Editorial-Educational

Ethical Perspective of In Vitro Fertilization

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Having a child may be a wonderful wish or dream for many couples but for millions of couples the dream may pose a major difficulty in an effort to achieve a birth of a child in a conventional way. Medicine and technology could assist infertile couples to experience parenthood.

Assisted reproduction technologies (ARTs) have advanced medically, ethically and legally over the last thirty-five years resulting in millions of in vitro fertilization (IVF) babies around the world.

ART is rapidly developing; therefore, it is very difficult to provide regulations and policies for the new methods of ARTs. The rapid development makes it difficult to monitor and assess the use of such method. In some countries, the new technologies are used by the reproductive clinics without conditions. Recently, Bahrain has been formulating its own guidelines regarding ARTs.

In this manuscript, some of the ethical concerns and the effect of IVF on the life of so many people will be discussed. In addition, ethical principles that comprise the 'Principlist Approach' will be considered. These principles are respect for autonomy, promotion of beneficence, commitment to 'Do No Harm' or non-maleficence and commitment to provide justice in healthcare.

Whom to Choose?

IVF gives choices of getting the child of one's preference by choosing the embryos. However, is this a true choice? An embryologist does the embryo selection in IVF and applies the technique of pre-implantation genetic diagnosis (PGD). This technique is praised for solving a range of issues of avoiding heritable diseases, sex of the offspring in a family, etc. PGD technique may be an option for couples, but does PGD technology give the couples the right to choose?

Two factors need to be considered: choosing the embryos with the best developmental competence and the risks of multiple pregnancies associated with the increase in the number of embryos transferred[1].

PGD is performed to produce a "genetically healthy baby". However, what counts as a "healthy" embryo? For us clinicians this is another ethical issue. Could we draw the lines between healthy, diseased, and defective embryos? Possible side effects of PGD could be anticipated if scientists and clinicians develop genetic and other means to create only healthy embryos.

The use of embryo-improvement technologies brings with it notable uncertainties and concerns. Should individuals be offered unlimited choice about how best to improve their individual embryos (and in particular individual genomes)? The choice offered to individuals are greatly influenced by culture, politics and the economy, which that often direct individual preferences about new modes of human being and new ways of being human.

It is true that making healthy babies by means of PGD or any new genetic experiment seems to mimic the role of 'playing God' as some commentators have termed it. Is this kind of choice and power over the determination of human being justified?

The new reproductive options may initiate major revisions in our thinking about the notion of 'responsibility' Now, with all new reproductive technologies, parents may ask themselves if they are doing all they can to have the 'right' child, the 'best' child genetically speaking. The choices that have come with ARTs are daunting and can cause parents to query the degree of responsibility in childbearing[3].

Child Welfare

Some believe that children born through ART will suffer to some extent. IVF could be associated with multiple births. Some authors state that children will suffer psychological damages if they discover the unusual circumstance of their conception[3]. Morality requires not only that we treat persons autonomously and refrain from harming them, but also contribute to their welfare[4].

Bonding between a human infant and an adult is a prerequisite to the physical and psychological development of the child and this creates and sustains the abilities of the parents to nurture the child. There is no minimum condition for human bonding. Bonding is a complex psychological, emotional attachment to an offspring that generates a strong sense of responsibility, not just at birth but also throughout their developmental years.

In Bahrain, the law prohibits surrogacy and artificial insemination by the donor to create a single family[5]. Legislation in the United Kingdom and Australia related to reproduction emphasize the interests of the child[6]. The Australian Victoria Infertility Treatment act 1995 states, "The welfare and interests of any person born or to be born as a result of a treatment procedure are paramount"[7].

Embryo Donation

Embryo donation began in the 1980s with egg donation; Australia was the first country using this technique in 1983[10]. Pennings G said that the success rates of embryo donation depend on the quality of the embryos, the age of the donor and the number of embryos transferred[8].

Embryo donation could be either unwanted cryopreserved embryos designated for couples who have undergone IVF or embryos created for the purpose of donation. In fact, embryo donation is minimal because the parents do not favor non-biological link. The law in Bahrain prohibits embryo donation[5].

Reproductive Autonomy and its Limits

The word autonomy derives from autos meaning 'self' and nomos meaning 'rule' or 'governance' and 'law', in other words, self-governance, liberty right, privacy, and individual choice[3].

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According to Beauchamp et al reproductive autonomy is "a liberty right and individual freedom from external constraint in addition to the presence of critical mental capacities such as understanding, intending, and voluntary decision-making capacity"[4]. Human reproduction is a crucial element of a person's autonomy in choosing their life plan[9].

