

ETHICAL ISSUES IN ASSISTED CONCEPTION

Shahin Akhter Jahan Habib¹, Sayeeda Sultana², Nahid Yasmin³

Introduction:

The overall principles that inform any discussion of medical ethics include respect for the autonomy of the patient, together with the concepts of beneficence and justice. Respect for our patient's autonomy obliges us to ensure that those giving consent to treatment are fully informed and that confidentiality of their consultations is guaranteed. Beneficence involves considering the welfare of others and doing no harm. The problem, of course, is whose welfare we are talking about. For example, can zygotes and pre-embryos enjoy benefit or suffer harm? It is commonplace in infertility practice to place the physical harm risked by a potential mother against the psychological benefit that a successful outcome of treatment will bring to the couple, so we also have to think about the relative weight we apply to such benefit and harm.

When we turn to the issue of justice, we have to consider the fairness of the distribution of benefits and harm. We must also consider social and financial implications of fairness. Is a society behaving fairly when it makes the solution of a biological problem such as infertility only available to those who can afford it? There is no doubt that in the UK some health authorities regard IVF as a luxury form of treatment, on a parallel with the removal of tattoos and other cosmetic procedures.

Philosophically and politically speaking, beneficence is always upper most for utilitarians. So far as the libertarian is concerned, the patient's autonomy dominates. For egalitarians justice is the driving force. Most people adopt a position that attempts to accommodate these principles in a kind of creative tension. Naturally, the extent to which any one of them is emphasized differs between individuals, groups and, indeed countries. For example, in the USA, with its strong tradition of libertarianism, issues of autonomy often dominate over egalitarianism. The overall feel of the American approach to infertility treatment is facilitative rather than regulatory and even now, so many years after the invention of IVF and with so many fertility-related ethical issues identified and medico-legal disputes exposed, the USA does not have a national agency for the regulation of

assisted reproduction. On the other hand, policy in the UK has taken quite a proscriptive pathway, departures from the Code of Practice of the Human Fertilisation and Embryology Authority (HFEA) may breach the Criminal Justice Act and so be punishable under criminal law.

It is worth reflecting on what has determined the difference between the increasingly regulated positions developing in Europe compared with the situation in the USA and on whether the difference will have an impact on such vital subjects as the regulation of cloning and stem cell research.

Does Everyone Have a Right to Treatment?

Two issues that will always be central to any consideration of the ethics of reproduction are who has the right to reproduce and to what extent this right has to be balanced against the welfare of a child born as a result of the treatment. Generally speaking, in most societies a married heterosexual couple in a stable relationship is considered to provide the most appropriate environment for rearing children. On the other hand, most people recognize that legal marriage offers no guarantee of a suitable environment, and the couples and some would argue, even individual who are not married may not only assert a moral right to be parents but in fact provide a satisfactory environment in which to bring up children. While many people feel that some of the advanced technologies now employed in fertility therapy challenge the meaning of "family." The challenge does not really come from technology but rather from social changes which, in parts of the Western world, have resulted in divorce rates as high as 50%. There are increasing numbers of single parents who have conceived their children per via naturalis. The experience, therefore, of an increasing proportion of our population is of a family life that has not included all the traditional components. Increasingly fertility specialists are being asked to treat unmarried heterosexual couples, homosexual couples, and single women.

While few would wish to limit the rights of married couples to have children, concerns about duties to extracorporeal embryos and for the welfare of the offspring, the family and the donors and surrogates have added strength when they also involve unmarried, single, or homosexual people requesting infertility treatment. In the UK the view of the HFEA has been that, providing the medical team considers that the usual criteria in relation to the welfare of the child can be met there need be no proscription of such treatment for unmarried couples and single women. At the same time, it is also accepted that the moral discretion of those providing treatment has to be respected too and there is no legal obligation to treat.

1. Assist. Prof. (Obs & Gynae), SZ Medical College, Bogra.
2. Assist Prof. (Obs & Gynae), BSMMU.
3. Assistant Professor, Institute of Child and Mother Health, Dhaka.

