts for negativistic ideas and attitudes commonly observed in depressives. It is said that the depressed persons have a negative view of themselves. They think themselves as defective, inadequate or unacceptable. This is a pervasive self-view. It leads to the sense that one is undeserving and worthless. This negative view of selves can be characterized as self-hatred. This is the first component of cognitive triad.

The interpretation of daily experience provides the second component of cognitive triad. In this case, the world is seen as burden. The depressive person demands more than he can handle. His experiences a sense of helplessness and hopelessness. He misinterprets many events as his defeat. The depressed persons characterise their lives as totally devoid of pleasure or satisfaction.

The third phase of the cognitive triad is related with future. The depressive sees the future as hopeless. They expect that their sufferings will continue unabated. Hence, their would be motivation to act with energy or positive expectation. Thus the depressive mentions an exaggerated negative view of him or herself, the outside world and the future.

Schemas may be regarded as the second major concept in the cognitive model of depression. Schemas are like personality traits. They represent stable long standing thought patterns. Any given situation may consists of myriad of stimuli. The depressive is viewed as responding to such situations in fixed negative ways. Such a negative pattern of thought may

lead to social withdrawal and isolation. Depressive persons operate on the basis of negative self-schemas. Negative self-schemas prevent the depressive persons from generating ideas about behavioural contingency. This leads to actual behavioural deficits. This process is known as negative self-schema.

Another important concept in the cognitive model of depression is called cognitive errors. Negative schemas are maintained through cognitive errors. This maintenance results from cognitive errors in terms of faulty information process. This system of faulty information process comes from six basic errors. These are- (i) arbitrary inference, (ii) selective abstraction, (iii) over generalization, (iv) magnification and minimization, (v) personalization, and (vi) absolutistic, dichotomous thinking.

Arbitrary inference is a response set. It refers to the process of drawing a specific conclusion in the absence of evidence. Selection of abstraction is a stimulus set. It ignores more salient feature of the situation. As a result, the individual conceptualize the whole experience on the basis of fragment observation. Over generalization is a response set. It refers to the pattern of drawing a general rule on the basis of isolated incident. Magnification and minimization also represent a response set. This response set reflex errors in evaluating the magnitude of an event. Thus it constitutes a gross distortion. Personalization is a response set that relates external events to the person himself. Though it has no basis for making such connection. Absolutistic, dichotomous thinking is a respond set and it refers to a tendency to place on experiences as one of two opposite categories. In such dichotomous thinking, person selects the extreme negative categorization.

The depressive person evaluates his experience on the basis of these negative errors. This results in extreme, negative, categorical, absolutistic and judge mental types of thinking. Thus the cognitive triad, schemas and cognitive errors taken together make the depressive person vulnerable to the stresses of life.

It is said that an individual becomes predisposed to depression due to early experiences. According to Beck (1976), the early experiences and schemas remain dominant in the individual. But these experiences become activated by trauma of later life. Thus early life experiences lead to negative self concepts. As a result, the person becomes vulnerable when he experiences stressful situation. It is thus clear that cognitive theory of depression gives emphasise on environmental influences. It involves, "Intrapsychic" processes. This indicates that the key to understanding depression depends on how an individual thinks and organizes his/her experiences cognitively.

**6) Self-Control Model of Depression:** Rehm (1977) has developed the concept of self-control model as the cause of depression. This theory of depression has been proposed in contrast to Seligman's learned helplessness model and Beck's cognitive model of depression. Rehm was influenced by the work of Kanfer (1970). In fact Kanfer and Karoly (1972) developed a more general theory of self-control. This model describe the adaptive process of self. It involves self-monitoring, self-evaluation and reinforcement for coping with stress. Rehm used these principles in his self-control theory of depression.

Rehm's self-control model states that depressed people attend to more negative information about themselves. Again, they tend to make more

frequent negative evaluations. This tendency presents them to reinforce adequate performance resulting in depressive affect.

Rehm (1988) has made several modifications of his theory. For example, Rehm and Naus (1990) have proposed a memory model of emotion to trace the origin of depression. The memory model has emphasized the existence of emotional biased information processing in depression. In this process affect is seemed as an essential part of the episodic memory. It is encoded and subsequently retrieved leading to the experiences of depression. According Rehm (1977) the self-control model gives more attentions on negative self-schemas in depression. These schemas influence the perception and interpretation of new information. It is done on the basis of past memories and experiences toward negative affect.

Rehm (1988) found self-management issues relevant to conceptualization of depression. This is particularly important in the area of memory and depression. It recognizes the components of information processing. It focuses on emotional functioning. This process of emotional functioning is found to build up a comprehensive conceptualization of information processing. It helps to differentiate between depression, anxiety and other emotions. These variables are closely related with self-control model of depression. Thus past memories and negative experiences become influential factors in studying, self-monitoring, self-evaluation and self-reinforcement.

The self-control model of depression has been criticized on four grounds. First, this model has developed isolated domains of research. No attempt has been made the interrelated defending of different investigations. Thus this model has failed to develop a systematic cognitive theory. Secondly,

the isolated research findings have failed to occur a comprehensive account of depression. Thus the theory has failed to contribute for the development of theoretical perspective. Thirdly, the theory has borrowed from information processing and memory paradigms in piecemeal fashion. But no attempt has been made from an overall model of cognitive functioning. Fourthly, this model has focused exclusively on depression without discriminating emotion from other variables.

However, Rehm's self-control model has wide acceptance in the field of clinical psychology. It has great diagnostic value in such for etiology of depressive syndromes. It gives emphasis on the adaptive process of self-monitoring, self-evaluation and self-reinforcement. There are important prerequisites for coping with stress. Moreover, this model has provided explanations for negative evaluations. It is said that deficits in self-control lead to attributional errors consisting with negative outcomes and expectation. As a result there were few self-reward and more self-punishment due to higher performance standards. This explanation of depression has provided a linear parameter to the existing theoretical perspective of depression.

It is important to note that these theories of depression have great impact on psychological investigations. In fact, learn helplessness model, defective social skill model, developmental processes, social class vulnerability, cognitive model and self-control model have contributed for generating new research in the area of depression. The present study has used these theoretical perspectives for the investigation of depressive children as functions of gender, family structure and age.

## REVIEW OF LITERATURE

In order to provide empirical support to the present study, a review of relevant investigations have been reported here. A comprehensive review of depression in Children has been provided by Speier and his associates (1975). The investigators have observed certain historical trends of childhood depression. They found four significant view points of childhood depression. The first view point was that depression as a clinical disorder is different from adulthood depression. This perspective was analyzed on the theoretical view of psycho analysis. They argued that superego in children is responsible for depressive affects. The second view point was that childhood depression is different from adult like symptomatology. Childhood depression is a unique feature and it is related to different developmental stages. The third view point was that childhood depression is direct and it is related with learning disability. The fourth view point was that childhood depression can be diagnosed using the same basic criteria as those used for adults.

Several studies showed that childhood depression is directly related with anger. Akiskal and McKinney (1975) reported outward directed hostility of boys and girls and identified it as depressive symptom. Bibring (1965) showed that loss of self-esteem may create anger in boys and girls. The investigator reported it as the central force of creating depression. Kraemer (1986) showed that parental separation may cause stress in child resulting in prolonged depression. Puig Antich (1987) conducted investigations on genetic transmission of depression. He reported that catecholamine regulate mood activity in children. Similar findings have been reported by Devilliers *et al.* (1989). They showed that



catecholamine abnormalities may play a role in the neuro-endocrine crime disturbances found in some depressed children.

Fleming and Offord (1990) showed that epidemiological studies are vital to understand depressive symptoms and disorders of children. They identified mood disorders as the most common depressive symptoms of children. They reported that parent's functional level in cultural factors may create depressive symptoms for school age children. Fleming Offord and Boyle (1989) identified age as the most significant variables to account for depression in children. In case of children below twelve year old, the prevalence of depression was found to range from 1.2% to 2.5%. Rutter *et al.* (1975) found the frequency of depressed mood and associates symptoms in over one thousand 10-years old children. It was also found that persistent sad mood was present in 12% children of the same sample. These children were reassessed at age 14. The results showed that prevalence of depression increased more than three fold within four year span. It was suggested that pubertal development was responsible for this marked increase in depression in children.

Anderson *et al.* (1987) conducted a study on 9 year old children in New Zealand. It was found that the rate of minor depression was much higher (9.7%) than major depression (1.1%). The investigators reassessed the children at age 11 and 15. The results showed a decrease in the prevalence of depression. The decrease was estimated from 1.6% to 1.1% for minor depression.

Boyle *et al.* (1987) and Flemening *et al.* (1989) reported some data on the basis of Ontiro Child Health Study. The sample of this study included 2674 children and adolescence. The results showed significant increase in

rates of depression from childhood to adolescence. The prevalence of depression was found 2.6% in 6-11 years old girls and boys. But the prevalence rate of depression was 8.8% for girls and 6.9% for boys in the adolescent group ranging from 12-16 years old.

Strober *et al.* (1989) and Garrison *et al.* (1991) conducted several studies. They reported differences in sex-ratio between children and adolescence. They reported that pre-pubertal boys and girls were equally at risk for depression. However, female predominant for depression was found in adolescence.

Kashani *et al.* (1986) conducted several studies on depression with pre-school children. In one study, they used a sample of 109 preschool children. They were between 2 to 7 years old. The results showed 1 to 5 years old child with major depression.

Velez *et al.* (1989) conducted a study on depressive children. The results showed that these children complained of somatic disorders. The most prevalent disorder was the complain of headache. A neurological report of the children showed that 10 out of 25 children had headache.

Kashani *et al.* (1981) conducted a survey on hospitalized general pediatric children. It was found that 7% children between 7 to 12 years old have major depression.

Kashani *et al.* (1982) conducted another study on hospitalized children. The results showed that 13% children between 6 to 18 years old had major depression. It was also reported that over 15% of children had dysphoric mood.

Kashani and Hakami conducted a study on chronically ill children. They found the children to expressed depressive mood. Kovacs *et al.* (1985) showed that diabetic children had major depression. These findings show that physical illness can be a severe stressor leading to the development of depressive symptoms in children. In other word, physical illness can precipitate depressive disorders and physical illness can be regarded as more depressogenic.

Carlson and Cantwell (1979, 1980) conducted studies on children in psychiatric population. Depression was found a common disorder among the children. It was found that 12% of 102 children attended a university child psychiatric clinic for major depression. Kuperman and Stewart (1979) conducted a study on psychiatric admission in children. They examined 175 children and reported that 70% of these children had the prevalence of depressive disorders. Kazdin *et al.* (1983) conducted a study on children in psychiatric clinic. They found higher percentage of depression in these children as compared to previous findings. The children were found to express such depression as conduct disorders anxiety, phobias and somatic complaints.

A large number of investigators conducted survey on childhood depression associated with mental disorders. For example, Hersberg *et al.* (1982) showed that 68% of 28 children suffering from generalized anxiety had major depression. It was also found that 39% of the children had specific anxiety. It was also found that 61% of these depressed childhood had somatic complaints.

Puig-Antich and Rabinovich (1986) conducted a study on prepubertal children. The study used a sample composed of 80 children. The results

showed that 89% of the children expressed significantly higher depressive symptoms due to separation anxiety. However, 48% of the children expressed moderate to severe phobic reaction. Anderson *et al.* (1987) showed that 80% of children suffering from anxiety reaction had major depression. Bird *et al.* (1988) conducted a study on children suffering from conduct disorder. It was found that the children expressed depressive symptoms. It was found that 78% of the children had depressive illness. Investigators identified children with anxiety disorders and attention deficit. It was found that 71% of the children suffering from anxiety disorder and 57% of children suffering from attention deficit had major depression. Kashani *et al.* (1987) reported similar findings. They showed that 75% conduct disorder, 30% attention deficit disorder and 18% anxiety disorder of young children had depressive symptoms. These studies showed that depressive symptom in children may be associated with various psychological disorders.

Kashami *et al.* (1983) conducted a study with New Zealand children of nine years old. They identified these children to have depressive symptoms. Then these children were reexamined at the age of 11 and 13 years. The results showed that the depressed group of children endorsed more depressive symptoms as compared to non-depressive children. It was also found that depression was more common and persistent in boys than girls. It was also found that depression was associated with long term antisocial behaviour in boys.

Garrison *et al.* (1991) conducted a longitudinal study on depression in children. The study used a sample composed of 550 children. They were 11-12 years old. The duration of this study was three years. The center for

epidemiologic studies depression scale was used for the collection of data. In this scale, the students were asked to rate their mood for the previous week. The results showed that current depression was strong predictor of subsequent depression. It was also found that girls expressed higher score of depression than boys. But the boys were found to increase lower score over time. Boyd and Weissman (1981) conducted similar studies and showed that depression rate in younger children was equal for both boys and girls. But in some cases boys expressed slightly higher depression than girls.

MacCauley *et al.* (1988) conducted a study on depression for school aged children. They used the schedule of affective disorders and diagnosed children with depression. The purpose of this study was to measure duration severity and recurrence of depressive disorders. The subjects were first diagnosed with depressive disorder at the age of 8 to 16 years. Then follow up studies were conducted at five stages. These stages were six months, one year, two years, three years and six years. The results showed that the severity of depressive episode was positively correlated with female sex with all the stages. It was reported that 63% had experienced recurrence at the 3 years follow up. Again, girls had expressed higher recurrence and greater severity than the boys. A small subgroup was found to remain chronically depressed and all the members of this subgroups were girls.

Harrington *et al.* (1991) reported that a first episode of depression in childhood is a significant risk factor for subsequent mood disorder and chronic depression in adulthood. Kovacs *et al.* (1985a) found that a first episode of dysthymic disorder of a child had 69% cumulative probability

of major depressive disorders within five years of experience. They also reported that children with a pre-existing dysthymic disorder were at greater risk for relapse of depressive. They made a comparison between major depression and dysthymic disorder. They found that children with adjustment disorder were at minimum risk for developing major depression in comparison to the children with dysthymic disorder.

Kovacs *et al.* (1985b) conducted a study on depressed school children. This study reported information about the onset, duration and recovery rate of depressive disorders in school children. The study reported that the age of onset for major depressive disorder ranges from 8-14 years. But the adjustment of disorder depressed mood of children ranges from 8-12 years.

The age of onset for dysthymic disorder ranges from 6-13 years old boys and girls. The average duration for the first episode for these disorders were 25 weeks, 32 weeks and 3 years respectively. The maximum recovery rate for adjustment disorders with depressed mood was 90% at 9 months after the onset of the disorder. The maximum recovery rate for major depression was 92% at 18 months after onset. The maximum recovery rate on dysthymic disorder was 89% at 6 years after onset.

McCaulay *et al.* (1988) reported that a more stressful family life was the strong predictor of depressive disorder in children. Children belonging to stressful family life showed poor psychological functioning leading to depressive disorders. The investigators used two samples. One sample was composed of children of three years old. Another sample was composed of children with six years old. The results showed that both the sample showed poorer school functioning. They also reported that the

recurrence of depression over six years of age was associated with difficulties in family life. Poor peer relationships as well as poor self-esteem were also identified as the strong predictor of depressive disorder in children's.

Asarnow *et al.* (1993) conducted empirical study for the identification of environmental factors for the causation of depressive disorders in children. They used a 5-minute speech sample to measure expressed emotion. It was found that children with high emotion showed persistent mood disorders. The study examined rehospitalization rate for major depressive disorder. It was found that 35% and 45% were rehospitalized in the first and second years after discharge. The investigators reported that the most frequent reason for rehospitalization was the stressful environment. The findings of the study also reported that relapse of depressive symptoms in children was due to suicidal behaviour. These findings showed that the concept of depression can have disruptive consequence in a child's life.

Welner *et al.* (1979) conducted a study on childhood depression related with suicidal effects. They made a 10-year follow up study. This study used a sample of 28 adolescence. These subjects were hospitalized for major depression. This study used three patients who eventually committed suicide. Other patients made poor over-all social and vocational adjustment. The results of this study showed that poor long term outcome including higher rates of suicide were identified as the cause of childhood depression.

Burke *et al.* (1991) reported that depression was increasing in prevalence over different age groups. They identified a gradual, continuing shift to

increased rates of major depression in most 15-19 years old boys and girls. They also found that drug abuse and drug dependents may cause depression in younger age. This finding has dominated that depressive disorders and drug abuse are causally related and this trend is found in younger boys and girls with depressive affects.

Ryan *et al.* (1987) made a appetitive study between children and adolescence for major depressive disorder. The results showed that prepubertal children expressed agitation, somatic complaints and hallucination. But post pubertal children expressed hopelessness, weight fluctuation and suicidal attempts.

Rutter (1980) showed that puberty has a strong impact on the prevalence of depression. A survey of children aged 10 to 11 showed 10% prevalence of depressive symptoms in prepubertal children. But there was approximately a 20% prevalence of depression in pubertal children. But this prevalence had risen to approximately 33% in post pubertal children.

Lulovits and Handel (1985) reported sex-ratio shift in prevalence of depression across puberty. They conducted several studies with children aged 6 to 12 and found the prevalence of depressive disorders in boys and girls in equal proportion. Reynolds (1985) conducted a study with the same age group and found the prevalence of depression in girls twice than the boys.

Carlson and Kashani (1988) made a comparative study on depression for different age groups. They used four age groups such as pre-school children, pre-pubertal children, adolescence and adults. They found that such symptoms as depressed mood, decreased concentration, insomnia



and suicidal ideation present with equal frequency in all four age groups. The investigators also reported that some symptoms were found to decrease in frequency across the four age groups. These include depressed appearance, low self-esteem, somatic complaints and hallucinations. These findings showed that developmental process in children helps to fade out the depressive symptoms. Then more adult like presentation of depressive symptoms emergence.

Kovacs and Gatsonin (1989) provided some evidences for the continuity of depressive disorders. They reported that 2 thirds of a sample of children developed a major depressive disorder over the next five years. Poznanski (1982) reported that childhood depression is continuous with the adult disorders. These children are at higher risk for hospitalization and psychotropic drug use. They are three times more likely to make suicide attempts.

Garber *et al.* (1990) showed that developmental processes are closely related with different types of depression in children. They reported convincing evidences for developmental depression in children. They observed that pre-school children developed symptoms of depressive disorders that are different from adults. Carlson and Garber (1986) observed that there is variation in the expressional depressive symptomatology in children over the course of development.

Digdon and Gotlib (1985) provided support to the views that depression in children is related with developmental process. Similar findings have been reported by Weiss and Garber (1989). These investigators supported that depression is positively correlated with the developmental phases of children. On the basis of these findings, it is concluded that various stages

of life span are correlated with depressive symptoms. As the child passes through these stages, he expresses symptoms of depression in different forms. These are caused by ethnicity and socio-economic differences.

Kashani and Simons (1979) showed that cognition may develop depression in children. They conducted an empirical investigation and reported that depression in children depends on the age of the children. With the increase in age, depressive symptoms in children vary in types as well as in degree.

Fabuer *et al.* (1987) observed that depression in children is associated with academic problems. Some children may fail to recognize school curriculum. As a result they expressed reassessment through various depressive symptoms. These may include aggression towards authority or peers. Sometimes they become inattentive in their lessons and become unable to attain desired grades. These failures may cause depression in school going children.

Atman and Gotlib (1988) observed that depression in children may be caused by social functioning. They reported that unusual parent-child relationship may develop depression in children. Thus children who are badly handled by the parents develop depression. Separation between wife and husband by divorce or death have equal consequences on the socialization processes and personality development leading to the expression of various symptoms of depression. These may include depressive appearance, inability to accept social norms and impairment in logical thinking.

Shefer (1986) reported that children with home problems may develop isolation and alienated feelings. These feelings are accompanied by suicidal ideation and attempts. Consequently these children with home problems express depressive disorder. Garber *et al.* (1988) conducted a follow up study. They reported that childhood depression may lead to adulthood depression. It is found that children experiencing episodes of depression are found to express disfunctions in future.

Beardslee *et al.* (1983) examined 24 quantitative study having parents with an affective illness. The results showed that there was significant risk to children in having parents with major affective disorder and considerable impairment was evident in these children.

Boyd and Weissman (1981) showed that offspring of parents with affective disorder have higher rates of psychological difficulties and higher rates of affective disorder than offspring of parents without such disorder. Kashani *et al.* (1981) and Cytryn *et al.* (1980) reported that child's affective illness to be positively correlated with that of the parent. Philips (1979) and McKnew and Gtryn (1973) made investigation on clinically depressed children and found high rates of depression in parents. Garmezy (1978) conducted neuropsychiatric studies about the relationship between parents schizophrenia and child's depressive illness. The results showed that the children was at risk for suffering from depressive symptoms in such cases.

