

**NEW REPRODUCTIVE TECHNOLOGIES AND SURROGACY:
SOCIAL ISSUES AND CONCERNS**

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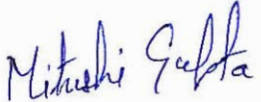
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DECLARATION


This is to certify that the dissertation entitled “NEW REPRODUCTIVE TECHNOLOGIES AND SURROGACY : SOCIAL ISSUES AND CONCERNS” submitted by MITUSHI GUPTA to the Centre for the Study of Social Systems, Jawaharlal Nehru University, New Delhi, in partial fulfillment of the requirements for the award of the degree of **MASTER OF PHILOSOPHY**. This is an original work and has not been submitted, in part or full, for any other degree or diploma of any University.



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CERTIFICATE

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


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INTRODUCTION

Family is the basic unit of society and humans, as social animals have a basic urge to create a family after getting into an institution like marriage. Since the family is such an essential institution in the fulfilment of human happiness, and parenthood is such a desired social role, being childless is often devastating. More than 4.5 million couples experience infertility each year. Even today, in modern times of advanced medicine, learning, and deeper social awareness, people still feel disgraced and humiliated when they confess that they have fertility issues. Infertility is no longer being seen as a private problem of couples but as a medical condition that focuses primarily on women. The experience of infertility is overpoweringly formed by varying extent of patriarchy. The desire for parenthood leads them to search for alternative solutions, and NEW REPRODUCTIVE TECHNOLOGIES (NRTs) have come to their rescue. NRTs encompass all current and anticipated uses of technology in human reproduction, Sex Selection Techniques, Non-Coital Reproductive Techniques, Long acting Contraceptive Techniques including Assisted Reproductive Technology.

Recent advancements in assisted reproductive techniques such as donor insemination and, embryo transfer methods, have revolutionized the reproductive environment, resulting in “surrogacy”, as the most desirable option while technological advancements is certainly a manifestation of human inventiveness and it has helped generations to survive as well as improve the quality of their life through the control of nature.

But technologies do not exist in social vacuum. The sociology and history of science and technology has shown how invention of technology as well as its outcome is deeply conditioned by the institutional context and economic arrangements within which it emerges. Thus it is argued that technologies today are not created in accordance to the needs of the people but according to the flow of capital investment. This is particularly true of biotechnology and medicine which are fields that demand huge capital and technological investment for research. Sunderrajan (2006) has developed the concept of ‘biocapital’ to show the intimate relationship between contemporary capitalism and the

emergent scientific and technological discoveries in the life sciences. The author shows that given the capital-intensive nature of drug development and the extensive infrastructure required biotech research is such that for technological invention and development may more often follow the logic of capital than fulfill social needs. In fact the author's research into genomics and biotechnology shows how the combination of capital, science and technology has created new definitions of life itself. "Biocapital is crucial transformations in the materiality and exchangeability of what we call "life". These transformations are created through shifting and variable use of market commodification versus public commons or public goods formation, both of which are disciplined by new forms of capitalist logic, conforming neither to those of industrial capitalism nor to those of so-called post modern information capitalism. This is rationale for the term "biocapital", which asks the question of how 'life' gets redefined through the contradictory processes of commodification (Sunderrajan 2006; 47).

The specific significance and social value of technologies such as those in biomedicine depends on whether the medical technology is offered by public health system or by the private sector. Studies on medical care point to some difference in priorities and orientation in the use of medical technology in public and private sector though the public health system is influenced greatly by private interests.

Another aspect pointing to the embeddedness of medical technologies is that as commodities in the market they often try to create the need for their use. In this process they may directly or indirectly aggravate social bias or generate new prejudices. Powerful messages are sent about the significance of medical technologies by industrial leaders or scientist-consultants who often head international health organizations or social initiatives, carry veiled prejudices about racial groups, third world or women. Their messages are however presented in progressive or liberal language of feminism that it is often difficult to see the economic interest behind these moves. Tharu and Niranjana (2004) point out how when the abortifaciant pill RU-486 was introduced by the multinational company Rousell – Uclaf, the scientist consultant remarked that 'denying the pill would sign the death warrant for the 2,00,000 women who die of abortion every year'. This was projected as progressive and women friendly technology especially suitable for

illiterate, third world women. But the authors argue that this discourse requires scrutiny. The contraceptive technology consisting of hormonal implants that could be monitored centrally not only lead to control of women's reproduction but also place the burden of managing the pregnancy entirely on women absolving men of any responsibility. In short the women have to bear the brunt of irrationalities of patriarchy in the family and in the health system. Further, the authors argue that 'the use of these contraceptives is premised on the notion that wise planning and scientifically developed products can fulfil women's demands for liberty and self-determinationwithout changes in existing family relations or in society at large; in other words, the promise of a technological fix that can bypass sexual politics and indeed the network of relations in which women are gendered and subjugated' (Tharu and Niranjana 2004; 262).

Several new reproductive technologies (NRT) ranging from sex-selective abortion to assisted reproductive technologies such as in-vitro fertilization (IVF), Intra-Uterine Insemination (IUI), genetic technologies and emergency contraception were supposed to have the potential to increase women's autonomy and control over reproductive choice, but in the course of time these have become advanced sinister means of propagating the very old idea social norms, dominance, increasing the gap between the rich and the deprived, sex selection and ultimately to female suppression.

"The term old reproductive technologies refer to technologies such as contraceptive pills, various intrauterine devices, sterilization, and abortion, the term new reproductive technologies (NRTs) is used to refer to the new technologies used both for preventing conception and birth and the technologies used for stimulating or aiding birth. Large-scale sterilization abuse of women and forced abortion in several parts of the so-called developing world have been exposed by now, but the more subtle ways in which women's bodies are violated with the use of drugs –either to suppress fertility (mostly in developing countries) or to stimulate it (generally in developed countries)–is not yet common knowledge.

With the worsening of the debt crisis and increasing poverty in the so-called Third World, population control policies take on a more aggressive tone. There is abuse of women in clinical trials of hormonal contraceptives such as long-acting hormonal injectables and subdermal implants. Women, particularly poor, uninformed women in regions with inadequate health care services, are offered incentives to use these inadequately researched and unsafe contraceptives. On the other hand, women, mostly in the

developed countries, are offered sophisticated, lengthy and often painful fertility treatments during which high doses of estrogen and progesterone drugs are administered in the hope of giving them or their partners their own biological children.

Very often these technologies are offered to women are couched in terms of reproductive choice and reproductive freedom, whereas in actual practice they are often misused and abused to violate women's bodies and to exercise control by outsiders rather than by women themselves (Agnihotri 1991; -----).

There is hence a need to address various viewpoints and experiences of different sections of society on technologies rather than assuming them to always be beneficial. This dissertation is an attempt to examine the social and political issues with regard to new reproductive technologies (NRT) which are projected as enabling and sophisticated solutions to problems of conception and childbirth. As activities pertaining to social reproduction through the institution of the family, these technologies have far-reaching impact on the social matrix. This work is restricted to the impact or social consequences of NRTs rather than a study of their invention which is another field in the sociology of science and technology altogether. We also focus more on NRTs related to surrogacy which is a growing phenomenon leading to medical tourism linking women in the global south to couples from the global north.

Gradually India is emerging as a popular destination for surrogacy arrangements for many rich foreigners'. Cheap medical facilities, advanced reproductive technological know-how, coupled with poor socio-economic conditions, and a lack of regulatory laws in India, in this regard combined to make India an attractive option. The supposed benefits of surrogacy are created by a capitalist patriarchal society. It is assumed that there is an equal exchange - money paid for the service rendered. In reality the contract between the parties to surrogacy would not exist if the parties were equal. The woman must give more than her egg in order to gestate a child - an important gender difference. Within this framework the contract is always biased in favour of the financially secure male. The freedom of the surrogate mother is an illusion. The arbitration of rights hides central social and class issues which make surrogacy contracts possible. In addition, bio-

ethicists are concerned that Indian surrogates are being badly paid and working as surrogates in a country with a comparatively high maternal mortality rate.

In the past, surrogacy arrangements were generally confined to close relatives, family, or friends, usually as a philanthropic deed. But, with the introduction of monetary aspects in the process, surrogacy has expanded its network beyond the boundaries of family, community, state, and even across countries. The concept of surrogacy has turned a normally crucial reproductive function of a woman's body into a commercial venture. Surrogate services are advertised in best possible attracting and convincing ways. Surrogates are recruited, and operating agencies make massive profits. The commercialization and of surrogacy and privatisation of NRTs has raised fears of a black market and of baby selling and breeding farms; turning poor women into baby producers and the possibility of selective breeding at a price. Surrogacy downgrades a pregnancy to a service and a baby to a mere product. Experience shows that as with any other commercial dealing, the customer lays down his/ her conditions before purchasing the goods.

This current situation has evolved from an interesting and complex history. In the first world, the right to control one's own fertility through access to contraception and abortion services has been central to feminist thinking and activism for decades; the "birth control" pill and legalization of abortion were key substantive and symbolic issues for the second wave of feminism starting in the 1960s. While there have been real problems with how reproductive technologies are used in some communities. Advances in fertility control are generally viewed positively and credited with facilitating women's autonomy and greater participation and progress in the public sphere. In contrast, in many settings in the third world fertility regulation technologies were introduced primarily for the purpose of controlling population growth rather than facilitating the exercise of individual choice. Much of the critique of population programs has focused on the violation of rights. These include violations of the right to autonomy and individual choice in contraception, and the need to protect women's health and rights in the process of testing and providing these technologies. In the past decades, many activists in these settings have viewed reproductive technologies as hostile to, rather than facilitating,

individual autonomy and reproductive rights. In reality, reproductive technologies, including contraception, cannot meaningfully be assessed in isolation as inherently “good” (facilitating individual choice) or “bad” (hindering choice). In my opinion they must be examined and understood in relation to specific contexts. From a rights perspective, the evaluation of reproductive technologies must start with questions about the agency of control and must take their purpose into consideration. One must take note of the fact that reproductive technologies are inextricably linked with the services and the people that provide these services. Therefore we need to consider the role of agents and their services in the operationalization of NRTs.

Indeed, a number of new reproductive technologies, like medical abortion, emergency contraception hold the promise of changing the relationship between technologies and services by being more directly involved with the control of women. Finally, there are multiple and complex links among services, technologies, and rights. While there has been significant progress at the international level in articulating and codifying a rights-based framework for reproductive health, the implications for this “on the ground” are still being explored. What is the meaning of reproductive rights in the absence of services that enable women to exercise reproductive choice? How can a rights framework be used to advocate for quality services? What other considerations, such as autonomy, mobility, and financial resources, are key to making rights real for women?

As notions of choice and reproductive rights have developed over time, reproductive technologies have been assessed in different ways. Advocates of population control have tended to favour long acting, highly effective contraceptives. A part of the feminist discourse has stressed on evaluating contraceptive technologies based on methods were provided in these programs. They explore these methods to evaluate whether they are driven by concerns of population control or are motivated by promotion of choice and autonomy over reproduction. Feminists also look into the mechanisms of control of these NRTs and their mode of action. The dimensions of NRTs include effectiveness, safety, risks, benefits, reversibility, and removability. In the face of the HIV/AIDS and the growing evidence of high prevalence of STIs and RTIs throughout the world, the effect of specific technologies on facilitating or preventing disease has

assumed increased importance. Other equally important concerns relate to accessibility, availability, affordability.

Over the long history of India's family planning program, a variety of technologies have come into favour at different times. For decades the program was driven largely by demographic goals aimed at reducing the country's population growth. Focus on population control engendered little space for reproductive rights of the individual.

Since a women's choice was accorded little consideration, individuals are not isolated; rather, their lives are linked to family, community, and the state, all of which have multiple economic, political, and cultural dimensions. These contexts can function to support or constrain an individual's control over his or her body, reproduction, and sexuality. The actual meaning of reproductive rights for an individual woman is powerfully influenced by the values and meanings accorded to women's status and roles in society and to reproduction itself. Furthermore, women's reproductive capacity has, in different times and places, been used as a primary tool for many social, political, and commercial objectives, including population planning, religion, and enforcing distinctions of class, caste, and race. The term "rights" is used in many different ways, and it is critical to draw out clearly both the distinctions and connections among them. "Rights" is often used to refer to formal law, enforceable through formal legal institutions. Often the norms most directly relevant to actual practice are found in local codes and customary law. These may be written or unwritten and may also include customary and religious systems. Reproductive rights are often violated.

OBJECTIVES

Throughout dissertation we have discuss the social pressure related to motherhood ,social ridicule because of infertility and the profitable business of NRTs some of the simple forms of ART like artificial insemination and IVF do offer solutions to infertility but the markets that primarily control them have restricted access to only those who can mobilize resources. Absence of simple services in the public sector makes its access to the poor impossible and the legislation is being so articulated that simple technologies are

debarred. The existing demand (more by professionals and the middle class) for these services distorts priorities in the organization of health care services as pressure is built to set up hi-tech within open markets and public sector service infrastructure without building the basic facilities that help prevent infertility. The poor then have to either sell their assets to access the facilities, or use the opportunity to earn by selling their own reproductive potential – the women that are pushed into this process carry the maximum risks to their health. Even the limited scope of changing social norms, created first by the practice of adoption and now through surrogacy, has not opened the world of family for scrutiny. Those who use the new technology to create their families continue to do so in secrecy within the prevailing norms of a patriarchal family where genetic ownership of the baby has the highest value. NRT has in fact, undermined the spreading movement for adoption as an alternative by selling the dream of owning your own baby. The fact that only one partner contributes the genetic material in most cases and that there are unknown genes of the donor, and therefore the problem of ‘ownership’ still persists, is completely sidelined even when there are reports from the West of mutual resentments and intra-familial tensions between children and parents. The prevailing social structures thus appear to succeed in dominating the new technology and throttling the challenges it throws open to society. New Reproductive Technology thus becomes the means of propagating the old and traditional family norms.

The objective of this dissertation has been to unravel the social , medical and ethical implication of NRTs for women. Some of the objective which we try to find out through this research are

- To explore how and why NRTs comes into being
- To explore the role of public health sector in providing reproductive health services and why infertility is overlooked in the public health sector.
- To understand the economic and commercial aspects of NRTs, issues of provision and access, proliferation and implications
- To look at the context in which women use NRTs and to understand women’s experience and their perception of the treatment

RESEARCH METHODOLOGY-

This dissertation is based entirely on literature survey as per the rule with M.Phil research in JNU. We have included books, newspaper articles, journals of different disciplines along with an analysis of advertisements for surrogacy to present the basic arguments of this thesis. We also present a brief account of the interview data generated as part of our exploration of the field.

