

**PHYSO-SOCIAL EXPERIENCES OF WOMEN WITH
INFERTILITY PROBLEM:**

Case studies from two clinical settings in Delhi

**Dissertation submitted to the Jawaharlal Nehru University in Partial fulfillment
of the requirements for the award of the Degree of**

MASTER OF PHILOSOPHY

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CERTIFICATE

Certified that the dissertation entitled “**PHYSO-SOCIAL EXPERIENCES OF WOMEN WITH INFERTILITY PROBLEM: Case studies from two clinical settings in Delhi**” submitted by Sonali Kumari, in partial fulfillment of the requirements for the award of the Degree of **MASTER OF PHILOSOPHY**, has not been previously submitted for any other degree of this university. To the best of our knowledge this is an original work.

We recommend that this dissertation may be placed before the examiners for evaluation.

A handwritten signature in black ink, appearing to read 'K.R. Nayar', written over a horizontal line.

Prof. K.R. Nayar

Chairperson

A handwritten signature in black ink, appearing to read 'Sunita Reddy', written over a horizontal line.

Dr. Sunita Reddy

Supervisor

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JNU

SONALI KUMARI

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Glossary

- 1. AI- Artificial Insemination**
- 2. AIDS – acquired immuno deficiency syndrome**
- 2. AIIMS- All India Institute of Medical Science**
- 3. AID - Artificial Insemination by Donor**
- 4. AIH - Artificial Insemination by Husband**
- 5. ART - Assisted Reproductive Technology**
- 6. ET- Embryo Lavage and Transfer**
- 7. GIFT - Gamete Intra Fallopian Transfer**
- 8. GOI – Government of India**
- 9. ICDS – Integrated Child Development Scheme**
- 10. ICMR – Indian Council for Medical Research**
- 11. ICPD – International Conference on Population and Development**
- 12. IUD – Intra Uterine Device**
- 13. IUI – Intra Uterine Injection**
- 14. IVF - In-vitro Fertilization**
- 15. MAMC - Maulana Azad Medical College**
- 16. MOHFW – Ministry of Health and Family Welfare**
- 17. NFHS - National Family Health Survey**
- 18. NRT –New Reproductive Technology**
- 19. PHC _ Primary Health Centre**
- 20. PID – Pelvic Inflammatory Disease**
- 21. RCH – Reproductive and Child Health**
- 22. RH – Reproductive Health**

- 23. RHO-** Reproductive Health Outlook
- 24. RTI –** Reproductive Tract Infection
- 25. SC –** Surya Clinic
- 26. SJH-** Safdarjung Hospital
- 27. STD –** Sexually Transmitted Disease
- 28. STI -** Sexually Transmitted Infection
- 29. TB –** Tuberculosis
- 30. UNDP –** United Nations Development Programme
- 31. UNFPA _** United Nations Population Fund
- 33. WHO -** World Health Organization
- 34. VHAI –** Voluntary Health Association of India
- 35. ZIFT –** Zygote Intra Fallopian Transfer

CHAPTER - 1

- **INTRODUCTION**

- **METHODOLOGY**
 - **DEFINITION OF THE PROBLEM AND OBJECTIVES:**
 - **OBJECTIVES:-**
 - **AREA OF THE STUDY:-**
 - **SELECTION OF THE CASE STUDIES:-**
 - **METHODS AND TOOLS AND TECHNIQUES:-**
 - **BACKGROUND OF THE TWO CLINICAL SETTINGS:-**
 - **DATA COLLECTION:-**
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INTRODUCTION

World Health Organization (WHO) defines health as “a state of complete physical, mental and social well being and not merely the absence of Disease or infirmity”.

By this definition, infertility is a major cause of diminished health in our country. But it is conceded that health is an outcome of interacting social, economical, political and ensuing cultural forces. It is, therefore, a dynamic concept which changes with time and place. There are two dimensions of health, first is the operational side when interventions are made and status are measured; secondly, the social dimension which focuses more on environment that creates or destroys health. This study focuses on the latter and looks at the health of childless women as a product of their living experience and pressure produced by husband who is equally responsible for it and other family members. It attempts to focus on these determinants of health. For example, during the treatment the key determinants that are studied are; cost of treatment, income, age, husband's support, social pressure, type of problem, and mental tension due to if they don't get success. In the living conditions, the study focuses on socioeconomic conditions, and burden of blame, even though husband is fairly responsible for this.

Infertility is an important topic to bring forth, since it elicits multiple themes and cultural values having to do with the taken for granted life path, with gender roles and definitions of femininity and masculinity, as well as moral and legal issues. The focus of this study is women's experiences related to infertility in the Indian society who have been victims of humiliation, torture and exploitation for as long as we have written records of social organization and family life. Today, women are being gradually recognized as important, powerful and meaningful contributors to the life of men; but still countless women are the victims of different types of violence. They are beaten, divorced, and burnt alive and murdered..... by their respective husbands, and in-laws in their own house due to infertility. Therefore, social disadvantages of women have been recognized, invested, and represented in social science literatures. These studies show that women are instrumental in their own as well as other women's exploitation (Soman, 1992).

The present status of women in India can be understood only in a historical context. Though this can be a subject of research in itself, we would only briefly touch upon the subject, literatures covering woman ordained with status of a 'Social ornament' bearing a glorified image that of a 'bearer and nurturer of children'. This implied that two jobs are carried out almost exclusively by women, are house keeping and child rearing. This does not get counted as "work" and remains invisible. It is because, "work is defined as the production of goods and services for the market as well as for household consumption". Or economically valued work considered as work. Therefore, the concept of 'economic worth' ignores the non wage 'invisible' contributions of women to household consumption and reproduction. And if she fails to reproduce, women suffer from all sorts of oppression and discrimination- like sociological, psychological, economical, and biological, all resulting in the domination and marginalization of a women in every sector; agriculture, industry or service organized or unorganized sector and in the household. This has contributed to the subservient nature of the social status of women.

Though this study is not regarding the status of women in society, even then an attempt has been made to access the role and experience of women in society and the various contributions she makes in the production and reproduction process. Women in traditional societies like India have been always dominated by the patriarchal system which regards infertility status of women as curse. This curse of sterility is regarded as a social stigma for the infertile woman who is even barred from attending any social functions because she is considered as inauspicious. Childlessness is invariably blamed on the women who passively accepts the verdicts and spends rest of her life seeking out one prospective trader after another. If she is fortunate not to be thrown out of the house, she will eventually have to share it with second or third woman. Such atrocities on women have far reaching social implications which provide a glimpse of her social status in such a society like ours. Barrenness is associated with sin and a punishment from God; while the birth of a child, especially the male child is considered being a good woman. Such discrimination against women and the girl child is present since time immemorial. In Indian patriarchal society, bearing children, particularly sons, largely defines a

woman's identity. Motherhood is of great social significance and infertility is perceived as a great threat to men's procreativity and the continuity of the lineage (Iyenger & Iyenger, 1999; Jindal and Dhall, 1990; Jindal and Gupta, 1989; Mulgaonkar, 2001; Neff, 1994; Patel, 1994; Prakashamma, 1999; Singh Dhaliwal, 1993; Unisa, 1999)

Most cultures regard parenthood as a critical event in a person's life cycle. Inability to reproduce is perceived as a failure to keep the future lineage of the family going, a cause for great embarrassment. Many see childlessness a 'curse' resulting from past 'sins'. And, since it is the woman who gives birth, she has to bear the entire responsibility of infertility.

Since her childhood, a woman learns from her family and society that marriage and motherhood are the most important roles that she is destined to play in her life, roles which become central to her identity. The social construction of gender leads to the internalization of strong misconceptions around male sexuality, making it difficult for a man to accept that he also has a role to play in childlessness. So, he would go to any extent to blame the woman – beat her, abuse her, threaten her of desertion or remarriage – rarely would he undergo a medical examination to find out if he is capable of being a father. After all, he doesn't want to be called 'na-mard' (not man enough) and allow his society to challenge his 'mardangi' (masculinity), since infertility is often equated with impotence.

The infertility status of a woman is in terms of the state or condition of being unable to reproduce. The problem may be either in the man or in the woman, and in fact it's quite common to find that both have problem. , when a couple is infertile; some societies still tend to blame the woman. The woman in, fact, is the first to consult the doctor for the solution to the problem. Until not so long ago, women had to go through the long diagnostic procedures before men were submitted to the sample obtaining a spermiogram. Psycho-social is a state of adjustment that is near to the status of mental health. It denotes a desirability state of individual that ensures proper developments of his potential so that he is able to meet and satisfy his needs in a society (Sinha, 1990). Thus, a study of infertility covers a wide range of areas,

which involve relevant aspects of different ecological, biological, economic, demographic, epidemiological, social, political and cultural facts.

Infertility is a problem that affects men and women of reproductive ages in all the areas of the world although estimates of its prevalence are not very accurate and vary from region to region, the available demographic and epidemiological evidence suggest that approximately 10% and 15% of couples around the world have experienced some form of infertility during their reproductive lives, thus 50 to 80 million people may be suffering from infertility, a condition that causes considerable personal suffering and disruption to the family life. Each year a further two million infertile couples are diagnosed (WHO).

In general, infertility affects about one in seven couples of childbearing age. In some areas, particularly in Sub Saharan Africa, up to one third of couple are infertile (RHO). Through the world, the core prevalence of infertility is about 5% attributable to anatomical, genetic, endocrinological or immunological problems (PATH). Between countries and regions, infertility rates vary dramatically, corresponding to the incidents of preventable conditions that lead to infertility. While women's infertility is greater focus of research, health care attention, and social blame, male infertility is the cause or contributing factor to infertility in approximately half of infertile couples (RHO). A current statistical data on infertility problem shows that about 35 % are female related, 35 % are male related, 20% are related to both, and the remaining 10% are unexplained. Consequently, it is crucial to treat both the women and men when assessing the infertility work up phase of treatment.

Epidemiological studies provide evidence on the prevalence of infertility, not on the incidence or causes of infertility. Infertility is not a diagnosis per se and therefore a country strategy in developing health care in this area should not be based upon broad general assumptions gained from prevalence studies but on firm evidence concerning the causes of infertility. For a variety of reasons, it is not possible to investigate clinically all those subjects who are defined as infertile in the community survey.

Probably only 10-20 % of those so defined will present themselves at the secondary or tertiary health center for investigation even if facilities are available. Therefore, only where prevalence rates of infertility exceed 15-20% will there be sufficient numbers of infertile couples to provide meaningful information as to the prevalence of clinical causes of infertility in that particular community.

There is little evidence on the level and patterns in India. According to one study conducted by WHO, the extent of primary and secondary infertility in India are 3% and 8% respectively. Recent, NFHS-2 data, using childlessness as an indicator, estimates that 8.8% of currently married women between the ages of 40-49 are childless. Based on 1981 census data, childlessness amongst ever-married women in India is estimated to be about 6%. Evidence from community based studies across from India suggest similar prevalence rates for childlessness (Bang et al, 1989; Kanami, Latha and Shah, 1994; Mulgaonkar, 2001; Unisa, 1999)

DEFINING AND MEASURING KEY WORDS:

Lack of uniform definition, reference period and measures of infertility severely affected the problem of infertility itself. Various terms like infertile, childlessness are used to refer the women who failed to conceive or bear a child when desired. Normally, fertility is presumed until proven otherwise, by definition:

Fertility for 'women' is ability to conceive and give birth to a viable infant and for 'men' the ability to impregnate successfully (Woods et al, 1979).

Sterility The etiology of infertility is established and there is no possibility for conception.

Infertility The inability to conceive following 12 months of regular intercourse without contraception.

Childlessness is defined as the proportion of couples who have not had a live birth by time of interview, despite at least 5 years of cohabitation and exposure to pregnancy.

This phenomenon includes both, women's who have successfully conceived but have failed to deliver a live birth and women, having difficulty bearing a second or higher birth order, despite, as above five years of exposure (Jejeebhoy, 1998).

Childlessness is further divided as voluntary, involuntary and temporary (Poston, 1977).

Voluntary childlessness is commonly a recent phenomenon, with increasing proportion in industrialization and urban societies. Temporary childlessness is a condition in which couples assume their selves as fertile but want to delay it intentionally for a time. **Involuntary childlessness** is a phenomenon synonymous to the infertility, in which couples are childless despite desire for child. This classification of childlessness has potential for further exploration in terms of similarities and differences in characteristics of these types of couples.

Infertility is considered to exist (in couples of reproductive age) when after a year or more of regular sexual intercourse without using a contraceptive method, a conception does not occur or the pregnancy, if it occurs, cannot be carried to term (Woods, et al, 1979). Infertility may be primary or secondary. In case of **primary infertility**, is referred to those who have never Conceive before or the inability to ever carry a pregnancy to them while, secondary infertility is the inability to achieve a pregnancy again after one or more successful pregnancies. The definition has also come to include couples who are able to conceive but, due to repeated miscarriages, are unable to carry a pregnancy to them (WHO, 1987, Sciarra, 1994; Jejeebhoy, 1998; UNFPA, 1999). Even more, some researcher (Sciarra 1994) see this period of 1 year as 'psychologically unacceptable' specially for the women of 30-35 or above age group who have voluntarily delayed child bearing.

Psycho-social, Pertaining to the psychological development of the individual in relation to his or her social environment

METHODOLOGY

STATEMENT OF THE PROBLEM

The problem of infertility is one of the major health problems existed in all types of society, whether it is developed or underdeveloped. This problem shows the complete state of physical, mental and social mal-adjustment with male and female together or one of them. So far as psycho-social experience of women related to infertility problems is concerned, it is more an adjustment problems rather than an individual existence. It's a type of social construction of gender that needs to develop pragmatic understanding of the phenomena in a larger scale by focusing on micro-level analysis. Indian society is a conglomeration of different cultures, castes, classes, religions, regions, ethnicities and so on... However, India is a type of developing societies but in present time it has influenced and got contacted with different alien cultures. Due to this cultural contact or cultural diffusion or acculturation or assimilation, our society has got many problems in that, infertility is one of them. Psycho-social problems of women are not only the creation gender roles, but also the construction of familial structure that depends on different parameters of their members' attitudes and perceptions and the configuration which it regulates.

However, living experience of women with infertility problem which leads to psychological problems, treatment seeking behavior, coping strategies in relation to infertility, how she copes with it, what she thinks about adoption, whether she is getting social support or not, whether she get support from her own natal family or not, is also studied. Though there is sufficient anthropological literature that highlights the importance of culture in relation to infertility, our basic theoretical understanding is that cultures are products of historical, social and economic forces which are responsible for women condition not only in Indian society but also in every type of society in the world, childless women are blamed. So far as the study of this problem is concerned, it involves lots of historical and contextual situations that provoke to go on details its different dimensions to objectify.

OBJECTIVE OF THE STUDY

1. To identify kinds of social pressures faced by women with infertility problem.
2. To understand the implications of these pressures on the socio-economic and psychological experiences of women
3. To see kinds of treatment sought for infertility
4. To analyze coping strategies in relation to infertility

First, looks at social pressures a woman face with infertility problem and its implications on socio-economic psychological aspect.

Secondly understands the kinds of treatment sought for infertility and coping strategies.

The study provided new insights into many of the components covering the entire range of the system- the various facets of women's health, social pressure, and treatment seeking behaviour. This study explores the social meaning of infertility in women who are residing in Delhi, capital of India. It focuses on the impact of social structure, on the construction of childlessness rather than on the health related problems or personal experiences of infertile women.

AREA OF THE STUDY

SELECTION OF THE CASE STUDIES

The study is conducted two clinical settings in Delhi. Delhi has good number of health care institutes in both public and private sectors. In public health sector lots of tertiary institution, including medical colleges are there. And most of the public department of Obstetrics and Gynaecology in hospital provide the facility of investigation and treatment on infertility.

However, due to lack of proper and specialized infertility centres in the public hospital, infertility clinics are simply growing fast in the field of private sector (UNFPA-1999).

Both public and private hospitals are providing infertility care in the city. On the basis of profile of infertility care providers in the city, tertiary level institutions like gynaecology department of medical collage, Safdarjung hospital, All India Institute of Medical Sciences, Kasturba Gandhi hospital, Lady Harding medical college, Maulana Aazad Medical College, Indian Council for Medical Research, etc and others dealing with both investigation and treatment on infertility in public sector. Among the private sector health care institutions, such as Hope infertility clinic, Tata Institute of Fundamental Research, Deen Dayal Upadhaya Hospital, Angel's Clinic, Surya clinic, Sir Gangaram hospital, etc.

The study is mainly small and time bounding in nature. Purposively, two clinical settings were selected where the permission to conduct research was given. Though few public hospitals were explored but did not get the permission there for this. However, Surya clinic and department of Obstetrics and Gynaecology of Safdarjung hospital in south Delhi gave permission for the study. Women with infertility problem who came to these two areas were asked for their consent and were interviewed. Finally eighteen case studies were conducted and analyzed.

METHODS, TOOLS AND TECHNIQUES

Case study method was adopted for which in-depth interviews and narrative techniques (term is used to refer to 'storied ways of knowing') on eighteen women were done. Cases were selected on the basis of willingness of the women seeking treatment to participate in the study. These cases were either with infertility, confirmed or they may be under treatment or may not be confirmed and they may be under investigation were interviewed.

This study is basically a qualitative type, based on eighteen case studies of infertile women from the two institutions. All the relevant dimensions of infertility were such as type of infertility, gender factor, socio-economic condition (on the basis of income)*, type of treatment and duration of treatment seeking from the present institution and outside of the present institution including traditional healers etc.

BACKGROUND OF THE TWO CLINICAL SETTINGS:-

1. Safdarjung Hospital

Safdarjung hospital is a one of the best tertiary hospitals in Delhi. Safdarjung Hospital was founded during the Second World War in 1942 as a Base Hospital for the allied forces. It was taken over by the Govt. of India in 1954 under the Ministry of Health. It has grown over the years into one of the largest tertiary level, multi disciplinary healthcare institutions in this part of the World. Based on the needs and developments in Medical Care the hospital has been regularly upgrading its facilities from diagnostic and therapeutic angles in all the specialties. The hospital provides medical care to millions of citizens not only of Delhi and the neighbouring states but also to people of neighbouring Countries.

Today the hospital provides state of the art facilities in the 34 clinical and Para-clinical divisions. Running along side its regular clinics are 45 special clinics, which offer comprehensive care to all patients with specific needs. These special clinics help in creating a high level of awareness amongst the patients and benefit the medical community as well and thus widen the health knowledge base in the society.

Even though, by nature a tertiary care setup, the institution has evinced keen interest in community health development programmes. It has been a nodal point in massy key health projects and missions like AIDS control, pulse polio programme, leprosy eradication, matri suraksha programme and National Cancer Control Programme.

* According to researcher's parameter class is divided into three categories, (on the basis of respondent's income)

	Class	Income
1.	Upper middle class	- more than fifteen thousand
2.	Middle class	- more than five but less fifteen thousand
3.	Lower middle class	- less than five thousand

The institution also strives to do its bit and in preventive and promotive health through its many user-friendly information, education and communication activities. Exhibitions, seminars, health melas, radio television and print media are some of such best efforts have been doing all types of health problems and making conscious to the people.

The eighth five year plan saw the inception of departments like Gastroenterology, Endocrinology, Cardiology, Respiratory Medicine, Urology, Nephrology, Cardio thoracic and Vascular surgery etc.

2. SURYA CLINIC

Surya clinic is running under Dr Anusha Joshi from ten years, it is located in Chirag Delhi, Sheikh Sarai. It is not a big clinic. However, 5-10 infertility cases are visited per day. Most of the patients belong to lower middle class, the upper middle class and sometimes higher class also visits for treatment they rarely do. The consultant charge of the clinic is rupees seventy, which is comparatively less in Delhi.

Asked how many cases are male and female related? She said 40 percent cases are male and 60 percent cases are female related. The researcher used to sit there for three to four hours per day and try to talk with the patients as well as the Dr. Anusha Joshi.

DATA COLLECTION

→ Pilot study

An exploratory pilot study was conducted by using few open ended questions to find out the dimensions / aspects of childless women. Ten participants sharing similar characteristics of the sample of the final study (women 25-49 years of age group, approaching infertility clinic and taking treatment, from different clinic for more than a year) were interviewed. In the interview, few broad questions were asked related to

- Present age, age at marriage (both male and female), age at gaunna (if early marriage, age a puberty, when a girl started living with husband), education, occupation, income, class, family type, family size.

- Treatment seeking behavior, type of infertility (primary/ secondary), and infertility related to male/ female.
- Questions on the social pressures, which produces psychological factors.

Due to the sensitivity of the topic, the researcher had to build rapport and convinced that it is purely an academic study and would be kept confidential.

→ **In-depth study**

Specific circumstances for which in-depth interviews are particularly appropriate include 1) complex subject matter; 2) detailed information sought; and 3) highly sensitive subject matter. To study the treatment seeking behaviour, perception of self, to know factors and the influence of the social, economic and cultural factors the in-depth interviews would be very suitable to probe the reason for such behaviour and to understand the complexity. For this research eighteen case studies of women were taken in different circumstances.

The tools and techniques used for the data collection are as follows:

First of all, a profile of infertility care providers was generated with one of the following: the head of centres, lady doctor/gynaecologist or infertility expert through a semi-structured interview. Qualitative aspects of data collected through an interview guide, by in-depth interview technique. Observation and informal conversation were also done at all possible level of the study. This qualitative explorative process helped, the women to share about their experiences.

Secondary sources such as census, other surveys and studies, published reports, research articles were appropriately used as review of relevant literatures.

On the basis of case studies the issues were interpreted carefully. Case study provides comparison of various key dimensions, like type of health centre (private/public), infertility factor (male/female), type of infertility (primary/secondary) socio-economic status etc. were explored.

The study required qualitative data collection on wide range of variables including the following:

- a. Socio-demographic profile
- b. Reproductive history
- c. Treatment seeking behaviour
- d. Kinds of social pressures
- e. Coping strategies

Though the focus of this study is on women with infertility problem, other members who accompanied with the participant have also been covered, i.e., husband if visited with wife, sister, mother -in- law, sister-in-law, and neighbour. This helped to understand the nature of relationship between them and their views, and the kinds of social pressures on women. Self perception of women's experience and what they feel were explored from their viewpoints so far as infertility is concerned.

LIMITATIONS OF THE STUDY:-

The main focus of the study on the social and psychological correlates infertility that has appeared much variability in their experience on different situations which have been selected from infertility clinics. Therefore the study does not take the women who drop out of treatment, left unstudied or women who do not seek treatment, this representation a serious omission. These people may well reported at different levels of experience than those remain in the treatment. Due to paucity of time and limited scope of study and also sensitivity of the problem, only eighteen case studies were carried out purposively. The issues have come out quite clearly related to the sufferings and the lived experience of women with infertility problem. However, due to small numbers, the findings cannot be generalized to larger population.

This is a clinical based study which provides only information on the pattern of causes of infertility prevailing in particular clinical settings. Therefore, due to selective nature of samples of these studies are not really representative of the entire community.

While the study clearly brings out the differences in social pressures and treatment seeking behaviours between men and women (husband and wife), the exact extent of that difference could not be interviewed.

Problem of recall affected the data with regard to treatment expenditure, the minor ailments for which medical help was sought, other treatment like ayurveda, homeopathic etc.