Weissman *et al.* (1972) conducted empirical study on school age (6-12 years) children. The sample was collected from depressed mothers. These children of depressed mothers showed excessive rivalry with peers and siblings for attention, feelings of isolation or depression, hyperacidity,

childhood depression had higher left midfrontal alpha suppression, relative to comparison subjects. Again, women showed greater Alpha power than made on the basis of these findings, the investigators reported

that depressed children exhibit a larger body mass index as adults than do the non depressed comparison.

Kovacs (1996) conducted a study to examine whether major depressive disorder in childhood represents essentially the same diagnostic entity as in adolescence and adulthood. Certain selection criteria were examined two abstract information on six phenomenological features of these disorders. These were episode number, symptom presentation, Psychiatric co-morbidity, recovery from the index episode, recurrence of major depressive disorder and switch to bipolar illness. The study used both inpatients and outpatients with an age range of 6 to 80+ years. The results showed that clinically referred depressed children are almost exclusively first episode as compared with adults. However depressed youths showed comparable symptom pictures, have similar rates of psychiatrist comorbidity, and have a similar recurrence rate as compared to elderly subjects. Moreover, information approach broad age groups revealed that depressed Youth recover somewhat faster from major depressive disorders and are at greater risk for bipolar switch as compared to other groups. On the basis of these findings, investigator concluded that major depressive disorder in clinically referred youths are similar in many regards to major depressive disorder in adults on the elderly. The findings also showed that the risk of recurred major depressive disorders among children approximates the rate amount adults. The investigator also reported that youths with unipolar depression convert to bio-polar illness more frequently than the adults. These findings suggest that very early onset of major depressive disorders is a particularly serious form of affective illness.

school problems and enuresis. Rolf and Garmezy (1974) conducted several longitudinal studies with this age group. They reported that the children of depressed mother expressed tyrannical behaviour and difficulties with ego boundaries.

Weintraul *et al.* (1975) conducted a comparative study between two groups of children with ill parents and depressed mothers. The results showed that the children of depressed mothers expressed such characteristics as classroom disturbance, impatience, disrespect, deficient, inattentive and withdrawal. The children of ill parents, on the other hand, were less creative, less initiative and less need for closeness with teachers. Again, they were rated lower on comprehension.

Fisher and Jones (1980) conducted several studies on child's competent and its relationship with psychiatric parents. The results showed that some of affectively psychiatric parents were rated lower on cognitive competents, social competents and social compliance. These children failed to meet expected norms of school behaviour.

Rolf (1976) conducted a study on peer status of vulnerable children. They selected peer relationship of children of depressed mothers. The results were based on four risk groups. It was found that girls of depressed mothers showed a tendency toward the internalizing symptoms that their mothers displayed but the boys did not. These findings showed that daughters are influenced by the depression of their mothers in higher intensity than the boys.

Kauffman *et al.* (1979) conducted a longitudinal study to explain the relationship between children's depression and psychotic disorders of

mothers. This study was continued over 15 years. The study started when the children were in infancy. In a follow up study, the investigators divided the sample into most competent and least competent. The results showed that one child of the six in the most competent group have a depressed mother. But five of the six children in the least competent group had depressed mother.

Conners *et al.* (1979) and El-guebaly (1978) conducted cross sectional studies and examined the characteristics of parents with major affective disorder and subsequent prevalence of these mental illness in their children. A sample of 149 respondents was used. Thus 59 were panic depressive patients, 30 were depressive patients, 30 were schizophrenic patients and 30 were alcoholics. Their patients were considerably different across studies. The results showed that the course duration and severity of parent illness determined children's depression.

Sameroff *et al.* (1983) conducted longitudinal studies with schizophrenia (N=29), depression (N=58), other (N=40) and control group (N=47). The results reported affective disorder in children having parents with depression.

The results of cross-sectional and longitudinal studies suggest that the influence of parental affective illness on children is quite adequate. However, the studies made use of control groups and large number of children of parents followed by severity and chronically parental illness to account for illness in children.

Sherill and Kovacs (2000) conducted a study using interview schedule of children and adolescents for the diagnosis of children's depressive mood.

They used semi-structured interview to assess the depressive disorders of children. The results showed that depressive symptoms of children were identified in the forms of sadness, irritability, obsessional thinking, compulsive behaviour, phobia, negative self-esteem, impaired concentration, distractibility, reduced appetite and increased sleep, fatigue tempertantrums, disobedience, trauncy and suicidal attempt.

Kovacs and Pollock (1995) conducted a longitudinal investigation on childhood onset of depression. A sample of 26 children was used. They were clinically determined subjects between 8-13 years old. The demographic and socio-economic status of the children were considered. The sample contained an over-representation of lower SES. Children and a slight under representation of caucasian children. The results showed that some youngsters with bipolar disorder evidenced serious 'acting-out' behaviours, including burglary, stealing and vandalism.

Kovacs (1994) collected data from experimental investigations and reported about very early onset of childhood depressions. Kovacs and Devline (1998) conducted research on internalizing disorders in childhood. The study focused on four areas. These were (a) predictive validity of depressive and anxiety disorders, (b) rates of comorbidity, (c) chronology of onset of disorders, (d) transmission of depressive and anxiety disorders of affective individuals. The investigators synthesized and reconciled findings of these four areas. They approach information on a developmental perspective. It was found that genetically driven biologic process played a vital role in the expression of depressive and anxiety disorders of childhood.



Kovacs *et al.* (1997) conducted a study for characterizing the temporal pattern of depressive disorder in childhood. They used a sample composed of 112 children between 8 to 13 years old. The children were identified with first episode of major depressive disorders. The results showed that the recovery rates were 86% for major depression and 7% for dysthymia after the onset of 2 years.

Lubin *et al.* (2000) conducted a study to measure the daily mood of the children. The sample was composed of 105 white students of public school from grades 9 through 12. Among them 64 were girls and 41 were boys. It was found that 50% lived with biological parents, 31.8% lived with one parent, 11.4% lived with one parent and a step parent and 6.8% lived with guardians. The results showed that the correlations among traits were 0.28 for anxiety, 0.65 for depression, 0.27 for hostility, 0.63 for positive affect, 0.39 for sensation seeking, 0.40 and .65 for positive affect plus sensation seeking.

Niaz, Izhr and Bhatti (2004) conducted a study on childhood depression. The objective of this study was to find a correlation between stress and childhood depression, other factors included in this study were age, gender, social class, cigarette or alcohol used. Medication history and poverty during childhood was also related with depression. Children between 6 to 17 years old with major depression were included in the sample. The sample was composed of 90 respondents with major depression and 87 respondents with no psychiatric disorder. They were identified at Columbia Presbyterian Medical Center and followed up 10 to 15 years later. The results of this study showed that stress is positively correlated with childhood depression. Moreover, the findings reported

Malmquist (1983) made a review of past ten years on childhood and adolescence depression. The purpose of these review was to highlight the literature of the past decade covering the epidemiology, clinical characteristics, natural course, biology and other correlates of early onset of major depressive disorder (MDD) and dysthymic disorder (DD). An overview of these selected studies showed that early onset of MD and DD are frequent, recurrent and familial disorders that tend to continue into adulthood. They are frequently accompanied by other psychiatric disorder. These disorders are usually associated with poor psychosocial and academic outcome and increased risk for substance abuse, bio-polar disorder and suicide. In addition, DD increases the risk for MDD. There are similar increase in the prevalence of MDD, and it appears that MDD occur at an earlier age in successive cohorts. Several genetic, familial, demographic, psychosocial, cognitive, and biological correlates of onset and course of early onset depression have been identified. Few studies, however, have examined the combined effects of these correlates. On the basis of this review of previous studies, the investigators concluded that considerable advances have been made about the knowledge of early onset of depression. Nevertheless, the investigators have suggested further researches in understanding the pathogenesis of childhood mood disorders.

Andrews (1995) conducted a study to examine the relationship of depressive conduct and comorbid disorders and social functioning in childhood. The sample included 94 boys and 67 girls. The mean age was 11.5 years. They were rapidly evaluated with standardized instruments during a mean interval of 4.4 years. On the basis of their diagnoses during the follow-up, children were designated as having depressive conduct or

that emotion, temperament and depression are quantitatively related with electroencephalography and as such higher right and lower left frontal brain activity may signify vulnerability to negative mood and depressive disorders.

Dixon and Reid (2000) showed that hemispheric asymmetry is responsible for emotion regulation in stress situation leading to depression. Zito *et al.* (2000) reported similar findings and showed that anterior EEG alpha asymmetry may be identified as a trait marker for depression. Mongrieff (2001) examined the Physiological origin of depression and showed that changes in frontal brain asymmetry may cause differential effects in emotions leading to depressive affects. Smith R. (2003) conducted a study on electroencephalographic asymmetry in adolescents and reported that co-morbidity with anxiety disorders as well as major depression are caused by physiological abnormalities. Evens *et al.* (2001) reported similar findings and showed that depressed children differ from healthy children due to frontal brain activation. Babyak *et al.* (2000) viewed childhood depression from historical perspectives and showed that bio-polar disorder in children may be caused by biological differences in EEG asymmetry.

Lefkowitz and Burton (1978) examined the risk that family disruption and low socio-economic status in early childhood confer on the onset of major depression in adulthood. The participants were 1104 mothers. Childhood family disruption and socio economic status were obtained before birth and at age 7. Structured diagnostic interviews were used to assess the major depressive episode of respondents at ages of 18 and 39. Survival analysis was used to identify childhood risks for depression onset. The results showed that parental divorce in early childhood was

associated with the risk of depression. It was more pronounced in subjects whose mothers remarried. The risk of depression was found to be accompanied by high levels of parental conflict. Moreover low socioeconomic status in childhood predicted an elevated risk of depression. On the basis of these findings, the investigators concluded that family disruption and low socioeconomic status in early childhood increase the long-term risk for major depression.

Several studies showed that socioeconomic status in childhood has great impact on the life time risk of major depression. Amato and Keith (1991) reported that parental divorce may be responsible for the outcome of depression in children. Similarly, Brown *et al.* (1997) provided further evidence of childhood depression due to parental conflict. It was found that major affective disorder was due to parental poverty and family maladjustment. Beardsluee *et al.* (1983) showed that childhood depression may be prevented through the removal of the disadvantages in the family.

Weller *et al.* (1991) made a current review on the diagnoses and the treatment of depressive disorder in children. They reported that the predominant mood in depressive children is characterized by irritability. The irritability may be severe, persistent and violent.

Akiskal (2005) has made an overview of regulatory status relating to major depressive disorder in children and adolescence. It highlighted the symptoms of depression and showed that depressed children are occasionally found to feel sad and fearful. Furthermore, it was reported that depressive illness is different in scale, with the mood disturbance occurring most of the time, during most of the days and over several

weeks. It is often accompanied by other symptoms such as (i) losing interest and motivation to do things that used to be enjoyable, (ii) withdrawing socially and not wanting to see people, (iii) difficulty in concentrating on school work leading to falling grades; (iv) tiredness, aches and pains; (v) changes in sleeping pattern involving difficulty in sleeping or sleeping more than usual; (vi) changes in appetite involving feeling more hungry or less hungry; (vii) feeling useless, worthless and unloved; (viii) Pessimistic thoughts about the future, and (ix). Thoughts of death and acts of self-harm. These symptoms can cause distress or difficulty in coping with school work or affect relationships with friends and family.

In a previous study, Alvig (2004) reported that people usually observed that depressed children show unusual behaviour but their parents are not always aware of it. After the age of about eight years, the symptom patterns of depressed children become similar to those of adults. However, the children and adolescents may seem irritable rather than sad. Amaral MacGee (2002) reported that depressed symptoms may occur as part of psychiatric disorder or in physical illness. Depressed children and adolescents have other psychiatric problems such as behaviour problems of anxiety which may mask the underlying depression. Furthermore depressed children and adolescents can be withdrawn, irritable or uncooperative and they may have difficulty in identifying and expressing their feelings. Further more, investigator observed that some youngsters, particularly boys, deny feeling sad. The only observable complaint that the investigator reported was irritability, moodiness and boredom. As a result these depressed children may get in fight or other trouble at school, interact less socially and have less friends. They may also act out suicidal feelings by hurting themselves. This can be misinterpreted by parents and teachers as manipulating rather

than as a communication of distress. These activities can warn depressed state in child. It was also reported that depressive illness may occur in 2 to 4 percent of children. It is rare under the age of 8. But it becomes more common after puberty arising to 4 to 8 percent of adolescence. Moreover depression is more common in girls during adolescence period. In the perspectives of these findings, the investigator concluded that the tendency to develop depressive illness in children may involve a complex mixture of factors such as inherited or genetic factors and life experiences. Thus adverse life experiences may cause depression in children and adolescence. There is some evidence that an early negative experience like losing a parent or being abused as a child may raise the risk of depression. Similarly recent life events may precipitated and episode of depression. Moreover, friendship difficulties and disappointments are common triggers for depression in children and adolescence. Having a family history of depression it can also put individuals more at risk. This is because there is some genetic contribution to depression. However the investigator found no evidence that family difficulties may cause depression but it is established that a person's recovery may be delayed due to family conflicts. An overall conclusion of the study was that depression is more common in girls at their puberty and onwards. This sex difference is probably due to biological and hormonal changes, psychological causes and social factors.

Kovacs and Devlin (1998) conducted a study on childhood onset of depressive disorder. They found that family history like divorce, family conflicts and family disaster may initiate as pre-disposing as well as precipitating causes of childhood depression. Similarly Klein *et al.* (1985) made a family study of major depressive disorder. The study was conducted on a community sample of children and adolescents. It was found that family experience such as alcoholism, parental separation,

large number of siblings and day to day conflicts and discords due to poverty have direct impact on the development of depressive disorder in children.

Bolton *et al.* (2003) conducted a prospective longitudinal community study on childhood depression. The study made an extensive investigation about mental disorders in offspring. It was found that parental major depression exerted great impact on the development of depression in their children. The investigators concluded that the risk of depression was higher in children who had parents with major depression.

Stewart *et al.* (2003) made a study on major depressive disorder in children. It was found that first episode of depression in children was due to familial conflict and discord between wife and husband. It was found that children with high familial conflict have higher risk for depression as compared to the children with low familial disharmony. Similar findings have been reported by Kessler *et al.* (2003). They reported that the major depressive disorder in children should be viewed from a life long perspective. In such cases recurrence of bio-polar disorders was higher in children who have a family history of drug abuse, alcoholism and family discord. These findings were supported in the study of childhood depression reported by Meyers *et al.* (2000).

Silberg *et al.* (2001) showed that major depressive disorder is a public health problem and it is closely related with mood disorders and medical illness. Similarly Propper *et al.* (2004) conducted an extensive survey on mental health problems of children. The findings of this survey showed that major depressive disorder is closely related with clinical and health services relationships between major depression, depressive symptoms and general medical illness. On the basis of these results, the investigator

made a conclusion that major depressive disorder in children have genetic, biological as well as psychological roots. Furthermore stressful situations and family history may exert great impact on the development of depressive symptoms in children. Moreover, general medical illness may apprehend major depression in children. In support of these findings, Bremner *et al.* (2003) showed a relationship between coronary artery disease and depression.

Insel and Charney (2003) conducted a longitudinal study covering three generations. The findings of these studies have highlighted on the family history of the children. It was found that families with a history of alcoholism, drug abuse and parental discord were regarded as high risk group for depression. But families with good relationship and absence of conflict were regarded as low risk group for depression. The findings of three generations study supported these assumptions. It was found that children from the families with a history of social disharmony had higher risk for depression. But children from families with great social harmony had low risk for depression.

Murray *et al.* (2004) made a study on childhood and adolescent depression. The purpose of this study was to examine some predictors of major depression. They showed that the changes in children adolescence at the time of transition to adulthood may exert great impact on the development of major depressive disorders in children and adolescence. The investigators showed that transition from childhood to adulthood may create conflicting value system and it may create great hindrance to the life style adopted in adult-hood. These experiences may precipitate problems in self-esteem as well as social recognition. In such cases, a child with a previous history may be exposed to conflicting ideology and



value system leading to the development of major depressive disorders in children and adolescence.

Blanchflower and Oswald *et al.* (2004) conducted a follow up study in the Baltimore epidemiologic catchments area. The findings of these follow-up study reported that the incident of parental hypertension is closely associated with the development of depressive symptom in children and adolescence. Similarly Wagner *et al.* (2003) conducted a study on depression and cardiovascular disease and showed that mechanisms of interruption of parental cardiovascular disease resulted in the development of depression in their children.

C hopra *et al.* (2005) showed that the people who are alcohol dependents are found to express symptom of major depression. Kier and Jaccbson (2005) found relationship between co-morbidity of depression and substance used disorders. Brouwer *et al.* (2005) also conducted investigation on depressed adults and found a history of alcohol dependents in depressed individual. They reported that comorbidity of major depression was due to substance used disorders.

Akiskal and Benazzi (2005) conducted an investigation on major depressive disorders. They reported that gender differences were positively associated between substance use and elevated depressive symptoms in a general adolescent population.

Wagner *et al.* (2003) conducted a longitudinal study on major depressive disorder. They examined in depressive symptom of boys and girls at the age of 12 years old. Then the participants were examined after adolescence. It was found that the participants with heavy alcohol use developed severe symptoms of depressive disorder as compared to the

group who did not become addicted to heavy alcoholism.

Linde (2005) examined the effect of drinking and substance use in depression. They conducted a study with 14 to 16 years old Finish adolescence. The results showed that alcoholism and substance use have great effect on the development of depressive disorders. The investigators observed that the more the boys and girls become addicted to alcoholic use and substance use the more the subjects express acute symptoms of depression.

Silberg *et al.* (2001) observed that genetic and environmental risk factors are closely associated for the development of depressive affects. It was found that adolescence substance use is responsible for the development of depression in adolescence boys and girls. Similarly Niaz *et al.* (2004) conducted a study on early substance use and showed that childhood externalizing and internalizing psychopathology can predict depression as the effect of early substance use. Similarly Gelder *et al.* (2001) showed prospective relation between dimension of anxiety and the initiation of adolescent alcohol use. It was found that alcoholism in adolescent boys and girls was responsible for the development of major depressive disorder in later period of life.

Benazzi *et al.* (2004) conducted a study on adverse childhood experiences, alcoholic parents and later risk of alcoholism on the development of major depressive disorders. The investigator made a survey and reported that adverse childhood experiences have great impact on depression. Similarly alcoholic parents may initiate depressive mood in their children. Moreover the investigators showed that alcoholism in individual in the later period of life may cause to develop depressive affects in the individuals. Farabaugh *et al.* (2004) found family risk factor

in the development of depressive affects. They conducted a study in Spain and reported that drug misuse may appear as family risk factors for adolescence boys and girls and it may be regarded as family risk factor for the development of depression.

Silberg *et al.* (2001) conducted a study on under age drinkers. It was found that alcoholic use among elementary students may be predictor of major depressive disorders.

Hantouche and Akiska (2005) conducted a study to examine the gender patterns of the depressives. It was found that parental psychopathology and adolescent psychopathology have positive relationship with the development of depressive affects. They reported gender differences and showed that girls were more depressive than boys due to adolescent psychopathology. Bremner *et al.* (2003) conducted a study on men and women receiving electrification services. They found that childhood abuse, history and substance use were highly correlated with the depressive affects of men and women. It was also found that women were expressed acute depressive affect than men. Keller *et al.* (2003) examined the relationship of age of first drinking to child behavioural problems and family psychopathology. It was found that age was an important factor for the development of depressive affects. Thus the results considered age of first drink as the major cause of child's behavioural problems leading to the development of depression. Chevalier and Feinstein (2004) showed that adverse childhood experiences may be considered as the major risk factors for the depressive disorders in adulthood. Cipriani *et al.* (2005) examined the factors relating to depressive affects. It was found that anxiety, substance use and conduct disorders of adolescent may be

considered as the risk of major depressive disorders. Bolton *et al.* (2003) made a study on disruptive behaviour disorders in Puerto Rican youth. They used a survey method and reported that disruptive behaviour may be responsible for psychopathological disorders responsible for the development of major depressive disorders. In another study, Bolton *et al.* (2003) showed that disruptive behaviour and major depressive disorders are positively correlated. Moreover Gunnell *et al.* (2005) made classification of antisocial behaviours along severity and frequency parameters.

