

## **III - RESEARCH METHODOLOGY**

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## Chapter III

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## RESEARCH METHODOLOGY

In this chapter an attempt has been made to explain the statement of the problem, objective of the study and research methodology.

### **Statement Of The Problem**

The challenge that exists today in many countries is to reach the whole population with adequate medicine to solve the health problems and to ensure their utilization. In this study covered various aspects like socio-economic background of respondents, sickness behaviour, systems of medicine their use, the concept of family doctor and self-medication. all these aspects though centre around the systems of medicine and their use, yet they are all independent by a research study on a sociological study on systems of medicine and its use in urban setting in Madurai district could help the policy makers to evolve a suitable policy so that the basic essential health care medicine required by urban population are made available. Therefore, the scholar thought it appropriate to take up a research study on a sociological study on systems of medicine and its use in urban setting in madurai district.

### **Objective of the study**

The important objectives of the study are

- 1.To study the socio- economic background of the respondents
2. To find out the sickness behaviour of the respondents
3. To assess the awareness of utilization of various systems of medicine and its use among the respondents

4. To assess the status of self medication practice among the respondents.
5. To find out the doctor- patient relationship in use of medical system.

The main focus of the study is to analyze the various systems of medicine available and its use among the people in Madurai District. Therefore, the major thrust is to analyze the systems of medicine and its use in Madurai District.

### **Scope of the Study**

The main focus of the study is to analyze the systems of medicine and its use in urban setting madurai district. Therefore, the major thrust is to analyze the systems of medicine and its use, sickness behavior, doctor-patient relationship, practice of self medication in urban setting madurai district.

### **Research design**

The primary purpose of the study is not the testing of any hypothesis. Being an exploratory-cum-descriptive study, its basic thrust is to gain familiarity and insight into the systems of medicine in Madurai District.

### **Sampling design**

This research work analyses the systems of medicine in Madurai District. In Madurai Corporation totally 100 wards. Therefore, the present study restrictions to the analysis of the systems of medicine in one ward among 100 wards in Madurai city Corporation. Social survey method has been made use of in this study. This study is mainly based on the data collection from a sample of respondents in Madurai District. The data for this study have been collected both from secondary and primary sources. The secondary sources of data have been collected from Books, Journals and Reports. The primary sources of data have been collected from the sample respondents from selected ward through interview schedule and discussions held with the officials of the Health Care Centers and hospitals with a view to analyze the systems of medicine in Madurai District.

The scholar has selected 300 respondents randomly using lottery method for the analysis of the study. Since the present research work is to analyze the systems of medicine in Madurai District the respondents have been selected from the one ward of the corporation of Madurai District.

### **Tools and techniques**

Personal interview with the help of the structured interview schedule was the main method used for the collection of primary data from the respondents. This approach in data collection helped the researcher in many ways. Initially, most of the respondents were skeptic about this study. But person-to-person approach provided sufficient time for clarifying their doubts and explaining the purpose of the study. The researcher got an opportunity to spend more time with the respondents during data collection. It was a very helpful coverage where the respondents got an sufficient chance to observe and discuss the various issues relating the systems of medicine and its use in Madurai District.

Having prepared the interview schedule, pre testing was done in order to ensure against difficulties of comprehension and ambiguities of questions. Responses had been coded and a preliminary analysis had been done to observe whether the interview schedule would yield the required data. The necessary changes were done in the interview schedule accordingly. The data were processed manually and were reported mostly in the form of percentage.

### **Area of the study**

India is one of the major countries of Asia as per 1 the 1971 census reports, the total area of India in square Kilometers is 3,287,782.0. The total population of this area is 548,159,652 of this 284,049,276 are males and 264,110,376 are females. The rural population of India is more than the urban population, the rural being 439,045,675 and the urban being 109,113,977. The total rural male population is 225,319,943, female population is 213,725,732. The total urban male population is 58,729,333 and female urban population is 50,384,644. The density of population of India is 177 per 2q. kilometer. The density of the rural population is 148 per Sq. kilometer and 2,505 is the density of the urban population per S. kilometer. The total number of villages in India are

53,428 and the total number of towns in India are 3,726. The total number of occupied residential households are 90,779,509. Of these 72,731,461 are rural and 18,048,048 are urban

