**An overview of the Ethical issues in sperm donation**

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**Abstract:**

The rapid advancements in ART (Assisted Reproductive Technology) have also introduced social, political and ethical controversies in all aspects assisted reproduction. Now, it becomes imperative not only to celebrate the medical achievements of ART but also to discuss the ethical values and dilemmas in relation to assisted reproductive technologies. This paper attempts to present an overview of findings and reports from various research works of scholars using Pubmed and Google scholar. The following topics are considered in this paper: Ethical issues in Anonymity of the donor (Right of the donor to be anonymous Vs Right of parents to seek information), donor anonymity to the concerned Offspring (Right of the child to know Vs Right of parent’s privacy), ethical dilemmas in selective human reproduction, ethics related to religion and culture in sperm donation. The paper concludes that everyone involved in this scientific process –the medical community, governmental agencies, regulating authorities, health agencies, sperm donors, parents (as prospective parents expecting a child & as parents of a child), should equally contribute towards understanding each other’s point of view to establish an organized& mutually acceptable system of sperm donation.

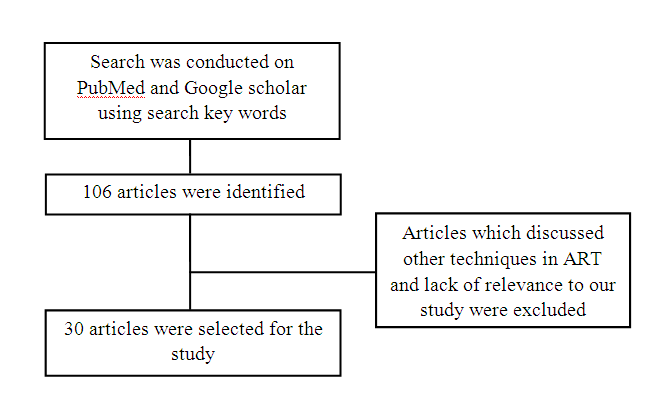
**Introduction**

Infertility affects an estimated 15% of couples globally and males are found to be solely responsible for 20-30% of infertility cases and contribute to 50% of cases overall. However, this number does not accurately represent all regions of the world [1]. The introduction of Artificial Insemination by Donor (AID) in Assisted Reproductive Techniques has made it an integral part of the management of infertility in many countries, while in others it is strictly forbidden or restricted [2]. Although infertility is not a public health priority in many countries, it is a central issue in the lives of the individuals who suffer from it. It is a source of social and psychological suffering for both men and women and can be a major source of stress for the couple. Although peer and social pressures to have children vary from country to country, what remains common in all is the desperate need of infertile people to give birth to a healthy child. In recent years, developments in the field of ART have intensified the hopes and the wishes of infertile people to resolve their infertility and have resulted in an increasing demand for such services in both developed and developing countries.Since1978, nearly 1 million babies have been born worldwide as the result of assisted reproductive technology (ART) of one form or another. It has been estimated that in some European countries up to five per cent of all births are now due to ART [3].

While developments in ART have evolved rapidly, so have the ethical, social and political controversies which surround nearly all aspects of ART. Sperm donation and AID have posed so many social and ethical questions and have attracted significant public attention. This review focuses on the ethical issues and dilemmas related to sperm donation.

**Methodology**

Two major electronic databases (PUBMED, Google scholar) were searched using a specific search strategy. English language publications in electronic databases were searched with the following search keywords in all possible combinations: (sperm donation \* or sperm donation in ART\*) AND (ethical issues\* or anonymity\* or cultural issues\* or selective reproduction). No restrictions were set for time of publication.



**The review article discusses four main ethical dilemmas in sperm donation**

* Ethical issues in Anonymity of the donor (Right of the donor to be anonymous Vs Right of parents to seek information)
* Donor anonymity to the concerned Offspring (Right of the child to know Vs Right of parent’s privacy)
* Ethical dilemmas in selective human reproduction
* Ethics related to religion and culture in sperm donation

**1. Ethical issues in Anonymity of the donor** (Right of the donor to be anonymous Vs Right of parents to seek information)**:**

A sperm donor, irrespective of whether he donates his sperm for altruistic purpose or for payment in exchange, is primarily concerned about two things - his right in not having obligations imposed without his consent by the recipient parents and his choice to have an interest or not to have an interest in being contacted by the offspring. Similarly, sperm recipient parents will expect certain degree of choice in the sperm they intend to use (like what physical and personality traits the donor possesses), and hence they will be very interested in the information that is available about the donor. Also, once parents, they may or may not want their child to have any information about the donor and the chance of future contact. Thus it creates an ethical dilemma regarding donor anonymity.