## OBJECTS OF THE STUDY

The study on childhood depression in the context of Bangladesh is based on several specific objectives. The objectives have been formulated with reference to preceding presentation of theoretical analysis and review of current literature about depression. The overview of definition, conceptualization and classification of depression have also been considered. The statement of these objectives are given below.

- 1) The major objective of the study was to conduct an empirical investigation for the explanation of childhood depression with reference to gender, family structure and age.
- 2) The second objective of the study was to relate parental depressive mood to the depressive disorders of the children.
- 3) The third objective of the study was to provide analytical explanation of environmental factors responsible for the origin of depression in childhood.
- 4) The fourth objective of the study was to reflect on school environment and school management relating to the development of depressive disorders in children.
- 5) The fifth objective of the study was to reflect on peer relationships responsible for childhood depression.
- 6) The sixth objective was to provide explanations for differential effects in depression due to gender, residence and age.
- 7) The seventh objective of the present study was to provide meaningful support of various theories for the understanding of the results of the present study.

- 8) The eighth objective was to add new knowledge to the existing literature of depression.
- 9) The ninth objective of the present study was to provide replication of previous empirical studies in the context of Bangladesh.
- 10) The last objective of the study was to open a new horizon of empirical research in childhood depression in the school environment of Bangladesh.

### **Rationale of the Study**

The study on childhood depression in the context of Bangladesh may be supported from socio-economic perspective of Bangladesh. It is said that primitive people did not suffer from depression. In fact, industrial regulation, migration of population and free trade have initiated certain human problems leading to depression. Bangladesh being a developing country is associated with a large number of psychological problems like stress and anxiety. It is thus probable that the children in Bangladesh might be exposed to various stressful situations leading to the development of depressive affects. These are the major arguments for conducting psychological research on childhood depression in Bangladesh.

It is said that children are the future generation of a country. Statistical Year Book of Bangladesh (1996) has reported that the main resources of Bangladesh are composed of children. If we want to develop manpower into national resources, it is necessary to provide empirical data about the well being of children. In fact, child abuse and exploitation are very common in Bangladesh. The data about childhood depression will give

full knowledge about the well-being of children. The sociologist and the psychologist may utilize these information for the development of manpower in Bangladesh.

A survey on the problems of children in eight countries of South East Asia (Bellamy, 2001) has provided a comparison between children of the countries of the world. This comparative study has provided a lot of information for early child development. The findings of the present study may provide additional information for various drawbacks of early child development in Bangladesh. The present study on childhood depression may be regarded as important document for collecting relevant information in resource development.

Gunston (1992) has reported that a child possesses 100 billion cells in its brain at birth. The cells remain unconnected with each other. The connection of these cells becomes possible due to nutritious food, good health, pure water, unpolluted environment and absence of depression. Viewed from these perspectives of child development, it is true that the findings about childhood depression will provide empirical data for the early child development programme.

The education system in Bangladesh is highly discriminated in terms of religious education and modern education. Again, the discrimination becomes acute due to gender differences. The child rearing practices favour the boys as compared to girls. These discriminations may be responsible for producing depressive disorder for us in children both in family environment as well as school environment. The findings of the present study is expected to unfold the situational factors of childhood depression. Thus the obtained data will make a positive contribution for

educating the parents and teachers for the physical, cognitive, social, moral, religious and emotional development of children in Bangladesh.

It is a recognized fact that the standard of education is lower down in Bangladesh. For maintaining high standard of education, there is no alternative of efficient, good and trained teachers. Similarly school facilities should be increased but it is also important that problems of the students should be identified. Then the teaching may be effective. The findings of the present study may help the school management to build up information bank for each student. These arguments may be regarded as the corner-stone to establish the rationale of the study.

Statistical Year Book of Bangladesh (2000) reported that Bangladesh is a third world country. Here, 78% of population falls below the poverty line. It is then expected that poverty and illiteracy of the parents may be regarded as persistent problem in the development of childhood depression. It is expected that the findings of the present study will help to identify the socio-economic and democratic factors responsible for childhood depression.

Bangladesh Bureau of Statistics (2000) reported that inadequate facilities in an school environment may be regarded as major hindrance for upliftment of education. These hindrances may develop certain environmental factors for causing depression in children. These data support that depressive symptoms are not equally shared by children with differences in gender and residence. The findings of the present study will reflect on these environmental factors. Future researchers may utilize these information for designing new investigations. These observations may be considered as the major rationale of the study.



It is also observed that family structure in terms of joint family and nuclear family may play important role for attaining the expression and expectations of the students in their school examination. In fact, family structure may create some psychopathological symptoms like withdrawal, loneliness and low self-esteem. Stress related problems like suicide, alcoholism, heart disease, high blood pressure and diabetes in parents may be due to family structure. Empirical studies have provided evidences that children are affected in their psychological well-being by the parental psychosomatic disorder. Thus terrible dehumanizing situation may be created. So, children are affected by the problems created by nuclear family structure as well as joint family structure. The findings of the present study may provide insight to cope with stressful situations in children due to family structure. Thus the present study is supposed to provide objective information for removing stressful situation exposed to children.

It is important to note that psychological research on childhood depression is very few in Bangladesh. Hence it is expected that the present investigation may work as the indicator for understanding depressive disorder in children. The study is grounded on the belief that the understanding of defective socialization process will be removed and child development programme will be initiated at homes as well as at schools.

On the basis of preceding arguments, the present study has selected childhood depression as the area of psychological research with reference to gender differentiations, residence as well as family structure dichotomy.

### **Need of the Study**

The study reflects on childhood depression relating to gender, family structure and age in the context of Bangladesh. Hence, the needs of the study are quite relevant with the variables like gender, social structure and age. Accordingly specific needs emerge from these variables. These are stated below:

- 1) It is observed that boys and girls are differentially affected by situational factors leading to depression. Hence, the study will explain the positive factors of depression in boys and girls. The present study will help the boys and girls to cope with factors responsible for depression.
- 2) Social structure in the present study is an important variable for the causation of childhood depression. In Bangladesh nuclear family structure is coming due to erosion of joint family structure, various social, psychological, economic and cultural factors are related with the emergence of nuclear family structure and erosion of joint family structure. Hence childhood depression has direct relationship with nuclear and joint family structure. The present study will provide additional information regarding the relationship between childhood depression and social structure.
- 3) Another important variable of the present study is the age of the children. Viewed from developmental perspectives, it is seen that children may be severely affected by age related activities leading to depressive disorders. Hence, it is required that parents should know the specific age-related acts that are responsible for the depressive

affects of their children. The present study will provide such information and the parents may be aware about the developmental stages of their children.

- 4) Lastly, the study is an effort for understanding childhood depression and it will contribute to the development of structural basis of depressive affects in child rearing practices.

### **Formulation of Hypothesis**

The present study on childhood depression with reference to gender, family structure and age has formulated several hypotheses. The hypotheses with their theoretical and empirical justifications have been stated below:

**H<sub>1</sub>:** Girl would express significantly more symptoms of depressive disorders as compared to boys.

This hypothesis may be supported with reference to various empirical studies on depression. Several investigations (Coryell *et al.* 1992, Kandel and Davies, 1982) have highlighted the gender discrimination in depressive affects in different stages of life span. They reported that girls developed depressive affects two times more than the boys. They identified low self-esteem of the girls as the cause of depression. In the social context of Bangladesh, it is found that male children are regarded superior and female children are regarded inferior in the family. Furthermore, it is believed that boys are superior in their bodily strength, creativity and social activity than the girls. Again, economic disparity in the family may lead the girls to develop higher depressive affect than the boys. It is observed that parents regard their sons as the property of the

family but they regard the girls as the liability of the family. Parents also discriminate in the family between boys and girls. When the girls understand this discrimination, they treat it as a stressful event. As a result the feelings of inferiority are developed in girls and become the victim of depression. On the basis of these arguments, it has been hypothesized that girls would express significantly more symptoms of depressive disorders as compared to boys.

**H<sub>2</sub>:** Children belonging to nuclear family would express significantly more depressive symptoms of depressive disorders as compared to the children belonging to joint family.

This hypothesis may be supported by several theories of depression. For example, the learned helplessness model of depression has stated that unpleasant experiences may create an uncontrollable situation. Family structure in terms of nuclear family and joint family may be considered as the abode of depression. In case of Bangladesh it is observed that joint family provides an atmosphere of cooperation leading to the lowering down of stressful situation. Nuclear family, on the other hand, provides an atmosphere of loneliness. As a result, children belonging to nuclear family are not encouraged for cooperative activities. It is these detrimental affects that encourage the children to be non-cooperative and they become habituated to favour a lonely environment. Thus the non-cooperative attitudes and lonely environment may create selfishness lowering down self-esteem in intergroup interactions. These situational factors may be responsible for exposing the children to stressful situation. When the children of nuclear family failed to cope with stressful situations, they become frustrated. Thus sense of failure, frustration and

low self-esteem may lead the children to develop depressive disorders. The children belonging to joint family, on the other hand, develop a sense of cooperation within family members. They are highly pleased by the elderly members of the family. They get social support at the time of failures. These psychosocial activities within joint family system helped the children to cope with stressful events and these prevent them from developing feelings of failure and frustration. On the basis of these theoretical perspectives, it has been hypothesized that children belonging to nuclear family would express significantly more depressive disorders as compared to the children belonging to joint family.

**H<sub>3</sub>:** Children with 16 years of age would express significantly more depressive symptoms as compared to the children of 13 years of age and 10 years of age respectively.

This hypothesis has been framed with reference to developmental stages of life span. It is said that developmental stages are closely related with different types of psychological problems of children. Several empirical studies have focused on this aspect of depressive affect of children. For example, Keller *et al.* (1987) have reported experimental findings about children's depression and showed that cognitive perspectives play an important role for creating depressive affects in children. Benfield *et al.* (1998) described behavioural models in terms of negative attributional style. Those investigators found it consistent with depressive symptoms associated with developmental stages of life span. Thus age of children was found to emerge as an important contributing factor for the development of depressive disorders in children. As the children pass from one stage of development to next stage with the increase of age,

they failed to elicit, more positive feedback from others. Such children suffer from reduced social competent as they grow older. This reduced feedback from parents, teachers and peers becomes increasingly difficult as the children pass different developmental stages. These activities act to maintain depression in children as they grow older on the basis of these experimental findings, it is logical to argue that children will be exposed to more and difficult stressful situation with the increase in age. In the perspectives of these arguments, it has been hypothesized that children with 16 years of age would express significantly more depressive symptoms as compared to the children of 13 years of age and 10 years of age respectively.

### **Design of the Study**

The present study was an empirical investigation on childhood depression. The study used three independent variables such as gender, family structure and age. The amount of depression reported by different comparison groups was dependent variable. Thus the study was conducted to measure amount of depressive affect of children as functions of gender, family structure and age. Gender was composed of two levels such as boys and girls. Family structure was composed of two levels such as nuclear family and joint family. Age was compared of three levels such as 10 years old, 13 years old and 16 years old. Thus the study used a factorial design representing two levels of gender (Boy/Girl), two levels of family structure (Nuclear/Joint) and three levels of age (10 years/ 13 years/ 16 years). The analysis of variance (ANOVA) was used for the computation of data.



## **CHAPTER -II**

### **METHOD AND PROCEDURE**

Mode of Sample Selection  
Description of Sample Settings  
Final Sample Selection  
Selection of Instruments  
Children's Depression Rating Scale  
Interview Schedule for Children  
Description of Children's Depression Rating Scale  
Initial Item Selection  
Pilot Study  
Item Analysis  
Reliability of CDRS  
Validity of CDRS  
Procedure of Administration and Data Collection  
Method of Analysis

## CHAPTER TWO METHOD AND PROCEDURE

This chapter describes mood of sample selection, description of sample settings, final sample selection and selection of instruments.

### **Mode of Sample Selection**

Mode of sample selection is an important task in an empirical investigation. This indicates the ways through which the respondents of a sample are selected. In the present study various strategies were adopted to identify the participant boys and girls according to different variables. For this purpose, gender, family structure and age were considered. In the first place, nuclear family and joint family were identified. A family composed of husband, wife and their children were regarded as nuclear family. But a family composed of father, mother, their children along with grandfather, grandmother, uncles, and aunts their children were regarded as joint family. Investigator approaches these families individually. Then they were asked to report about boys and girls between ages 10, 13 and 16 living in those family. Then the parents were asked about the problems of their sons and daughters. Problem identification test was used for this purpose. This study used a non-clinical sample. In the initial test, the investigator established rapport with the parents and the relevant children. The parents were very much concerned about their sons and daughters. So, they showed interest in the matter. Thus the guardians and their children were encouraged to participate in the process of investigation. Then boys and girls were identified. Parents were required to express the exact age of their children. Following this procedure, boys and girls of 10 years age group, 13 years age group and 16 years age group were identified for the purpose of data collection.



### **Description of Sample Settings**

The sample of the present study was collected from specific areas of Rajshahi City. These are localities known as Kharbona, Ramchandrapur, Raninagar, Talaimari and Kazla. These localities are situated in the Eastern part of Rajshahi City. The special characteristic of these localities is that the river Padma has separated these areas by embankment. (1) Khorbona is situated below the embankment. The socio-economic condition of the people living in these localities may be identified as middle and low socio-economic status. Most of these people are day laborers, such as rickshawpuller, tailors, mechanics, fisherman, small shopkeepers and day labourer. Children living in these localities usually attend Khademul Islam Primary School, Khorbona Primary School and Raninagar Primary School. The respondents of the present study were collected from these schools. These localities are inhabited by original people of Rajshahi. They are down trodden people and most of the guardians of there children are uneducated and poor. Many of these children live in a joint family as well as nuclear family. A non-government organization (NGO) known as Association for Community Development (ACD) is associated with these community for the social development of the children. The investigator of the present study selected problem children working under ACD programme. Investigator approached each child individually. Then family backgrounds of the children were collected. Whenever, a child was found to express symptoms of depressive affect, he was selected as the participant of this study. Following this procedure, the sample of the study was collected to be used for data collection.

## Final Sample Selection

Problem identification test was used for final sample selection. The schedules of this test have been described below:

The interview was conducted in Bengali-

আমি আপনার সন্তান (পুত্র/কন্যা) সম্পর্কে কিছু তথ্য জানতে চাই। এই তথ্যগুলো মনোবৈজ্ঞানিক গবেষণা কাজে ব্যবহার করা হবে। তাছাড়া এই তথ্যের মাধ্যমে আপনার পুত্র/কন্যা সম্পর্কে বিভিন্ন সমস্যা ব্যাখ্যা করা হবে। আপনি অনুগ্রহপূর্বক আপনার সন্তান সম্পর্কে সঠিক তথ্য প্রদানের চেষ্টা করবেন।

- ১) প্রথমে আপনার সন্তানের সাধারণ সমস্যাগুলো বলুন। যেমন- আপনার সন্তানের কিছু ভালো দিক আছে, আবার কিছু মন্দ দিক আছে, এগুলো স্পষ্ট করে বলুন। তাছাড়া আপনার সন্তানের দুর্বলতাগুলো এবং নেতিবাচক ধারণাগুলো বুঝিয়ে বলতে চেষ্টা করুন। এই সমস্যাগুলো কোন বয়সে আরম্ভ হয়েছে তা নির্দেশ করুন। বর্তমানে এই সমস্যাগুলো কি ধীরে ধীরে লোপ পাচ্ছে অথবা তীব্রতর হচ্ছে তা ব্যাখ্যা করুন (এ পর্যায়ের উত্তরগুলো গবেষক পৃথক কাগজে লিপিবদ্ধ করবে)।
- ২) আপনার পরিবার সম্পর্কে কিছু তথ্য প্রদান করুন। যেমন- আপনি যৌথ পরিবারে বাস করেন না একক পরিবারে বাস করেন? পরিবারের সঙ্গে আপনার সন্তানের সম্পর্ক কেমন? আপনার সন্তান কি পরিবারের অন্যান্য সদস্যদের সাথে মিলেমিশে থাকা পছন্দ করে অথবা বিরক্ত হয়, তা উল্লেখ করুন। আপনার সন্তান কি একাকীত্ব পছন্দ করে? বাড়িতে কোন অতিথি এলে আপনার সন্তান কি স্বাভাবিক আচরণ করে (এ পর্যায়ের উত্তরগুলো গবেষক পৃথক কাগজে লিপিবদ্ধ করবে)।
- ৩) আপনার সন্তানের স্কুলের প্রতি আগ্রহ কেমন? আপনার সন্তান কি স্কুলে যেতে কোন সমস্যা করে? এক্ষেত্রে সমস্যাগুলো কি তা উল্লেখ করবেন? আপনার সন্তান কি স্কুল পরীক্ষায় ভালো গ্রেড পেতে চেষ্টা করে? স্কুলে শিক্ষকদের সঙ্গে অথবা খেলার সাথীদের সঙ্গে অথবা সহপাঠীদের সঙ্গে আপনার সন্তান কি কোন প্রকার সমস্যা করে? অনুগ্রহপূর্বক সমস্যাগুলো উল্লেখ করুন।

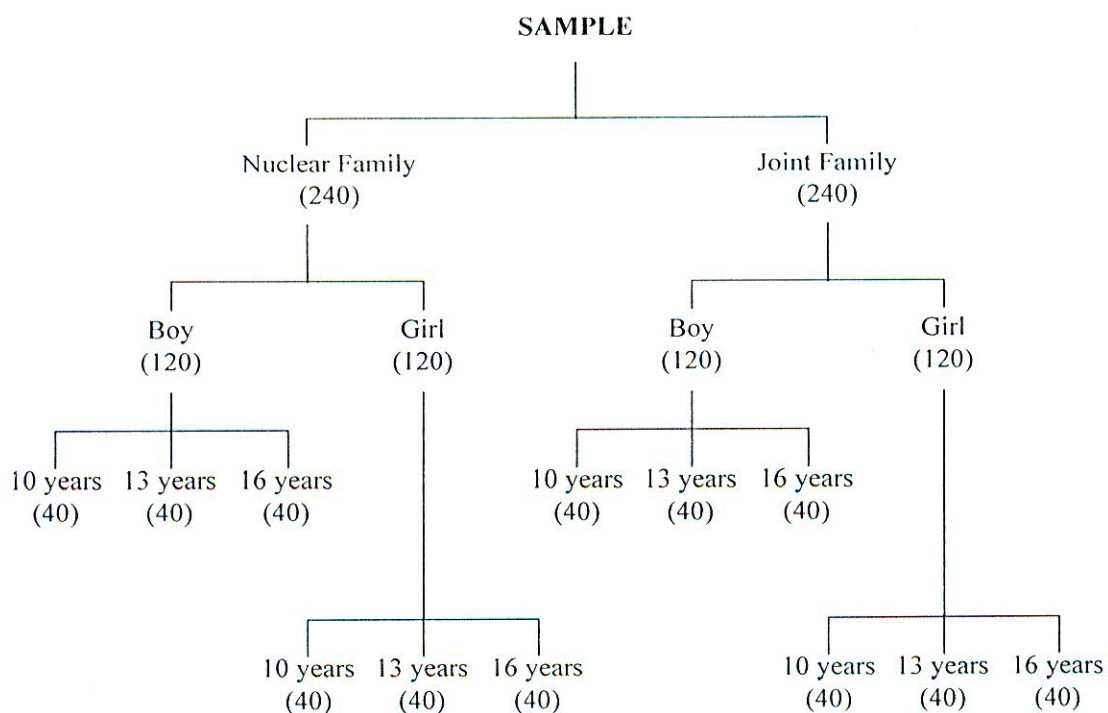
- ৪) আপনার সন্তানের বন্ধুর সংখ্যা কত? বন্ধুরা কি আপনার সন্তানের সঙ্গে ভালো আচরণ করে? আপনার সন্তান কি বন্ধুদের সঙ্গে ঝগড়া করে/মারামারি করে অথবা ভালো আচরণ করে? আপনি কি আপনার সন্তানের বন্ধুদের সঙ্গে মেলামেশা অনুমোদন করেন? আপনার পুত্র/কন্যা অবসর সময় কিভাবে কাটায়? সে কি বিষণ্ণ থাকে, খেলাধুলো করে, লেখাপড়া করে অথবা দুঃস্থমি করে (এ পর্যায়ে প্রাপ্ত তথ্যসমূহ গবেষক সঠিকভাবে লিপিবদ্ধ করবে)।
- ৫) আপনার সন্তানের আচরণ ও আবেগীয় বহিঃপ্রকাশের মধ্যে কোন অসামঞ্জস্যতা লক্ষ্য করেন? এই অসামঞ্জস্য আচরণের স্থায়িত্বকাল কতটুকু? অনুগ্রহপূর্বক এরকম সুনির্দিষ্ট ঘটনা উল্লেখ করুন এবং উক্ত ঘটনার সুনির্দিষ্ট বর্ণনা দিন, সম্ভব হলে অসামঞ্জস্য আচরণের লক্ষণগুলোর একটি তালিকা দিন। আপনি কি মনে করেন এই সমস্যাগুলো ধীরে ধীরে বৃদ্ধি পাচ্ছে? অথবা তীব্রতর হচ্ছে এবং খারাপ পরিণতির দিকে অগ্রসর হচ্ছে? এরূপ হলে অপ্রত্যাশিত লক্ষণগুলো উল্লেখ করুন।

Following this procedure, investigator conducted an interview session for each child individually and summarized information about the problems of the son/daughter of the parents. At this stage, the interviewer mentioned specific emotions, feelings, behaviours and thoughts that can be problems leading to depressive affects for some children. Then the investigator had to decide whether the child has problems about depression. When the investigator found the parents to mention their children to have more than 50% problems, then the child was considered as a problem child with depressive disorders and he was included in the sample. The Bengali and English version of problem identification test is given in appendix A and B respectively.

