CHAPTER - 5

METHOD
The primary aim of the present investigation was to compare only children and children with siblings on psychosocial characteristics viz. on Emotional Intelligence, Stress Dimensions, Coping Styles, State-Trait Anxiety, Self Efficacy, Parental Bonding, Academic Achievement, Perceived Happiness and Perceived Health Status. The secondary aim was to study intercorrelations among all these variables (viz. Emotional Intelligence, Stress Dimensions, Coping Styles, State-Trait Anxiety, Self Efficacy, Parental Bonding, Academic Achievement, Perceived Happiness and Perceived Health Status).

The sample of the study was selected from the tricities of Chandigarh, Panchkula and Mohali. Sample comprised of 400 adolescents in the age range of 16-18 years. 400 adolescents (200 males and 200 females) comprised the sample. Sample of 200 males consisted of only children (n=100) and children with siblings (n=100). Similarly sample of 200 females consisted of only children (n=100) and children with siblings (n=100). Further group of 100 children, that is, male only children, female only children, male children with siblings and female children with siblings, comprised children of working mothers (n=50) and children of non-working mothers (n=50). To analyse the data, 2x2x2 ANOVA design was employed.

To measure dimension of Emotional Intelligence, Emotional Intelligence Scale developed by Schutte et al., (1998) was used.

For measuring dimensions of Stress, the Perceived Stress Scale developed by Cohen et al., (1983) and Stress Symptoms Rating Scale developed by Heilbrun and Pepe (1985) were used.

The Coping Styles Inventory by Carver et al., (1989) was used to measure three types of Coping viz. Task Focused Coping, Emotion Focused Coping and Avoidance Coping.
Method

To measure dimensions of personality, the State Trait Anxiety Inventory (STAI) derived by Spielberger et al., (1970) was used to measure the variables State and Trait Anxiety.

Self Efficacy was measured using Generalized Self Efficacy Scale developed by Schwarzar and Jerusalem (1995).

Perceived Parental Bonding was measured using Parental Bonding Instrument by Parker et al., (1979). It has two dimensions viz. Perceived Parental Care and Perceived Parental Overprotection.

Academic Achievement was assessed by averaging marks obtained by the students in the last two consecutive annual examinations.

Perceived Happiness was assessed on a 10 point scale.

Perceived Health Status was assessed on a 10 point scale.

Sample

The sample of the study was selected from the tricities of Chandigarh, Panchkula and Mohali. The sampling design was purposive in nature. Sample comprised of 400 Adolescents in the age range of 16-18 years. Two hundred (100 males and 100 females) single children, half of whose mothers were working and other half whose mothers were full time housewives were selected. Similarly, two hundred (100 males and 100 females) children with siblings half of whose mothers were working and other half whose mothers were full time housewives formed part of the sample.

Inclusion Criteria

1. Housewives selected were at least graduates.
2. Only professional working women were selected.
3. Children with siblings were selected from families with only 2 to 3 siblings.
Tests and Tools

The following standardized tests and tools were used:

1. Emotional Intelligence Scale (Schutte et al., 1998).
2. Perceived Stress Scale (Cohen et al., 1983).
4. Coping Styles Inventory (Carver et al., 1989).
5. State Trait Anxiety Inventory (Spielberger et al., 1970).
8. Academic Achievement was assessed by averaging marks obtained by the students in the last two consecutive annual examinations.
9. Perceived Happiness was assessed on a 10 point scale.
10. Perceived Health Status was assessed on a 10 point scale.

In addition, a general information schedule to gather information about age, education level, working status and financial status of parents was employed. Subjects were also asked to state about their hobbies and leisure time activities.

Brief Description of Tests

1. Emotional Intelligence Scale (Schutte et al., 1998)

The Emotional Intelligence Scale was developed by Schutte et al., (1998). This scale assesses Emotional Intelligence based on responses to 33 items tapping the appraisal and expression of emotions in the self and others and utilization of emotions in solving the problems.
The Emotional Intelligence Scale has demonstrated high internal consistency (Cronbach’s= .87 to .90). Test retest reliability is .78. When completing the Emotional Intelligence Scale for children, they indicate their agreement with each of the 33 items using a 5 point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The scale showed evidence of validity. Scores on the scale were related to eight of nine measures predicted to be related to the emotional intelligence. (Schutte et al., 1998).

This test has been successfully used by Chan (2004). In India also Shah and Thingujam (2008) and Savneet (2012) have used this test.