Generally speaking, lesbian women have been refused fertility treatment (usually, of course, donor insemination) on the grounds that they would not provide an appropriate family environment because the child would have two mothers (but no father), would be genetically unrelated to one of the mothers and the donor would be unknown to both of them. For single, heterosexual mothers, it has been argued that the lack of a father, together with the use of an anonymous donor, might lead to psychological difficulties for the child. People have questioned the suitability of a woman who is not involved in an intimate relationship with a man to be a mother. In fact, there are empirical data concerning these matters and the continuing studies of Golombok and Tasker have not indicated that such children are at any particular risk for psychological problems. It is, after all, most likely that it is the quality of parenting that is important. In general, this seems very good in people undergoing fertility treatment. On the other hand, at present there are still few empirical data about the outcome of being conceived using semen from an anonymous donor or, indeed, from a known donor.

Biological Considerations:

Much of the ethics of infertility therapy has been developed in response to advances in IVF technology. The principles are, none the less, firmly rooted and can often usefully be applied to other aspects of reproduction. It is necessary, however, to precede discussion with a brief reminder of the biology, so that the terminology clarifies rather than confuses, such definition of terminology may also help in avoiding concepts that relate to a fetus (often derived from our thinking about termination of pregnancy) being applied to discussions about embryos and pre-embryos.

Fusion of gametes (sperm and egg) results in formation of the zygote, the fertilized egg which has the potential to develop into a human being to whom ultimately the full status and rights of a citizen are accorded. Only a quarter to a third of zygotes are thought to develop into a newborn infant. The full developmental potential of a zygote is therefore limited by the risks of prenatal development, childbirth, childhood, and early adult life. The statistics of these risks are, of course, influenced by many factors, some of them are quite unknown but others are related to circumstances which are entirely within our own gift. Examples would be the extent to which a person's potential is eroded by poverty, an inclement environment, malnutrition, pollution, poor schooling, disease, etc.

The zygote undergoes cleavage to produce the eight cell blastomere, further development of which produces an outer layer, which is extraembryonic and becomes the placenta, and an inner layer, which becomes the embryo. It is the blastocyst whose outer layer loses its pluripotentiality first

and interacts with the mother. In the second week after fertilization, the inner cell mass is organized first into two and then into three layers, with the development of the primitive streak. It is at this stage that the pre-embryo is committed, in the sense that it loses its capacity to undergo twinning. The zygote and early blastocyst are, therefore, pre-embryonic but it is the embryo which is the rudiment of the whole unique human being. Uniqueness is firmly established when the embryonic axis is formed about 2 weeks after fertilization and, after this, twinning and mosaicism are thought not to occur.

IS IVF Ethical?

So far as the major religions are concerned, IVF and embryo transfer are acceptable within the framework of a marital relationship to Judaism, Islam, part of Christianity, Hinduism, and Buddhism. The Roman Catholic Church considers that, for the reasons indicated above, IVF involves a disregard for the sanctity of human life (life being defined here as starting at the moment of fertilization). Moreover, the IVF procedure separates procreation from sexual union, i.e., it takes it away from an act of love. Other objections that have been raised to the IVF procedure are that it involves the possibility of harm to the progeny, i.e., it involves exposing others (the pre-embryo) to a risk of harm for which consent has not (cannot) been obtained. Even if we apply the hierarchical view of the status of the products of conception elaborated above, we have to accept that the resulting child has accepted a risk, in part at least, for the benefit of its parents.

It has been argued that IVF is but one step down a slippery slope which will permit strange variants of the procedure which themselves will not prove acceptable. "Slippery slope" arguments are, of course, the very stuff of philosophy and, in our opinion, do not constitute a very powerful argument against IVF. They do, though, emphasize the importance of thinking through its implications. It has also been argued that since infertility is not life threatening, we should not permit medicalization of what is not seen as a medical problem. In our opinion, the view that medical therapy is only to be used for life-threatening conditions is nonsense. Few medical interventions are life saving, although it is to be hoped that all bring comfort. A general objection often raised is that IVF involves the use of medical resources to provide more offspring to an overpopulated world. In our view this sets a perceived need of that vague entity, the world, to have fewer people against the immediate and actual right of an individual family to fulfill its reproductive potential.

In accord, then, with most of the major bodies that have offered opinions on the subject (the Ethical Committee of FIGO, the American Society of Reproductive Medicine,⁵ the HFEA, and the majority of religions), we consider that IVF is ethically

acceptable. It has to be recognized, though, that the major religions find third-party involvement in fertility therapy objectionable.

Should Older Women be offered IVF?

