METHOD

The primary aim of the present investigation was to study the relationship of Total Multidimensional Life Satisfaction in adolescents with Perceived Happiness, Perceived Health Status, Perceived Parental Bonding, Stress dimensions viz Stress Symptoms, Life Event Stress, Academic Stress and its dimensions, Coping Styles, Family Conflict and its dimensions and Academic Achievement. For this purpose, a sample of 400 students (200 males and 200 females) in the age range of 16 -18 years was taken. In addition, gender differences in Total Multidimensional Life Satisfaction and its correlates were also investigated. Male and female groups were compared on the measures of Total Multidimensional Life Satisfaction and its dimensions, Perceived Happiness, Perceived Health Status, Perceived Parental Bonding, Stress dimensions viz Stress Symptoms, Life Event Stress, Academic Stress and its dimensions, Coping Styles, Family Conflict and its dimensions and Academic Achievement.

To assess the Total Multidimensional Life Satisfaction of adolescents, Multidimensional Student Life Satisfaction Scale developed by Huebner (1994) was used. It measures six dimensions viz Family Satisfaction, Friends’ Satisfaction, Living Environment Satisfaction, School Satisfaction, Self Satisfaction and Overall Satisfaction.

Perceived Happiness was measured on 11 point self-rating scale and Perceived Health Status was also measured on 11 point self-rating scale.

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

To measure Stress, the Stress Symptoms Rating Scale developed by Heilbrun and Pepe (1985) was used. In addition to this, Life Event Stress scale by Albuquerque et al. (1990) was used to measure stress among adolescents. For measuring Academic Stress and its four dimensions viz Personal Inadequacy, Fear of Failure, Interpersonal Difficulties and
Inadequate Study Facilities, Academic Stress Questionnaire (Rajendran and Kaliappan, 1990) was used.

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

To measure Family Conflict, Family Conflicts Scale (Lee et al., 2000) was used. It measures six dimensions Family Conflict Likelihood, Family Conflict Seriousness, Mother Conflict Likelihood, Mother Conflict Seriousness, Father Conflict Likelihood and Father Conflict Seriousness.

Academic Achievement was assessed by taking average scores of the last two years final examination scores.

SAMPLE

The sample comprised of 400 adolescents (200 males and 200 females) selected randomly from various schools in the tricity viz. Chandigarh, Panchkula and Mohali. The age range of the subjects was 16-18 years.

All the subjects were explained about the nature and aim of the investigation and informed consent was obtained before they were enlisted as subjects.

TEST AND TOOLS

The following standardized tests and tools were employed:
1. Multidimensional Student Life Satisfaction Scale (MSLSS) (Huebner, 1994).
2. Parental Bonding Instrument (Parker et al., 1979)
3. Stress Symptoms Rating Scale (Heilbrun and Pepe, 1985)
4. Life Event Stress Scale (Albuquerque et al., 1990)
5. Academic Stress Questionnaire (Rajendran and Kaliappan, 1990)
6. Coping Styles Inventory (Carver et al., 1989)
7. Family Conflict Scale (Lee et al., 2000)
8. Perceived Happiness Scale (11 point self – rating scale)
9. Perceived Health Status (11 point self - rating scale)
10. Academic Achievement was assessed by taking average scores of the last two years final examination scores.
BRIEF DESCRIPTION OF THE TESTS

1. Multidimensional Student Life Satisfaction Scale (Huebner, 1994)

   Multidimensional Student Life Satisfaction Scale (MSLSS) is a self-report scale. This measure includes 40 items, which students rate on a 6 point Likert scale, ranging from 1 - strongly disagree to 6 - strongly agree. The MSLSS assesses Satisfaction across five distinct domains including Family, Friends’, Living Environment, School and Self Satisfaction. A score of each domain was obtained by summing the individual items and dividing by the total number of items within the domain. Similarly, a total satisfaction score was calculated by summing all 40 item scores and dividing by 40.

   Numerous studies have established the reliability and validity of the MSLSS. The coefficient alpha for the total score has been reported as .92 (Huebner, 1994). In addition, the internal consistency scores for the domain scores ranged from .78 to .86 in previous studies (Huebner, 1994; Gilman et al., 2000). Two to four week test - retest reliability reports ranged from .70 to .90 (Huebner et al., 1998). Convergent validity of the MSLSS has been established through strong correlations with other self - reported measures of subjective well being and parent reports (Huebner, 1994; Gilman et al., 2000, Park et al., 2004, Zullig et al., 2005, Kwan, 2010 and Rice et al., 2011).