CHAPTERIZATION

The **first chapter**, ‘Gender, motherhood And NRTs’ looks at the NRTs and social pressure related to motherhood, how womanhood is socially constructed and women who failed to conceive especially son is being ridiculed and stigmatized. this chapter primarily deals with the emergence of NRTs , causes and debates of sex- selective abortions

The **second chapter**, ‘Commercialization of NRT’ deals with the infertily treatment and its privatization and in this chapter we explore the condition of infertility treatment in public verses private sector .This chapter focuses on the situation of women’s health in India and examines the factors that impinge on their right to health and well being, and locates the role of gender within these.

The **third chapter**, ‘ Surrogate Motherhood: Boon or Bane’ in this chapter we discuss the increasing commercialization of the womb in India and explore the role of advertisements in promoting these NRTs and experience of women in Delhi who have been surrogates in order to listen to them and find out what their experience was.

RELEVANCE OF THE STUDY

The current study is crucial in understanding the emergence of NRTS and its impact on women. This dissertation tries to link the social pressures related to motherhood and importance assigned to biological child which is the driving factor for the commercialization of assisted reproductive technologies. The fact that there is lacuna of laws and policies in this area an academic study like this facilitates to raise the issue further.

CHAPTER -1

GENDER – MOTHERHOOD, MASCULINITY & NRTS

INTRODUCTION

There are a number of technologies that assist reproduction and increase the chances of conception and completion of the entire term of pregnancy. Collectively these are called Assisted Reproductive Technologies, or ARTs. The term ART includes various procedures ranging from the relatively simple Intra-Uterine Insemination (IUI) to variants of In-Vitro Fertilization (IVF), more commonly known as “test-tube baby technology”. These technologies have developed at a rapid pace since the latter half of the 20th century. They have visible influence on societal perception of reproduction, pregnancy, and motherhood. However, these new technological developments raise a number of complex issues which emerge from the links between health, society and technology.

In practical terms ARTs do much more than just help women satisfy their desire for motherhood, they also influence their lives. This is especially true in the existing context where both the forces of patriarchy and the market are evident. In this scenario, it is necessary to re-examine the interconnectedness between social structures, the scientific establishment and the market, to analyse their impact on the creation and proliferation of ARTs. This is particularly important given the two-way relationship between science and social norms.

Science is shaped by both social mores and works that reinforce them. It is therefore of fundamental importance to understand the relations between the technology and social pressure related to motherhood.

ASSISTED REPRODUCTIVE TECHNOLOGIES AND THE SOCIAL PRESSURES RELATING TO MOTHERHOOD

The importance and pressure associated with motherhood and biological progeny, and the social stigma associated with infertility, are largely responsible for the development of birth technologies into a fertility industry. The potential for exploitation through ARTs is massive in a country like India where fertility defines womanhood. This is primarily due to the fact that womanhood is defined by a woman's capacity to become a mother. The proof of fertility is closely related to status and prestige, respectability and to the very recognition of an individual as a woman. Given this paradigm which defines what it means to be a "normal" woman, childlessness brings with it multiple forms of social exclusions.

The context is such that in most cases, alternative parenting or for that matter voluntary childlessness, far from getting equal weight age with that of biological parenthood; does not even have the space to exist in this social structure. Social parameters therefore prepare the ground for the introduction and propagation of ARTs in India. The social pressure is internalized and creates intense feelings of guilt and shame for not being able to perform the 'normal' and 'expected' role (Sama, 2007b). Experiences of women -either stressful or otherwise- of pregnancy, abortion, infertility and childbirth are related to ways in which these events are socially organized (Doyal, 1995).

The consequences of infertility can be manifold. These include anxiety, depression, lowered life satisfaction, guilt and helplessness. Implications of infertility are also evidenced in reduced job performance, marital problems, dissolution of marriage and abandonment, loss of social status, social stigma, isolation, economic hardship and physical violence (Widge, 2001)

Raymond (1993) rightly points out that technological reproduction reinforces the role of women as breeders and encourages them to have children at any cost. As a consequence their reproductive choices become non-existent. ARTs perpetuate conformity to

traditional social roles in the disguise of new technologies that supposedly enhance individual rights and choice.

In order to see the complete picture, it is important to view the “new” reproductive technologies within the context of the politics behind scientific research interest and perceived social pressures towards motherhood. Women in this situation become doubly disadvantaged as they suffer both from the prevailing patriarchy and those painful procedures created by the medicalisation in everyday life”.

The field of ARTs has been growing over the past ten years. ARTs are accessible to many sections of society and are no longer an option available only to the rich.

One can begin this discussion by arguing why these technologies were developed in the first place. The interlinked history between women, science , technology and inherent values in technology is a complex and problematical story

The first point to be made in this context is that treatment through ARTs is not actually treating or curing infertility. It does not make a woman fertile. It sometimes produces a baby but it does not cure the problem. Janice Raymonds (1993) is of the opinion that it is erroneous to consider and portray infertility as a disease. As traumatic as the absence of children may be for some people, infertility is no more a disease than is the absence of other physical capabilities. Yet, people continue to act as if infertility is a disease, encouraged by a techno science that treats it as such by medicalising infertility at primary cost to women. This discourse goes on to institutionalize infertility as an “epidemic” which must be addressed before it goes out of hand. Within this perception of infertility, women are labelled as “patients” and are thus obliged to go through the ordeals of “treatment”. This in turn provides justification for expensive treatment of an otherwise healthy body. Raymonds observes that these technologies cannot treat the underlying causes of infertility; they merely bypass it and assist reproduction. Infertility in this socio-political context “becomes the new buzzword, and technology the new instrumental manipulation that coaxes women’s bodies into reproductive performance. Technological reproduction has made medicalised access to the female body acceptable, and medicalised abuse – that a woman will endure anything to become pregnant –

standard treatment”. Thus, infertility is created and commodified as a medically controllable problem and once the disease of infertility is established, various technologies are deployed for its treatment. In addition, procedures like IVF are incorrectly publicized as established and successful therapies rather than as an experimental and largely research and development-oriented business.

VARYING DEFINITIONS OF INFERTILITY

The argument that infertility was “created” to enhance the use of ARTs is further strengthened if we look at the frequently changing definition of infertility. Prior to 1975, a couple was declared infertile if they did not conceive after five years of unprotected sex. In 1975 however, the World Health Organization (WHO) reduced the time to 2 years and by 2005, reduced it further to 1 year. The ICMR guidelines define infertility as “failure to conceive after at least one year of unprotected coitus.” This expanding definition has strengthened the claims of the medical establishment and other vested interests, both scientific and economic, that there is a virtual epidemic of infertility. It has also increased the rate of medical interventions in women’s reproduction.

A village-based study in the State of Maharashtra shows the level of infertility at 6 to 7 per cent. The National Family Health Survey (NFHS) conducted during 1998-99, claims that 3.8 per cent of women between the ages of 40 and 44 years have not had any children and 3.5 per cent of currently married women are declared “infecund”. In order to have a better understanding of infertility, one should also look at how infertility has been dealt with and approached in various health policies and programmes. It is debatable that in India infertility treatment is not a part of the reproductive health services that are offered similar to the conditions in several developing countries.

WOMANHOOD AS MOTHERHOOD -THE SOCIAL CONSTRUCT

Advances in medical science, including ARTs, reflect the existing social context and incorporate social arrangements and power relations. What is striking is that although infertility affects both men and women it is usually the woman who is blamed for childlessness.

Bharadawaj says that there is stigma associated with infertility and those men who remain with their barren wives get equally stigmatized. The society pressurizes men to remarry in order to have a child and therefore support patriarchal archetypes. Thus, “motherhood” is central to the social construction of a “woman”. Therefore, childlessness is a crisis of a social nature. It is in this overtly patriarchal social context that infertility threatens the social status of a woman, both in the family and the community and sometimes even in her marriage. Since motherhood is central to the social construction of womanhood, childlessness becomes a social crisis that questions the fundamental identity of childless women. Given this idolization of motherhood, one can understand why women who fail to bear a child often subject themselves to the long drawn and often perilous procedures of ARTs. They prefer to undergo treatment rather than adopting a child, or foregoing parenthood.

In a society like India, motherhood is glorified as the ultimate fulfilment of a woman’s life. Notions of motherhood specifically imply biological progeny and ideally, the capacity to bear a son. Any woman who cannot for some reason fulfil this role is socially ridiculed and ostracized (pg-18, the art (regulation) bill, 2008). Failure to perform this role for whatever reason makes the couple and especially the woman vulnerable to stigmatization and social ridicule. This social pressure is internalized and gives rise to intense feelings of guilt and shame on the part of couple for not able to perform the “normal” and “expected” role. Infertility affects both men and women but women affect a lot because of notion of reproduction as women’s responsibility women are essentialised they are nothing more than their reproductive role not merely as child-bearers but as bearers of sons who will then propagate the ‘vansh’, or the family lineage. Infertility threatens the social acceptability of a woman her legitimate role of a wife her marital stability, security and her role in the family and community. Thus, the motherhood is central to the social construction of “women” and childlessness is the crises of a social nature (ARTs and women; assistance in reproduction or subjugation pp-08)

Patel’s (1994) ethnographic study of a village in Rajasthan shows that the childlessness is considered a dreaded condition because motherhood enhances the status

of a woman. The institutional significance of motherhood in India cannot be overestimated, even as family life is undergoing change. The normative social biography for an Indian woman mandates childbearing after marriage. Motherhood is her sacred duty, a value enshrined in religious laws for Hindus, Muslims, Sikhs, and Christians alike. Bearing and rearing children are central to a woman's power and well-being, and reproduction brings in its stead concrete benefits over the life course. A child solidifies a wife's often fragile bond with her spouse in an arranged marriage and improves her status in the joint family' and larger community. When a woman bears a child, she can eventually become a mother-in-law, which is considered to be a position of power and authority in the Indian family. In old age, women depend on children (particularly sons) for economic security especially in a country like India with few governmental social welfare programs. Upon death, a son makes essential last rites possible for Hindus. For families with significant property or wealth, sexual reproduction allows for social reproduction-the orderly transfer of privilege through inheritance to the next generation of kin. Thus in the absence of other avenues bearing a child especially male child represents access respectability (Patel 1994).

Motherhood, in a word, serves critical cultural functions in India's hierarchical society-stratified by gender, caste, and class-that are masked by psychological or sentimental discourses (e.g., it is "natural" for a woman to want to bear a child). Indian women are keenly aware that their reproductive capacities are an important source of power, especially when they lack it from other sources (Dube 1986; Jeffery, Jeffery, and Lyon 1989; Stone and James 1995; Uberoi 1993).

Childlessness is inappropriately equated with infertility, as there are many instances of childlessness that are not cases of infertility. In India a woman is sometimes considered childless in the absence of a son. The common perception is that affection and bonding comes only from a biological connection. Perceptions associated with infertility and childlessness suggest that a man's masculinity is diminished in the absence of a son. There is another view that labels the woman's womb as someone else's (her husband) property and this concept is perpetuated further by the social effects of patriarchy and capitalism. It is not the woman's reproductive structure that matters, her womb belongs to

her spouse. This is illustrated in the Mahabharata, where none of Kunti's sons were fathered by Pandu but they were still called pandavas (Srinivasan 2006)

Bharadawaj in his study of infertility, NRTs and cultural prohibitions against child adoption in India explains that the ongoing son preference in India is the part of Hindu normative order driving from the scriptures themselves as well as ancient legal texts as noted by Bharadawaj (2003, pp-11-12)The assigned importance of a son over daughter, must be understood in the context of gendered norms permeating Hindu patriarchal order where the male principle is sustained through the agency of the male offspring. According to ancient texts and codes of law like the Upanishads, the son is considered as a continuation of the existing self. A man through the agency of his son can recreate himself and can be reborn in this sense.

In these narratives we observe a continued stream of thought, which makes the life of a man permanent through the agency of his son. This can also be seen as an open defiance of death.

Bharadawaj also points to the widespread belief in India that ancestors themselves are born in the form of children. Thus, the performance of "shraddhas" or the sacrifices for the ancestors , in the Hindu faith is the only way of offering prayers for the departed spirits . In these rituals , the son becomes an important player in rescuing the dead. To a father the sacrificial duties performed by the son upon his death to liberate his soul and free him from the unending cycles of birth and death. Thus, Bharadawaj concludes that sons are very important contributions towards the Hindu patriarchal notion of self worth, fruitlessness and salvation which infertility disrupts.

INCREASED TECHNOLOGICAL AVAILABILITY AND PRENATAL SEX SELECTION

Several positions on female-selective abortion shows the manner in which cultural anthropology contributes to an understanding of the context and consequences of prenatal gender discrimination. Throughout recorded history, humans have tried to influence the sex of their offspring through pregnancy injunctions, infanticide and child neglect.

Reproductive technologies in the late 20th century allow determination of the sex of the offspring during pregnancy, making “sex –selection” through abortion possible. “Newer” reproductive technologies such as PGD and DNA- weighted semen selection; can now be applied for sex selection. The prospects of these new reproductive technologies for sex selection must be considered in the light of cultural values surrounding son preference and neglect of the daughter in India.

Since the early 1980s, the use of sex-selective abortion increased in many Asian contexts, where the culture supports preference for a son. Estimates indicate that several million female foetuses were aborted in the last two decades of the twentieth century.

In addition to these cultural dynamics, rapid innovation in reproductive technology since the late 1970s has brought the capability of choosing whether or not to have a daughter within reach of millions of people. Before the emergence of amniocentesis as a way of learning the sex of one's foetus, no method existed for prenatal sex selection. Sex selection of offspring had to be delayed until birth. Now, a variety of techniques exist for influencing foetal sex, including sperm separation and implantation of embryos of a particular sex, and for determining the sex of a foetus, ultrasound. Throughout Asia, ultrasound scanning has become the most widespread technique. In obstetrics, the ultrasound machine was originally used to scan the foetus for certain physical problems such as Down's syndrome. The technological ability to detect the sex of the fetus first emerged with amniocentesis in the mid-1950. Amniocentesis became available in parts of Asia, especially the more urbanized and industrial areas by the mid-1970s .

By the early 1980s, Sex Selective Abortion based on amniocentesis had become accessible in India, mainly in the north but also in Bombay on the west coast.