Despite the rapport developed, the element of suspicion and difference could not be overcome completely for two reasons:-

1. Researcher, as she is unmarried, couldn't understand the pain of childlessness or the social pressure created by the family. Respondent's associated researcher (especially in the clinic/hospital) while asking questions about demographic profile, treatment seeking behaviour, reproductive history etc; with that of doctor or health worker.
2. People were well aware that research of this kind is not being carried out with their interests in mind however. Even studies of the present kind, despite their claim to the contrary, ultimately may not yield any immediate concrete results that benefit the individual respondents.

The interviews were firstly conducted in Hindi, many of the respondents speaking their local state language (a language the researcher does not know) and only smattering of Hindi and the interview guide finally being written in English, many of the nuances particular to a language were lost, during translations. Thus, the data on attitudes, experiences, and perceptions has suffered.

In view of the above considerations, the findings of this study are being presented in the different chapters. This is devoted entirely to present the psycho-socio-cultural aspects of infertility and their linkages with health.

CHAPTERIZATION

Chapter one deals with the conceptualization of the problem and methodology used to study the problem lived experiences of the women with infertility problem. **Chapter two** reviews the available literature, related to aspect like causes of infertility; factors related to infertility, treatment available for infertile couple and examine the issue of infertility, in social psychological and political framework of this country in particular and other countries in general and look at the related aspects of infertility. It also tries to trace historically inclined phenomenon of infertility in India. The magnitudes of the problems at the world level as well as in India, various definitions and categorizations have been outlined. **Chapter three** looks on infertility as public health concern with subheadings from women's health perspective, the policy limitations pertaining to infertility problem, status of infertility in public and private health care and ART: a hope or burden for infertile couple. **Chapter fourth** presents the case studies, which speaks volumes about the treatment seeking behaviour, and coping strategies. And **chapter fifth** is summarized and concluded the findings on women suffering from infertility problem based on eighteen case studies. Also some policy recommendations and the need to look at the infertility problems have also been highlighted as important consideration and discussed gender sensitive approach.

CHAPTER - 2

SOCIOLOGICAL AND BIOLOGICAL ASPECT OF INFERTILITY: (REVIEW OF LITERATURE):-

- **EPIDEMIOLOGICAL ASPECT OF INFERTILITY**
- **PSYCHO-SOCIO-CULTURAL ASPECT OF INFERTILITY**
- **TREATMENT SEEKING BEHAVIOUR OF WOMEN WITH INFERTILITY PROBLEM**
- **FACTORS CONTRIBUTING TO INFERTILITY**
- **MEDICAL TREATMENTS FOR INFERTILITY**
- **PSYCHOLOGICAL CONSEQUENCES OF INFERTILITY TREATMENT**

EPIDEMIOLOGICAL ASPECT OF INFERTILITY:-

There is a great deal of confusion about what infertility is and how the "infertility" is to be defined. Infertility is usually defined as having no pregnancy after year of unprotected regular intercourse (Greenhall E., Thoncau P., Abbey A., 1991, Rowe PL 1993, Sundby J., 1994, Schmidt L., 1995). This definition is also used by the WHO (Rowe, 1993). The office of technology assessment (OTA), in a report titled infertility: medical and social choices, notes "infertility" has been characterized as a disease, disorder, disability, handicap, illness, syndrome, condition, or condition caused by disease." It goes on to conclude that "it is useful to talk about infertility as a clinical problem for which the medical community can sometimes offer a remedy." (US Congress, 1988, 36-37).

The inability of a sexually active, non contracepting couple to achieve a conception within one year constitutes infertility. Definitions of "infertility" are couched either in terms of conception or in terms of birth. Sometimes definitions are offered that attempt to encompass both. For example, Barbara Menning defines infertility as "the inability to conceive a pregnancy after a year or more of regular sexual relations without contraception, or the inability to carry pregnancies to a live birth" (Menning, 1988). According to the WHO, a couple would be considered infertile if they were unable to achieve conception within two years of unprotected intercourse.

The concept of infertility is both vague and ambiguous. It is vague in the sense that there is no non arbitrary cut-off in the period required for conception, and it is a clear, stipulated definition of "infertility" that will help policymakers understanding the nature of the problem, and permit researchers to measure its magnitude. It is not enough to report on the various ways the concept of infertility can be understood. In exceptional circumstances, where a specific occupational or environmental factor is suspected to be the cause of the infertility, much lower prevalence rates can be examined by targeting the clinical investigations towards specific causes, such as impaired spermatogenesis.

In many societies, the inability to conceive and bear a live healthy child is considered to be the women's fault rather than a problem of the couple when, in fact, either or both may have an identifiable factor associated with infertility. The stigma of infertility often leads to marital disharmony and divorce as well as social ostracism.

Medically, infertility is defined as a condition in which a couple fails to conceive in spite of active sexual life without the use of any contraceptive method, for a period of one year. The causes for this condition are multiple and could be related to either or both partners. The condition has also come to include couples who are able to conceive but, due to repeated miscarriages, are unable to carry a pregnancy to term. Infertility is a leading cause of seeking help of a gynecologist; even then, little attention is given to the life of non-pregnant women. The singular focus on fertility control resulted in the total neglect of the issue of infertility and higher prevalence in higher fertility areas. Accounting the social and psychological sufferings of couples, particularly women as wellbeing issue; the problem of infertility/childlessness is a serious public health issue in terms of policy and provision for infertility care and management. Consequently, it is crucial to treat both the women and men when assessing the infertility work up phase of treatment.

In men, the damage is usually caused by STDs, but also by TB, filarial, leprosy and mumps. In women, such infection is usually caused by damage to the fallopian tubes from pelvic inflammatory disease (PID), a possible consequence of untreated reproductive tract infections (RTIs) and STDs. RTIs can be acquired through lack of access of clean water, unsterile procedures during childbirth or abortion, and they can be exacerbated by bad medical practices. Likewise, only 10 percent of the estimated five to six million abortions performed each year in India are done in registered clinics. Most abortions are done with inadequate equipment and poorly trained personnel. Finally, though intra uterine devices (IUDs) can aid the transfer of existing infections from the lower into the upper reproductive tract, it is an open secret that government services put in IUDs without checking for infections, (Dr. Mira Shiva ,VHAD). "And how many primary health centers sterilize their equipment? They don't even have a budget for gentian violet."

Efforts to “educate” women about menstrual hygiene to prevent RTIs are meaningless when “they don’t have privacy and access to clean water,” (Dr. Shiva, VHAI). Nor do they have the power to negotiate “safer” sex with a possibly infected spouse to protect themselves from STDs. If they do contract an infection, they may not develop symptoms, but even if they suffer discomfort, they are not likely to get treatment. This is because a women’s health comes down in the list of priorities in any average Indian household.

Services for STDs and other RTIs—currently the single additional “reproductive health” component to the government’s contraceptive-focused family “welfare” programme—are available only at district and sub-district hospitals and some community health centers, which are even less accessible than the primary health centers and sub-centers. In rural India, this effectively rules out treatment for the most women who cannot afford the transportation costs or loss of working time to seek treatment. Published reports have recorded the appalling quality of government health services, particularly in the rural areas. They are understaffed (or the staff are absent), drugs are unavailable, and equipment is broken down. Women’s access to care is minimal even in better off states (Dr. Shyamala nataraj, of the Chennai based south India AIDS Action Programme). Instead, most women with infections will tolerate distressing symptoms. Most women at STD clinics have been referred only after they first treatment for infertility.

Tuberculosis is the third leading cause of the death from infectious diseases in India. It is also the leading cause of death from infectious diseases in India .it is also the leading cause of death among women in the reproductive age group. It is estimated to be responsible for 10 percent to 30 percent of female infertility. Although up to 80 percent of the Indian population is infected with the tuberculosis bacterium, it is only in a small proportion that the infection develops in to full-blown disease. It can travel to other parts of the body, including the genital tract, where a silent infection causes irreversible damage.

Limited funding has made research on pelvic TB a low priority (Dr. Prabha jagota, director of the once world famous National Tuberculosis Institute in Bangalore). In any case, she argues, the incidence of pelvic TB depends on the incidence of pulmonary TB. So the TB control programme must concentrate on cutting

transmission of TB by identifying and treating smear positive TB. Low priority for public health, the concentration on vertical programmes, the obsession with the family planning programme and the consequent disarray in the public health system, irrational practices in the private sector and the financial burden on the patient - all these combine to render the TB control programme ineffective.

There are other, less direct, causes of infertility that are very common in India: infections such as malaria, malnutrition, and exposure to toxic chemicals can reduce the chances of conception or provoke spontaneous abortion. Dr. Karkal points out, "Fertility is affected by so many deprivations, which should be addressed in the larger public interest."

And this is the point: 'infertility is a possible consequence of various illnesses with much more physical debilitating endpoints. These preventable illnesses are acquired in the circumstances beyond the victims' control, from deprivation, and from infections contracted in poverty, within inequitable socio-economic relations that prevent even knowledgeable individuals from protecting themselves, or from getting proper treatment. The damage caused by such infections is rarely reversible. "The tragedy of infertility is that so much of it is preventable," (Dr. Shiva, VHAI).

INFERTILITY: INCIDENCES AND CAUSES

Up to 15 percent of couples suffer from infertility at some time in their lives," says a senior infertility specialist. Actually, infertility is probably not that common in India. In an article, health researcher Shireen Jeejeebhoy quotes the 1981 National Census estimates that between four and six percent of currently married women over 40 are childless (Jeejeebhoy, Shireen, 1998). Demographer Malini Karkal argues that infertility is relatively less common in India; the 1992-93 National Family Health Survey estimates (IIPS, 1995,) that only 2.4% of currently married women aged between 45-49 (and 3.7% of all women of the same age) have never given birth to a child. Yet, the prevalence of infertility is constantly over-estimated since over-estimates of infertility help justify the industry's existence.

A couple's inability to bear a child can be traced to a physical problem with one or both partners (with responsibilities evenly divided between sexes), if it can be traced

at all –at least one-third of couples seeking treatment have “unexplained infertility”. Among those for whom a problem can be identified, a “core group” has anatomical genetic or endocrinological problems that may be treatable, but are not preventable. However, a large proportion of infertility, particularly in developing countries, is caused by untreated infections affecting the reproductive system.

FACTORS CONTRIBUTING TO INFERTILITY:

An infertility diagnosis can be established in approximately 85-90% of the couples undergoing infertility investigation. Approximately 10-15% of infertile couples are classified as having “infertility of unknown origin” since their infertility investigation reveals no abnormalities and thus no cause or diagnosis can explain their failure to conceive (Stillman, 1987). Of the couples in whom a diagnosis is established, male factors account for approximately 35-40% of infertility and female factors account for approximately 40% of infertility (Stillman, 1987). Thus, men and women are equally likely to be infertile. The remaining 25% of couples in whom a diagnosis is established have a combination of factors causing their infertility.

The factors that contribute to infertility are multiple & thus classification of infertility due to any one condition is misleading. Therefore, the factors that most often contribute to infertility among women are divided among factors that may influence the ability to ovulate; factors affecting tubal function; cervical, uterine, or immunological factors; and a common disorder called endometriosis, characterized by the presence of endometrial tissues (lining of the uterus) outside the uterus. Among men, most case of infertility is a consequence of factors that contribute to abnormal or too few sperm.

A defect at any point in this series of interrelated events can result in infertility or the inability to carry a pregnancy to term. A number of psychological and behavioral factors are known to contribute to infertility. Infections account for an estimated 20% of infertility in the United States (Congressional Report, 1988). Gonorrhea, chlamydial infection, and mycoplasmal infection are most responsible for infertility. Endometriosis impairs fertility through a variety of possible mechanisms. It appears

that displaced endometrial tissue may interfere with ovulation, ovum transport, or implantation of the fertilized ovum. Endometriosis may also induce early spontaneous abortion (Hahn, Carraher, Foldsey, and Mcguire, 1986; Holtz, Williamson, Mathur, Landgrebe, and Moore, 1985). Hormonal disturbances of various types can also lead to infertility. Such disorder include polycystic ovarian disease (POD), in which the ovaries are clogged with cysts; poor cervical mucus; and hyperprolactenemia, leading to estrogen deficiency and an ovulation in women or testosterone deficiency and decreased spermatogenesis in men (Kelley, 1989). Stress may be associated with hyperprolactinemia for which other causes cannot be identified stress is also associated hypothalamic amenorrhea, the absence of menstruation for at least three cycles in a woman with previously established menses and for which no physical pathology can be found (Bensen, 1978; Kelley, 1989).

Cancer of the cervix, uterus or ovaries causing damage to these organs necessary for reproduction can obviously impair fertility. In addition, however, the treatment of cancer by surgery, chemotherapy, and/or radiation can lead to infertility if not sterility. Finally, the very presence of cancer in the body is known to affect semen quality (Newton, 1987) and is likely to affect the female reproductive process (Congressional Report, 1988). Genetic and chromosomal abnormalities can affect fertility in several ways. Abnormalities in human embryos can affect the health of the embryo. In addition, chromosomal abnormalities can impair the fertility of an adult.

Nutrition and eating disorders In women, sexual maturation and continuation of cyclic ovulation depend on achieving and maintaining an adequate amount of body fat as a proportion of total body mass (Frisch, 1984; Van Der Spuy, 1985). It has also been suggested that possession of adequate fat stores may serve as a physiologic precondition for conception and pregnancy since completion of the pregnancy and lactation requires approximately 50,000 calories, roughly the amount of energy most women possess in body fat (Frisch, 1984). When malnutrition exists and the individual's fatty tissues are depleted, the probability that conception will occur is greatly decreased since estrogen deficiency, associated with hypothalamic suppression, results in an ovulation as well as amenorrhea.



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Exercise Regular, strenuous exercise is frequently associated with altered menstrual function, temporarily impairing fertility in women. Research indicates that if women with normal menstrual function begin a program of strenuous exercise, that many will develop some form of menstrual abnormalities. A prospective study in which untrained women engaged in strenuous exercise found that 87% of women who engaged in the exercise regimen developed some menstrual abnormalities (Bullen et al., 1985).

Anecdotes are frequently cited indicating that infertile couples will conceive after a reduction in stress, for example when they discontinue infertility treatment or "stop trying." It has similarly been reported that women may become pregnant after scheduling an initial infertility evaluation. Baker, Mathur, Kirk, and Williamson (1981) found that 39% of their samples of women with normal menses prior to running were amenorrheic. The American College of Sports Medicine reports that one-third of competitive female long distance runners aged 12-45 experience menstrual dysfunctions (Baker, 1981). Acute exercise has been found to produce an increase in testosterone in women immediately after running (Shangold, Gatz, and Thyssen 1981; Suttan, Coleman, Casey, and Lazarus 1973). Shangold et al. (1981) observed a greater testosterone increase during the follicular than the luteal cycle phase. Johansson, Laakso, Peder and Karonen (1988) speculate that increased plasma testosterone during exercise may be caused by decreased hepatic blood flow, resulting in decreased degradation, rather than increased secretion of the hormone, although it is not clear why would vary across cycle phase. Lack of significant change in testosterone after running has also been reported (Loucks and Horvath, 1984), although hormone means were in the right direction. Inconsistent results for basal testosterone in runners versus controls have been reported. Findings include higher testosterone in runners compared to controls (Dale, Gerlach, and Wilhite, 1979), lower basal testosterone in runners versus (Ronkainen, Pakarinen, Kirkinen, and Kauppila, 1985), and no difference (Chang, Richards, Kim, and Malarkey, 1984). One reason for variable results may be failure to control for cycle phase in amenorrhea runners in light of the cyclicity of testosterone levels. As previously indicated, intensive exercise appears to increase the likelihood of menstrual dysfunction. Predictors for women exercises who become amenorrhic include prior menstrual dysfunction, older age at menarche, younger current age, nulliparity,

mileage run per week, and alteration in percent Body fat (Baker, 1981; Baker et al., 1981)

Stress Evidence suggests that mild to severe emotional stress may lead to impaired fertility in both men and women. For example, 50% of women in concentrating camps were reported to be amenorrhea (Mazer and Israel, 1959). Stress can directly affect reproductive hormones. There is a substantial literature in men demonstrating that stress results in reduced testosterone level with possible interference with spermatogenesis. For example, testosterone may remain suppressed up to seven days following surgery (Ghanadian, Pua, Williams, Shah, and McWhinney, 1981). Psychological stress caused by Army basic training, anticipation of combat duty, parachute jumping, and flying fighter planes results in lower testosterone compared to controls or baseline (Rose et al., 1969; Kreuz, Rose, and Jennings, 1972; Davidson, Smith, and Levine, 1978; Leedy and Wilson, 1985). Intensive exercise regimens produce lower basal testosterone in men (Wheeler, Wall, Belcastro, and Cumming, 1984). Acute prolonged exercise also leads to reduced testosterone in men (Dessypris, Kuoppasalmi, and Adlercreutz, 1976).

It is clear whether stress suppresses testosterone in women. Testosterone values in a normal range are important in maintaining women's sexual desire (Sherwin, 1985). There is a shortage of studies examining the effect of stress on testosterone in women; however, those results that have found are inclusive. Effects of surgical stress on testosterone have not been studied, presumably because testosterone is not considered to have reproductive or other significance. It would be of great interest to know whether the normal mid cycle peak in women's testosterone is suppressed during chronic stress, especially as this elevation is correlated with sexual functioning (Morris and Urdy, 1987; Persky et al 1978).

Stress may affect other aspects of reproductive functioning in women. For example, Sandler (1968) provides examples of stress-related tubal blockage, and as previously noted, has been implicated in hypothalamic amenorrhea (Benson, 1978). It is probable that stress may have other more complex effects on human reproductive functioning. It is important to recognize, however, that while in the recent past 40-50% of all infertility was attributed to stress (Siebel and Taynor, 1982), this figure has dropped to 5% or less (Congressional Report, 1988).

Smoking Evidence from several studies indicates that cigarette smoking has adverse effects on the reproductive system (congressional report, 1988). In women, smoking has been associated with menstrual abnormalities and tubal disease (Baird and Wilcox, 1985; Hartz et al., 1987; Stillman, Rosenberg, and Sachs, 1986; Thomford and Mattison, 1986). Smoking has also been associated with primary infertility resulting from cervical factors and impaired tubal function (Phipps, Cramer, and Schiff, 1987). In males, smoking or nicotine consumption has been associated with decreased sperm motility and count, altered sperm morphology, and altered hormone levels (Weisberg, 1985; Wentz, 1986). Experimental evidence suggests that these alterations are caused by changes in hypothalamic/pituitary axis function and possibly impaired motility of cilia in the genital tract (Mattison, 1982).

Sexual Dysfunction Conception requires that sperm be transmitted to the female reproductive tract. If a couple is unable to have intercourse, sperm transmission may not occur. Thus sexual dysfunctions are another etiological factor in infertility. One study of etiological factors in male infertility revealed that sexual problems between the couple were the primary cause of infertility for 64 (5%) of 1294 consecutive cases of male infertility (Dubin and Amelar, 1971). Erectile dysfunction is probably the single most prevalent type of sexual dysfunction producing infertility, and was found to be responsible for 27(42%) of the cases described above (Dubin and Amelar, 1972). Difficulty attaining an erection may result from a variety of psychogenic as well as organic causes. In some men, conflict surrounding conception may result in lack of erection during the period in which they perceive their wife to be fertile. It is also common for the pressures of "trying to conceive" to result in decreased arousal.

Thus sexual issues are frequently experienced by both the partners, regardless of which partner has been diagnosed as the one responsible for the couple's infertility (Bell, 1981). Unfortunately, the sexual disturbances experienced by the individual or couple are often overlooked or avoided by both the couple and caregivers. Medical personnel may avoid sexual issues due to their own feelings of inadequacy in dealing with the subject. The couple's sexual relationship may thus come to be impaired by a

belief that's sexual problems are an inevitable concomitant of infertility or that sacrifice of sexual satisfaction will ensure the desired child (Burns, 1987)

To avoid or correct these sexual value dilemmas often faced by infertile couples, it is essential for caregivers to respect the couple's sexual health and to be alert to potential problems. When necessary, caregivers should provide early education, intervention and treatment or appropriate referral and resources for the couple (Burns, 1987).

It is important for the infertility caregivers to be comfortable with sexual issues the couple experiences. Couples would be most helped if caregivers were able to evaluate the sexual relationship to determine presence of sexual dysfunctions well as sexual issues caused by infertility or infertility treatments that may cause concern. The infertility caregivers could then provide information, treatment, or referrals to directly address sexual problems.

INFERTILITY IS A MAJOR PROBLEM IN DEVELOPING COUNTRIES:-

Infertility in developing countries distinct and complex problems beyond those well known to developed nations. Infertility in developing countries is pervasive and a serious concern. Further, there is evidence that the infertility rates that are quoted are, in fact, underestimates. The consequences of infertility in developing countries range from severe economic deprivation, to social isolation, to murder and suicide.

Even in these countries, the rates vary dramatically between and within most countries. In particular, Africa records some of the highest infertility rates in the world, mainly secondary infertility.

Secondly, infertility is especially problematic in Africa and Latin America.

More so than in Africa, there is a lack of data on the problem of infertility in Asia.

Analyzing infertility in Asia is further complicated by first, the diverse cultural, ethical, and religious groups represented throughout the region; and second, and the wide discrepancies in public policies. In Asia, as with Africa, infertility is treated as an ancillary issue to overpopulation. India, particular has paid little attention to

infertility given that it is wrongly assumed to be a condition that does not threaten life. Rather, India's policy has focused on managing population size.

Notwithstanding the high rates of infertility in developing countries, there are substantial reasons to think that these rates are underestimates. Many analysis prevalence of infertility in developing countries are based on fertility date. The WHO 1991 study 1) on infertility underscores the inherent limitations in demographic studies that provide only in indirect indicator of primary infertility and an imprecise indicator of secondary infertility. Moreover, divergent cultural understandings of motherhood or severe social stigmatization associated with infertility bias data, creating a subcategory of hidden infertility.

INFERTILITY HAS SEVERE PSYCHO-SOCIAL CONSEQUENCES:-

Infertility in developing countries extends beyond the loss of human potential and unrealized self. The experience of infertility causes harsh, poignant and unique difficulties: economic hardship, social stigma and blame, social isolation and alienation, guilt, fear, loss of social status, helplessness and in some cases, violence (Frank O., 1983, Bergstrom S., 1992, Whiteford L.M, et al. 1995, Griel AL., 1997, Gerrits T., 1997, Kielmann K., 1998, Unisa S. , 1999, Papreen N. et al., 2000). Many families in developing countries depend on children for economic survival. Without children, men and women may starve to death, especially in the old age. In some communities, infertile people are ostracized as they are perceived to be unlucky or the source of evil, or they become the object of public humiliation and shame. Some, even, choose suicide over the tortuous life and mental anguish caused by infertility. In other communities infertile men and women are often denied proper death rites. For women, infertility may occasion life-threatening physical as well as psychological violence (Whiteford L.M, and et al., 1995, Unisa S., 1999).childless women are generally blamed for their infertility, despite the fact that male factor causes contribute to at least half of the cases of infertility around the world. Even in countries like India motherhood is often the only way for the women to enhance their status within way for women to enhance their status within the family and community.

In Asia, being childless has more negative social, cultural and emotional repercussions for women than, perhaps, any other non-life threatening condition. An infertility study in Andhra Pradesh, India, reported that approximately 70% of women who experienced infertility would be punished for their failure through physical violence. Nearly, 20% of the women reported that their husbands used severe violence as a result of their childlessness.

