

# Sex Selection In Indonesia: An Ethical and Legal Perspective

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## Abstract

The development of Assisted Reproductive Technology (ART) may provide some beneficial effects. However, some ethical and legal issues have been associated with ART, particularly sex selection. Indonesia allows sex selection in ART for the second child without mentioning medical or non-medical reasons. Sex selection based on medical reason is ethically acceptable. However, sex selection for non-medical reasons remains controversial. Sex selection in ART contradicts to the ethics that includes natural law, religion, human rights, eugenics, and designer babies. Sex selection may also generate gender discrimination. Some countries in the world have accepted sex selection for medical reasons which is not limited by the order of child. Indonesia needs to review the sex selection policy in ART through consideration of the medical or non-medical reasons either in sperm separation technique or PGD.

**Key words:** sex selection, assisted reproductive technologies, ethics, legal

## Introduction

The development of technology affects all aspects of life, including health. Technology that is created by humans may increase the quality of human life, one of which is in the field of reproduction [Basic, et al, 2010]. Assisted reproductive technology (ART) has been identified as a result of the medical technology development which may help couples who are trying to conceive.

In its development, ART not only provides the opportunity to obtain offspring but also allows a couple to get a child the desired sex. Sex selection using ART can be achieved by separation of X and Y chromosomes in the sperm (sperm separation) or using preimplantation genetic diagnosis (PGD). [Dondorp, et al, 2013].

## Sex Selection Using ART

Attempted sex selection has occurred for some decades with changes in timing and positioning during coitus and also with food intake. Along with the development of technology, sex selection has been attempted through prenatal procedures such as ultrasonography (USG), amniocentesis, and maternal blood tests [Lipman, 1991]. Sex selection in that way is considered unethical because it may cause selective abortion which against the law in some countries. Sex selection using ART through pre-implantation

procedures has been developed either by separation of X and Y chromosome containing sperm or pre-implantation genetic diagnosis (PGD). Nevertheless, sex selection using ART raises several controversies whether for medical or non-medical reasons.

## Medical and Non-Medical Reasons

In general, sex selection is attempted for either medical or non-medical reasons [ACOG, 2013]. Non-medical reasons refer to social reasons such as social and economic factors, the tendency towards a particular gender, religion, personal reasons and family balance.

Sex selection for medical reasons is linked to sex-linked genetic diseases and uses genetic screening technology. Pre implantation Genetic Screening (PGS) or Pre implantation Genetic Diagnosis (PGD) may help a healthy fetus to be implanted into the uterus during in vitro fertilization process [Bumgarner, 2007]. This process provides an alternative solution to prenatal diagnosis and selective abortion for some types of genetic diseases related to the sex such as Thalassaemia which tends to affect girls and Duchene Muscular Dystrophy which tends to affect boys [Daar, 2005].

In various international discussions, sex selection for medical reasons is acceptable and in line with ethics. A study by Marcy Darnovsky of *The Center for Genetics and Society* in April 2009 demonstrated that 36 countries include 25 countries from Europe, 8 countries from Asia, two countries from Australia, and one country from North America refused to use IVF for sex selection for non-medical reasons [Darnovsky, 2009]. Austria, New Zealand, South Korea, Switzerland, and Vietnam refuse sex selection using IVF both for medical or non-medical reasons. In the UK, the Human Fertilization Embryology Act (HFEA) allows sex selection only for medical reasons. The underlying diseases that may affect sex selection are severe diseases that are associated with sex such as Thalassaemia and Duchene Muscular Dystrophy. Serious illnesses that may cause genetic defects and severe mental illness are also allowed to be treated so that they prevent the occurrence of eugenics (gene conversion) in humans [HFEA, 2003].

In some countries sex selection with ART are also allowed for trans-generational reasons which may prevent inherited diseases. Although, the inherited diseases remain unknown in the embryos that are obtained, but sex selection to prevent inherited diseases is acceptable [Brenoord, 2012].

The use of ART for non-medical reasons such as social reasons, particular gender desired or family balanced, is controversial in the international community. Rejection of sex selection for non-medical reasons is considered to violate the natural process. The undesired gender or balancing gender in family is not an anomaly and should not be used as a reason to change the sex. In contrast to medical reasons, sex selection is expected to improve the quality and extend life expectancy [Daar 2005].

For those who agree with sex selection due to non-medical reasons said that sex selection is a right the same as the right to reproduce. They said that the desire to obtain the particular sex of a future child is one of the autonomous rights of parents to be cherished and respected. However, that statement is rejected by many. For those who disagree argue that the autonomy rights of parents should not deprive the rights and freedoms of children.

On the other hand, there is an idea that if the gender of children in line with parent expectation then it will reduce the rate of abortions, child neglect and abuse because the child of the desired gender will be cared for and loved by their parents. But if this condition was denied and questioned parents might be less loving and accepting if they have too many demands and expectations of what their child should be, including what gender the child should be.