By the 1990s, ultrasound had replaced amniocentesis as the predominant means for determining the sex of the fetus in India. The profits from manufacturing and distributing ultrasound machines are huge, and the market is expanding. In India, ultrasound equipment constituted 20 percent of the total market in medical technology in 1993, and that market grew by 20 percent every year, with stiff competition among

several international businesses including Siemens, General Electric (in a joint venture with Wipro Ltd.), Toshiba, and Philips (Business Week 1993:68) The device can fit in the backseat of a car as a doctor makes rounds at remote clinics. Indian activists have been watch dogging this growth but appear to be unable to do more than that. It is impossible to estimate how much of all ultrasound testing done in a particular country is for sex selection because ultrasound testing can be used for a range of diagnostic purposes, including for adults "virtually all biliary, gynaecological, and genitourinary lesions, abdominal and pelvic masses, thyroid, salivary gland, and lymph-node tumors, and scrotal lesions" and several purposes for children (The Lancet 1990:1225).

When questioned about the sex-selection use of ultrasound technology in India, Vivek Paul, president of Wipro GE, responded defensively that sex determination is a "very, very small percentage of their usage". It is difficult to imagine that the thousands of ultrasound machines in India, in areas where son preference is most extreme, are used primarily for purposes other than sex selection, and it is equally difficult to imagine being able to obtain accurate data on actual uses of ultrasound machines in areas of high son preference.

Abortion was legalised on broad grounds in India in 1971 with the passing of the Medical Termination of Pregnancy Act. This law gave women the right to an abortion on request up to 12 weeks of pregnancy and for a wide range of indications up to 20 weeks of pregnancy. Abortion is permitted up to 20 weeks for a range of social and medical reasons including if the pregnancy endangers the physical or mental health of the mother, may result in the birth of a child with physical or mental abnormalities, is a result of rape (excluding marital rape) or of contraceptive failure in a married woman. . Generally, the clause on contraceptive failure has been liberally interpreted (excluding marital rape) or of contraceptive failure in a married woman. Two recent amendments to the MTP Act aimed to reduce bureaucratic delays and hurdles in provider and clinic certification and increase access to safe abortion services. Although women in India have had a legal right to abortion for over 30 years, up to 90% of the estimated six million abortions occurring annually continue to be performed either at uncertified facilities and/or by uncertified providers, and are often unsafe. Illegal providers include a vast array of practitioners from

the formal and informal sectors. In Rajasthan, a study by the Indian Council of Medical Research showed that informal providers performed more abortions than government doctors and private doctors combined. Community-based studies suggest that the vast majority of men and women - up to 85% - may be unaware that abortion is legal in India.

Moreover, the lack of information and knowledge about the legal status and availability of safe abortion services present a significant obstacle to women seeking safe abortion in India. Thus, almost one tenth of all maternal deaths and significant morbidity are due to complications of unsafe abortion. Furthermore, the practice of sex determination and abortion of female fetuses has increased rapidly in the past decade, with the last census revealing the lowest-ever sex ratio in India of 927 girls to 1000 boys aged 0-6. Some of the north Indian states, including Rajasthan, are particularly affected. The 2001 census revealed that there were only 888 girls to 1000 boys in the district in which this study was undertaken. Fertility decline and the demand for small families, driven by socio-economic and cultural factors, have created additional pressures to have only a desired number of sons.' A law to regulate fetal diagnostic technology misused for identifying fetal sex, the Prenatal Diagnostic Techniques (Regulation and Prevention of Misuse) (PNDT) Act (1994), states that determining and communicating the sex of a fetus to parents is illegal and that genetic tests to detect fetal defects may only be performed in registered facilities. 'However, enforcement was poor, and activism by several NGOs starting in 2000 led to court orders demanding more accountability from national and state-level health secretaries in implementing the law. In 2002, the PNDT Act was amended to limit the use of pre-conception and pre-implantation procedures for sex selection, to require the government registration of ultrasonography providers and to maintain test records by diagnostic centers and doctors. To date, these legislative efforts have been relatively unsuccessful in reducing the practice of sex selective abortion. Media efforts have created awareness of the law and community-based studies reveal a high degree of awareness of the illegality of sex determination but tacit acceptance of the practice. The use of information campaigns in public health and reproductive health programmes in India dates from the late 1960s, when community- based government workers used posters, leaflets and radio broadcasts to promote family planning and to inform people about new methods.' The importance of awareness campaigns that take

account of the context and diverse idioms in India has been reinforced in the second Reproductive and Child Health Programme. A number of frameworks and methodologies for the evaluation of information campaigns and materials exist, but assessments of reproductive health materials have been limited in India. As more people access these NRTs, the fertility market has taken choice to another level whereby couples not only conceive but can also choose a child of the desired sex and characteristics. The ART industry also plays on the desire for the 'perfect baby' by encouraging the women to use these technologies. In recent years technologies such as PGD, originally meant to screen any genetic defects, have openly and extensively used to selectively screen female embryos. The procedure of sex-selection has become a huge business in itself, especially in countries where a lot of premium is placed on sons. The societal and emotional normative desire of having son makes some couples desperate to use such techniques. (Bhatia, et al, 2003)

Like much other legislation in India, this law has not been put into practice to the letter. To begin with, the reach and the quality of the government-provided health care services are abysmally poor. In addition, there is a lot of corruption in the government-run hospitals. Many government hospital doctors charge for abortions, and most women in India still do not have access to abortion services in government facilities. When prenatal diagnostic tests such as amniocentesis, ultrasonography and chorionic villus sampling became available in the country, a curious and unexpected development followed. Women began to use these tests for detection of the sex of the fetus, and an overwhelming majority chose to have an abortion if the fetus was female. By the early 1980s this practice had become widespread, especially in metropolitan cities like Bombay and Delhi. By 1990, there were an estimated 318 clinics and laboratories offering these services, and 16,000 tests were being done each year in the Bombay metropolitan area alone. This situation gave rise to campaigns and protests by many women's groups, who condemned the use of these tests and of selective abortion of female fetuses, calling it 'female feticide'. In 1985, women's groups in the state of Maharashtra (where Bombay is located) launched a concerted campaign for the banning of prenatal diagnostic techniques for sex detection. In May 1988, the government of Maharashtra supported this campaign by passing the Maharashtra Regulation of Use of Prenatal Diagnostic Techniques Act.

This Act bans the use of medical techniques for prenatal diagnosis, except in cases where the woman is at high risk of fetal abnormality, and declared illegal any advertisements regarding the availability of services for fetal sex detection by health facilities

POLICIES REGARDING SEX SELECTIVE ABORTIONS

India has the longest history of activism and policy attention to SSA. Maharashtra became the first state to ban amniocentesis for sex selection in 1998. Fines and prison terms were mandated for both those who administer the tests and the women who undergo them. Within the same year, serious doubts were raised about how effective the ban would be, especially given gaps in the legislation that leave the private sector unregulated. The lack of government action against a clinic that advertised sex-determination services was cited by an activist group, the Forum against Sex Determination and Sex Pre-Selection, as evidence of the ineffectiveness of the legislation. In 1994, Dr. Chayanika Shah of the Bombay Forum for Women's Health stated that as yet "no one has been convicted" (Ms. 1994a: 17).

In India, the Maharashtra state policy provided the model for the Prenatal Diagnostic Techniques (Regulation and Prevention of Misuse) Bill that was enacted as of January 1, 1996 . One difference is that the national bill requires that all institutions providing prenatal testing be registered. Although this provision might have some effect on large institutions, it is completely useless for preventing FSA provided on the basis of tests obtained from the new portable ultrasound machine. It also says nothing about sex selection through sperm separation, which is legally obtainable in Bombay. Different states of India have adopted other policies and programs. The relatively progressive southern state of Tamil Nadu developed programs in response to recent discoveries of outright female infanticide in some districts. One of these includes an incentive program for parents of a daughter by promising a sum of money when she reaches a certain age. The northern state of Haryana, which has extremely unbalanced juvenile sex ratios, devised a scheme in 1994 that invests Rs 2,500 (about US\$78) in the name of a newborn girl (The Economist 1995). When the girl reaches the age of 18, the investment will yield Rs 25,000. If she marries before that age, the money is not granted to her. This plan is

restricted to families with annual incomes below Rs 11,000 and no more than two children. A plan that was **designed for neighboring Rajasthan in 1993 is similar, but it is linked to having the girl's father or mother undergo sterilization.**

This medicalization of childlessness and its transformation to a state of diseases is part of large politics behind commercialization of both fertility and infertility .population control becomes the sole concern of the state but there are also mechanisms in place to market and medicalized infertility in the individual context as well. This has directed the state on the one hand to equate population control to reproductive health in the state initiated programmes and policies on the other hand to provide the space for fertility treatment to bloom in the unregulated private sector for people who can afford it. This initiative has been programmatically linked with the government's concern with population control. Such a rationale has been clearly stated in the ICMR Bulletin: “ In India, tubal sterilisation is a widely used method for control of fertility. However, due to high infant and child mortality, several women who have undergone tubal sterilisation do seek tubal recanalisation IVF/ET requires comparatively less surgical intervention than tubal recanalisation. If a couple is convinced that pregnancy could be achieved with certainty by the IVF/ET technique, in the event of their losing the existing children, they might readily accept tubal sterilisation as a method of family planning. Thus in vitro fertilization could be of great relevance to our national family welfare programme.”

The study done by Sama in their personal communication with a senior scientist in NIRR, stated that, “ICMR had initiated research on ARTs at NIRR in the eighties. Family planning was the main concern and there were many coming for reversal of sterilisation to conceive a child. It was felt that IVF would be a better option than recanalisation. This is the logic behind initiating research on these technologies. We collaborated with KEM hospital, which is run by the Mumbai Municipal Corporation, for the research. In 1989, the first GIFT baby was also born at NIRR.” In fact, Dr TC Anand Kumar, then from the NIRR, has been quoted as saying: “An understanding of (IVF – ET) may provide clues as to how to induce infertility in fertile couples as a means of family planning”.This idea behind the promotion of IVF and its conceptual linkage with contraceptive technology is not limited to India alone. In the opening speech at The

International Population Union Conference on the Scientific Study of Population, held in London in 1969, the “unobstructed vision for IVF” was summed up as, “There are grounds for hoping that the use of IVF embryos for research will lead to the discovery of efficient new methods of population control. This is the real justification for promoting and funding of IVF by governments and organisations involved in population planning.” Though the ICMR was very keen to carry forward its zeal to develop newer techniques, it had to discontinue it for various reasons. “Lack of funds was one of the main reasons. Moreover, NIRR, is a research institute and not a service providing centre or public hospital”. What started as a government initiative later fed into the private sector and ART has since then flourished as a private industry in India. The potential market for infertility treatment is estimated conservatively at 25,000 crores²⁸ in the private sector as these services are not available in public hospitals.

A serious design flaw of these programs is that they target lower income households. Given the findings of the Ludhiana, India, study cited above (Booth et al. 1994), SSA is practiced more among proper- tied (nonpoor) people who are completely bypassed by these program

We must address the myth that bans solve problems and that bans should be enacted to control a technology . Bans are not the most effective way of dealing with things and often have an unexpected and repercussions backlashes .

THE NRT AND SEX –SELECTION

NRTs performs four types of functions . in vitro fertilization (IVF) , and subsequent embryo transfer, GIFT (gamete intra fallopian transfer) , ZIFT and cloning assisted reproduction (ED Tulsi Patel 2004). Contraceptive technologies prevent conception and birth, Aminocentesis chorion villi biopsy , ultrasound and imaging are used for pre- natal diagnosis (V.Patel 2000). Foetal cells are collected by the technique of amniocentesis and CVB. Gene technologies play a crucial role through genetic manipulations of plant and animal kingdom . Genomics is the science of improving the human population through controlled breeding , it encompass the elimination of diseases, disorder or undesirable traits , on the one hand , genetic enhancement on the other.

NRTs in the neo-colonial context of the third world economies and unequal division of labour between the third world and first world economies , have created strange scenario and cut throat competition between body chasers, clone chasers, intellect chasers and supporters of femicide. There are three aspects of NRTs- assisted reproduction , genetic or pre-natal diagnosis and prevention of conception and birth(Vibhuti patel 2004)

THE PROFITABLE BUSINESS OF ARTs AND SEX SELECTION

As more and more couples access these techniques globally the fertility market has taken choice to another level whereby couples not only conceive, but can also choose a child of the desired sex and characteristics. The ART industry also plays on the desire for the “perfect baby” by encouraging women to use these techniques to filter out perceived defects and choose socially desirable characteristics of their future children.

In recent years techniques such as Pre implantation Genetic Diagnosis (PGD), originally meant to screen any genetic defects, have been openly and extensively used to selectively screen female embryos. It has become a huge market without much regulation.

Regardless of their high price tags, invasiveness, and risks, demand for these methods seems high. This trend is found even among the Indians living abroad Some surveys have also revealed that in the U.S. the proportion of all parents or prospective parents who would use sex selection (if available) is about 25- 35 per cent. The procedure of sex-selection has become a huge business in itself, especially in countries where a lot of premium is placed on sons. The societal and emotional normative desire of having a son makes some couples desperate to use such techniques and spend substantial amounts of money to do this. Couples from around the world, including India are spending around \$19,000 (about Rs.8.55 lakh) in U.S. clinics for gender selection treatment. These couples are from countries where selecting the sex of the foetus is illegal. Not only the sex of the child, but it is a possibility now also to choose characteristics such as eye colour and hair colour. The Times of India, August 7, 2006,¹⁸ reports that infertile couples can now have “tailor ” babies from world’s first human embryo bank, which has been set up recently in

UK where for around 5,000 pounds, couples can buy readymade embryos matched to their specific requirements. The report also mentions that there has been large-scale condemnation of such practices from ethical campaigners. They see this as “absolute commercialisation of human life” where babies are treated at par with a supermarket’s special offer.(Sama 2004)

THE MAIN REASONS FOR SEX –SELECTIVE ABORTIONS

Economic compulsions, fear of violence at the birth of a daughter, the high cost of dowry at the time of her marriage, protecting women from the burden of repeated delivery and reducing population were some of the reasons women gave in support of this practice. Doctors , in some cases have endorsed such abortions . In a 1985 survey , 85 percent of the gynaecologist interviewed in Mumbai favoured sex determination and subsequent abortion as a “humanitarian” gesture. Doctors interviewed in Haryana , including women doctors , widely believe that sex selective abortions , by contributing to the decline in female population , would increase the status of women in long run, while it has been suggested that sex determination tests and subsequent abortions are used mainly in by urban , affluent and educated clients but in Haryana sex selective abortions are widespread among upper-caste women in comparison to dalits.

