CHAPTER – III

RESEARCH METHODOLOGY
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The methodology has been explained in this chapter with respect to the study. This part deals with sampling framework, mode of data collection, tools of data collection and data analysis procedure.

STATEMENT OF THE PROBLEM

The present study aims to understand how myths, beliefs and traditional practices influence the people in their health seeking behavior. The researcher intended to carry out a study in Rural Pondicherry to examine the health care seeking practices of rural population with the following objectives:

OBJECTIVES OF THE STUDY

1. To study the health status of rural respondents on the basis of self rated assessment,
2. To examine the respondents place of health care seeking practices,
3. To analyse the practices of the respondents relating to personal hygiene and domestic sanitation,
4. To find out the health care practices of the respondents in the study area, and
5. To study the knowledge of the respondents on health and medical beliefs in the study area.
HYPOTHESES

1. The occupational and caste status of the rural respondents are independent of their health status.

2. There is no association between occupational status of the respondents and place of health care seeking.

3. There is no association between the occupational status of the respondents and their personal hygienic and domestic sanitation practices.

4. There is no inter village variation with respect to the physical health care practices in the study area.

5. The respondents rating on various medical benefits in various villages of the study are identical.

A PROFILE OF STUDY AREA

Geography: Puducherry is part of the geographic and linguistic-cultural region of the South Indian peninsula. Like the other South Indians, the people of Puducherry are primarily Dravidians. The Union Territory of Puducherry includes four enclaves located in three states of South India. It includes the coastal towns of Puducherry and Karaikal in Tamil Nadu, Yanam in Andhra Pradesh and Mahe in Kerala. Puducherry is 160 kms. South of Chennai. Karaikal is situated 150 kms. further down south from Puducherry. While Puducherry and Karaikal and Yanam are on the East coast bound by the Bay of Bengal, Mahe is on the West coast bound by the Arabian Sea. Puducherry is surrounded by South Arcot District, Karaikal by Thanjavur District, Yanam by East Godavari District and Mahe by Kannur District.
The Puducherry region is intersected by the deltaic channels of River Gingee and Ponnaiyar. It is also interspersed with lakes and tanks. The thick alluvium near Puducherry is indicative of the place having been part of an extensive lagoon. Karaikal is part of the fertile Cauvery delta. Yanam region is skirted on the east and south by the Godavari River. The region is divided into two parts by the separation of the Godavari and Coringa Rivers. The Mahe Region is divided into two parts by the west flowing Mahe River. It is bounded in the south west by the Arabian sea and in the north by the Ponniyar River. While Puducherry and Karaikal regions receive rain mainly from the North East monsoon, Mahe and Yanam regions receive theirs from the South West monsoon.

**History:** Legends associate old Puducherry with the great Hindu sage Agastya. It is believed that Agastya established an Ashram there and the place was known as Agastiswaram. An inscription found near Vedapuriswara temple built and rebuilt many times lends credibility to this legend. There is also mention in the Bahour Plates of the existence of a Sanskrit University in the place during early times. Indeed, the place was considered to be a seat of traditional learning and Vedic culture. Excavations in the region of Arikamedu, south of Puducherry town, indicate that there was a Roman settlement there between 2nd Century B.C. and 2nd century A.D. Ancient Roman scripts make mention of Poduca or Poduke as one of the trade centres along the Indian coast. Historians and geographers have identified it as the present Puducherry. Puducherry was part of the Pallava Kingdom of Kanchipuram from about the 4th Century A.D.
It was in 1673 that the French Period of Puducherry began. François Martin, the first French Governor developed Puducherry into a flourishing port town from a small fishing Village that it was. In 1693, the town transferred hands to the Dutch who fortified it. It was transferred back to the French in 1699 by the traité de Ryswick. François Martin who was appointed Administrator following the traité of Ryswick, brought stability to Puducherry and developed the town further. Dumas, who succeeded him, followed in the footsteps of François Martin. In the Eighteenth Century Puducherry was laid out on a grid pattern and it grew considerably. The French obtained Karaikal from the King of Thanjavur in 1738 and Mahe from the ruler of Badagara in 1721. Yanam came into their possession in 1731.