The most important determinant of the outcome of infertility treatment is the patient's age, so IVF becomes, like all other forms of treatment for infertility, less efficacious as the woman ages. The most important reason, therefore, for not offering older women IVF has little to do with ethics and everything to do with the very poor out-angioplasty to people who continue to smoke- there is no ethical objection to performing the procedure, merely the knowledge that continuing to smoke heavily so changes the ratio of risk to benefit that no advantage is gained from having the operation. In the case of IVF, a take-home baby rate of 1-3% is achieved in women over the age of 40.

The major debate about infertility treatment for older women concerns the issue of egg donation.¹⁰ Here the impact of aging on fertility is avoided because that impact is predominantly exerted on the oocyte. The excellent results of oocyte donation in general have encouraged clinicians, and indeed patients, to believe that there need be no upper biological age limit to pregnancies achieved in this way.

There are empirical data describing the outcome of pregnancies achieved by oocyte donation in women past the usual age of the menopause. Broadly speaking, the risks to mother and baby are few and usually fully acceptable to the mother. So far as the child is concerned, the point is sometimes made that the life expectancy of its parents will be less than a child should normally expect. This argument should be seen in the context of children born into families of a more usual age, in which one or other of the parents dies.

Is it wrong for a woman to seek treatment if she knows that she will not be able to cope well with being a mother? We could consider it wrong if her becoming a mother is unjust, that is, if it infringes the child's rights. But the child is not really wronged because it cannot be born to other or better parents. The question that should be asked then is, "Are the interests of the potential child better served if he or she is born to a mother over the age of 50 or are they better served if the child never existed at all?" As there is no possibility of the potential child being born to any other parents, it becomes clear that there are very few situations indeed where it would be better not to be born. The very same argument applies to a reduced life expectancy resulting in the premature death of one's mother; to deny fertility treatment for that reason would be to suggest that it would be better never to have existed than for one's mother to have died when one was young. The conclusion

then is that it is rarely right to withhold fertility treatment on the grounds of the interests of the potential child not being served.

Should People who are HIV Positive be offered Infertility Therapy?

Advances in the medical management of HIV over the past few years have witnessed a change in the ethical questions raised with respect to infertility treatments for infected patients. Until about one and a half decades ago, HIV/AIDS was associated with short survival. Although it is still not curable, today it can be managed as a chronic disease with combination antiretroviral therapies producing radical improvements in life expectancy and quality of the life for both children and adults in developing countries. Currently, life expectancy with comprehensive care is estimated to be at least 20 years from the time of diagnosis. Additionally, there has been a remarkable improvement in quality of life, with most HIV-seropositive individuals leading active and productive lives. Accordingly, an increasing number of couples in the reproductive age group will be living with HIV. HIV infection may be associated with infertility, with a reduction of spermatogenesis in men and an increase in tubal factor infertility in women. Moreover, the cohort of infected individuals with stable illness with infertility is growing. While there have been tremendous advances in both HIV and infertility management, ethical discourse has not paralleled these advances, and as yet there are no clearly established guidelines that define access to fertility care for those infected with HIV.

The ethical concerns to be addressed when managing such patients are:

1. The welfare of the offspring, both with regard to the risk of mother-to-child transmission of the disease and the uncertain long-term parental prognosis.
2. Avoidance of seroconversion of the uninfected partner in discordant couples.

These concerns have resulted in many infertility units opposed to offering assisted reproductive technologies to HIV-infected couples.

Most women who are HIV positive are of reproductive age and many of the risk factors that are linked to HIV infection (for example, unsafe sexual practices) may predispose them to infertility. In considering include the risk of mother-to-child transmission, the risk that the mother will die before the child reaches majority and, in couples who are discordant for the infection, the risk that the woman will become infected by intercourse with her partner without barrier protection (and then transmit the infection to her child).

In the early days of the AIDS epidemic around 25% of HIV positive women who gave birth transmitted the virus to their children. The prognosis for infected children was grim and

those that were uninfected were likely to be orphaned very young. It seemed obvious then that treatment of infertility was inappropriate and guidelines issued by the American Society of Reproductive Medicine in the early 1990s reflected that point of view. Fortunately modern treatment for HIV infected women has changed the picture quite dramatically, although at the time of writing there has been no revision of the published advice not to treat the infertility of such patients. So what is the position now?