Anthropologist have argued that sex selection abortions are a technological extension of the practice of female infanticide, gender discrimination and differential care. Abortions are also used as family building strategy to achieve the conflicting goals of limiting family size and achieving the desired sex composition such abortions are predominantly being used by women with one or more living daughters but no son. Gender plays a role in deciding to abort even where an actual sex determination test is not involved. a women with a mistimed pregnancy is more likely to abort if her youngest child is male since another pregnancy will deprive him of attention and care. However , she may b decide to continue the mistimed pregnancy if the previous child is female, similarly the decision to abort the handicap or malformed fetus may be influenced by the sex of the fetus.(Beela Ganatra, Abortion Research In India: women’s reproductive health in india)

CONCLUSION

The development and proliferation of these technologies depend on the social imperative to have a biologically related child. This social pressure may not be obvious, though women without children are blamed for their status and ridiculed, abused and isolated socially and often face desertion. There are many ways in which women are indoctrinated to believe that motherhood is their destiny. If for any reason they are unable to become mothers they must seek help to overcome the problem. Adoption is not seen as an option because there is an entire industry which cashes on women's vulnerability and the social pressure to have a biologically related child at any cost and adoption is seen as last option. The implication of these technologies can only be seen in relation to the social context in which they operate. In understanding the potential of these technologies it is important to understand the science and political economy behind these technologies, which not only assist birth of a child but attempt to assist life itself

CHAPTER-2

COMMERCIALIZATION OF NRTs

The objective of this chapter is to explore the public sector's role in infertility management in India and to find out why people are opting for private health care for infertility which leads to commercialization of NRTs. Taking stock of the situation in public and private sector with regard to reproductive health, we find an anomaly. The public health sector that caters to the lower classes focuses on the family planning and birth control while the private sector provides services to the relatively well of people to have children. Infertility is also a public health problem because it is also related to infections and sexually transmitted diseases which need medical attention. Secondary infertility arising from STDs and infections do affect a significant section of the less privileged section of society, especially, the women and is an indicator of poor reproductive health. But this is not the focus of government health services geared up to one problem, namely birth control. We present an elaboration of these arguments starting with a brief introduction to the public health scenario in the country.

Qadeer (2010) mentions, "The term public health invokes different meanings for different people. According to the sanitary perspective once it meant hygiene, sanitation and health education. Today, the techno-centric perspective (that ignores all socioeconomic determinants of health) dominates where experts and providers are primarily concerned with extensive application of medical technologies for preventing and controlling diseases. Qadeer refers to this approach as techno-centric perspective on public health. Another approach takes the holistic perspective, where the social context of health and health services is given weight and prevention extends beyond technological and educational interventions into developmental and welfare activities to meet basic needs. It recognizes the importance of inter-linkages of health with food availability, drinking water, sanitation and livelihood and also the constraints that power structures impose on access and availability of technology. This is in Qadeer's understanding is social medicine approach. In countries where the governments have failed to achieve equity in welfare through social medicine approach more and more of the societal

problems are being labeled as ‘technical problems’ and pushed into the medical domain. For example, population planning, child abuse and now infertility are seen as purely medical issues. This is primarily because the links between production, reproduction, structure of labour, poverty, caste class stratification and patriarchy are neglected in planning. Their exclusion from the domain of social planning leads to a transformation from the holistic perspective of public health to techno-centric solutions which leads to negligence to the basic factors i.e., the social roots of these problems.

INFERTILITY AND PUBLIC HEALTH AMENITIES IN INDIA

The role of the public sector in infertility management is weak and even basic investigations and services are limited or incomplete. Inadequate infrastructure, inappropriate management including time management, lack of information and training, absence of clear protocols at all levels, private practice by public health doctors, pre occupation with other health issues and lack of regulation were the main problems.

Sarojini (2010) said in her article “Unraveling the fertility industry” ARTs in Indian context has observed that there is absence or poor basic preventive infertility care in the public sector which leads to the growth of ARTs in the private sector.

In his article “Medical tourism: Reversed subsidy for the elite”, Sengupta (2011) writes that due to reproductive tourism women from across the world flock to India to take the advantage of the booming market for ARTs, while a very large number of Indian women are denied of basic health care. Women are truly invisible to the public health system in the country, only 17.3% of women have had any contact with a health worker, and even that access is compromised because, in large part of rural areas, conservative norms prevent women from freely discussing their ailments with male doctors and there is paucity of women doctors in rural settings. Over the 1990s and 2000s there has been an increase in the cost of hospitalization in both public and private facilities. There has been an 82% increase in govt. health expenditure on hospitalization in the public sphere and 120% in the private. The dominance of the private sector not only denies the poor, access to medicine but also lead to the emergence of disorganized and unregulated private sector.

Following market liberalization in the 1990s, India's economy has witnessed rapid development (Sen), enabling it to compete successfully with the world's more developed economies. The development of private health care has been one of India's most remarkable achievements so that, with explicit government encouragement, it has emerged as a 'global health destination' (Chinai and Goswami, 2007), making health tourism, country's second most popular industry with highly trained, English-speaking, staff, well-equipped hospitals. With speedy access to treatment, private medical services are comparable with similar services provided in more economically developed countries, but at a substantially lower cost, offering: 'first world treatment at third world prices'. Substantial though the development of India's health tourism industry has been, further expansion is predicted; the total health-care market is expected to expand by 2012 from US\$22.2 billion (5.2% of GDP) to US\$50–69 billion (6.2–8.5% of GDP) (Chinai and Goswami, 2007). Within the same time-frame, India's share of the global medical tourism industry is anticipated to grow to around 2.4 percent, with the annual number of medical tourists expected to top one million. The state of private health care, however, stands in marked contrast to the reality of health care for the majority of India's indigenous population, especially those living in rural areas. There are barely four doctors for every 10,000 inhabitants (*Hindustan Times*, 2007). According to the 2005 Reproductive and Child Health Facility Survey, less than half of India's primary health centres had a labour room or a laboratory, less than one-third stocked essential drugs and less than one-fifth had a telephone connection. While providers of services for foreign health tourists are required to charge lower rates for the local population, even these remain beyond the means of many indigenous patients. The positive impact of health-care tourism on public health services is hence contested.

Infertility is a significant issue for both couples and women. This phenomenon affects more than 80 million people worldwide. On the whole one in 10 couples experience primary or secondary infertility. These rates vary amongst countries, from less than 5% to more than 30%. Anjali Widge observes that in recent years, more attention has been given to infertility and reproductive medicine. This in turn has led to an increase in the importance of the infertile couple's desire to have their own biological offspring. This is especially evident in developing countries.

There are local cultural, social, economic and political pressure for childlessness women to go for these NRTs, infact one can say that these technologies were developed to target women (Bharadawaj. 2004). Scholars exploring infertility have proposed an inclination towards creating political and cultural conditions in which basic infertility services can be made available for women to fulfill their reproductive preferences. They have also argued for a coherent and consistent set of policies to manage the misuse of hi-tech ARTs. The increasing medicalization of women's bodies needs to be addressed by placing the issues of 'safety', 'informed choice' and 'ethics' in context, especially with regard to reproductive technologies (Lingam 1995). In India, facts on the prevalence of infertility are sparse and dated. The WHO's estimates of primary and secondary infertility in India are 3% and 8%.

The Indian Council of Medical Research (ICMR) suggests that around 13–19 million couples are likely to be infertile in India at any given time (ICMR and NAMS 2005). According to the National Family Health Survey in India, 3.8% of women aged between 40 and 44 were documented to be childless.

Hierarchical gender relations and unequal gender norms impact women's reproductive and sexual health. They also have an impact reproductive choice, and act as significant obstructions in the access to facilities and services. Medical access is also hindered by structural factors such as economic hardship and malnutrition, early marriage and inadequate educational and health systems. Women have limited power in decision making and face huge constraints in terms of choice, mobility and access to resources. Lack of awareness, absence of spousal intimacy and communication on sexual matters along with widespread gender based violence worsen the women's condition. Inability to negotiate safe sex and lack of seek appropriate health care prevent healthy pregnancy (ed.Jejeebhoy 2004).

Women are therefore susceptible to infections including those that are sexually transmitted (STIs including HIV) and reproductive tract infections (RTIs). Inequalities in the distribution of services at the primary, secondary and tertiary levels in the public and private sectors lead to inequalities in reproductive health services (Rao 2004). Adequate quality of care in several aspects of sexual and reproductive health (SRH), including

infertility, continues to be a struggle. Infertility is deeply feared by women as their identity, status and security are affected. They experience stigmatization, isolation and lose bargaining power in the family and society. It becomes a major source of anxiety, and leads to lowered self-esteem and a sense of powerlessness (Unisa 1999; Mulgaonkar 2001; Widge 2001). Moreover, bearing a son still remains an important factor in the socio-economic wellbeing of most Indian women (Patel et al. 2004). Most childless women face barriers to independent decision-making because of structural differences in their social, political and economic context (Patel 1994). For example, the social and economic hardships that women face make childless women more vulnerable to blame, mental and physical violence, threats of abandonment and divorce, social exclusion and lack of access to adequate treatment (Desai et al. 1992; Singh et al. 1996).

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. Amongst women tubal factor has been found to be the most common cause of infertility, followed by problems of ovulation. Accessory gland infection was the most common factor for infertility in men. In cases where infertility is caused by infections, leading underlying factors are STIs and iatrogenic factors, including unsafe abortions and unhygienic delivery conditions (Ramasubban & Jejeebhoy 2000).

The dominant cause of infertility in Asia among women was found to be either an STI or unsafe management of abortion and delivery. Among those men with a demonstrable cause, about one in three may have become infertile as a result of an STI experience (Cates et al. 1985). In India, the prevalence of STIs was found to be high among women reporting infertility and pelvic inflammatory disease (Kushtagi et al. 1991; Chhabra and Fali 1992; Brabin et al. 1998). For several reasons including unequal gender relationships, access and quality of care issues, RTI/STIs and unsafe abortions have not been adequately addressed in India.

The socio-cultural, behavioral and bio-medical determinants of infertility are manifold. They include STIs, maternal health factors such as unhygienic delivery, postpartum infection, unsafe obstetric and abortion procedures linked to sepsis and pelvic infections. Severe malnutrition and anemia are also observed to affect infertility, as are

such morbidities as tuberculosis. Correlates also include nutritional status, lack of information, side-effects of contraceptive use and lifestyle changes (Kochar 1980; Jejeebhoy 1998). Levels of infertility may also increase as the age of marriage rises. Age at first marriage in India has risen steadily in the last three decades, though more amongst urban than rural women, with a variation between the states (IIPS 2000). Factors contributing to this rise include socio-economic changes, particularly improvements in education, urbanization and expansion of work opportunities outside agriculture (Das and Dey 1998). Infertility may be an outcome of diverse aetiologies exacerbated by severe social isolation, restrictions and stigma.

Childless women suffer a great deal in a family context and even though only a small fraction of women and couples are affected by infertility in the population, it is an important reproductive health and rights issue. Its effective prevention and management is a crucial element of a more holistic approach to women's reproductive health and their physical and mental well-being. Moreover couples from the lower socioeconomic strata tend to suffer the most as they are socially most at risk.

The International Conference on Population and Development (ICPD) in 1994 focused attention on women's reproductive health, including services for infertility (Mukhopadhyay 1998). As mentioned earlier, government policies in India have largely ignored the issue of infertility. The Indian National Population Policy mentions it briefly in the context of providing information, counseling and regular supply of medication but only for tribal communities, displaced and migrant populations who 'may not need fertility regulation.

Illa Patnaik in her article writes that in Ahmedabad Women's Action Group (AWAG) has been working for the last 25 years to strengthen women's issues. In Radhanpur block of Patan district in Gujarat AWAG concentrates on the health care of rural women. The Government of Gujarat has set up an elaborate system to serve the health needs of rural people. For serving women's needs pertaining to Reproductive and Child Health (RCH) the state-appointed Female Health Workers (FHWs) operate as Auxiliary Nurse Midwives (ANMs). However, these services did not reach rural women because they are often not

informed that such services are available. The absence of FHWs along with the inherent ignorance amongst these women prevents them from asserting their rights.

In 1971 AWAG started a campaign to make rural women become aware of their rights and helped establish linkages with the state's machinery so that the health delivery system begins to respond to the needs of citizens. Women of Gotarka village were most active in their complaints. They said that the health centres were not open and if they were open the staff did not attend to them (Illa Patnaik 2007). There is limited focus on services for the infertile in the Reproductive and Child Health Programme, despite the five-year plan of the government which discusses access to essential clinical examination, investigation, management and counseling services for infertility (Planning Commission 2002). In the last 15 years it is the private sector which has cashed on infertility services. This includes ARTs which are of varying quality and costs, with low success rates and are usually accessed only by middle and upper class couples who can afford them.

India has a large public health sector but spending on health accounts for 1% of GDP, which is below what is needed to provide basic health care to the population (Peters et al. 2002). Several issues facing the public sector in India are also applicable to SRH services including infertility. The broader issues are poor governance, rigid management systems, low resources and funding that is not linked to the needs of the community or to use of services. Untrained managers who have limited incentives to perform well and who usually lack authority to make decisions reduce the efficacy of these services (Peters 2002).

Compared with the private sector services, public health services are cumbersome with long waiting periods, unhygienic surroundings, inadequate provisions for testing, shorter opening hours, lower availability of staff and drugs, limited confidentiality and unfriendly health worker–patient attitudes. As public sector doctors need to supplement their incomes, many of them offer services privately and some divert their patients to their private clinics where the patients have to pay for more personalized care (Sengupta and Nundy 2005).

Due to insufficient provider knowledge-base and poor clinical practice, Indians are increasingly opting for the private health sector (Brugha and Zwi 1998). It accounts for more than 80% of all health spending and even 79% of outpatient care (which is of low quality) for those below the poverty line (Peters et al. 2002).

The government continues to encourage the growth of the private sector through subsidies and incentives. The rationale presented for the expansion of the private sector is that it reduces the burden on the state, offers consumers' choice and stimulates competition (World Bank 1993; Preker et al. 2000; WHO 2000). But the situation in the private sector has changed in the last couple of decades. Today large corporations dominate the market. The health sector is unregulated, with no standardization of quality or costs (Sengupta and Nundy 2005). Further expansion of the private sector had been envisaged and regulation recommended, but this is not perceived as a solution by those who believe in greater social accountability of providers and an increased public expenditure on health (Berman 1998; MOHFW 2002; Mudur 2003; Sengupta and Nundy 2005), or by others who believe in a single-level universal health care system. Multifaceted and context-specific strategies including practice of evidence-based care, educating patients to adopt treatment seeking and treatment-taking behavior, feasible mechanisms for monitoring service quality, and a thoughtful application of public-private partnerships are suggested.

PROBLEMS FACED BY DOCTORS IN THE PUBLIC SECTOR

Most public sector providers at the PHC and CHC level expressed concerns about infrastructure, management, salaries, career prospects, lack of or dysfunctional equipment, inadequate or absent staff, medical supplies and hygiene.

