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CHAPTER – V
RESEARCH METHODOLOGY

Human beings do not operate under controlled conditions; on the contrary, they are always under diverse influences such as environmental, psychological and social, and these influences freely interact with each other and seldom operate in isolation. This interplay of diverse influences makes social phenomena complex. Social researcher has shown that even within social complexities, some set patterns are discernible. Societies and social group exhibit their behaviour along expected trends and tend to follow a distinct path.

Research in common parlance refers to a search for knowledge. One can also define a research as “scientific and systematic search for pertinent information on a specific topic” (Kothari, 2004). Any research in social sciences is the outcome of man’s urge to understand his society, its nature and working. Social phenomena, thus, play a crucial role in the direction and depth of a social research.

A research design is considered as an arrangement of conditions for data collection and data analysis in a systematic manner. In initial stage, research design is thought as a conceptual structure and within this conceptual structure, the various relevant methods are arranged for accumulating various types of information. It is needed because it facilitates the smooth sailing of the various research operations, thereby making research as efficient as possible yielding maximal information with minimal expenditure of effort, time and money. We need to have a research design or a plan in advance of data collection and analysis for any research project.

5.1 AIMS AND OBJECTIVES

A research is considered meaningful if aims and objectives pertaining to it are set. The aims and objectives give direction to the field of inquiry. The purpose of any research is to discover answers to questions through the application of scientific procedure.
The main aim of the present investigation was to study the relationship of stress and coping among the elderly with the indices of healthy ageing (viz. happiness, optimism, social support, emotional intelligence and spiritual intelligence). Another aim was to compare both the institutionalized and non-institutionalized elderly and males and females on the indices of healthy ageing. The major objectives of the present research study were delineated as under:

1. To study stress and coping among elderly.
2. To assess the relationship of stress and coping among the elderly with the indices of healthy ageing (viz. happiness, optimism, social support, emotional intelligence and spiritual intelligence).
3. To compare these relationships among the institutionalized and non-institutionalized elderly.
4. To compare these relationships among males and females.
5. To determine the relationship between socio-economic status and the level of stress among the elderly.

5.2 HYPOTHESES

A hypothesis is defined as a proposition or a set of proposition set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional assumption to guide some investigation or accepted as highly probable in the light of established facts. In social sciences, where direct knowledge of population parameter(s) is rare, hypothesis testing is often used as a strategy for deciding whether a sample data offer such support for a hypothesis that generalization can be made. Based on the aims and objectives of the present study as well as review of literature, following hypotheses were formulated:

1. Stress is expected to be negatively related to happiness, optimism, social support and emotional intelligence both among the institutionalized and non-institutionalized elderly.
2. Problem-focused coping is expected to be positively related to happiness, optimism, social support and emotional intelligence both among the institutionalized and non-institutionalized elderly.

3. Emotion-focused coping is expected to be negatively related to happiness, optimism, social support, emotional intelligence and spiritual intelligence both among the institutionalized and non-institutionalized elderly.

4. Institutionalized elderly are expected to score higher on stress and emotion-focused coping as compared to the non-institutionalized ones.

5. Non-Institutionalized elderly are expected to score higher on problem-focused coping, happiness, optimism, social support and emotional intelligence as compared to the institutionalized ones.

6. Females are expected to score higher on stress and emotion-focused coping as compared to males.

7. Males are expected to score higher on problem-focused coping, happiness, optimism, social support, and emotional intelligence as compared to females.

8. The elderly belonging to the lower socio-economic strata are expected to score higher on stress.

5.3 THE UNIVERSE OF STUDY

Generally empirical studies require the collection of first hand information related to the units of study from the field. The units of study may include geographical areas like districts, cities, or villages or persons from whom information is available. The aggregate of all the sub-units pertaining to a unit is called population or the universe (Sidhu, 2011).

For the present study, the universe consisted of two groups of elderly. One group comprised of the elderly inmates receiving institutional care in the registered old age homes of Chandigarh. These were named as ‘institutionalized elderly’. The second group comprised of the elderly people
living with or without their family members in their own homes. These were categorized as ‘non-institutionalized elderly’.

