CHAPTER IV

RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

The literature review in the previous chapter identified various service quality models and different aspects of service quality. From the review SERVQUAL model has chosen by the researcher. This chapter draws heavily on SERVQUAL model to explain the problem under investigation.

The theoretical and conceptual foundation for this study was designed from a user-centered and relevant to the Siddha medical college user’s perspectives. This involves methods for collecting qualitative data such as questionnaires with closed ended questions. The complimentary option caters to the user’s needs and their expectations versus perceptions towards an appropriate data analysis and interpretation. This chapter discusses these methods, Pilot study and pretesting, sampling procedures and data analysis methods.

4.2 OBJECTIVES OF THE STUDY

The present study is mainly aimed at identifying the predominant characteristics of Siddha medical library users and their expectations. Towards this end the following objectives were selected.

1. To assess the overall service quality of Siddha medical system from the user perspectives.
2. To assess the service quality of Siddha medical library system from the perspective of different user group (Students, Medical academics, Medical professional).
3. To identify the dimensions that determines the user’s evaluation of the quality in Siddha medical library system.

4. To identify the problems encountered by the user’ in Siddha medical library service.

5. To investigate the essential attributes that librarians and administrators should concentrate for better service quality.

4.3 HYPOTHESES

The researcher has identified the following hypotheses for testing

1. There is no significant relationship between gender of students and the frequency of library visit.

2. There is no significant relationship between gender of students and the frequency of time spent.

3. There is no significant relationship between gender of students and expectation towards various quality dimensions of library services.

4. There is no significant relationship between gender of students and perception towards various quality dimensions of library services.

5. There is no significant relationship between gender of medical academics and the frequency of library visit.

6. There is no significant relationship between gender of medical academics and the frequency of time spent.

7. There is no significant relationship between gender of medical academics and expectation towards various quality dimensions of library services.

8. There is no significant relationship between gender of medical academics and perception towards various quality dimensions of library services.
9. There is no significant relationship between gender of medical professional and the frequency of library visit.

10. There is no significant relationship between gender of medical professional and the frequency of time spent.

11. There is no significant relationship between gender of medical professional and expectation towards various quality dimensions of library services.

12. There is no significant relationship between gender of medical professional and perception towards various quality dimensions of library services.

4.4 METHODOLOGY

This investigation entitled “A Study on Assessment of Service Quality with special reference to Government Siddha Medical College Library in Tirunelveli District” is a survey study built upon the techniques of data collection through questionnaire method and statistical tools are used for analysis. The user population comprises students, medical academics, medical professionals which are included in the present study is Government Siddha Medical College Library in Tirunelveli District”

In this study data from published sources and the raw data collected from the respondents through questionnaire have been assessed and analyzed with the application of SPSS software.

4.5 DATA COLLECTION

Designed questionnaire is used for collecting data and information about the expectation and perception of individual respondents. Interview method is used wherever required by interpersonal discussion with library staff and users. Pre-tested the
questionnaire and modified the questionnaire then pilot study carried out before the actual survey. The data has been collected during November 2013 to April 2014.

4.5.1 QUESTIONNAIRE INSTRUMENT

To ascertain the service quality a modified SERVQUAL questionnaire instrument is constructed for the purpose. The questionnaire is divided into two parts. Part I covered 2 number of personal questions, Part II covered 4 questions on library usage and Part III contain 24 attributes in two columns of expectation and perception in five dimensions of service quality.

Table 4.1 Definition of SERVQUAL Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Definition</th>
<th>Total Number of Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>The ability to perform the promised service dependably and accurately.</td>
<td>4 (16.66)</td>
</tr>
<tr>
<td>Assurance</td>
<td>The Knowledge and courtesy of employees and their ability to convey trust and confidence</td>
<td>4 (16.66)</td>
</tr>
<tr>
<td>Tangibles</td>
<td>The appearance of physical facilities, equipment, personnel and communication materials.</td>
<td>8 (33.33)</td>
</tr>
<tr>
<td>Empathy</td>
<td>The provision of caring, individualized attention to users</td>
<td>4 (16.66)</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>The willingness to help users and to provide prompt service</td>
<td>4 (16.66)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>24 (100)</td>
</tr>
</tbody>
</table>

Table 4.1 shows the dimensions of service quality designed for the study.
The respondents have to rate their priority on five point scales from low rank one to high five under expectation and perception of each questions instead of original seven point scale of SERVQUAL model. The visitors of library were randomly given the questionnaire during the survey period. The study sample was selected under three major user groups as

- Students,
- Medical Academics and
- Medical Professionals.