2. Perceived Stress Scale (Cohen et al., 1983)

The Perceived Stress Scale (PSS) was developed by Cohen et al., (1983). It comprises of 10 questions and is a 5 point rating scale. The PSS is a brief and easy to administer of the degree to which situations in one’s life are appraised as stressful. It has been proven to possess substantial reliability and validity and thus it provides a potential tool for examining issues about the role of appraised stress levels in different problem issues. The questions are quite general in nature. The questions ask about the feelings and thought in the current period. It is not a diagnostic instrument but it intends to make comparisons of subjects’ perceived stress related to current objective events. Because levels of appraised stress may be influenced by daily hassles, major events and changes in coping resources, the predictive validity of the Perceived Stress Scale is expected to fall off rapidly after 4-8 weeks. The relationships between the Perceived Stress Scale and the validity criteria are unaffected by sex or age (Cohen and Williamson, 1988).

The test has been successfully used in India by Opara (1999), Mohan (2000, 2006), Kaur (2002), Rampal (2011) and Sharma (2012).

3. Stress Symptoms Rating Scale (Heilbrun and Pepe, 1985)

Heilbrun and Pepe (1985) constructed the Stress Symptoms Rating Scale which is a response-defined measure of stress in contrast to the
stimulus – defined measure being used in earlier stress researches. The Stress Symptoms Rating Scale is an inquiry into the amount of stress experienced without regard to what provoked them. Heilbrun and Pepe (1985) selected 25 symptoms of stress from a list that Selye (1976) identified as readily detectable in the individual. The subject was required to rate the frequency of each stress symptoms (for the previous year) alone on a six-point scale ranging from ‘Not at all’ the ‘More than once per day (i.e. ranging from 0 to 5). The stress score is the summation of scores obtained over all the ratings. The alpha reliability for the scale has been found to be 0.93 by Heilbrun and Putter (1986). Evidence for validity has come from differential elevations of stress found in groups, otherwise identified as more stressful.


4. Coping Style Inventory (Carver et al., 1989)

Coping styles were assessed using Carver et al. (1989) inventory. The inventory measures three broad coping dispositions-Task Focused, Emotion Focused and Avoidance Coping. Items were conceptually grouped into three scales with 10 items in each scale. Each item was answered on 4 point rating scale ranging from (‘I usually don’t do this at all’) to (‘I usually do this a lot’). The scores on each of the scales may range from 10 to 40.

Internal consistency of each scale was assessed using Cronbach’s alpha. Internal consistency for Task Focused Coping, Emotion Focused Coping and Avoidance Coping was .78, .76 and .77 respectively. Task and Emotion Focused Coping were correlated (r=.46). Task and Emotion Focused Coping were not correlated with Avoidance Coping (r=.16).

The theoretical viewpoint underlying this inventory has proven in the past to be useful in analyzing behaviour in a variety of domains. These domains include laboratory research on pressured performance tasks and also
such naturally occurring phenomena as test anxiety and social anxiety. Our own approach to these phenomena is not unique in all respects, but rather is representative of a broader range of expectancy-value theories. Given the usefulness of such ideas elsewhere, we have every reason to hope they can also be of value in the examination of coping (Carver et al., 1989).

This scale has been used in India by Sehgal (2003), Salariya (2006), Hoabam (2007), Yadav (2010), Khurana (2011), Rampal (2011), Bhagat (2012) and Sharma (2012).

5. State-Trait Anxiety Inventory (STAI) (Spielberger et al., 1970)

The State-Trait Anxiety Inventory was developed by Spielberger et al. (1970) to provide standardized self-reported scales to assess both State and Trait anxiety. State anxiety has been defined as consisting of subjective feelings of tension, apprehensions, nervousness and worry and activations (aroused) of the autonomic nervous system generated by certain situations, e.g., denial anxiety, test taking anxiety and anxiety about flying. Trait anxiety refers to relatively stable personality dimensions reflecting individual differences in anxiety proneness. The test consists of 40 items, 20 to measure State Anxiety and 20 to measure Trait Anxiety. On the State Anxiety form, the subjects respond to each item in terms of severity (1=not at all, 2=somewhat, 3=moderately, 4=Very much). On Trait Anxiety form, subjects respond in terms of frequency categories (1=Almost Never, 2=Sometimes, 3=Often, and 4=Almost Always). These categories are assigned numbers from 1 to 4. Items are both direct and reverse scored. Scores may range from 20 to 80 for either form. It has a reliability coefficient of 0.78 for males and 0.85 for females (Pastore et al., 1996). On an average, alpha coefficients for State Anxiety have been reported to be 0.90.