A public sector provider described her experience:

I used condoms instead of gloves to examine the patients at the PHC; usually we are unable to do anything for infertility patients. They felt that infertility treatment was time consuming, requires dedicated staff, there were no protocols and few medical education programmes enhancing infertility knowledge and management and counseling skills.

Many felt that while the number of infertility patients in gynecology departments has increased substantially, the system is inadequately prepared to deal with them. Moreover, it is difficult to counter the stigma associated with reporting STIs/RTIs, male testing and superstition amongst patients. Infertility, they felt, was a low priority for the government even though basic services do not require huge budgets and low cost options could be considered. But some providers felt that there were other more important reproductive health issues to be addressed. The general perception was that there were too many pressures on the system, with a focus on fertility reduction and a lack of will at decision-making levels. A public sector provider stated: the government wants results, and those are about how many sterilizations are done, they are not concerned with how many normal, institutional or difficult deliveries were done or how many infertility cases were treated. Obviously there are no targets for infertility.

CRITIQUE OF PROVIDERS IN THE PUBLIC SECTOR

Most private sector providers criticize their counterparts in the public sector for practicing privately, and the state for providing them with too much job security.

A private sector provider stated that despite being vocal about their work load doctors working for the public sector manage a hefty private practice. The provider remarked that doctors in the public sector are not as involved in their work and refuse to do any justice to their job. Some private providers were of the opinion that those in the public sector deliberately divert patients to their private clinics and conduct investigations. Moreover they lack knowledge, clinical exposure and an understanding of protocols.

Another private sector provider felt that provider in the public sector compromise on principles of comprehensive health care. They keep using the same drugs and readily remove organs without treating the cause of the specific problem. Some others felt that the attitude of doctors was casual and their mindsets conservative. These providers discussed possible misappropriation of funds and corruption. Improper allocation of funds and rivalries between some hospitals often result in wasteful expenditures.

Issues that highlight medical practice in the public sector include lack of provider accountability, inadequate coordination, lack of governance and regulation. Frequent transfers and paucity of staff and focus on fertility reduction contribute in a skewed view of health care. All this leads to privatization and commercialization of ARTs especially in those contexts where great importance associated with motherhood.

COMMERCIALIZATION OF ARTs IN INDIA AND ITS IMPACT ON WOMEN

Economic globalization is no longer restricted to goods but now includes services as well. Medical services are the latest addition to the list of services that are increasingly becoming commercialized. This has resulted in phenomenal growth in medical tourism, with people traveling across the globe to use these services. India is the newly emerging lucrative destination for these medical services including techniques of assisted reproduction as it offers these procedures at a relatively low cost.

This section, deals with the commercialization of ARTs because these technologies have varied implications for women. It is interesting to see the impact of globalization in a country regarded as developing, and the manipulation of the social norms regarding reproduction which further leads to greater emphasis on profit making.

ARTs IN INDIA

Western multinational corporations have found it profitable to shift their production to developing countries to capitalize on cheap labor and minimal legislation, as the reproductive industry has found both its resource base and new markets in these countries (Gupta 2007).

In India, the Institute for Research in Reproduction (IRR), Mumbai, began work on IVF in 1982. IVF started as a government initiative, but was soon taken over by the private health sector and has since flourished. Clinics offering ART procedures have mushroomed all over country. There are infertility centres in smaller towns and rural areas that work in co-ordination with referral ART centres, located in tertiary healthcare

institutes in cities. According to the Indian Council of Medical Research (ICMR) there are an estimated 250 IVF clinics in India (ICMR, 2005 as cited in SAMA, 2007a, p. 2184). Since then, ART in India is an expanding and lucrative industry, but it is largely unregulated. There is no official body or uniform protocol that monitor the quality of services (SAMA, 2007a, 2007b). As asserted by Srinivasan, in the absence of external regulation by the government, decisions in the private sector seem to be guided almost exclusively by profit. Further, decisions on healthcare are not made by patients but by the doctors. Consequently, doctors are tempted to prescribe unnecessary and expensive investigations and use irrational procedures during treatment. Moreover, there is no professional accountability (Srinivasan 2004).

GROWTH OF ART AS AN INDUSTRY

India now has the fifth most privatized health sector in the world and is being seen as an attractive destination for various medical procedures, including techniques for assisted conception. According to an article published by “Outlook” the magazine, medical tourism would have become a \$2.3 billion industry by 2012 following as a close second to the Information Technology sector. In a joint report, the Confederation of Indian Industry and McKinsey Consultants estimated the annual growth in medical tourism as 30 per cent. This in their estimates could soon become a \$1-2 billion business by 2012. These figures indicate the huge potential of the Indian market for medical tourism. The growth of medical tourism is not confined to services like knee replacement, heart surgeries and eye treatment. ARTs are the latest addition to this ever-growing list of services.

The Indian government, and private hospitals endorse and promote this process by offering easy access to financial incentives like low interest rates on loans for treatment, special “medical visa”, subsidized rates for buying drugs and leniency in the norms of adoption pertaining to children conceived via surrogacy.

There is virtually no end to the perks and incentives that are being offered to the providers of these technologies to bring their expertise and business into our country. In this

scenario, where there is commercialization and medicalization there is a real danger to the health of women undergoing these procedures.

The increase in medical tourism in developing countries, especially with respect to ARTs, is a result of cheap rates of treatment. IVF clinics in India have further cut costs, thereby attract many more foreign couples. The profile of such couples is not regionally or racially bound. They include the Asian diaspora, natives of African countries and also people from the developed world like UK, U.S., Canada and Australia to name a few. Since these clinics cater to foreign population, it enables one to compare between the ART industry and the Business Process Outsourcing (BPO) sector, where services are constantly outsourced.

With an influx of foreign medical tourists, infertility clinics in India have mushroomed and this has become a matter of great concern. Unlike most other medical techniques, the success rate of ARTs is below 30 per cent under the best of circumstances. The clinics capitalise on the emotional vulnerability of infertile couples. They exploit deep seated desires for parenting by making incredible claims of curing infertility through high-pitch publicity. A conservative estimate of the potential infertility treatment market in the country is over Rs. 25,000 crores per year (2002). A large portion of this money, which is spent by infertile couples (15 per cent), may amount to a complete waste on their part. The high costs and low success rate of these technologies not only tax a couple's endurance monetarily, but also drain them physically and emotionally.

Increased medical tourism has made it mandatory for the providers to draw in more and more clients. In this respect, infertility has been raised to the level of a new epidemic, which is fast spreading and needs to be combated now by the fertility industry. This sort of reasoning is used to justify the increasing availability of these technologies. Moreover, providers portray ARTs in a positive light by offering expanding choices for women. However, underlying this rhetoric, providers are marketing the notion of motherhood as an identity that every woman should, rather than can, have. These technologies therefore, cash in on the vulnerability of couples around the issues of motherhood and infertility. The importance attached to a woman's reproductive role provides the context within which the development, proliferation, commercialisation and use of ARTs need to be

explained and understood. All that matters is to have a biological child at any cost. In such a scenario, technologies of assisted conception claim to provide new options and hope to infertile couples. Infertility is projected as a disease in need of treatment. Some doctors and experts providing fertility treatment themselves believe that “being infertile can be expensive.” In addition, there is danger of infertile couples being subjected to the risk of over treatment. Just because they can afford it, doctors advise them to go in for an IVF cycle, while simpler treatments such as IUI may have been successful.

As treatment procedures in the fertility market become highly commercialised and bodies become commodified, there are huge interests at stake in the promotion of these technologies. Hence, the growth and proliferation of the infertility industry has to be placed within the framework of the globalised economy and the profit seeking systems in which such technologies are being advanced. The spreading of ART clinics from big metros to small towns is reflective of this. However, the type of services being provided and their quality vary to a considerable degree in both rural and urban areas. A fully equipped ART centre in a rural area costs around Rs. 20 lakh and Rs. 40-50 lakh in cities, depending on the cost of the premises. The question one needs to ask is who accesses these treatments and at what costs? Cost here would imply not only monetary expenditure, but also the physical, psychological and social implications of using these technologies.

ART imposes a double burden on women, namely, the burden of a social system that restricts women’s role to child bearing and the burden of what might be described as the medicalisation of their problems. There is an obvious gap between the ‘created’ desire for a biological child and the inability to produce one.

ART is not a glowing confirmation of expanded life choices for women. On the other hand, it narrows down the women’s life choices because these reproductive choices occur in a society where there are fundamental inequalities of power between men and women.

Bryson argues that advances in reproductive technologies have not been used to free women, but to make more profits in a capitalist economy. Further, they have been used to ensure that the ‘right’ kind of people are being produced (Bryson, 1999). Technology has

become dominating and controlling because it dovetails into patriarchal ways of thinking and behaving.

Reproductive technologies thrive on cultural pressures to have a child of one's own; hence genetic claims to relationships. Practices such as artificial insemination by donor or egg donation pose a profound challenge to the notion that genetic parenthood guarantees familial relationship (Stanworth, 1987). As noted by Strathern, if kinship, as a set of social relations, is seen as rooted in the fact of biological reproduction, then the nature of kinship itself might be called into question by ARTs. These, in effect, destabilise the biological aspect within parenthood through technologies and third parties (Strathern, 1992). In infertility treatments, the dissociation of childbirth from biological motherhood and the polygyny involved in gestational surrogacy and egg donation seem to lead to exotic forms of kinship (Inhorn and Balen, 2002). For example, with IVF or Donor Insemination the child is linked to the mother but not the father and with donated eggs the child would be linked to the father but not the mother. When both eggs and sperm are donated the child is not genetically linked to either parent. Reproductive technologies carry the threat of delegitimising genetic parenthood and of fracturing common sense understandings of what is biology.

ART AND ITS COMPLICATIONS

Simply put, these technologies assist women to become pregnant. There are several procedures that fall under this category

1. Intra-Uterine Insemination (IUI) which is the introduction of semen into the vagina or cervix of a female. IUI is a treatment that is usually carried out for male sub-fertility.
2. In-Vitro Fertilisation (IVF) which involves collecting eggs and sperm and placing them in a laboratory dish for fertilisation. Later, the embryos are transferred into the uterus where implantation and pregnancy will hopefully occur, as in a normal pregnancy.
3. Intra-Cytoplasmic Sperm Injection (ICSI). A single sperm is directly injected into each egg. ICSI is carried out when the man has an extremely low sperm count.

Simple as the procedures sound, they are associated with numerous risks. In IVF there are complications arising from hyper stimulation of the ovaries and this includes an increased risk of ectopic pregnancy. The reported incidence of ectopic pregnancy after IVF treatment ranges between one and two per cent of all pregnancies. After one ectopic pregnancy, the risk of recurrence is between 10 and 20 per cent. A study reported in the *Lancet* shows that the abortion rate is about 20–30 per cent higher than among women who conceive through sexual intercourse.

This increase seems to be linked to older maternal age, endocrine disorders (thyroid diseases, polycystic ovarian syndrome), or organic abnormalities (tubal disease, uterine malformations, etc). The risk of preeclampsia increases by 55 per cent, premature delivery increases twofold and the risk of placenta praevia increases three-fold. The risk of stillbirth increases by about 2.55 per cent. Babies are born with a low birth weight and have a higher risk of being small for their gestational age (Sutcliffe and Ludwig 2007). The other risk of ICSI is that the baby would be born with a cleft palate.

The fertility drugs given to women for stimulation of egg production are associated with risks like Ovarian Hyper Stimulation Syndrome (OHSS), multiple pregnancy and adnexal torsion (ovarian twisting). Adnexal torsion occurs when the stimulated ovary twists on itself, cutting off its blood supply. The overall risk is about 0.2 per cent. Ovarian torsion may cause severe pain and tenderness in the lower abdomen.

Treatment includes surgery to untwist the ovary and removing it in some cases. Excessive stimulation of ovaries could lead to OHSS, which could sometimes be life threatening. Mild complications include abdominal discomfort, nausea, slight weight gain and mild abdominal swelling. Other symptoms include nausea, vomiting, marked abdominal pain, diarrhea and dehydration. Fluid could accumulate in the abdominal cavity and chest, causing abdominal swelling and shortness of breath. There is reduction in the urine produced. Severe complications associated with severe OHSS include blood clotting disorders, kidney damage and ovarian torsion. These complications and the post treatment psychological consequences have seldom been highlighted by the media or made explicit by doctors.

The aim of the foregoing discussion has been to highlight the risks and problems in the NRTs which are compounded by the fact that they are found largely in the profit oriented private sector. Consequently major health problem that leads to certain kinds of infertility are neglected and lucrative options in ARTs and surrogacy get more accentuated. The absence of proper treatment for infertility in the public health sector which is suffering from poor investment and infrastructure only indicates that there is a tacit approval in health policy of private capital in reproductive health.

In the next chapter we review the literature on surrogacy to examine some of these issues more intensively.

END NOTES

Primary fertility- Primary infertility is infertility in a couple who have never had a child

Secondary fertility- Secondary infertility is failure to conceive following a previous pregnancy. Infertility may be caused by infection in the man or woman, but often there is no obvious underlying cause.

Sepsis infection- The presence of bacteria (bacteremia), other infectious organisms, or toxins created by infectious organisms in the bloodstream with spread throughout the body. Sepsis may be associated with clinical symptoms of systemic illness, such as fever chills, malaise, low blood pressure and mental-status changes. Sepsis can be a serious situation, a life-threatening condition that requires urgent and comprehensive care. Treatment depends on the type of infection but usually begins with antibiotics or similar medications. Also known as blood poisoning and septicemia.

Pelvic infection- Pelvic inflammatory disease/disorder (PID) is a term for inflammation of the uterus, fallopian tubes, and/or ovaries as it progresses to scar formation with adhesions to nearby tissues and organs. This can lead to infertility.

Ectopic pregnancy- an ectopic pregnancy is a pregnancy that occurs outside the womb (uterus). It is a life-threatening condition to the mother. The baby (fetus) cannot survive.

An ectopic pregnancy is often caused by a condition that blocks or slows the movement of a fertilized egg through the fallopian tube to the uterus.

Preeclampsia- Preeclampsia is when a pregnant woman develops high blood pressure and protein in the urine after the 20th week (late 2nd or 3rd trimester) of pregnancy.

Cleft plate- Cleft lip and palate are birth defects that affect the upper lip and the roof of the mouth. There are many causes of cleft lip and palate. Problems with genes passed down from one or both parents, drugs, viruses, or other toxins can all cause these birth defects. Cleft lip and palate may occur along with other syndromes or birth defects.