2. Parental Bonding Instrument (Parker et al., 1979)

   The Parental Bonding Instrument is a 25 item self - report measure of respondents’ recollections of parents’ attitudes and behaviors during the first 16 years. Respondents were asked to answer the questions based on how they remembered their parent, using a Likert type scale ranging from 0 (‘very like’) to 4 (‘very unlike’). The Parental Bonding Instrument 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 \((r=-0.24)\) suggesting that the two dimensions are not independent (Parker et al., 1979), i.e. “overprotection” is associated with lack of care.

Adequate internal consistency has been demonstrated in numerous studies using split – half technique. The scale also has high test – retest reliability over a 3 – week period of both Care scale \((r = .76; p < .001 )\) and Overprotection scale \((r = .63 ; p < .001 )\) (Parker et al., 1979; Parker, 1989). The scales’ interrater reliability and concurrent, convergent, criterion, and predictive validity are also established (Parker, 1989). The test has recently been used by Haobam (2007), Kaur (2007) and Yadav (2010).

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

Stress Symptom Rating Scale is a response-defined measure of stress in contrast to the stimulus – defined measures being used earlier in stress research. This Scale is an enquiry into the amount of stress experienced without regard to what provoked them. They selected 25 symptoms of stress from a list that Selye (1976) identified as readily detectable by the individual. The subject is required to rate the frequency of each stress symptom for the previous year alone on a six point scale ranging from “Not at all”; “More than once per day” (ranging from 0 to 5). The stress score is the summation of scores obtained over all the ratings.


4. Life Event Stress Scale (Albuquerque et al., 1990)

This measure is one of the best known widely used life stress measure for adolescent age group, originally developed by Heisel et al. (1973) and adapted for use in India by Albuquerque et al. (1990). This measure consists of simple listings of events judged to be frequently experienced by adolescents. It has 42 events. In completing the measure,
subjects are requested to indicate which of events listed have been experienced during the recent past (usually last one year) and number of times the event has been experienced. As in adult version, Life Stress Scores are derived summing values termed life change units that are associated with various events that have been experienced. Validity data was provided by a large member of studies investigating relationship between life change (as assessed by this measure) and indices of health and adjustment (Watson, 1983, Greene et al., 1985, Brand et al., 1986). Authors report adequate reliability. This scale was used in India by Kaur (2002), Sehgal (2003) and Mohan et al., (2006) and Haobam (2007) and Yadav (2010).

5. **Academic Stress Questionnaire (Rajendran and Kaliappan, 1990)**

Academic Stress Questionnaire was developed by Rajendran and Kaliappan (1990). This was used to measure the academic stress among the students. The age range of students was 12-15 years. It is a 5-point scale varying from No Stress to Extreme Stress. ‘No Stress’ response is scored-0, ‘Slight Stress’ is scored-1, ‘Moderate Stress’ is scored-2, ‘High Stress’ is scored-3 and ‘Extreme Stress’ is scored-4. It consists of 67 items. All the items carry the above scoring. Authors derived four factors based on Factor analysis, these factors which test measures are: 1) Personal inadequacy, 2) Fear of failure, 3) Interpersonal difficulties and, 4) Inadequate study facilities. Construct validity is built into the scale by factor analysis. Internal – Consistency reliability is evident by the extent to which items that fall in a factor are correlated with each other.

Range of factor loadings on the factor **Personal Inadequacy** for the first 20 items was from .59 to .82. The next 10 items were moderately loaded ranging from .43 to .59, as claimed by author. Range of factor loadings on the factor **Fear of Failure** for the first 17 items were highly loaded ranging from .61 to .66 and rest of items had moderate loadings ranging from .55 to .57. Range of factor loadings on the factor **Interpersonal Difficulties** for the first 9 items were highly loaded ranging from .60 to .84 and the rest were moderately loaded on .59.
Range of factor loadings on the factor **Inadequate Study Facilities** for the first 4 items had fairly high loading ranging from .61 to .84 and the last item has moderate loading .53. This scale was used in India by Ganesh and Magdalin (2007).