Even in communal families in Latin America children are integral to families' prestige, honor and happiness. Children are often cared for by multiple, extended family members, which makes having children central to family life thus couples suffer extreme emotional and psychological stress over infertility. In certain parts of Latin America, including Mexico, children are an important part of families' economic prosperity and survival. But sources indicate that violence is not common in Latin America like developing countries.

SOCIO-CULTURAL CONTEXT AND CONSEQUENCES:-

In patriarchal setting, such as in India, bearing children, particularly sons, largely defines a woman's identity. Motherhood is of great social significance and infertility is perceived as a great threat to men's procreativity and the continuity of the lineage (Iyenger and Iyenger, 1999; Jindal and Dhall, 1990; Jindal and Gupta, 1989; Mulgaonkar, 2001; Neff, 1994; Patel, 1994; Prakashamma, 1999; Singh and Dhaliwal, 1993; Unisa, 1999; Widge, 2001)

Traditionally, in Indian society, the mother has always been revered as the giver of life, the nature of children, and "matrishakti" or "maternal" feelings are considered essential for a woman's growth, development & status in the society that she should become a mother. The worst sin in our society is to be born as woman who are incapable of give birth. Therefore, a major fact in woman's life is their status as a child bearer. Any further identity has been neglected by terms such as "Baanjh" and "Soonikokh" while there is no social term for childless men in the society.

Marriage and having a child is a mandatory for everyone. In many cultures, inability to conceive bears a stigma. In closed social groups, a degree of rejection or a sense of being rejected by the people, husband, and in-laws may cause considerable anxiety

and disappointment. It also affects the social life related to personally, social and marital relationship. It also affects on social relation with family friends and if working workmates.

It (infertility) is a chronically stressful situation, a non-event transition for women chronic stressors develop slowly as continuous and social roles. It makes the women life hell. For maximum women, infertility and its treatments cause serious strain or their interpersonal relationship with other people, personal distress, reduced self-esteem and periods of existential crises. Infertility is perceived as a stressful life situation that influences an individual's psychological adjustments in accordance with the resources she has available. Therefore, psychological distress among fertile women experience similar objective stress should differ according to a variety of interacting psychological, behavioral situational factors.

From mental health perspective, infertility is considered among the more serious life stressors. Berg Wilson (1990, 91) found tension, depression, anger, decrease in sexual functioning, mood disturbances, cognitive disturbances expressed in excessive worrying and a tendency of self blame, low energy level, and over creating to be frequent responses in infertile couples. Leiblum (1993) found infertility to be a serious source of stress and anxiety that causes the couple to feel offended, lower body image, and decreases psychological and financial resources.

It may have found psychological affects partners, play become more anxious to conceive; paradoxically increasing sexual dysfunction. Marital discord often develops in infertile couples, especially when they are under pressure to make medical decisions. Women trying to conceive often have clinical depression rates similar to women who have cancer.

A lot of women find themselves to be in between would be abnormal and fertile woman are normal. It's about "us" vs. "them", and infertile would often compare themselves to fertile women. Such social comparisons permitted both self-evaluation and self-enhancement; they allowed women to determine whether they "fit into scheme of things" and to find the "slide rule" that would enable them to measure whether they were better or worse off or "at least equal to everybody else.

Infertility is a life crisis with invisible losses, and its consequences are manifold, childless women experiences stigma and isolation. Infertility can threaten a woman's identity, status and economic security and consequently, be a major source of anxiety leading to lowered self-esteem a sense of powerlessness. Although, perceptions of women's roles and attitudes may be shifting, particularly in the upper and middle classes, bearing a child still remains an important factor of in the socio-economic well-being of most Indian women (Das Gupta, Chen and Krishnan, 1995). Infertility can also result in a strained relationship in marital home. Men tend to hold their wives responsible for infertility. And many wives tend to blame themselves for childlessness irrespective of who may be responsible (Desai, Srinivashan and Hazra, 1992). In some cases women are threatened with another marriage or divorce and many fear abandonment and loss of social and economical security. They could also be victims of violence, abuse and social exclusion (Singh, Dhaliwal and Kaur, 1996). Some couples experience altered sexual responses (Desai, Srinivasan, and Hazra, 1992, Mulgaonkar, 2001). Though childlessness usually has a negative impact on marriage; some husbands are supportive and defend their better halves against family pressure or criticism (Widge, 2001).

TREATMENT-SEEKING BEHAVIOUR OF WOMEN TO PROVE HER FERTILITY:-

The problem may be either the man or the woman, and in fact it's quite common to find that both have problem. There are numerous causes of infertility in man; these include environmental and hormonal factors that affect the production of healthy mobile sperms normal semen, as well as blockages that affect the delivery of sperm. In woman, the causes are more varied since she plays a greater role in reproduction. Therefore, when a couple is infertile; some societies still tend to blame the woman. The woman is the first to consult the doctor for the solution to the problem. Until not so long ago, women had to go through the long diagnostic procedure before men were submitted to the sample obtaining a spermogram. Even in some societies, irrespective of the cause of infertility, childless women can be easily divorced or abandoned, misbehave and ignore in ritual practices.

Even women go through various treatment-seeking modes to avoid the adverse consequences of childlessness. Adoption is not the adverse option for many as

women face psychological, familial, and community pressure to produce biological child (Iyengar and Iyengar, 1999; Singh and Dhaliwal, 1993; Unisa, 1999). Couples seek varied traditional methods and religious practices, including visiting a place where a woman has delivered a child, observing tantric rites, wearing charms, participating in rituals and visiting astrologers (Desai, Srinivasan and Hazra, 1992; Patel, 1994; Unisa, 1999).

A variety of treatments are sought through a pattern of treatment-seeking does not clearly emerge. Some studies suggest that women first seek treatment from traditional healers (Gupta, Dhall and Dhaliwal, 1983; Kakar, 1983). More recent studies have identified allopath as the first treatment sought. Couples also follow religious practices with such treatment, either simultaneously or subsequently (Mulgaoukar 2001, unisa, 1999). As a last resort, when allopathic treatment does not work, women seek other methods, such as Ayurveda, Homeopathy, Unani and other traditional methods, or visit holy places and spiritual healers (Unisa, 1999).

Again, anecdotally, it is said that infertile men and women tend to seek help from traditional healers and quacks (Kakar DN, 1983) The most common methods used by traditional healers are herbal treatments and appeals to supernatural powers, as well as prayers (puja means prayer among Hindus) and other rituals (munat is a certain promise made at Dargh (the grave of a holy man) or to a deity by someone wanting a particular wish to be fulfilled. This promise must then be carried out upon the attainment of what is desired.). Little is known about the availability of allopathic fertility treatment in rural areas, the profile of couples who seek these services from the private sector or the treatment costs incurred by them (Jejeebhoy JS, 1994).

In a population where being childless has more negative, social cultural emotional repercussions for women than any other non-life-threatening conditions, it can probably be assumed that almost all cases of childlessness are due to physiological or biological factors. Estimations of the magnitude of primary and secondary infertility are often not very precise because of adequate demographic and health service statistics (WHO 1975).

Most couples seek treatments after trying to conceive for one to four years (Gupta, Dhall and Dhaliwal, 1983, Iyengar and Iyengar, 1999; Mulgaonkar, 2001; Unisa, 1999). Couples may delay seeking medical advice because of the fear of a final definite diagnosis, emotional stress, the physical discomfort of the tests they would have to undergo and admitting failure in their efforts to conceive (Gupta, Dhall and Dhaliwal, 1983) irrespective of who the infertile person is, it is the woman who initiates the first contact with the physician (Gupta, Dhall and Dhaliwal, 1983, Singh, Dhaliwal and Kaur, 1983).” Couples with primary infertility are usually more interested in treatment than those with secondary infertility (Gupta, Dhall and Dhaliwal, 1983; Singh, Dhaliwal and kaur, 1996). Treatment sometimes continues over a long period; for example, in one study, women sought treatment for 25 years and some continued to rely on rituals or religious practices for over 30 years (Unisa, 1999). Although, most studies reveal that male participation in infertility diagnosis and treatment tends to be limited as infertility is perceived to be a woman’s problem, in some contexts, husbands also participate and accept treatment if required (Unisa,1999).

Stigmatizing beliefs, limited male participation, cost, indifferent quality of care and lack of services in the public sector are major barriers to prompt and appropriate treatment-seeking, patterns of treatment-seeking depend on the woman/couples socio-economic status, decision-making within the family, the level of information and acceptability of treatment (Iyengar and Iyengar, 1999; Singh, Dhaliwal and Kaur, 1996; Unisa, 1999). High costs sometimes results in discontinuation of the treatment or resort to unqualified practitioners (Singh, Dhaliwal and Kaur, 1996). Traditional beliefs about women being possessed by evil spirits also inhibit women from seeking appropriate treatment, (Iyengar and Iyengar, 1999).

The public health system does not offer access to adequate preventive, curative and counseling services. Though infertility treatment is theoretically available at government facilities, effective treatment is often difficult to access as there is little coordination between gynecologists, infertility specialists, Surgeons and laboratory technicians. Services are available in the private sector but are varying qualities and costs, which is not affordable by middle class and lower middle class.

The difficulties of meaning infertility are compounded by its multiple definitions. The world health organization (WHO) using a two-year reference period "defines primary infertility as the lack of conception despite cohabitation and exposure to pregnancy (WHO, 1991). Some studies use childless as a definition (women with no live birth) based on various reference periods, ranging from one to five years, making comparison difficult. Secondary infertility is the inability to achieve pregnancy again after one or more successful pregnancies (in the absence of contraception, breastfeeding or postpartum amenorrhea) (WHO, 1991).

Although, the consequences for women's lives and the health seeking behavior of women with primary and secondary infertility could be different, most population based studies in India have not explored these issues separately.

The causes of primary and secondary infertility relate to both males and females and the conditions that directly contribute to infertility vary widely by region and culture (Farley and Belsey, 1988). According to WHO multi-centric studies of infertility in India, 40% of women and 73% of men had no demonstrable cause of infertility among women (nearly 30%), followed by an ovulation (22%). Among men, accessory gland infection was the most common factor for infertility (8.8%) (Cates, Farley and Rowe, 1985)

In case where infertility is caused by infections, leading underlying factors are STIs (Farley and Berley, 1988) and iatrogenic factors, including unsafe abortions and unhygienic delivery conditions (Kocher, 1980). The WHO study shows, for example, that the dominant cause of infertility in Asia among women with a demonstrable cause was on account of either an STI or unsafe management of abortion or delivery. Among men with a demonstrable cause, about one in three may have become infertile as a result of an STI experience (Cates, Farley and Rowe, 1985-86). In India; the prevalence of STIs was found to be high among women reporting infertility and pelvic inflammatory disease.

MEDICAL TREATMENTS FOR INFERTILITY

Fertility drugs

The most commonly used therapeutic agents for treating ovulatory dysfunction are compounds known as fertility drugs. These include clomiphene citrate (clomid), human gonadotropins (human menopausal gonadotropin, follicle-stimulating hormone, and human chorionic gonadotropin), bromocriptine, glucocorticoids, and progesterone.

Clomid is the most commonly prescribed fertility drug (Congressional Report, 1988). Clomid is a nonsteroidal synthetic, weak estrogen antagonist that stimulates follicular maturation in the ovary. In an ovulatory woman, Clomid binds to estrogenic receptors, causing a false signal to be sent to the hypothalamus and pituitary gland. They respond by increasing secretion of luteinizing hormone(LH) and follicle-stimulating hormone(FSH), which in turn, cause increased secretion of endogenous estrogen and progesterone (Dwyer,1986). In this environment, the ovarian follicle matures and ovulation occurs.

Clomid is usually given on the fifth day after the onset of menses and continued through day 9 to induce ovulation, which is expected to occur between days 14 to 18 of the cycle. Treatment may be necessary for as long as 6 months. Therapy is not recommended beyond one year. An 8-12% increase in the occurrence of multiple births accompanies Clomid treatment (Dwyer, 1986).

Human Gonadotropins Administration of human gonadotropins may be indicated when Clomid is ineffective and pituitary dysfunction is causing ovulatory dysfunction. Either human menopausal gonadotropin (hMG) or human follicle-stimulating hormone (hFSH) may be administered. These gonadotropins are extracted and purified from the urine of postmenopausal women. They act directly on the ovary to promote growth and maturation of the ovarian follicle. However, effects are not sufficient to stimulate ovulation. For ovulation to occur, human chorionic gonadotropin (hCG) must be given after gonadotropins have stimulated the follicle. The high hCG levels resulting from administration mimic the action of the natural LH surge, causing rupture of the follicle and release of the ovum.

These hormones are potent stimulators of ovarian function. Careful monitoring of hMG's potent effects must accompany its administration, necessitating daily blood estrogen levels and ultrasound monitoring to determine growth of the ovarian follicle (O'herlihy, Evans, Brown, de Crespigny, and Robinson, 1982).

Human chronic gonadotropin may also be used in conjunction with clomid therapy. Clomid is first administered to induce ovulation. Injections of hCG are then administered for 6 to 8 days after ovulation to stimulate the corpus luteum to produce estrogen and progesterone in order to facilitate implantation of the embryo (Dwyer, 1986). The use of hCG may lead to multiple birth, with the incidence being reported as approximately 20% (Cahill, 1988).

Progesterone Treatment with progesterone can be an effective treatment of luteal phase defect (Mason, Wentz, and Herbert, 1984). This defect, characterized by a uterine lining that is poorly prepared for implantation of the embryo, is due to inadequate progesterone production in the postovulatory phase of the menstrual cycle (Dwyer, 1986).

Bromocriptine Bromocriptine is commonly used in cases of infertility associated with oversecretion of prolactin, which results in disruption of regular ovulatory function. Bromocriptine is a synthetic compound that interferes with the pituitary gland's ability to secrete prolactin. Ovulation usually returns after 6 to 12 weeks of daily treatment (Stillman, 1987).

Glucocorticoids Glucocorticoids are one class of hormones naturally produced by the adrenal glands. Women with adrenal disorders often experience ovulatory dysfunction. Treatment of the adrenal disorder with synthetic glucocorticoids alone or in conjunction with other drugs (e.g. Clomid, human gonadotropins) can result in resumption of ovulatory cycles (Daly, Walters, and Soto Albers, 1984). This treatment can also be effective for ovulatory dysfunction associated with polycystic disease (Evron, Navot, Leufer, and Diamond, 1983).

Glucocorticoids therapy is also effective in suppressing the production of sperm antibodies in the female. These antibodies are most likely responsible for abnormal sperm and cervical mucus interactions that inhibits or prevent fertilization. Administration of glucocorticoids can improve the quality of the cervical mucus, making it more receptive to sperm survival (Dwyer, 1986).

As previously mentioned, some fertility drugs create a risk of multiple conceptions. Multiple births increase the risk of miscarriages, birth defects, low birth weight, and

complications during delivery (Congressional Report, 1988). Side effects associated with some or all of these drugs include weight gain, nausea, acne, hot flashes, and mood swings. Further, fertility drugs are not suitable for all women. They are contraindicated in women who exhibit undiagnosed vaginal bleeding, fibroid tumors, ovarian cysts (in some instances), hepatic dysfunction, or thrombophlebitis (Cahill, 1988). And they should be used cautiously in women with asthma, seizure disorders, or heart disease (Dwyer, 1986).

In vitro fertilization (IVF)

In vitro fertilization is a revolutionary infertility treatment that offers the possibility of nearly complete control of reproduction. This treatment is indicated in a number of disorders including irreversible tubal obstruction, azoospermia, endometriosis, and cervical mucus abnormalities.

In most instances, IVF treatment begins with administration of fertility drugs such as Clomid, human menopausal hormone, or gonadotropin releasing hormone, though some women are capable of producing oocytes (eggs) by natural ovulatory cycles. Although protocols for ovulation induction vary among IVF practitioners development of follicles under the influences of fertility drugs is usually monitored by ultrasound imagery and blood estrogens levels (Congressional Report, 1988).

The procedures are costly, time consuming, and laborious. Couples using IVF must accept its relatively low success rate, which is estimated at 25 % (Congressional Report). Further, IVF pregnancies are about two to four times as likely as unaided conception to result in an ectopic pregnancy due to preexisting risk factors in the infertile couple (Thorne and Langner, 1987). Other risks include the side effects associated with daily intake of hormones and anesthesia during egg retrieval, stress to the uterus, spontaneous abortion, and multiple pregnancies (Congressional Report, 1988).

Total cost of IVF, assuming an average of two IVF treatment cycles, is estimated at \$9,000 to \$10,000 (Congressional Report, 1988). Couples must also be able to travel to the clinic, bear the expense of lost time at work, travel and hotel stays, and endure the anxiety of waiting to see whether fertilization occurs. In addition, the majority of IVF programmes in the United States have waiting lists of patients as long as 1 to 2 years. According to recent congressional surveys (1988),

some IVF centers have policies restricting their services to only certain types of patients—for example, refusing to treat individuals without partners, unmarried couples, people under 17 or between the age of 39 and 50 years, or homosexuals.

Artificial Insemination

Artificial insemination is one of the oldest forms of infertility treatments and continues to be one of the simplest and most successful infertility procedures. Sperm donation has existed as a therapeutic option in the United States since about 1950 (Congressional Report, 1988). Artificial insemination by donor (AID) refers to the practice of mechanically introducing into women's vagina live sperm obtained by menstruation from a man other her husband (Waltzer, 1982). Artificial insemination homologous (AIH) is a similar procedure, but using husband's sperm.

The most commonly used procedure is AID, particularly in the treatment of infertility due to abnormal sperm conditions such as azoospermia, oligospermia, and necrospermia (Waltzer, 1982). When AIH procedures are employed, several sperm samples are collected from the husband since in these instances his sperm is usually of poor quality. These samples are frozen and later pooled to increase the sperm count (Cahill, 1988).

The artificial insemination technique achieves conception in approximately 70% of women when the husband's sperm is used and in approximately 90% of the women when donor sperm is used (Cahill, 1988). These figures reflect success rates after multiple treatments, usually 6 months, since correctly timing insemination and ovulation may necessitate multiple trials. The AID or AIH techniques cause few complications, though multiple births are possible (Cahill, 1988). However, the major risk of using donor sperm is transmission of the disease from the donor to the recipient, including chlamydia, gonorrhea, cytomegalovirus, hepatitis B virus, and human immunodeficiency virus (HIV) (Holmes, 1987; Scialli, 1987). It should be noted, however that these risks do not exceed those present in unaided conception. The estimated cost of AIH services ranges from \$30 to \$200, and the cost for AID services ranges from \$35 to \$350 (Congressional Report, 1988).

Gamete Intrafallopian Transfer (GIFT)

Gamete intrafallopian transfer is an infertility treatment that involves the transfer of ova and sperm directly into the fallopian tubes, where fertilization can take place. In this procedure, oocytes are retrieved via laparoscopy after ovulation induction is accompanied by administration of Clomid or hMG and hCG, and a semen sample is collected. Both sperm and oocytes are directly emptied into one or both fallopian tubes using a catheter guided by laparoscopy. Following sperm and ova transfer, progesterone is administered daily until implantation of the embryo takes place.

Treatment of infertility using the GIFT technique is indicated instances of endometriosis, premature ovarian failure, unexplained infertility, tubal adhesions, and oligospermia (Asch, Balmececa, Ellsworth, and Wong, 1985; Guastella, Comparetto, Palermo, Cefalu, Ciriminna, and Cittadini, 1986). Risks associated with this procedure are similar to these associated with the IVF technique. The estimated cost of treatment with GIFT ranges from \$ 2,500 to \$6,000 (Congressional Report, 1988). An interesting aspect of the GIFT technique is that both donor sperm and donor eggs can be used.

Embryo Lavage and Transfer (ET)

Embryo Lavage and Transfer involves the retrieval of a fertilized ovum from a donor women followed by transfer of the ovum to a waiting recipient (gestational mother) whose menstrual cycle has been synchronized in such a way that the uterine lining is prepared for implantation (Buster et al., 1983; Bustillo et al., 1984). Fertilization of the ovum is achieved by artificial insemination performed on a fertile woman. To date, embryo transfer and lavage is quite rare and may remain uncommon (Congressional Report, 1988).

Surgical treatments

Several different surgical procedures are employed in treatment of various conditions leading to infertility in women. The availability of new and better microsurgical techniques has greatly improved the success rates of the tubal surgery (Dwyer, 1986). Adhesions, occlusions, and scarring of one or both fallopian tubes due to infection, pelvic inflammatory disease, endometriosis, and previous surgery can impair fertility

by severely restricting movement of the fallopian tubes or occluding the tubes, thus hindering ovum transport and the passage of sperm. The most common tubal microsurgical procedures involve excision and repair of scarring or damage at various points along the fallopian tubes (Congressional Report, 1988). Success rates for these procedures vary, and pregnancy is achieved in approximately 60% of women (Dwyer, 1986).

Surgical complications such as injury to the bowel, excessive blood loss, and infection, and the complications of general anesthesia, which include drug reactions, cardiac depression, and the death, do not appear to be different for infertility surgery than with any intra-abdominal operation (Scialli, 1987). Ironically, however, because surgery may cause scar tissue of its own, adhesions and scarring remain potential consequences of reproductive tract surgery (Congressional Report, 1988). The main complication of tubal surgery is ectopic pregnancy, with ectopic pregnancy rates after tubal surgery reported as ranging from 4% to 38% (Scialli, 1987).

PSYCHOLOGICAL CONSEQUENCES OF INFERTILITY TREATMENT

The cause of an individual couple's infertility is important to understand because it determines the type of treatment the couple might undergo and the prognosis for conceiving and delivering a healthy baby. Medical treatment may range from instructing the couple in the relatively simple methods of pinpointing ovulation to more complex treatments involving powerful fertility drugs, artificial insemination, or in vitro fertilization. Whatever the method, the medical investigation and treatment of infertility is often a protracted and time-consuming process (Lalos, Lalos, Jacobsson, and Von Schoultz, 1986).

Despite increasing attention to the diagnosis and the treatment of the infertility, little attention is paid to be psychological and social consequences of infertility. The ability is closely related to self-esteem, identity, sexuality, and body image. Couples involved in fertility investigations are often preoccupied with conceiving, and their daily activities are often focused on pregnancy. Their sexual lives are often planned around a temperature chart, with hope rising each month. The onset of menstruation may be seen as failure that may be accompanied by depression (Batterman, 1985). Thus, it seems that the crisis reactions to infertility are often

prolonged and repeated. The very nature of the human reproductive cycle produces a sequence of hope, expectation, and despair that is commonly referred to as the "emotional rollercoaster" of infertility (Batterman, 1985).

The added apprehension, anticipation, and anxiety associated either testing complicates this effect. Both men and women find the testing procedures to be intrusive and alienating (McEwan, Costello, and Taylor, 1987). Men and women have also been found to have only a vague idea of the function and purpose of the laboratory tests, and feel threatened by what these procedures might reveal, although initially they may not be consciously aware of their fears (McEwan, Costello, and Taylor, 1987). The uncertainty over the length of the time necessary to complete treatment further complicates the process. As couples undergo infertility investigation, the social pressure on them intensifies and they may have to make important decisions about the type of treatment they are willing to receive. These decisions may include dealing with the ethical and legal implications of treatment such as artificial insemination by donor (AID) and in vitro fertilization (IVF) and coming to terms with whether they can accept a child conceived in such a manner as "theirs" (Matthews and Matthews, 1986). Couples using the AID, IVF, GIFT, and ET techniques must adjust to achieving pregnancy non coitally and thus succeed in separating sexuality and procreation. These couples may be particularly vulnerable to emotional stress, since in such situations the semen or ovum of an anonymous donor is introduced to a complex dyadic system (brand, 1987). Indeed, many social scientists have suggested that a thorough psychological evaluation of the couples deciding to make use of these procedures should be a necessary prerequisite.