5.3.1 Sample

A portion of elements taken from the larger population/universe is called sample. The process of drawing sample from the universe is called sampling (Black and Champion, 1976). Various sampling techniques are available but for the present study, the respondents were selected by using simple random sampling technique. First of all, a sampling frame was prepared. For selecting the non-institutionalized elderly, Census (2001) data was considered. According to the Census, the number of elderly within the age-group of 60-80 years is 23,000 in Chandigarh (urban and rural). Excluding the elderly with any psychiatric morbidity, physical disability, severe chronic health problems; unmarried elderly and the elderly belonging to rural area, the sample size of 200 non-institutionalized elderly was selected for the present study. In case of the institutionalized elderly, the list of inmates residing in the old age homes of Chandigarh was collected from the Help Age India Directory 2007 and the Social Welfare Department, Sector-17, Chandigarh. Universe of the institutionalized elderly consisted of 137 inmates residing in all 6 old age homes of Chandigarh (Details are given in Table 4.4). All the 137 inmates were selected as the respondents for the study as the universe was in itself very small.

A total sample of 337 elderly was selected. It included 200 non-institutionalized elderly (122 males and 78 females) and a universe of 137 institutionalized elderly (73 males and 64 females). Following characteristics of the sample were considered during the selection procedure. (i) Elderly within the age-group of 60-80 years, (ii) Both pensioners as well as non-pensioners, (iii) unmarried elderly and elderly any psychiatric morbidity, physical disability, severe chronic health problems were excluded from the study. Figure 5.1 gives a comprehensive account of the segregation of respondents.
5.3.2 Unit of analysis

For the present study, the institutionalized respondents (males and females) as well as non-institutionalized respondents (males and females) residing in Chandigarh, formed a unit of analyses.

5.4 METHODS OF DATA COLLECTION

There are several techniques of data collection like questionnaire, observation, interview, schedule, case study, etc. Both primary as well as secondary data were collected in the present study by making use of the following techniques:

5.4.1 Tools of Primary Data Collection

5.4.1.1 Schedule: A schedule is a list of questions which help to collect the requisite information. In this method, an investigator himself/herself presents the questions to the respondents. The administration of a schedule is a direct method where the researcher comes in direct contact with the respondents. Moreover, while administering a schedule, a researcher not only establishes a rapport with the individuals but by asking focused and close-ended questions result in responses that can be measured in quantitative terms. He/she can collect the desired information even from the illiterate population.
by classifying the meaning and purpose of the question and the study. Data collected using a schedule is reliable. Therefore, its representativeness is not questioned.

The respondents of the present investigation were interviewed in the local language (whether it was Hindi, Punjabi or English) by the researcher using a specially prepared schedule. Replies were obtained successfully on all items. Basic socio-demographic details of the respondents such as age, sex, literacy, occupation, caste, marital status were ascertained and it could also assess the spiritual understanding of the respondents, which was one of the variables under study.

5.4.1.2 Standardized Tests: Following seven standardized scales were used to collect the quantitative data in relation to the respondents.

1. Presumptive Stressful Life Events Scale (Singh et al., 1984)
2. Ways of Coping Questionnaire (Folkman & Lazarus, 1980)
3. The Happiness Measure (Fordyce, 1988)
4. Life Orientation Scale (Scheier & Carver, 1985)
5. Social Support Questionnaire in Hindi (Nehra et al., 1996)
6. Emotional Intelligence Questionnaire (Mohan et al., 2003)
7. Socio-economic Scale (Aggarwal et al., 2005)

A brief description of the above mentioned tests is given as follows:-

5.4.1.2.1 Presumptive Stressful Life Event Scale (PSLES): This scale was developed by Singh et al. (1984). It is a checklist of common life events experienced as stressful by Indian population, making it highly culture specific and valid for our sample. It has 51 items which are further classified as

a. Personal or impersonal i.e. the degree of dependence on the individual's action (24 and 27 items, respectively).

b. Desirable or undesirable or ambiguous (10 and 32 and 9 items, respectively).
Responses are taken for two time spaces- stressor in the past one year and lifetime stressor. Further, the number of stressful life events experienced in the past one year is analyzed. It is a reliable and valid test for Indian population (Sharma & Ram, 1987).

5.4.1.2.2 Ways of Coping Questionnaire: The Ways of Coping Questionnaire was developed by Folkman & Lazarus (1985) to identify the thoughts and actions an individual uses to cope with stress of everyday living. This scale has been developed from the ways of coping checklist to measure problem and emotion focused coping. The WOC consists of 66 items and has eight sub-scales, which emerged after factor analysis, each representing coping strategies namely Confrontive Coping (CC), Distancing (D), Self-Controlling (SC), Seeking Social Support (SSS), Accepting Responsibility (AR), Escape-Avoidance (EA), Planful-Problem Solving (PPS) and Positive Reappraisal (PR).