## **Tamil Nadu**

Tamil Nadu is one of the most important states in the country and is the 11th largest in terms of area. The state is the seventh most populous state in the country and its main language Tamil has origins that date back to 500 BC. Chennai is the capital of Tamil Nadu and lies on the eastern coast line of India. Tamil Nadu is famous for its wonderful temples and monuments that have been built 1000s of years ago and has places that have been marked as heritage sites by the United Nations. In a 180 degree paradigm shift, this state with a rich historical importance is also one of the fastest developing centre for technology and trade. The Population of Tamil Nadu according to the 2011 census stands at about 72 million which is not as huge as compared to some of the other big states in the country. The state has a growth rate of about 15 percent which will continue to rise due to the rise in infrastructure and development index of the state as a whole. Thus the population of the state is rising considerably given the progress in the state. The literacy rate in the state is about 80% which is a very positive stat much above the national average but something the state has worked hard on. The statistics in the Tamil Nadu Census 2011 reveal facts that can be taken into consideration by the government in a bid to further its development. The sex ratio in the state stands at 995 which is a big positive as the number exceeds the national average. The capital city which is also the largest city in the state of Tamil Nadu is Chennai. The languages spoken in the Tamil Nadu state includes Tamil. In total Tamil Nadu (TN) state comprises 32 districts.

## **Madurai**

This research work analyses a sociological study on systems of medicine and its use in urban setting in Madurai district. In Madurai district totally there are 100 wards for the purpose of analyses the scholar has selected one ward bethaniapuram. Therefore, the present study restrictions to the analysis of the sickness behaviour, systems of medicine, doctors-patients relationship , practice of self medication of Madurai district. As per

provisional reports of Census India, population of Madurai in 2011 is 1,016,885; of which male and female are 509,313 and 507,572 respectively. Although Madurai city has population of 1,016,885; its urban population is 1,462,420 of which 732,861 are males and 729,559 are females.

### Private Hospitals in Madurai City

Sl.No.	Hospital Name
1	Saraswathi Laser Eye Hospital & Research Centre
2	Apollo Hospitals
3	Meenakshi Mission Hospital
4	Jeyalakshmi Heart Care Centre
5	Christian Mission Hospital
6	Andrews Hospital
7	Bhavathi Hospitals
8	Dheep Clinic
9	Alexis Dispensary
10	Anu Clinic
11	Aravind Eye Hospital
12	Aryavaidhya Nilayam
13	Bose Clinical Laboratory
14	Dhanvanthri Nilayam

<b>Sl.No.</b>	<b>Hospital Name</b>
15	Eagle Sidha Ayur Hospital
16	S J V Clinic
17	Grace Kennett Foundation Hospital
18	Jawahar Hospital
19	Jay Pee Poly Clinic
20	Keepfit Hospital
21	Kumaran Hospital
22	Lakshmi Nursing Home
23	Leonard Dispensary & Maternity Home
24	Madurai Nadar Uravinmurai Hospital
25	Madurai S.V.K Nadar Uravinmurai Hospital
26	Quality Care Hospital
27	Ramakrishna Medical Trust
28	Sivakasi Nadars Uravinmurai Hospital
29	St. Mary Paediatric Hospital
30	Sumathi Hospitals & Institute of Super of Specialties
31	Vadamalayan Hospital
32	Vijaya Hospital

<b>Sl.No.</b>	<b>Hospital Name</b>
33	Anbu Nursing Home
34	Bose Clinic
35	J.J.Hospital
36	A.R. Hospital
37	Rasi Surgical Clinic
38	Orient Hospital
39	Balarethinaam Hospital
40	Madurai City Hospital
41	Shenbagam Nursing Home
42	Vikram Hospital
43	J.K. Institute of Neurology
44	Karthick Hospital
45	Madurai Kidney Centre & Transplantation Research Institute
46	Om Ram Hospital
47	Padma Ayurveda Vaidyasalai
48	Rajan Hospital
49	S.S.Hospital
50	Shree Krishna Childern's Hospital



<b>Sl.No.</b>	<b>Hospital Name</b>
51	Sri Kamathi Subam Hospital
52	Sumathi Hospital
53	St.Anna's Hospital
54	Vadamalayan Hospital
55	V.V.Hospital
56	Anitha Nursing Home
57	Osho Clinic
58	Southern Stone Clinic
59	Pandian Hospital
60	Rathina Mental Hospital
61	Sugam Siddha Research Centre