These emotional reactions have important implications for both physicians and clinicians in regard to their need for increased awareness of the psychological support needed by couples as they undergo fertility investigation and treatment. Psychotherapeutic interventions in cases of infertility usually begin after the individual couple has terminated medical testing and treatment. It has been suggested that the psychotherapeutic intervention begin before or in conjunction with medical intervention (Batterman, 1985). Supportive counseling offered throughout the medical investigation may aid in reducing the couple's anxiety and providing them with an increased sense of control. Supportive counseling should be designed for the

couple since inclusion of both partners enhances treatment by keeping each well informed and actively involved in the process. In conclusion, the major objective of psychological treatment of the infertile couple is to facilitate a positive resolution of this life crisis, regardless of whether the couple conceives.

CHAPTER-3

INFERTILITY: A PUBLIC HEALTH CONCERN

- 1. FROM WOMEN'S HEALTH PERSPECTIVE**
- 2. INFERTILITY IN RESEARCH AND POLICY**
- 3. STATUS OF INFERTILITY IN PUBLIC AND PRIVATE
HEALTH CARE**
- 4. ART: A HOPE OR BURDEN FOR INFERTILE COUPLE**

INFERTILITY A PUBLIC HEALTH CONCERN

The biggest problem with infertility is that it has never been taken seriously as a public health issue. Instead, it is a clear stigma, left to distressed individuals to solve free market of private medicine.

The importance of infertility as a public health problem and a social problem can be judge from the perspectives of the couple, of health care providers and of society at large. Infertile couples are subjected to a variety of family and social pressures and conflicts. In those countries or segments of society in which a woman's traditional role is defined primarily in terms of her fertility, infertility is often a social stigma that is usually borne by the woman. In addition, the failure to bear children is accepted as grounds for divorce in many cultures. The social implications are often as profound as the personal tragedies.

From women's health perspective

The subjective definition of reproductive health depends upon women's life experiences and is reflected in their perceptions and what they themselves say. Deeply rooted in the social matrix of each society, the actual expression of reproductive health needs depends upon the status and social position of women in it. Thus, it is not necessary that women would be in a position to articulate these needs in their entirety, especially in the third world. This does not mean that till women start articulating their needs, no interventions can be made. On the contrary, it calls for identifying the possible levels of intervention as well as evolving strategies for intervention.

Were women's health needs taken seriously prior to the 1990s? Although women became central targets of the family planning programme from the late 1960s on, it is well known that their reproductive health needs were neither acknowledged as a policy concern nor set within an overall integrated approach to their health. The field of women's health in India was full of resounding policy and research silences, misdirected and partial approaches, and insufficient attention to critical issues such as co-morbidity or the reversal of the traditional gender paradox in health. In many ways these problems in India mirrored a global lack of attention to gender equity in health.

But the acute nature of gender bias and son preference in the country made their consequences even more severe.

In a country that had the first modern public family planning programme, and in which targeted programs for female sterilization had grown rapidly, the lack of awareness of the range and intensity of women's reproductive health problems was all the more ironic. The prevalence of reproductive tract infections, unmet contraceptive needs, infertility, uterine prolapsed and fistulae were practically unacknowledged prior to the 1990s. Women's own stated discomfort with IUDs was ignored or dismissed as psychosomatic.

Problems of irregular bleeding and amenorrhea were left unaddressed despite growing evidence of the pre-valence of under- and mal-nutrition and iron-deficiency anemia among girls and women. Programme. So also did the prevalence of violence against women and its connections to sexual health and rights. In a country where abortion had been legal since the early 1970s, it continued to be unsafe for an overwhelming majority of those who needed the service.

It is true that awareness of the problem of declining sex-ratios and gender bias within households in favour of boys and men's nutrition and health care had grown. But many other problems, such as those above, were only weakly recognized. And if the field of reproductive health was weak during this period, this was even truer of areas such as occupational, environmental or mental health. Nor it was given much attention to gender concerns in the handling of infectious diseases.

Undoubtedly the weak policy and funding support that bedeviled public health infrastructure and services in this period was experienced most seriously by the poor and by women especially among the poor. Official statistics on illness in the latter half of the 1980s shows very similar rates for women and men (with the caveat that women in India tend to underreport illness), but higher untreated illness rates for women. Poor household members were less likely to get their illness treated, and these differences by household economic class status (as measured by household consumption expenditure) were more acute among women than among men. That is, the access gap for poor women was greater than for poor men.

Overall, because of the continuing weaknesses of the public sector health services, and relatively low cost differentials between public and private health providers, over 70 per cent of outpatient care was provided by the private sector. However, partly because of greater cost differentials, only 40 per cent of inpatient care was handled by the private sector.

Major changes in awareness regarding women's health among researchers, policy-makers, and funding agencies occurred during the 1990s. Although many women's health groups had been critiquing the narrow, sterilization-focused and target-driven approach of the family planning programme and had challenged the conditions under which new reproductive technologies were being introduced in the country, it wasn't until the conferences of the 1990s (Vienna, Cairo, and Beijing) that major changes in policy thinking occurred. The recognition in Vienna of women's rights as human rights and of violence against women as a violation of those rights, the paradigm shift of ICPD from top-down demographic control to population policies focused on meeting reproductive and sexual health and reproductive rights, and the reinforcement of these forward shifts at the Beijing conference had a major impact on policy thinking.

The direct impact was the repudiation of targets in the family planning programme, and the attempt to introduce an approach to service delivery based on community needs assessment. A new programme on Reproductive and Child Health (RCH 1) was introduced with major donor funding and with significant new programme elements included. Although neither the target-free approach nor RCH 1 was as effective as the intention behind them, the policy direction appeared definitely to be changing. However, the RCH programme depends for its effectiveness on the public health infrastructure of subcentres, PHCs and hospitals, as well as staffing, logistics and management inputs from the public health system. This system went through major negative changes during this period. Thus the change in the policy paradigm was undermined by opposite changes in the public health system.

During this entire period, the health sector was undergoing the direct and indirect effects of structural reforms in the overall economy. Real expenditures on public health stagnated, accompanied by infrastructural decline and rising user charges. Perhaps the most significant increases in health costs came from the rapid

liberalization of the pharmaceutical industry resulting in sharp increases in drug costs. Spiraling costs have had a significant impact on access. According to the NSS surveys, the importance of 'financial reasons' for not treating illness has gone up sharply.

While the paradigm shift towards the ICPD approach appeared to be gaining ground during the 1990s, this seems to have become more shaky recently. The implementation of the paradigm change was opposed by traditional population controllers even in the early phase. However, the opposition came largely from sections of academics and field staff, some of whom at least have since modified their stance. But politicians in some states and more worryingly, at the Centre, have begun jumping on the population control bandwagon.

Thus, focusing on incentives or disincentives on family size will have very little impact on the growth of population. If we are indeed concerned to bring down the growth rate of population, we would do better by improving the quality of family planning services, empowering women to make reproductive decisions, and lowering the effect of population momentum by raising the effective age at marriage (through keeping girls in school longer, providing them with income earning opportunities).

The most alarming aspect of the current situation is the combination of heterosexual transmission and the weakness of sexual rights for women in the country. The right to say 'no' to sex within marriage, and the ability to negotiate condom use with male partners are capacities that very few women have.

Family planning practices in even a more socially advanced state such as Kerala see couples typically using no family planning methods after marriage until the desired two children have been had. At this point the woman undergoes sterilization. Spacing and condom use are still relatively rare.

All the dilemmas faced by women's health at this time point in the direction of approaches that reinforce women's rights. The responsibility to ensure these rights lies with families, communities and the government at both state and central level. Ensuring effective and equitable access to affordable health services is the job of the state. An effective public health infrastructure can act as a floor for health access, and

is a crucial ingredient of poverty reduction. Providing this on a priority basis will both improve health status and also support the paradigm changes of the 1990s.

But women's health as we know is not only a matter of access to services; it also requires a change in mindsets and power equations. Without these changes, no real paradigm change is possible.

Women met in self help groups to discuss issues of sexuality, fertility and infertility, contraception, pregnancy and childbirth, breast feeding, getting to know the body better and other matters related to the general well-being of women. (The new women's health movement as a phenomenon manifested itself as a part of the feminist movement in the 1960s) Its aim was twofold:

- 1- At a political – it aimed to reconstruct and revalidate women's role in health care since early times and to demystify and challenge the existing professional health care system which controls women's physical and mental well-being sexuality and biological reproduction.
- 2- At a practical level- by providing health-related services for women and by women's health centres and self-help clinics. Learning about one's own body was seen as a starting point to regaining control by women over their own bodies.

Only later, after the invention of technologies in the field of assisted reproduction, has the right to have a child been seen as an equally valid claim. The concept of reproductive rights and sexual rights as human rights recently introduced by feminists includes assisted reproduction as measure to help the infertile as well.

Women's health is compromised and reproductive rights are violated due to the fact that the primary goal is not to provide women with the means for birth control but population control. The aim has been to decrease fertility by whatever means, rather than to meet women's needs in order to give them greater control over fertility.

Although fertility regulation has a potential to raise women's status, the very fact that this purpose remains subordinate to a more powerful one: reducing population growth in developing countries, often prevents planners from relying on women as decision makers in their own right.

INFERTILITY AS HEALTH CONCERN (THE POLICY CONTEXT):-

Within the framework of the WHO's definition of, health, mental, social and physical well being and not merely the absence of Disease or infirmity are crucial aspects. Infertility often has psychosocial consequences, even if underlying causes in specific cases do not explicitly affect the person's health adversely. Infertility is thus a legitimate area for attention by all concerned with the attainment of health.

As the main problem facing the world is excessive population growth and not infertility and therefore attention should be given to curtailing fertility than to assisting infertile couples. Globally, 120 million couples are estimated to have unmet need for family planning, that is, they want to limit or space childbearing but are not using any contraceptive method.¹ while resources should be mobilized to meet the contraceptive requirements of these couples, one cannot overlook the plight of the 60 to 80 million couples worldwide who are infertile.² A fair and equitable share also needs to be directed to infertility treatment. Thus, both from the perspective of health and due to the magnitude of the problem, infertility treatment claim a legitimate place in publicly-financed health services.

The argument that there are more important things to do than to offer treatment for infertility in rapidly growing populations is unacceptable. This would be like logic that it is better to kill poor people rather let them suffer in poverty and deprivation.

Government policies in India have largely ignored the issue of infertility. The national population policy, 2000 mentions it only briefly in the context of providing information, counseling and regular supply of medication only for commodities like Tribal , and displaced and migrant population's who" may not need fertility regulation" MOHFW). There is also limited focus on services for the infertile in reproductive and child health programme. Though the 10th five year plan (2002-2007)

1. In 1990, there were also about 500 million contraceptive users globally.

2. Infertility: tabulation of available data on prevalence of primary and secondary infertility.

has discussed access to essential clinical examination, investigation, management and counseling services for infertility, such services are in practice rarely available in the public sector.

Though the ICPD programme of action states that reproductive health services should include the prevention and appropriate treatment of infertility (United Nations, 1994), there is inadequate focus on infertility in India reproductive health programme. Yet the number of infertile persons remains significant, particularly in the Indian social and cultural context and impact on women's lives is considerable. Care-seeking options continue to be few services available in the public sector are inadequate.

Even women's reproductive health has long been ignored by researchers and policy makers in developing countries particularly in India (Rangaiyan, 2000). Maternal and child health care is one of the eight basic component of primary health care in the declaration of Alma-Atta (1978), but in practice selective primary health care or focused approach on reproductive matters become more prevalent in the health arena. But there is a little attention has been given to the reproductive health of childless women (Bang, 1989).

However, in India infertility is one of the commonest reasons why women seek a gynecologist help. In an overpopulated country like India, where infertility is treated as natural control of high fertility, it seems worthless to discuss on the issue of infertility. This singular focus on fertility control, resulted in the total neglect of issue of infertility, a serious implication in terms of determinants and consequences (Jejeebhoy, 1996)

STATUS OF PRIVATE AND PUBLIC HOSPITAL IN DELHI

A survey done by WHO on the incidence of infertility in different countries in the world reports the incidence of infertile women in India as 3 per cent. About 10 per cent of couples in India suffer from problems of infertility. 'Nearly 16 million couples – or 32 million individuals-in the 18- to 35- year age group, are afflicted by the problem, making infertility one of the most widespread conditions in the country' (Katiyar 1993).

According to infertility specialists, there is a tremendous demand for AID in India. About 500-600 cases of AID are recorded in each month. Government hospitals do not provide the facility; private gynaecologists have a booming practice. Most men

are reluctant to even go for semen tests. Donor semen is becoming an increasingly accepted option. In spite of a growing demand for medically assisted reproduction, particularly artificial insemination, by husband or donor sperm, and in IVF, is including all its different forms, such as GIFT and ZIFT. There are only a handful of sperm banks in India. There are 3-4 semen banks in Delhi. There are over 20 private IVF clinics across the country, including three in Bangalore and Madras, two each in Delhi and Kotkatta, and one each in Jaipur, Manipal and Coimbatore. In Bombay alone the number went up from two to twelve within five years (Katiyar 1993). Government hospitals do not provide the facility; private gynaecologists have a booming practice. The costs are about Rs 1,000 per insemination. The IVF treatments are extremely expensive, anything from 50,000 – 100,000, (currently approximately US\$1,500-3,000, although cheap by international standards) depending on number of attempts necessary. As there is no health insurance and government hospitals do first baby was born to a lower middle class couple, who did not have to pay for the treatment as the technique was still in an experimental stage, IVF treatments in India are usually only for the wealthy. However, some people are disparate enough to raise the money required even if it means selling their valuable assets. These services are increasingly offered by private clinics as few government hospitals provide them. In the late 1980s, the All India Institute of Medical Sciences (AIIMS) in New Delhi did offer services for the infertile through its clinic led by Dr Kamal Bakshi, gynaecologist, but stopped after about a year for reasons unknown.

Government hospitals do not provide the facility; private gynaecologists have a booming practice. Most men are reluctant to even go for semen tests.

There were approximately 1200 to 1300 nursing homes and about 7000 private medical doctors in Delhi. A very small percentage of the nursing homes had obtained government support in terms of land, custom duty exemption, or tax exemption. (Nanda, P. and Baru, R). The promoters of small nursing homes are mainly from both business and professional backgrounds while a majority of the promoters of middle and large enterprises hail from business families. The social background of the users is related to the size of nursing homes. The small nursing homes cater mainly to low-income families; the medium sized nursing homes are used mainly by middle-income families. For initial treatment the preference is for the private practitioner and 60 percent of the people interviewed in the resettlement colony opted for it. However,

when it came to major complaints requiring hospitalization a high 80 percent opted for government hospitals. This study also highlights the utilization of Ayurveda and homeopathy along with allopathic services. The interviews at the government hospital show that for minor treatment both the lower and middle income use these services. The lower income group uses the private sector very little. The usage of private nursing homes increases with income levels. This study provides insights into the heterogeneity in provisioning of services and plurality in utilization patterns. The heterogeneity and haphazard growth of the private sector clearly points to the need for some planning, which would include registration and regulation. The utilization of medical cares shows that a high percentage of people resort to the individual private practitioner for initial treatment. However, for minor and major ailments people use the government and municipal hospitals. Although more poor people use the government hospitals, the middle and higher income groups also use them for major ailments. These trends have implications for policy since high utilization for out patient services in the private sector must not be equated with high utilization for inpatient treatment as well. Secondly, a fairly high percentage does use the public sector. Therefore, this aspect needs to be considered while making a policy. A low rate of registration of private nursing homes in Delhi is of concern since registration is the first step towards any other effort at future regulations. Here, there is a need to document the experiences of registration and the constraints faced. There is also a need to create systems for monitoring quality of services and cost of care.

ASSISTED REPRODUCTIVE TECHNOLOGIES:-A HOPE OR BURDEN

FOR INFERTILE COUPLE:-

A couple has beginning their infertility workup is generally optimistic and hopeful that their problem will be diagnosed and solved quickly, and that they will soon have a baby. Paradoxically, at the same time they can also be frightened and anxious about that is wrong with them deeply concerned about whether or not they will be able to have a child. Each couple has a different style of managing fears and anxieties. Each has a personal history that predates their infertility problem and may directly affect

how they react to all of the medical tests and to the final results of their treatment. ART treatment cycles are expensive, are typically not covered traditional health insurance, and are often unsuccessful, resulting in the need for multiple attempts. The Centre for Disease Control (CDC) reports that in 1999 there were 86,822 ART procedures performed in the US with non donor eggs or embryos. Approximately 30% of these ART cycles resulted in a live pregnancy, and 25% resulted in a live births. 31% of the live births were twins, and 4.9% were triplets or higher.⁹

Infertility had been of great concern even in the west. The churches along with the ruling classes were interested to preserve the 'purity' of the white race and also increase their numbers. This had become a golden opportunity for the medical establishments along with the business collaborators to specialize in "treating infertility," performing all kinds of delicate interventions to correct all blockages and abnormalities of the uterus.

They claim this to be their triumph over infertility. Gradually, more and sophisticated technologies are developed with the pre-test of "helping" the childless couples to satisfy their needs of begetting children. Thus, developed the test-tube babies through the techniques of in-vitro fertilization embryo transfer. The medical scientists also argue that if heart transplants, coronary by-pass surgery and the life are becoming popular, then what is the harm in making use of these new reproductive technologies?

Tests like artificial insemination, etc. have also been developed which recordly have given rise to the controversy of surrogate motherhood. This has been developed so as to help the childless couples to have babies, especially in the wealthy countries.

With the development of the birth control pill in the 1960s, the idea of consciously planning the number and spacing of children through the use of contraceptive technologies has been gaining wide acceptance. However, to some the reverse situation, in which the desires to have children but is unable to conceive, poses a problem. This chapter looks at the categories of technologies used for assisting reproduction which was meant for to be a solution mainly for women who could not conceived due to blocked tubes, now with the aid of this technology women without

uteruses, or no eggs with their own, women past their reproductive years, and infertile or sub fertile men can have their own genetic children. Technologies in the field of assisted reproduction are not only meant to give nature a helping hand, but are hailed as being even 'better' than nature.

The uses of technologies for assisting reproduction are extremely controversial; different interest groups in society have contributed to the debates with regard to their own sets of values, norms and interests. Childless individuals and couples see in these technologies a possibility to realize their desire for a child, which they expect to be supported by the providers of the technology and health care facilities.

How has infertility been dealt with traditionally before the arrival of technologies such as artificial insemination and IVF? According to Katiyar, ancient Hindu texts mention that in case of male infertility, the women can have intercourse with a suitable member of the husband's family, after eight years of infertility, or after 11 years of delivering only female children. He however, does not mention where exactly this is written. The problem of infertility has generally been solved at the family level, often behind a curtain of family secrecy. Assuming that it is the women who is infertile, one of the common solutions is to bring in the wife's sister as a co-wife (bigamy being banned only rather recently, but since marriages are hardly registered, there is no way that the offenders are actually punished) to ensure heirs for the family.

Many still seek other traditional solutions such as visits to local vaidyas (those practicing indigenous medicine), astrologers and sadhus (holy men), pilgrimages to famous shrines to ask for the boon of children, fasting, conducting havens (fire rituals) and praying, besides using an assortment of herbs, charms, etc., either home-made or given by sadhu.

In many traditional societies infertility is often believed to be caused by a curse or evil spirits; therefore, magical rites are often used to propitiate the Gods and spirits. Male infertility is less known due to private to the prevalence of the custom of levirate in many societies. The theme of infertility plays an important role in the Hindu epics Mahabharata and the Ramayana (Holy books of Hindus). At the beginning of Ramayana, king Dasratha is unable to impregnate any three wives. Ultimately he seeks the help of a sage, who according to the text, gives Dasratha some 'kheer',

which is given to one of his wives to distribute equally among them. All three wives get pregnant and he becomes father of four sons, one wife having given birth to twins. Could this be seen as one of the earliest known examples of non-medical artificial insemination by donor sperm?

Until the 1950s many cases of infertility were explained through an emotional rather than a biological cause. During the following 20 years of development of diagnostic techniques and laparoscopy created new possibilities of exploiting women's internal anatomy and physiology. With these new resources it became possible to identify biological causes of infertility that in the past would have been considered to be of an emotional nature. In addition, better understanding of reproductive endocrinology allowed interventions in women's and men's bodies to "correct" alternations of the physiological process. Thus, many of the unexplained causes that were considered emotional became treatable.

The first 'test tube' baby in India was born on August 6th 1986 which were publicized in the press since the first IVF baby received extra ordinary publicity. Hoardings advertising infertility clinics have since proliferated in many public spaces such as bus stops and railway stations. These, and the crowded clinics themselves, testify to the widespread availability, and use, of infertility treatments in the country. They are provided by traditional healers, general practitioners and specialists through freestanding clinics and infertility departments in hospitals an expanding and unregulated- private sector fosters the proliferation of infertility-related techniques throughout the country, targeting urban slum dwellers, the middle class and the wealthiest of the wealthy, in small towns and big cities. The question is: -have people really benefited? How many have? And, at what cost? Does all class afford this treatment?

ART has greatly improved the chances of infertile couples having children, but they have increased the imbalance in the share of the burden of treatment, relying more heavily on women. At the same time these technologies may have even greater emotional consequences than infertility for the couple.

As reproduction technologies are based on interventions into women's bodies, they reinforce motherhood as a biological rather than a social relationship. According to Lorber (1992), as referred by Lasker and Borg (1989) infertility treatment relies on

the imperative that women must be mothers and on social structure in which "motherhood" only applies to women who have a biological relationship with a child. However, in her study of women participating in an in vitro fertilization (IVF) programme, Crowe (1987) found that all the women considered social motherhood more important than the transference of genetic traits involved in biological motherhood. Simultaneously, they perceived motherhood as well as marriage as necessary social relations.

When childlessness is the result of a women's infertility, she will need to persuade her husband to collaborate with the treatment, according to Lasker and Borg (1989). Lorber (1992) considered that, a fertile woman who undergoes assisted reproduction to try and have a child with an infertile man, may be expressing love but is more likely to be making a patriarchal bargain. Consequently she feels obliged to have a baby within the constraints of monogamy, the structure of the family and the value of biological parenthood.

The social and psychological consequences of infertility for the couple have increased with the advancement of ART.

The increased expectations (Collins A et al., 1992), the higher economic and emotional cost for the couple and greater physical demand on women, the failure of ART leads to greater psychological and social consequences for the couple than the unavailability of these technologies.