Ovarion torsion- Ovarian torsion is the twisting of the ovary due to the influence of another condition or disease. This results in extreme lower abdominal pain.

CHAPTER-3

SURROGATE MOTHERHOOD : BOOM OR BANE ?

Oh baby baby, how was I supposed to know

That something wasn't right here

Oh baby baby, I shouldn't have let you go

And now you're out of sight, yeah

Show me how you want it to be

Tell me baby 'cause I need to know now, oh because

My loneliness is killing me, and I

I must confess I still believe (still believe)

When I'm not with you I lose my mind...

(Spears, B. 1998)

Technology has made transcontinental medical consultations a reality. Today, outsourcing of activities like laboratory investigations, medical transcriptions, software development, and telemedicine to countries like India, China, Korea, Japan, has become easier with business process outsourcing (BPO). The competition for opportunities is not limited to the local or regional but is a global phenomenon. Globalization, it is said, lifts nations out of their isolated existence and makes them part of one “knowledge society”. The medical institutions and companies no more play a limited regional role but become global actors. Globalization and progressive liberalization of trade in health services in the Association of Southeast Asian Nations (ASEAN) region contributes to widening inequalities in health and healthcare, increasing disparities between urban and rural areas and between rich and poor. The result is polarization of healthcare provision and health

outcomes in relation to social, economic and geographical marginalization. Medical tourism is often used synonymously with health tourism. One can, however, differentiate health tourism from medical tourism, where health and wellness tourism indicates travel to spa resorts or for traditional and alternative therapies. Medical tourism encompasses primarily and predominantly biomedical procedures, combined with travel and tourism (Whittaker 2008, Connell 2006). The term “medical tourism” was coined by travel agencies and the mass media to describe the rapidly growing practice of travelling across international borders to obtain hi-tech medical care. It is based on cheaper air fares, and internet and communication channels in developing countries and cheaper hi-tech super-specialty medical services for people who can afford it – be they foreign or national medical tourists. Using informal channels of communications and contacts, the practice avoids regulatory and legal inquiry to generate significant profits to the providers of various services. While the focus, the entry of these technologies in India is justified on the basis of increasing need due to high infertility. The reality is that it has more to do with the trans-border trade and transfer of technology, cheap medical markets that attract medical tourists, and availability of cheap organs for loan and transplant (as of kidneys). In this context it is important to examine the possibilities of change that new technologies bring to societies? The practice of surrogacy/assisted reproductive technology (ART) in India is an important area to examine as they have implications for socio-economic life and are in turn influenced by its ethical basis, epidemiological characteristics, and limitations of health service infrastructure, legislation and state policy.

Surrogacy refers to the arrangement whereby a women agrees to become pregnant for the purpose of gestation and giving birth to a child for others to raise. she may be the child’s genetic mother or she may be implanted with someone else’s fertilized eggs (pande amrita, pg-143). as an alternative means of producing children , surrogacy is an ancient practice . Throughout history in several cultures women have used other women to bear the children they could not conceive. there is nothing new in the notion that a women might bear a child for someone else, but there are evidences that the incidence of surrogacy is increasing and technology has developed to make ever more complex arrangements possible. Surrogacy is of two types traditional and gestational.

Traditional surrogacy differs from more recent forms of gestational surrogacy in so far as the surrogate is conceived following sexual intercourse with the genetic father as opposed to inseminating non-coitally. Second, the surrogate, invariably a family member or a close friend, seems to have had little choice regarding her participation.

Gestational surrogacy, a more contemporary phenomenon, utilizes modern reproductive techniques to create an embryo using the egg and semen of each genetic parent which is then placed in the uterus of the surrogate. The key difference between genetic and gestational surrogacy is that in the latter, the surrogate has no genetic relationship with the child she is carrying.

The first gestational surrogacy procedure was reported in 1985. The first test tube baby was born in a public private partnership, at the initiation of ART research at the National Institute of Reproductive Research. Since then, its slow expansion has been a gradual but steadily increasing phenomenon. In the 1980s biotechnology had acquired the reputation of the cutting edge of applied sciences and well-meaning scientists, committed to biotechnology, were keen to put it to use for the benefit of the people. One of them argued that through ART, “A woman can give birth to a child from her husband even after the husband is dead. In surrogate motherhood, a couple who is otherwise normally fertile but the wife does not want to go through the nine month pregnancy that would confine her for a substantial period, can have another woman who would then give birth to a child totally unrelated to her” (Utian et al., 1985). The principal clinical indications for either form of surrogacy include: absent or diseased or damaged uterus; maternal disease that precludes pregnancy; recurrent pregnancy loss, or recurrent IVF implantation failures. In addition, ovarian failure may indicate either gestational surrogacy using a donor egg or genetic surrogacy. Surrogacy remains one of the most controversial of current reproductive procedures, primarily because it relies on the reproductive services of a woman acting as a gestational carrier (whether or not she is also the genetic mother of the child she is carrying)

From the much used technique of IVF to the process of surrogacy, where a woman rents her womb to an infertile couple, the use of techniques for assisted conception have come a long way. The entire process of surrogacy, starting from advertisements to delivering the baby, is the classic case of ARTs being commercialised and commodified. Though the practice of surrogacy has existed for a long time, in recent years, it has become a huge means to earn money, cutting across geographical boundaries.

The process of surrogacy turns the normal biological function of a woman's body into a commercial contract. Services for surrogacy are advertised, and surrogate agencies make large profits in recruiting and providing/arranging the services of surrogates. Just as in the case of other donors, the selling point here too is "quality" of the surrogate, which is determined by social background, looks etc., and, preferably, by proven fertility. The advertisements for surrogacy are exemplary in driving this point home. Advertisements in magazine read, "Good looking, fair, 27-year-lady from respected family available for surrogate mother. Only rich and genuine people contact." there is great emphasis on the looks of the surrogate. Most couples wanted a fair, beautiful girl from a middle class background. However, as elsewhere where market forces operate, differential remuneration levels operate in India, with a 'fair-skinned educated, middle-class Brahmin who speaks English' able to command a higher fee than a lower-caste woman (Subramanian, 2007)..

The commercialisation of surrogacy raises fears of black market and baby selling, turning impoverished women into baby producers and the possibility of selective breeding at a price. What is critical is to understand how the money changes hands, what the "deal" has been, and what has been spelt out in writing. Issues, such as, who "owns" the child born out of surrogacy have always been a contentious ethical debate. , as illustrated by the case of Manji Yamada, born on 25 July 2008 in the town of Anand in Gujarat (Schulz, 2008). Manji was born as the result of a surrogacy arrangement involving a Japanese commissioning couple, who used the husband's sperm and a donor egg to create an embryo that was implanted into an Indian surrogate. However, before Manji was born, the commissioning parents separated and divorced and neither her commissioning mother, birth mother nor the egg donor wanted her. Although neither her genetic father wished to

keep her, he was not allowed to return to Japan with her because under Indian law he was not recognized as the child's father and – as a single man – was barred from adopting her. In addition the authorities refused to issue a birth certificate for Manji as a result of her ambiguous parentage under Indian law. Eventually after considerable media attention (and apparently diplomatic overtures between India and Japan), Manji's paternal grandmother was permitted to take her to Japan (*The Hindu*, 2008).

Another ethical question concerns the possibility of exploitation. Women who work as surrogates in this commercial reproductive industry appear to have little understanding of their rights, in terms of their own health and well-being. Uneducated and disadvantaged women, with limited alternative opportunities to generate comparable levels of income and having limited autonomy in patriarchal family contexts, may experience economic and family pressure to participate in surrogacy (Lal, 2009; Qadeer, 2009).

A surrogate may experience conflicting pressures over the social mores of pregnancy. She may be subject to the strain of having to live in secrecy, manipulate stories about her pregnancy, or move away from home so as to conceal her pregnancy if it cannot be construed as legitimate in her social setting. In the social milieu to which the surrogates generally belong, the process of pregnancy and childbirth is very much a social, rather than an exclusively personal, event. Uprooting the surrogate from her family and children during pregnancy may adversely affect both her own psychological health and that of her children. studies indicates that at least some surrogates suffer from postpartum depression and a sense of emptiness as a result of being unable to breastfeed their baby. But the surrogate is often encouraged to focus on the altruistic basis for her action (Gupta, 2000). This notion of unselfishness, along with other notions of 'good karma' or positive actions that will yield other beneficial effects, encourage the surrogate to emphasize the immediate monetary benefits and disregard the potential health and social consequences of surrogacy, assuming she was aware of the latter in the first place.

Commercial surrogacy has been legal in India since 2002, and there are reports of exploitation of women from poorer backgrounds, where mortality and morbidity rates associated with pregnancy are higher (Dolnick, 2008).

There is also a correspondingly higher likelihood of the rejection of the transferred embryo. This raises problematic issues in relation to the surrogate's financial and medical needs and rights should the pregnancy fail. Moreover, it is unclear how or whether the surrogate's family would be compensated if she were to die during childbirth, leaving behind motherless children.

The uncertain status of the child created via IVF and surrogacy raises other legal, ethical and human rights concerns. One such concern is related to the contraction of HIV by the pregnant surrogate. Potential surrogates are tested for HIV before the transfer of an embryo; however, if a surrogate were to be infected mid-term, it raises the possibility that the child may be abandoned, leading to a host of other difficult issues. Involuntary abandonment is also a possibility. If the genetic couple both died due to some unforeseen circumstances, who would then be the custodian of the child? There would be a host of far reaching socio-economic, cultural, practical and survival problems over the legal status and adoption of such a child. Another ethical concern is the lack of systems to ensure that the foreign national's unused eggs or embryos are not harvested and stored and then sold to couples who want fair-skinned children or to couples who do not have viable eggs/sperms.

Indian couples usually identify a surrogate mother through the doctor at the infertility clinic and through advertisements. The woman who agrees to be a surrogate, signs an agreement of consent on a Rs.100 stamp paper. The driving motive for the couples to go for surrogacy is to have a child who will carry their "own genes".

India also has emerged as a preferred destination for couples in search for surrogates. Cities like Anand in Gujarat, and the city of Mumbai have recently been in the news for the staggering growth in the number of surrogacy cases there. India has been termed as the 'mother destination' for drawing large numbers of couples for commercial surrogacy. The country's rapidly growing commercial surrogacy industry is worth US \$

445 million per year. Anand, a town in Gujarat, has become the epicenter of the commercial surrogacy industry in India. one can see an emergence of surrogacy centres and hostels for surrogates and surrogate agents. A centre in Chennai claims that there are 15 cases of surrogacy every month. New players, including franchises and law firms, are entering the market, like Proactive Family Solutions, Mumbai, which is a wing of Best Medical Journeys, Florida; Rotunda, Mumbai, which is linked to Planet Hospital, California; Indian Surrogacy Law Centre, Chennai, etc. One of these firms said that in the last year, about 27 couples registered at the US office. This essentially means that about 27 couples are now at different stages of the surrogacy process and are paying Rs 0.6 - 1 million in three to four installments.

The key reasons for India's dominance include:

- Lower costs (a fourth of the cost in the West);
- Large top-notch private health care providers;
- English-speaking providers;
- A socio-political climate that encourages the outsourcing of Indian labour;
- Existence of world-famous tourist destinations;
- Large number of women willing to engage in surrogacy;
- The total absence of government regulation.

ARTs : Hidden Issues

ART providers give the justification that commercial surrogacy is opening up new avenues for women to earn money. They say that it is unfortunate that this is receiving an undue share of negative publicity. "Anyway women here normally have four to five children. If she acts as a surrogate once then what is wrong? She can earn Rs 2 - 2,50,000 from one surrogacy, and her family can get settled". However, there are market anomalies that operate in health care and the standard competitive model does not apply to this

sector. The lack of standardisation in treatment protocol is especially acute in ARTs leading to multiple trials based on how much a couple can afford to pay. Health risks associated with these procedures are projected as insignificant and safety regulations are minimal. Varied and exaggerated success rates are claimed to woo patients. Clinics consider a positive pregnancy test as a 'successful case' ignoring any complications that may arise later, even the child not being born.

There is no standardised cost structure for ARTs and the variance is not only in procedural costs but in those of drugs as well. The cost of IUI varies from Rs 1,500 to Rs 10,000 and of IVF varies from Rs 75,000 to Rs 150,000. Informed consent is a mere formality in ART treatment and there are cases of sex selection, multiple embryo implantations and of postmenopausal women having children. An ART provider justifies using multiple embryos by saying that they want to increase the chances of implantation. "Countries where only one embryo is used are those where the government sponsors IVF cycles". Given the market scenario, the natural question that arises is who is the consumer.

A media report in 2007 claims that women and men from all sections of the society and even the remotest parts of the country are seeking treatment as are NRIs. Sama's study also indicates a wide range of individuals who have accessed ARTs. In fact, although the technologies are accessed primarily by the middle and upper class, the lower rung of the population is also making an effort to use it. The respondents include NRIs, IT executives, hoteliers, on the one hand, and landless farmers, daily wage earners, on the other. Although the technology is expensive, it is said to be affordable for all classes, and is even being justified by comparisons with wedding expenses and the cost of heart surgery! There is evidence of people taking loans, selling assets, and being 'broke' after repeated failed cycles or after having a child. Nonetheless, respondents have said that they will go to any extent to try to have their own child. Moreover, while this industry is modeled and operates largely on the lines of a capitalist manufacturing industry, its legal, political and ethical implications, within the country and beyond, are still unfolding.

In India till today, there is no legal mechanism in place to regulate the fertility industry. The guidelines of the Indian Council of Medical Research (2005) are not legally binding. The draft ART bill (2008), with its innumerable shortcomings is yet to be finalised. A central registry or any other such mechanism needs to be put in place to monitor ART clinics and provide data on the number of ART clinics and their outcomes, the number of cycles, failed cycles, live births, the sex of the child born, the number of surrogacy cases, etc. There is a need to ask questions about the measures to ensure women's health and safety in a context where there is a lack of systematic research on the health implications of drugs, the invasive procedures used and a concomitant suppression of existing literature highlighting side effects.

The main reason for this is the low cost for the complete procedure of surrogacy, which is a fraction of the cost of similar processes in developed countries. According to estimates provided in *The Week* in 2006, "India has 350 ART clinics, and approximately 1 lakh IVF cycles are performed every year. Even if only around 3 per cent of infertile couples would need to hire a womb, surrogacy – including IVF cycles at Rs. 65,000 – Rs. 90,000 and the carrier priced between Rs. 1-3 lakhs- should be worth thousands of crores of rupees." But experts believe that it is difficult to arrive at the exact worth of the surrogacy industry because of the absence of stringent regulatory or registry mechanisms. In India, a surrogacy including IVF would cost up to Rs.5 lakhs. In the U.S., surrogacy, without ART procedure, alone would cost \$15,000. In the UK, an IVF cycle costs around 7,000 pounds sterling and the surrogate about 10,000 £ sterling.

