RESEARCH METHODOLOGY

The Methodology of research presented in this chapter includes aspects like research approach, research design, sample, sampling technique, development of data collection instruments, validity and reliability of instrument, method of data collection, pilot study and plan for data analysis. The study aimed at describing Psycho-Social Dimension of Infertile Women.

3.1 THE OBJECTIVES OF THE STUDY WERE

1. Aim: To determine psycho-social dimension of infertility among women.

Specific objectives

1. To identify the need for parenthood.

2. To identify the meaning of infertility, perceptions regarding infertility, its causes and treatment.

3. To identify the psychological reactions / feelings of women with infertility.

4. To determine the effect of infertility on marital life.

5. To identify family support of women with infertility.

6. To identify the attitude of society towards women with infertility.

7. To identify coping mechanisms of women with infertility.
3.2 RESEARCH APPROACH

The research approach selected for the present study is a qualitative approach. Qualitative research is based on gaining insight and understanding about individual’s experiences and sense of reality in a fashion that does not generally involve quantification or the attachment of a number to observations in the process of recording and observing data (Polit, 2007). Qualitative research methodology is useful in areas where little research effort is made, when bias is suspected in present knowledge or theories or when research question relates to understanding and describing a phenomena.

Qualitative research encompasses a family of research approaches such as grounded theory, phenomenology, and ethnography which are characterized by overlapping but not identical goals and techniques.

The Researcher has adopted a multi method research namely qualitative methods like phenomenology, case study method and feminist methodology to understand Psycho social and dimension of infertile women.

Phenomenology is the study of lived human phenomena within the every day social contexts in which the phenomena occur from the perspective of those who experience then. The concepts of phenomenology of consciousness, experience subjective meanings,
and meaningful inter subjectivity. Researchers ask open questions to encourage reflection upon every day experience (Angie Titchen 2005).

A case study is a puzzle that has to be solved the case should have enough information in it that readers can understand what the problem is and they should be able to come up with a proposed solution. In a case study the problem is described in detail and organized.

The researcher felt the need to incorporate feminist research methodology to understand experiences of psycho social aspects of infertile women. Feminist research includes incorporating gender, privileging subjectivity, avoiding exploitation and empowering women.

Feminist research is research on women, by women and for women. Feminist research is based on the assumption that world is socially constructed. A feminist methodology places emphasis on women and their position in society and contradicts with the emphasis on males that prevails in the other methodologies. It explains the world in a unique way (eg: based on patriarchy) which guides the structure and process of research. The purpose of feminist research is to empower women to transform oppressive and exploitative conditions to provide visions for the future and to attend to the policy implications of research. It employs multiple methodologies (Stanley, Wise, 1983).
Feminist research is generally different from and is incompatible with conventional social science research. Quantities research is thought to present a distorted view of the world to be determined by a male ideology, and to suffer problems related to reliability, validity and representativeness. Feminists set the focus of investigations not on standardized ideals of statistical principles, but rather on self-defined objectives. Feminist researchers see in-depth interviews as a better option as they encourage subjectivity and intense dialogue between equals, which are intrinsic features of feminist analysis of gender experience. Qualitative research is seen as reflecting female properties and a female identity. (Oakley, A, 2000).

The feminist methodology which is employed in the study is based on “feminist stand point theory” which is grounded in women’s experiences but also draws on knowledge of their bodies, and emotions for political action purposes. It focuses on the lives of marginalized people. Feminist stand point theory embodies three simultaneous goals to incorporate new information into social research (based on the bodies, experiences, and emotions of marginalized people) to develop new standards for collecting and evaluating evidence (focused on subjectivity rather than on objectivity) and to empower marginalized groups through research process. (Krook, 2007).

To understand psycho-social dimension of infertile women a feminist methodology is best suited as women can understand
womans problems better. Infertility is such a problem which is related to many concepts of womans studies like patriarchy, gender, biological determinism, participation, decision making and empowerment.

3.3 VARIABLES UNDER STUDY

Socio, demographic variables

Age, Religion, Education, Occupation, Monthly Income, place of living, type of family, age at marriage, years of marital life, menstrual cycle, cause of infertility, treatment taken, etc.