Following this procedure of sample selection, A profile was made for each child containing specification of names, gender, age, family composition and residence. The profession and the educational qualification of the parents were also required to mention. Thus 480

children were primarily selected. They were equally divided into boys and girls on the basis of gender identification. Each group was again divided into children belonging to nuclear family and joint family. Each sub-group was again subdivided into 10 year age group, 13 year age group and 16 year age group in equal number. This distribution of sample is presented in the following schematic diagram.

**Table-1:** Showing schematic diagram of sample distribution.



### **Selection of Instruments**

The study used two measures, the first measure was used for sample selection. It is called problem Identification Test. The second measure was used for data collection. This measure is called Children's Depression Rating Scale. These two measures were originally developed by Afroz

(2002). These two measures have been modified for the adaptation in the present study. The methods of modification and adaptation of these two measures have been elaborated in the present section.

### **Children's Depression Rating Scale**

Various attempts have been made to measure and identify the depressive symptoms in children. Mitchell *et al.* (1988) described the childhood depression in terms of clinical, pathological disorders. Kazdin (1987) developed reliable and valid assessment measures for the diagnosis of depression in children. Achenbach *et al.* (1987) have focused on childhood depression as the issue of parent child concordant. Hammen (1988) identified the components of childhood depression for the development of valid psychopathological construct, including course and prognosis, treatment response and etiology. These approaches are concerned with the etiology of depression in children. They studied the etiologic variable of depression in children and have provided some biologic and cognitive construct or model. These strategies for the measurement of depression have provided evidences regarding the symptoms of childhood depression. These techniques are based on some basic strategies. These may be explained as follows:

- i) Validity for measuring construct of depression in children.
- ii) Specific factors of depression regarding psychological characteristic.
- iii) Cognitive patterns of the syndrome of depression.
- iv) Cognitive style as enduring factor in explaining the etiology and maintenance of depression.
- v) Distress versus accurate reflection of depressed children's

cognitive style.

- vi) Evidence of developmental variation associated with depression in children.
- vii) Cognitive processes associated with childhood depression.
- viii) Implication of childhood depression on the course of development.

These characteristics have been reflected in most of the measurement technique of depression. Most current measurement of depression have recognized these characteristics. Hence the development, modification and adoption of measurement technique of childhood depression should include these characteristics. In this context, three reasons have been suggested for the construction, development and elaborations of cognitive measurement of depression. A short review of the construction of measuring child depression have been stated below.

An important attempt for the measurement of childhood depression is the semi-structure interview method. Poig-Antich and Chambers (1978) have developed this technique. It was named as KIDDIE SADS. It was a new version of the schedule for affective disorders and Schizophrenia developed by Endicott and Spitzer (1978). KIDDIE SADS technique for the measurement of childhood depression has heavily borrowed from diagnostic interview for children and adolescents developed by Herjanic and Reich (1982). Thus the semi-structured interview methods have been developed in conjunction with diagnostic system of DSM-III. These attempts have made it possible for the investigators to arrive at comparable and reliable diagnosis of childhood depression.

Several new semi-structured interview methods have been developed by Kovacs (1985b) and Sherill and Kovacs (2000). Kovacs (1985b) has developed an interview schedule for children. It was her original work on childhood depression. Sherill and Kovacs (2000) made an extension of these original interview schedule and it was named as Interview Schedule for Children and Adolescents (ISCA). The versions of ISCA are semi-structured, symptom oriented psychiatric interviews for children aged 8 to 17 years.

The ISCA as a semi-structured method was found appropriate for measuring the depressive affect of children. The authors of this instrument have described its context. They have reviewed its psychometric properties and clinical as well as research applications. They also described a follow-up version of the schedule and discussed its evaluation in the context of developmental psychopathology research. This instrument was developed for a longitudinal clinical study of childhood depression. This instrument was pilot-tested with out patient and in patient children in psychiatric settings. Then the instrument was progressively revised. Two versions were finalized, the first version was for the assessment of research subjects. The second version was the follow up ISCA. It was used for reevaluation of previously assessed cases. Subsequently, additional items were added to the ISCA. This was done in order to extend the coverage of dysthymic, manic and hypomanic syndromes.

Kovacs (1997) made a new version of the ISCA. The new version contained five sections. These are (i) symptoms and science, (ii) mental status, (iii) behavioural observation, (iv) clinician's impressions and

(v) developmental milestones.

Symptoms and science contains 69 items. These items reflect major symptoms of depression such as manic and hypomanic mood, anxiety, cognitive problems, problems in neuro-vegetative functioning, derogated behaviour and conduct as well as developmental difficulties. Mental status contains 10 items, covering orientation, delusions and hallucinations. Behavioural observations are found during interview. There are certified by 17 items. These reflect verbal, non-verbal and motor expressions. There include psychomotor retardation, agitation and pressure of speech. Clinicians impressions are quantified by 6 items. These indicate interviewer's impressional and subject's social maturity. Lastly, development milestone refer to an item on dating and item on sexual behaviour. However, this last dimension was not included in the development of children's Depression Rating scale because of its cultural influence.

Children's Depression Rating scale included the items covering these four dimensions as developed by Afroz (2002). The present form of children's Depression Rating scale was modified by the investigator and it was named as Children Depression rating scale (CDRS).

### **Children Depression rating scale (CDRS)**

The development of each structural interview schedule of children's depression is based on review of several important rating scales in the perspectives of childhood depression. Most important of these rating scales are: (i) Schedule for Affective disorders and schizophrenia, (ii) Diagnostic interview for children and adolescents, (iii) Interview



schedule for children and adolescents, (iv) Interview schedule for children, (v) Youth depressions adjective check-list (Lubin *et al.*, 2000), (vi) Multiple Affective Adjective check-list (Lubin and Zuckerman, 1999), (vii) Adolescents activities check-list (Carey *et al.*, 1986), (viii) Reynolds adolescent depression scale (Reynolds, 1987), (ix) Children's depression inventory (Kovacs 1981), (x) Child Assessment Schedule (Hodges *et al.*, 1990), (xi) Child Behaviour check list (Achenbach 1991a, 1991b), (xii) Children's depression adjective check-list (Sokoloff and Lubin 1983), (xiii) Children's depression inventory (Finch *et al.*, 1985), (Kovacs 1985a), (xiv) Children's Depression Rating scale-Revised (Poznanski *et al.*, 1984), (xv) Children's Depression scale (Lang and Tisher 1983), (xvi) Depression self-rating scale for children (Birleson *et al.*, 1987), (xvii) Diagnostic Interview for Children and Adolescents- Revised (Welner *et al.*, 1987), (xviii) Interview Schedule for Children (Kovacs 1985b), (xix) Kiddie Schedule for Affective Disorder and Schizophrenia (Chamber *et al.*, 1985), (xx) Multi-score Depression Inventory for Adolescents and Adults (Berndt, 1980 and Berndt *et al.*, 1990). A short review about the properties of these scales have been described below-

ISCA contains items in teams with multiple and overlapping questions. These inable double checks. This scale rated child's current functioning concerning affects, cognition and vegetative functions. Items were rated on a scale ranging from 0 (absence of symptoms) to 28 (severe symptoms).

Youth-Depression adjective check-list contains depressive adjectives. The trait form of this checklist contained 22 adjectives. The score ranged

from 0 to 22. Higher score indicated higher depressive mood. The check list has two forms. One is trait form and other is state form. The instruction to the trait form was “check the words which describe how you generally feel.” The instruction to the state form was “check the words which described how you feel now today.”

Multiple Affective Adjective check list was constructed for the grade 6 level. This checklist has 132 adjectives. The check list used adjectives relating to anxiety, depression, hostility, positive affects and sensitive seeker. Two composite scores are available. One is dysphobia and the other is well-being. Dysphobia score included the score of anxiety, depression and hostility. Well being score included the score of positive affect plus sensation seekers. The instructions to the subjects were “check the words which describe how you generally feel.”

Adolescent Activities Check list is a self-report inventory. It contains 50 pleasant and 50 unpleasant activities. Frequency of each activity during past two week period was the criteria of pleasantness or unpleasantness. The rating scale ranged from 1 (pleasant) to 7 (very pleasant).

Reynolds Adolescent Depression scale contained 30 items. It used 4 point rating scale. Higher score reflect more depressive symptoms. The items were taken from symptoms of depression listed in the diagnostic and statistical Manual-III-R (American Psychiatric Association, 1987).

Children’s Depression Inventory was standardized using a sample of 860. They were 8 to 14 years old school children of Toronto, Canada. This inventory was also standardized with a sample of 630. The participants were 12 to 15 years old school children of Pennsylvania. These two

forms had identical mean of 9 point to 8 (SD=7.30) and 9.72 (SD=7.00) respectively. The inventory had psychometric properties and it was clinically used.

Child Assessment Schedule is a semi-structured interview. It was made for the clinical assessment of the children. It employed a format of standardized questions. The schedule have three parts. Part-I contains 75 items. It records the child's verbal responses about schools, friends, activities, hobbies, family, fear and anxiety, worries, self-image, mood and somatic problems, expression of anger and thought disorder. Part-II records the examiner's observations. It consists of 53 items. Part-III obtains information about the onset and duration of symptoms. Child responses are coded as either "yes" (present of symptoms), "no" (absence of symptoms), "ambiguous", "no response" or "not applicable". The CAS is suitable for ages 7-18 years.

Child Behaviour check list includes 113 items. The items are relevant to childhood depression. The parents were asked to describe their child's behaviour on a 3-point rating scale. The check list yields a profile of social complaints scales and problem scale. The social complaints and problem syndromes were designed as anxious/depressed, withdrawn, somatic complaints, social problems, thought problem, attention problems, delinquent behaviour and externalizing groups of syndromes. The check list is suitable for the children from 4-18 years of age.

Children's Depression Adjective check list was developed for the assessment of disphoric mood. It was constructed for the children from 8 to 12 years of ages. The check list contains 34 items. The items were divided into two categories. The first category contains 22 items. These items include depression connoting adjectives. The second part contains

12 items. These items are non-depression connoting adjectives.

Children's Depression Inventory was developed to reflect the nature and frequency of childhood depression. These symptoms range from sadness, anhedonia and suicidal ideation to sleep and appetite disturbances. This inventory contains 27 items. The inventory was self-rated and symptom oriented. The child was asked to make a choice of one alternative out of three items. The subject was asked to describe his/her own feelings and ideas for the past two weeks. The items cover such areas of depression as affective, cognitive, psychomotor and vegetative aspects.

Children's Depression Rating Scale (revised) was developed for measuring the severity of depression. It is a clinician-rated scale. It is based on a structure interview. A seven point scale was used to rate the degree of symptomatology of depression. The areas covering this scale are- school work, anhedonia, social withdrawal, sleep, appetite, excessive fatigue, physical complaints, irritability, guilt, self-esteem, depressed feelings, morbid ideation, suicidal ideation, weeping, depressed affect, tempo of speech, hypoactivity and lability of mood. This rating scale is suitable for the children from 6 to 12 years of age.

Children Depression Scale is a self-rated scale. It consists of 56 items. These items are divided into two parts. First part consists of depressive items and second part consists of positive items. First part contains 48 items and the second part contains 18 items. This scale measures 6 aspects of childhood depression. These include affective responses, social problems, self-esteem, preoccupation with own sickness and death, guilt and pleasure. Items are presented on cards, which the child sorts into boxes labelled "very wrong", "wrong", "don't know", "not sure", "right"

and “very right”.

Depression self-rating scale for children consists of 80 items. The items can discriminate children with major depression from children with no depression. The children are given 18 statements. The statements were like I feel very bored or I feel very lonely. The rating scale ranges from “most of the time”, “sometimes” or “never”. The episodes spread over the past two weeks. The scale has a test-retest reliability of 0.80 and a split-half reliability of 0.86. The scale is suitable for the children between 7-14 years of ages.

Diagnostic interview for children and adolescents consist of three interviewers. One for children’s aged 6 to 12 years. Another for adolescents aged 13 to 17 years. The third one is a parent interview. The parents are asked about their children 6-17 years of age. It is a structured interview. It is developed for differentiating psychologically disturbed children. The scale also uses a semi-structured interview. It’s purpose was to yield information on the onset, duration and severity of the symptoms related to depression. This scale is suitable for children between 6 to 17 years of ages.

### **Interview Schedule for Children**

It is semi-structured, symptom oriented, psychiatric interview. It covers the major symptoms of depression, anxiety and conduct problem. It is suitable for children between 8 to 18 years of ages.

Kiddie schedule for affective disorders and schizophrenia was developed for the assessment of affective disorders in children and adolescents. It is semi-structured interview method. It is a psychiatric interview used with

parents and children. It records symptoms relevant to major depression, mania, hypomania, schizophrenia, autism, eating disorders, attention, deficiency disorders, conduct disorders, anxiety disorders, alcohol and substance abuse and suicidal behaviour. It has two forms. Form E assesses past symptom and Form P focuses on present episode and symptoms severity. It is suitable for ages between 6 to 16 years.

Multiscore depression inventory for adolescents and adults is a standardized instrument. It contains 118 items. It is an objective measure. It measures the severity of self-reported depression. It provides 10 subscales. These are- low energy, cognitive difficulty, guilt, self-esteem, social introversion, pessimism, irritability, sad mood, instrumental helplessness and learned helplessness.

Reynolds child depression scale is a self-report measure of the severity of depressive symptomatology in children. It consists of 30 items. The manual presents psychometric data on studies with more than 2000 children as well as normative information. The scale is suitable for children between 8 to 12 years of ages.

This is a short overview about the development of measuring instruments of children's depression. These instruments reflect on different dimensions of depression. It also gives insight for the construction of new scale about depressive disorders of children. These scales provide empirical basis for the construction of instruments for childhood depression. These instruments have highlighted on age as well as sex differences relating to construction of instruments on childhood depression.

It is, therefore, important to note that the preceding analytical review on different aspects and phases of instruments would provide sufficient knowledge for the constructions of a measuring instruments on childhood depression. On the basis of these arguments, the investigators in the present study has made an effort for the constructions of an instrument appropriate for measuring children's depression in the social, cultural and economic context of Bangladesh. These measuring instruments has been described in the following section.

### **Description of Children's Depression Rating Scale**

Children depression rating scale was constructed in Bengali (Afroz, 2002). Before the construction of this scale, an extensive review on test construction was made.

Modern concepts in depression etiology is based on binary theory of depression. It states that depression falls into two major groups. One is reactive and the other is endogenous. The category of reactive depression refers to depressions that have identifiable precipitants. Copeland (1975) has produced data to confirm this long standing clinical observation that the overwhelming majority of depressions are preceded by stressful life events. These are reactive depression. The Children's Depression Rating Scale includes items falling within this category of reactive depression.

In the construction of Children Depression Rating Scale, attempt was made to tease out some of the precipitating events or processes that put the children at risk for reactive depression. Vigorous research efforts in recent years have resulted in the development of several distinct questionnaires, interview inventories and rating scales which purport to explain reactive depression (Friedman, 1974). In the construction of

children depressive rating scale, the focus was on social and interpersonal processes of the cognitions concomitant with those processes.

Characteristics of depression have been identified from widely conducted research findings with the same population of subjects. (The Interview Schedule for Children and Adolescence current and lifetime (ISCA-C & L) developed by Dr. Maria Kovacs in Western Psychiatric Institute and Clinic, University of Pittsburgh). Its revised version and its cross cultural version have been developed by Dr. S. Srinath and the Child Psychiatry Staff, NIMHAMS, India. Items of Children's Depression Rating Scale have been initially collected from ISCA-C & L (Sherrill and Kovacs, 2000).

### **Initial Item Selection**

Investigator (Afroz, 2002) constructed the children's Depression Rating Scale in the social context of Bangladesh. Numerous issues related to child's depression in Bangladesh were studied, reviewed and reported. The investigator (Afroz, 2005) made an analytical observation of various issues of depression in children. Then an attempt was made to select the items from various sources. The main source was the items previously used in questionnaire, inventories and rating scales.

Thus 130 items were initially selected. Most of these items were adjectives used to quantify the depressive symptoms in children. In the next phase 130 items were given to 15 children and to their parents for an open end interview. It was a semi-structured interview and the children were asked to show their affiliation with each adjective. Similarly each parent was interviewed and was asked whether he/she would agree with his/her child's opinions. The adjective which was considered as a



depressive symptom by both the child and the parent was retained in the rating scale. Following this procedure, 100 adjectives got the approval as depressive symptoms.

These 100 adjectives were given to three judges for the identification of their inner meaning as to depressive symptoms. Three teachers from the department of psychology worked as judges. These three judges were asked to quantify each item about its depressive nature. The judges separately worked out the connotation of each item and selected the items dimension-wise. Thus the judges categorized 100 items into 22 dimensions. The items on which all the judges gave similar opinions were initially selected for the inclusion in Children's Depression Rating Scale. Thus on the basis of complete agreement of the judges 87 items were selected. The dimension-wise distribution of items have been reported in Appendix-A.

### **Pilot Study**

The retained 87 items were expressed in statements. These statements were formed in the style of Likert Scale. Likert (1932) developed the methods of summated ratings. The Likert scale is easy for administration. Its reliability coefficient can be computed with fewer numbers of items. It is less time consuming and less laborious. Keeping in mind all these considerations, the investigator (Afroz, 2000) thought it best to use Likert technique and method for the construction of Children's Depression Rating Scale. In the Likert technique, five alternatives are provided and the respondent is asked to choose one alternative ranging from strongly agree to strongly disagree for each statement. Thus each item in the test is a rating device designed to reveal both the direction of the individual's

stand on the issue.

Following the above procedure, five alternatives were given below each statement and the respondents were asked to give their affiliation with the adjective expressed in the statement. Five alternatives ranged from 0 to 4. Zero indicated absence of depression, one indicated mild depression. Two indicated not known. Three indicated moderate depression. Lastly four indicated severe depression.

“Not-applicable” connotes that the child functions well in a wide range of activities. Problems and difficulties never get out of hand and these are appropriate to child’s age and his social context.

“Mild depression” connotes that child experiences more frequent and pronounced symptoms. The duration of these symptoms is more than a week. These symptoms become an issue for the child at home, school or other social context. Child has difficulty in some areas of functioning. He has residual symptoms but general functioning is still acceptable. Common people would consider the child troublesome but not a serious problem or ill.

“Not known” connotes that the child has inadequate information about his problems and he is unable to identify them.

“Moderate depression” connotes that symptoms are evident and clinically significant for child. Definite impairment in one or more areas of functioning are found in general. Child functions with difficulty. Distinctly deviant mood or behaviour is observed. Difficulties in child are out of proportion and clearly inappropriate to age or situation.

“Severe depression” connotes that child’s social or adaptive behaviour is clearly deviant. The emotional or intellectual functioning in child is pronounced. Symptoms and impairment in functioning are so marked that treatment or attention is imperative. The child may need supervision. Dimension-wise statement of each item and the mean scores of boys and girls in the pilot study of English and Bengali versions have been given in Appendix-B.

Following this procedure of sample selection 40 respondents identified as problem children were randomly selected for pilot study. The respondents were equally divided into boys and girls. They were given the following instruction in Bengali.