The function of Problem-Focused Coping is to change the trouble person’s environment or oneself. Problem Focused Coping is measured on a 24 item P scale. The function of Emotion-Focused Coping is to change either (a) the way the stressful relationship with the environment is attended to (as in vigilance or avoidance) or (b) the relational meaning of what is happening, which mitigates the stress even though the actual conditions of the relationship have not changed. Emotion Focused Coping is measured on a 42 item E scale.

The internal consistency (alpha) of the P scale is estimated at 0.80 and the E scale at 0.81. The scales are correlated at approximately 0.45. These figures are based on data gathered from 100, 45-64 year old adequately functioning men and women who each reported an average of 13.3 stressful episodes during a yearlong study. This test has satisfactory test-retest reliability, and alpha coefficients for the original scales range from 0.61 to 0.79: confrontive coping .70, distancing 0.61, self-controlling 0.70, seeking social support 0.76, accepting responsibility 0.66, escape-avoidance 0.72, planful problem solving 0.68, and positive reappraisal 0.79.
There is no time limit, and most respondents take 10 to 15 minutes to complete it but older respondents may take longer time. The individuals respond to each item on a 4-point Likert-type scale, indicating frequency with which strategy is used: 0 indicates “Does not apply and/or not used,” 1 indicates “Used somewhat,” 2 indicates “Used quite a bit,” and 3 indicates “Used a great deal.” The subject has to endorse whatever thoughts and actions presented as a list, were employed to cope with a particular stressful encounter.

5.4.1.2.3 The Happiness Measure: The Happiness measure was developed by Fordyce (1988). This instrument provides a measure of intensity of affect (happiness). The Happiness Measure is divided into two parts. Part I consists of an 11-point rating scale, ranging from 0 (extremely unhappy-utterly depressed, completely down) to 10 (extremely happy-feeling ecstatic, joyous, fantastic). The subjects had to check one statement out of the eleven statements that best describes him/her average happiness.

Part II of this measure comprises of the average percent of the time, the subject feels happy, unhappy and neutral. The subject has to make sure that the figures of the average percent of the three feelings (happy, unhappy and neutral) add-up to equal 100 %. This questionnaire also comprises of a profile sheet which describes the intensity of the scale score and frequency of the average percent (average scores based on this measure administered to 3000 adolescent were 6.92). The author reports it to be a valid and reliable measure. This scale has been widely used by Mohan et al. (1995, 2000), Shourie (2003), Sehgal (2003) and Salariya (2006).

5.4.1.2.4 Life Orientation Test: Life Orientation Test/Optimism Scale was developed by Scheier and Carver (1985) to assess the dispositional optimism. It provides a self-report measure of individual favorability of the person’s generalized outcome expectancies. Optimism Scale is intended to reflect a pervasive orientation to the experiences of life. Thus, the items do not focus on any particular content domain, nor is there a built in confound between optimism and perceptions of personal efficacy or locus of causality dimensions more generally.
The scale contains 12 items, in which 4 items are filler items. They are to be rated on a 5 point scale from “strongly agree = 4” to “strongly disagree = 0”. The scale has an internal reliability (cronbach alpha) of 0.76 and a test-retest reliability of 0.79. The test has been successfully used in India by Opara (1999), Mohan et al. (2000), Shourie (2003), Sehgal (2003), Sharma (2005) and Salariya (2006).

5.4.1.2.5 Social Support Questionnaire: Social Support Questionnaire was developed by Nehra et al. (1996). Social Support refers to information leading an individual to believe that they are cared and loved, esteemed and valued and they belong to a network of communication and mutual obligation (Cobb, 1976). It refers to the mechanism by which interpersonal relationships presumably protect people from deleterious effects of stress. Observations in a variety of settings have highlighted the positive role played by social support in psychological adjustment and quality of health (Cassell, 1976; Cobb, 1976; Dean and Lin, 1977; Unger and Powell, 1980). It has been considered as an index of wide variety of health, illness, recovery, coping situations’ and treatment outcomes.

Social Support has been measured differently from one study to another depending on the conceptualization and operationalization of the concept of social support. On one hand, it has been seen as a by-product of the interaction taking place in a social network. On the other hand, it has been viewed as perception of the recipient, i.e., how the individual believes his needs for aid and comfort are being fulfilled. Keeping in view the importance of a handy tool for assessment of perceived social support and lack of such an instrument in the Indian setting for those who required psychological help, the authors took a charge of adaptation of Social Support Questionnaire in Hindi.