A total of 390 printed questionnaires were distributed to the library users of the Government Siddha Medical college library during the survey period November 2013 to April 2014. Two hundred sixty two usable questionnaires were received indicating 67.17% of overall response rate.

4.5.2 INTERVIEW TECHNIQUES

As the supplementary to questionnaire method, interview techniques were used. The sources of data for the research study are secondary and tertiary sources used to collecting information from books, journal articles, e-journals, and websites, etc.

4.6 APPLICATION OF STATISTICAL TOOLS

The questionnaires were checked for accuracy and completeness. The questionnaires were analyzed and processed on the computer using the statistical package for social science (SPSS) in order to test the objectives and the formulated hypotheses, the researcher used some standard tools such as independent t- test, factorial analysis, Chi-square and Mann – Whitney U test.
4.7 LIMITATIONS OF THE STUDY

The study covers a period of one academic year. The present study is confined to the survey of library and library service quality expectations and perceptions of student, medical academics of Govt. Siddha Medical college library, Tirunelveli district, and Siddha medical professionals of outside of the campus, those who are the alumni of this prestigious institution. Other library users of administrative staff were not selected for the response. This does not cover CCRI units of Palayamkottai.

The subject in this study sample includes 191 Undergraduates and Postgraduates and 28 medical academics of Govt. Siddha Medical College, Palayamkottai and 43 medical professionals from outside of the campus were selected randomly during their library visits.
CHAPTER 5
PROFILE OF THE STUDY AREA

5.1 Introduction

In this chapter an attempt is being made to explain the profile of the study area. The profile will elucidate the general, social and academic situation. This may be useful to investigate the opportunities available to the people of the district in healthcare facilities in general.

5.2 Profile of India

India with a meager 2.4% of the world surface area and a whopping 16.7% of the world population is the fourth largest economics of the world in terms of purchasing power parity after USA, China and Japan. There are wide variations across its states and union territories in regard to physical, geographical, cultural as well as manpower and other socio-economic conditions. India has one of the oldest civilizations with multifaceted rich cultural heritage.

It covers an area of 32,87,363 sq. km extending from the snow covered Himalayan heights to the tropical rain forest of the south as the seventh largest country in the world. The geographical entity of India is bounded by the Himalaya in the north, it stretches southwards and at the tropic cancer tapers off in to the Indian ocean, between the Bay of Bengal on the east and Arabian sea on the west, lying entirely in the Northern hemisphere. The mainland extends between 8*4 and 37*6 North, Longitudes 68*7 and 97*25 East and measures about 3214 km from north to South between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has land frontiers of
about 15, 200 km. The total length of coastline of the mainland Lakshadweep Island and Andaman and Nicobar Islands is 7,156,6km.

According to 2011 census the total population is 1,21,01,93,422 with male population 62, 37, 24,248 and female population 58, 64, 69,174. The sex ratio shows 940 females per 1000 males. The total literacy rate is 74.04 percent. There are 35 states and six union territories.

India’s higher education system has been ranked as the third largest in the world after China and the United States of America. It is estimated that only one in every ten students in the 18-24 years age group is able to get admission in an institute of higher education.

As of 2011 India has 42 central universities, 275 state universities, 130 deemed universities 90 private universities 5 institutions under state act along with national importance.

High growth rate of higher education in the last two decades have been driven by the private sector initiatives. Nearly 75% of growth has been in the private sector.

