CHAPTER – III

RESEARCH METHODOLOGY
RESEARCH METHODOLOGY

Introduction: -

This chapter deals with the methodology adopted for the study, which includes significance and scope of the study, its aims and objectives, research hypothesis to be tested, research design, universe, basic and key variables, sampling techniques and tools of data collection. Operational and conceptual definitions are also included in this chapter.

Significance of the Study: -

In India, geriatric service being in its infancy, there are no respite centers, dementia nursing homes, institutional care and hospice. The elderly population in India ranks the fourth among the countries of the world. Today India is home to one out of every ten senior citizens.

The present study to go into the details of the intra-familial and intra-community settings to help the Governmental, Non-Governmental and voluntary organizations to provide appropriate services which could reduce the actuality of the feeling of deprivation of the elderly. Such study falls within the scope of social work in general and medical and psychiatric social work in particular. This study of psychosocial problems of people with Alzheimer’s disease is necessary to understand the problems faced by the family. It helps the others to have better understanding about the Alzheimer’s patient’s feelings and problems.
This study should help the younger generation to analyze their own situation, to which they may be such consciously aware, but still may not fully realize the basis and implications of these conditions, so that they can create conditions within the home, both mental and physical, which can make adjustment of the old people smoother.

The present study would be of immense help to the professionals who are working in the field in having a clear knowledge about the care taking and risks.

This study helps the professionals to develop the intervention techniques. Also helps the concerned professionals who are working for the benefit of the elderly to develop the counselling techniques to help the Alzheimer’s patients.

This study would also be of practical help to the Alzheimer’s and Related Disorders society of India (ARDSI), Alzheimer’s societies care centers and family members to know the areas of training, care and patient management to enable the family, relatives and caregivers to cope more effectively with their Alzheimer’s elderly.

Scope of the Study: -

This study is conducted with Alzheimer’s patients, who are home care and day care patients in Alzheimer’s and Related Disorders Society of India’s (ARDSI) Urban Community Dementia Service Centre is located in South Kalamassery, Kochi-Kerala. This study is limited only a few dimensions of Family Interaction Pattern, Family Burden and Severity of the illness among the patients.
Aims and Objectives of the Study:

The following are the aims and objective of the present study.

i. To understand the socio-demographic background of the respondent.

ii. To study the Family Interaction pattern (FIPS) among the Alzheimer’s patients.

iii. To analyze the severity of Alzheimer’s Disease among the respondents.

iv. To study the Family Burden among the respondents.

v. To find out the association between the selected socio-demographic variables and Family Interaction Pattern and Family Burden among the respondents.

vi. To find out the association between the severity of illness and Family Interaction Pattern and Family Burden among the respondents.

vii. To find out the difference any among respondents belonging to different background and their Family Interaction Pattern and Family Burden.

viii. To find out the difference between the severity of illness and Family Interaction Pattern and Family Burden among the respondents.

ix. To suggest suitable measure to improve the Family Interaction Pattern and Family Burden.

x. To suggest suitable social work interventions to care the Alzheimer’s patients.
xi. To suggest suitable measures to improve the functional ability of the respondents.

**Hypothesis: -**

- There is a significant association between age of the respondents and opinion about their health.
- There is a significant association between age of the respondents and severity of Alzheimer’s Disease.
- There is a significant association between sex of the respondents and opinion about their health.
- There is a significant association between sex of the respondents and severity of Alzheimer’s Disease.
- There is a significant association between marital status of the respondents and opinion about their health.
- There is a significant association between marital status of the respondents and severity of Alzheimer’s Disease.
- There is a significant association between educational status of the respondents and severity of Alzheimer’s Disease.
- There is a significant association between previous occupation of the respondents and opinion about their health.
- There is a significant association between previous occupation of the respondents and severity of Alzheimer’s Disease.
There is a significant association between type of family of the respondents and opinion about their health.

There is a significant association between type of family of the respondents and severity of Alzheimer’s Disease.

There is a significant association between total family income of the respondents and opinion about their health.

There is a significant association between the leisure time activities of the respondents and family interaction pattern and family burden.

There is a significant association between age, total family income and size of the family and various dimensions of family interaction pattern and family burden.

There is a significant difference between sex of the respondents and family interaction pattern and family burden.

There is a significant difference between type of family of the respondents and family interaction pattern and family burden.

There is a significant difference between educational status of the respondents and family interaction pattern and family burden.