**Languages, Religion and Culture:** The main languages spoken in the Union Territory of Puducherry are Tamil (in Puducherry and Karaikal), Telugu (in Yanam) and Malayalam (in Mahe), apart from French which continues to be spoken by many. Hinduism, Christianity and Islam co-exist in Puducherry. The Hindus have scores of ancient temples in Puducherry famous among them being Varadaraja temple dedicated to Lord Vishnu, Villianur temple dedicated to Thirukameshwara and Thirunallar temple dictated to Planet Saturn, Sani. Karaikal is the Gateway to various places of worship in the eastern coast of Tamil Nadu

**Puducherry Population 2011:** Puducherry has a total population of 1,247,953 as per 2011 census of which male and female are 612,511 and 635,442 respectively. In 2001, total population was 974,345 in which males were 486,961 while females were 487,384.
**Puducherry Literacy Rate 2011:** Literacy rate in Puducherry has seen upward trend and is 85.85 per cent as per 2011 population census. Of that, male literacy stands at 91.26 per cent while female literacy is at 84.05 per cent. In 2001, literacy rate in Puducherry stood at 81.24 per cent of which male and female were 86.33 per cent and 73.90 per cent literate respectively. In actual numbers, total literates in Puducherry stands at 957,309 of which males were 497,378 and females were 459,931.

**Health Infrastructure:** Puducherry has a health care infrastructure superior to that in existence in the rest of India despite the logistical problems that the Union Territory has in facilitating access to medical services. The people live in habitations spread over 261 Villages, many of them falling in the distant enclaves of Karaikal, Mahe and Yanam, located 130 km., 650 kms and 950 km respectively from Puducherry. It has also been estimated that more than 40% of the patients accessing medical care in Puducherry are from the adjoining States of Tamil Nadu, Kerala and Andhra Pradesh. Access to medical care is available for the people of the Union Territory within an average distance of less than 1.18 km that the Union Territory is significantly better off in provision of health access facilities to its people.

**PROFILE OF VILLAGES SELECTED FOR THE STUDY**

**T.N. Palayam:** The T.N. Palayam Village, selected from Ariyankuppam Commune is located at about 15 km from Puducherry Town. In this Village there are 553 households with total population of 2704 persons. The male population is about 1380 and female are 1324. The T.N. Palayam Village has an average literacy rate of 81.49%. Paddy and groundnut are the two major cultivated crops. In this Village there are two
anganvadis, one Government health sub centre, one public library, one post office, one small scale industry and five temples are located.

**Parikkal Pattu:** The Parikkal pattu is a Village which is in Bahour Commune located at about 21 km from Puducherry Town. The total population of the Parikkal pattu Village is 2101 and its household is about 514. In this area the male population is 1046 and female are 1055. The Parikkal pattu Village literacy rate is 68.11%. Paddy is the main cultivation in this area. The Parikkal pattu Village has one general library, one water tank and fuel station. This Village has one Government health centre, one anganvadi, one government high school, one private school and one private engineering college. In this Village there are six temples.

**Korkadu:** Korkadu is a Panchayat Village in Villianur Commune in the Union Territory of Puducherry. Korkadu is located at 13 km from Pondicherry Town. The total population of the Korkadu Village is 2408. The total households are 562 of this male population are 1188 and females are 1220. The total literacy rate are 79.33% paddy, sugarcane are the major agricultural crop cultivated in this area. This Village has two anganvadis, one government high school, police station, electricity office and four small scale industries and temples. In this next nearest village one Government public Health centre is in Villianur

**Mangalam:** Mangalam is a Panchayat Village in Nettapakkam Commune in the Union Territory of Puducherry. The total population is 2237. The Village has 524 households. The total male populations are 1120 and female are 1117. The literacy rate is 73.98%. In this area Agriculture and industries activities related work has play. Paddy
and sugar cane are the main crop cultivation. In this Village two anganvadis, two private
middle schools, one private higher secondary school and one government health centre
are located and five famous temples are also located in this area. Two major industries
are located in this area. Water tank, Co-operative Bank and Milk Society are situated in
this area.

**Manapet:** Manapet is a Panchayat Village in Bahour Commune in the Union
Territory of Puducherry with a total population 2152 of this the male population are
1068 and female are 1084. There are 518 households. The literacy rate is 69.12%. In this
area only paddy is main cultivated. In this Village one private medical college primary
health centre and one government health sub centre are situated. And one government
middle school, one anganvadi, three small scale industries, and four temples are located.