6. **Coping Styles Inventory (Carver et al., 1989)**

Coping styles were assessed using Carver et al.'s (1989) Inventory (Short version). The inventory measures three broad coping dispositions Task Focused Coping, Emotion Focused Coping and Avoidance Coping. Items were conceptually grouped into three sub-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. For Task – Focused Coping, it was 0.78, for Emotion-Focused Coping, it was 0.76 and for Avoidance Coping, it was 0.77. TaskFocused and Emotion Focused Coping were correlated ($r = 0.64$). Neither Task-Focused nor Emotion – Focused Coping were associated with Avoidance Coping ($r = 0.16$). This scale has been used in India by Sehgal (2003), Salariya (2006), Haobam (2007) and Yadav (2010).

7. **Perceived Happiness Status**

Perceived Happiness Status was measured using a rating scale. It is an 11 point scale ranging from Extremely Happy (10) to Extremely Unhappy(0). The subjects rated their own happiness status on a rating scale of 0 to 10. Higher the rating, higher the Perceived Happiness Status.

8. **Perceived Health Status**

Perceived Health Status was measured using a rating scale. It is an 11 point scale ranging from Extremely Healthy (10) to Extremely Unhealthy(0). The subjects rated their own health status on a rating scale of 0 to 10. Higher the rating, higher the Perceived Health Status.
9. Family Conflict Scale (Lee et al., 2000)

This scale was developed by Richard M. Lee (2000). This scale has three versions (Family, Mother, and Father version). Each version scale consists of 10 typical Conflicts that are rated for Likelihood of occurrence and Seriousness of occurrence of conflict.

The Family version of Family Conflicts Scale further contains two 10-item subscales (Family Conflict Scale—Likelihood and Family Conflict Scale—Seriousness). The Family Conflict Scale—Likelihood subscale assesses the likelihood that these 10 conflicts may occur between the person and his or her parents using a 5-point rating system (1 = almost never to 5 = almost always). Family Conflict Scale—Seriousness subscale assesses how serious a problem the conflicts are for a person’s family using a 5-point rating system (1 = not at all to 5 = extremely). The Mother version of Family Conflicts Scale further contains two 10-item subscales (Mother Conflict Scale—Likelihood and Mother Conflict Scale—Seriousness). The Mother Conflict Scale—Likelihood subscale assesses the likelihood that these 10 conflicts may occur between the person and his or her Mother using a 5-point rating system (1 = almost never to 5 = almost always). Mother Conflict Scale—Seriousness subscale assesses how serious a problem the conflicts are with Mother using a 5-point rating system (1 = not at all to 5 = extremely). The Father version of Family Conflicts Scale further contains two 10-item subscales (Father Conflict Scale—Likelihood and Father Conflict Scale—Seriousness). The Father Conflict Scale—Likelihood subscale assesses the likelihood that these 10 conflicts may occur between the person and his or her Father using a 5-point rating system (1 = almost never to 5 = almost always). Father Conflict Scale—Seriousness subscale assesses how serious a problem the conflicts are with Father using a 5-point rating system (1 = not at all to 5 = extremely). Higher score indicates greater likelihood or seriousness of conflict. Family Conflict Scale—Likelihood and Family Conflict Scale—Seriousness had strong internal reliability with alpha coefficients of 0.89 and 0.91 respectively. Family Conflict Scale—Likelihood and Family Conflict Scale—Seriousness subscales were highly correlated with each other ($r = 0.74$).
10. **Academic Achievement** was assessed by taking average of the scores obtained in the last 2 years.

**PROCEDURE**

All the respondents for the testing sessions were contacted personally and requested to volunteer for the testing schedule. These respondents were then given the questionnaire in a booklet form and were requested to respond to them truthfully according to given instructions. They were assured that the information they give about themselves and their results would be kept strictly confidential and used for research purposes only. The testing schedule was started by firstly asking the participants to fill in the general information portion and then proceed to respond to the tests one after the other until all tests and all questions have been responded to. The testing schedule was conducted personally in 3-4 sittings. All the respondents were given instructions to each question as specified in the respective manuals, as follows:

**INSTRUCTIONS FOR THE QUESTIONNAIRES**

1. **Instructions for the Multidimensional Student Life Satisfaction Scale (MSLSS)**

   Instructions for part 1 were: “We would like to know what thoughts about life you’ve had during the past several weeks. Think about how you spend each day and night and then think about how your life has been during most of this time. There are no right or wrong answers. Here are some questions that ask you to indicate your Satisfaction with Life in different domains of your Life. Please answer each Statement by selecting the number that best describes you and put ‘x’ under that number in the blank provided.

   1- Never; 2- Sometimes; 3- Often; 4- Almost Always.