Psychological Dimension

It includes understating the infertile women’s need for parenthood, meaning and causes of infertility, feelings or reactions to infertility. Effect of infertility on marital life, coping mechanisms.

Social Dimension

It includes understanding infertile women’s family support and attitude of society towards infertile women.

3.4 RESEARCH SETTING

The present study is aimed at understanding the experiences of women with infertility regarding psycho-social aspects. The setting of the study is the city of Hyderabad, in the State of Andhra Pradesh; Hyderabad is the sixth largest city in India. It is the capital of Andhra Pradesh and occupies number one position in provision of hi-tech
health care service in all specialties including infertility. The population of Hyderabad was 3.6 million in the year 2001. It has grown to become more than 4 million by the year 2009. The population of Andhra Pradesh is 7.62 crores, Infertility is becoming a major public health problem in the city of Hyderabad which is evident by mushrooming of infertility centers. There are about 550 registered Nursing homes in Hyderabad. Among them 30 nursing homes are infertility centers. In the Government sector there are three Hospitals meant for women, which provide infertility services apart from Vaidya Vidhan Parishad Hospitals and Employees State Insurance Hospitals etc.
Figure No.3.1
Hyderabad City Map
The incidence of infertility in Hyderabad ranges from 15 per cent to 20 percent at present (2010). Ten years back it was in the range of 6 per cent to 8 per cent. The increase in incidence of infertility in Hyderabad is related to advancing age at marriage, prime importance given for education and career settlement, more stressful life, exposure to pollution, sedentary life style. It was found out in a research study that incidence of infertility is more in IT professionals due to their stressful job, long working hours, sedentary life style, pub culture, change in life style, premarital sex, more risk of exposure to sexually transmitted diseases, smoking, drug addiction, all these factors indirectly will lead to infertility.

Many couples from surrounding villages and districts of Andhra Pradesh, seek infertility services from Government. as well as private hospitals in Hyderabad. In Govt. hospitals very limited services are available for infertility couples. Latest equipment and assisted reproductive technology is not available as Government is committed to and concentrating on providing family planning services, and Mother and child health services, In spite of it in many Government hospitals every day, minimum 4-5 infertility cases come for services, middle class and rich class couples prefer going to private infertility clinics and it is estimated that minimum each couple spends Rs. 1-2 lacks to realize their dream of becoming parents.

The present research study is conducted in one Government hospital and in one private infertility centre in Hyderabad. Investigator contacted ten private infertility centers, but the
managements of these infertility centers refused permission stating that their patients belong to high class and they do not like to reveal psycho-social aspects and it is also time consuming. Management of only one infertility Centre namely Dr. Rama’s Institute for Fertility, Ameerpet, Hyderabad gave permission to Conduct Research Study.

So, the researcher obtained permission from Director of Medical Education, Andhra Pradesh to conduct study in one Govt. Maternity Hospital, Nayapool, Hyderabad and Dr. Rama’s Institute of Fertility, Ameerpet, Hyderabad.

**Description of the Hospitals**

1. Government maternity Hospital is located in Afzalgunj besides High Court of Andhra Pradesh. It is one of the biggest maternity hospital and centre of excellence for family planning services in India. This hospital is 100 years old with a bed strength of 464. Daily Registration of out patient ranges from 400-500. This Hospital has a gynaec out patient section where all patients with gynaec problems as well as infertility patients come here. Apart from this, hospital runs a special infertility clinic on every Tuesday and Friday. Every month 80-100 infertility patients are registered and receive treatment from here.