The cost of establishing an ART clinic and the known association of greater success rate with large number of cases treated per month or per year, stimulate the expansion of the indication for the use of these technologies. While in the early days of ART, the treatment was confined to women without fallopian tubes or with tubal obstruction not eligible for surgical treatment, today ART is used for a number of conditions, including male infertility problem, but who wish to improve their chances of having a baby of a specific sex (Savulescu J, 2000). In north India, IVF is being offered at the Jaipur Fertility Medical Research Centre (JFMRC), a private clinic in Rajasthan and Sir Gangaram Hospital in Delhi. Interestingly most of the children born through IVF at these two centres are males. JFMRC prides itself in producing only male babies in its clinic, while attributing it to sheer chance and denying that they are using any special techniques such as sperm rich in Y (male -producing) chromosomes. Seven

male babies in a row cannot be a sheer coincidence, contend most infertility specialists, who at least in principle reject the unethical use of technology to produce only male babies. Dr Kochchar of Sir Gangaram Hospital in New Delhi gives a biological explanation for it based on the faster motility of Y-bearing (male) chromosome. The rights of the parents to wish for a baby of a given sex have been defended with several arguments. Warren (1995) presented some of the most articulate claims for sex choice. She gave three reasons to justify the parent's desire for sex selection. First, it would enhance the quality of life of the child that would supposedly be better if it is of the wanted sex than if were of the sex unwanted by the parents. Second, it would improve the family's quality of life if it formed with the desired balance of sex among the children. Third, it would also enhance the quality of life of the mother, as she would need to give birth to fewer children to have those of the desired sex.

Although these arguments appear rather convincing and come from feminist writer, the three claims involve the concept that there is one sex that is more desirable than the other. Sex selection tends to perpetuate a sexist society because it implies that one sex is better than the other and would contribute to gender discrimination.

According to a top US doctor, Jeffrey Steinberg (specialists in sex-selection treatment) With the help of a technology that can select the sex of a child at the conceiving stage, desperate Indians are shelling out as much as Rs 10 lakh to order a male baby. He said about two to four couples from India every month," he confirms. And the request from Indians is "primarily for boys".

Dr Anup Gupta, who runs Delhi IVF and Research Centre, remembers meeting an industrialist who travelled to the Virginia-based Genetics & IVF Centre, other popular destination for gender selection, to have a boy. The couple wanted a boy desperately (they already had a girl). Once they learnt of the gender-selection technology, they headed to Virginia-only to only to return empty-handed and poorer by RS 30 Lakhs. With the treatment costing \$ 19,000 plus travel expenses, it's mostly the rich and well- heeled who are traveling to the United States for the treatment.

The sex-selection technology was primarily meant for identifying embryos that may be carrying fatal genetic diseases. But in the last few years, it has been used for choosing the sex of the baby. In fact, the first baby girl was created in 1995 by a technology called MicroSort.

The technology involves creating embryos outside the womb. Once the embryos have grown, a cell is taken from each of them to determine the gender of each embryo. An in vitro- fertilization, a technique called Diagnosis helps in determining the gender with almost 100% certainty. Once the information is available, the embryos of the chosen sex are implanted.

Steinberg has performed nearly 2,000 cases so far. "Over half of these resulted in pregnancy. Every pregnancy, thus far delivered, has resulted in the gender chosen," says the doctor.

Back home, experts beg to differ. Some say its eye wash; others feel it's not 100% successful. "The chances of the implantation resulting in pregnancy are very low," says Dr Indira Hinduja, Indian doctor to produce a test-tube baby. Adds Gupta: "Chances of a male baby are only 73%. It's not fool- proof technology."

ARTs are embedded in a global background of high fertility, over population, and population control. According to the theory of economic modernization (Ronald L, 1997), many low resource nations fail to achieve development based on their population size. In a demographic discourse, the overly populous character of developing nations equate with poor performance and retarded development. Hence, there is a failure to make infertility a research on treatment priority and acknowledge it as a public health issue.

At the moment technologies in the field of assisted reproduction affect only a small number of people, although they are proliferating at a very rapid phase. In India there is no body of experts to supervise the ethics of the business or to certify the institutions. There are few public debates on the issue. Conceptive technologies have generally received little attention from policy makers. This is mainly due to achieving a reduction in numbers and most funds have been channeled into that aspect of family planning. The responses of the women's health groups and feminists have been focused mainly on reacting to the effects of the government's population control policies on women's bodies and lives, and to sex (pre) selection and sex-determination followed by abortion of the female foetus. This leaves very little scope for discussion on other aspects of family planning which ideally should include measures to deal with infertility too, though not necessarily through hi-tech methods such as IVF.

In contrast with the advances in ART, their psychological implications have attracted little attention. There is an imbalance between the level of sophistication and the care given to every small detail of the technologies used for assisted reproduction and the attention given to the feelings, fears and anxieties of the infertile couple, the psychosocial consequences of infertility and of the treatment failure, as well as to the gender difference between the effects that these technologies have.

There is now an increasing trend towards using ARTs, such as artificial insemination by husband/donor, in vitro fertilization (IVF), gamete intra-fallopian transfer and intra cytoplasmic sperm injection. Such advanced technologies are generally pursued only as a last resort after less intrusive alternatives have exhausted (Widge, 2001). However, there has recently been an increase the chances of having a male child through sex-selection methods (Gupta, 2000). In some contexts there seems to be low acceptance of artificial insemination by a donor among couples (Jindal and Gupta, 1989; Mugaonkar, 2001).

Although ARTs offer hope to the infertile to bear a biological child, a number of issues remain to be addressed. ART services are not usually available at public health facilities but are increasingly being offered in private clinics. As services are expensive and highly commercialized, the high cost of ART treatment tends to create a situation of exploitation of childless couples and exacerbates their vulnerability, which has deterred many couples from seeking such services. Couples often do not have easy access to information on ARTs and select doctors through trial and error. Even when these services are accessed, they provide inadequate information and counseling.

A major concern in the present context of ART services in India is with regard to the quality of care. Services are not regulated and the quality of treatment is variable, ranging from clinics that offer professional and high quality services to those that are run by unqualified practitioners. Unscrupulous providers may encourage the repeated use of these technologies, and women may have to endure many cycles of testing, experimentation and treatment, ARTs like IVF are experienced to be physiologically, emotionally and financially stressful (Widge, 2001).

The success rate of such technologies remains unclear. The Indian Council of Medical Research reports an average take home baby rate of 20-30 percent per IVF cycle (ICMR, 2000), but this estimate has not been substantiated by any studies. Leading clinics in India claim a 30-40 per cent success rate (which is usually the pregnancy rate) but it may be considerably lower (Gupta, 2000; Widge, 2001).

Inadequate monitoring and regulation of such services is leading to the misuse of these technologies, including IVF-related sex pre-selection methods, and the proliferation unethical practices. Ethical issues such as the manipulation of sperms, eggs and embryos, the commercialization of technology, and the wider implications of surrogacy/commercial surrogacy need to be addressed through effective regulatory mechanisms. The Indian Council of Medical Research has recently drafted national guidelines for the regulation of ART clinics, but it remains to be seen how these are implemented (ICMR, 2002). Even when these services are accessed, they provide inadequate information and counseling.

The impact of infertility and assisted reproductive technology (ART) on the persons affected has to be considered within the broader context that includes social, historical, economical, political and cultural aspects. At the same time, so as to understand the actual meaning that infertility has on the life of an individual woman or man, it has to be considered within the context of gender roles.

While accurate figures are difficult to obtain, there is little doubt that access to ART is extremely limited in India. Accurate information on the per capita availability and regional accessibility of infertility treatments needs to be collected. Even access to infertility information is severely limited in India. While access to ART is extremely rare, the cost is even more prohibitive. However, there are differences between regions that suggest promising alternatives for improving the access and affordability of ART.

Moreover, the overpopulation discourse and lack of social focus on infertility exacerbates women's inequitable treatment in our country. As Ginsburg and Rapp (1995) have observed, women's bodies are frequently the locus through which social, economic, and political power is exercised. Fertility and reproduction represent mechanisms through which what Foucault (1978) calls bio-power is exercised. The

lack of medical discourse on infertility and ART exacerbates the harms of infertility. It contains the individuals, usually women, are blame. It contributes to the approach of family planning clinics that often falsely disconnect STD management, maternal and child health facilities etc.

ART are the last hope or the only means to achieve a child for affluent infertile couples and burden for infertile affluent. There is a heightened need for ART in countries like India.

Therefore it can be said, that IVF offers hope for the infertile couples and that, when unsuccessful, it can be emotionally traumatic (Milne B., 1988) and not for middle and lower class for no scope.

CHAPTER - 4

LIVED EXPERIENCES OF WOMEN WITH INFERTILITY PROBLEM

THE WOMEN'S VOICES

- 1. SOCIAL BLAMING AND STIGMA**
- 2. EXCLUSION FROM CEREMONIES**
- 3. SADNESS AND JEALOUSY**
- 4. LACK OF SOCIAL SUPPORT**
- 5. FEAR OF DIVORCE: THREAT OR REALITY?**

The preceding chapter was an attempt to put together a composite picture of the childless women's experience on the basis of secondary data. In this chapter we have dealt with reproductive history, social pressure and treatment seeking behavior, coping strategies in relation to infertility and doctor's behavior, cost and source of income on the basis of qualitative data. This has given us overviews of the differences between two categories of infertility problem i.e. male and female related. And second categories are primary infertility and secondary infertility. And helped to identify the prevailing present conditions of life in terms of social support (by husband, family).

This chapter also concentrates on women's experiences related to their own body. In order to achieve a degree of detail and to discover the dynamics of socio-economic conditions of these women, and their treatment seeking behaviour. By analyzing the qualitative data relating to status and conditions in their own parent's house, husband's house, out side the house, earning and treatment cost.

The women's voices

From understanding the qualitative dimensions of socio-economic constraints of the lives of childless women in the previous chapter, we now move on to look at the experience of women which leads to mental tension. Our purpose is to look at psycho-social sufferings of childless women and links it to their life and health, and relationship between gender and infertility experiences. These links operate through social pressure by family and husband, and difficulty of women to reproduce and their treatment seeking behavior, coping strategies such as social support and adoption.

Sometimes they are victims of violence of husband and other member in the family, insulted, abandonment. Even some times they face the threats of husband's remarriage and being discarded. They are forbidden to attend wedding and religious ceremonies. Not only that, even people is dread seeing her face early in the morning.

We approached the study of experiences of infertility in Delhi in a way that assured voluntary participation, and we are aware of the fact that it has attached a group of women who are relatively vocal about the topic. Rather than recruiting through infertility

clinics and other medical settings, women were invited to the study through conversation and asked them to share their experiences of living infertility and infertility treatment. Though infertility is couple's problem, but only women are participated. Because, husband rarely visited to the clinic with wife. More than twenty women participated in the study, of who eighteen gave detailed narratives. Therefore, only eighteen are considering being subjects/ participants of the study.

The interviews used an open-ended questionnaire. Interviews were written on notebook. Only pseudo names are used to identify the participants. The eighteen women were diverse in terms of age, marital status, education, occupation (husband's), class. The participants ranged from 22-40, they included, fourteen women living with husband. Two was with own parents, one with in-laws, and one was separated from husband but living with same house in different room (husband remarry and has three children). Their (respondent's) husbands had variety of professions, including, driver, electrician, tailor, government servant, teacher and businessman. The above profession/occupation is classified into class on the basis of researcher's parameters, on the basis of socioeconomic condition (income). Thus, while the majority of participants would formally classify as representatives of middle class and lower middle class profession, this did not assure a comparable income. Two of them were upper middle class.

The study was addressed to infertility with involuntary childlessness, i.e. those who desired to have children, but have not conceived. The meaning of "infertility" and thus criteria for including women in the study were left open, with the purpose of eliciting what that term meant for the respondents. While our initial intension was to interview only women with primary infertility, for whom the maternal role is not explicitly part of their identity, responses from the few women with secondary infertility expanded our understanding of the meaning of the term.

- Of the eighteen in-depth interviews, thirteen had primary infertility and only five had secondary infertility. In which two women with secondary infertility had given birth to one girl child, one had induced abortion; two women had miscarriage and came to share their stories of difficulties with the conception of that child. The length of time

duration which they had been identified or self-identified as 'infertile' and had been seeking treatment to that situation, ranged from 1-12 years.

➤ Out of the eighteen cases, eleven are male related factor, four are related female, one had unexplained and two of them had a daughter, there researcher not consider them.

➤ ***Social pressure***

Out of eighteen case studies, eight women said they are pressurized by their in laws, five women said it is the husbands, and two women said, they are pressured by the society more and rest of three of them said their self wish to have baby.

➤ ***Blame***

Of the eighteen women, nine of them are self blaming for the problem their infertility, five of them said it is God punishment for previous mistake, three, of them blame on their husband and only one women blame on local diayen (witch).

➤ ***Medical check-ups of husband***

Out of eighteen women with infertility problem, only husbands of four women had undergone medical test, twelve was not willing to undergo for test. And two had not needed (these two had a daughter)

➤ ***Attitude towards adoption.***

Only two women had positive attitude towards adoption, (exclusively from a male child of own blood relatives), thirteen had negative attitude and three had not even considered yet.

1. Social blaming and stigma:-

The medical and social discourses of blame are pivotal to the construction of the infertility experience Indian women. Their stories always included a position relative to discourses blaming women's bodies, behaviour, and psyches. For example, almost every

woman that we talked to, in presenting her explanations of the couple's infertility, stated that she had not abortions. Their stories always included a position relative to the discourses blaming women's bodies, behaviour, and psyches. For example, almost every woman that we talked to, in presenting her explanations of the couple's infertility, stated that she had not abortions. With this, she first eliminated the dominant explanation of infertility, as if otherwise a conversation on the topic would be futile, and then continued with her story.

Self-blame was a key theme in the interviews. It included the speculation that infertility is a punishment from God for own errant behaviour, or in some cases for the wrongdoings of previous generations. Another prominent theme of self-blame had to do with the women's decisions about treatment. The emergence of this theme is at least partially due to the fact that women are always the ones who are being treated, independent of the medical causes. Many women saw themselves as being responsible for making the wrong medical choices, for not correctly assessing their symptoms, for not seeking treatment early enough or for undergoing treatment, which ultimately proved to be harmful, and for not taking proper care of themselves after the procedures. The experience of infertility cause harsh, poignant and unique difficulties: economic hardship, social stigma, blame, Alienation, guilt, helpless, insecurity, This is clear from very common statement given by almost all the women with infertility problem, though they belong to from different class and different type of medical problem.

Case-1

"-myself and my husband both of us gone through all medical check ups prescribed by the doctor. I don't know much about our problem. But my doctor told me that your husband has some problem. Actually she used some medical term, which is difficult to understand, as I am not that much educated. Even then my husband is not taking treatment, (and advised me to not go to that doctor). According to him, he is a complete

man. He says you need treatment not me, that's why I am having different medicines. Though he has problem, but he is not ready to take treatment and they (my husband and his family) always tries to blame on me. They think that a woman is alone responsible for childlessness.

Once I said to my husband why you people are blaming me, according to the doctor, there is a problem in you not in me, I am absolutely fine in conceiving, then he beaten me a lot and dropped me at my parent's house. This is not only the case of Neelam.

Case-2

Pushpa,

At the time of her (my younger sister, Reena) second delivery she called me up to take care of her two years old daughter Bittoo. I love and care Bittoo more than my life as she is first baby in my life as well as my maternal family house. So, all of us love her like anything, even Bittoo also feels very comfortable with us especially with me.

But Reena's mother-in-law scolded her, why you called pushpa without my permission. How Pushpa will take care of Bittoo, as she is childless. You don't know, BAANJH (childless) ladies are APSHAKUN (inauspicious) for pregnant woman. And she (mother-in-law) also suggested her not to see my face early in the morning, Bache per bura asar perega (it will have ill effect on would on baby).

Unfortunately I heard. This was most embarrassing moment of my life being an infertile woman. It was the day when I felt so bad. The same day I returned to my home and while talking about this incidence, she (Pushpa) started crying.

Case-3

***Boby das,** w/o Ashit das, west Bengal, she is staying in Delhi with her husband and mother-in-law, Boby is not allowed to touch, decorate puja ki thali (holy plate for ritual) in her family because it will become worthless if childless women touch. According to Hindu mythology they are not complete woman. My mother-in-law always humiliates me, especially in front of visitors. Even she never call my real name, she always use Niputi (childless). Not only that, I am not allowed to attend any religious or wedding ceremonies in family.*

"Obviously the cause is in me": Blame and Self- Blame

Though we are focusing on the stigmatization of women who cannot have children, we should point out that male infertility is more intensely stigmatized and silenced by society and by men themselves (Van Balen, Trimbos-Kemper, & Verdurmen, 1996), which contributes to the exaggeration of women's contribution. This was both internalized and at the same time protested by the women we interviewed, who called we are dependent on him. Or I promised. Thus Mrs., Rita points out:

Case-4

During my field work I came to know from my neighbor, Mrs. Rita, whose sister, Rupa was also staying in murnirka. When Rita came to know that I am studying problems related to infertility she shared about her sister Rupa (unfortunately I couldn't interact with her, as she had committed suicide just one month before).

Rupa, at the time of her three months pregnancy, she was just 25 years old. She was living with her husband (a business man) in a joint family. She was trying to conceive from the first day of her marriage. She went to the doctor after three years of her marriage her mother-in-law was forcing her to have a son. After, getting medical check ups of both partners. The Doctor told them Rupa doesn't have any problem. The problem lies in Mahendra (her husband) as he doesn't have enough sperm to impregnate to his wife. Therefore AID method will only help.

As her mother-in-law is illiterate, what she understood, she only knows.

Then after few days they decided AID method, but her husband took promised from Rupa that she won't disclose about it. And my sister conceived by AID method. Her mother-in-law thought that Rupa must have had intercourse with some other man. Because she was also there when Doctor told them, her son is unable to impregnate any women in the world. But she didn't understand the technology. She started blaming on my sister. And Rupa's mother-in-law pointed out her character. And due to promise with husband she didn't disclose about AID technique. And due to social blaming and stigma, Rupa committed suicide, hanged her self."

Both men and wife are often engaged in "protecting" infertile men's masculinity since its cultural definitions inevitably include the ability to father children (Stanton & Danoff-Burg, 1995). Even in the presence of medical diagnosis for reproductive difficulty, the

women ignored the medical statements. Rupa's for example committed suicide and many respondents said "*My husband is alright (sometimes without test) and I have problem in my periods.*"

At the same time, further analyzing of the interview shows that this narrative localization of the causes of infertility is not univocal. The primary concern is the question of production of a baby. Either a male child or a female child. Do only women are responsible for it or she is only responsible for the difficulty in reproducing. Why only women bear the burnt of blame of others or why she blames herself? Hence, at this point the question of blame is secondary for her. For these women, husband is more valuable thing, than anything else in her life. As, her survival depends on it, unless she will not fulfills the desire of the society. They have to suffer blame, separation, divorce etc. What do we say about those who have suffering from secondary infertility, means who had conceived but either automatically miscarriage, or self aborted, or the 1st baby was female, social blaming is practically the same as in case of primary infertility.

Case-5

It is very clear from the case of ——— Sudha, when I started talking to Sudha, it was difficult for me to understand her language. She was sharing with me in her local language of UP, district of Itawa. Actually she doesn't know how to speak Hindi but she understands. Then, I called her husband Ramdulare Singh 37yrs old, to translate, whenever/whatever I could not understand her. Before our interaction began, she asked, me my caste and the state from which I came and my marital status. According to her without getting married I cannot understand the pain of childlessness.

Sudha, who had one miscarriage, is a 35years old Hindu woman from an upper caste (Rajput) family. Her husband is a tailor in export industry. Both are illerate. I conducted the interview with my sister. On the day we met her, she was making her second visit to the infertility clinic of a private hospital. She had previously gone for bio medical treatment for infertility in another hospital in UP, as her narrative describes. We learn Sudha had come reluctantly to the clinic, but she was not reluctant to be interviewed we spent nearly one and a half hour talking together in a private room while she was waiting to be seen by the doctor. Alpna, (my sister) told Sudha we wanted

to understand "the experience of being childless from women's point of view". The open-ended interview was in Hindi, although our questions focused mostly on issues of infertility, social pressures and societal response, Sudha directed the interview to other topics of importance to her. Sudha said.....During 11 years of marriage, after 5 years, when I did not conceive, then I approached the Doctor for the treatment. Earlier I was staying in a joint family with mother-in-law, sister-in-law, her husband and two sons. My husband was staying in Delhi alone. Because Delhi is very expensive city, and my husband cannot afford to keep myself here with him. But you know he sent all the money to me for the treatment, whatever he earns; but from the last months I too came here with my husband. Because, I didn't get cured (conceived) there in UP.

I am having medicine for last 6 years from Dr. Mamta Gupta (she is a good doctor in UP). But in between 6 years I stopped taking medicine for few months, as I got pregnant "pair bharhi ho gaya tha" but I don't know what happened to me after 5-6 months, "ye kharab ho gaya" (means miscarriage), then she Dr. Mamta referred me to Dr. N.C. Jain (he is also very good doctor in UP). But I didn't get benefited. Then in 2002, I got ultrasound, but nothing happened. And you know I never had any contraceptive.

Actually I got married at the age of 24 years, (which is considered as late marriage in northern state), because my complexion is dark. No body was ready to marry me. At last his (her husband Ramdulare's) family were ready to marry their son in turn of heavy dowry. Because of this my parents never come to see me, how am I? They say we have already given you whatever we had. Now you are their responsibility.

I attempt to be a good daughter-in-law; therefore I always cook for a member of six when my husband comes seven (as he stays out of the town), for four times daily. Not only cooking food for them but also I use to do all the other house chores like washing clothes and utensils. Even at the time of my 5 months pregnancy also. In the context of heavy physical demands made by them specially my sister-in-law, (Sarita), miscarriage occurred, which Shudha attributes to "overworking".

Both, of us have gone through all the medical check-ups. Even here in Delhi again we went through medical check-ups. Doctor told me that I have some problem.

Actually from my puberty stage I have problem with my menstruation. Now after 6 years Doctor told me this.

My husband is very caring and supportive to me, but his family is not. In fact they want him to remarry and leave me, because my husband has already invested enough money, on my treatment. Therefore my husband has brought me here in Delhi. Actually Sarita (his sister) is a very cunning lady. She doesn't want that we have baby, because she has 3 children, so that whatever property we have they will take. This is the reason when I conceived she gave heavy work to me during 5 months of pregnancy leading to miscarriage. Sarita always blamed me for my miscarriage. She asks her brother, that 5 years passed since miscarriage, bhabhi (Sudha) had not conceived. So why couldn't she conceive again? I don't know, Why you are wasting money on useless woman "ye jab itne salo me maa nahi bani to ab koun sa chamatkar ho jayega? Ye kabhi maa nahi ban sakti, (when she had not been able to be a mother since so many years then what miracle could be happen now?) look at me I got marry after her marriage, wo bhi iska saya rehte huve bhi (in spite of her bad shadow). I have 3 sons." Bhैया leave her and remarry you will get beautiful bride.

Then we asked Sudha about adoption....

My God adoption, not at all. Without knowing about the caste how will you bring anyone in the house? It's not allowed in our family. You don't know there is a difference between a real blood and other's blood. I think you don't understand these things that's why you are talking about adoption. "E tumka samajh me nahi aayega, tabhi tu isan bat karat hawua. Jab god hi lena hota to kahe ke hum itna paisa barbad karate. Are, marenge to kaun hame pani dega? Aatma bhatkegi hamar. Hum aasha nahi chorenge. Bhagwan abhi tak koi bachha nahi diya hai, pata nahi unka ichha kya hai? Kab tak hamari pariksha lenge ya pata nahi apne kin janmo ka pap ka saja bhugat rahi haun? U kahe hamar saath aisa ker rahe hai. " (you will not understand this, that's why you are talking like this, when I would have been adopted a baby then what was the need of wasting money? Who will look after me in my last time? I will not get moksha, I will not leave hope. God have not given me any baby, I don't know what His wish is? How long He will test me or I am facing the punishment of my last birth's sins why God is doing this to me). Aunty (neighbour) told

me about this clinic and she said doctor is very nice and she cured many infertile women. Look what will happen with me? We have already invested lots of money on treatment. "ab bhagwan ka jo mann hoga wahi hoga."(now everything will happen according to His wish) while saying she started crying and then I don't have courage to ask more question, I just said don't worry believe on God. He must fulfill your desire. All the best.