The test has adequate content, concurrent and construct validity. This scale has been used in India by Opara (1999), Mohan (2000, 2001, 2006);
6. **Generalized Self Efficacy Scale (Schwarzer and Jerusalem, 1995)**

This scale was developed by Schwarzer and Jerusalem, (1995) to assess a general sense of Perceived Self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events.

This scale was developed first as a 20-item version and later as a reduced 10-item version (Jerusalem and Schwarzer, 1986, 1992). It typically yielded internal consistencies between alpha = 0.75 and 0.90. It has also proved valid in terms of convergent and discriminant validity. In this study English version of this scale has been used.

The construct of Perceived Self-Efficacy reflects an optimistic self-belief (Schwarzer, 1992). This is the belief that one can perform a novel or difficult tasks, or cope with adversity -- in various domains of human functioning. Perceived self-efficacy facilitates goal-setting, effort investment, persistence in face of barriers and recovery from setbacks. It can be regarded as a positive resistance resource factor. Ten items are designed to tap this construct. Each item refers to successful coping and implies an internal-stable attribution of success. Perceived Self-efficacy is an operative construct, i.e., it is related to subsequent behavior and, therefore, is relevant for clinical practice and behavior change (Schwarzer and Jerusalem, 1995).

The measure has been used internationally with success for two decades. It is suitable for a broad range of applications. It can be taken to predict adaptation after life changes, but it is also suitable as an indicator of quality of life at any point in time (Schwarzer and Jerusalem, 1995).

This scale has been used in India by Sharma (2005), Bala (2007), Hoabam (2007), Kaur (2007), Dhaliwal (2010), Mohan et al., (2010), Rampal (2011) and Sharma (2012).
7. **Parental Bonding Instrument (Parker et al., 1979)**

The **Parental Bonding Instrument (PBI)** by Parker et al. (1979) is a 25 item self-report measure of respondents' recollections of parents' attitudes and behaviours during the first 16 years. Respondents are asked to answer questions based on how they remember their parents, using a Likert type scale ranging from 0 ("very like") to 4 ("very unlike"). The PBI was developed using factor analysis from self-reports of experiences with parents in childhood. The scale consists of two factors: Maternal/Paternal Care (i.e. care vs. indifference and rejection) and Maternal/Paternal Overprotection (i.e. overprotection vs. encouragement of autonomy). Higher scores on the two scales indicate higher perceived parental care and overprotection, respectively. The 12 items of the Maternal/Paternal Care factor allow a maximum score of 36 and the 13 items of the Overprotection factor permit a maximum score of 39. The two factor scores are negatively correlated ($r = -.24$) suggesting that the two dimensions are not independent, i.e. 'overprotection' is associated with lack of 'care' (Parker et al., 1979).

Items suggesting parental behaviours and attitudes of care, affection, sensitivity, cooperation, accessibility, indifference, strictness, punitiveness, rejection, interference, control, overprotection, and encouragement of autonomy and independence were generated from clinical notes and from the literature (Parker et al., 1979).

On measurements of reliability and validity the scales appear to be acceptable, and are independent of the parent's sex. It would appear that mothers are perceived as significantly more caring and slightly more overprotective than fathers, but that those judgements are not influenced by the sex of the child. (Parker et al. 1979).

Adequate internal consistency has been demonstrated in numerous studies using split-half technique. The scale also has a high test-retest reliability over a 3-week period of both care scale ($r = .761; p < .001$) and overprotection scale ($r = .628; p < .01$) (Parker et al., 1979; Parker,
The scales integrate, concurrent, convergent and criterion reliability and predictive validity were also established (Parker, 1989).

This scale has been successfully used in India by Hoabam (2007), Kaur (2007), Yadav (2010), Khurana (2011), Rampal (2011), Bhagat (2012) and Sharma (2012).

Instructions for the Questionnaires

1. Emotional Intelligence Scale

Instructions were: This test is to know about your emotional feelings. You are instructed to mark the statement that truly match your emotional state. Indicate the extent to which each item applies to you using any of the following responses: 1-Strongly Disagree; 2-Disagree; 3-Neither Neither Disagree nor Agree; 4-Agree; 5-Strongly Agree. There are no right or wrong answers. Your response will be kept confidential.