The details relating to the private hospitals in Madurai City provided in the above table indicate that there are 61 private hospitals in Madurai City alone. The details relating to private hospitals in small and medium towns are not available. But there are number of private hospitals in small and medium towns. Since the facilities available in Government Hospitals and Primary Health Centres are not adequate the patients instead of going to Government Hospitals and Primary Health Centres, they prefer to take treatment in the private hospitals. The Government should take adequate steps to provide sufficient infrastructure facilities in the Government Hospitals and Primary Health Centres and see to it that Medical and Para Medical personnel are easily available on all 24 hours so that people could get necessary Medical care facilities from the health services organizations.

### Government Hospitals and Facilities Available in Madurai District

Sl. No	Classification	Facilities Provided					
		Lab	Scan	Operation Theatre	Blood Bank	Ambulance Van	Siddha Wing
1.	Medical College Hospital Government Rajaji Hospital, Madurai	22 Labs (24 Hrs) Functioning	1.Ultra Sound Scan – 3 Units 2. C.T. Scan 3. MRI Scan, Available	22 Operation Theatres Available	24 Hours Functioning 18,409 Units Supplied	4-Available	Available
2.	Government Homeopathy Hospital, Thirumangalam	Available	Not Available	Not Available	Not Available	Not Available	Not Available
3.	District Head Quarter Hospital, Usilampatti	Available	Available	Available (2)	Available	Available	Available
4.	Melur	Available	Available	Available (2)	Not Available	Available	Available
5.	Vadipatti	Available	Available	Available (1)	Not Available	Available	Available
6.	Thirumangalam	Available	Available	Available (2)	Available	Available	Available
7.	Peraiyur	Available	Not Available	Not Available	Not Available	Not Available	Not Available
8.	Sholavandan Non-Taluk (Hospital)	Available	Available	Not Available	Not Available	Available	Not Available
9.	Mandimangalam Dispensary	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
10.	E.S.I. Hospital, Thathaneri	Available	Available	Available	Available	Not Available	Not Available

The details relating to the list of Government Hospitals and facilities available in Madurai District provided in the above table reveal that in Government Rajaji Hospital there are 22 Laboratories, three Ultra Scan Centres, one CT Scan and one MRI Scan, 22 Operation Theatres, one Blood Bank functioning at all 24 hours, four Ambulance Vans and one Siddha Wing; in Government Homeopathy Hospital Thirumangalam there is one Laboratory; in District Head Quarter Hospital, Usilampatti there are one Laboratory, one Scan Center, two Operation Theatres, one Blood Bank, one Ambulance Van and Siddha Wing; in Melur Taluk Government Hospital there are one Laboratory, one Scan Centre, two Operation Theatres, one Ambulance Van and Siddha Wing; in Vadipatti Taluk Government Hospital there are one Laboratory, one Scan Centre, one Operation Theatre, one Ambulance Van and Siddha Wing; in Thirumangalam Taluk Government Hospital there are one Laboratory, one Scan Centre, two Operation Theatres, one Blood Bank, one Ambulance Van and Siddha Wing; in Peraiyur Taluk Government Hospital there are one Laboratory; in Sholavandan Non-Taluk Government Hospital there are one Laboratory, one Scan Centre and one Ambulance Van; and in E.S.I. Hospital, Thathaneri there are one Laboratory, one Scan Centre, one Operation Theatre and Blood Bank.

**Distribution of Medical and Paramedical Personnel in Government Hospitals  
and Dispensaries**

Sl.No.	Name of the Hospitals and Dispensaries	Doctors			Nurses			Paramedical			
		Allopathy	Siddha	Homeopathy	Staff Nurses	C.H.N.	SHN/HV	VHN/ANM	Pharmacist	Lab Technicians	Health Inspectors
1.	Government Rajaji Hospital	63	1	-	363	-	-	-	56	68	2
2.	District Head Quarter Hospital, Usilampatti	17	1	-	23	-	2	3	7	7	-
3.	Melur Taluk Hospital	14	1	-	17	-	1	4	4	3	-
4.	Vadipatti Taluk Hospital	3	-	-	3	-	-	1	2	2	-
5.	Thirumangalam Taluk Hospital	13	1	-	24	-	1	3	5	4	-
6.	Peraiyur Taluk Hospital	3	-	-	2	-	-	-	1	-	-
7.	Sholavandan Non-Taluk Hospital	2	-	-	2	-	-	2	2	1	-
8.	ESI Hospital	17	-	-	40	-	-	4	4	7	-
9.	ESI Dispensary	33	-	-	19	-	-	14	33	2	-
10.	Manadimangalam Dispensary	1	-	-	-	-	-	1	1	-	-
11.	Homeopathy Hospital, Thirumangalam	-	-	2	4	-	-	-	2	2	-