**Kodaathur:** Kodaathur is a Village in Mannadipet commune in Puducherry
region. It is located at about 23 km from Puducherry. This Village has total population of
2018. The total male populations are 998 and females are 1020. The Kodaathur Village a
literacy rate is 77.86%. In this Village sugar cane paddy and some vegetables are
cultivated. The Kodaathur Village has one anganvadi, one government middle school,
one private engineering college and one medical college located nearest place its around
4 km.
PLATE 3.1

Pondicherry Region Commune-wise Village Map

SOURCE
ECONOMICS & STATISTICS DEPARTMENT PONDICHERRY
OPERATIONAL DEFINITION OF CONCEPTS USED IN THE STUDY

Monthly Income:
The monthly income of the house head-respondents is used as monthly income of the household.

Wage Labour:
Wage labour denotes the person at work for daily wage.

Marginal Farmer:
Marginal farmer represent the person who cultivate on small piece (less than one acre) of land.

Small Farmer:
Small farmer represent the person who cultivate on up to 2.5 acres.

Medium Farmer:
Marginal farmer represent the person who cultivate on 2.5 – 5 acres.

Large Farmer:
Large farmer represent the person who cultivate on 5 & above acres.

Family Size:
Family size denotes the actual number of members in the family.

Small Family
Small family includes upto 4 members.

Medium Family:
Medium family includes 5 – 8 members.
**Large Family**

Large family includes 9 & above members.

**Culture:**

Culture means the total life way of people. It includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.

**Custom:**

Custom means established modes of thought and action. Also if implies a more or less permanent way of acting reinforced by trading and social attitude.

**Religion:**

Religion refers to a set of beliefs, symbols and practices which is based on the idea of the sacred.

**Belief:**

Belief implies ideas about life the way society works and where one fits into the world. It is an idea that is relatively subjective, unreliable and unverifiable.

**Health:**

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or illness.

**Hygiene:**

Hygiene means the state of being clean and practice of keeping away from dirty things.
**Habits:**

Habit refers to an acquired facility to act in a certain manner without resort to deliberation and thought.

**Attitude:**

Attitude means a manner of thinking, feeling and behaving that reflects a state of mind.

**Superstition:**

Superstition refers to an irrational belief that an object, action and circumstance not logically related to a course of events influences.

**Sanitation:**

Sanitation refers to the maintenance of hygienic conditions, through services for good health.

**Malnutrition:**

Malnutrition means when your body doesn’t get all the nutrients and vitamins it needs.

**Health Behaviour:**

Health behaviour refers to an action taken by a person to maintain and attain or regain good health and to prevent illness.

**Illness:**

Illness means impairment of normal physiological function affecting part or all of an organism.
Disease:

Disease refers to the medical condition associated with specific symptoms and signs.

Fate:

Fate is a predetermined course of events.

Karma:

Karma means action, work or deed. It also refers to the principle of causality where intent and actions of an individual influence the future of that individual.

Medical Belief:

Belief relating to medical concept of life.

Myth:

Traditional or legendary to story basis of fact or a natural explanation.

RESEARCH DESIGN

Since the present study focus on various dimensions of health beliefs and practices the researcher aimed to study the role of myths, beliefs and health related issues. Hence, to find out the nexus between myths, beliefs and health behaviour the researcher adopted exploratory research design.

SELECTION OF THE STUDY AREA

There are 92 Villages in the Puducherry region of the Puducherry Union Territory. All the villages were grouped in six clusters (commune) officially by the revenue department and from each cluster one Village has been selected using lottery
method for the study. The clusters comprise 14 to 17 Villages. From these clusters researcher has selected six Villages - one Village from each cluster - namely Korkadu, Mangalam, T.N. Palayam, Parikkal pattu, Kodaathur and Manapet (Plate 3.1) for this study. The researcher eliminated too large villages with a population of over 3000 and too small villages with a population of less than 2000. These villages (Korkadu, Mangalam, T.N. Palayam, Parikkal pattu, Kodaathur and Manapet) are situated within a radius of 4 km from either the Primary Health Centres or Medical College Hospitals or Government General Hospitals.