Recent studies indicate that when delivery by Cesarean section is combined with zidovudine therapy and the avoidance of breastfeeding, the rate of mother-to-child transmission falls to around 2%. The prognosis for infected children and infected mothers has improved substantially and will presumably continue to do so. Seroconversion of women partners of HIV positive men who have had insemination with washed sperm has been reported only once and that many years ago. There are now reports of more than 2000 inseminations with washed sperm (Pregnancy rate per insemination 14%) with no seroconversions in mother or child. It is clear therefore that progress in the management of HIV infection in relation to infertility has been sufficiently reassuring to mean that for many patients in this situation indications for infertility treatment need not depart from those in uninfected couples. On the other hand, particularities of management will still have to take account of the severity of the HIV infection, comorbidities such as infection, addiction, etc, and risks that the infection will be transmitted.

Disclosure of Confidentiality in Assisted Conception:

The Human fertilization and Embryology Authority (HFEA) Code of Practice states that any information from potential donors or clients must be kept confidential unless disclosure is authorized by law. Certain types of information may be disclosed only in the circumstances authorized in the HFE Act. If a clinic is in doubt about whether or not it should disclose information, it should refer to the HFEA. Information can be disclosed with the consent of the person or in an emergency. In principle, it is considered to be in the interests of the person that relevant information be passed on to other clinicians involved in their treatment or diagnosis. The consent should specify the person receiving the information, for example someone engaged in providing treatments or another person such as a solicitor or an interpreter.

Conclusions:

All ethical action should seek good ends; and doing good is often premised on a duty to others. Throughout time, the status of women globally has been one of second-class citizenship, based on their sex. This inequity is further compounded where women are infertile. Many other ethical issues frequently arise in infertility practice but we do not consider their detailed discussion. It is our hope that the discussions outlined here will provide a framework for considering the numerous ethical

judgments that face us in everyday practice. A few examples: Who owns gametes and embryos and who should decide their fate? What are the implications of the advances in preimplantation diagnosis; are there limits to the extent that we should change nature? Are there indeed limits to parental choice; what is our attitude, for example, to patients which say achondroplasia or congenital deafness who wish to have a child with the same condition? Should women be inseminated with their dead husband's sperm? To what extent should surrogacy be used to provide children for couples biologically unable to conceive, for example homosexual men? We may be sure that with the speed of developments in medical technology few of these problems will remain matters for armchair contemplation for very long.

References:

1. Golombok S & Tasker F (1994) Donor insemination for single heterosexual and lesbian women: issues concerning the welfare of the child. *Hum reprod* 9: 1972-1976.
2. Debate (1994) Artificial insemination of single women and lesbian women with donor sperm. *Hum Reprod* 9: 1969-1971
3. Englert Y (1994) Artificial insemination with donor semen: particular requests. *Hum Reprod* 9: 1969-1971
4. Shenfield F (1994) Particular requests in donor insemination: comments on the medical duty of care and the welfare of the child. *Hum Reprod* 9: 1976-1977
5. Ethics Committee of the American Fertility Society (1994) Ethical considerations of assisted reproductive technologies. *Fertil Steril* 62 (Suppl. 1).
6. Edwards RG & Beard HK (1998) How identical would cloned children be? An understanding essential to the ethical debate. *Hum Reprod Update* 4: 791-811.
7. Weissman IH (2002) Stem cells- scientific, medical and political issues. *N Engl J Med* 346: 1576-1579.
8. Evers K (2002) European perspectives on therapeutic cloning. *N Engl J Med* 346: 1579 – 1582.
9. Birkowitz RL (1994) From twin to singleton. *Br. Med J* 313: 373-374.
10. Discussion (1994) An ethical debate: should older women be offered in vitro fertilization? *Br. Med J* 310: 1455-1457.
11. Minkoff H & Santoro N (2000) Ethical considerations in the treatment of infertility in women with human immunodeficiency virus infection. *N Engl J Med* 342: 1748-1750.
12. Gilling-Smith C (2000) Assisted reproduction in HIV discordant couples. *AIDS reader* 10: 581-587.
13. Best Practice & Research Clinical Obstetrics and Gynaecology Vol. 19, No.-2, pp 255-267, 2005.
14. Current Obstetrics & Gynaecology (2005) 15,211-214.