Chapter – 3

Methodology
METHODOLOGY

3.1 Introduction

The methodological aspects followed for the execution of this research work are presented in this chapter. Details about statement of the problem, conceptual framework, objectives, study universe, research design, sample frame, selection of sample and sample size, collection of data, the modalities of the survey and analysis of data are provided in this chapter in a crisp manner.

3.2 Statement of the Problem

Social transition brings about a tremendous change in human life. It brings a change in rural and urban setting both in a rapid sequence. In urban areas such changes are taken with ease to accept compared to the rural situation. Rapid industrialisation and urbanisation process leads to dispersal of kin group. As consequences, the dependent individuals are affected at all levels. This process of disintegration of joint family system may also affect the traditional bonds between parents and children. But contrary to that, family still remains the major source of social support for the dependent as well as the non-dependent elderly at various stages of life course. And there comes the importance of elderly support from familial situation in terms of emotional, physical and financial with regarding to living arrangements, familial concerns and health status which the present study focus upon.

The present study shows the elderly living conditions in rural context. Elderly conditions being more vulnerable, the importance of the issue has been recognised worldwide. Elderly experiences of familial support deprivation vary from male to female. With the increase in age, the problem of adjustment is seen in case of both male and female elderly. Few studies have attempted to focus on the gendered perspectives of support services of the elderly in rural setting. Moreover, old age security in rural communities can no more be assumed and this phenomena has to be investigated. The research problem in a gist is the examination, description and explanation of support services delineated in terms of emotional, physical and financial support with regard to
the type of familial relationship involved in such exchanges from the sociological importance.

3.3 Conceptual Framework

Based on the earlier theoretical and empirical facts available on the theme under consideration, a simplified conceptual framework has been developed for this study. From the Figure 3.1 it can be seen that the background characteristics provides a link to the three kinds of support services i.e. living arrangement, familial concerns and health status. These three support services bring about an explanation of the elderly situation through disengagement approach.

It has been argued and also empirically supported by the earlier studies that the two major features of the elderly viz. type of living arrangements and the different types of support patterns are directly influenced by the elderly background characteristics. Similarly, in the present model three types of background characteristics has been taken. Firstly, the demographic characteristics like age, sex, marital status, family structure like number of children, number of family members and number of earning members. Secondly, the social characteristic of the respondents includes the details about their caste and education. Finally, the economic characteristic includes occupational status, monthly income of individual and monthly family income.

Living arrangements, familial concerns and health status all are interrelated in the case of respondent’s support pattern. From the model an attempt has been made to show that the respondent’s variety of living arrangements makes them to share a similar kind of familial relationship. The elderly suffer from health disorders and disabilities too. All the three shows the type of support services that the elderly seeks and receives from their family. The three support services are
Figure 3.1: Conceptual Framework showing the Interrelationships between Different Background Factors and Elderly’ Living Condition and Familial Support

- **Demographic Characteristics**
  - Age
  - Sex
  - Marital status
  - No. of children
  - No. of family members
  - No. of earning members

- **Social Characteristics**
  - Caste
  - Education

- **Economic Characteristics**
  - Occupational status
  - Monthly individual income
  - Monthly family income

- **Living Arrangement**
  - Living Alone
  - Living with Spouse
  - Living with Married Children
  - Living with Unmarried Children/Others

- **Familial Concerns**
  - Cordial Relationship
  - Domestic Chores
  - Familial Activities

- **Health Status**
  - Chronic morbidities
  - Disability

- **Support Services**
  - Emotional
  - Physical
  - Financial

- **Disengagement Approach**
• **Living Arrangements** – the study shows the type of living arrangement of the elderly and their living condition. Some elderly are found to stay alone, some with spouse, some with married children and some with unmarried children/others. The living arrangement in the present study also shows the housing facilities that are available to the elderly.