The details relating to distribution of Medical and Paramedical Personnel in Government Hospitals and Dispensaries in Madurai District provided in the above table indicate that in Government Rajaji Hospital there are 63 Allopathy Medicine Doctors, one Siddha Medicine Doctor, 363 Staff Nurses, 56 Pharmacists, 68 Lab Technicians and 2 Health Inspectors. In District Head Quarter Hospital, Usilampatti there are 17

Allopathy Medicine Doctors, one Siddha Medicine Doctor, 23 Staff Nurses, 2 SHN/HV Nurses, 3 VHN/ANM Nurses, 7 Pharmacists and 7 Lab Technicians. In Melur Taluk Hospital there are 14 Allopathy Medicine Doctors, one Siddha Medicine Doctor, 17 Staff Nurses, one SHN/HV Nurse, 4 VHN/ANM Nurses, 4 Pharmacists and 3 Lab Technicians. In Vadipatti Taluk Hospital there are 3 Allopathy Medicine Doctors, 3 Staff Nurses, one VHN/ANM Nurse, 2 Pharmacists and 3 Lab Technicians. In Thirumangalam Taluk Hospital there are 13 Allopathy Medicine Doctors, one Siddha Medicine Doctor, 24 Staff Nurses, one SHN/HV Nurse, 3 VHN/ANM Nurses, 5 Pharmacists and 4 Lab Technicians. In Peraiyur Taluk Hospital there are 3 Allopathy Medicine Doctors, 2 Staff Nurses and one Pharmacist. In Sholavandan Non-Taluk Hospital there are 2 Allopathy Medicine Doctors, 2 Staff Nurses, 2 VHN/ANM Nurses, 2 Pharmacists and one Lab Technician. In ESI Hospital there are 17 Allopathy Medicine Doctors, 40 Staff Nurses, 4 VHN/ANM Nurses, 4 Pharmacists and 7 Lab Technicians. In ESI Dispensary there are 33 Allopathy Medicine Doctors, 19 Staff Nurses, 14 VHN/ANM Nurses, 33 Pharmacists and 2 Lab Technicians. In Manadimangalam Dispensary there are one Allopathy Medicine Doctor, one VHN/ANM Nurse and one Pharmacist. In Homeopathy Hospital there are 2 Homeopathy Medicine Doctors, 4 Staff Nurses, 2 Pharmacists and 2 Lab Technicians.

### **Madurai Literacy Rate 2012**

In education section, total literates in Madurai city are 845,990 of which 440,419 are males while 405,571 are females. Average literacy rate of Madurai city is 91.42 percent of which male and female literacy was 95.22 and 87.62 percent.

### **Madurai Sex Ratio 2012**

The sex ratio of Madurai city is 997 per 1000 males. Child sex ratio of girls is 956 per 1000 boys. There are 100 wards in Madurai Municipal Corporation. Areas covered under Madurai Corporation

1. Santhi Nagar
2. Koodal Nagar
3. Anaiyur
4. Sambandhar Alankulam
5. B.B.Kulam
6. Meenambalpuram
7. Kailaasapuram
8. Vilangudi
9. Thathaneri
10. Aarappalayam
11. Ponnaharam
12. Krishnaapalayam
13. Azhagaradi
14. Viswasapuri
15. Melapponaharam
16. Railway Colony
17. Ellis Nagar
18. S.S.Colony
19. Ponmeni
51. Ismailpuram
52. Sourashtra Hr. Sec. School
53. Pangajam Colony
54. Mariamman Theppakulam
55. Iraavadhanallur
56. Sinna Anuppanadi
57. Anuppanadi
58. Chinthamani
59. Meenakshi Nagar
60. Avaniyaapuram
61. Villapuram Pudhu Nagar
62. Kathirvel Nagar
63. Villaapuram
64. Keeraithurai
65. Sappani Kovil
66. South Krishnan Kovil
67. Manjanakara Street
68. Dhrowpathi Amman Kovil
69. St.Marys