5.2.1 Profile of Tamil Nadu

Tamil Nadu is one of the states of India. It comprises four percent of India’s geographical area and covers an area of 1, 30,058 sq. km. Tamil Nadu is situated on the south eastern side of the Indian Peninsula. Tamil Nadu is bounded on the east by the Bay of Bengal, in the south by the Indian Ocean in the west by the states of Kerala and Karnataka and Andhra Pradesh. It is the eleventh largest state in India and occupies four per cent of the country.

Tamil Nadu has very ancient history that goes back to some 6000 years. It was reported under three dynasties of Chera, Chola and Pandya from the fourth century BC.
Madras state was renamed as Tamil Nadu during 1969. The capital city Madras was renamed as Chennai in 1996.

Tamil Nadu covers a land area of 15,30,058 sq.kms. It has a total population of 7,21,38,958 of which 3,61,58,871 are males and 3,59,80,087 are females. The sex ratio of Tamil Nadu shows 995 females per 1000 males.

The literacy rate is 80.34 per cent of them males are 86.81 per cent and females are 73.86 per cent. The Tamil Nadu has 30 districts and the principal language is Tamil.

5.2.1.1 Profile of Tirunelveli District

Tirunelveli, the penultimate southern-most district Tamil Nadu. Tirunelveli has diverse geographical, and Physical features such as lofty mountains and low Plains, rivers and cascades, seacoast and thick inland forest sandy soils and fertile alluvium, variety of flora and fauna of protected wildlife. The district is one of the important landmarks of Tamilnadu and known for its multifaceted dimensions of its rich cultural heritage, patriotism and educational advancement. Thamiraparani a perennial river is running from Pothigaimalai (Mountain) of the Western Ghats. Richness in harvesting and cultivating, various agricultural crops and herbal gardens due to this sacred river. The literacy rate of the district is 82.92% and male literacy rate is 89.66% and female literacy rate is 76.38%

Thenpandiyanadu of the early Pandyas, MudikondaCholamandalam of the Imperial Cholas, Tirunelveli Seemai of the Nayaks, Tinnevelly district of East India Company and the British administration. Tirunelveli District was bifurcated on 20th October1986 as Nellai Kattabomman and Chidambaranar (Thoothukudi) District. Now, it is called as Tirunelveli and Thothukudy with a headquarters of Tirunelveli and Thothukudy respectively.
5.2.1.1 Origin of the District

On acquisition from the Arcot Nawaab in 1801, the British named it as Tinnevelly, though their headquarters was first located in Palayamkottai the adjacent town, where they had military headquarters during operations against Palyakars. Both Palayamkottai and Tirunelveli grew as the twin cities of the district.

The population of this district 3,072,880 and the density of population per sq. km 458. Tirunelveli, Palyamkottai, Radhapuram, Nanguneri and Tenkasi and Ambasamuthiram are the six Taluks of Tirunelveli district. There are 19 panchayat unions in this district. The numbers of villages in the district are 8628 and 425 village panchayats, 36 town panchayats seven municipalities and one corporation.

5.3 Educational Institutions

Palayamkottai is called otherwise the oxford of South India because majority of the educational institutions are engulfed in and around Palayamkottai area. The first arts and science college in Tirunelveli is MDT Hindu College which was established in 1878 and the first women college came up in Palayamkottai in the year 1895. Thereafter various arts and science, medical, engineering and legal education were started. In 1964 Government Siddha medical college was established at the centre of Palayamkottai. In 1965 Government medical college was started for modern medicine. In 1981 and 1996 Government engineering college and government Law College was established respectively.