• **Familial Concerns** – It focuses on three things which includes participation in domestic chores, participation in familial activities and cordial relationship with family members. The elderly participation in domestic chores is examined which includes cooking, shopping, fetching water, schooling and cleaning house/surroundings. It is found that the involvement of respondents in familial ceremonies is much better. Even their position in resolving familial matters and familial disputes is also seen. It depicts the level of interaction of the elderly with the family members with whom they currently staying. The abusive behaviour that the elderly sometimes receive has also been pointed out.

• **Health Status** – In the model as shown in figure 3.1 includes the chronic morbidities and disabilities that the elderly face. In the study it is shown the common diseases that the elderly face. The elderly also are found to face disability like recall memory, vision, speech, hearing and walking which are given importance in the study.

The three living conditions i.e. living arrangements, familial concerns and health status are all linked with the support services that are categorised as emotional support, physical support and financial support respectively. The emotional support of the elderly has been given importance by examining certain things like who shares their problem, who helps at the time of crisis and with whom the elderly like to spend the rest of their life. The elderly requires physical support and personal assistance for their day-to-day life which is examined in the study by asking their view of providing support at the time of visiting health centres for seeking medicare to chronic diseases. Also for their day-to-day physical assistance which includes support at the time of when bed ridden, go to toilet, bathing, walking, dressing, boarding bus/train etc. Financial support which is a
major support is given importance with regard to elderly at the time of visiting health centres for seeking medicare chronic morbidities which is examined. Finally, the elderly opinion and expectation is also taken into consideration in the study.

All the three support services are examined in the present study in the case of elderly through disengagement approach which provides a link between elderly decreasing role and interaction in society. The disengagement approach in Puducherry context is examined by giving importance to the three notions of inclusive support, participation and integration and spatial segregation. The study gives importance to seek attention for the living condition and familial support for the elderly in rural Puducherry.

3.4 Objectives

As noted earlier, the present study is mainly aimed to understand the various issues related to living condition and familial support received by the elderly during their old age in Puducherry. The specific objectives of the present research are:

1. To study the socio-economic conditions of the elderly persons (60+ years) with their personal life style persisting in rural Puducherry.

2. To examine the living arrangement of the elderly with regard to the emotional support from the family in terms of familial participation, cordiality in relation and abuse at household level.

3. To make an assessment of the health status and the physical and financial support provided to them.

4. To examine the expectations and opinions of the elderly with regard to the knowledge of old age security and familial care.

5. To show the practical application of the theoretical approach of Disengagement Theory.
3.5 Study Universe

The Union Territory of Puducherry covers an area of only 492 sq kms in Puducherry town including its villages encompassing 290 sq kms surrounded by the South Arcot District, Karaikal towns and its villages spread over an area of about 161 sq kms surrounded by Tamilnadu state, Mahe and its villages cover around 9 sq kms surrounded by the Kerala state, and Yanam spreading over an of around 20 sq kms with the East Godavari District in Andhra Pradesh. Puducherry district is the head quarters of the union territory, spreading 162 kms with the south of Chennai and 22 kms north of Cuddalore, Karaikal district is about 150 kms south of Puducherry and Yanam district about 840 kms north-east of Puducherry on the Andhra Cost. Mahe district lies almost parallel of Puducherry district, 653 km away on the west coast. The vibrant Union Territory of Puducherry symbolizes Mini-South India with its four district of Puducherry, Karaikal (Tamilnadu), Mahe (Kerala) and Yanam (Andhra Pradesh) geographically dispersed in South Indian Peninsula but culturally bounded together. Pandit Jawaharlal Nehru, the first Prime Minister of India described Puducherry as “Widow of the French Culture”.