It is necessary to distinguish between the right to reproductive liberty and the right to reproductive autonomy. Reproductive liberty refers to the individual's reproductive choices of when, where, how, and with whom to have children. The state should not interfere in a private matter[3].

Lack of financial resources greatly restricts access to ART[3]. To what extent should a state help in providing this service to couples with infertility problem? Is it unjust that persons with financial means can access fertility services but those without financial means must remain childless?

Beneficence

The term beneficence refers to the act of mercy, kindness, and charity. The principle of beneficence potentially demands positive steps to help others, not merely refrain from harmful acts[4].

The professionals in IVF should act to benefit the parents and the embryos. However, in Bahrain, this ethical principle was very difficult to be implemented, because of no strict guidelines on IVF practice.

The right to reproduce allows the couples to select the preferable sex or the healthy gene; therefore, they should be able to make their own decisions about which child to have but within the area of procreative beneficence.

No Maleficence (Do No Harm)

The principle of no maleficence asserts an obligation not to inflict harm on others; it also supports many more specific moral rules which includes: Do not cause any harm that affects the quality of life[5]. The initial objections to IVF were based on physical and/or psychosocial development of IVF children and aberrant parental bonding, as well as an expectation of probable social stigmatization of IVF offspring[10].

A term such as 'test tube baby' in some societies has remained. In spite of possible social stigma, it seems a common experience that any feeling of stigma is soon forgotten as the baby born and surrounded by remarkable care and love. As numbers increase and IVF babies become more common, there will probably be changes in cultural ideas and thought.

Justice

ART services provided by many governments to infertile couples are required to be governed by positive accredited health standards. This process reflects excellent qualitative health strategy. Unfortunately, ARTs in Bahrain are available in private hospitals and clinics with variation in the cost from one center to another. Allocation of public resources to those who most need them and possible financial burdens on the society, facility availability, and insurance coverage should be considered[11].

It is true that the technology to select better children will increase inequality because it will only be available to those who have the financial capabilities to pay for the fertility service.

CONCLUSIONS

Due to growing numbers of IVF centers in the past few years and hundreds of babies born, it is mandatory for the government to regulates the IVF centers and monitor their activities. People in Bahrain must become aware of ARTs from moral, ethical, legal and religious aspects and to engage in the policy-making process.

The government should participate in programs funding the ARTs in government hospitals, based on the principles of equality and justice among citizens.

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REFERENCES

1. Jones GM, Figueirdo F, Osianlis T, et al. Embryo Culture, Assessment, Selection and Transfer. In: WHO. Current Practices and Controversiesin Assisted Reproduction. Geneva: World Health Organization, 2002; 177-209.
2. Dooley D, McCarthy J, Garanis-Papadatos T, et al. The Ethics of New Reproductive Technologies: Cases and Questions. New York: Berghahan Books, 2003; 10.
3. Herring J. Medical Law and Ethics. 2nd ed. New York: Oxford University Press, 2008; 317-318.
4. Beauchamp TL, Childress JF. Principle of Biomedical Ethics, 5th ed. New York: Oxford University Press, 2001; 165,57,58,113,117.
5. Legalisation & Legal Opinion Commission. ART Law in Bahrain. http://www.legalaffairs.gov.bh/1456.aspx?cms=q8FmFJgiscJUAh5wTFxPQnjc67hw%2Bcd53dCDU8XkwhyDqZn9xoYKj3HAYv%2F4hhqhqTFmh6ut6dG5ewk0GoRMBw%3D%3D#.WziQ8dUzaM Accessed in January 2018.
6. Savulescu J. Procreative Beneficence: Why We Should Select the Best Children. Bioethics 2001; 15(5-6): 416-419.
7. Infertility Treatment Act 1995, Version No. 010: Act No. 63/1995. http://www.legislation.vic.gov.au/Domino/Web_Notes/LDMS/LTObject_Store/LTObjSt2.nsf/DDE300B846EED9C7CA257616000A3571/93F5C7F19E9048C6CA2577610022D62E/$FILE/95-63a010.pdf Accessed in January 2017.
8. American Society for Reproductive Medicine. Third Party Reproduction Sperm, Egg, and Embryo Donation and Surrogacy: A Guide for Patients. American Society for Reproductive Medicine, 2006:12.
9. Pennings G. What are the Ownership Right for Gametes and Embryos? Advance Directive and Disposition of Cryopreserved Gametes and Embryos. Human Reproduction 2000; 15(5): 979–986.
10. Peterson MM. Assisted Reproductive Technologies and Equity of Access Issues. Journal of Medical Ethics 2005; 31: 280 -285.
11. Larijani B, Zahedi F. Ethical and Religious Aspects of Gamete and Embryo Donation and Legislation in Iran. Journal of Religion Health 2007; 46:399-408.