This is an 18 item-scale modified and adapted for Indian Population from the Pollock and Harris (1983) scale of Social Support. This scale is used to assess or measure how social environment, or the support from significant others can have an impact on an individual’s well-being. It is a measure of perceived social support i.e., an indication of how much the individual feels
cared, loved, esteemed, valued, and belonging to a network of communication and mutual obligation. Seven items are positively worded while eleven items are negatively worded. The items are rated on a 4 point Likert scale from “almost always = 4” or to “almost never = 1”. Higher the score more will be the perceived social support. The test-retest reliability of this scale is 0.59 which is significant at .01 level.

5.4.1.2.6 Emotional Intelligence (EI) Questionnaire: The Emotional Intelligence Questionnaire (developed by Mohan, Malhotra and Mangla, 2003) was used to assess the emotional intelligence level of the elderly. It consists of 95 statements which give one an opportunity to explore and describe oneself. The EI questionnaire is based on the Emotional Intelligence models of Bar-On (1997) and Goleman (1998). It indicates degree to which each statement is true of the way one feel, think or act in most of the situations and most of the times. The 95 statements were sub-classified into 29 emotional competencies. These competencies are described as follows:

1) Emotional Self-Awareness: It is the ability of an individual to be aware of the feelings and being able to understand and differentiate between those feelings. It involves recognizing one’s feelings, being in touch with one’s feelings and understanding one’s inner world of thoughts and emotions.

2) Emotional Expression: It is the ability to share one’s feeling with others. It is the ability to express and articulate one’s positive as well as negative emotions with ease.

3) Emotional Awareness of Others (Empathy): It is the ability to be sensitive to feelings of other people. It is the capacity to put oneself in other person’s shoes and to understand the unsaid and unexpressed feelings and emotions of others.

4) Interpersonal relationships: It is the ability to build and maintain long-term relationships with other people. It involves connecting with people at deeper level and building of strong social network.
5) Stress Tolerance/Resilience: It is the ability to bounce back from the stressful situations with ease. It is the ability to face distressing events with composure and employing suitable techniques to combat stress.

6) Impulse Control: It is the ability of an individual to delay gratification and exercise control over his impulses. It reflects degree to which an individual is relaxed and patient.

7) Intentionality: It is the ability of an individual to forego short-term goals for attaining long-term objectives. It reflects degree of focus on objectives of life.

8) Creativity/Innovations: It is the ability to come forth with new ideas to generate novel solutions to problems.

9) Outlook: It is the ability of an individual to look at the bright side of things. It involves the ability to take advantage of the opportunities and adapting to optimistic approach towards life.

10) Intuition: It is one’s ability to understand or know something immediately, without conscious reasoning, to rely on one’s gut feelings and to foresee things.

11) Trust radius: It means taking other people in confidence and disclosing personal feelings and thoughts to others.

12) Quality of Life: It is the potentiality of an individual to lead purposeful and meaningful life. It is the ability to live life to the fullest feeling energetic and motivated to pursue goals of life.

13) Optimal Performance: It is the capacity of an individual to optimize his potentialities in every situation and achieving a sense of satisfaction from one’s performance.

14) Adaptability to Change: It is the ability of an individual to rapidly adjust to new situations. It reflects the degree to which an individual is able to unlearn past behavior and imbibe new methods of dealing.

15) Assertiveness: It is the ability to put forth one’s emotions and thoughts with convictions and belief in oneself.
16) Self-Regard: It is the ability of an individual to respect him/her. It constitutes belief in one's potentialities and accepting one-self the way he or she is.

17) Self-Actualization: It is the ability of an individual to realize his talent to the fullest possible extent and making the most of one's abilities by doing what one can do.

18) Independence: It is the capability of an individual to be on his own in all respects. It is reflected in self-confidence, self-reliance, faith in your strengths and desire to meet expectations of other while still maintaining one's individuality.

19) Compassion: It is the ability of an individual to feel pain of others and a tendency to help out people in trouble.

20) Constructive discontent: It is the tendency to be open to feedback. It is the degree to which an individual confronts or avoids problems.

21) Social Responsibility: It is the ability of an individual to think and feel about others. It means being responsible for one's action and its impact on society at large.

22) Leadership: It is the ability of an individual to motivate and influence others. It is the degree to which people share their mission.

23) Integrity/Ethics: It is the predisposition of an individual to follow the inner voice of consciousness and practice values and ethics in life.