Currently, countries have different regulations and legislation with regard to donor anonymity. ASRM (American Society for Reproductive Medicine) recommends anonymous or directed (non-anonymous) sperm donation in the USA [4], where, non-anonymous donation is acceptable, if all parties agree to it. Whereas in 2005, UK legislation was changed requiring any donor of sperm used in AID or IVF to agree to the disclosure of their identity to any offspring reaching the age of 18 [5]. Similarly, in 2000, Holland passed a new law allowing only non-anonymous sperm donation and Iceland permits both anonymous and non-anonymous donation [6]. In China, only an anonymous sperm donation policy is carried out because of traditional Chinese culture [7]. Likewise in India, according to ICMR guidelines, sperm donations have to be anonymous [8].

Now, a study in India concluded that donor anonymity would lead to a vicious cycle of paid donation and result in the exploitation of donors and recipients in India [9]. A Dutch study conducted among 105 couples, reported that 63% of the heterosexual couples and 98% of the lesbian couples had chosen an identifiable donor [10].

A research in New Zealand conducted among 192 couples identified that an overall, 41% rated having non-identifying information about the recipient couple(s) as an important aspect of sperm donation [11]. Another research article stated that the importance of knowing one’s genetic heritage for health reasons, particularly in light of the growing focus on genetic causes of disease, is less likely to be contested than its relevance and importance in terms of social and identity issues [12].

A Dutch study reported that among donor insemination prospective parents, 57% preferred an anonymous donor, 31% would have liked non-identifying information about the donor and the prospective parents' major concern was to know more about the medical/genetic background of the donor [13]. While a New Zealand study conducted among 37 donors and receiving 55 couples, informed that the sperm donation be secrecy [14]. Also, a Danish study conducted among healthcare professionals, consisting most of gynecologists, reported that there was a majority for donor anonymity in sperm donation [15].

A major practical argument against non-anonymous gamete donation is that introducing a system of known donors would seriously reduce the number of potential donors and in doing so could jeopardize the whole ART program [16]. But, a research study in Sweden established that there has been an increase in number of donors after non-anonymity legislation, suggesting that the possibility of future contact by genetic offspring has not had the negative impact on the availability of donors predicted [17]. Similarly, a New Zealand study found that 68% of sperm donors surveyed were agreeable to their identity being made available to their donor child [18].

While the argument for & against non- anonymous sperm donation is widely debated, a Belgian study suggested a Double track policy for anonymity. That is the decision to be anonymous or not, is to be made between the parties concerned. Donors may choose between anonymity or identification and recipients can opt for an anonymous or identifiable donor [19]. Given the socio cultural ethos of India, anonymity can be a preferred choice. However one need to keep in mind that anonymity would lead to paid donor scenario which could lead to several complexities and ethical debates. [20]

**2. Donor anonymity to the concerned Offspring** (Right of the child to know Vs Right of parent’s privacy)**:**

The United Nations' Convention on the Rights of the Child (1989) establishes one of the rights of the child as the right to know one's parents (Article 7) [21]. This concept applied in the debate about donor anonymity, it has been expressed as the child's right to know the identity of their gamete donor. The first country to remove the anonymity of gamete donor’s, was Sweden, in the year 1984 and it allowed the child to find out the identity of their sperm donor [22]. Austria also allows the child to gain identifying information. Switzerland also guarantees the child access to data concerning his lineage, entitling him to receive identifying information about his donor [23]. Lately, two Australian jurisdictions, Victoria & Western Australia have abolished donor anonymity and allow children access to the identity of their gamete donor [24]. In New Zealand, The Ministerial Committee on Assisted Human Reproduction (1994) recommended that gamete donors should not be anonymous [25]. In India, according to ICMR regulation, the child at the age of 18, is entitled to know all the necessary information about the sperm donor, including DNA fingerprint (if available), but not the donor identity (name and address) [8].