“নিম্নে একজন শিশুর অনুভূতি সম্পর্কে বর্ণনা দেওয়া হয়েছে। এই অনুভূতিগুলো প্রত্যেক শিশুর মধ্যে বিরাজ করে। তবে এগুলোর উৎস ভিন্ন হতে পারে। অনুভূতিগুলো বিশেষণের আকারে দেওয়া হয়েছে এবং একটি বাক্যের মাধ্যমে বর্ণনা করা হয়েছে। তুমি প্রত্যেক বাক্য পৃথকভাবে মনোযোগ সহকারে পড়বে এবং এই বাক্যের মাধ্যমে যে বিশেষণটি প্রকাশ করা হয়েছে তা বুঝতে চেষ্টা করবে। তোমার ক্ষেত্রে এই বিশেষণগুলো কিভাবে প্রযোজ্য তা প্রত্যেক বাক্যের নিম্নে প্রদত্ত পাঁচটি বিকল্পের যেকোন একটিতে টিক (✓) চিহ্ন দিয়ে প্রকাশ করবে।”

### English Version

“Below is given a description about the feelings of a child. These feelings are found to share by every child. But the origin of these feelings may be different. These feelings are expressed through adjectives and have been described in a statement. Please read each statement separately with attention and try to understand the meaning of the adjective expressed though a statement. Please express how these adjectives are applicable in your case by putting a tick mark (✓) on any one of the five alternatives

given below each statement.”

Each respondent was approached by the investigator individually. It was a semi-structured interview. The investigator explained each statement verbally to the respondent. Then the respondent was asked to give his opinion by putting a tick mark (✓) on any one of five alternatives given below. Following this procedure data were collected from 40 respondents among whom 20 were boys and 20 were girls.

Severe depression was given a score 4, moderate depression 3, not known 2, mild Depression 1 and no depression a score of 0. The scores of each item reported by 20 boys and 20 girls were summated separately for item selection. Thus for each item the scores ranged from  $(20 \times 0) = 0$  to  $(20 \times 4) = 80$ . Hence the highest possible score was 80 and the lowest possible score was 0. The mid point was computed using the following formula:

$$\frac{\text{Highest Possible Score} - \text{Lowest Possible Score}}{2} + \text{Lowest Possible Score}$$

$$= \frac{80 - 0}{2} + 0 = 40$$

Thus the mid-point was 40 and mean score for each item was  $(40 \div 20) = 2$ . Hence, a score falling on or above this mean score was considered as Depression score. An item with this Depression score was selected as item in the measure of Children’s Depression Rating Scale.

### **Item Analysis**

The Children’s Depression Rating Scale was constructed in Likert form. Before using various techniques of elimination the investigator computed

the mean score of each item. According to the criteria used in test construction, the highest mean score was indicative of depression symptoms and lowest mean score as non-depressive symptoms. As the scale was supposed to contain the items reflecting depression symptomatology, the scores on or above mean score (2.00) was considered a principle for selecting items in the initial stage. Accordingly, 20 items, common in the samples of boys and girls, were selected on the basis of the results of the pilot study.

In the second stage, Likert's criterion of internal consistency was worked out. The internal consistency can be computed in two ways. Firstly, internal item consistency can be computed by finding correlation between each item and the total score. Secondly, internal item consistency can also be computed by inter item correlation. In the present study, the investigator computed correlation coefficient between each item (inter-item correlation) and the total scores (item total correlation) for finding out internal consistency of items.

The score of each respondent was obtained by summing up all his/her item scores. A given item was supposed to meet the criterion of internal consistency when inter item and item total correlations were in the positive direction. Accordingly bivariate correlation between each item score and total score was computed. Selection of items was done on the strength of the correlation. A given item meets the criteria of internal consistency if the item score correlates significantly with the total score. It was found that inter-item correlations ranged from 0.08 to 0.75 and item-total correlations ranged from 0.53 to 0.69 in the pilot study (Appendix-1). Thus the internal consistency of the Children's Depression

Rating Scale was established. These 20 items constitute the Children's Depression Rating Scale. This has been reported in Appendix-C (Bengali version) and D (English version). Dimension-wise statements of finally selected 20 items of CDRS has been given in Appendix-E. Internal consistency was also worked out with the scores of final study. Thus inter-item correlations ranged from 0.001 to 0.46 and item total correlations ranged from 0.25 to 0.47 in the final study.

Thus the internal consistency of 20 items was worked out with two different samples. In both the cases, the coefficient of correlations were in positive direction. It indicated the homogeneity of items. The inter item and item-total correlations in the final study has been reported in Appendix-H.

### **Reliability of CDRS**

The split half method was used to find out the reliability of the scale. The split half reliability was computed with odd and even number of those 87 items scores (N=40) in the pilot study and the correlation was found 0.62. After applying Spearman-Brown prophecy formula, the coefficient raised from 0.62 to 0.77. Split half reliability was again computed of the scores in the final study, (N=360) with odd and even numbers of 20 items and correlation was found 0.41. After applying Spearman-Brown prophecy formula (Garretts and Woodworth, 1966), the coefficient was found to raise from 0.41 to 0.58 which was very high. Thus it can be said that the reliability of the measure of Children's Depression Rating Scale is statistically sound. The split half reliability of Children's Depression Rating Scale was computed with the scores of final study in order to find out whether the change in size of the sample will affect the reliability of

the scale.

Test-Retest method was also used in order to determine the reliability of Children's Depression Rating Scale. A sample of 40 respondents (20 boys and 20 girls) aged between 10 to 12 identified as problem children was selected and the Children's Depression Rating Scale was administered on them twice at the interval of 3 weeks. The product moment correlation coefficient was computed for the two sets of scores obtained from the respondents. The correlation coefficient was found 0.69 and was significant at 0.01 level. This significant correlation established the reliability of the Children's Depression Rating Scale.

#### **Validity of CDRS**

The validity of the Children's Depression Rating Scale was also worked out. Firstly, internal consistency of the items was worked out both in the pilot study and final study and the correlations ranged from 0.08 to 0.75 and 0.001 to 0.46 respectively. These inter-item correlations indicated the consistency for the scale. Again item total correlations ranged from 0.53 to 0.69 in the pilot study and 0.25 to 0.47 in the final study. These significant and positive correlations indicated the consistency and homogeneity of the items. Thus the validity of CDRS was established.

Secondly, the items of Children's Depression Rating Scale were collected through open end questions and these were corrected by the experts whether these items indicated depressive symptoms. The items identified as depressive symptoms were included in the questionnaire for the pilot study. This indicated the context validity of the scale. Furthermore, items for the pilot study were selected on the basis of full agreement of the judges. This indicated the face validity of CDRS. Thirdly, criterion

oriented validity were worked out for CDRS. For this purpose, two different samples (N=20 for each group) were taken where one was constituted of problem children and the other was constituted for normal children. The scores of the problem related sample was compared with the scores of normal sample. It was assumed that the deviant or problem related group would differ markedly from normal sample. Hence, t-test was computed between the mean score of deviant sample and normal sample and the difference was statistically significant at 0.01 level ( $t=3.90$ ,  $df=19$ ). This significant difference indicated the criterion oriented validity of CDRS.

Lastly, the cross validation of the CDRS was also computed. When a test is significantly correlated with a similar test, it is said to achieve cross validation. The scores of Children's Depression Rating Scale were correlated with depressive experiences questionnaire developed by Blatt *et al.* (1976) and adapted in Bengali by Latif *et al.* (2001). The Bengali adapted form of DEQ was correlated with the CDRS and the correlation coefficient was statistically significant ( $r=63$ ). Thus the cross validation was achieved and this indicated the validity of the Children's Depression Rating Scale.

### **Procedure of Administration and Data Collection**

The present investigation used the Children's Depression Rating Scale for data collection. This rating scale of children's depression was administered on 480 respondents separately for nuclear family (M=240) and joint family (M=240). Each group was equally divided into boys and girls. Each group of boys and girls was equally divided into 10 years age group, 13 years age group and 16 years age group. First, boys of nuclear family with 10 years age were selected for data collection. Then boys of



nuclear family with 13 years age was approached. Lastly boys of nuclear family with 16 years age were selected for data collection. Each respondent was asked individually to fill up the questionnaire. Similar procedure was adopted for girls of nuclear family, with 10 years, 13 years and 16 years. After finishing data collection of nuclear family, investigator selected joint family with boys of 10 years, 13 years and 16 years. Similarly girls of joint family with 10 years, 13 years and 16 years were given questionnaire for data collection.

In each case the respondents were identified as problem children using the criteria of sample selection. These criteria of sample selection was administered on the parents of each child. Thus the parents identify some problems of their children on which they are suffering.

Data collection started in the first week of March 2007 and it continued upto the last week of the same month. However, data collection was a hard job. The parents were not easily available. In addition, they were very much suspicious and doubtful about the data collection job. Therefore, the investigator employed some agents to persuade the parents in favour of data collection. This task of persuasion was done by those people who were known to the parents as well as to the investigator. These agents make the parents assure that these information will be helpful to make a profile for their children. After that assurance, the parents agreed to provide information about their children and asked their children to cooperate with the investigator.

### **Method of Analysis**

The analysis of data was done properly. First, scoring was made for each respondent properly. Then coding was done for final analysis of the results. The analysis of variance (ANOVA) was used for the computation of the result. Finally, a 2×2×3 factorial design representing two levels of gender (boy/girl), two levels of family structure (joint/nuclear) and three levels of age (10 years/13 years/16 years) was done.



## **CHAPTER -III**

# **RESULTS AND INTERPRETATIONS**

Main effect

Interaction effect

Summary of the main findings

## CHAPTER THREE

### RESULTS AND INTERPRETATIONS

This section reports important findings on depression of Bangladeshi children relating to gender, family structure and age. Here the independent variables were two levels of gender (Boys/Girls), two levels of family structure (Joint/Nuclear family) and three levels of age (10 years/13 years/16 years). Dependent variable was amount of depression reported by different comparison groups. The data were subjected to analysis of variance. The results have been reported in the following table.

**Table-2: Showing summary of ANOVA involving gender, family structure and age on the scores of CDRS.**

Source of variance	SS	df	MS	F	Level of Significance
Gender (A)	4966.53	p-1 =1	4966.53	59.11	0.001
Family structure (B)	136.53	q-1 =1	136.53	1.62	ns
Age (C)	2046.53	r-1 =2	1023.26	12.18	0.001
AB	1584.14	1	1584.14	18.85	0.001
AC	95.29	2	47.645	0.56	ns
BC	56.92	2	28.46	0.33	ns
ABC	2248.01	2	1124.005	13.37	0.001
W. cell	39318.25	468	84.01		
Total	50452.2	479			

The results reported in Table-2 showed that main effect of gender was statistically significant ( $F=59.11$ ,  $df=1/468$ ,  $p<0.001$ ). Similarly, main effect of age was also statistically significant ( $F=12.18$ ,  $df=1/468$ ,  $p<0.001$ ). Interaction effects representing two way analysis of variance between gender and family structure was statistically significant ( $F=18.85$ ,  $df=1/468$ ,  $p<0.001$ ).

Interaction effect involving three way analysis of variance between gender, family structure and age was also statistically significant ( $F=13.37$ ,  $df=2/468$ ,  $p<0.001$ ).

## MAIN EFFECT

### GENDER

The summary table of ANOVA reported in Table-2 showed that the main effect for gender was statistically significant ( $F=59.11$ ,  $df=1/468$ ,  $p<0.001$ ).

**Table-3: Showing overall mean scores and significant mean difference between boys and girls on the scores of CDRS (N=240 for each group).**

Boy	36.93a
Girl	43.36b

Note: Common subscripts do not differ significantly. Mean differences were computed using Newman-Keuls formula  $P < 0.01$ .

An inspection of mean scores reported in Table-3 showed that regardless of family structure and age, girls ( $M=43.36$ ) reported significantly higher depression as compared to boys ( $M=36.93$ ). This finding indicates that gender is an important factor for initiating differences in depression between boys and girls. This is caused by inappropriate interpersonal behaviours associated with ominous consequences in the context of family life. When the attachment bond between parents and child is disrupted, the depression is reinforced. In the present case of social context of Bangladesh, the family provides positive nurturing to boys and negative nurturing to girls. Thus positive and care taking parental behaviour is provided to the boys. Girls, on the otherhand are given negative reinforcement through withdrawing affection. This finding is supported by previous finding reported by Kovacs and Bastiaens (1995). They found depressive child irritable, unresponsive and unaffectionate. In

case of present study, girl's higher depressive behaviour may be due to unequal treatment between boys and girls in family atmosphere by the senior members and as such girls have expressed higher depressive symptoms than boys. These findings are supported by Messer and Gross (1995). They selected subclinical depressed children from a community sample and showed that these children have deficit in positive reciprocity and responsibility. It is argued that the eventual recursive nature of such interactions are due to weak attachment bond between parent and child. The data of the present study related with discriminative behaviour between boys and girls may have detrimental consequences for subsequent development of depression in girls at higher rate than the boys.

A further reason for concern about higher depression in girls than boys is the risk for higher ambition in girls by their parents. In many cases parents are found very much ambitious about their daughter. Consequently parents fixed up higher goal in life that their daughters failed to achieve. Frequently failure for achieving such goals may lead the girls to have higher depressive symptoms. Kovacs (1997) conducted longitudinal investigation and identified specific causes of depression in girls. Investigator found that 25% and 34% of depressed girls experience the events of failure in their career.

It is, therefore, evident that gender is an important issue for the development of depression in the boys and girls. In fact, depression represents actual or symbolic personal losses. It is more evident in girls than boys. According to Thompson (1994), death of a loved one, abandonment, rejection, disappointment or threat to self-esteem may be regarded as reduced or inadequate social coping resources. Girls are more affected by these event than boys. Hence, findings of the present study

may be explained in the perspective of these theoretical imports. Moreover, girls are found inadequate for regulating emotional experience leading to higher depressive symptoms than boys.

It is, therefore, plausible to make arguments that onset of depression present in girls is due to adverse environment in home and school. Again, neighbourhood may affect girl's depression by increasing adverse external stimuli and decreasing positive social interaction.

Another important positive factor for higher depression in girls in the context of Bangladesh is associated with sensitization. The model of sensitization (Post, 1992) states that the first depressive episode may sensitize the affected person to develop future depressive affect. This model reports three characteristics on affective disorder. These are: i) the high rate of recurrent episodes, ii) the decreasing lengths of inter episode symptom free intervals and iii) greater role of psychosocial stress for onset of first versus subsequent episodes. These theoretical imports may be applicable in the explanation of higher depression in girls than boys.

## **MAIN EFFECT**

### **AGE**

The results reported in Table-2 showed that main effect of age was statistically significant ( $F=12.18$ ,  $df=1/468$ ,  $p<0.001$ ).

**Table-4: Showing overall mean scores and significant mean differences between respondents of 10 years, 13 years, and 16 years age group (N=160, for each group).**

10 years	37.91a
13 years	39.64b
16 years	42.89c

Note: Common subscripts do not differ significantly. Mean differences were computed using Newman-Keuls formula  $P < 0.01$ .

An inspection of mean scores reported in Table-4 showed that regardless of gender and family structure, it was found that respondents with 16 years of age ( $M=42.89$ ) expressed significantly higher rate of depression as compared to the respondents of 13 years of age ( $M=39.64$ ) as well as 10 years of age ( $M=37.91$ ).

Again, respondents of 13 years of age expressed significantly higher rate of depression as compared to the respondents of 10 years of age ( $M=37.91$ ). These findings indicate that the respondents of 16 years of age expressed highest rate of depression followed by the respondents of 13 years of age and least by the respondents of 10 years of age. Thus the results showed that depression of boys and girls increases with the increase of age.

The findings relating to age variation showed that depression is expressed in behavioural symptoms. For example, behaviour changes with the increase in age. Behavioural changes include behavioural excesses, behavioural deficits, emotional reaction and lack of skills. The findings of the present study may be explained in the context of behavioural changes revealed through the increase in age. For example, Levitt and Lubin (1975) conducted a study and found 54 symptoms of depression related with the increase in age. These depressive affects come from within and as such these are called endogenous depression. The endogenous depression appears at different stages of life plan. These are related with physiological process and disturbed sleep, appetite, energy level and self-esteem. In another study, Gillette and Hornbeck (1973) showed that situational or reactional depression is also related with age variation. The findings of the present study may be explained in the background of these



previous findings. In fact, age was found an important causative factor of depression. As the age increases from 10 to 13 and from 13 to 16, the rate of depression increased in a higher proportion. Thus it may be said that increase in age brings behavioural changes in boys and girls resulting in various types of depressive affect.

It is tempting to believe that there are two separate and unrelated processes going on in age-related depression. One is biological chemical and the other is psychological. According to (Free and Oei, 1989) these two separate processes jointly affect the boys and girls as they increase in age step by step. In fact biological, chemical and psychological processes appear at different amount as the age increases gradually. These processes cause different kinds of sadness in the form of depression. In the present study, age related depression may be explain in the context of biological, chemical and psychological processes. It is important to note that as the age increases, the boys and girls develop some biological deficiency. Again chemical supply in the hormone may be deficient in quantity resulting in various types of abnormalities. These abnormalities may turned into depressive affect. Consequently these changes may produce psychological imbalance in boys and girls at different stages of life span. It is thus evident that age in the process of maturity are confronted with various type of hardship in terms of biological, chemical and psychological development. The imbalance produce in this process is responsible for acute sadness and depression. The data of the present study relating to age variation may be interpreted in the perspective of these biological, chemical and psychological development.

Kandel and Davis (1982) have provided another explanation of depression found in adolescence boys and girls. They conducted a large study on depressed adolescence and identified six factors of depression. These are (i) No self-esteem, (ii) Anti-social behaviour, (iii) Over-involvement with peer groups and little with parents (iv) Over involvement with parents and little with peers, (v) Authoritarian Parents or liberal parents and (vi) Depressed parents. These factors of depression are related with pre-adolescence, early-adolescence and late adolescence period of life span. Similar findings have been reported by Coryell, Endicott and Keller (1992). They found that the younger persons were three times more depressed than older persons. It indicates that depression occurs in higher rate in younger people. It is due to lack in self-esteem or antisocial behaviour or over involvement with parents or peers, Authoritarian or liberal parents or depressed parents. These findings show that depression has roots in interpersonal and intergroup involvements in home, schools, neighbourhood and society at large. The data of the present study relating to developmental process of life span may be interpreted in the perspective of social involvement, self-actualization and authoritarian and democratic atmosphere in which boys and girls at their adolescence are exposed.

## **INTERACTION EFFECT**

### **GENDER × FAMILY STRUCTURE**

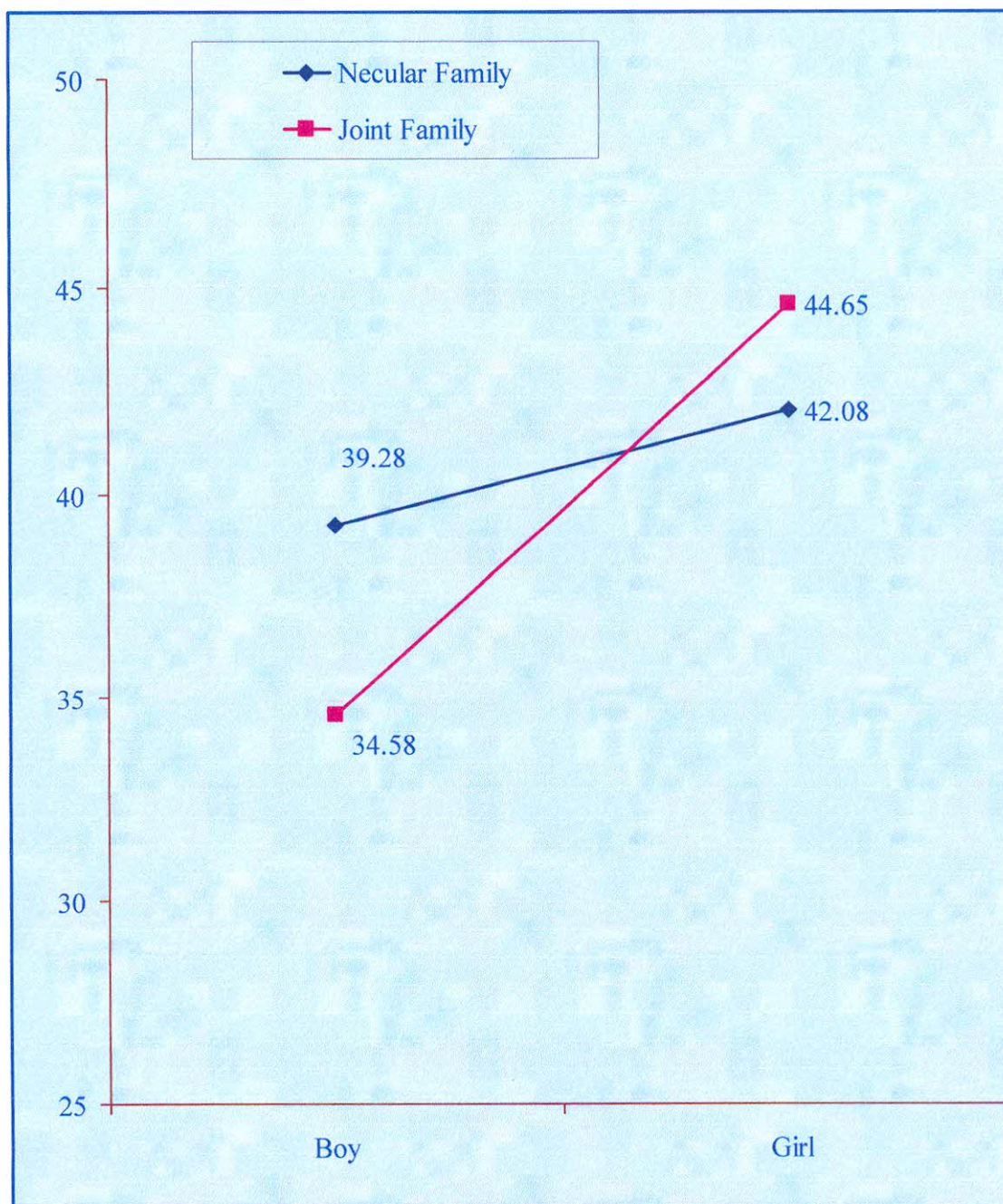
The summary of ANOVA reported Table-2 showed that two-way interaction effect representing gender and family structure was statistically significant ( $F=18.85$ ,  $df=1/468$ ,  $P < 0.001$ ).