The legalization of sex selection for social reasons may cause potential gender discrimination. In some societies, males are preferred compared to females. In China and India, males are preferred by a majority of citizens for religious, economic, and social reasons. ART may provide great opportunities for sex selection. Therefore, ART is interesting in medical business. Selective abortion rate is also growing quite rapidly due to the emergence of assistive technologies such as ultrasound that may detect the baby's gender before birth. The tendency toward the male gender in the country leads to abortion and birth sex ratio (SBR) which may increase the ratio of males compared to females (115: 100). Baldauf reported that in India in 2006, there were 874 girls for 1000 boys born. This situation leads to gender inequality. The Indian government has tried to overcome this problem by giving money of 2500 rupees for every birth of a daughter, and 25,000 rupees at their 18 year old birthday [Baldauf, 2006].

Sex selection due to non-medical reasons is triggered by the desire of parents to have a child with particular gender. In some families, having both male and female children gives pride for themselves because they can feel how to care for children of different gender. This reason is so-called family balance. For those who agree with the family balance argument suggest that the desire of parents to have both male and female children indicated an ideal family and should be encouraged by ART. However, this argument should be re-examined. If this argument is correct, then for family who do not have both male and female children is a non-ideal family. In fact, having either male or female children is a natural random process.

Other non-medical reasons for sex selection are the emergence of eugenics and designing a baby as the parent desire. Each couple would like to have a child who healthy and perfect either physically or mentally. If sex selection based on non-medical reasons is granted, then another reason for designing baby such as smart, beautiful and handsome will be unstoppable. Manipulation of genes and reproduction will develop

and further problems will arise, if there is no policy to overcome these consequences.

### **Sex Selection in Indonesia**

Indonesia legalizes sex selection using ART. However, the implementation was not based on medical or non-medical reasons but based on the sequence of children. ART is permitted for the second children. This policy is regulated by Government Regulation No. 61, Article 44, 2014 on Reproductive Health. Further questions have arisen, if sex selection in ART is performed on the first child for medical reasons. ART could be implemented for a second child.

Legalization of sex selection in ART without differentiating medical or non-medical reasons may cause several issues in ethics, law, and religion. The Indonesian Society of Obstetrics and Genealogical (POGI) consists of professional obstetricians suggests that sex selection in ART should be implemented only for medical reasons. This statement is contained in the Guideline of Ethics and Professionals for Indonesian Obstetrics and Genealogiy, article 28. Sex selection based on medical reason is used to avoid further consequences such as abortion. This argument is encouraged due to poor acceptance of parents regarding the gender of their children. Whereas, in Indonesia abortion is allowed for medical indications and emergencies such as rape victims.

Sex selection for non-medical reasons are also against religious rules. Sex selection in ART should be done in accordance with the development of science and technology when it does not conflict with religious norms. According to Islam, the majority religion in Indonesia, sex selection for non-medical reasons is contrary to the holy Qur'an: "*He created man with the will and his power solely in the form of what he wants*" [QS. Al-Infithar (82): 8]. According to the fatwa of the Islamic World League in November 2007, sex selection is only allowed for medical reasons [Islamic World League, 2007].

Some argue that sex selection for non-medical reasons should be taken into account in Indonesia to prevent gender discrimination. In Indonesia, there are some ethnicities that prefer children of a particular gender. For example, Batak people in North Sumatra prefer male gender because the descendant of the family is determined by the male line. This tradition is the so-called patrilineal system [Baiduri, 2014]. Conversely, Minang people in West Sumatra prefer female gender because the descendant of the family is determined by the female line. This tradition is the so-called matrilineal system [Stark, 2013]. Although there are no reports of gender discrimination in Indonesia but sex selection for non-medical reasons increases the risk of gender discrimination among people of particular traditions. Sex selection may cause an imbalanced gender ratio.

Although sex selection should be done for medical reasons, Indonesia still faces many challenges. Lack of resources and instruments for screening and diagnosis of genetic diseases through PGS or PGD

may underlie the challenges. There is no regulation for PGD implementation so it may cause a gap or potential violations of ethics and other laws. Informed consent and counseling between parents and service providers of ART are required to prevent the consequences of sex selection such as selective abortion. Parents are expected to accept the final result of this process, assume the child is not a product that should be perfect, but as a party that should be accepted and cherished whatever the conditions.

The use of ART for sex selection should be addressed wisely. ART should be used for medical reasons rather than non-medical reasons. Therefore, technology should not be used to deprive the rights and nature of human beings.

### Conclusion

Regulation of sex selection using ART should allow ART to be used for medical reasons rather than non-medical reasons. Indonesia should review the rules regarding sex selection using ART on the order of a child, to just those based on medical and non-medical reasons. Advanced regulations concerning sex selection are needed to prevent the negative effects that may not conflict with ethics, law, and religion in Indonesia.

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