Karkal, Malini.: Demographic and Cultural Aspects of Prenatal Technology. Bulletin of the Indian Federation of Medical Guilds. July 1998. 18(3).p.68-74.

Demographic and Cultural Aspects of Prenatal Technology

Malini Karkal

The two issues in the field of fertility that have received widest publicity in the recent times in India are the rapidly growing number of clinics that are performing amniocentesis, which is followed by female foeticide and the birth of a test-tube baby in Bombay. The practice of female foeticide has generally sent shock waves even when it is getting a wider acceptance as indicated by the rapidly increasing number of medical practitioners who are participating in the services of amniocentesis though they do not have the sophisticated gadgetry for the chromosomal analysis. These doctors are located in far flung areas of the country covering several States and rural and urban populations. The expensive gadgetry that is required for chromosomal analysis is available in very limited number of laboratories located in metropolitan areas. The services of these laboratories are available to these doctors practicing in far-flung areas. They send the amniotic fluid obtained from their pregnant clients, to these laboratories for advising the women on the sex of their conceptions. Abortion services are available freely, all over the country under the Medical Termination of Pregnancy (MTP) Act of 1971. So the women can easily avail of these services. Separating the stages of the services from amniocentesis to foeticide also has helped the doctors's protecting themselves from action of law because none of these in themselves are against law.

The two issues in the field of fertility that have received widest publicity in the recent times in India are the rapidly growing number of clinics that are performing amniocentesis, which is followed by female foeticide and the birth of a test-tube baby in Bombay. The practice of female foeticide has generally sent shock waves even when it is getting a wider acceptance as indicated by the rapidly increasing number of medical practitioners who are participating in the services of amniocentesis though they do not have the sophisticated gadgetry for the chromosomal analysis. These doctors are located in far flung areas of the country covering several States and rural and urban populations. The expensive gadgetry that is required for chromosomal analysis is available in very limited number of laboratories located in metropolitan areas. The services of these laboratories are available to these doctors practicing in far-flung areas. They send the amniotic fluid obtained from their pregnant clients, to these laboratories for advising the women on the sex of their conceptions. Abortion services are

available freely, all over the country under the Medical Termination of Pregnancy (MTP) Act of 1971. So the women can easily avail of these services. Separating the stages of the services from amniocentesis to foeticide also has helped the doctors in protecting themselves from action of law because none of these in themselves are against law.

While the activists are discussing and expressing their anger against selective foeticide, the biomedical scientists are making rapid strides in prenatal diagnostic technologies. These prenatal diagnostic tests are ultrasound imaging foetoscopy, alpha-fetoprotein measurement and chronic villi sampling or biopsy. Amniocentesis analyses a small volume of fluid drawn by a needle from the mother's amniotic sac, containing cells naturally shed by the foetus, which are cultured for diagnosis. The procedure is conducted after the sixteenth week of pregnancy and the culturing of the cells in the fluid takes about six weeks. Serious maternal or foetal complications and foetal mortality following an amniocentesis is reported to be 0.5 per cent from experienced, in centers from developed countries. Incidence of complications under Indian conditions is not known.

Termination of a pregnancy following amniocentesis entails major risks because the procedure can be undertaken at an advanced stage of pregnancy and by the time the results become available the gestational age may be close to the end of second trimester, when the foetal viability may be imminent. This raises serious ethical, moral, as well as legal issues. In cases of birth of a viable foetus the procedure may be infanticide rather than foeticide. Since law does not permit infanticide, such cases if brought to light, may call for legal action against the doctor as well as the Woman.

Biopsy of the chronic villi, which are early products of conception and are genetically identical to the embryo or foetus. This is being seriously tested for diagnosis. These tests are relatively less expensive. The biopsy may be done at eighth to tenth week of pregnancy. Results of the tests may be available in a day or two and abortion induced at the early stages viz. first trimester or pregnancy may have less physical risks to the mother. Since scientists report high incidence of spontaneous abortions before twelve weeks. (Edward et al '. report that 62% of pregnancies are aborted naturally and 92% of the women are unaware of it) the procedure may expose the mother to the burden of having decided to abort a foetus, which would have occurred spontaneously.