**Table-5: Showing overall mean scores and significant mean difference involving two way interaction between gender and family structure on the scores of CDRS (N=120 for each group).**

Group	Joint family	Nuclear Family
Boy	34.58a	39.28b
Girl	44.65c	42.08d

Note: Common subscripts do not differ significantly. Mean differences were computed using Newman-Keuls formula  $P < 0.01$ .

An inspection of mean scores (Table-5) showed that in case of boys, it was found that respondents from nuclear family ( $M=39.28$ ) expressed significantly higher depressive affect as compared to respondents from joint family ( $M=34.58$ ). In other words, nuclear family was found to produce more depressive affects. But joint family was found to produce comparatively less amount of depressive affect. But the opposite was the case for girls. In case of girls, it was found that respondents of joint family ( $M=44.65$ ) expressed significantly higher amount of depression as compare to respondents of nuclear family ( $M=42.08$ ). Thus it was found that joint family produced higher depression for girls and nuclear family produced comparatively lower amount depression of girls. This inverse relationship effected interaction. The interaction effect is graphically plotted in **Figure-1**.



**Fig-1: Showing two-way interaction effect representing gender and family structure.**

The results reported in Table-5 also showed that girls ( $M=44.65$ ) expressed significantly higher amount of depression than boys ( $M=34.58$ ) for joint family. But the results were different in case of nuclear family. It was found that girls of nuclear family ( $M=42.08$ ) expressed significantly higher amount of depression than the boys of nuclear family ( $M=39.28$ ). These findings produced diversity in the amount of depressive symptoms expressed by boys and girls belonging to joint family and nuclear family.

Kovacs and Pollock (1995) provided a structural frame work of depression in childhood and adolescence. According to them, childhood and adolescent depression is associated with disruptive, unmanageable and explosive behaviours. They conducted a longitudinal study and showed that burglary, stealing and vandalism were responsible for depression in children and adolescence. These findings support the findings of the present study. In fact, higher activity is rooted in family structure. In fact, it is arguable that joint family in Bangladesh context is characterized by bipolar illness. This may be complicated by serious conduct problems due to joint family. Moreover anti-social problems and personality disorders may be due to joint family. Hence, it is logical to argue that boys and girls belonging to joint family may have conduct disorder in higher intensity as compared to their counterpart from nuclear family. In fact, children in joint family are exposed to various social and psychological problems. In some cases, children may be dominated by the senior members of the joint family. There may be parental deprivation as the parents in joint family have to work for a longer period of time. Thus children in joint family may have less time to be associated with their parents. Similarly, there may be sibling rivalry. In the other word, children in joint family developed a personality of rivalry jealousy and hatred. They may be competitive and they may face frequent failure. These activities may have negative impact on the children leading to acute depression.

However, children belonging to nuclear family provided with an atmosphere are characterized by cooperation, mutual trust, parental love and affection. It is, perhaps, these qualitative differences between joint family and nuclear family that might be responsible for higher depression in children belonging to joint family than the children belonging to nuclear family. Thus the differences in depression are explainable in terms of psychological activities involved in family structure.

Furthermore, a two-way interaction involving gender and structure clearly showed that joint family was an important variable for initiating higher depression than nuclear family. The nuclear family appeared as an important independent variable for initiating lower rate of depression.

Similarly, gender also appeared as important positive factor for depressive affect where boys expressed lower rate of depression and girls expressed higher rate of depression. In other word, girls of joint family were found highly sensitive or expressive to depression than the boys of joint family. Similarly girls of the nuclear family were found highly sensitive to depressive affects than the boys of nuclear family. These findings provide converging evidence that family related and gender related depressive disorders are caused by social psychological nature of family structure. For example, Bowlby (1960) found depression in infancy and early childhood depending on family structure. Similarly Brown and Harris (1978) made an extensive review on social origins of depression and identified a general set of primorbid risk factors which were theoretically and empirically based on interpersonal trauma and rejection by the senior members of a joint family. The data of the present study provide support to these previous findings that social and environmental disadvantages and multiple disruptions in the parent child

relationship might be responsible for reading higher rates of depression in boys and girls. These explanations of the present findings showed that unexplored or unquantified interpersonal and historical variables may play a unique role in the depression in childhood (Keller *et al*, 1983).

Again if the joint and nuclear families have high prevalence of low socio-economic status families, depression may be evenly distributed. If that is the case, the available findings may not be generalized to unreferred population. Thus population settings may be biased with respect to family structure as well as gender differences. These explanations are supported by Carlson and Cantwell (1980). They found that the gender ratio clearly distinguished the depressed and comparison groups. This is due to relative prevalence of girls. The significance of these findings derives from the fact that femaleness is a powerful correlate of the depressive disorders. Yet, whatever factor is responsible for the marked preponderance of girls among depressed children, it is not fully accepted by the majority of investigators (Weissman and Klerman, 1977).

The results of the present study suggest that the depressive disorders in pre-adult are caused by a number of environmental factors. These factors stems from family structure in terms of joint family and nuclear family, gender variations in terms of boys and girls and age related variables in pre-adolescence, early-adolescence and late adolescence. The actual continuity of these entities over time may have cumulative effect for introducing depression in the boys and girls. However, the existence and characteristics of depression in juveniles has not been empirically documents (Akiskal *et al*, 1975). However, these investigators distinguished between character disorder and chronic form of depression and documented that the character disorder is special type of long-term sub-clinical affecting disorders that are

presumed to have their onset during childhood. This type of depressive affect in children are associated with a history of educational problem. The findings of the present study may be explained in the context of these previous theoretical and empirical findings.

Keller and Lavori (1984) have demonstrated that juvenile depression has the same characteristic as the adult depression. They found prevalence of anxiety symptoms in depressed juveniles. In fact anxiety symptoms has been recognized for a long time as adult symptoms of depression. The result of the present study, however, have neglected these aspects. But the findings of the present study assert that depressive disorders in the school age years may be plausible and these can be warranted.

Hence, these conditions are more persistent that can be studied using a longitudinal method. Furthermore, following the theoretical basis of previous findings, the data of the present study may be explained in the perspective of the prevalence of scholastic failure, school related problems, and poor past adjustment. These psychosocial activities highlight the development at cost of depressive affect in juveniles. Hence, it is important to note that present study has kept these aspects untouched and as such no meaningful conclusion can be made about childhood depression in the socioeconomic and the cultural context of Bangladesh.

## **INTERACTION EFFECT**

### **GENDER × FAMILY STRUCTURE × AGE**

The summary of ANOVA reported in Table-2 showed that a three-way interaction representing gender, family structure and age was statistically significant ( $F=13.37$ ,  $df=2/468$ ,  $P < 0.001$ ).



**Table-6: Showing overall mean score and significant mean differences involving three way interaction between gender, family structure and age on scores of CDRS (N = 40 for each group)**

Gender	Family Structure	Age		
		10 Years	13 Years	16 Years
Boy	Joint Family	30.72a	33.10b	39.92c
	Nuclear Family	39.40c	40.27c	38.17c
Girl	Joint Family	43.07d	45.75d	45.12d
	Nuclear Family	38.45c	39.45c	48.35c

Note: Common subscripts do not differ significantly. Mean differences were computed using Newman-Keuls formula  $P < 0.01$ .

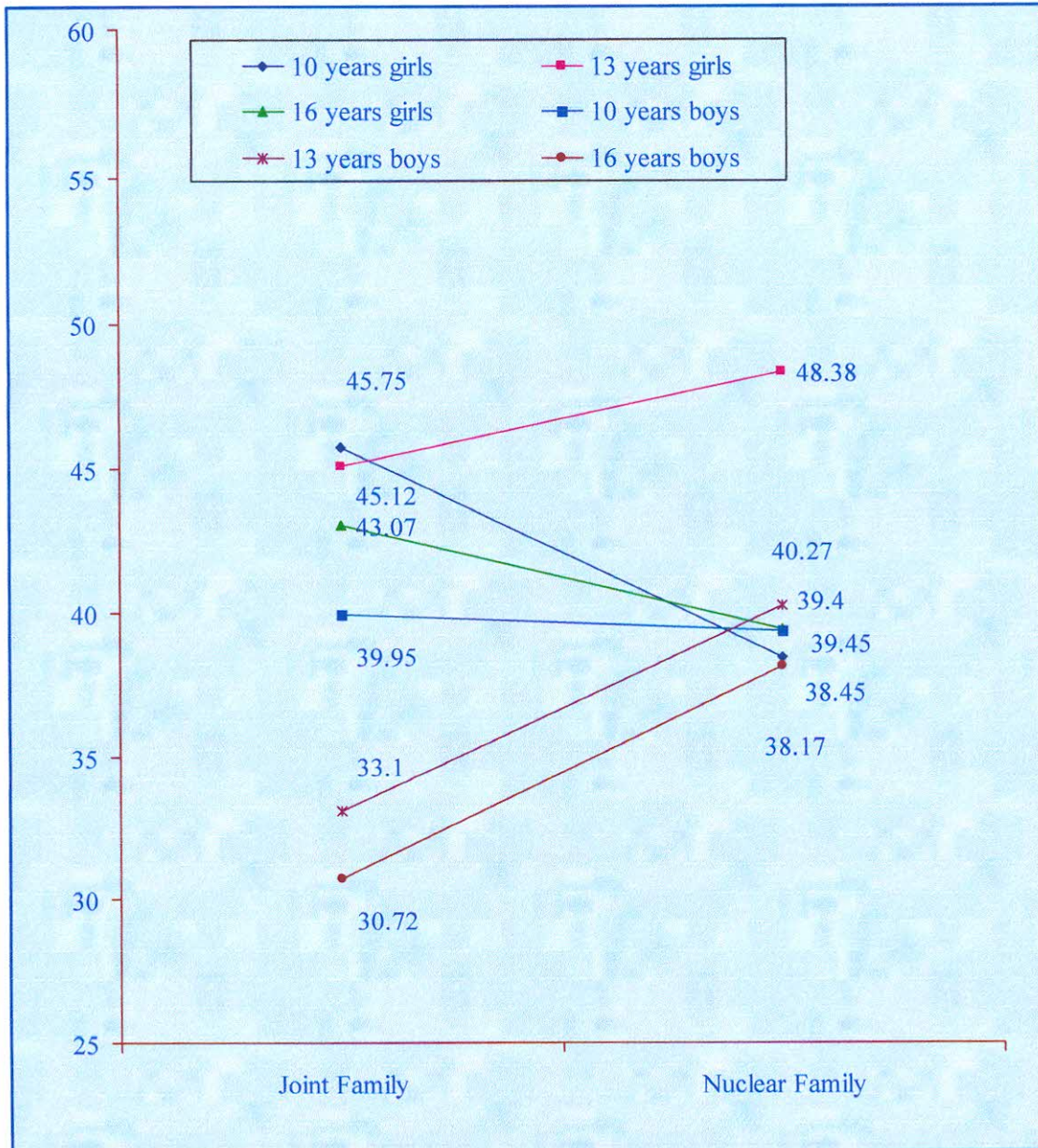
An observation of mean scores showed that in case of boys, respondents of 16 years belonging to joint family (M=39.92) expressed significantly higher depression as compared to respondents of 13 years (M=33.10) and respondents of 10 years (M =30.72) belonging to joint family. Similarly, respondents of 13 years belonging to joint family (M=33.10) expressed significantly higher depression than the respondents of 10 years belonging to joint family (M =30.72). These findings indicate that boys from joint family of 16 years expressed highest rate of depression followed by the boys from joint family of 13 years and least by the boys from joint family of 10 years. These findings indicate that depression in boys of joint family increases with the increase in age. In other words, depression in boys of joint family is the lowest in pre-adolescence period. Then depression is gradually increasing with the advent of adolescence period. Then depression reaches at the highest rate as the boys of joint family pass through 16 years. However, no significant difference was obtained in depression at different ages of development for the boys of nuclear family.

In case of girls, no significant difference was obtained for the respondents of joint family at different ages of development. However, girls from

nuclear family of 16 years of age ( $M=48.35$ ) expressed significantly highest rate of depression as compared to 13 years ( $M=39.45$ ) and 10 years ( $M=38.15$ ) girls of nuclear family. However, no significant mean difference was obtained between 10 years and 13 years of girls from nuclear family.

Between group comparisons showed that at 10 years age group, boys of nuclear family expressed significantly highest rate of depression ( $M=39.40$ ) as compared to boys from joint family ( $M=30.72$ ). Again at 13 years age group, it was found that boys of nuclear family ( $M=40.27$ ) expressed significantly highest rate of depression as compared to boys from joint family ( $M=33.10$ ). However, no significant mean difference was obtained at 16 years age group between boys from joint family and boys from nuclear family.

Comparisons between joint family and nuclear family for girls also showed variations between group comparisons. It was found that girls from joint family at 10 years age group expressed significantly highest rate of depression ( $M=43.07$ ) as compared to girls from nuclear family ( $M=38.45$ ) at the same age group. Similarly, it was found that girls from joint family at 13 years age group ( $M=45.75$ ) expressed significantly highest rate of depression as compared to girls from nuclear family ( $M=39.45$ ) at the same age group. Again, it was found that girls from nuclear family at 16 years age group ( $M=48.35$ ) expressed significantly highest rate of depression as compared to girls from joint family ( $M=45.12$ ) at the same age group. These differential amount of depression expressed by relevant comparison groups effected interaction. The interaction effect has been graphically plotted in Figure-2.



**Figure-2: Showing three – way interaction involving gender, family structure and age.**

These findings of the present study on depression have expressed variability in different degrees produced by gender differentiation, family structure and age variation. Hence, these factors are supposed to create depression due to some environmental agency. These agencies may be documented in the form of family atmosphere, school environment and pubertal growth in the boys and girls. For example, boys and girls in the social cultural context of Bangladesh are confronted with various limitations and bondage imposed by the social, cultural and religious agents. In fact, as the boys and girls go through developmental stages, they discover themselves in new perspectives. They found that they are trusted with specific responsibilities. The responsibilities of boys and girls are different in several respects. Parents treat them differently. They accept their boys as assets of family. But they accept the girls as liabilities. This psychological functioning of parents about their sons and daughters have created a guilt of difference in their attitudinal preferences for sons and daughters. The birth of a son is glorified in the family. But the birth of a daughter is treated as a burden to the family. The consequences of these events are obviously intensified by depressive affects. Thus the result of the present study showed that girls are found highly depressed than boys. It is plausible to argue that attitudinal preference towards boys and girls by the parents, family and society at large may be responsible for girl's higher depression.

Gender discrimination in depression has been reported by Coryell, Endicott and Keller (1992) in American context and showed that parental attitude and family atmosphere may initiate depression in children. They found that about 12% children develop major depression in family atmosphere. They identified girls as depressed twice than boys. Parents

aspiration for higher education of their daughters increase the risk of depression for girls but decreases the depression for boys. Again girls living on farms are prone to depression. These findings of previous studies on American social context may be used as arguments for the explanations of depression of boys and girls in Bangladeshi social context. Considered from these perspectives, the data of the present study on gender discrimination may get support from the findings of previous studies.

Some previous findings have reported traumatized experiences as the source of depression in children. For example, Dweck (2000) reported in her findings some relevant traumatized experiences without external trauma as the source of depression. She emphasized some important crucial distinctions in situations where hopeless thinking lead to the beliefs that the failure is due to child's own fault. The Dweck's findings lead her to explore the early childhood sources of hopeless thinking. She found that over one third of children show signs of helplessness, self-blame, frustration, sadness, giving up, losing interest when they fail or are criticized by members of the family. The findings of the present study have relevancy with these previous data of Western cultural settings. It was found that family structure in the present study appeared as an important independent variables. Family structure in terms of joint family and nuclear family was found to exercise important role in creating depressive affect in boys and girls. For boys, nuclear family at 13 years old effected higher depression. But for girls, joint family effected higher depression at 13 years age group. Moreover, boys of nuclear family effected higher depression at 10 years age group but girls of nuclear family effected higher depression at 16 years age group. These

findings may be explained with reference to previous findings reported by Dweck's findings.

It is important to note that at 10 years age group, boys and girls have different treatment in joint family and nuclear family by the senior members. In fact, boys or girls in the joint family get higher social support by different members. This helps to lower down their distress due to failure or other sorrowful acts. When a child in joint family is rebuked by the father or mother, other senior members come forward to provide social supports. But in case of nuclear family, if boys or girls are rebuked by the parents, there is no member available to provide social supports to them. It is, perhaps, these differential treatment provided by joint family as well as nuclear family that might be responsible for depressive affects in different amount at various stages of development due to age factor.

Through several experiments (Brown and Harris, 1978; Brown, 1979), it was shown that judgmental criticism of the child increased his/her helpless attitude and negative self appraisal. Thus these negative evaluation of child create the feeling of unworthy. In the previous study these explanations may be applicable for higher depression in boys and girls. These findings may be explained by the empirical findings. Thus the neglect and criticism are the classic sources of low self concept leading to acute depression.

The findings of the present study showed that depression increases with the increase in age. This finding may be explained under the empirical data provided by Cudney (1981). These findings showed that self depression is caused by self defeating behaviour. It creates reluctance in children to face reality. In the present study, children were found to

express gradually higher rate of depression as they pass through 10 years, 13 years and 16 years. It is, perhaps, for this reason that children are reluctant to face reality as they grow through developmental stages. As they become older, they are exposed to higher number of failures. So their self confidences gradually go down. As a result, they show higher reluctance to face reality as they are confronted with higher number of failures with increase in age. It has a cumulative effect on the development of depression in children as they grow older.