Hospital has facilities to investigate infertility with hormonal studies, Ultrasound, Doppler, Hystero-salpingogram. Endometrial biopsy, and laparoscopy, but there is no facility for Artificial Reproductive Technology.
### Table No. 3.1

**Number of Gynaec Outpatients in Government Maternity Hospital from 2000 to 2009**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>468</td>
</tr>
<tr>
<td>2001</td>
<td>521</td>
</tr>
<tr>
<td>2002</td>
<td>562</td>
</tr>
<tr>
<td>2003</td>
<td>484</td>
</tr>
<tr>
<td>2004</td>
<td>492</td>
</tr>
<tr>
<td>2005</td>
<td>567</td>
</tr>
<tr>
<td>2006</td>
<td>601</td>
</tr>
<tr>
<td>2007</td>
<td>615</td>
</tr>
<tr>
<td>2008</td>
<td>546</td>
</tr>
<tr>
<td>2009</td>
<td>620</td>
</tr>
</tbody>
</table>

2. **Dr. Rama’s Institute for Fertility:** It is located in Ameerpet, Hyderabad and it is established in the year 1991. It has four branches in Andhra Pradesh at Vijayawada, Visakhapatnam, Guntur and Rajahmundry. It has outpatient and inpatient services with all sophisticated labs needed for infertility investigation and treatment in Hyderabad. It has 50 beds and per day on an average 50-60 couples seek infertility advice in outpatient department. Twenty to Thirty Invitro Fertilization (IVF’s) are done per month and success rate ranges from is 30 to 40 per cent.
Table No.3.2

Number of patients admitted with infertility at Dr. Rama’s Institute of fertility, Ameerpet, Hyderabad from 2004 to 2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>650</td>
</tr>
<tr>
<td>2005</td>
<td>760</td>
</tr>
<tr>
<td>2006</td>
<td>810</td>
</tr>
<tr>
<td>2007</td>
<td>810</td>
</tr>
<tr>
<td>2008</td>
<td>720</td>
</tr>
<tr>
<td>2009</td>
<td>515</td>
</tr>
</tbody>
</table>

In Government hospitals there are no facilities for Assisted reproductive technology. So, the investigator selected one private infertility centre to conduct the research study.
Setting of the study
1. Government Maternity Hospital, Nayapool, Hyderabad.
2. Dr. Ramas Institute for Fertility, Ameerpet, Hyderabad.
3.5 **POPULATION**

Population denotes the entire group of subjects under study. Population refers to the largest body of cases or individuals being researched, which confirm to the specific set of particulars.

In the present study population refers to all diagnosed infertile women attending infertility clinics as well as admitted in the wards for treatment at Government Maternity Hospital, Nayapool and Dr.Rama’s Institute for Fertility, Hyderabad.

3.6 **SAMPLE AND SAMPLING TECHNIQUE**

The sample consists of a subset of Units from the defined population. Non probability purposive sampling technique was used in selecting the sample from the Govt. Maternity Hospital and Dr.Rama’s Institute for Fertility Ameerpet, Hyderabad. A total of 300 infertile women were contacted with a request to participate in the study. Data was collected only from 162 patients as nearly 50 percent of infertile women refused to participate in the study. Data was collected from 100 infertile women from Government Maternity Hospital, Hyderabad and from 62 infertile women from Dr.Rama’s Institute for fertility Ameerpet, Hyderabad.

3.7 **SAMPLING CRITERIA**

1. Women suffering from primary infertility and in the process of investigation and treatment

2. Women in the age group of 20-45 years.
3. Married for at least 2 years and experiencing childlessness either due to self or husband.

4. Women who are willing to participate in the study.

3.8 LIMITATIONS OF THE STUDY

1. Women suffering from Secondary infertility i.e., those who already had one child and unable to conceive subsequently.

2. Women who are not willing to participate in the study.

3. Women who have inability to communicate either in Telugu or English.

3.9 DEVELOPMENT OF INTERVIEW GUIDE

The interview guide to understand Psycho-Social dimension of infertile women was prepared by the investigator by referring journals, previous research studies, text books, internet and by discussing with experts in the fields of gynaecology, infertility specialists, psychologists, sociologists.

The Interview guide was prepared by using all open ended questions as this was a qualitative research study. Open ended questions can lead to better understanding of Psycho-Social aspects of infertility than closed ended questions. Closed ended or yes/no type questions will give very superficial information. They are not suitable for a topic like understanding Psycho-Social dimension of infertility. So, the researcher used open ended questions to get in depth information about Psychological and Social issues related to infertility. The interview guide was prepared in English and translated to Telugu.
Description of the Interview Guide

The interview guide is divided into two main sections.