For those who are critical of or unable to afford these treatments because of the high costs involved, the fertility clinics also provide the option of going through egg sharing programmes, wherein a woman donates her ova to another woman, in exchange of treatment costs. For instance, an advertisement of an IVF centre announces, " if you are a young fertile woman, who wants to go through IVF but cannot afford the treatment, you can consider donating your eggs and registering for free treatment.

Women's empowerment or Exploitation of the Poor?

Supporters of surrogacy base their argument on the premise that it is an exercise of reproductive choice, and a woman's freedom to contract as well as freedom of her economic autonomy (Posner, 1989). Equal rights for women means giving them the autonomy to choose their lifestyle and exercise sexual and reproductive freedom. Liberal feminists typically characterize surrogacy as a natural extension of a woman's reproductive liberty and personal autonomy. Keeping this argument in mind, telling a woman that surrogate pregnancy dehumanizes her just reinforces a form of patriarchy that insists that women are incapable of making their own decisions. If women could contract freely to sell their productive labor for wages, then they should have freedom to sell their reproductive services.

Pande (2009, p. 142) in her work argues that an accurate account of globalized commercial surrogacy work requires seeing it as "sexualized care work"; that is, as labor that falls somewhere between sex work and care work. Surrogacy, she argues, can be treated as an extension of the work poor women have been doing for centuries as nannies and domestics. Analyzing this liberal feminist argument in the Indian context throws up disturbing questions. The argument mainly emphasizes women's freedom of choice but the fact is that most surrogates come from very poor families, and often already have children of their own and elders to care for. Some may have absconding or unemployed husbands. Furthermore, they may be illiterate, as the country has a low female literacy rate of 53.4 percent (UNDP, 2008). This greatly limits their educational and career opportunities. Indian women also face exclusion, marginalization, and wage discrimination in the job and labor markets. The wages paid to a surrogate in India for undertaking nine months of gestation range from USD 6,000 to USD 10,000 (Krawiec, 2009). These figures clearly demonstrate the economic aspect of surrogacy. The financial gain through surrogacy visibly becomes the main push factor for the poor. It is because of the huge sums involved that it cannot always be said for that the surrogate was offering to volunteer her services, or was being forced to do so by a husband or partner with the motive of earning easy money. The prevalence of the patrilineal marriage system in India, based on patrilineal descent as well as patrilocal residence and the plague of the dowry

system, can make a woman vulnerable to forced surrogacy by a mother-in-law or husband.

The collective effect of all these factors makes the poverty-stricken women in India prone to economic exploitation by agents working for commissioning parents. In a scenario where surrogacy is looked upon as an alternative employment to raise money for children's education or dowries or for better standard of living, how much the idea of choice thought to be true.

Commercial surrogacy is culturally stigmatized by the conservative Indian attitude toward sex and procreation that forces many surrogate mothers to move out of their homes and live in temporary apartments elsewhere or lie about their pregnancy or keep it a secret.

In such a scenario, the existence of voluntary choice on the part of these women is contentious. It "is debatable whether women are choosing freely to become surrogates, or that their will is socially and economically constructed" (Gupta, 2006, p. 32). While in the West, debate about surrogates' reproductive choice and freedom to contract rages, in India it has now become a structural reality, "a survival strategy and a temporary occupation for some poor rural women" (Pande, 2009, p. 144) in spite of the pitfalls associated with it in a conservative Indian society.

Therefore, it is questionable whether the liberal feminist argument that supports surrogacy as women's autonomous choice applies to Indian surrogates.

Maternity care in public health services versus surrogacy clinics

A striking contradiction manifests itself when one compares reproductive rights and reproductive health facilities available to a common woman in India when compared to a woman who has volunteered to be a surrogate. The World Health Organization gives a working definition of the term sexual and reproductive rights as "the highest attainable standard of sexual health, including access to sexual and reproductive health care services" Reproductive health is thus a part and parcel of reproductive rights.

Reproductive health in the broadest sense as defined by the ICPD as following: Reproductive health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the rights of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility which are not against the law, and the right of access to appropriate health-care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.

What can reproductive rights and reproductive health tell us about the burgeoning surrogacy market in India? On the one hand, India is an international destination for couples seeking affordable surrogacy services; on the other, it also has one of the highest maternal mortality and pregnancy-related morbidity rates in the world. The paradox is that Indian women continue to be deprived of basic reproductive health care, whereas Indian surrogates receive some of the best treatment because of the commoditization of their pregnancies. India's maternal mortality rate (MMR) stood at 570 in 1990, which fell to 470 per 100,000 live births in 1995, 390 in 2000, 280 in 2005 and to 230 in 2008 (Sinha, 2010).

UNICEF has observed that due to social and economic inequalities and shortages in primary health care facilities, India's fight to lower maternal mortality rates is failing (UNICEF, 2009). A large number of births are not attended by doctors, nurses, or trained midwives. According to UNICEF statistics covering 2005–2009, only 53 percent of women give birth with the assistance of a skilled attendant, and only 47 percent of births happen in a hospital setting (institutional delivery). Maternal mortality is especially high in rural India, where fertility rates are higher and teenage marriages are common (Dhar, 2009). It is also not uncommon for poor pregnant women to be routinely turned away and referred from one hospital to another. Reducing the time between referral and getting

women to facilities is often critical to their survival (UNICEF, 2009). In India, anemia is responsible for 17 percent of maternal deaths. Even some of the most basic health services are beyond the reach of many women. Although the Indian government has promised to ensure that women get four antenatal examinations through the National Rural Health Mission (NRHM), less than three quarters receive any antenatal care at all. For every maternal death in India, an estimated 30 more women suffer injury, infection, and pregnancy-related disabilities (NFHS, 2006).

On the other hand the surrogacy clinics provide some of the best facilities available to surrogates to monitor pregnancy and fetal development. *Surrogacy India*, a relative newcomer to the field which launched its services in 2008, provides the following antenatal care to its surrogates as mentioned on its website: The surrogate will be regularly examined by our obstetrician at institutional level, once every four weeks and once every two weeks during first two trimesters and last trimester, respectively. Routine ultrasound will be done to assess the fetal growth. Investigations: routine tests like urine, HIV, and blood sugar will be performed at monthly intervals during gestation. Along with this, malformation scans will also be done in the first and second trimester. Required antenatal vaccinations will be given to the surrogate. This careful monitoring of surrogate pregnancies indicates that basic reproductive health care is available more to Indian women as surrogates than as mothers of their own children, thus suggesting that Indian women have more rights when they are birthing for others than when they are pregnant with their own children (Bailey, 2011). Moreover, Bailey (2011, p. 22) argues that “if the resources directed at a pregnancy are a strong indicator of the pregnancy’s social value, then one might infer that Indian women’s reproductive health and rights are tied to the social or market value of the fetus they are carrying.” The Indian medical tourism industry has been promoting itself with slogans such as “First World Treatment at Third World Price.” However, the health services available to India’s poor who comprise 37.2 percent¹⁹ of the total population (Planning Commission, Tendulkar Committee Report, 2009) continue to be of Third-World standards. Destitute pregnant women do not receive even basic prenatal care despite India’s burgeoning economy which grew at an average of 7.63 percent in the past three years (Government of India, Economic Survey, 2009–2010). Pregnant women who are in need of care and assistance are turned away from a

government health facility only on the ground that they have not been able to demonstrate their BPL status or their eligibility for the services.

The role of advertisements

In order to attract couples to use these technologies, clinics and centres adopt well thought out strategies for marketing ARTs through both print and electronic media, including websites that reach out to potential patients globally. Advertisements in some of the websites of different clinics are worth mentioning here. The primary marketing tool used are the exclusive package deals offered to the clients. Even religious sentiments are not exempted from being exploited, used for profit making and attracting a clientele. To cite an example of a fertility clinic in Mumbai, “All Muslim couples will be counselled regarding the proscription of their religion while selecting an appropriate treatment modality. We will ensure that none of the Shariat laws are broken while providing infertility treatment.” Moreover, these advertisements, offer the entire treatment procedure as a package, whereby the couples opting for such procedures can get maximum benefits and services if they go for a particular deal. Therefore, all clinics and centres work to provide the best possible offer. In addition to this, most clinics or hospitals use catchy advertising text to attract the attention of people accessing such services. For example, the brochure of an infertility centre in Hyderabad says, “Life deserves the best... we try to fulfill your need for a Child”. Another brochure of a fertility clinic in Delhi mentions, “Dream comes true because every couple has a right to have their own child.” Advertisements can be found on websites, fancy brochures, on walls and hoardings on streets, at bus stops, near adoption agencies and local cable channels. Lucrative bargains for egg and sperm donors and surrogates are seen even in newspaper classifieds:

‘Wanted healthy lady, age 20-35 years.

Unmarried/married widow lady to bear

child for childless family through artificial

insemination or IVF. Earn Rs 50,000 -

60,000...’

Another advertisement is

The Miracle of Life...In-Vitro Fertilisation...

We make your dreams come true...’

‘When desolate homes resonate with children’s

laughter...’

‘500 childless couples have achieved

‘happiness’.

Excerpts from the websites of fertility clinics

1. *You can book your tickets online, and find the best deals, check out*

<http://guides.usaindians.com/travel/>

A return air ticket to India from the US costs about US \$1000 - 1500. Your husband can accompany you, or you can hand carry his frozen sperm in a dry shipper (which you will need to borrow from your local infertility clinic). The clinic is at Bandra, just 20 minutes from the International airport, and is truly in the heart of Bollywood country (Beverly hills of India!)

Source: <http://www.iwannagetpregnant.com/moneyback.shtml>

2. *See Taj Mahal by the moonlight while your embryo grows in a petridish, or Stay in five- star apartment suite while you undergo hormonal treatment cycles.*

Egg Donor for Fertility Treatment

Looking for lady less than 35 years of age, willing to donate her eggs for fertility treatment. High confidentiality, world-class health-care in a well-known hospital. Suitable remuneration assured.

Analysis of ARTs Bill

The government is presently debating a Draft Assisted Reproductive Technology Bill and Rules, 2010. However, the provisions of the bill are inadequate because the health and rights of the surrogate are largely ignored. The Bill lays down that no woman shall act as a surrogate for more than five successful live births in her life, including her own children (Article 34.5), and that a surrogate mother can undergo embryo transfer not more than three times for the same couple (Article 34.9). Translated into reality, this ambiguous provision would allow for a woman to serve as a surrogate three times (if she has two children of her own), and four times if she has only one live birth; she could also undergo embryo transplant up to nine times (in the case of three surrogate pregnancies), and 12 embryo transplants if she serves as surrogate for four times. Given the monetary incentives, poor, illiterate women may be forced into repeated pregnancies, thus risking their lives and health. Under the Bill, the surrogate mother is required to relinquish all parental rights over the child (Article 34.4). There is no provision allowing the surrogate mother to revoke her consent of handing over the child. A surrogate mother should be given reasonable opportunity to revoke her consent to relinquish the baby any time during pregnancy, and for at least 48 hours after birth (because a baby stays in the hospital for minimum 48 hours before it can be taken home). This will help mitigate psychological impact on the surrogate mother as well as recognize the sacred bond between mother and child. There should also be mandatory psychological counseling for the surrogate to ensure that her consent is truly free, informed, and voluntary. Life insurance for the surrogate, which is optional in the present Bill, should be made mandatory for all surrogacy arrangements. The fertility clinics and surrogacy centers mushrooming all over India must be regulated strictly, and care should be taken to eliminate the unscrupulous ones. This requires the maintenance of a national registry of ART clinics in the country. A strict legal framework is the key to ending the exploitation of surrogates and malpractices in commercial surrogacy in India besides safeguarding the medical, social, and legal rights of all concerned.

Surrogacy and ART offer several turning points. For example, first and foremost they question the essentialism of genetic parentage, bring to the fore the importance of gestational and social parenting, make family a right of all non heterosexual couples, question patriarchal values of paternal control, open up the family to new possibilities of human relations, underline the need to do away with secrecy, and consolidate child rights. However, given the nature of society, most of the time these possibilities are sabotaged. For instance, some of the simple forms of ART like artificial insemination and IVF do offer solutions to infertility but the markets that primarily control them have restricted access to only those who can mobilise resources. Absence of simple services in the public sector makes its access to the poor impossible and the legislation is being so articulated that simple technologies are debarred. The existing demand (more by professionals and the middle class) for these services distorts priorities in the organisation of health care services as pressure is built to set up hi-tech within open markets and public sector service infrastructure without building the basic facilities that help prevent infertility. The poor then have to either sell their assets to access the facilities, or use the opportunity to earn by selling their own reproductive potential – the women that are pushed into this process carry the maximum risks to their health. Even the limited scope of changing social norms, created first by the practice of adoption and now through surrogacy, has not opened the world of family for scrutiny. Those who use the new technology to create their families continue to do so in secrecy within the prevailing norms of a patriarchal family where genetic ownership of the baby has the highest value. ART has in fact, undermined the spreading movement for adoption as an alternative by selling the dream of owning your own baby. The fact that only one partner contributes the genetic material in most cases and that there are unknown genes of the donor, and therefore the problem of ‘ownership’ still persists, is completely sidelined even when there are reports from the West of mutual resentments and intra-familial tensions between children and parents. The prevailing social structures thus appear to succeed in dominating the new technology and throttling the challenges it throws open to society. New Reproductive Technology thus becomes the means of propagating the old and traditional family norms. The State also exercises its restraining power to keep the status quo by introducing legislation that promotes markets for reproductive tourism, reinforces traditional values that help market proliferation, and

protects the interests of the foreign clients and the growth of research in genetic engineering with its huge monetary promises. Often this legislation undermines the policies that were put forward to promote universality and equity. Above all it underplays the experimental nature of many of the techniques of assisted reproduction and shows little concern about the use of women as guinea pigs and of the risks that they are made to accept due to their sheer economic vulnerability and lack of safety measures built into the legislation itself

While this dissertation is based largely on literature survey as is the rule with M.phil dissertation in JNU, the researcher managed to contact some women in Delhi who have been surrogates, in order to listen to them and find out what their experience was.

METHODOLOGY

These interviews were based on purposive sampling and observation of surrogates and their husbands .The interview was conducted in Hindi for a duration ranging from one to three hours and it involved 8 field visits .we conducted in-depth interviews, took handwritten notes here we have given pseudonyms because these women kept their decision to become surrogate as a secret from their children ,family and community

Objectives- we had certain objectives in my mind while conducting this fieldwork.