24) Communication: It is the ability of an individual to share his feelings with others and to express his ideas. It is the capacity to listen other person's point of view and also being open to feedback from others.

25) Conflict: It is the tendency of an individual to confront and resolve the problem and agreeing to others' perspectives.

26) Attitude towards Self & Others: It is expressed as conviction of an individual in him/her and others. It means being self-confident and respecting your own as well as other ideas and decisions.
27) Motivation: It is the ability of an individual to set easy or challenging goals for him/her. It reflects the tendency to complete the task or excel in one’s pursuits, to be motivated by monetary factors or sense of accomplishment.

28) Team Spirit & Collaboration: It is the ability of an individual to work to his best, when working along with others.

29) Spirituality: It is the quest of an individual for meaningful and goal-directed life beyond materialistic world.

The participants were required to indicate their responses on a 5-point Likert scale ranging from 5 (Mostly true of me) to 1 (Not true of me). The response would indicate the degree to which each statement is true of the way a person feels, thinks, or acts most of the time and in most of the situations. The respondent has to indicate how he/she actually is and not how he/she would like to be. There is no time limit to complete this questionnaire. Overall emotional intelligence was represented by the average of scores from the statements measuring these dimensions. The factor analysis identified the dimensions of the structures, the structure of interrelationships and determined the extent to which each variable is explained by each dimension and the factor loadings thus yielded for the scale revealed significant results. The Bartlett’s test of Sphericity was significant and the value of Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy was 0.814. In this scale, the factor analysis generated nine factors that accounted for 58.21% of the total explained variance in overall Emotional Intelligence. All the factors of emotional intelligence had factor loading of above ±0.40, considering both rotated component matrix and component/un-rotated matrix. All the 29 dimensions were clustered into five factors while retaining all the emotional competencies. The reliability coefficient indicated the Cronbach’s Coefficient alpha value of 0.8156 that demonstrates strong reliability of the scale and high internal consistency of all the emotional competencies which is also an indirect indicator of high convergent validity.

5.4.1.2.7 Socio-economic Scale: This scale was developed by Aggarwal et al. (2005), based on the literature review, extensive discussion with
sociologists, economists and anthropologists. As a pilot study, it was tested on a 5 per cent sample in different socio-economic strata of the community before finalizing its contents, format and scoring. The scale is validated against the only available and widely used Kuppuswami’s modified scale of urban population.

In the final form, the scale consists of 22 items. Suitable weightage is given to each item and scoring for each item is based on a scale ranging from 3 to 9. Question 18 i.e. regarding the presence of non-milch cattle or pets in the family is scaled on a 3 point scale and question 12 regarding living in the type of a house is scaled on a 9 point scale. The maximum aggregate score is 100. Based on the final score, the socio-economic categories, namely Upper high (score more than 76), High (61-75), Upper middle (46-60), Lower middle (31-45), Poor (16-30) and very poor (combined score less than 15).

5.4.1.3 Procedure: All the respondents were contacted personally for the testing sessions and requested to volunteer for the testing schedule. The questionnaires were used as a schedule and the respondents were asked to respond truthfully as per the given instructions. They were assured that the information they give and their results would be kept strictly confidential and used for research purpose only.

The testing schedule was begun by asking the respondents about their general information and carried on until the responses to all the tests were given. The testing schedule was conducted in one sitting and the booklet took one hour to complete with 15 minutes gap in between.

5.4.1.4 Instructions for the tests: Before administering the test, few instructions were given to the respondents. The instructions given for each test are described as follows:

5.4.1.4.1 Instructions for the ‘Presumptive Stressful Life Events Scale’: “Below are given some of the life events. Out of these life events, please put a tick mark against the events which happened with you during the last one year in column 1 and those which you have experience at any time prior to that in your life in column 2. Please give response to each statement. You
have to mention the month, year and effect- whether good, bad or nothing for each stressor.”

5.4.1.4.2 Instructions for the ‘Ways of Coping Questionnaire’: “To respond to the statements in this questionnaire, you must have a specific stressful situation in mind. Take a few moments and think about the most stressful situation that you have experienced in the past week. By “stressful” we mean a situation that was difficult or troubling for you, either because you felt distressed about what happened, or because you had to use considerable effort to deal with the situation. The situation may have involved your family, your job, your friends, or something else important to you. As you respond to each of the statements, please keep this stressful situation in mind, such as where it happened, who was involved, how you acted, and why it was important to you. Read each statement carefully and indicate, by circling 0,1,2,3, to what extent you used it in the situation. Please try to respond to each situation.”