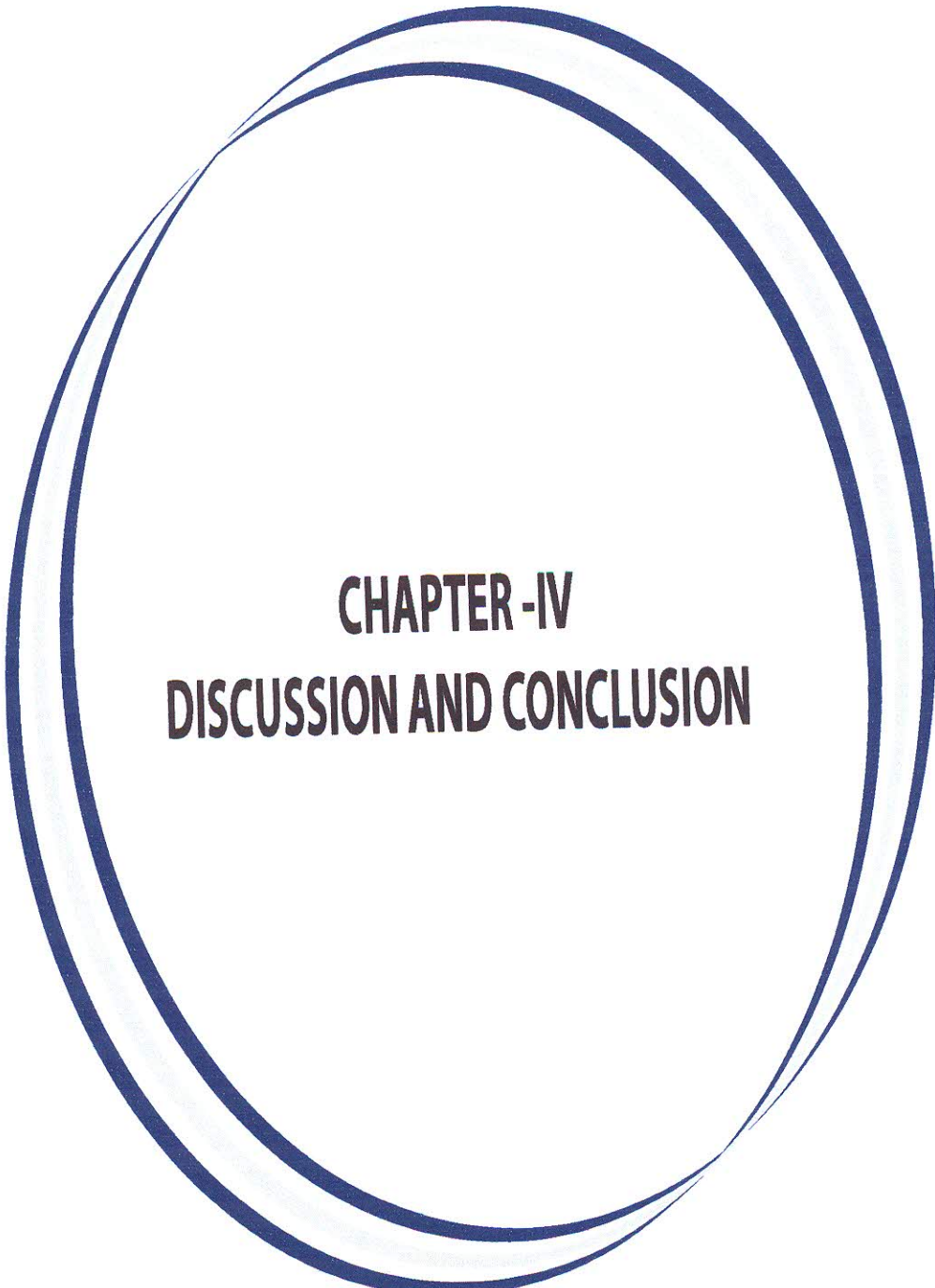
### **SUMMARY OF THE MAIN FINDINGS**

1. Regardless of family structure and age, main effect of gender was statistically significant.
2. Regardless of gender and family structure, the main effect of age was statistically significant.
3. A two-way interaction representing gender and family structure was statistically significant.
4. A three-way interaction involving gender, family structure and age was statistically significant.
5. It was found that girls expressed significantly higher depressive affect as compared to boys.
6. It was found that respondents with 16 years age expressed significantly more depression than the respondents with 13 years age and 10 years age.
7. Respondents with 13 years age expressed significantly higher depression as compared to the respondents of 10 years age.

8. In case of boys, it was found that respondents of nuclear family expressed significantly more depression than the respondents of joint family.
9. In case of girls, it was found that respondents of joint family expressed significantly more depression than the respondents of nuclear family.
10. In case of joint family, it was found that girls expressed significantly more depression than boys.
11. In case of nuclear family it was found that girls expressed significantly more depression than boys.
12. In case of joint family of boys, it was found that respondents of 16 years of age expressed significantly more depression than the respondents of 13 years of age and 10 years of age.
13. In case of joint family of boys, it was found that respondents of 13 years of age expressed significantly more depression than the respondents of 10 years of age.
14. In case of nuclear family of boys, no significant mean difference was obtained between different age groups.
15. In case of joint family of girls, no significant mean difference was obtained between different age groups.
16. In case of nuclear family of girls, it was found that respondents of 16 years of age expressed significantly more depression than the respondents of 13 years of age and 10 years of age.
17. In case of nuclear family of girls, no significant difference in depression between 10 years of age and 13 years of age was found.



18. In case of boys of 10 years, it was found that respondents belonging to nuclear family expressed significantly more depression than the boys of joint family.
19. In case of boys of 13 years, it was found that respondents belonging to nuclear family expressed significantly more depression than the respondents belonging to joint family.
20. In case of boys of 16 years, no significant mean difference was obtained between the respondents of joint family and nuclear family.
21. In case of girls of 10 years, it was found that respondents of joint family expressed significantly more depression than the respondents of nuclear family.
22. In case of girls of 13 years, it was found that respondents of joint family expressed significantly more depression than the respondents of nuclear family.
23. In case of girls of 16 years, it was found that respondents of nuclear family expressed significantly more depression than the respondents of joint family.



**CHAPTER-IV**  
**DISCUSSION AND CONCLUSION**

## CHAPTER FOUR DISCUSSION AND CONCLUSION

It is rightly pointed out that sadness, hopelessness, loss, low self-regard, loneliness, guilt and shame are complex conditions or processes in depressive affect. Moreover, the causes of depression are complex and so are the solutions. But no one should be ashamed of being depression. It is hard to pull out of the misery of depression and sometimes it is impossible. Still everyone should face it with some hope. It may involve gain, social withdrawal, being irritable, having ambition, or being pessimistic. These two conditions such as misery of life and hope of life are closely related with depressive affect. The present study is an empirical investigation of Bangladeshi children with reference to their gender in terms of boys and girls, family structure in terms of joint family and nuclear family and age variation of 10 years, 13 years and 16 years of age.

The data were collected using appropriate measuring instrument using a factorial design. Furthermore, data were properly analyzed using the statistical method of Analysis of Variance (ANOVA). A depressive score was worked out using the following formula:

$$\frac{\text{Highest Possible Score} - \text{Lowest Possible Score}}{2} + \text{Lowest Possible Score}$$
$$= \frac{80 - 0}{2} + 0 = 40$$

Hence, a score falling on or above this mean score was considered as depressive score.

Analyses of results have reported depression of children at variable degree. One important finding of the results relating to depression of children was that girls obtained a mean score of 43.36 but boys reported a mean score of 36.93. Thus, girls obtained a score above depressive score of 40 indicating higher depression. However, boys obtained score of 36.93 which is below the depressive score of 40. These indicate that boys expressed less depression than girls. It means that girls, in general, have expressed significantly higher rate of depression than boys. This finding has provided empirical support to the hypothesis that girls would express significantly more symptoms of depressive disorders as compared to boys. Thus, this hypothesis was confirmed by the results.

Gender differences in depression have a theoretical basis in Seligman's theory of learned helplessness (1991). When boys and girls are confronted with reality, they may experience repeated failures. The pessimist boys and girls learn the failure but optimist boys and girls learn courage to overcome the failure. Hence, it is important to note that depression in children is caused by specific action. When they get less social supports from their friends, they become depressed (Kirsch, Mearns and Catanzaro, 1990). It is, therefore, clear that gender differences in depression are highly sensitive feeling components of children. If they have good, sincere and honest friends at the time of adversity, they are capable to overcome depression from the act of failure. But if the children do not get the social supports to overcome from the failure at the different stages of life, they become susceptible to depressive affects. Another important causative factor of depression in boys and girls is the tendency to avoid assuming responsibility. If the children avoid responsibility for bad events, they develop feelings of

guilt. This guilt feeling may lead to develop depression in boys and girls in different amount. Investigators (Flanigan, 1996; Bass and Davis, 1994; Forward, 1989; Chopich and Paul, 1993) found that in the developmental processes of early years, girls become matured both physically and mentally earlier than the boys. It is, perhaps, this early maturity that provides the girls an understanding of events of failure leading to higher depression. Another important supporting agent against depression is social support provided by parents, teachers and siblings. A large number of studies reported that boys get higher social supports than girls. For example, for an act of failure, parents rebuke the sons and provide physical punishment. But they accept the failure of their daughter in a liberal way. Daughters are provided affection, encouragement, hope and solace for future success instead of punishment.

As a result, girls are spoiled by their parents and they do not try to improve their future. Repeated failure creates higher depressive affects in girls. Boys, on the other hand, make effort for future success and they gradually improve their activities in a positive way. Thus boys develop a positive out look and girls develop a negative out look about the future. As a result, girls develop pessimistic and boys develop optimistic out look about the surroundings of their environment. Thus the differential treatment towards boys and girls by their parents and subsequent development of pessimistic attitude in girls and optimistic attitude in boys may be responsible for higher depression in girls and lower depression in boys. As Kirsch, Mearns and Catanzaro (1990) have pointed out that an optimist boy sees opportunity in every calamity but a pessimist girl sees calamity in every opportunity. Thus, an optimist boy considers himself as the master of his fate and the captain of his soul but a pessimist girl

consider herself abandoned soul which is rootless and floating fully. This differential thinking process may be responsible for higher depression in girls than boys.

There are other reasons for higher depression in girls than boys. It is said that children remains optimist until they are about 8 years old. But by mid-adolescence, the thinking style of children is either optimistic or pessimistic. This trend of thinking remains for the rest of their lives. It depends on the persuasive process. Persuasion is an important process for attitude change. In fact, persuasion is more effective in girls than boys. Girls are easily persuaded for an act. They may not judge their ability and initiate the work without prior thinking. Consequently, they face frequent failure leading to higher depression. But boys are not easily persuaded for initiating an action. They judge their own abilities, fitness and future consequences. Hence, they face less number of failures in life events. There is also a difference in physical ability between boys and girls for doing a work. Generally speaking, boys have higher physical abilities and strength in comparison to girls. So, boys are capable to finish the work successfully than the girls. In other words, due to differences in physical strength, girls experience more failure leading to frustration. In fact, higher frustration in girls creates higher depression in comparison to boys. It is, perhaps, lack in self direction in girls that is critically important for higher depression in them.

A large number of empirical findings (Brown, 1995; Kraemer, 1986; Greenberg *et al.* 1992; Fisher and Greenberg, 1995) showed that repressed childhood traumas such as sexual abuse may be anticipated as important causative factors for higher depression in girls than the boys.

The investigators reported that a good number of girls at their early adolescence experience sexual abuse by the elderly members of the society. Most of the girls try to hide the sexual abuse and repressed it for a long term period. As a result, these repressed problems of sexual abuse unconsciously motivate the girls to think of suicide. These childhood abuses may cause great distress in girls leading to higher depressive effect. These empirical findings conducted in Western culture provide empirical support to the present findings that girls express significantly higher depression than boys.

Flanigan (1996) has reported that depression is associated with emotions. Several studies have reported that girls are more emotional than the boys. When girls are maltreated by senior members of the family such as parents, uncle or elder brothers, it creates great anger and guilt. In similar cases, boys are capable to cope with emotion. Thus the senior members of the family are often the true sources of depression for girls. Shame is another source of depression. Shame is a type of emotion that may shatter down the personality of individuals. In case of boys and girls, it is found that shame as emotional expression attacks the girls in higher intensity than the boys. Hurlock (1989) showed that girls are shameful for their bodily structure. As the girls grow up gradually, they discover different parts of their body and compare these parts with those of the boys. These activities give rise to the feelings of inadequacy and inferiority complex. Consequently girl's feeling of shame is developed into inferiority complex leading to higher depression in comparison to boys. These empirical findings may be sited in support of present study that girls are exposed to various inadequacy of childhood experience that may lead to higher depression for girls than boys.

In the social context of Bangladesh, it is found that life style of boys and girls are not the same. Most of the boys have extrovert personality but most of the girls have introvert personality. Society, culture and religion have imposed several restriction on girls for their free movement. But it is not the case with boys. It may be that girls think themselves as in changed in society. This may affect their thinking processes. Thus depression passes an incubation period in the thinking process of girls. It is, perhaps, these social restriction imposed on girls that may be responsible for their higher depression than boys.

It is also important to note that parents in the family treat their sons and daughters differently. Sons are given higher importance in child-rearing practices than daughters. Again sons are given more priority in decision making than daughters. Daughters, on the other hand, realize that they are like guests in the family for time being and their destiny is fixed up somewhere else. Hence, girls think that they have to leave this parental abode for husband's house. This is another painful thought for the girls. It affects inner entity of them. They realize that they may be abandoned by the parents at any stage of developmental process of life span. These are rational thinking for the girls at their early adolescence and it hurts their fragile inner mind. Thus self-esteem is hampered and girls become highly depressed. Again an exile to husband's house gives rise to future planning of life. Girl's thinking process is occupied by the thought that they have to make proper adjustment with husband and his family. If she fails to do it, she may be abandoned by the husband and may be divorced.

The thought of divorce is another source of depression in girls. Moreover, girls legitimately think that their perfection of life lies in giving child



birth. Child bearing and child birth are traumatic experience and most of the girls consider these activities as painful events. It is, then, logical to argue that proper adjustment with husband and his family, fear of divorce and thinking of painful activities in child bearing and child birth processes may activate the girls to unconscious thinking about some unseen activities. Pondering over these possible catastrophes of life may lead to higher and intensive depression for girls than in boys.

History and gender factors showed that depression is caused by the preceding experiences. Harrington (1990) followed up 80 children and adolescence with serious depression and found that 60% of them became depressed due to preceding events. These events were: (i) Feelings of guilt as a child, (ii) Strained relationship with the same sexed parents, (iii) Involvement of divorce, (iv) A depressed mother unable to take care of children, and (v) Dominant-over protective parents using poor child rearing practices.

In another study, Kandel and Davis (1982) found other factors involved in depressed adolescence. These are: (i) Low self-esteem, (ii) Anti-social behaviour, (iii) Authoritarian parents and depressed parents. These factors were found to affect girls than boys. It was found that girls were diagnosed as depressed twice time greater than boys. These findings have provided empirical supports and confirmation to the findings of the present study about gender discrimination.

A good number of studies (Gillette and Hornbeck, 1973; Free and Oei, 1989) showed two separate, unrelated processes going on in depression in boys and girls. One is related with biological-chemical processes and the other is psychological process. Each process may cause a different kind

of sadness related with depression. Biological-chemical process has its root in organic development and psychological process is related with cognitive development. Hence, both the processes seem to be very interrelated (Abramson, Seligman and Teasdale, 1978). These investigators reported that most depressed children see the causes of depression as being outside forces (Costello, 1982). Thus, they develop a negative cognitive style to cope with unfortunate and stressful experiences. These empirical findings support the findings of the present study. It was reported that girls generate more depression-prone thinking. But boys avoid traumatic experiences and negative thinking. These events are more apparent in girls than boys. As a result, girls are found to express higher depression than boys. These events combined with high stress cause depression in boys and girls in different degree. Boys, on the other hand, were found less depressive than girls. It is, perhaps, for the reason that boys might avoid depression by reducing negative thinking habits, avoiding high stress or by building positive self-esteem (Metalsky *et al.* 1993, Segal, 1992).

Talking more without solution may be regarded as causative factor of depression. Ross and Mirowsky (1989) reported that talking increase depression in boys and girls. It was found that a depressed girl talk a lot about her problems without problem solving solutions. This is self-handicapping habits in girls. For example, research has shown that girls more than boys fail to perform a task simply because they talk about how awful they feel in the performance of the task. Girls expressed this talking habit in order to avoid doing more of a simple task (Weiss and Garber, 1989). All these findings may be cited in favour of the finding of the present study that girls are more prone to depression than boys.

Yapko (1992) has made a point that value system and life style are responsible for depression in boys and girls. These include such values as important and unimportant, good and bad and normal and abnormal. Further more a failure to distinguish among these values may appear as a potential threat to the individual. Thus it is more stressful to the girls than boys to become married as a teenage. Thus girls may run the risk of death in child birth. These thought may increase depression in girls than boys. Thus teenage depression is triggered by death, separation from a parents by divorce, loss of friends by moving, loss of love, loss of dependency and childhood by growing up, loss of confidence and loss of traditional values. Furthermore, poor communication with family, family conflicts and having depressed parents might increase depression in childhood and adolescence.

Higher depression in girls than boys is also related with some physiological factors. There are some physiological conditions that are related to sadness, anxiety, postpartum condition, hypoglycemia and premenstrual syndrome. For example, England *et al.*, (1983) reported that premenstrual syndrome is a devastating problems for many girls. It was observed that a girl was hospitalized 13 times for suicidal depression. But it was noticed that each admission was one or two days before her period. It was estimated that 20% to 80% girls experience increased tension, irritability and sadness prior to their period. Thus premenstrual stress in girls was caused by physiological and psychological conditions. These findings may be cited in support of the results of the present study that girls expressed depression in higher frequency than the boys.

Family structure has several consequences in the depressive affect of boys and girls. Family structure may be considered in terms of joint family and nuclear family. Parental role in these two types of family structure may be regarded as important positive factors of depression. In fact, parental role may be highlighted in child-rearing practices, process of socialization, training in religious performance and value system. As the children grow-up gradually, the family atmosphere may satisfy the children's need or children may be dissatisfied when the parental role fails to fulfill the demands of the children. This may ensure dissatisfaction. Thus dissatisfaction accompanied with frustration and repeated failure may initiate stressful situation. When the children fail to cope with such stressful situation, children are attacked with depression. In the case of boys and girls of the present study, these parental roles might be important factors for depressive mood in children. For example, parental role in joint family may be characterized by liberal attitudes. But parental roles in nuclear family may be characterized by authoritarian attitudes. It indicates that authoritarian attitudes as well as liberal attitudes stem from family structure. It is, therefore, evident that family structure in terms of joint family and nuclear family may act as precipitating as well as pre-disposing causes of depression. The findings of the present study showed that boys of nuclear family expressed significantly higher rate of depression than the boys of joint family. It is, perhaps, for this reason that nuclear family creates authoritarian attitudes and joint family creates liberal attitudes. Hence, parents with authoritarian attitudes of nuclear family may initiate stressful situation for boys leading to high depressive affects. But parents in joint family with their liberal attitudes may create situations for the boys that might be less stressful. It is plausible to make arguments that authoritarian attitudes or liberal attitudes of parents might

be due to joint family and nuclear family and these may create atmosphere for differentiation in depressive affect for boys.

However, the influence of family structure was not similar in case of girls. It was found that girls in joint family expressed significantly higher rates of depression than girls of nuclear family. In fact, the influence of authoritarian and liberal attitudes of parents in joint family and nuclear family was not the same for boys and girls. In case of girls, it was found that liberal attitudes have adverse effects on the girls for creating depression. It might be that girls in the joint family due to liberal attitudes of parents enjoy higher freedom of choice. Hence, girls blame themselves for failure because it was their own decision. Hence, girls think that they are responsible for their act of failure. This blaming might be important cause for higher depression in girls. But in nuclear family, parents show authoritarian attitudes towards the girls. Hence, girls are not free in taking decisions in various activities. In fact, authoritarian parents keep control over the activities of girls. Hence, any failure for girls may be shared by the parents. This sharing of responsibility by the parents might be helpful to decrease the depressive affect in girls.

A large number of studies have demonstrated that offspring of depressed parents constitute an important high risk group (Dr. Roselind Lieb, 2002). This result was based on surveys of 2,427 German youth, aged 14 to 24 years, and their parents. A follow up survey, conducted 3.5 years after the initial survey, revealed that nearly one in five offspring had experienced at least one episode of major depression and about 4% had symptoms of a milder chronic hormone depression. Furthermore, it was reported that the children of depressed parents had an earlier onset of depressive disorders and more severe depression than children of non-affected parents. These

findings may be cited in support of the findings of the present study. It indicates that depression as a histories related to family structure. Parental depression may be due to atmosphere of the family in terms of joint family and nuclear family. Hence, it may be concluded that major depression in parents increases the overall risk in offspring for onset of depressive and other mental disorders and influences patterns of the natural course of depression in the early stages of manifestation.