Research studies have argued that being denied the knowledge about one's biological origins can be harmful to donor offspring [26, 27]. The uncertainty of their origin could have a detrimental effect on the child's mental health. A report indicates that the secret of donor insemination can create tension and division within families and that an eventual discovery of this deception may cause great damage to family relationships [28, 29]. A comprehensive study by the Ethics Committee of ASRM among American people supports disclosure from parents to offspring about the use of donor gametes in their conception [30].

Research studies argue that in the case of gamete donation, there are compelling reasons for not telling the child. And the prime reason given is that, it is not in the best interests of the child to know [31]. An English study found that 70% of birth mothers of donor insemination children justified the decision not to tell their children of their mode of conception on the ground that secrecy would protect the child [32].This concern was echoed in another study, conducted among donor insemination practitioners, where they feared that telling the donor child how they were conceived would cause severe social and psychological problems [26]. Also, parents were apprehensive that if they told the child, other family members may find out and then the extended family might disapprove and reject the child [33]. Later, if the knowledge became widespread the child might be teased and isolated at school.  As human beings, the real desire to create a natural family set up is reflected in the high numbers of couples who decide not to tell their children how they were conceived. In a study of assisted reproduction families in Europe it was found that none of the donor insemination parents had told their children the method of their conception [32]. Also, another compelling reason stated by parents for not explaining the child is that parents should have a right to privacy and if they wish to keep such information confidential that is their prerogative [34].

Whether or not the child is harmed by not knowing their biological origins, it has been argued that donor offspring have a right to the truth about their conception and origins. A study argued that, `Truth is always better than deception. No one has the right to erase part of yourself, even if it is only a minor part'. That is, it is the fundamental right of every human being to know everything about them, including their origin of birth and no one has to the right to hide it from the concerned individual.[35].

**3. Ethical dilemmas in selective human reproduction:**

ART is capable of giving people more choice than ever before in choosing what their future children will be like. Embryo selection techniques have enabled prospective parents to choose the sex of their child, to avoid the birth of a child with a disability, or even to choose deliberately to create a disabled child [36].

It is argued that advances in concepts of Pre-implantation genetic diagnosis (PGD) are nothing but a new era of eugenics. This eugenics is different from the state sponsored eugenics of the Nazi era. Here, it is an individual market-based eugenics, where children are increasingly regarded as made-to-order consumer products [37].

Examples of deliberate use of ART to suit the parent’s tendencies are increasing day after day. But what lies ahead is even disturbing. With advancement, in not so distant future, reproductive technology could also be used to select and implant embryos that are more intelligent, or extroverted, or better looking—to simply put to create ‘designer children’ [38,39].

Nowadays, a child is a commodity and prospective parents shop for them. Take the cases of America’s two contrasting sperm banks, one a non-profit and another for profit enterprise, the Repository for Germinal Choice and California Cryobank. The Repository for germinal choice intended to collect the sperm of Nobel Prize-winning scientists and make it available to women of high intelligence, in hopes of breeding super smart babies. Though the plan failed due to non co operation of Nobel laureates, the bank still managed to attract young, promising scientists to this program. On the other hand Cryobank recruits graduates from MIT, Harvard and Stanford for sperm donation (with hefty payments) and markets it sperm as premium, claiming the source of sperm as prestigious with specific height, color of eye & hair and dimples [40]. Marketing sperm donation is acceptable, but do we really appreciate sperm as a commodity? Such selections also pose a question, if we are becoming increasingly intolerable to people of different colors and abilities? Are we proceeding towards a race based reprogenetic future?

**4. Ethics related to religion and culture in sperm donation:**

Religion and culture play an important role in accessing modern advancements of science and technology, by common people. In many societies, science is acceptable only within religious and cultural limits. Medical ethics are based on the moral, religious and philosophical ideals, and principles of the society in which they are practiced. It is therefore not surprising to find that what is ethical in one society might not be ethical in another. Acceptance of ART is also defined by these limits.

In most Latin American countries that are influenced by the Catholic Church, whatever minimal intervention falls outside the standard, which is other than heterosexual couples may easily be criticized. Gamete and embryo donation is a sensitive subject especially in societies where extreme social and cultural importance is given to genetically related children [41]. Even, among western thinking Catholics, who are not so strict, may still have problems with some of the techniques and for whom they may be provided (for example, single, lesbian or postmenopausal women). Hence providers sometimes have to decide what should be done on a case-by-case basis and these decisions are ostensibly very difficult [42].