   Instructions for part 2 were: “Circle the number (from 1 to 6) next to each statement that indicates the extent to which you agree or disagree with each statement. It is important to know what you really think, so please answer the question the way you really feel, not how you think you should. This is not a test. There are no right or wrong answers. Your answers will not affect your grades, and no one will be told your answers. Circle 1 if you Strongly disagree with the sentence, Circle 2 if you Moderately disagree with
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the sentence. Circle 3 if you Mildly disagree with the sentence. Circle 4 if you Mildly agree with the sentence. Circle 5 if you Moderately agree with the sentence. Circle 6 if you Strongly Agree with the sentence”.

2. **Parental Bonding Instrument**

   Instructions were: “This questionnaire lists various attitudes and behaviors of parents. As you remember your Mother or Father in your first 16 years you would 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”.

3. **Coping Styles Inventory**

   Instructions were: “Rate your responses for each item along the following 4 point rating. (0) Don’t do it at all (1) Rarely do it (2) Often do it (3) Usually do this a lot”.

4. **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 and once per month, (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. All your responses will be kept strictly confidential.”

5. **Life Event Stress Scale**

   Instructions were: “Given below is a set of life events that take place normally during the course of Life. Some of these may apply to you also. Please tick the following life events happened to you in the last one year and tell their frequency”.

6. **Academic Stress Questionnaire**

   Instructions were: “This scale consist of 67 items describing the stress in your school life from the various sources. The level of stress you feel for each item can be indicated as ‘No Stress’, ‘Slight Stress’, ‘Moderate Stress’, ‘High Stress’ and ‘Extreme Stress’ by marking circle on the given number in
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the given answer Sheets. If you do not understand any one of the items, you can seek clarification.

7. Family Conflict Scale

This scale has three versions (Family, Mother and Father version).

a. Family-Conflict Scale: This scale contains two 10-item subscales (Family Conflict Scale-Likelihood and Family Conflict Scale-Seriousness).

Instructions for Family Conflict Scale-Likelihood were “The questionnaire lists various parent-child situations that may occur in your family. Consider how likely each situation may occur in your relationship with your parents and answer by rating on 5 point rating scale (1 = almost never to 5 = almost always).”

Instructions for Family Conflict Scale-Seriousness were “The questionnaire lists various parent-child situations that may occur in your family. Consider how serious these conflicts occur in your present relationship with your parents and answer by rating on 5 point rating scale (1 = not at all to 5 = extremely).”

b. Instructions for Mother Conflict Scale-Likelihood were “The questionnaire lists various mother-child situations that may occur in your family. Consider how likely each situation may occur in your relationship with your mother and answer by rating on 5 point rating scale (1 = almost never to 5 = almost always).” Instructions for Mother Conflict Scale-Seriousness were “The questionnaire lists various mother-child situations that may occur in your family. Consider how serious these conflicts occur in your present relationship with your mother and answer by rating on 5 point rating scale (1 = not at all to 5 = extremely).”

c. Instructions for Father Conflict Scale-Likelihood were “The questionnaire lists various Father-child situations that may occur in your family. Consider how likely each situation may occur in your relationship with your father and answer by rating on 5 point rating scale (1 = almost never to 5 = almost always).”
Instructions for Father Conflict Scale –Seriousness were “The questionnaire lists various Father-child situations that may occur in your family. Consider how serious these conflicts occur in your present relationship with your Father and answer by rating on 5 point rating scale (1 = not at all to 5 = extremely).”

8. The Happiness Measure

Instructions were: " In general how happy or unhappy do you feel? Check the statements below that best describes your level of happiness experienced on an 11 point rating scale. The scale ranges from Extremely Happy (10) to Extremely Unhappy (0). Check just one item”.

9. The Health Status Measure

Instructions were: “Imagine anyone in excellent health and rate yourself on Health Status on an 11 point rating scale - ranging from Extremely Healthy (10) to Extremely Unhealthy (0)”.

10. Academic Achievement

Instructions were: “Kindly write scores of the last two years final examination”. Their marks were verified from school records also.

SCORING AND STATISTICAL ANALYSIS

Scoring for all the given tests was done with the help of scoring keys as per the instructions provided in the scoring manuals of the tests. The raw scores were then subjected to various statistical analysis viz Means, Standard deviations, t-ratios and Intercorrelations. Stepwise Multiple regression analyses was also done to identify the predictors of Life Satisfaction among adolescents.