5.4.1.4.3 Instructions for the ‘Happiness Measure’: The happiness measure is divided into two parts. Instructions for part-I were, “Use the list below to answer the following question: In general, how happy or unhappy do you usually feel? Check the one statement below that best describes your average happiness.” The instructions for filling part-II of the happiness measure were, “Consider your emotions a moment further. On an average, what percent of the time do you feel happy? What percent of the time do you feel unhappy? What percent of the time do you feel neutral (neither happy nor unhappy)? Write down your best estimates, as well as you can, in the spaces given below. Make sure the three figures add-up to equal 100%.

5.4.1.4.4 Instructions for the ‘Life Orientation Test’: Following instructions were given: “Indicate whether or not each of the items represents your feelings by writing a number in the blank space according to the following code: [0] = strongly disagree, [1] = disagree, [2] = neutral, [3] = agree, [4] = strongly agree. Be as honest as you can throughout, and try not to let your
responses to one question influence your response to other questions. There is no right or wrong answer.”

5.4.1.4.5 Instructions for the ‘Social Support Questionnaire’: The instructions for the social support questionnaire were given as follows: “Read each and every statement carefully and answer thinkfully that how much you agree with these statements? If you agree with a statement completely, then tick mark at (4). In case you agree with a statement quite a bit, then tick mark at (3). If you agree with a statement only a little bit and not at all, then tick a mark at (2) and (1) respectively. Please give an answer carefully. Your answer will be kept confidential.”

5.4.1.4.6 Instructions for the ‘Emotional Intelligence Questionnaire’: Following instructions were given: “This questionnaire consists of statements giving you an opportunity to explore and describe yourself. It indicates the degree to which each statement is true of the way you feel, think, or act most of the time and in most of the situations. Please indicate how you actually are and not how you would like to be. There is no time limit but work quickly and make sure that you consider and respond to every statement. This questionnaire is completely confidential. Please circle the appropriate number (5, 4, 3, 2, 1) in each column which best describes your response to each statement where 5: Mostly true of me; 4: Often true of me; 3: Sometimes true of me; 2: Seldom true of me, and 1: Not true of me.”

5.4.1.4.7 Instructions for ‘Socio-Economic Scale’: “Please answer the following questions by using/marking the sign (✓) among the options given below against each question.”

5.4.1.5 Ethical consideration: A duly filled informed consent form was taken from each respondent for his/her voluntary participation in the present research study.

5.4.2 Secondary sources of information

Secondary data means data that are already available i.e. they refer to the data which have been already been collected and analysed by someone else. The information regarding the population of elderly in India and in Chandigarh
were collected from the Census, 2011. A list of old age homes in Chandigarh and the number of inmates in each old age home was collected from the Directory of Help Age India and reports generated by Social Welfare Department, Chandigarh. Relevant literature was collected from various libraries and reviewed. The researcher visited Tulsi Das Library, Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh; A C Joshi Library, Panjab University, Chandigarh; and State Library, Sector-17, Chandigarh for collecting secondary source of information:

5.5 SCORING AND STATISTICAL ANALYSIS

The analysis of data included various steps. Step 1 consisted of coding which implies transformation of observations into categories and assigning a number of symbols to each item of information to facilitate quantitative analysis (Sidhu, 2011). For a purpose of coding, the researcher prepared a code design to assign numerals to the raw data. On the basis of the prepared code design, all the relevant information was relocated on to the respective coding sheets. Then, the coded information was tabulated or scored with the help of the scoring keys as per all the instructions given in the scoring manual of the tests. In the present study, the researcher has calculated only the descriptive statistics which comprised of means, SDs, t-ratio, and chi-square.

The analysis of data was followed by report writing. This is a final step of a research study which serves as a means for communicating our research experiences to others and adding to their pot of knowledge. The purpose of the research report is to communicate what was done, why and how it was done and what was the outcome.

5.6 LIMITATIONS OF THE STUDY

Following are the limitations of the present study:

- The focus of the study is lop-sided because it covered the perspective of elderly only. The social perception of projection of their care-takers and other community members could not be accessed.
• The sample size of the elderly being small on account of stipulated time period of the study and other limitations, no broad generalization can be made about the elderly residing in other parts of India.

• The kind of psychological tests used to measure stress, coping, happiness, optimism and emotional intelligence were not exhaustive enough to provide conclusive evidence applicable to the elderly populations in other countries.