The results of the study showed that age variations emerged as important variable for the causation of depression. It was found that depression in children increase as they grow-up. This provided empirical confirmation to the hypothesis that children with 16 years of age would express significantly more depressive symptoms as compared to the children of 13 years of age and 10 years of age respectively. Thus the results showed that irrespective of gender and family structure, the respondents with 16 years of age expressed significantly higher rate of depression than the respondents of 13 years of age and 10 years of age. In other wards, boys and girls of 16 years of age expressed highest depression followed by 13 years of age and least by 10 years of age. This finding is exactly on the same line of the hypothesis. This indicates that depression increases with the passage of time. This is simply because boys and girls experience more cases of frustration, more cases of failure and more cases of stressful situation as they pass from pre-adolescence period to early adolescence period and late adolescence period. It shows that passage of time is not important for depression. But the things and experiences that happen during the passage of time are important for depression.

It is important to note that many things may happen during this period of growing age that may be stressful, anxiety-prone and frustration

producing events. Most important events that may occur during this growing age may be related with loss of relationship, disillusionment, erosion, detachment and physical separation. For example, the most intense life stress is death of parents and near relatives. Most of the children have to face this stressful experience and their ages of 10 or 13 or 16 years. Again children may experience loss of love relationship due to separation from their parents due to divorce or other activities. Most of the boys and girls beyond 14 or 16 feel the intense pain and anguish of being rejected by a lover. These are the long and distressful process that may create the depressive affects (Kessler, 2003).

It was also found that boys and girls at their growing age develop disillusionment and become self-centered. It is, perhaps, due to hiding of sexual experience involved with others. This feeling of sexual fear may lead them to develop self-centered attitude leading to higher depression.

Erosion of respect, love and affection for others may occur during this growing age leading to the development of intense depression. Moreover, boys and girls at their growing age during adolescence period may experience disappointments leading to the erosion of love and attraction.

Thus a lot of destructive interactions may take place. These activities may be responsible for depression in boys and girls at their pre-adolescence, early-adolescence and late-adolescence period. Lastly, physical separation may join to these activities. There are many reactions to physical separation. It is a painful, crush accompanied by loneliness, fear and feelings of failure. All these activities produce stressful situations and may be responsible for intense depressive affect in boys and girls at their early ages of development.



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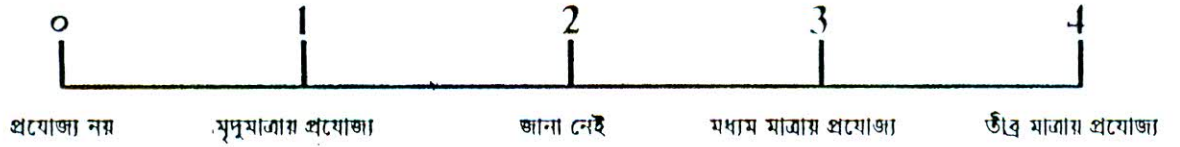
# **APPENDIX**

# Final Form Of Children's Depression Rating Scale.

- |                     |                                |
|---------------------|--------------------------------|
| 1 নামঃ              | 6 বয়স :                       |
| 2 পিতার নাম :       | 7 বাপক/বাপিকা :                |
| 3 স্থায়ী ঠিকানা :  | 8 শহর/গ্রাম :                  |
| 4 বিদ্যালয়ের নাম : | 9 একক পরিবার/যৌথ পরিবার :      |
| 5 শ্রেণী :          | 10 আর্থ-সামাজিক অবস্থান :      |
|                     | উচ্চনিম্ন/মধ্যবিত্ত/নিম্নবিত্ত |

## নির্দেশনা

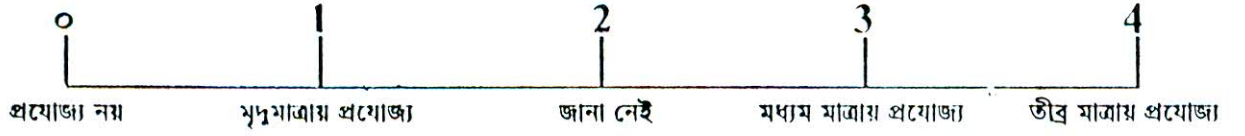
নিম্নে একজন শিশুর অনুভূতি সম্পর্কে বর্ণনা দেওয়া হয়েছে। এই অনুভূতি গুলো প্রত্যেক শিশুর মধ্যে বিরাজ করে। তবে এগুলোর উৎস নির্ভিন্ন হতে পারে। অনুভূতি গুলো বিশেষণ আকারে একটি বাক্যের মাধ্যমে বর্ণনা করা হয়েছে। তুমি প্রত্যেক বাক্য পৃথকভাবে মনোযোগ সহকারে পড়বে এবং বাক্যের মাধ্যমে যে বিশেষণটি প্রকাশ করা হয়েছে তা বুঝতে চেষ্টা করবে। তোমার ক্ষেত্রে এই বিশেষণ গুলো কিভাবে প্রযোজ্য তা প্রত্যেক বাক্যের নিম্নে প্রদত্ত পাঁচটি বিকল্পের যে কোন একটিতে টিক (✓) চিহ্ন দিয়ে প্রকাশ করবে।



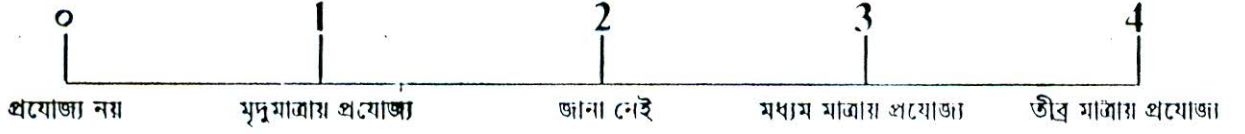
বাক্যে উল্লেখিত বিশেষণটির প্রেক্ষাপট তোমার ক্ষেত্রে প্রযোজ্য না হলে "প্রযোজ্য নয়" এর উপর টিক (✓) চিহ্ন দাও। বাক্যে উল্লেখিত বিশেষণটির প্রেক্ষাপট তোমার মধ্যে ফনস্থায়ী হলে, কদাচিৎ দেখা দিলে বা মারো মারো প্রকাশ পেলে "মৃদু মাত্রায় প্রযোজ্য" এর উপর টিক (✓) চিহ্ন দাও। বাক্যে উল্লেখিত বিশেষণটির প্রেক্ষাপট তোমার মধ্যে মন মন প্রকাশ পেলে অথবা বিছিন্ন একটি ঘটনা হিসেবে বিরাজ করলে অথবা তোমার কার্যসম্পাদনে বাধা সৃষ্টি করলে "মধ্যম মাত্রায় প্রযোজ্য" এর উপর টিক (✓) চিহ্ন দাও। বাক্যে উল্লেখিত বিশেষণটির প্রেক্ষাপট তোমার সব কাজের মধ্যে বিরাজ করলে অথবা তীব্র একটি অনুভূতি হিসেবে তোমার মধ্যে স্থায়ীভাবে অবস্থান করলে অথবা তোমার কার্যাবলীকে সম্পূর্ণরূপে বাধাগ্রস্ত করলে "তীব্র মাত্রায় প্রযোজ্য" এর উপর টিক (✓) চিহ্ন দাও। বাক্যে উল্লেখিত বিশেষণটির প্রেক্ষাপট সম্পর্কে কোন সিদ্ধান্ত গ্রহণে ব্যর্থ হলে অথবা বিষয়টি তোমার জানা না থাকলে "জানা নেই" এর উপর টিক (✓) চিহ্ন দাও।

মনে রাখবে শিশুদের অনুভূতি সম্পর্কীয় একটি মনোবৈজ্ঞানিক গবেষণায় উত্তরদাতা হিসেবে অংশ গ্রহণের জন্য তোমার সার্বিক সহযোগিতা কামনা করা হচ্ছে। এখানে উচিত/অনুচিত, বাস্তব/অবাস্তব, পছন্দ/অপছন্দ বা সত্য/সিখা বলে কোন কিছু নেই। তোমার যথাগত অনুভূতিকেই বিবেচনা করা হবে। তোমার যথাগত উত্তর ও সহযোগিতার জন্য ধন্যবাদ।

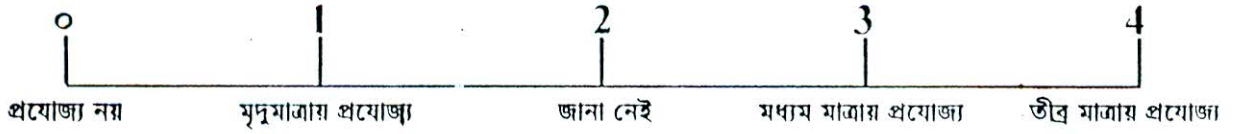
(1). বার্থতার কারণে আমার মদ্যে নিজ-সম্পর্কে মন্দের অনুভূতি জাগে।



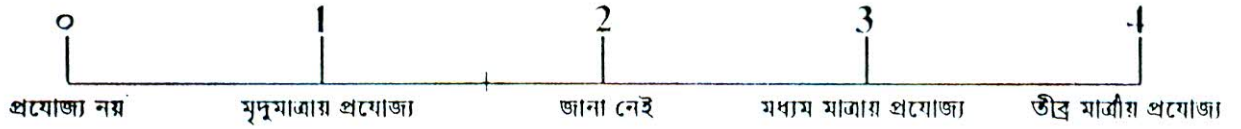
(2). অভাববোধ ছাড়াই কেবলমাত্র তন্দ্রনের অনুভূতির কারণে আমি কাঁদি।



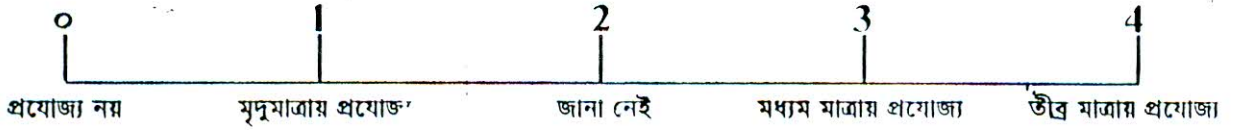
(3). অমনোযোগী হওয়ার কারণে আমি বদ্যাকায়ের পাঠ তীব্ররূপে অসুবিধা অনুভব করি।



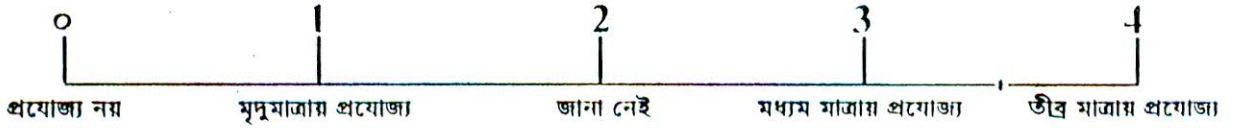
(4). একই সঙ্গে বিভিন্ন কাজের প্রতি মনোযোগী দিলে নির্দিষ্ট কাজটি সমাপ্ত করতে আমার কষ্ট হয়।



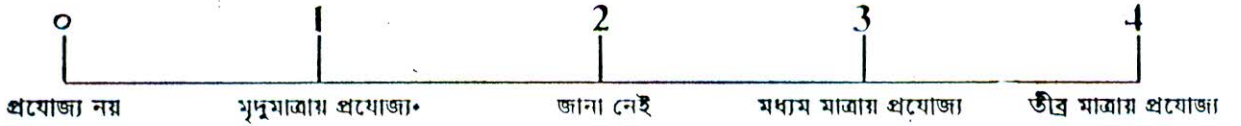
(5). আমি মনে করি যে আমার দুঃখের অনুভূতি বড়দের দুঃখের অনুভূতি থেকে সম্পূর্ণ আলাদা।



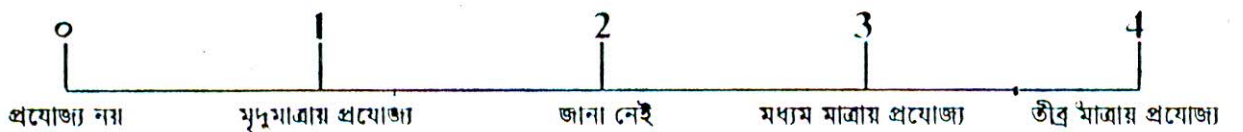
(6). অন্যের সাহায্য ছাড়া সিদ্ধান্ত গ্রহণে অথবা মর্নাধরা করতে আমার অসুবিধা হয়।



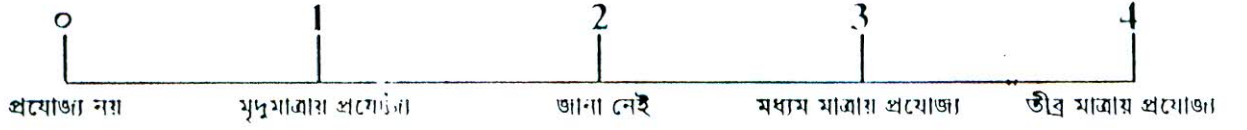
(7). খিটখিটে মেজাজের কারণে আমি অন্য শিশুদের সঙ্গে সহজে কোন যুক্তি প্রদর্শন করতে পারি না।



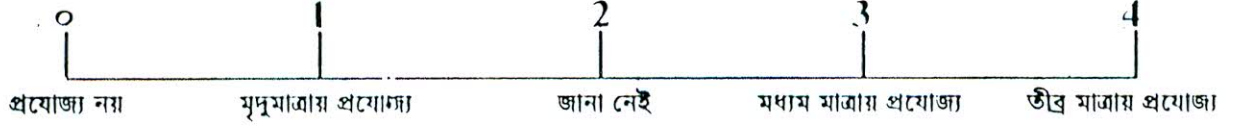
(8). বার্থতার জন্য আমি নিজেকেই দোষারোপ করি।



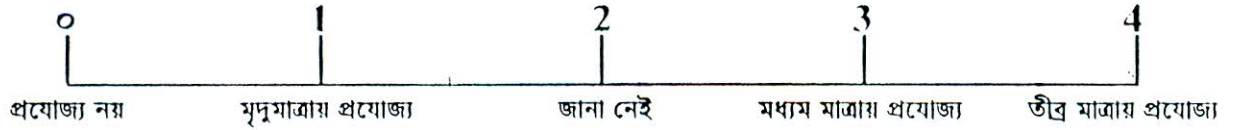
(9). আমি ত্রুষ্ক হলে শান্ত হতে বেশ সময় লাগে।



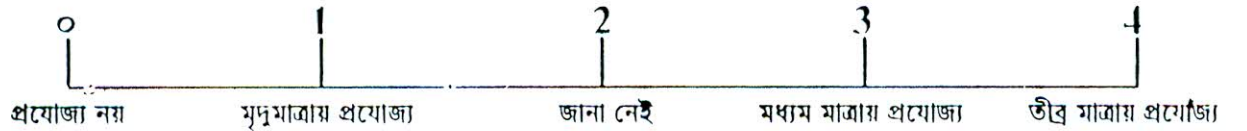
(10). লোকজন নিজেদের মধ্যে কথা বললে আমার পক্ষে টিভি অনুষ্ঠান উপভোগ করতে অসুবিধা হয়।



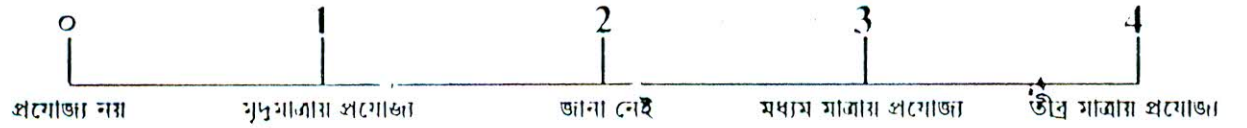
(11). কোন কিছু পাওয়ার জন্য আমি সহজেই রেগে যাই এবং ইহা আমার পরিবার ও বন্ধু-বান্ধবের নিকট সমস্যা সৃষ্টি করে।



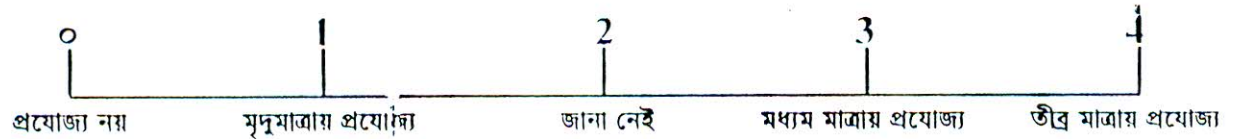
(12). কেউ খেলাধুলা বন্ধ করতে বললে আমি হঠাৎ রেগে উঠি।



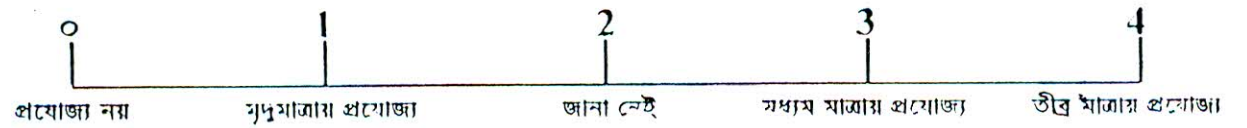
(13). কার্য সম্পাদনে ব্যর্থ হলে আমি মনে করি যে ইহা আমার নিজ ত্রুটির জন্যই হয়েছে।



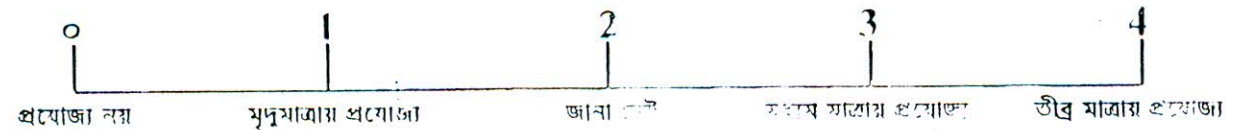
(14). ঘরের মধ্যে কীটপতঙ্গ উড়তে দেখলে আমি ভয়ে পড়া বন্ধ করে দেই।



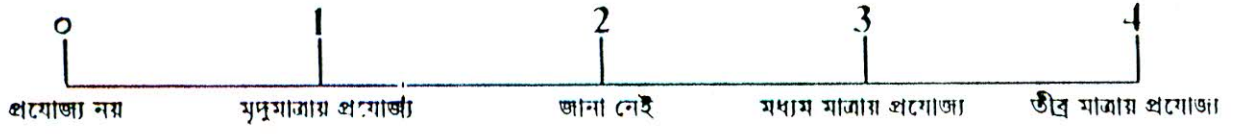
(15). অন্যের কাছ থেকে মেহ বশিষ্ঠ হলে আমি একাকী হু অনুভব করি।



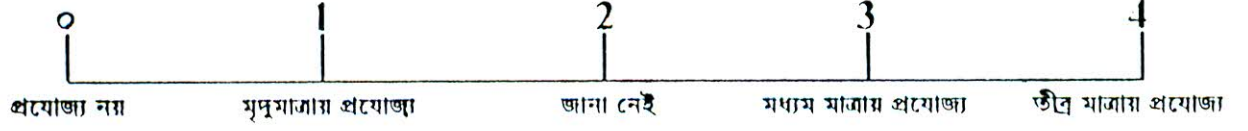
(16). অকৃত কার্যের জন্য আমি নিজেদেরই দোষ দেই।



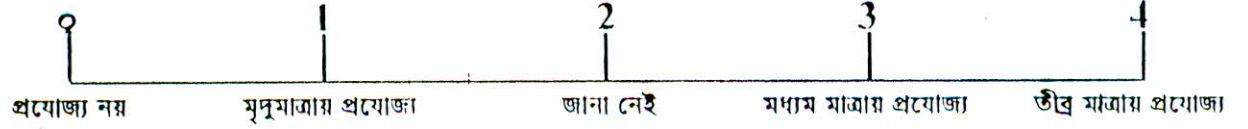
17. আমি সহজেই রেগে যাই বিধায় আমার পক্ষে বন্ধুত্ব রক্ষা করা অত্যন্ত কঠিন হয়।



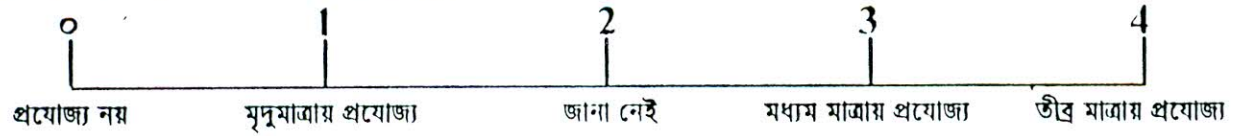
18. আমি সহজেই রেগে যাই বিধায় অধুনার মেজাজ নিয়ন্ত্রণে থাকে না।



19. ভুলের জন্য আমি নিজেকে দোষী সাব্যস্ত করি।



20. ভুল কৃতকার্যের জন্য আমি অনুতপ্ত হয়।



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