In many of the women's narratives, the motherhood mandate, and their survival depends on it. At the same time, further analyzing of the interview shows that this narrative how it is mandatory for a woman, Some of these women have to suffer husband rejection of medical help, even difficulties of findings medical supports, emotional etc.

Case-6

Rashmi unlike Sudha, 30 years old graduate belongs to upper middle class, staying with in a joint family of 5 members.

Some times it's very difficult to start, when we started talking with Rashmi, she was ignoring us. After establishing rapport with her she said please don't write/ show anything about me on your news paper or TV channel. Then I showed my student I card. After that she was very friendly to me. Then she started saying about herself.....

"At the time of marriage I was 26 years old. My husband Sudhir is a business man, so after marriage he said to me that right now I am spreading my business in other states, so I don't want baby for 2 years. We decided to use condom. I didn't have any oral pills. But we didn't tell anything to the family about our plan. My mother-in-law always pressurized me to have baby. Even this is my personal choice also to have baby. From very beginning I like babies. But due to my husband choice I remained silence.

I conceived after 2 years of marriage. While using condom I don't know how? Every one was very happy in my family except my husband Sudhir. He scolded me a lot and said what you did? I have already told you that I don't want baby now. If you will deliver this baby, I'll not take any responsibility. You deliver it on your own risk ok. Otherwise go and abort it. I said no, I won't. And after this he stops talking to me. Soon I bent my knees in front of his wish and we went to the doctor without informing

anyone in the family and get it off the pregnancy. After returning I cried a lot, Sudhir said don't cry I am with you. And said, lied that I got miscarriage in the bathroom. After this incidence, I don't know what happened to everyone. Every one blamed on me for miscarriage. Once my mother-in-law scolded me, you must be having oral pills after marriage; these are the side effects of anti-pregnancy pills. Even I told her I didn't have any thing, we just used condom. But she didn't trust on me. Even I said this is not my plan this is Sudhir's wish. She said don't blame on him and keep your mouth shut if you want to stay here. My life became hell. More than one year has crossed after that incidence, still they are blaming me. This was my husband's plan, even than he is not supportive. Right now Sudhir is also demanding for a son. Therefore we are trying to have baby for last year, but we are unsuccessful. Now, Sudhir also started blaming me.

I remember the day, when we got marry, he was very loving, caring and supportive to me. But this incidence changed Sudhir just opposite, I don't know what the hell happened to him, as he knows everything, still he blames me. Now a day he always remains irritated with me, whatever I did, was his choice. I needed his support but I am helpless.

I was planning to meet a doctor since one year but when ever I talked about the doctor, everyone starts scolding me and they say now its too late. Nothing will help you, even Sudhir says you are already 30 years; these are the outcome of late marriage. I said no its not that much late, my periods are regular. But nobody think about the treatment for the problem we are facing. We have enough money but for me it's useless because they are not ready to waste money on me. All are educated fools "padhe likhe gawar hai ye sare."

That is why I don't get chance to seek treatment. And this is the reason I approached to the government hospital alone, without informing anyone in the family with my friend Richa. She is my best friend and she knows everything about me. So we made plan for shopping and came here as this place is very far from our home. Actually I want to know what the actual problem is. Really, it's my age or, something else?

Then she entered to the doctor's room as her turn had come, in between we talked to Richa..... Then after a while she came out. We asked her what happened? Oh she is going for blood test, we also went with her. Report will come after two days. But Rashmi requested to the Lab technician to give her result today, as she don't know, when the next time she will visit here? Even she doesn't know how she will collect her report day after tomorrow. Then I (researcher) said either Richa or if you have no problem then myself also can collect the report. I think we have no problem while collecting your blood report. Richa said don't worry I will collect it ok. But again Rashmi was in tension, she said but how I'll come here with my husband as doctor has written some test for him also. Doctor called both of us. How I'll tell him about this. I am in tension whether he will ready to come or not. What can I do? Rashmi returned to her home, before going I asked her contact number , she said I have no problem, but he will ask, how I know you and so on..... He is very suspicious person. So I am sorry you better keep Richa's number. She will inform you every thing about me. And they drop me at Munirka while returning.

Now after two days, the Rashmi's test report has come out; she also came with Richa to collect her report, and approached the doctor. And after ten minutes while coming out from the doctor's room, she started crying... I offered her water, as I always keep water with me. Then she said "mujhe koi problem nahi hai." Every thing is normal, it might be possible that my husband has problem due to that I am not conceiving. So doctor called him, even she scolded me for not coming with husband. And again she (doctor) said that please come with your husband. She called me next Wednesday with Sudhir (husband), and also added, that come with this (husband's) test ye test kerwa ke aana hai, I am confused how will I tell all about the test to Sudhir?, He will kick me out. Let see what will happen to her? And then Rashmi, Richa returned to their home. I desperately waited for her next visit with husband, I was curious, to know, whether her husband Mr. Sudhir will be ready for test and seek the help of doctor.

On Wednesday I called Richa in the morning and asked her whether they are coming to SafdarJung hospital or not. She said yes, we'll and cut the phone off. I reached the hospital before them. I was waiting and they didn't come for a long time. I thought they will not come today. Oh she came, but not with Sudhir, again Richa is with her.

She was very upset. We started talking with them, as we are very friendly with them. After hi-hello, we came to the main point. Then Rashmi said....

When I reached home, the day I visited to the hospital, I didn't gather the guts to say anything to Sudhir, as that day he was very upset due to loss in the business. I was always trying to make situation better so that I can tell them about treatment. After two days I said to my husband, that, that day I went to the SafdarJung Hospital, and got my test done, according to the result of test, doctor told me that I am normal. I said slowly, actually doctor wanted to meet you and prescribed this test for you, and if you also do the test, then it might be our problem will solved. I don't know what the big mistake I did. He started scolding me. How dare you, bitch. And asked what you want to show while saying that you are normal, you are making me a culprit for childlessness. And said rudely I am alright and normal, and listen one more thing, I will show you my 'Mardangi' (masculinity) while marry a girl and impregnate her. I will never go to the doctor. Tell me, suppose I have some reproductive problem, then how you conceived that time (3 years back). Answer me Rashmi, it means that baby was not mine? Who was the bastered father, of that baby? 'aachha hua ki us pap ke aulad ko girwa diya' (it's good that you aborted that son of the sin).

After this I didn't had words to say anything to him, because he pointed out my character. And at last he also added no need to say anything to anyone.

Rashmi started asking me, I did whatever he said, just like a good wife, even I did abort the first baby, and look at this selfish man, he is blaming me and pointing out my character, while I have my medical report also. But look I am helpless, handicapped. Tell me Sonali, you are a researcher, what do I do? And if he really remarries again, where will I go? We have enough money but everything is useless for me. Now I don't have a house, were I can fight, neither at husband's house nor, parent's family because after marriage you are a guest." And she started crying, really I had no answers for her, and to convince educated illiterate person like Sudhir. But I thought not a single person will be available in his life, who can convince him for medical check-ups.

Nevertheless, even well-intentioned comments and offers of support were experienced as meddling and as reinforcing women's identity as different. For example, their

relatives, mother-in-law and neighbour would constantly pressure them with advice, with referrals to specialists, and alternative providers. Bindu, who already had one girl child and was experiencing secondary infertility, felt insulted by others' advice to have a second male child. Because, being a mother of girl child for so long. In a Jat family with large landholdings, it became major issue and they were told that they will not get a share of family property as they had a daughter. As Bindu, expressed it, this is "silent torture—the little comments, the smirks, all those things." Even her own family authentic, but inadequate efforts to protect them were experienced as isolating.

Case-7

Unlike Rashmi and Sudha, Bindu, 30, had been married for 10 years, living with her husband Vikas Tokas, 33 year old in a joint family of members of 10. Bindu had conceived two times after her daughter Pakhi was born, but she aborted them because, both times she had female foetus. Her husband Vikas is eldest among his three brothers, in which two of them are married. He has a transport business and they are landlords also. Basically they belong to upper middle class.

She came to the hospital with her mother-in-law her face was totally covered by the 'Dupatta' (Scarf) and waiting to be seen by the doctor out side room, in SafdarJung hospital. We introduced ourselves and told her that we wanted to understand "the experience of being childless from women's point of view". Firstly we took permission from her mother-in-law. She allowed us, and asked "do you take medicine for conceiving a son?" Then we conducted an interview with her. On the day we met her, she had previously gone for biomedical treatment for infertility in another private hospital.

Bindu had been distressed by her failure to conceive a male child. Seeking help for her infertility, she wanted a male child.

Actually this is not the case of infertility at all, by the definition given by WHO, but according to her and family members she is considered to be infertile. That's why we kept her in our sample.

"Bindu then started saying my husband is eldest among his brothers. Actually the brother just after him has 3 sons and we have a daughter 8 year old and the

youngest one is not married. Though I am eldest but, Sangita, my jyaitani (sister-in-law), younger to me. She is everything to the family, as I don't have son. And if I don't give birth to a son than all the properties will distribute to her sons and we don't get anything. Actually power and prestige is associated with having son and daughter which plays no role in the inter-generational transfer of properties.

Do you have any idea, where will I get medicine to have male child? Because I already had, lots of medicine? We asked her who provided you these medicines, doctor could you please tell me the name and address of that doctor.

Bindu said actually my mother-in-law brought that medicine for me, that was not allopathic. It was I think ayurvedic. But it did not help me.

I even kept fast for sun god, on every Sunday. But every time I conceived it was a female child?

Then I said do you know you are not responsible for female child. Husbands are responsible for it. She said why are you blaming my husband, he is very good person," and stopped talking to us.

"Better Rs 5000 now than 5 lakhs later" i.e., better spend Rs 5000 for sex determination than Rs 5 lakhs as a dowry for grown up daughter. By this logic it is better to kill poor people rather let them suffer in poverty and deprivation. Can the presumption that social evils like dowry cannot be done away with is the logic enough to reject the girl child. Women's choices are made within the patriarchal and mental setup; torture forces them to go for Medical termination of pregnancy or abortion. The desire to control the sex of children, with preference for males, has been observed throughout history, with preference for male offspring among monarchs and infanticide of newborn girls being described in various cultures (Priotrow PT., 1975, Shettles LV., 1978, Zarutskie PW et al., 1989, Reubinoff BE, Schenker JG., 1996). However, until recently, most of the literature referred to selective abortion of female fetuses and not to selection of sex through ART (Werz DC, and et al., 1992).

In Indian patriarchal society the female has been rendered powerless, by all the religious and cultural beliefs she has always been the unwanted sex among the children in our society. The hatred towards the unwanted girl has been so intense that the practice of

female infanticide was prevalent for centuries in several parts of India. The cultural legacy of strong SON PREFERENCE and neglect of daughters has been inherited by most of the communities, religious groups and those from socio-economic background. The bias is rooted in a complex set of religious, economic, political and socio-cultural factors.

A number of cultural, social and economical factors influence the relative benefits and cost of sons and daughters. Daughters are considered to be an economic liability because of the heavy dowry payments and the high cost of weddings. Comparatively sons are considered to have the economic as well as socio-cultural utility. They are considered more cost effective in the sense that can provide economic support to the family and unlike daughters their marriage is not an economic burden. Arranged marriage a son brings an economic reward in the form of dowry payment. Even in the patrilineal family system, the sons supported to be imperative for the continuation of the parents to help them in the salvation of their soul.

Cultural worth also derives from religious worth. Especially in Hindus, they prefer eldest son, not the daughter, who must light the FUNERAL PYRE of the parents so as to secure the latter's life, and sons who make offerings to give strength to the souls of ancestors. In this context, a daughter appears to be valued by parents only because the given daughter in marriage earns 'PUNYA' (religious merit), (Srinivasan, 1989).

2. Exclusion from ceremonies

Besides practical worries and concern, the consequences of infertility include exclusion from important activity and ceremonies generally women who have never been pregnant suffer the most problems. They are not allowed to attend godbharai (a custom to welcome the child before birth) or chatti (a custom which is celebrated after the 6 days of birth of the child).

Exclusions are less severe for two other categories of infertile women.

Women excluded in these ways say they feel enormously isolated and miss the gatherings and the conviviality with other women although the fertile women (mother-in-law, friend,

sister, who approaches with their relatives with infertility problem) interview realize that infertile women feel this way; they say these cultural taboos have to be respected. If infertile women do not follow these cultural rules, they relatives will develop serious health problems or even die.

The women that we talked to rarely experienced direct exclusion and exclusion and stigmatization in their family and community contexts. The extent of stigmatization, it however, was different according to their location- women who came from smaller towns and villages expressed much more intensely negative experiences as a result of the attitudes of family and social contacts. For most women, when they did feel marginalized, it was in less explicit ways.

Case-11

Aruna in her words "No body wants to make friendship with me, even my neighbours never calls/ invites me in Godbharai or birth ceremony. Even if I want to give Prasad to anybody, they throw in front of me. Sometimes I feel insulted from my relatives also. Nobody in my family supports me. They never come to see how I am living."

3. Sadness and Jealousy

Most families around them are "normal families with children" and thus the women felt "separated" from them. They felt that sisters, mothers, and friends, who have not undergone the same experience, could not understand them. In many cases, it was the women who initiated the alienation from their social groups; they felt the need to distance or isolate themselves from the social life around them, feeling as not belonging in an environment that revolves around children. They started to avoid friends with children or family gatherings. They felt they could not participate in conversations, even if they could not participate in conversations, even if they were not about children, because their perspectives are different, and perceived as not valid.

Childlessness and infertility affect a woman's life in various ways and at various levels from personal to psychological levels. All women interviewed expressed strong feelings of sadness and jealousy. Sadness derives from living without pleasure, the joyful company of children: "A compound without children is a place without pleasure." Some women referred to the uselessness of a life without the capacity to bear and rear children. One infertile woman said that she sometimes felt so useless and unfulfilled that she had considered committing suicide.

On the other hand, a few women were extremely positive about being able to take care of the children of relatives, and others expressed the strong wish to do so.

Case-8

"Anita, 24 years, staying in a joint family of 9 members. Her sister-in-law has four sons. Anita said I love them like my own child. I do all theirs basic things like bathing them, washing cloth, making lunch for them, I feel very good while doing job for them but among four children I like more the youngest, 'Gublu', 3 year old even he also. Even He sleeps with me, and eats from my hand, but my sister in law always scold him. But his mother always tells him don't go to chachi (aunty)."

"Pushpa said.... my younger sister, Reena has two daughters 'Bittoo and Cuiry'. I love and care Bittoo more than my life, as she is first baby in my life as well as my maternal family house. So, all of us love her like anything, even Bittoo also very comfortable with us especially with me. I was planning to adopt Bittoo. But Reena's husband was not getting ready for that. According to Bittoo's father childless woman has no emotion about the child because they don't know the pain of giving birth of a baby. He asked her, how Pushpa will take care of Bittoo, as she is infertile."

Feelings of jealousy and shame were expressed strongly, especially by young women when they compared themselves with their sisters and friends from the same age group, with whom they had passed the initiation rites. Seeing them caring for their children was painful. It is very clear from the following cases

Case-9

“Madhu, 38 years old, said I feel ashamed and jealousy when I see my sisters and brother’s children. I have four brother and two sisters, I am eldest among four, and we are all married. My sister and bhabhi (brother-in-law) also got pregnant very soon just after three months of their marriage. And both have two children, my bhabhi has two sons only and my sister has daughters only. Bhabhi is really a lucky woman. Even my youngest sister married last month, she is also expecting. But she informed every one in the family except me.

Women whose husbands had one or more children with other women also expressed their jealousy strongly. Generally, infertile women who had at least one child compared themselves favorably to those who had no children at all, describing themselves as less jealous and better off. They argued that at least they had someone to care for, and their family would not die out-concern often mentioned by childless women, especially in cases in which siblings also suffered from infertility.

4. Lack of social Support

Childless women, as well as women with only girl child, most often emphasized the problem of lack of support from their own family, husband, and his family now and in the future. Women without children have to perform all household tasks by them selves such as cleaning, and preparing the food. They are scared and feel uncertain about their futures: who will provide house or improve the existing one when they are too old? Who will feed them? Who will care for them when they are sick? Who will light the FUNERAL PYRE of the parents so as to secure the latter’s life, and who will make offerings to give strength to the souls of ancestors, in a society where funerals and other ceremonies for the dead are very important.

Some of these women said—

Case-10-

"My husband family's never comes to take care of me. Actually my sister-in-law, mother-in-law and even my husband together used to beat me up, that's why I came to stay here with my own parents. Due to this but my own parents also remains unhappy with me. They always make plan to drop me in husband's home. Where as my mother-in law threatens me that, we will remarry our son and bring fertile bride for him.

There is some suggestion that social support is important for both men and women, but it may play different roles for the two. There are two important dimensions of social support. Structural social support is the existence and pattern of relationships with others, for example- relationships provide emotional, intellectual, or marital resources (Cohen and Wills, 1986).

5. Fear of divorce: threat or reality?

Fear of divorce over infertility was often mentioned by infertile women, many of whom had been married and divorced before.

Some women explained the reasons for divorce with expressions such as: "no man likes not having children" And "a man does not like to work for nothing". This idea that infertility leads to divorce was confirmed by various fertile and infertile informants who said they knew couples who were divorced because of infertility.

Examples were also provided of couples who divorced/separated over infertility and subsequently one of them managed to have children with another partner.

On the contrary, some infertile women who knew that their husbands were trying to procreate with other women said this did not necessarily signal end of their marriage, even if the husband succeeded in impregnating someone else. Two women said that their husbands would never leave them because of their childlessness; one of these women was, in fact, extremely positive about her relationship with her husband.

Indeed, despite the perceived threat of divorce, the actual reasons for earlier divorces among women in this study do not appear to be related largely to infertility. Two out of eighteen infertile women interviewed had divorced at least once, but, according to the

infertile women themselves, their husbands had generally not left them because of infertility. Many other motives for divorce were mentioned their childlessness as the reason for a former divorce. Moreover, it was not only men who wanted to leave their wives. Under certain conditions-mainly perceived incompatibility of blood and an unacceptable degree of promiscuity on the part of the husband----- women or their relatives were the ones to seek a divorce. To summarize, although the threat of divorce as experienced by infertile women is real, not having children does not automatically mean that a man will repudiate his wife.

Moreover, although some women wished that they received more financial and moral support from their husbands in their search of infertility treatments, on the other hand most of them complained about domestic violence because of their infertility. The most of the woman had suffered physical and mental maltreatment at the hands of her husband's family. In that part of country, a bride price (Dowry) is paid to the parents of the bride, to compensate for the lost labor potential and the children the woman shall bear for the husband's lineage (Sachs & Honwana Welch, 1990).

Case 12

Manju is a 40 yrs old, her husband works in railways. She narrated that, I am taking treatment for last 20yrs of my marriage, due to which I have become plump. These days my periods are not regular, may be due to side effects of medicine, I always feel tired or and have fatigue, headache, and lack sleep (insomnia). Right now my body is totally dependent on medicines, without having medicine I can not even sleep properly that's why my husband thinks 'I am mad', my mental status is not in balance. Once he took me to the mental hospital Ranchi also, there I had gone through all the medical treatment as well as electric shock. After that he always used to send me to Ranchi and once I came back from there, I got to know that he is married to the other women who is very younger (16 yrs only) to him and she is from poor family- now they have (my husband and his wife) three children. Still I am staying with my husband. And want to have my own baby.

Three out of eighteen the women we interviewed, did not experience pressure or blame from their husbands. Rather, they usually felt supported by them. By this, the women meant that the husbands did not blame them, did not impose a solution on them or in rare cases, accompanied them to the tests and procedures. Thus, "support" was defined both in terms of their efforts to embark on infertility treatment, as well as alternatively, to stay childless. The husbands were actually more willing to discontinue infertility treatment, while the women were the ones who were determined to persist indefinitely, to "endure any pain". There was one exception in which an engagement had existed for five years, with the condition for marriage being that she conceives. In several cases, the relationship between the partners had deteriorated because of the stress of the inability to conceive and the pressure of the demanding medical treatments, mechanical sexual relations, etc. some marriages were dissolved as a direct consequence of infertility. These, however, were the exceptions, in most cases the women felt strongly supported by their partners.

The broader family context, however, was more frequently a source of stigmatizing attitudes and reactions. Since many newly married couples lived in the same household as the husband's parents, the presence or absence of a pregnancy were much more closely monitored. As in other studies of involuntary childlessness (Riessman, 1995b, 2000), the role of the mother-in-law turns out to be pivotal in this dynamic. The women were highly sensitive to their mother-in-law's remarks, which usually revolved around the consequences that infertility had for the family's standing in the social groups. The mother-in-law's comments were seen by the women as containing a taken for granted assumption that the medical causes of infertility are located in an assumption explicitly stated or implied.

Many women were "silent and cried", others resisted the in-laws' attempts to blame them for the infertility. Most acts of protest and resistance in the family situation (as well as in the medical context) were carried out in collaboration with others, especially their partners. Radost, for example, described feelings "unwanted" in the home and the family conflicts, which "became more and more serious each month that I didn't announce that I am pregnant". Later, in an act which can be identified as "strategic avoidance" with the support of others (Riessman, 2000), she left the home in which she felt insulted. She

illustrated her resistance to internalizing the stigma through not carrying it with her when leaving the immediate stigmatizing environment.

The inability to have children had a strong effect on the women's social identities and led some to also question their professional identities. They question the meaningfulness of their work perceived as several quotes. Madhu, for example, stated: "it is true that one can self actualize in many ways, but I believe that my main purpose is to give birth to children". Sudha voiced the way in which the emptiness created by the childlessness diffused to other aspects of her life.

CHAPTER - 5

SUMMARY AND CONCLUSION

FINDINGS AND CONCLUSION

The study has focused on the psycho-social experiences of women with infertility problem. The causes for this condition are multiple and could be related to either or both partners. Infertility is a leading cause of seeking help of a gynaecologist; the consequences of infertility were found from various study's which range from severe economic deprivation, to social isolation to murder and suicide. And the experience of infertility causes harsh, poignant and unique difficulties: economic hardship, social stigma, and blame, social isolation and alienation, guilt, fear, loss of social status, helplessness and in some cases violence. Even then, little attention has been given to the reproductive life of non-pregnant women. However, in India infertility is one of the commonest reasons why women seek a gynaecologist help. In a country like India, where infertility is treated as natural control of high fertility, it seems worthless to discuss on the issue of infertility. This singular focus on fertility control resulted in the total neglect of the issue of infertility, a serious reproductive health concern with serious implication in terms of determinants and consequences (Jejeebhoy, 1996). In a review of reproductive failure as a health priority in third world (Bergstrom, 1992) has been illustrated that the problem of childlessness is more pronounced than any other problem of overpopulation. Accounting the social and psychological sufferings of couples, particularly for women's well being; the problem of infertility/childless is a serious public health issue in terms of policy and provision for infertility care and management.