There is a significant difference between marital status of the respondents and family interaction pattern and family burden.

There is a significant difference between severity of Alzheimer’s disease of the respondents and family interaction pattern and family burden.
There is a significant association between family interaction pattern and family burden of the respondents.

DEFINITION OF TERMS: -

Alzheimer’s Disease: -

According to "The New International Webster’s Pocket Medical and First Aid Dictionary" - ‘A disease caused by presenile atrophy. Atrophy or shrinking, of the brain may be expected in old age; presenile brain atrophy is the premature shrinking of the brain that cause slowing of the mental processes, beginning with forgetfulness and progressing to irrationality’.

*(Named after Alois Alzheimer (1864-1915) German Neurologist).*

Family: -

Family is a group of persons united by the ties of marriage, blood and adoption constituting a single household interacting and inter communicating with each other in their respective social role of husband and wife, mother and father, son and daughter, brother and sister creating a common culture.

Reinforcement: -

Process adopted by the family to enable the members to imbibe socially approved behaviour.
Social Support: -

Social support is a multidimensional construct that includes physical and instrumental assistance, attitude transmission, resources and information sharing and emotional and psychological support (Dunst and Trivette, 1986).

Role: -

Socio-culturally prescribed and ascribed tasks to be performed by different family members according to their age and sex.

Communication: -

A process through which the family members convey their feelings, emotions and personal views to one another.

Cohesiveness: -

Process adopted by the family for a firm degree of mutual trust and interpersonal commitments.

Leadership: -

A family member engaged in decision making through conscious efforts for the growth of the family as a system, is the leader of the family.
**Family Burden:**

The term family burden can be defined as the extent of suffering experienced by the family with regard to financial conditions, family routine, family interaction, family leisure, physical and mental health to other members in the family.

**VARIABLES:**

**Independent Variables:**

- Age
- Sex
- Religion
- Type of family
- Total Family Income
- Marital Status
- Educational Background
- Previous Occupation
- Habits
- Leisure time activities
- Abused by the Family
- Severity of Alzheimer’s Disease
Dependent Variables: -

➢ Family Burden

➢ Family Interaction Pattern

Tools of Data Collection: -

➢ Self-prepared Interview Schedule for collecting the personal data.

The researcher used interview schedule as a tool for collecting the data for the present study. The first part of schedule has self-prepared questions pertaining to personal and socio-demographic background of the respondents. In addition the following tools were also used.


The Functional Assessment Staging (FAST) represents an extension of axis V of the Brief Cognitive Rating Scale (BCRS). It divides the progression of Alzheimer’s Disease into 16 successive functional stages and assesses the loss of functional abilities – such as dressing, toileting, eating, walking – within each stage. This tool can be utilized to study the course of Alzheimer’s Disease in terms of functioning and self-care.

Reliability and Validity: -

The reliability of the tool was assessed using inter-rater and test-retest method. The inter-rater reliability co-efficient was found 0.98 and test-retest was 0.97.
Family Interaction Pattern Scale (FIPS) developed by Bhatti et al., (1982).

It refers to various socio-psychological transactions occurring in the family as a system to evolve process of decision-making, emotional expressions, personal views, assigning social tasks and social status enabling the family members to contribute for the growth of the family, by generating morphogenesis at emotional, intellectual and social levels through the manipulation of internal and external social milieu of the family as a whole.

Reliability and Validity: -

This scale was standardized according to the author, administered is to 30 neurotic depressions, 30 hysterical neurotics 30 alcoholics, and normal. The means of patient population were different from normal population. There were no variation in the scores of the patient and his / her family members. All six sub-scales of family interaction pattern (FIPS) were compared between the groups. The scale had the capacity to discriminate between neurotics and alcoholics. Based on these observations, it felt that FIPS is valid tool to measure the quality of family functioning. The reliability of the scale is 0.881. The reliability was calculated by the split-half method.

Family Burden Scale Developed by Pai and Kapur (1981) to assess the burden felt by the family.

It is a semi structured interview schedule to assess the burden placed in the families of psychiatric patients living in the community. The schedule consists of 26 items classified into 6 different categories such as financial, burden effect on family routine, effect on family leisure, family interaction,
health of the other family members and effect on mental health of the other family members.