**SELECTION OF THE RESPONDENTS**

The total households of the selected Villages are 3174. Since it is very difficult for the researcher to study all the households due to time factor, the researcher has decided to select 10 per cent of the households from each village for the present study as sample. Thus, the researcher has selected 317 households from six Villages. Normally the heads of the households are males in this region and hence all the respondent-house heads are males. However, for 17 households data could not be collected despite repeated attempts to meet them. The researcher has collected data from 300 respondents from all the villages. By adopting simple random sampling procedure the households were selected after listing all the households of each Village. Every 50th household was included for this study (i.e. No.1 household and then 51st household and then the 101st households etc…). After identification of all households for this study data collection was done during November 2013 through March 2014.
PRE-TEST

Before going for data collection, the interview schedule was administered with a small set of respondents from the population for the full scale survey. Pre-testing interview schedule helped the researcher to assess whether the questions administered are proper, whether the questions were correctly understood by respondents and in turn they could able to provide the appropriate information. Based on the pre-test questions in the interview schedule were restructured and modified so as to ensure a good focus of the research.

PILOT STUDY

The researcher has conducted a pilot study in the month of November 2013 with 50 respondents from 5 villages, other than the selected villages for primary field data collection. On the basis of the responses received, the questions were again suitably modified/ deleted/ included to have a clear focus of the research problem. Thus the tool of the data collection was finalized and the researcher went for data collection in the month of December 2013.

TOOL FOR DATA COLLECTION

The researcher has collected the relevant household data from the respondents by using a well-structured interview schedule. The researcher visited each household and collected the data personally by establishing a good rapport with them. The respondents extended full co-operation and in the opinion of the researcher their responses are fair and good. Their health status is also measured as high, medium and low level using 20 health factors - feeling of tension, pain on neck, staying asleep, experience of depression,
presence of negative feelings, backache, constipation, cold and flu, stiffness, fatigue, lack of flexibility in spine, incidence of allergies in skin, dizziness, light headedness, negative feelings, incidence of accidents, presence of negative feelings, interest in maintaining healthy lifestyle, emotional well being, nutritional status and body mass index. To obtain the required data for the present study the interview schedule was divided into the following parts:

**Part-I:** Socio-Economic Status of the head of the household-respondents.

**Part-II:** Respondents’ self rated assessment of health status.

**Part-III:** Respondents’ Rate of Health care practices.

**Part-IV:** Respondents’ Rate of Medical Belief

**Part-V:** Respondents’ Rate of Health Belief

**SCALING TECHNIQUES**

The researcher has constructs attitudinal statements that are favorable or unfavorable towards the issue under investigation. The scale design permits based on five responses: 1 to 5. The researcher has accorded scores on the basis of the responses. Based on a priori judgement the preliminary scale construction was done. In order to test reliability and validity item analysis was done. Item analysis is a process involving several steps. First, the researcher pretests all preliminarily selected items on some group of respondents and then sums up all indices into a total score. Second, the researcher orders the respondent’s total scale scores toward the attitudinal object. Third, the researcher then selects only those respondents whose scale scores fall in the top (most
favorable) or bottom (least favorable) 25\textsuperscript{th} percentile. Fourth, the investigator uses indices that fall in the top and bottom quartile to compare the top and bottom quartile of respondents. If an indice is “good,” it will discriminate between the two groups; if not, the investigator originally selected indices only on a priori grounds, this test of indices discrimination is an important means of testing how accurately those priori assumptions were.

Those items that do discriminate will make up the final attitude scale. Final scale scoring is a simple summation of individual indices scores. Low scores on the final scale indicate unfavorable attitudes and high scores indicate favorable attitudes.

**DATA ANALYSIS**

The collected data are checked, edited, coded and classified before entered in to computer for data analysis. Independent variables Age, Caste, Occupation, Education, and Monthly Income are the variables used for analyses of the data relating to health beliefs and behaviour of the respondents.

In this study ANOVA two ways model has been applied to study the variation with respect to socio-economic status of the rural respondents and their health beliefs, medical beliefs and health care practices. The researcher has applied Chi-square to test the hypotheses. To interpret the data descriptive methods like percentage, proportion and averages were also used.
SIGNIFICANCE OF THE STUDY

This study intends to highlight how rural people choose to respond to their health issues. The study results will help in understanding the relation between culture, health, medicine and society. The results of the study will be useful for health care deliverers and health policy makers.

LIMITATIONS OF THE STUDY

The findings of the study are applicable only to rural respondents and they do not represent the urban respondents. This study covers only six selected villages in Puducherry region, due to constraints of money, time, energy and efforts on the part of the researcher. In this study health behaviour and medical beliefs are assessed from the point of social science perspective and it does not focus on medical science perspective.