The marked social inequalities and discrimination that persist against women are almost universal and cut across all class distinctions. But the polarization that exists between the privileged sections of the society and the masses greatly influences the problem of women. It is, therefore, women, especially from the economically weaker sections, that are adversely affected.

The overall purpose of the study was to understand the issue of infertility experienced by the women, the social psychological aspect of infertility by reviewing the relevant literature, and by interviewing women with infertility problem from an infertility clinic and department of Obstetrics and Gynaecology of public hospital in Delhi.

Though there is sufficient anthropological literature that highlights the importance of culture in the relation to infertility. The basic theoretical understanding is that cultures are products of historical, social and economical forces which are responsible for women condition not only in Indian society but also in every society in the world. Childless woman are blamed.

The study attempts to understand the issue of infertility problem (which is couples problem) but only women are blamed, not only by the husbands and his family but also by the society. It also examines the ignorance of policy makers and the lack of public health services towards this issue. The objective of the study were

1. To identify kinds of social pressures faced by women with infertility problem.
2. To understand the implications of these pressures on the socio-economic and psychological experiences of women.
3. To see kinds of treatment sought for infertility.
4. To analyze coping strategies in relation to infertility.

The study was carried at two places, one in the clinic and another in hospital of Delhi. The Surya clinic and Safdarjung hospital were chosen for the study which are clinic is a private clinic and a big tertiary public hospital respectively.

Case study method was adopted. Eighteen case studies were done with women experiencing infertility problem of age group between 22-40 years with their consent. Tools like in-depth interview observations and group discussion were used. Interview with women continued for more than an hour. The some of the respondents were interviewed twice also, when they came for treatment again. Permission for interview with the respondents was taken from the Doctor-in-charge when they were waiting for check-ups. The study duration for about four

months were engaged in the field. Apart from these data collection, the secondary data was collected from journals, books, magazines, newspapers etc.

Lot of infertile women undergoing medical treatment for infertility were approached and selected for the study, in the above mentioned clinic and hospital. But only eighteen women agreed to participate in the study.

Review of literature

Historically, till date, every culture has idealized woman to become a mother. The expectation that a woman's most important and defining role is that of mother has been called the myth of motherhood (Hare-Mustin and Broderick, 1979), the cult of true motherhood (Collins, 1987; Rhodes, 1988, Sandelowski, 1990) and the motherhood mandate (Russo, 1976). In Indian society traditional fertility is considered to be a norm and continues to be widely accepted by the people; and that two norms are expected:

1. all women and men should marry and
2. all married couples should reproduce.

Therefore marriage and having a child is a mandatory for everyone.

Traditionally, in Indian society, the mother has always been revered as the giver of life, the nurturer of children, and "matrishakti" and maternal feelings are considered essential for a woman's growth, development and status in the society. The worst sin it is considered in our society, is to be born as woman who are incapable to give birth. Therefore, a major fact of women's life is their status as a child bearer. Any further identity has been neglected by terms such as "Baanjh" and "Soonikokh" while there is no social term for childless men in the society.

In many cultures, inability to conceive bears a stigma. In closed social groups, a degree of rejection or a sense of being rejected by the people, husband, and in-laws may cause considerable anxiety and disappointment. It also affects the social life related to personal, social and marital relationship. It affects at some extent on social relations with family friends and workmates for working women.

Infertility is a chronically stressful situation, a non-event transition (Koropatnick et al., 1993). Chronic stressors develop slowly as continuous and problematic conditions in our social conditions and social roles (Wheaton, 1999). It makes the women's life hell. For many women, infertility and its treatments cause a serious strain on their interpersonal relationship, disturbed relationships with other people, personal distress, reduced self-esteem and periods of existential crises (Abbey et al., 1992; Wirtberg, 1992; Schmidt, 1996; Greil, 1997; Tjornhol-Thompson, 1999). Infertility is perceived as a stressful life situation that influences an individual's psychological adjustments in accordance with the resources she has available with.

From mental health perspective, infertility is considered among the more serious life stressors. Various studies have shown its detrimental effect on the well-being of the individual, as well as on marital satisfaction (e.g., Mikulincer, Horesh, Levy-shiff, Manovich, and Shalev, 1998). Berg Wilson (1990, 91) found tension, depression, anger, decrease in sexual functioning, mood disturbances, cognitive disturbances, expressed excessive worrying and a tendency of self blame, low energy level, and over eating are to be frequent responses in infertile couples. Leiblum (1993) found infertility to be a serious cause of stress and anxiety that results couple to feel offended, lower body image, and decreases psychological and financial resources. It may have also found that women trying to conceive often have clinical depression rates similar to women who have cancer.

Infertility is a life crisis with invisible losses, and its consequences are manifold, childless women experiences stigma and isolation. Infertility can threaten a woman's identity, status and economic security and consequently, be a major source of anxiety leading to lowered self-esteem, a sense of powerlessness. Although, perceptions of women's roles and attitudes may be shifting, particularly in the upper and middle classes, bearing a child still remains an important factor of the socio-economic well-being in the most Indian women (Das Gupta, Chen and Krishnan, 1995). Infertility can also result into a strained relationship in marital home. Men tend to hold their wives responsible for infertility. And many wives tend to blame themselves for childlessness irrespective of without knowing the reason who responsible is. (Desai, Srinivashan and Hazra, 1992). In some

cases women are threatened with another marriage or divorce and many fear abandonment and loss of social and economical security. They could also be victims of violence, abuse and social exclusion (Singh, Dhaliwal and Kaur, 1996). Some couples experience altered sexual responses (Desai, Srinivasan, and Hazra, 1992, Mulgaonkar, 2001). Though childlessness usually has a negative impact on marriage; some husbands are supportive and defend their better halves against family pressure or criticism.

Most couples seek treatments after trying to conceive for one to four years (Gupta, Dhall and Dhaliwal, 1983, Iyengar and Iyengar, 1999; Mulgaonkar, 2001; Unisa, 1999). Couples may delay seeking medical advice because of the fear of a final definite diagnosis, emotional stress, the physical discomfort of the tests they would have to undergo and admitting failure in their efforts to conceive (Gupta, Dhall and Dhaliwal, 1983) irrespective of who the infertile person is, it is the woman who initiates the first contact with the physician (Gupta, Dhall and Dhaliwal, 1983, Singh, Dhaliwal and Kaur, 1983).” Couples with primary infertility are usually more interested in treatment than those with secondary infertility (Gupta, Dhall and Dhaliwal, 1983; Singh, Dhaliwal and Kaur, 1996). Treatment sometimes continues over a long period; for example, in one study, women sought treatment for 25 years and some continued to rely on rituals or religious practices for over 30 years (Unisa, 1999). Although, most studies reveal that male participation in infertility diagnosis and treatment tends to be limited as infertility is perceived to be a woman’s problem, in some contexts, husbands also participate and accept treatment if required (Unisa, 1999).

Stigmatizing beliefs, limited male participation, cost, indifferent quality of care, and lack of services in the public sector are major barriers to prompt and appropriate treatment-seeking. Patterns of treatment-seeking depend on the woman/couples socio-economic status, decision-making within the family, the level of information and acceptability of treatment (Iyengar and Iyengar, 1999; Singh, Dhaliwal and Kaur, 1996; Unisa, 1999). High costs sometimes result in discontinuation of the treatment or resort to unqualified practitioners (Singh, Dhaliwal and Kaur, 1996). Traditional beliefs about women being possessed by

evil spirits also inhibit women from seeking appropriate treatment (Iyengar and Iyengar, 1999).

The public health system does not offer access to adequate preventive, curative and counselling services. Though infertility treatment is theoretically available at government facilities, effective treatment is often difficult to access as there is little coordination between gynaecologists, infertility specialists, Surgeons and laboratory technicians. Services are available in the private sector but are varying qualities and costs, which are not affordable by below middle class.

A variety of treatments are sought though a pattern of treatment-seeking does not emerge. Some studies suggest that women first seek treatment from traditional healers (Gupta, Dhall and Dhaliwal, 1983; Kakar, 1983). More recent studies have identified Allopathy as the first treatment sought. Couples also follow religious practices with treatment, either simultaneously or subsequently (Mulgaonkar, 2001, Unisa, 1999). As last resort, when Allopathic treatment does not work, women seek other methods, such as Ayurveda, Homeopathy, Unani and other traditional methods, or visit holy places and spiritual healers (Unisa, 1999).

Again, anecdotally, it is said that infertile men and women tend to seek help from traditional healers and quacks (Kakar DN, 1983). The most common methods used by traditional healers are herbal treatments and appeals to supernatural powers, as well as prayers (puja means prayer among Hindus) and other rituals (munat is a certain promise made at Dargh, (the grave of a holy man) or to a deity by someone wanting a particular wish to be fulfilled. This promise must then be carried out upon the attainment of what is desired.) Little is known about the availability of Allopathic fertility treatment in rural areas, the profile of couples who seek these services from the private sector or the treatment costs incurred by them (Jejeebhoy JS, 1994).

FINDINGS

Results:

- The data from in-depth interviews by interview guide and narrative techniques provided demographic information and their lived experiences also.
- First of all the proportion of primary infertility is higher than the secondary infertility, i.e., out of eighteen cases, thirteen cases are found to be primary infertilities and only five cases related to secondary in which two of them had a daughter viewed as their husband's infertile.
- The study also shows that majority of women with reproductive difficulty/ infertility, are excluding male related factor. Out of eighteen, only four women had difficulty, rest of the eleven women's husband had problem. one of them had unexplained infertility. And two of them had a female child.
- For secondary infertility, if the previous/ first offspring/baby was girl, social pressure created by the family and societies as same as in case of primary infertility.
- Social pressure is more viewed in joint family system
- Social pressure increased with duration of marriage and duration of infertility

Social pressures:-

- When asked who pressurize them most to bear a son, they said in-laws, eight felt the pressure from their own husband, five said it is society, two and three said that they themselves feels that they should bear a son.
- When asked they you blame or who is responsible for infertility, who is medically (according to your doctor) responsible for her infertility. Besides the fact that though the respondents knew the fact that they are not alone responsible for it. Of the total eighteen almost half of women blamed her self i.e. nine, believed that it is woman who is responsible for childlessness, and

five were of the opinion that it is a God's punishment and three were blamed their husband, and one had blame witches.

On the basis of the findings from the study, there are some crucial debates on culture, society, gender and infertility which we can contribute. However, before doing that we would first like to highlight the main difference that emerges between the gender and infertility, and social pressure of men and women. Psycho-social sufferings of childless women and link it to their life and behavior, relationship between gender infertility experience. These links operate through social pressure by in-laws, husband, own family and sometimes society / neighbour.

- The case studies too reveal that they are under extreme social pressure by husband and his family. They are not even supported by their parents and society. They are helpless. Even in case of male infertility cases, husbands are not ready to go to the doctor, or for the treatment. They only blame women.
- The prevalence of infertility and the skewed nature of society, culture blame only to women for this problem and have negative thought about childless women and women are finally stigmatized. Therefore, these women struggle for their survival in their own family and in the in-laws family.
- Part of their experiences such as infertility experiences, social pressures, economic constraints and desire for child/baby, going to the hospital every 3-4 months, change of hospital are repeated again and again due to desire for baby by almost all the women involved in the study.
- The demand for children is found in every class, especially for a son. Though in our study both the cases of secondary infertility, in which one of them has daughter, another had induced abortion are desperate to have a son, comes from upper class.

Kinds of treatment sought

- Women usually do not go to the practitioner or seek assistance from public health services. Firstly; they do puja, munnat. They keep fast twice a week. When they are unable to conceive then they are forced to seek treatment or take the help from practitioners. In terms of treatment, in most of the cases, all types of therapies, both traditional and modern bio-medical, are resorted to, in a roughly hierarchal order starting from local traditional healer to the big fertility clinic.
- Reasons for not seeking assistance from public hospital tend to vary. The most common reason is that, doctors in public hospital are always in a hurry; more than three or four patients are called by the doctor, at a time. Even they speak rudely. In terms of treatment in most of the cases, not all type of therapies are available. They said they do not believe in government hospital at all. They thought doctors are very careless in government hospitals. Mostly prefer private clinic unless and until private clinic refer the patient to the public hospital or resort in time of financial crises.
- Several home remedies continue to be resorted at the initial stage starting from juice of leaves, seeds, dried flower, barks of various kinds of plants and trees to the application of oil, ashes, sindoor (red colour powder which is applied on the forehead and hair for decoration, is a symbol of marriage), and even waste blood of a women who delivered baby.
- For them, Homeopathy and traditional systems prove to be very efficacious in particular illness. For example-Ayurveda is believed to be effective for long term results (not for symptomatic relief) and Homeopathy is mainly believed to be efficacious in secondary infertility and in case of white discharges, miscarriages and has no side effects. Besides, they resort to these treatments as the Allopathic is mainly believed to be very expensive for middle and the lower middle class.

- We found that the women continue their treatment till their menopause. They are even found to be seeking each and every type of treatment, whatever suggestion given to them. Even they walk bare foot 50-55 kms without having food to the temple to worship the God and appeal for bearing children.
 - Most common reason for change of clinic was doctor's ill behaviour; other reasons like paying consultant charges in every visit, unnecessary tests prescribed by the doctor or frequent follow ups etc.
 - It is ironic to point out that for those who are not economically well off and husband is not supportive, are unable to take advantage of infertility treatment facilities. As a result, many are forced to go to their own parent's house to seek treatment. Some women are taking treatment from their own parent's house. Because there in-laws and family don't want to waste money on them, and feels she is useless, non fertile.
 - On the other hand, the woman who is taking treatment since 20- 30 years continue treatment till their menopause, further, they don't have option, which is the last stage of reproductive life. Even though, these women are taking treatment. Unlike some women who have taken treatment and medicines irregularly. Sometimes these women are required to go through painful process. They remain under threat of losing their temper, if the treatment is unsuccessful. Further these women pay heavily for the treatment.
- Hence, it is one of the major findings that despite variations, in the conditions of treatment from different dimensions of infertile women, they continue to get treatment for a long time and pay heavily.

Coping strategies (social support, adoption)

- Marriage is a social support for a woman who is financially dependent (not doing job), before marriage they depend on their own family and after marriage they are dependent on husband.

- Emotionally they are not supported by anyone.
- The income of women from middle and lower middle class being so meagre, it is the necessity to subsist that guides their expenditure, and there is hardly any problem of preference with regards to goods and services on which money should be spent. From the meagre income it becomes very hard to bear medical treatment. The major portion of their income is spent on treatment. But their problem of childlessness hardly gets cured (conception). For these women cure means pregnancy. If not, they are more pressurized by their family even they are beaten, abused, scolded, and threatened of remarriage and separation or to go back to parents' house.
- Most of them are reported that they are unable to procure ART, IVF. They do not purchase all the technique in medical market. Rather, they purchase as prescribed by the Doctor for required period, drug therapy, AID, AIH, but very few of them and most of the time either on deferred payment (by husband and his family) or they don't know about these techniques. The link between health and economic status is obvious. Sometimes they get depressed, tensed and childlessness lingers and become a part of their life, because of lack of knowledge and financial support from husband and parents.
- It is undeniable that new reproductive technologies (NRT) in India have increased. But it is expensive and not available in public hospital.
- Once a heavy investment is made and failed they undergo more pressure which leads to psychological problem.

Adoption

- This is not always an easy and simple option.
- Adoption within the family is encouraged more than adoption with any child of unknown origin.

- As lineage is so important in Indian context that couples accept a male child from their blood relatives.

PERCEPTION OF CAUSATION:

- Perceptions of casual factors regarding childlessness are several. However an important finding was that the women they link it up with their fate, their past life; menstruation periods.
- They firmly believe that irregular period's leads to infertility and heavy periods lead to fertility. This gets reflected in a very common statement- "actually periods are not regular" sometimes it comes two days late etc. The measurement for pregnancy is their periods because for them, absence of periods means pregnancy. Therefore, they relate it to the cause of fertility and infertility.
- Most of the women ascribe their difficulty in conception, to diayen (vamps, witch) particularly those who experienced miscarriages.
- As reported, in case of male infertility (husband having problem), if he would have taken treatment. Whether modern or indigenous method. They felt that if husband would have supported in having indigenous treatment, they would have conceived.

To summarize, our data shows that the popular understanding that the 'helpless women' do not understand the causes of infertility is highly questionable. We found from our study that these women are very conscious of the impact/ side effects of medicine and social conditions on health. On the other hand, despite facing perpetual childlessness, they conceptualize childlessness as God's punishment for past misdeeds and that he is withholding the one thing that they value most-a child. Thus, for them the

implication of serious and prolonged treatment is much more crucial than implication accepting the status of childlessness. The central focus being a mother, or deliver a baby as it gives them a sense of completeness and social status in the family. And do not have side effect of ones physical well being.

CONCLUSION

Two dominant conclusions emerge from this study. First, couples undergoing infertility treatments require information, support, and counselling to enable them to make informed choices, to participate fully in decision making about their treatment, and to deal with the inevitable psychosocial effects of the treatments.

The second conclusion is that, at present, fertility programs in India do not provide the information and support patients would have. Each survey, whether of clinics or patients, found that the information available is too complex and does not adequately cover the areas of patients: that women want more dialogue with their doctors than they are currently experiencing; and that patients want a equal support from their partners in their treatment. It seems to be clear that many fertility programs need to be more patient-centred in their approach to treatment.

The light that these studies shed on the experience of infertility treatment is important for the doctors and the other professionals who are involved in providing infertility treatments. The findings of these studies will enable clinics to understand how they could better serve their patients, meeting their needs not only for information and counselling, but for support in making decisions and dealing with the psychosocial impact of treatment. Taking this approach would help clinics to become truly patient-centred.

Finally, more efforts need to be made to better integrate the empirical study of the experience of infertility with important policy questions, such as question of national care policy and the debate over NRT.

Lastly, we have argued that the most crucial constraining factor for infertility is not a failure of medical treatments and lack of knowledge but the constraints

imposed on the childless women by the cultural, social and economical factors in which they have to live and function.

The growing interest in women's health is a source of great excitement and hope. Women have carried the burden of the nurturance and support of men and children with little affirmation, emotional support or societal interest in their issues and the effects of these burdens on health and well being.

In a population where there are more negative social, cultural and emotional repercussions for childless women than for any other non- life-threatening condition, it can be assumed that almost all cases of childlessness found are due to physiological or biological factors. The majority of childless women have primary infertility. There was a general lack of modern medical facilities and a lack of trained medical providers in the public health sector to deal with the various fertility- related problems of these couples, at sub-centre, primary health centre and community health centre level alike. It is because Allopathic medicine was clearly the preferred type of treatment for a large proportion of women; they generally went to private doctors and hospitals.

In a nutshell, social pressure is not the only reason why people want children and we should recognize and respect that. There are no easy answers to dilemmas infertility raises, but such is the nature of public policy. Answers only come when concerted efforts of research and thinking are invested and different solutions are tried.

ANNEXURE-I

1. From how many days you are practicing here? -----

2. Except this clinic are you visiting any other clinic?

Yes

No

If yes (Name & address): -----

3. Number of cases per day: -----

4. How many new cases (1 or 2 months) and old cases (1 year) are there?

Old Cases: ----- New Cases: -----

5. How many infertility cases you have male related and female related?

Male related: ----- Female related: -----

6. Who approaches first (H/W): -----

7. Generally which age group comes for treatment? -----

8. Which social class generally visits here?(means what are their SEC): -----

9. What are the different treatments given by you & what are their charges?

10. What is the consultant charge of your clinic? -----

11. Do you have any referral center?

If Yes (name & address): -----

If No, how you handle difficult cases? -----

12. What is the rate of success of treatment? _____

13. Presently how many couples have succeeded in conceiving by your treatment?

14. What is your duration of talking to a patient?(Time spent):_____

ANNEXURE-II

a. SOCIO-DEMOGRAPHIC PROFILE

- Name
- Age
- Age at marriage
- Qualification
- Age when started living with husband
- Caste
- Class
- Occupation
- Income
- Family type (nuclear/joint)
- Family size

b. REPRODUCTIVE HISTORY

- Contraceptive use
- Type of infertility (primary/secondary)
- Type of factor (male/female)

c. TREATMENT SEEKING BEHAVIOR

- After marriage when start taking treatment
- How many clinic/ hospital visited, & why changed the clinic
- Doctor's behavior
- Different type of treatment tried
- Side effect (health related & behavioral)
- Hope for success from the treatment
- Cost of treatment

D. KINDS OF SOCIAL PRESSURES

- Who give pressure?
- Blame (others & self)
- Perception (before & after marriage)

E. COPING STRATEGIES (SOCIAL SUPPORT, & ADOPTION)

- Social support:-
 - Financial support
 - Emotional support

- Adoption:-
 - What she thinks
 - What other says about it?

SELECTED BIBLIOGRAPHY

- 1) Abdullah S. Daar, Zera Merali: Infertility and Social Suffering: the case of ART in developing countries.
- 2) Abbey A. Andrews F. M., Halman L. J. Gender's role in response to infertility, *psychology of women Q* 1991:15: 295-316
- 3) Abbey A, Halman L J, Andrews FM. Psychosocial, treatment, and demographic predictors of the stress associated with infertility. *Fertility and Sterility*. 1992 57: 122-8.
- 4) Abbey A, Halman L J, Andrews F.M. (1992). Infertility and subjective well-being: The mediating roles of self esteem, internal control and interpersonal conflict. *Journal of Marriage and the Family*, 54, 408-417.
- 5) Asch, R. H., Balmaceda, J. P., and et al., (1985). Gamete intrafallopian transfer (GIFT): A new treatment for infertility. *International Journal of Fertility*, 30, 41-45.
- 6) Baird, D. D., & Wilcox, A. J (1985). Cigarette smoking associated with delayed conception. *Journal of American Medical Association*, 253, 2328-2331.
- 7) Baker, E. R (1981). Menstrual dysfunction and hormonal status in athletic women: A review. *Fertility and Sterility*, 36, 692-692.
- 8) Baker, E. R., Mathur, R.S., and et al., (1981). Female runners and secondary amenorrhea: Correlation with age, parity, mileage, and plasma hormonal and sex-hormone binding globulin concentrations. *Fertility and Sterility*, 36, 183-187.

- 9) Balan, F. V.; Verdurmen, J. and Ketring, E (1997): Choices and motivation of fertile couples. *Patient Education and Counselling*, 31, 19-27.
- 10) Bang, R. A. et al (1989). High prevalence of Gynaecological Diseases in Rural Indian Women. *The Lancet*, 14 January. 85-88.
- 11) Batterman, R. (1985). A comprehensive approach to treating infertility. *Health and Social Work*, 10, 46-54.
- 12) Berg, B. J., & Wilson, J. F. (1990). Psychiatric morbidity in the infertile population: A reconceptualization. *Fertility and Sterility*, 53, 654-661.
- 13) Berg, B. J., & Wilson, J. F. (1991). Psychological functioning across stages of treatment for infertility. *Journal of Behaviour Medicine*, 14, 11-26.
- 14) Bergstrom S. Reproductive failure as a health priority in the third world: a review. *East African Medical Journal*, 1992, 69: 174-180.
- 15) Besen, R. C. (1978). *Current obstetrics and gynaecologic diagnosis and treatment*. Los Altos, CA: Longe Medical Publications.
- 16) Bharadwaj, A. (2003): Why adoption is not an option in India: the visibility of Infertility, the secrecy of donor insemination, and other cultural complexities. *Social Science and Medicine*, 56, 1867-1880.
- 17) Brand, H. J., (1987). Complexity of motivation for artificial insemination by donor. *Psychological Reports*, 60, 951-955.
- 18) Bullen, B. A., and et al., (1985). Introduction of menstrual disorders by strenuous exercise in untrained women. *New England Journal of Medicine*, 312, 1329-1352.