Reliability: -

Ratings of 3 different groups were examined for statistical significance by determining reliability co-efficient the method being used on two-way analysis of variance Winner (1962). The correlation co-efficient between the mean total score on each item is 0.72 indicating satisfactory reliability of the scale. (Pai & Kapur, 1981).

Research Design: -

Research is denoted to a study of mankind in his social environment and is concerned with improving his understanding of social orders, groups, institution and ethics.

The researcher adopted descriptive-cum-diagnostic design. This design describes, compares and contrasts characters of an individual or group or community, explaining the opinion of the respondents about a particular phenomena and the association between the variables. The design was chosen to assess the family interaction and family burden among the Alzheimer’s patients

Universe of the study: -

The universe of the study comprises Alzheimer’s patients, who have been caring as home care and day care by the Urban Community Dementia Service (UCDS) Centre, Kalamassery-Kochi run by the Alzheimer’s and Related disorders Society of India (ARDSI).
Total of 64 patients registered in the Dementia Service Centre. So the researcher gathered information from 64 patients. Hence census method was adopted.

**Source of data:**

The researcher used primary source of data and collected the data directly from the respondents.

**Statistical Analysis of Data:**

The data were collected carefully and analyzed and processed. Statistical tests such as mean, standard deviation, 't' test, chi-square, one-way analysis of variance and Karl Pearson's co-efficient of correlation were applied to interpret the data to draw meaningful inferences.

⇒ The mean and standard deviations were used for the numeric data such as, income, age etc.

⇒ The 't' test was used to find the significant difference between the two groups namely male and female, and the religion with regard to the level of depression, the level of family interaction and the level of family burden.

⇒ The one-way analysis of variance was used to find out the significant difference among the various groups namely occupation, educational qualification and family reactions etc.

⇒ The chi-square test was used to find out the association between variables.
The Karl Pearson’s co-efficient of correlation was used to find out the relationship between the key variables namely family burden and family interaction pattern and selected socio-demographic variables namely age, size of family, total family income etc.

SPSS was used for data analysis.

Pilot Study: -

In the preparatory stages of the study, the researcher made a number of visits to the National Office of Alzheimer’s and Related Disorders Society of India (ARDSI), Kunnamkulam, Trichur (dist.) – Kerala and the Urban Community Dementia Service (UCDS) Centre, Kalamassery – Kochi, Kerala.

The researcher had discussion with the concerned authorities and explained the purpose and the nature of the study. This helped the researcher to establish a rapport with the Centre authorities.

Pre-test: -

The researcher interviewed five respondents for pretesting and found no major change was necessary in the tool. Hence, he continued with his data collection.

Data Collection: -

The researcher collected data from 64 respondents with an interview schedule prepared by the researcher, which consisted of socio-demographic data. The two scales, family interaction pattern and family burden also were
administered. The researcher, before each data collection, had small talks with the respondent’s while explaining about the nature of the study.

The researcher collected data during the period of 27:05:03 to 04:06:03 and 07:06:03 to 17:06:03. The researcher collected data when the primary caregiver present at the home. It took 1 ½ hour to 2 hours for each respondent.

**Problems Encountered by the Researcher:**

The researcher went personally to the respondent’s home to collect data. There were practical difficulties. ARDSI’s home care covered the whole part of Ernakulam District. The researcher spent long time with each and every respondent to collect informations since he had to explain the purpose of the study to them and gave very much importance to get the actual facts from them. Hence the major problem encountered during the entire process of data collection is that it took very long time to collect data from one single respondent. The researcher had the difficulty in administering the scale. In conveying the original meaning of the questions, the researcher needed to give practical examples to understand its real meaning without being distorted.

**Limitations of the Study:**

Since the research was done only in one ARDSI’s home care and day care centre, and the findings may not be generalized appropriately to the other families of Alzheimer’s patients.
Chapterisation: -

The first chapter deals with the introduction of the study, which has been undertaken by the researcher. This chapter throws light on the various aspects related to the study to give a clear picture of the area to be studied by the investigator.

The second chapter deals with the review of the related studies. These reviews help the investigator to finalize the areas, which have been studied, and the areas, which could be explored in detail.

The third chapter deals with the methodology of the research study. This chapter makes clear the purpose in which the data was collected and analyzed, the aims and objectives of the research. It also highlights the limitations of the study and the practical problems faced by the researcher.

The fourth chapter gives the analysis and interpretation of the variable studied.

The fifth chapter deals in detail with the findings, suggestions and conclusions.