If anyone has objections to foeticide on moral and ethical grounds Dr. Ericsson of U.S.A. has floated a company that is reported to have established over 47 clinics in different countries in Asia for pre-selection of the sex of the conception. Success in producing male babies in these clinics is reported to be 75 per cent. So

the couples will be required to undergo procedures such as amniocentesis and selective foeticide, if they want to be sure that they have a male baby. Simultaneously, Prof. Hibachi Lizuka and his colleagues at Keio University in Japan have developed a method to produce female babies through fertilization of the egg by female producing sperm separated through centrifugation and using it in artificial insemination. This technique is also reported to have been used by Dr. Shiro Sugiyama, who heads a team of 800 gynecologists and obstetricians, who got their training from Keio University. Present, interest of these, researchers in producing female babies is to avoid certain types of hereditary conditions peculiar to men. Success in achieving the birth of a male baby conceived through in-vitro fertilization has also been reported from New Orleans.

A bill opposing amniocentesis followed by female foeticide is now coming before the Maharashtra State Legislature for discussion. It is reported that the bill is neither opposed to amniocentesis nor to termination of pregnancies. Underlying belief is that amniocentesis is necessary for genetic counseling and abortion has to be permitted for terminating unwanted pregnancies.

In Western world, with sharp declines in infant mortality which were brought about by near eradication of infectious diseases, increased recognition has been given to congenital anomalies as a major cause of peri-natal, neonatal and infant deaths. In North America, 2 to 3 per cent of all births are associated with a major congenital anomaly. Such anomalies, mental retardation and genetic disorders, together account for 2 to 30 per cent of admissions to children's hospitals. Pain and suffering of both children and families, accompany the birth and death of many affected infants. This heavy personal and social burden is aggravated within the medical and scientific communities by the realization that, in the majority of the cases of major congenital anomalies, no recognizable cause can be found. Thus prevention and treatment are unavailable and for the time being, termination of pregnancies found to be so affected appears to offer the only means to reduce suffering. There however are serious legal restrictions even in these countries before termination of the pregnancy is justified.

An article by Dickens in American Journal of Comparative Law, points out that Britain's Abortion Act 1967 permits abortion under section 1(1) (b) if two physicians concur: "that there is a substantial risk that if the child were born, it would suffer from such physical or mental abnormalities as to be seriously handicapped".

Dickens points out that "although the test of serious handicap is related to the risk of inherent physical or mental abnormality of the child, determined by genetic prognosis or forms of prenatal diagnosis, there is a socio-cultural

dimension to this criterion. Whether a condition is a serious handicap may be assessed at least in part by the facilities available to normal children and adults in the child's community and to family, social and related services which may be available to children of different forms and degrees of handicap'. He further adds that, 'the language of the British legislation is repeated identically in Section 3 (2) (b) (ii) of India's Medical Termination of Pregnancy Act of 1971. Comparisons may have to be made with some caution, however, since while the National Health Service and social service agencies in the UK may be expected to relieve conditions, which in India might remain as handicaps. Countries with fewer resources might have narrower distinctions between the health and social opportunities of normal and handicapped children, so that a physical or mental handicap may appear less disabling.

As explained by Dickens in planning action for use of a technology, there is a need to understand prevailing situation with respect to the health of the infants who are born in India and the problems they face in terms of causing 'personal and social burden'.