- 19) Burns, L. H. (1987). Infertility and sexual health of the family. *Journal of Sex Education and Therapy*, 13, 30-34.
- 20) Buster, J. E., and et al., (1983). Nonsurgical transfer of in vivo fertilized donated ova to five infertile women: Report of two pregnancies. *Lancet*, 2, 223-226.
- 21) Cahill, M. (Ed.). (1988). *Treating obstetrics and gynaecological dysfunction*. Springhouse Corp.
- 22) Centers of Disease Control and Prevention (1999): assisted reproductive technology success rates national summary and fertility clinic reports. <http://www.cdc.gov/nccdphp/drh/art.htm>. Accessed December 15, 2001
- 23) Chandras, P. S., Chaturvedi, S.K., Issac, M.K., & Chitra, H, (1991). Marital life among infertile spouses: The wife's perspective and its implications in therapy. *Family Therapy*, 18,145-154.
- 24) Christie G. L. (1998): Some socio-cultural and psychological aspects of infertility. *Human Reproduction* Vol.13 No.1, 232-241.
- 25) Collins A. et al. Perceptions of infertility and treatment stress in females as compared with males entering in vitro fertilization treatment. *Fertility and sterility*, 1992, 57:350-356.
- 26) Congressional Report. (1988). *Infertility: Medical and social choices* (OTA Publication No. BA-358). Washington, D.C.: Office of Technology Assessment.
- 27) Crowe C. Women want it: in vitro fertilization and women's motivations for participation. In: Spallone P, Steinberg DL, eds. *made to order. The myth of reproductive and genetic progress*. Elmsford, NY, Pergamon press, 1987.

- 28) Dale, E., and et al., (1979). Menstrual dysfunction in distance runners. *Obstetrics and Gynaecology*, 54, 47.
- 29) Daly, D. C., and et al., (1984). A randomized study of dexamethasone in ovulation induction with clomiphene citrate. *Fertility and Sterility*, 41, 32.
- 30) Das Gupta, Monica, Lincoln C. Chen and T.N.Krishnan (eds.) (1995): *Op. cit.*
- 31) Dessypris, A., and et al., (1976). Plasma cortisol, testosterone, androstenedione and luteinizing hormone (LH) in a non-competitive marathon run. *Journal of Steroid Biochemistry*, 7, 33-37.
- 32) Desai, P., Vijay, S., Hazra, M (1992): 'Understanding the motions of infertile couples' *Journal of obstetrics and gynecology in India*, 42:p.496-503.
- 33) Dwyer, J. M. (1986). *Manual of gynaecological nursing*. Boston: Little, Brown.
- 34) Ellen Hardy Maria Yolanda Makuch: *Gender, infertility and ART.*, 272-280.
- 35) Evron, S., and et al., (1983). Induction of ovulation with combined human gonadotropins and dexamethasone in women in polycystic ovarian disease. *Fertility and Sterility*, 40, 183-186.
- 36) Farley T M M, Belsey E M, 1998. The prevalence of infertility. In: *African population Conference, Dakar 1998*. International Union for the Scientific Study of population. 1:2.1.15-2.1.30.
- 37) Foucault M. *The history of sexuality. Volume I*. Trans. Robert Hurley. New York, Random House, 1978.

- 38) Frank O. Infertility in sub-Saharan Africa: estimates and implications. *Population and Development Review*, 1983, 9:137-144.
- 39) Frisch, R. E. (1984). Body fat, puberty, and fertility. *Biological Review*, 59, 161-188.
- 40) Gannon Kenneth, Glover Lesley Abel Paul, (2004): Masculinity, infertility, stigma and media reports. *Social Science and Medicine* Vol.59, 1169-1175.
- 41) Gerrits T. (1997): Social and cultural aspects of infertility in Mozambique. *Patient Education and counseling*, 1997, 31:39-48.
- 42) Ghanadian, R., and et al. (1981). Suppressive effects of surgical stress on circulating androgens during and after prostatectomy. *British Journal of Urology*, 53, 147-149.
- 43) Ginsburg F D, Rapp R, eds. *conceiving the new world order*. Berkeley, University of California, 1995.
- 44) Greenhall E. Vessey M. the prevalence of subfertility: a review of the current confusion and a report of two new studies. *Fertile Steril* 1990:54: 978-982.
- 45) Greil, A. L. (1997): Infertility and Psychological Distress: A Critical Review of the Literature. *Social Science and Medicine* Vol.45 No.11, 1679-1704.
- 46) Gupta, Jyotsna Agnihotri: New reproductive technology wish and autonomy:-freedom or dependency? *Indo-Dutch studies on development alternatives*,

- 47) Gupta An, dhall, G I & Dhaliwal LK (1987): 'Epidemiology of infertility in Chandigarh in Ratnam, SS & et al., (Ed), infertility-male and female, the Parthenon publishing group, UK.
- 48) Hare-Mustin, R. T., & Broderick, P.C. (1979). The myth of motherhood: A study of attitudes toward motherhood. *Psychology of Women Quarterly*, 4, 114-128.
- 49) Hahn, D. W., and et al., (1986). Experimental evidence for failure to implant as a mechanism of infertility associated with endometriosis. *American Journal of obstetrics and Gynaecology*, 155, 1109-1113.
- 50) Holmes, H. (1987). Risks of infertility diagnosis and treatment. Washington, DC: Office of Technology Assessment.
- 51) IIPS, 1995, National Family Health Survey (MCH and Family Planning), India 1992-49, Bombay
- 52) Imrana Quadeer (1998): Reproductive Health: A public health perspective, EPW, October 10.
- 53) Infertility: A Technical Report. WHO, Series 582, Geneva, 1975.
- 54) Inhorn, M C (1944). Global³infertility and the globalization of new reproductive technologies: illustration from Egypt 'social science and medicine, 56, p.1837-1951.
- 55) Jejeebhoy J S (1994): Infertility in South Asia: Priorities for social science research. Paper presented at Reproductive Health Workshop, New Delhi, 26 September-7October, Organized by WHO Ford Foundation.
- 56) Jejeebhoy, S J (1996): Reproductive health information needs in India: Has NFHS filled the data gaps? *The journal of family welfare*, 42 (1), p.7-23.

- 57) Jejeebhoy, Shireen (1998), "infertility in India: Levels, patterns and Consequences for Social science Research", *The Journal of Family Welfare*, 44, (2) p.222-225
- 58) Jindal, U N. and Dhall, G. L (1990): Psychosexual problems of infertile women in India. *The Journal of Family Welfare*, 35 (4), 222-225
- 59) Jindal, U N, Gupta, A. N. (1989): Social problems of infertile women in India. *International Journal of Fertility*, 34(1), 30-33.
- 60) John F. Wilson and Elizabeth J. Kopitzke (2002): Stress and Infertility. *Current Women's Health Reports*. Vol.2, 194-199.
- 61) Johnsson, G. G., and et al., (1988). Examination stress decreases plasma level of luteinizing hormone in male students. *Psychosomatic Medicine*, 50, 286-294.
- 62) Johnston, Patricia Irwin (1995): *Infertility: A patient's perspective*. *Infertility: Evaluation and Treatment*, W.B. Saunders Company, Philadelphia.
- 63) Kakar D N, 1983. Traditional healers in North India:-"a case study. *Nursing Journal of India*. 74(3): 61-63.
- 64) Katiyar, A. (1993). Making babies.... Special feature on infertility, *India Today*, 15 June, pp.54-60 and 96-101.
- 65) Kelly, W. N. (Ed.) (1989). *Text book of international medicine*. Philadelphia: J.B. Lippincott.
- 66) Kielmann K. Barren ground: contesting identities of infertile women in Pemba, Tanzania. In: Look M, Kaufert PA, eds. *Pragmatic women and body politics*. Cambridge, Cambridge University Press, 1998:127-163.

- 67) Koropatnick, S., Daniluk, J. and Pattinson, H. A. (1993) Infertility: a non-event transition. *Fertility and Sterility* 59, 163-171
- 68) Kupka Markus S. and et al (2003): Stress relief after infertility treatment- spontaneous conception, adoption and psychological counselling. *European Journal of Obstetrics and Gynecology and Reproductive Biology*, Vol.110, 190-195.
- 69) Lalos, A., Lalos, O., and et al., (1986). Depression, guilt and isolation among infertile women and their partners. *Journal of Psychosomatic Obstetrics and Gynaecology*, 5, 197-206.
- 70) Lasker J N, Borg S. secrecy and the new reproductive technologies. In: whiteford LM, Poland ML, esd. *New approaches to human reproduction social and ethical dimensions*. Boulder, CO, Westview press, 1989.
- 71) Leiblum, S. R. (1993). The impact of infertility on sexual and marital satisfaction. *Annual Review of Sex Research*, 4, 99-120.
- 72) Letherby Gayle (1999): Other than mother and mothers as others: The experience of motherhood and non-motherhood in relation to 'infertility' and 'involuntary childlessness. *Women's Studies International Forum*. Vol.22, No.3, 359-372.
- 73) Letherby Gayle (2002): Childless and Bereft? : Stereotypes and realities in relation 'voluntary' and 'involuntary' childlessness and womanhood. *Journal of Sociological Inquiry*. Vol.72, No.1, 7-20.
- 74) Linda D. Applegarth (1995): *The Psychological Aspects of Infertility*.
- 75) Lorber J. Choice, gift or patriarchal bargain? Women's consent to in-vitro fertilization in male infertility. In: Holmes HB, Purdy LM, eds.

Feminist perspectives in medical ethics. Bloomington, Indiana
University press, 1992.

- 76) Loucks, A. B., & Horvath, S. M. (1984). Exercise induced stress responses of amenorrhæic and eumenorrhæic runners. *Journal of Clinical Endocrinology and Metabolism*, 59, 1109-1120.
- 77) Mason, W. S., and et al., (1984). Outcome of progesterone therapy of luteal phase inadequacy. *Fertility and Sterility*, 41, 856-862.
- 78) Marianne Amir, Netta Horesh and Tami Lin-Stein (1999): Infertility and Adjustment in women: The Effect of Attachment Style Social Support. *Journal of Clinical Psychology in Medical Settings*, Vol.6, No. 4, 1999, 463-479.
- 79) Matsubayashi Hidehiko and et al (2000): Emotional Distress of Infertile Women in Japan. *Human Reproduction*, 966-968.
- 80) Mattews, R., & Mattews, A. M. (1986). Infertility and involuntary childlessness: The transition to nonparenthood. *Journal of Marriage and the Family*, 48, 641-649.
- 81) Mazer, c., & Israel, L. (1959). *Diagnosis and treatment of menstrual disorders and sterility*. New York: Hoeber.
- 82) McEvan, K. L., and et al., (1987). Adjustment to infertility. *Journal of Abnormal Psychology*, 96, 108-116.
- 83) Mcquillan Julia, Greil L. Arthur, White Lynn, Jacob Casey Mary (2003): Frustrated Fertility: Infertility and Psychological Distress among Women. *Journal of Marriage and Family*, Vol.65, No-4, November, 1007-1018.

- 84) Menning B E. *Infertility: A guide for the childless couple*. Revised edition. New York: Prentice-Hall, 1988. (The psychosocial impact of infertility as presented by the founder of RESOLVE; the classic in the field.)
- 85) Mikulincer, M., Horesh, N., Levy-Shiff, R., & Shalev, J. (1998). The contribution of adult attachment style to the adjustment to infertility. *British Journal of Medical Psychology*, 71,265-280.
- 86) Milne B. Couples' experience with in vitro fertilization. *Journal of Obstetric, Gynaecologic, and Neonatal Nursing*, 1988, 17:347-352.
- 87) Morris, N., and et al., (1987). Marital sex frequency and midcycle female testosterone. *Archives of Sexual Behaviour*, 16, 27-37.
- 88) Nanda, P. and Baru, R. *Private Nursing Homes and Their Utilization: A Case Study of Delhi*.
- 89) Newton, R., (1986). Effect of cancer on semen quality and cryopreservation of sperm. Paper presented at the International Conference on Reproduction and Human Cancer, Bethesda, MD.
- 90) Papreen N., and et al., (2000). Living with infertility: experiences among urban slum populations in Bangladesh. *Reproductive Health Matters*, 8:33-44.
- 91) PATH. Feature article: infertility in developing countries. *Outlook*, 1997, 15:1-8. (www.path.org).
- 92) Phipps, W. R., and et al., (1978). The association between smoking and female infertility as influenced by the cause of the infertility. *Fertility and Sterility*, 48, 377-382.
- 93) Poston, DL. (1977)' characteristics of voluntarily and involuntarily childless wives', *Social Biology*, 23(3) p.198-209.

- 94) Priotrow PT. Sex pre selection—not yet practical. *Population Reports*, 1975, 1: 11-22.
- 95) Rangaiyan, G & Swinder, S (2000), 'women's perception of gynecological Morbidities in south India: Causes and remedies in cultural context' *The Journal of Family Welfare*, 46(1), p.31-38.
- 96) Remennick, Larissa (2000). Childless in the land of imperative motherhood: Stigma and coping among infertile Israeli women. *Sex Roles* 43 (11/12), 821-41.
- 97) Reproductive Health Outlook (RHO). Overview and lessons learned. Infertility. www.rho.org/html/infertility_overview.html.
- 98) Reubinoff BE, Schenker JG. New advances in sex preselection. *Fertility and Sterility*, 1996, 66:343-350.
- 99) Rhodes, R. (1988). Women, motherhood, and infertility: The social and historical context. *Journal of Social Work and Human Sexuality*, 6,5-20
- 100) Riessman, Catherine (1995a). Locating the outsider within: Studying childless women in India. *Reflections*, 5-14 (Summer).
- 101) Ronald I. Modernization and Postmodernism: Cultural, economic and political changes in 43 societies. Princeton, Princeton, University Press, 1997.
- 102) Ronkainen, H., and et al., (1985). Physical exercise induced changes and season-associated differences in the pituitary-ovarian function of runners and joggers. *Journal of Clinical Endocrinology and Metabolism*, 60, 416-422.

- 103) Rose, R. M., and et al., (1969). Androgen responses to stress. II. Excretion of testosterone, epitestosterone, androsterone and etiocholanolone during basic combat training and under threat of attack. *Psychosomatic Medicine*, 31, 418-435.
- 104) Rowe PL Hargreave TB, Mellows, WHO manual for the infertile couple. Cambridge, Cambridge University Press, 1993
- 105) Rowe P. J. (1999): *Clinical Aspects of Infertility and the Role of Health Care Services*. Issues in Current Research Vol.7 No.13 May 1999.
- 106) Rowe P. J. and Farley, T.M.M.: *Prevention and Management of Infertility*, *Research in Human Reproduction*.
- 107) Russo, N.F. (1976). The motherhood mandate. *Journal of Social Issues*, 32,143-153.
- 108) Sandelowski, M.J. (1990). Failures of volition: Female agency and infertility in historical perspective. *Signs: Journal of Women in Culture and Society*, 15,475-499.
- 109) Sanders, K.A. and Bruce, N.W. (1997) : A prospective study of psychosocial stress and fertility in women. *Human Reproduction* Vol.12 No.7, 2324-2329.
- 110) Savulescu J, Dahl E sex selection and preimplantation diagnosis: a response to the ethics Committee of the American Society of Reproductive Medicine. *Human Reproduction*, 2000, 15: 1879-1880.
- 111) Scialli, A. R. (1987). *Risks of infertility diagnosis and treatment*: Washington, DC: Office of Technology Assessment.

- 112) Sciarra, J. (1994). Infertility: An international health problem. *International journal of Gynecology and Obstetrics*, 46, 155-163.
- 113) Schmidt L, Munster K. infertility, voluntary infertility, and the seeking of medical advice in industrialized countries, 19970-1992; a review of concepts, measurements and results. *Hum Repro* 1995; 10-1407-1418
- 114) Schmidt L., Christensen U. and Holstein B.E., (2005): The social epidemiology of coping with infertility. *Human Reproduction* Vol.20, No.4, 1044-1052.
- 115) Shagold, M. M., and et. al., (1981). Acute effects of exercise on plasma concentrations of prolactin and testosterone in recreational women runners. *Fertility and Sterility*, 35, 699-702.
- 116) Shettles LV. Sex selection. *Infertility*, 1978, 1: 127.
- 117) Siebel, M., & Taynor, M. (1982). Emotional aspects of infertility. *Fertility and Sterility*, 37, 137-145.
- 118) Sinha, D. (1990): Concepts of Psychosocial well-being: Western and Indian perspectives. *NIMHANS Journal*, 8 (1), p. 1-11.
- 119) Singh, A., Dhaliwal, LK; & Kaur, A (1996): infertility in a primary health center of North India: A follow-up study, *the Journal of family welfare*, 42(1) p. 51-56.
- 120) Soman, Krishna (1992): An exploratory study of social dynamics of women's health in Adityapur village of Birbhum district' MPhil dissertation, CSM and CH (SSS), JNU, New Delhi.

- 121) Srinivasan, Sanchya (2004): *Selling the Parenthood Dream. The Unheard Screams-Reproductive Health and Women Lives in India*, by Rao, Mohan (ed) Jubban Publishing, New Delhi. 45-66.
- 122) Stanton AL. Cognitive appraisals, coping processes, and adjustment to infertility. In: Stanton AL, Dunkel-Schetter C, eds. *Infertility: perspectives from stress and coping research*. New York: Press, 1991: 87-108
- 123) Stanton, Annette, & Danoff-Burg, Sharon (1995). Selected issues in women's reproductive health: Psychological perspectives. In Annette Stanton & Sheryle Gallant (Ed), *The psychology of women's health: progress and challenges in research and application* (pp.261-305). Washington, DC: America Psychological Association.
- 124) Stillman, R. J. (1987). Definitions, statistics, and the human and the financial costs of infertility. (Summary) *Alternative reproductive technologies: Implications for children and families*. Washington, DC: U. S. Government Printing Office.
- 125) Sundby J. *infertility, causes, case and consequences*, Oslo: National Institute of Public Health, 1994.
- 126) Susan Levin (1993): *The psychological evaluation of the infertile couple. Technology and Infertility: Clinical Psychological, Legal and Ethical Aspects* (Ed), Springer-Verlog New York. 289-296.
- 127) Sutton, J. R., Coleman, M. J., and et al., (1973). Androgen responses during physical exercise, *British Medical Journal*, I, 520.
- 128) Tarlatzis L, and Tarlatzis, B. C., Diakogiannis, L, Bontis, J., Lagos, S., Gavriilidou D., and Mantalenakis, S.: *Psychological impacts of infertility on Greek couples*.

- 129) Thomcau P. Spira A. Prevalence of infertility, international data and problems of meaning. *Journal of Obstetrics and Gynaecology Reproduction Biology*. 1990:38:43; 52.
- 130) Thorne, E., & Langner, G. (1987). Expenditures on infertility treatment. Washington DC: Office of Technology Assessment.
- 131) Todorova Irina L.G. Kotzeva (2003): Social discourses, women's resistive voices: Facing involuntary childlessness in Bulgaria. *Women's International Forum*, Vol.26 No. 2, 139-151.
- 132) Tola Olu Pearce (1999): She will not be listened to in public: Perceptions among the Yoruba of infertility and childlessness in women, *Reproductive Health Matters*. Vol.7, No.13, May 1999.
- 133) UNFPA (1999): 'Background paper, National Consultation on Infertility Prevention and Management, 37-61, New Delhi.
- 134) Unisa Sayeed (1999): Childlessness in Andhra Pradesh, India: Treatment-Seeking and Consequences, *Reproductive Health Matters-Living Without Children*, Vol.7 No.13, May-1999, 54-63.
- 135) United Nations (1994). Programme of Action of the International Conference on population and Development, UN, New York.
- 136) Van Balen F, Trimbos-Kemper TCM. Long-term infertile couples: a study of their well-being. *J Pscehosom Obstetrics and Gynaecology* 1993: 14:53-60.
- 137) Van Balen, Frank, Trimbos-Kemper, Trudy, & Verdurmen, Jacqueline (1996). Perception of diagnosis and openness of patients about infertility. *Patient Education and Counselling* 28, 247-52.
- 138) Van Der Spuy, Z. M. (1985). Nutrition and reproduction. *Clinician in Obstetrics and Gynaecology*, 12, 579-604.

- 139) Vekemans Marcel (1994): Infertility Treatment: Luxury, Desire or Necessity. *Reproductive Health Matters*, No.4, November 1994, 93-97
- 140) Vincent, Adesso J., Reddy, M. and Raymond Flemming (0000): *Psychological Perspective of Women's Health*.
- 141) Waltzer, H. (1982). Psychological and legal aspects of artificial insemination (AID). An overview. *American Journal of Psychotherapy*, 36, 91-102.
- 142) Warren MA, The ethics of sex selection. In: Humber J, Almeder R, eds. *Biomedical Ethics Review*. Clifton, NJ, Human Press, 1985.
- 143) Werz DC, Fletcher JC. Sex selection through pre natal diagnosis: a feminist critique. In: Holmes HB, Purdy LM. Eds. *Feminist perspectives in medical ethics*. Bloomington, Indiana University Press, 1992.
- 144) Wheeler, G. D., and et al., (1984). Reduced serum testosterone and prolactin levels in male distance runners. *Journal of the American Medical Association*, 252, 514-516.
- 145) Whiteford L.M, Gonzalez L. Stigma: the hidden burden of infertility. *Social Science and Medicine*, 1995, 40:27-36.
- 146) WHO, 1978. Primary health care. International Conference on Primary Health Care, Alma-Ata, USSR, 6-12 September 1978.
- 147) World Health Organization. Special Programme of Research, Development and Research Training in Human Reproduction and the International Women's Health Coalition (1991). Summary report and recommendations of the meeting on 'women's perspectives on the

introduction of fertility regulation technologies', Geneva, 20-22
February, 1991, WHO, Geneva.

- 148) World Health Organization. Infertility: a tabulation of available data on prevalence of primary and secondary infertility. Geneva, WHO, programme on Maternal and child Health and Family Planning, Division of Family Health, 1991.
- 149) Wischmann T. and et al (2001): Psychosocial characteristics of infertile couples: a study by the 'Heidelberg fertility consultation service. Human Reproduction, Vol.16, No.8, 1753-61.
- 150) Woods, Nancy Fugate and Cynthia, Luke (1979): 'Sexuality, Fertility and Infertility', in Woods, Nancy, Fugate (Ed). Human Sexuality in Health Illness. The C.V. Mosby Company, London.
- 151) Yael, B., Miri, G., Ehud, K. (2004): Variability in the difficulties experienced by women undergoing infertility treatments. Fertility and Sterility, Vol. 83 No.2, February 2005, 275-283.
- 152) Zarutskie PW et al. The clinical relevance of sex selection techniques. Fertility and Sterility, 1989, 52:891-905.
- 153) Zucker Alyssa N. (1999): The psychological impact of reproductive difficulties on women's lives. Sex Roles, Vol.40 No.9/10, 767-786.