The research area undertaken for the present study is Puducherry district of Puducherry Union Territory. With limited old age support schemes for elderly in Puducherry, the situation is found to be worse as last few decades the elderly ratio is increasing. The Puducherry district was divided into 2 municipalities and 5 communes, namely Puducherry, Ozhukarat, Mannadipet, Nettapakkam, Bahour, Ariankuppam and Villianur respectively (Figure 3.2). According to 2001 census report, the Mannadipet, Nettapakkam and Bahour communes are considered as rural communes in Puducherry district. The researcher has selected Mannadipet commune out of 3 rural communes, as the commune has the highest number of elderly people.
Figure 3.2: Map of Puducherry Communes
Figure 3.3: Map of Mannadipet Commune Panchayat

Based upon Survey of India map with the permission of the Surveyor General of India.

3.6 Research Design

Descriptive as well as explanatory research designs are made use for the purpose of this study. While most of the issues related to elderly persons have discuss in the explanatory form, the analysis of data is mostly logical and systematic in nature. It also tries to explain the relationship between socio-economic condition, living arrangements and familial support of the elderly in the study area.

3.7 Sample Frame, Sample Size and Sample Selection

The researcher has selected Mannadipe commune out of 3 rural communes in Puducherry district. In this commune in total 5307 Old Age Pensioners are there (the list of people who are getting Old Age Pension (OAP) was obtained from the OAP office on September 2011). From the list 10 percent of respondents were selected using simple random sampling and were interviewed. So the sample size is 530 for this study.

In this research work, in addition to collection of data through interview schedules, 9 elderly have been considered for case studies and collected information from them through in-depth interviewing method. These elderly were selected purposely by giving some representation to their type of living condition and socio-economic status. It is felt that such information would provide more insight into the circumstances that have lead to the pattern of living conditions as well as type of support extended by family members to them.

3.8 Tools of Data Collection

The Interview Schedule for Elderly Persons was developed for eliciting information from the elderly respondents. The pattern of questions in the interview schedule was both structured and open-ended related to the following aspects (Table 3.1).
Table 3.1: Contents of Interview Schedule

<table>
<thead>
<tr>
<th>Section</th>
<th>Information from Elderly Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section – I</td>
<td>Background Information</td>
</tr>
<tr>
<td>Section – II</td>
<td>Personal Life Style</td>
</tr>
<tr>
<td>Section – III</td>
<td>Living Arrangements</td>
</tr>
<tr>
<td>Section – IV</td>
<td>Familial Relationship</td>
</tr>
<tr>
<td>Section – V</td>
<td>Emotional Support</td>
</tr>
<tr>
<td>Section – VI</td>
<td>Health Condition</td>
</tr>
<tr>
<td>Section – VII</td>
<td>Expectations and Opinions</td>
</tr>
</tbody>
</table>

3.9 Pilot Study and Pre Test

The researcher used pilot study before finalizing the interview schedule. The study has helped the researcher a lot to prepare the interview schedule. To test the prepared interview schedule 7 respondents were interviewed in rural area, different from the selected respondents for the main survey. Questions elucidating ambiguous to respondents were sharpened and the irrelevant questions were deleted and some questions were added for getting data from the respondents. The final interview schedule was translated in Tamil, the language spoken by the majority in the sample areas. The fieldwork was also carried out in Tamil, preferably with local and colloquial words.

3.10 Ethical Issues

In the recent past, the necessity of respecting and protecting the rights and dignity of participants in social science research is increasingly recognised. It has been argued that research should not harm its participants. It should positively contribute to the welfare of the people (NCESSRH, 2000). Keeping this in mind, in the present study, efforts were taken to ensure that ethical norms of social research were not violated even inadvertently. The respondents were not forced to provide information and not to given any false promises to make them agree to be interviewed.
Only oral consent was obtained from the respondents. If any participant wanted to know more about the project, the Researcher provided the required details. Participants were informed at the beginning that they can withdraw at any stage of interview. Almost all the interviews were conducted at a time and place convenient to the interviewees. Almost all the interviews were completed at the first visit. In-depth interviews from the selected elderly persons were conducted according to their convenience. All efforts were made to conduct the interviews in privacy. Participants were assured that information provided would be kept as confidential.