From the data available it is seen that low birth weight is one of the major problems with Indian children. World Health Organization has prescribed 2500 grams as the minimum weight for a baby at birth. The reports by Government of India say that 30 or more percent of the Indian babies are born with weight that is lower than this figure. Low birth weight is an indication of intra-uterine growth retardation of the foetus. It is known that such infants have problems in their development and have, unless specially cared for have mental retardation,' physical immaturity and poor mental performance. About 90 per cent of the mental growth and 50 per cent of the physical growth of an individual takes place in its first five years of life. Our children, including the normal ones, receive inadequate nutrition and suffer from poor development. This is well documented. It should be therefore obvious that not only these low birth weight babies but also, our children in general are exposed to physical and/or mental handicap because of the prevailing social situation. Indira the test tube baby born in Bombay had a birth weight of 2840 grams. Indira's parents are class D employees of the Municipal Corporation of Greater Bombay, and conception and Antenatal care was at the hands of the doctors of the Municipal Corporation. This give adequate evidence to the belief that with adequate care and interests of attending doctors birth weights of babies can be considerably improved. Investments, both in terms of money and manpower in work on chromosomal investigation is therefore a luxury which, should be discouraged. If identification disabling intra-uterine condition of the foetus is to be taken as a criterion lives of at least 30 per cent of the babies that get born as low birth weight, will have to be terminated because their growth is retarded, and in that sense they are handicapped.

MTP Act of 1971 was passed to help women - estimated to be 3.9 million per year - who were terminating their pregnancies through illegal and unsafe means and facing hazards to their health. Passing of the MTP Act was supported by the feminists on the grounds that it protected the rights of the woman about her body and what she should do with it. Though this argument may sound logical it has again to be seen in the context of the prevailing social situation. Giving rights to individuals who have no power to execute them has always led to exploitation of the individuals, is amply documented. During the 14 years since the MTP Act come in force, the total MTP registered has barely crossed the estimated annual figure of 3.9 million. This fact should convince anyone that not less than 54 million Indian women have conceived unwanted pregnancies and over 50 million of them were driven to terminations that were illegal and most of them hazardous. There is evidence from developed countries such as Japan, Denmark etc. that legalizing abortions has invariably led to reduction in preventive measures and increase in terminations of pregnancies. Even among the educated, men tend to talk their partners into not using a contraceptive arguing that in case of conception abortion is available. One is therefore led to the conclusion that legalizing terminations of pregnancies cannot: help, in improving the conditions when women continue being poorer in education, self improving conditions such as employment in progressive non-agricultural occupations, choices in deciding about their own lives such as when to marry, whom to marry, how many children to have etc. And as pointed out earlier even the educated women fair no better. Experience of women in the west should convince that all steps to liberate women from sex and its consequences have worked against women. Women must be motivated to protect themselves from pregnancies even if it means that they have to take responsibilities.

Techniques for creating children without sex close a circle opened by effective contraception, which made sex without reproduction dependable. Among the new fertility techniques are artificial insemination by husband (AIH) artificial insemination by donor (AID), in vitro fertilization (IVF), use of surrogate mothers, surrogate embryo transfer, and frozen embryos. There is support to these techniques since they are looked as curers for infertility. And infertility is viewed as an inadequacy or a blot on femininity of a woman. The support of the society to these technological developments is indicated by the world acclaim of those involved in these developments. 'People' magazine named the world's first IVF child, Louise Brown, one of the ten most prominent people of the decade, Dr. Robert Edwards, the English test-tube pioneer received the honorary-title of 'father of the century' and Dr. Hinduja' who 'conceived' the first Indian test tube baby is awarded the title of 'outstanding citizen' by the South Bombay Jayces.

A closer look at these technological developments will convince that these experimentation's are one more dimension of the patriarchal power and ideology

functioning in its many guises and cultural variations. It is one more tool to control women through these technologies. It has to be realized that the technological developments do not take place in vacuum but science, medicine and technology, are socio-political instruments to sanction the ideology of the ruling group under the cover of the objective 'search for knowledge' and the 'improvement of life of quality'. In the social context prevailing in this country it will not be long before women, even those capable of normal conception will be persuaded to go for sex-selected artificial. insemination or the in vitro fertilization.

