Chapter -III

Methodology
Aims and objectives

The study has been conducted with the following objectives:

1. To study the psychosocial and health problems of the elderly.
2. To study loneliness in relation to sex, age, area, marital status and microenvironment in the elderly.
3. To study the mental health of the elderly in relation to sex, age, area, marital status and microenvironment in the elderly.
4. To suggest certain intervention measures for the elderly of Chandigarh based on the study findings.

Since the present study is a survey of the problems of the elderly, no hypotheses are being formulated.

Keeping in view the above aims and objectives, the study was conducted in the urban and rural areas of Chandigarh (Union Territory). The elderly persons of the age 65 years and above formed the population of the study. Chandigarh City has been divided into 61 sectors, out of which 47 are developed sectors and there are 27 rural villages, which formed the universe of the study.

Sampling Technique

For the urban area, a multistage stratified random sampling technique was used to select the 277 subjects above the age of 65 years. In the first stage, the city was divided into five strata on the basis of population and area taking dividing roads as demarcation. These strata contain the following sectors: stratum I- Sectors 1 to 12, 26; stratum II -
From these strata five sectors were randomly selected giving proportionate representation on the basis of population and area. Similarly 84 elderly above the age of 65 years were selected from randomly selected villages on the basis of proportionate representation of rural population of Chandigarh. The houses to be taken up for survey in each sector/village was decided on the basis of recent voter’s list using the random numbers table.

**Tools**

1. **Symptom Rating Test (Kellner and Sheffi, 1979)**

   The original test is in English. To suit the requirement of the sample the scale items were translated in Hindi by the investigator, a copy of which is given in the appendix.

   To ensure the appropriateness of the Hindi version of SRT, English and Hindi versions of the test were compared and examined by the two readers in Hindi and four Senior Teachers (including the supervisor).

   The corrections and comments given by these language and subject experts were discussed in a meeting of these six experts and then the final Hindi version was accepted.

   Symptoms Rating Test (SRT) contains fifty one items and it measures Anxiety (8 items), Depression (8 items), Somatic symptoms (7 items), Anger-hostility (7 items), Cognitive Symptoms (7 items), Paranoia-Selfreference (7 items) and Psychotic Symptoms (7 items). The possible score of each item was in the range of 1 to 4. The reliability of this test was computed on one hundred subjects.
The K-R reliabilities of the sub scales of Anxiety, Depression, Somatic, Anger-hostility, Cognitive Symptoms, Paranoia-Selfreference, and Psychotic Symptoms are 0.73, 0.77, 0.78, 0.80, 0.72, 0.79 and 0.93 respectively.

2. Loneliness Scale (Upmanyu and Upmanyu, 1992.)

This scale is in Hindi. It contains 40 items. The possible score of each item is in the range of 1 to 4. Primarily this scale was made for adolescents. To adapt this scale for aged persons, items number 9 and 10 were modified. Reliability of the data was determined by both split half (Horder and Rosh) and K-R methods. For this purpose the scores of one hundred aged persons were taken into consideration. The two reliabilities were 0.97 and 0.98 respectively. Item validity was checked by item total correlation. These correlations ranged from 0.32 and 0.86.

3. Interview schedule

A semistructured interview schedule was used to collect information on the following variables:

a. **Demographic Variables:** Gender, age, religion, marital status, occupation, education level, income, household size and composition, accommodation, employment status.

b. **Social and health problems:** Social activities (Religious place, club, library, friend's place), addiction (Smoking, alcohol, pan, drug abuse), family status, maltreatment, morbidity profile (circulatory system, respiratory system, diabetes mellitus, musculoskeletal system and skin).

c. **Others:** Recreation: Watching TV, reading newspaper/magazines.

Dietary Habits: Changes, restrictions, additions.

Procedure

The investigator visited each of the selected houses. If husband and wife were found above the age 65 years, then both were included in the study. Interview of the elderly was conducted on pre designed and pre tested proforma.

Given the sensitive nature of the topic and to ensure cooperation, at least half an hour was spent, prior to getting the information, to build the rapport and create an atmosphere of trust and confidence. Some attitudinal measures were taken to provide assurance of anonymity and confidentiality. After the rapport was established with the individual family, the interview was conducted in two sittings, one in the morning and second in the afternoon, depending upon the availability of the respondent, or the next day. The information for the study was collected using the above mentioned tools.

In the first sitting, information on the profile of the elderly and symptom rating scale was collected. A minimum period of one hour was spent for each sitting and in some cases the interview was prolonged as desired by the elderly. In the second sitting the information was collected regarding loneliness. Those found with psychosocial problems were referred for counseling and those with health problems were referred to appropriate health facility. Every effort was made to generate the interest in the interview by taking their point of view on the topic into consideration.

Statistical Technique Used

The analysis of the data was done by using the following statistical tests: Pearson correlation coefficient, t-test, Z-test, test of proportions, Chi-Square test.