3.11 Period of Data Collection

Data from all the elderly persons have been collected in about 4 months (September – December, 2011) with a few days break for Deepawali and Navarathri festivals. Most of the interviews, with the help of interview schedule, were done over 40–50 minutes and as stated earlier, mostly at one sitting. The in-depth interviews were mostly conducted during the period of main data collection and also some after data collection depending upon the time convenient for the selected elders. Such interviews have taken about 50-60 minutes per person.

3.12 Problems faced while collecting the data

As in any field survey, in this study too, unforeseen problems did arise. These problems, however, would not have affected the quality of data. Some of the major problems are discussed here. Firstly, privacy for interviewing the elderly had become the major problem. As most of the houses were very small, finding a suitable place for sitting privately with the respondents has become a problem. At times spouse / children would not allow the elderly ones stating that “the older person is too old and thereby, he doesn’t remember and/or know anything, ask us, we will provide the information whatever you want”. The researcher tried utmost to convince them about the importance of the study and the need to interview the older persons in confidence. Another problem related to the time to contact the respondents. Though majority of the elderly persons were either working or simply sitting and gossiping with their colleagues at common
places (generally in the tea stalls) or in a veranda of a well-to-do elderly’ house contacting them in privacy has become more difficult. In the case of those elderly persons who are partially audible not able to speak the information was collected from the closest relative (spouse) and/or others who know well about their persons lives. Some of the respondents, before starting the interview, were curious to know about the benefit that they would gain by providing information. The researcher explained the purpose of the research to the respondents and persuaded them to spare some of their time and provide valuable information.

3.13 Analysis of Data

After the researcher collected the data, interview schedules were firstly edited. Then the data coded and converted into electronic format for analysing by use of Statistical Package of Social Science (SPSS) spreadsheets on a computer. The data was cross-checked for transcription errors and inconsistencies. For the analysis, initially, frequency tables were prepared to understand the background characteristics of elderly respondents. The supports received by the elderly have been measured in terms of emotional, economic and physical with the help of suitable variables / indexes. The differentials in various issues related to the living condition and familial support of elderly persons were analysed with the help of cross-tabulations with Chi-square tests of significance. Later the determinants of these living condition and familial support were analysed with the help of suitable multivariate techniques. More details in this regard were provided in the concerned chapters. All the statistical analysis of data has been carried out making use of SPSS software 18 version. In addition to these, the in-depth interviews from the elderly were given as case studies in one of the chapters of the thesis.

3.14 A Brief Description of Data Analytic Methods

3.14.1 Chi-square

The most commonly used test of significance for independence for tables containing nominal variables are chi-square test. If two variables have a non-zero relations, then to
test whether the relations is statistically significant a chi-square test is applied. This test compares the observed and expected (assuming the relation is zero) frequencies in each category. The larger the summed difference between observed and expected values as a ratio of expected values, the larger is the value of chi-square and the greater is the likelihood that the relationship is statistically different from zero.

$$X_2 = \sum \frac{(O-E)^2}{E}$$

Where, $O =$ Observed Values and $E =$ Expected Values.

### 3.14.2 Logistic Regression Technique

To examine the net effect of explanatory variables on the dependent variable, which is dichotomous, it is preferable to use logistic regression, instead of multiple linear regression technique since in such a case the error term would not be normally distributed (Retherford and Choe, 1993). The logic of the probability of occurrence ($p$) is expressed as a function of explanatory variables as

$$\text{Logit} \ (p) = \log \left( \frac{p}{1-p} \right) = \beta_0 + \sum \beta_i X_i$$

Where, $X_i$’s are the explanatory variables and $\beta_i$’s are the coefficients.

Logistic regression coefficients and also the level of significance have been estimated for each of the dependent variable separately.