These exotic researches have a lot of academic repute and international fame. There is greater excitement and prestige in these areas than in work on preventive medicine, pre-natal and maternal health care or in programs towards reducing child mortality. All. the vested interests join hands to protect their interests. Newer fertility technology is lauded by medical professionals in the face of neglect of provision of basic antenatal conditions to pregnant women and births of 'handicapped' children.

Researches in fertility technology get support on the grounds of a search for 'pure' knowledge. Such researches are conducted without need for thinking about possible social and psychological consequences to the individuals. It is important to remember, what Robert Oppenheimer the 'father' of the atomic bomb said about the development of the, bomb. He', said, It is my judgement in these things that when you see something that is technically sweet, you go ahead and do it, and you argue about what to do with it only after you have had your technical success. That was the way it was with the atomic bomb. I don't think anybody opposed making it, there was some doubt about what to do with it after it was made'.

Family planning program is expected to serve the interests of women since it asks for spacing and limitations of births. First Five Year Plan introduced family planning with the clear objective of health and welfare of women and children. As the time passed welfare of women and children was not included in the objective and the program became 'time-bound' and 'target oriented' with the objective of 'averting births' and 'reducing the birth rate'. Performance of the program is mainly through the female methods. Limitation of population growth is predominantly under-taken by controlling women's fertility. In the total program not only the female sterilization's contribute the largest share but even the technology used is such that it should be normally unacceptable, laparoscopic sterilization, which is now widely prevalent and advocated by the Sixth and Seventh Plan, is declared by the endoscopists as a procedure that should not be used and especially in a mass program, since the incidence is of complications is much higher than acceptable. These procedures are conducted

under unhygienic and other medically unsatisfactory conditions. The application of injectible hormones and other technologies for fertility regulation which are known to have harmful effects on women, clearly show that it is not the misery and pain of infertile women, which motivates the work of the reproductive technologists. Rather they develop and apply methods for their own age satisfying interests. In the patriarchal society it will not be long before women are turned into son producing 'mother-machines'.

On the one hand the knowledge of importance of antenatal care and its role in birth of healthy children, is very much there but not made available to an average mother, and as described earlier large numbers of babies in this country are born with poor health and meager chances of survival. On the other, the interests of doctors in newer and sophisticated technology is demanding investment of resources not only for further work in fertility technology but there is now a demand by medical experts to start extensive services in intensive care for the premature babies. It is difficult to oppose such demands as they look to be human needs just as amniocentesis for genetic reasons receives wide support.

In the ultimate analysis the newer developments are leading to total control of medical professional on human life. Though outwardly it looks that these technological developments are of direct concern to only a small minority of women, the new technologies bring with them a number of other practices whose direct and indirect (for example psychological) consequences affect a much larger number of women. One is noticing a growing interests of certain sections in routine check up and pre-natal screening tests which d normal' pregnant woman is urged to undergo in a pursuit of production of a perfect child. Fertility technology needs further developments and large inputs. In order to bring about these, 'artificial' conceptions and avoid birth of defect' children, more and more women are being asked to donate their 'square in vitro embryos'. Of course it is quite simple for the technologists to 'manufacture' egg-sperm products in a test tube without making it publicly known.

Technologists interested in sophisticated and exotic research find it easy to get support. It is simple to play the individual women whose desire to have a biological child is so great since her entire position is at stake, that she would do anything to see her wish fulfilled against the feminist who criticizes the patriarchal mechanism of power and control inherent in the new technologies. 'Women want it' is what the public is told by the technologists as if women (and men) indeed were given all options.

What is urgently needed is information about the prevailing conditions that deprive large sections of mothers the basic needs of life, nutrition, medical attention, antenatal; natal and post-natal services, and making women and the

members of the community aware of the needs of women and children that will assure births of healthier children and adequate facilities for their proper growth and development. Institutions funded by Government and other public organizations have their primary duty to the needs of average citizen. Appalling hygienic conditions in these institutions shortage of drugs and other facilities make it further imperative that these institutions cannot fritter away their scarce resources in exotic researches however enticing they may be to individual researchers.