2. Perceived Stress Scale

Instructions were: In the test there are 10 statements and these pertain to your feelings and thoughts during the last month. In each case, you have to indicate how often they felt or thought a certain way. You have to mark any number to describe the feeling or thought. The response alternatives are: (0) Never, (1) Almost Never, (2) Sometimes, (3) Fairly Often (4) Very Often. There are no right or wrong answers. Your response will be kept confidential.

3. Stress Symptoms Rating Scale

Instructions were: Given here are 25 statements with a scale of 0-5. Rate the frequency of each item for the previous year along the following scale: (0) Not at all, (1) Less than once per month, (2) Between once per week and once per month, (3) Between once per day and per week, (4) About once per day, (5) More than once per day. Indicate your answer by circling a number for each item. Be sure to answer every item. There are no right or wrong answers. All your responses will be kept strictly confidential.
4. Coping Styles Inventory

Instructions were: There are 30 statements and you have to rate your responses for each item along the 4 point rating scale. They had to mark on any of the item on the following rating scale: (0) Don't do it all (1) Rarely do it (2) often do it (3) usually do this a lot”. There are no right or wrong answers. Your response will be kept confidential.

5. State-Trait Anxiety Inventory

Following instructions were given for the State Anxiety Scale

Instructions were: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in appropriate circle to the right of the statement to indicate how you feel right now, that is, at this moment. There are no wrong answers. Do not spend too much time on any statement but give the answer which seem to describe your present feelings best according to the following responses:- (1) Not at all, (2) Somewhat, (3) Moderately, (4) Very Much. There are no right or wrong answers. Your response will be kept confidential.

Following instructions were given for the Trait Anxiety Scale

Instructions were: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken, in appropriate circle to the right of the statement to indicate how you generally feel. There are no wrong answers. Do not spend too much time on any statement but give the answer which seems to describe your present feelings best according to the following responses: (1) Almost Never, (2) Sometimes, (3) Often, (4) Almost always. There are no right or wrong answers. Your response will be kept confidential.

6. Generalized Self Efficacy Scale

Instructions were: Listed below are ten statements to which you have to respond by marking whether they are: Not at all true, Barely true, Moderately
true or exactly true. There are no right or wrong answers. Your response will be kept confidential.

7. **Parental Bonding Instrument**

**Instructions were:** This questionnaire lists various attitudes and behaviours of parents. As you remember your Mother or Father in your first 16 years would you place a tick in the most appropriate column next to each question. The columns are: (1) Very like (2) Moderately like (3) Moderately unlike (4) Very unlike. There are no right or wrong answers. Your response will be kept confidential.

8. **Academic Achievement**

**Instructions were:** Write percentage of marks obtained in the last two annual examinations in the prescribed column. Your response will be kept confidential.

9. **Perceived Happiness**

**Instructions were:** Read each statement carefully. The following statements with the codes were given - Extremely Happy (10), Very Happy (9), Pretty Happy (8), Mildly Happy (7), Slightly Happy (6), Neutral (5), Slightly Unhappy (4), Mildly Unhappy (3), Pretty Unhappy (2), Very Unhappy (1), Extremely Unhappy (0). Please mark your responses carefully. There are no right or wrong answers. Do not take too much time for answering each statement. Your response will be kept confidential.

10. **Perceived Health Status**

**Instructions were:** Keeping in mind somebody with excellent health, rate your health status. Read each statement carefully. The following statements with the codes were given - Extremely Healthy (10), Very Healthy (9), Pretty Healthy (8), Mildly Healthy (7), Slightly Healthy (6), Neutral (5), Slightly Unhealthy (4), Mildly Unhealthy (3), Pretty Unhealthy (2), Very Unhealthy (1), Extremely Unhealthy (0). Please mark your responses carefully. There are no right or wrong answers. Do not take too much time for answering each
Method

statement. There is no right or wrong answer. Your response will be kept confidential.

Scoring and Statistical Analysis

Scoring for all the tests was done with the help of scoring keys as per all the instructions given in the scoring manuals of the tests. The raw scores were then tabulated and subjected to various statistical analyses.

The raw scores were analyzed using appropriate statistical analyses viz. Means, Standard Deviations, t-test, Inter-correlations were used. In addition 2x2x2 ANOVA design was employed with three independent variables viz. gender, status of the child i.e., single versus those with siblings and employment status of the mother, i.e., working and non-working.