1. What is the place of women in the family who decides to be a surrogate ?
2. Who takes the decision to be a surrogate ?
3. Do women face psychological problems in the process of surrogacy?
4. How they understand and justify their work as surrogates ?

Case studies

Age-33

Kalyani is a 33 years old women who already has two children(boys) of her own and is pregnant for third time, she stays in Noida, and came to know about surrogacy from her

neighbor, Her husband deals with all the payments regarding surrogacy, and he is unemployed and motivated her to take up surrogacy. They both are staying in Delhi because of the stigma attached with their work, When we inquired about the stigma she replied that our relatives do not know about it and that their children were also not aware of this and she said, 'I do not want my children to live like me, I'm doing it for my children'. She got married at the age of 18 and she had to suffer a lot due to financial difficulties .she observed that their financial condition has improved now they have their own house and their children are able to pursue their education .Earlier they used to go to government schools but now they are going to private school and are able to speak in English .They don't exactly know about the indented parents occupation . Kalyani added, 'this is my job, this baby is not mine, I am strong that's why I'm keeping this baby in my womb' .Her husband interfered in the conversation several times and said there is nothing wrong in this and that everyone has talent just as she is also blessed by god that she is able to serve those who are not able to conceive.

Age-27

Maya is also from Bihar, she got married at the age of twenty and has two children (one girl and boy) of her own and now surrogate for the second time .She seems to be emotionally attached with the whole process, but she said that she was not willing to conceive that baby but had to do it due to financial problems in the family . According to her it is the duty of a women to take care of the family and that she would go to heaven for that .She explained that earlier she thought doctors were making a fool of us that it is possible to have a baby with injections, but her brother-in-law was there in Delhi he told them about all this now its like business for the poor and she told that her husband manages all this and that the only thing which she has to do is to carry the baby .She said that her mother in law explain to her that lord Krishna also grown up in the other family 'But everybody knows Yashodha' , you are like Devaki, so blessed and for us you are Lakashmi (Lakashmi is hindu godess who provides prosperity)

Both the women are not educated and they are family oriented. According to them they are serving the family and not doing it for their own sake. But they have lots of health problems and have to take numerous medicines which they find it difficult to cope

with Medicalization is a problem here ,it becomes worse when they think only that they are surrogates .But the natal family and doctors give them counseling and legitimate it. They do it for family because the Indian women are socialized in a way that sacrifice become their prime duty

But while inquiring about their marital relation, both women replied that surrogacy changed their husband a lot, ofcourse for the sake of money they added that there is nothing wrong in it and that this is not our child this is not so simple though they treat us like prostitutes and whenever there is quarrel between them they abuse us and said *bazaru kahi ki*. 'But during the pregnancy both are treated like princess and get good food, clothes etc but after the delivery their lifestyle become worse'. This sudden transition to and from living and a life of misery and abuse contributes to the psychological trauma of surrogates.

In both the cases women are doing it with the desire of family members but they has to face the health problems the question is why the doctors support their pregnancies while knowing that these women are not able to bear more medicalization. These women seem to be mentally and physically traumatized by the family and the technology itself.

Conclusion

As mentioned before, women's work as primary reproducers of the population has not been largely recognized as a profitable or valuable asset until recently due to advances in technology. Surrogacy contracts spawned after the introduction of modern Assisted Reproductive Technology which allow infertile (contracting) couples and surrogate mothers to form non-sexually intimate relationships despite non sexually intimate relationships these new technologies allow genetic contribution of the concerned clients to the child. Because of the desire for genetic continuance, infertile couples have persisted with surrogacy contracts, as data show proportional rises of surrogacy treatments with rises in ART cycles over time. In reality surrogacy has become a widespread practice and has given a large number of people around the world the joy of completing their family by having their own biological children. A ban on surrogacy arrangements in India would only push it underground and would make surrogates all the more vulnerable to

exploitation and malpractice. The most ethical way to proceed, then, is to monitor the situation and institute checks, balances, and safeguards to eliminate unscrupulous practices and exploitation associated with commercial surrogacy. Surrogacy arrangements need to respect the pre and post natal rights of the surrogate not only during but also after pregnancy. Situations may arise when a surrogate may suffer long-term serious consequences or die as a result of the surrogate pregnancy. Therefore, life insurance coverage for Indian surrogates should be made mandatory. At the moment only a few clinics in India offer life insurance to surrogate mothers. It is also difficult for surrogates to be covered by insurance companies since coming from very poor background, most do not have identity cards, birth certificates, or basic documents. Some special provision should be made for such cases. In order to make the consent of the surrogates truly free and voluntary, the surrogate should also be adequately counseled about the physical and psychological risks of surrogacy. She is entitled to know all about the medical procedures and complications involved, especially if she is illiterate or comes from a rural background.

CONCLUSION

We started with the objective of exploring the emergence of NRTs and the issues associated with their presence in the private sector more than the public sector. We also sought to examine the context in which women use NRTS and their experiences with specific reference to their perceptions about surrogacy. We also set out to find out the implications of the commercialization of NRTS, namely, issues of their relevance, utilization as well as the social biases they generate.

In the first chapter, we highlight why these technologies were developed at a rapid pace and how they reinforce the social role of biological motherhood to escape the social ridicule and stigma attached to infertility. It is also ironical to note that in surrogacy conferring biological motherhood for one person amounts to fragmentation of the process of conception and child bearing and a division of labour between women on these two activities which were hitherto inextricably part of biological motherhood. The discourse favouring NRTs project the attractions of having ones own child though the foregoing chapters show that torn of such NRTS may often have lesser and lesser biological connection but the image of 'own blood' or progeny is created by the legal framework that bestows legitimacy to the process of surrogate motherhood. One could visualize the politics behind the production of reproductive technology and the role of market forces through which this production can be consumed by the people, especially 'women'.

The question as to why these technologies were developed and how infertility became the issue of great concern for the private sector while the public health system is grappling with overpopulation and family planning is important here. The government has created several policies over the decades including coerced sterilization and legalize abortion and created the policy of 'Two child norm'. We also pointed out in chapter two how the doctors who emphasize the usefulness of IVF argue that it will be beneficial for the government as well; they could first to sterilize the person and if in case they require the process may be reversed by IVF which is better than tubal recanalization that is adopted currently. The state has initiated the research on IVF but due to inadequate resources in public sector and no regulation of laws it gave opportunity to the private practitioners to use IVF as a method of bypassing health concerns related to infertility.

The other important aspect of this commercialization is that not only fertile couples get solution for their infertility but it also involved the third party i.e the surrogate. Surrogate is the women who carry offspring of the infertile couple in her womb through the techniques of IVF and IUI; in turn she gets rewards or compensation in the form of money at the cost of her own health. We have addressed why these women opt for surrogacy as pregnancy is not a simple task and especially when one is not conceiving through natural process. The surrogates are doing it for financial reasons and as there are no such regulations these women are pushed into the business of 'renting a womb'. While economic rewards do improve living standards of the woman who opts to be a surrogate, she also faces ostracism and mental agony due to the fact that she is likely to face abuse of character by the same family members or husband who induced her to this situation for monetary rewards.

Another important social and political issue which has been raised here is that women in India do not even get the basic reproductive rights and the health centres are under staffed and there is no one to attend birthing women in rural areas, and this is reflected in high maternal mortality rates throughout the country. But it is an irony that women who do not have the basic amenities to deliver their own babies they get luxurious services in ART clinics to deliver a client's baby. The women has to face several problems while giving birth to her own child in the public sector, while she gets best of the services when she opts to deliver someone else's baby as a surrogate in the private sector.

Apart from the political issues outlined above, the chapters also deal with issues about the role of NRTs in reinforcing gender prejudices and constituting a new form of eugenics through IVF technology. The IVF technique is considered to be the last hope for many childless women. In a society where a woman's status in the family and in society is determined largely in terms of her procreative role, a barren woman is dubbed as a "witch," and her participation in any auspicious rituals is seen as a bad omen. By producing a child, the credentials of the man, and more so of the woman, are established in society. It is in this context that IVF and other reproductive technologies, which are often referred to as "treatment" for sterility by the doctors and a "God-sent" boon in the

form of technology by the childless couple, receive patriarchal sanction and respectability. IVF, IUI, PGT and a host of other technologies are claimed to save broken marriages by providing a ray of hope to the couple who could now have their “own” biological children. Though adoption of a child could be a logical solution for involuntary childless couples, it is not appreciated by the family and the couple, who suspect the possibility that the child might carry the genes of a rapist, for example making the child tainted in their eyes. In patrilineal systems, blood bond is extremely important for rituals and property transfer. With the introduction of the NRTs, the acceptance of adoption takes a further back seat. Almost all the major religions in this country are clear that the one basic reason for marriage is procreation. Procreation at all costs. Hence, if a man can discard one wife to marry another because the first wife was unable to bear children, the scene is set for in-vitro fertilisation, donor artificial insemination and surrogate motherhood which does not question the masculinity of male.

‘As Chowdhary (2011) noted, *‘Beta hua jab janiye, jeeb pota kele baar’* (you can claim to have a son only when the grandson plays in your doorway).

Thus NRTs are not only bypassing concerns about fertility but they also change the meaning of progeny, now people are urged to have a special child which means that in the place of sex selective abortions, there are now indirect ways of sex selection by the technique of PGD. In the context of above discussion we may say that ARTs often encourage and deepen dormant social biases by bestowing significance on them in order to highlight the usefulness of the technology itself. Thus the bias against childlessness is fuelled and enhanced by ARTs through the very process by which they establish themselves in the public psyche. The incidence of adoption has come down after the advent of NRTs. Child adoption in the face of reproduction gone skewed .and there are some of the critical cultural issues underscoring the deep seated reluctance towards adoption. Examining the experience of infertility and assisted conception in India, when faced with infertility, couples emerged as favouring secret gamete donation as a means of bypassing infertility rather than the option of adoption. The modalities of salvaging infertility, either through medically assisted conception or adoption, is structuring infertile people’s quest for children. The stigma associated with infertility treatment and adoption

propels couples to opt for medically assisted conception in which conception and childbirth are outsourced fracturing the culturally conceptualized boundaries of family and the conjugal bond. It is therefore argued that secrecy is born out of a need to conceal a “public and visible” violation of a culturally prized ideal that views an intimate connection between the “married body” and the progeny. Adoption continues to remain an undesirable option because the links between an adopted child and the social parent become a public, vocal, and visible admission of infertility that cannot be subsumed, like donated gamete conception, under a conspiracy of silence.

While the social contradictions of NRTS and surrogacy industry unfold, their implications for emerging family and kinship patterns is another area of interest. But our focus is more on the policy and civil society initiatives with regard to NRTS to which we turn.

Along with constant protests against sex-determination tests, a new issue on the agenda of the women’s movement in India is to discuss and take a stand on the new reproductive technologies (NRTs) and genetic engineering. While the earlier reproductive technologies were anti-natal and primarily used as means for population control, the NRTs mark a shift towards a pro-natal approach in which NRTs are considered as “therapeutic cure” for infertile women. However, this technology too seems to be set within the ideological structure of marriage, children within wedlock and emphasize the supremacy of biological motherhood,” and reinforces fertility as an important indicator of women’s societal and familial status.

NRT are likely to have serious implications for all women in the future when their use is linked to population control. The feminist perspective on NRTs is gaining ground but amniocentesis and “female foeticide” have received greater attention because of the campaign against these tests by women’s groups, health activists, and some political leaders.

The Forum Against Sex Determination and Sex Preselection (FASDSP), The FASDSP initiated its campaign in to raise awareness on SD and SSA and secure an effective ban during 1986. The ban imposed by the GOI on the availability of SD in public facilities was no doubt a positive step in the early stages of the introduction of diagnostic technology in the country. However, some researchers see this ban as directly resulting in the rapid commercialisation and growth of the private sector for sex determination tests

It is pertinent to mention here the bill passed by Maharashtra State government, namely, Maharashtra Regulation of Prenatal Diagnostic Techniques Act (PNDT), in 1988 in response to the initiatives of the women's groups. The PNDT Act is a unique piece of legislation that not only guides the appropriate use of diagnostic technologies but also opened up space for articulating the need to regulate other types of reproductive and genetic technologies that were beginning to enter the Indian market. The objective of the Act is to 'provide for the regulation of the use of pre-natal diagnostic techniques for the purpose of detecting genetic or metabolic disorders or chromosomal abnormalities or certain congenital malformations or sex linked disorders and for the prevention of the misuse of such techniques for the purpose of prenatal sex determination leading to female feticide. The law has the dual objective of regulation of prenatal diagnostic technologies and prevention of misuse of these technologies for sex determination. Some of the regulatory mechanisms include registration of genetic counselling centres, laboratories and clinics as well as the equipment used for performing the tests. Additionally, clinics are also mandated to employ personnel with a minimum skill base as prescribed by law. The Act also states that even if the practitioner is fully qualified s/ he cannot conduct a test or procedure in an unregistered site. The Act also frames rules that regulate the terms of use of prenatal diagnostic techniques including a list of medical conditions, the existence of one or more of which is deemed to justify their recommendation. For instance, clauses have been introduced that prescribe that a pregnant woman seeking pre-natal diagnosis must have undergone two or more abortions or foetal loss, or must have been exposed to potentially teratogenic agents such as drugs, radiation, infection or chemicals, or has a family history of mental retardation or physical deformities or any

other genetic disease. The Act also says that where the test is being provided, written and informed consent from women undergoing the test is mandatory.

While the foregoing legal initiatives are welcome, the problems do not end there. Broad policy and legal interventions have to be matched by social awareness. Technologies have both instrumental and expressive aspects to them. They are intended to fulfill certain needs and have a social utility component, but they also have emotional appeal to secret desires and feed on prejudices and the latter aspect of NRTs needs greater exploration. The social implications of NRT are complicated and involve viewpoints of multiple stakeholders. This dissertation has not been able to do full justice to all the perspectives and issues. Nevertheless, it is an attempt to set out some of them with a view to pursuing them in greater detail at a later stage in research.

Appendix

Checklist

1. Age
2. Educational qualification
3. No of children
4. Religion
5. What is surrogacy
6. Are you consulting doctors
7. Do you know the intended parents
8. What gift you'll get from the intended parents
9. Are you emotionally attach with the child
10. Who takes the decision for the pregnancy
11. Are you planning for further pregnancy
12. Do everyone know about your pregnancy
13. Who told you about the process pf surrogacy and how you going to meet the intended parents
14. Is ther any change in your marital life due to this
15. Who is responsible for miscarriage or other problems

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