In the middle eastern societies, where life is in accordance with Islamic values, the regulations based on religious ‘fatwas’ made it clear that gametes of a third person should not be used and the fertilized eggs should be transferred to the uterus of the wife whose eggs were within a valid marriage contract. No egg donation, sperm donation, embryo donation or surrogacy is allowed [43].

In certain societies religion and law prevent couples from using donated gametes but in many, they are ethically and legally accepted and in some the restrictions are ignored in the desperation to have a child [44, 45]. Determined couples even travel abroad to access donor gametes and ARTs that are not accessible in their own, for legal or other reasons [46].

 In conformance with traditional Asian attitudes, a Chinese study indicated that, only anonymous sperm donation policy was carried out in china because traditional Chinese culture or philosophy. When parents have children through donor insemination, they prefer to keep this procedure secret from other related parties, including their child [7].

In India, which is mostly a patriarchal society, motherhood has connotations of respect and power. A woman is considered “complete” or “real” only when she becomes a mother. She proves her womanhood in this way and feels secure in her marriage because it is believed to bond the marital relationship. As a mother she feels she has accomplished what she was supposed to do as an adult woman [47]. Number of studies have reported the fact that failure to be ‘a complete woman’ could even lead to social isolation within the community [48-51]. Also, using donated sperm in India is usually a matter of secrecy as couples do not want their infertility revealed and disturb the social and biological connection between the mother, father and child [52]. In the same line, in another research study, there was also a concern amongst recipient couples to protect the male partner from the stigma of infertility and a fear that if the child was told that he was not the biological father the relationships between the two might suffer [53].

**Conclusion:**

Sperm donation though has shown promising results for infertile couples, come with its own ethical issues. It is compounded by the social religious and cultural beliefs of each country. Thorough and considerate review of all opinions makes it clear that sperm donation is seen as a breakthrough scientific advancement tool, which could help millions of desperate couples & single parents around world. At the same time, there is a unanimous call that the application of sperm donation should be guided by thoughtful, progressive and ethically binding regulations.

Everyone involved in this scientific process –the medical community, governmental agencies, regulating authorities, health agencies, sperm donors, parents (as prospective parents expecting a child & as parents of a child), should equally contribute towards understanding each other’s point of view to establish an organized& mutually acceptable system of sperm donation. Every donor should consider the complete well being of the unborn child-while donating his sperm, every parent should respect the rights of the child & the donor, professionals & policy makers should understand the basic & emotional expectations of common man.

Unlike the developed world, developing nations are just beginning to formulate their own set of procedures and regulations in ART. During this process it should become the responsibility of global health agencies, like WHO, to protect the interests of vulnerable populations and weaker nations. A fine balance should be achieved in delivering technology to everyone in need, by crossing established community barriers.

In India, there seems to be a need to improve awareness in respect to sperm donation among general population. According to ICMR guidelines, sperm donations have to be anonymous in India. That is neither the donor nor the recipient has the right to know each other. Under this condition, with large pool of desperate couples to have a child, along with lack of wide knowledge on ART, there is every possibility that the prospective parents will be cheated and even harassed. To reduce these incidents, government and health agencies should publicize and educate population about sperm donation guidelines. Also, when possible, the government should make anonymity a choice of the concerned parties.

Currently, ICMR guidelines indicate that the donor inseminated offspring, at the age of 18, is entitled to know all essential details of the sperm donor, except his identity, only if he/she wishes to learn about it. And it is not mandatory for the parents to inform the child about his donor conception at any point of their life. Numerous studies and international agencies have underlined that it is the right of the child to know his genetic lineage, including the sperm donor’s identity. India should work on the direction of progressing towards guaranteeing the right of the child, on par with accepted international standards.

State agencies and educational institutions should possibly do more to create an understanding atmosphere of human infertility, which could reduce the burden of stigmatization of prospective parents seeking medical attention. Efforts should be made to make male infertility more visible and acceptable, which will have huge impact on the physical and mental well being Indian women, who are being harassed & isolated for not a fault of their own in our traditionally patriarchal society.

ART is making giant leaps through embryo selection techniques and is promising choice of babies to the wealthy and mighty. In a country like India, where a large majority is obsessed with male child and remorselessly practices female infanticide, government should ensure proper regulations are in place to prevent sex selective pregnancies.

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