20. Arasaradi Othakkadai

**21. Bethaniyapuram**

22. Kochadai

23. Visalakshi Nagar

24. Thiruppaalai

25. Kannanendhal

26. Parasuraamanpatti

27. Karpaga Nagar

28. Uthangudi

29. Masthaanpatti

30. Melamadai

31. Tahsildhar Nagar

32. Vandiyur

33. Saathamangalam

34. Arignar Anna Nagar

35. Madhichiyam

36. Aazhwarapuram

37. Sellur

38. Pandhalkudi

70. Kaamarajapuram

71. Balaranganathapuram

72. Navarathinapuram

73. Lakshmipuram

74. Thirumalai Naicker Mahal

75. Maadakkulam

76. Pazhangaanatham

77. Sundarajapuram

78. Madurai Baskaradass Nagar

79. Perumal Theppakulam

80. Krishnarayar Theppakulam

81. Tamilsangam

82. Sokkanadhar Kovil

83. North Krishnan Kovil

84. Meenakshi Kovil

85. Jadamuni Kovil

86. Kaajimar Street

87. Subramaniapuram

88. Solai Azhagapuram

- |                    |                           |
|--------------------|---------------------------|
| 39. Goripalayam    | 89. Jaihindpuram          |
| 40. Ahimsapuram    | 90. Veerakali Amman Kovil |
| 41. Narimedu       | 91. Thennaharam           |
| 42. Chokkikulam    | 92. Kovalan Nagar         |
| 43. Tallakulam     | 93. T.V.S.Nagar           |
| 44. K.K.Nagar      | 94. Paamban Swami Nagar   |
| 45. Pudur          | 95. Mannar College        |
| 46. Lourdhu Nagar  | 96. Thirupparamkundram    |
| 47. Reserve Line   | 97. Haarvipatti           |
| 48. Aathikulam     | 98. Thirunahar            |
| 49. Naahanakulam   | 99. Balaji Nagar          |
| 50. Swami Sannidhi | 100. Muthuramalingapuram  |

For the purpose of the present study Ward No.21 was selected. This comprises of several localities. The Madurai Corporation has taken up beautification works in Ward 21 (Bethaniapuram) under the Azhagiya Madurai Maanagara Thittam. Bethaniapuram was a big ward there were 35743 people living in that area. The total population of this Ward 21 Bethaniapuram is, of this 18,252 are male and 17491 are female. The number of occupied households in this Ward are 10,908 have used random tables in selecting the sample for this study. The researcher enlisted all the 10,908 houses of this Ward. The door numbers of all the houses were noted down in the list. This list the researcher was able to get from the household list primary health centre in Madurai in the year 2014. From this list of houses the researcher selected 300 houses by applying the simple



random sampling to the researcher interview schedule list. As the researcher finalised the 300 households respondents to enable to carry out the research work in field work data.

### **Data Processing**

All the 300 schedules were edited. In some cases the researcher were forced to go back to the respondents for filling in the missing answers. The schedules were all code. In this way the researcher covered various aspects like socio-economic background of respondents, sickness behaviour, systems of medicine their use and comprehension, the concept of family doctor and self-medication. All these aspects though centre around the systems of medicine and their use, yet they are all independent by themselves.

This study has been confined to the percentage processing in different cells of the tables used. The data was hand tabulated and analyzed. On the basis of analysis of the data we have arrived at the conclusion and also tried to put forth certain suggestions. The researcher also specified other aspects over which research is needed. In this study empirical and analytical methods have been made use of to analyze the data. Percentage analysis has been made use of by the scholar in the analysis of the data. The researcher has also made use of some simple statistical tools to explain the analysis of the data.

After processing and analyzing the raw data the report writing work was undertaken. Sufficient care was taken to present the report as per the requirement of the study designed.

### **Data Analysis**

In this study empirical and analytical methods have been made use of to analyze the data. Percentage analysis has been made use of by the scholar in the analysis of the data. The researcher has also made use of some simple statistical tools to explain the analysis of the data. On the basis of analysis of the data the researcher arrived at the conclusion.

### **Presentation of the Report**

After processing and analyzing the raw data the report writing work was undertaken. Sufficient care was taken to present the report as per the requirement of the study