### 3.14.3 Multinomial Logistic Regression Technique

In order to see the net effects of the explanatory variables on the dependent variable, which has three or more categories, the multinomial logistic regression model (also called the polytomous logit model) is adopted. As a binary logit regression, the predictors in multinomial logit regression may be quantitative, categorical, or a mixture of the two (Retherford and Choe, 1993). In this model, the response variable is mutually exclusive and exhaustive. The model consists of two equations plus a constraint.
\[
\log \frac{P_1}{P_3} = a_1 + \sum b_{1i} X_i; i=1,n
\]

\[
\log \frac{P_2}{P_3} = a_1 + \sum b_{2i} X_i; i=1,n
\]

\[P_1 + P_2 + P_3 = 1\]

Where \(a_1, a_2\) are constants, \(b_{1i}, b_{2i}\) are the coefficients of \(X_i\)’s.

As in the case of logistic regression model, here too, one category of the dependent variable is reference category, in this case \(P_3\). For each category of the dependent variable, we can estimate the coefficient (in comparison to reference category) and the level of significance.

### 3.15 Limitations of the Study

This study has a few limitations. Firstly, the data was self-reported by the respondents, which has its own limitations for a topic of this kind. Of course, if the respondent wants to deliberately hide information about his private life or provide information, this would affect the data. However, when the date is compared with other studies conducted in this part of the country as well as on similar settings, it is seen that the data appear to be fairly reliable and consistent. In the case of a few respondents, who were not able to speak properly or dumb and deaf, information was elicited from the nearest relative who knows well about the elderly. Of course, in some cases, those who are severely ill and bedridden, data was not collected from them. In spite of care taken in sampling and interviewing the respondents, there could be few errors in data, which were validated to a large extent.

### 3.16 Chapterisation of the Thesis

The content of the thesis not only bring out the research findings of the study but also explain the research procedure adopted for the study. The present study “\textit{Living Condition and Familial Support of Rural Elderly in Puducherry}” consists of the following Seven chapters.
Chapter I – *Introduction* – deals with the demographic features of aged population in India and Puducherry, the significance of elderly and their position in the society and importance of familial support for the elderly.

Chapter II – *Review of Literature* – focuses on the selected socio-economic dimensions, living arrangements, social adjustment and decision making role, health status, care and support and perception of elderly about ageing. For this purpose, some of the major national studies carried out during the recent period (2000 onwards to till date) were reviewed in a nutshell form, gaps in the existing knowledge on the topic of research.

In Chapter III (*Methodology*) details about statement of the problem, conceptual framework, objectives, study universe, research design, sample frame, sample size, sample selection, tools of data collection including the instruments used and data analysis including a brief description of statistical methods used to analyse the data are presented.

Chapter IV deals with the *Analysis and Interpretation of the Data* collected. Frequency, cross-tabular analysis and chi-square test of significance. The results were interpreted through percentage analysis. It is also divided by four sections i.e., profile of the sample respondents and their personal life style, living arrangements, familial concerns and emotional support of the elderly, health status, physical support and financial assistance received at the time of visiting health centres for seeking medicare to chronic morbidities of the elderly and general expectations and opinions of the elderly.

Chapter V – *Case Studies of Elderly* – highlights the selected case studies of the elderly (9 in number) for which data has been collected from in-depth interviewing. The primary focus of these case studies are under what circumstances the elderly living conditions have been decided and the persons who are taking care of them on different fronts of life, viz., emotionally, physically and financially.

Chapter VI – *Theoretical Approach* – The three conceptual aspects of disengagement approach are taken in the present study. The inclusive care of family
includes cordial relationship and emotional support. Participation and integration aspects include elderly by attitude of interaction, participation in domestic chores and participation in selected familial activities. Spatial segregation includes abusive behaviour from family and financial situation of the elderly.

The **Chapter VII – Summary and Implications** – of the thesis provides summary of the findings of this research work followed by major conclusions drawn along with a few implications for the well-being the elderly and besides future directions for further research.