Section-I: Deals with Social Demographic information of Infertile women.

Section-II: Deals with Psycho-Social dimension of infertility.

Section-II: It is further divided into eight sub sections with open ended questions on the following aspects.

1. Need for parenthood
2. Meaning, Causes and treatment of infertility
3. Reactions and Feelings to infertility
4. Effect of infertility of marital life.
5. Family support of infertility women.
7. Coping with infertility

3.10 VALIDITY AND RELIABILITY OF THE INTERVIEW GUIDE

The interview guide was given for content validity to experts in the fields of infertility, psychology and Sociology. Keeping their suggestions in mind, Modifications were made in the interview guide.

Reliability: Inter coder reliability was established by the following Methods.
Representative interviews are selected.

Preliminary codes were formulated on the salient domains of the interview guide.

Each interview was coded separately based on pre-formulated coding categories.

The coded interviews were compared in terms of the categories and the meanings attached to it.

3.11 PILOT STUDY

A pilot study is a small preliminary investigation of the same general characteristics as the main study. The pilot study was conducted at Government. Maternity Hospital, Hyderabad, from 24th to 27th July, 2006. It was conducted on ten women who were taking treatment for infertility. Permission was taken, and purpose of the study was explained, and in depth interviews were conducted to collect the data. The researcher attempted to collect data from the spouses of respondents, but none of them were cooperative, so, gender perspective of psycho-social dimension of infertility could not be studied. The results of the pilot study showed that the interview guide is feasible to collect the data.

3.12 METHOD OF DATA COLLECTION

The Investigator obtained formal administrative permission from Director of Medical education. Andhra Pradesh and also from superintendent of Government. Maternity Hospital and Director of Dr.Rama’s Institute for fertility Ameerpet, Hyderabad to conduct the study.
Data collection was done from participants of two Hospitals from 5th August 2006 to January, 2007. The purpose of the study was explained to each participant, with the consent of respondents researcher collected the data by conducting indepth prolonged interviews and discussions with infertile women. Case study method was also utilized for collecting the data from four interesting cases.

It took more than two hours time to develop rapport and to collect data from each respondent. Some of the interviews were also audio-taped to provide clear understanding of the picture from the women’s perspective. Most of the women objected recording of the interview, though anonymity and confidentiality was assured.

A total of 300 infertile women were contacted from the two hospitals and data was collected only from 162 infertile women as nearly 50 percent women refused to participate in the study. From Government. Maternity Hospital, Nayapool 100 women and Dr Ramas Institute for fertility 62 women participated in the study. Four In depth case studies are also described apart from 162 sample.

3.13 PROBLEMS FACED DURING DATA COLLECTION

1. Some of the Infertile women showed unwillingness to participate in the study.

2. Most of the women refused audio-recording of the interview.

3. As the study was conducted on infertile women, the husbands of few women showed their discontentment and suspicion of the purpose of the study. Some of the participants were not allowed by their husbands to participate in the study.
4. Most of the infertile women expressed that the interview guide is time consuming.

5. In between the interview, patients were called by Doctors for investigations and treatment. Hence, it took a longer time to collect data from them.

3.14 PLAN FOR DATA ANALYSIS

The data collected should be analysed to get effective results. Hence, a plan for data analysis is vital, and in the present study data was analysed by using qualitative methods.

Qualitative analysis is a process of classification that involves assigning objects to categories (i.e., distributing phenomena in to classes).

The following steps were followed for Qualitative analysis.

1. Frequencies were calculated for demographic variables and for other domains where it was felt necessary.

2. Simplification of research questions to specific analytical questions.

3. Organizing the meaning in to a cluster of themes related to dimensions like need for parenthood, meaning and causes infertility, reactions to infertility, effect of infertility on marital life. Family support societal attitude, coping with infertility. Data reduction charts which represent case responses with respect to each domain were used along with data accounting sheets.
Summary

This chapter has dealt with research design, research setting, population, sample, sampling techniques, sampling criteria, development and description of interview guide, validity and reliability, pilot study, method of data collection and plan for data analysis.