Table 5.1 depicts the number of educational institutions in Tirunelveli district.
Table 5.1 Educational Institutions-Tirunelveli

<table>
<thead>
<tr>
<th>Institution</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>1</td>
</tr>
<tr>
<td>Arts/Science colleges</td>
<td>25</td>
</tr>
<tr>
<td>Medical college (modern medicine)</td>
<td>1</td>
</tr>
<tr>
<td>Siddha medical college</td>
<td>1</td>
</tr>
<tr>
<td>Engineering college</td>
<td>20</td>
</tr>
<tr>
<td>Law college</td>
<td>1</td>
</tr>
<tr>
<td>Teacher Training Colleges</td>
<td>28</td>
</tr>
<tr>
<td>Agriculture college</td>
<td>1</td>
</tr>
<tr>
<td>Veterinary College</td>
<td>1</td>
</tr>
</tbody>
</table>

**Source:** Tirunelveli District Administration

Table 5.1 depicts Literacy Rate of Tirunelveli.

**TABLE: 5.2 Literacy Rate of Tirunelveli**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>89.66%</td>
</tr>
<tr>
<td>Female</td>
<td>76.38%</td>
</tr>
</tbody>
</table>

**Source:** Tirunelveli District Administration

5.4 Health System in Tirunelveli

The basic objective of health system is to provide accessible, affordable and acceptable health care in the district areas. Health infrastructure of Tirunelveli District consists of one Allopathic Medical College Hospital, and one Siddha Medical college Hospital, one District Head quarters Hospital, 6 Taluk hospitals, 7 Non Taluk Hospitals,
Primary Health Centres (PHC) and 383 Health Sub Centres (HSC). The total population of medical professionals in government service in these centres are 160 MBBS doctors, 36 Siddha doctors, 1 Unani, 2 Homoeopathy, and 2 Ayurvedic doctors.

5.5 Profile of Govt. Siddha Medical College

The Siddha Medical College was started at Palayamkottai on 30\textsuperscript{TH} November 1964 and it is situated in the heart of Palayamkottai city in Palayamkottai Taluk. It was established with the aim of promoting health through Siddha system of medicine as the system is popular among the people. Since its inception in 1964 the library was established to support teaching and research and clinical practices. The library is located amidst of the college buildings. Library is functioning in a separate building constructed for library purpose only. The two tier building comprises stack room and librarian chamber and cubicles for individual study and newspaper section in the ground floor and first floor for researchers to read back issues.

5.5.1 Library collections

The library houses of over 8000 books covering core subjects of Siddha medicine, Tamil Nigandu (Dictionaries), and modern medicine related books. Resources are arranged according to the Colon Classification system (CC) 6\textsuperscript{th} edition. Older editions in Tamil medicine books are much demand among the user and it needs much guidance from the library staff for annotation.

5.5.2 Special collections

Siddha medicine palm manuscripts and back issues of Tamil magazines are the important special collections. At present palm manuscripts were not available and they are transferred to the CCRI units by the govt. of Tamil Nadu. However digitized manuscripts
of as such printed copies and annotation made by other institutions are available as printed books. Out of print collections are in much demand and available only in this college is its credit.

5.5.3 **E-Resources:**

Due to the information and communication technology and web technology presence all the field of education like engineering, modern medicine and science have developed more e-resources and different consortia for sharing resources by economic way. But Siddha medicinal system has meagre resources in the internet. Volunteers and friends of Siddha medicine, and other interested people upload Siddha medicine information in the internet. Exploring information from the web is a tedious task for the user. The institution has no website for its own for access user information.

5.5.4 **Library staff**

At present one professional Librarian with thirteen years of professional experience of service is available in Siddha Medical Library. Two non-professional assistants each one for stack library and digital section serve in the library. Overall three personnel were engaged in library.

5.5.5 **Working hours**

In order to optimize the utilization of library facilities by the medical academics, students, researchers and medical professionals the library is kept open and in all the calendar day. The library serves its member user every day from 11.00 AM to 7.00 PM without any break.
5.5.6 User Members

All Academics including guest faculties, students of BSMS and MD and researchers in Siddha medical college. At present 570 BSMS students 60 MD students, and 42 faculty. Other users are the Siddha professionals of in and around the districts and alumni of this prestigious institution. Every year 100 admissions in BSMS and 10 admissions in MD in each branch of six branches were made by the Dr. MGR Medical University, Chennai. Every day 260 users visit the library from all the category of students, faculty, and medical professionals.
REFERENCE

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