

SEX SELECTION FOR FAMILY BALANCING IN NIGERIA: CASES, METHODS AND EFFECTS

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Abstract: Concerns about the ethics of selecting the sex of a child predate current techniques of prenatal genetic diagnosis (PGD) and sperm sorting. The only methods previously available were highly problematic, as they involved infanticide or abortion of an unwanted sex. There are less problematic methods than the earlier methods now available. There is increasing acceptance of family balancing as a reason for sex selection, but some people remain opposed to broadening the indications for sex selection of offspring beyond family balancing. Nevertheless, parents may have good reasons other than family balancing for choosing the sex of a future child. The global efforts to restrict sex-selective abortion and gender identification technology do not appear to be working. Son preference still exists in many parts of the world. The UN Statement suggested practical common sense solutions, such as increasing educational opportunities for girls. Unfortunately, effecting such policies is much more difficult than so-called legislative “fixes.” Until son preference is combated, the legislative efforts to stop sex selection will not be effective and may end up hurting females rather than helping them. This paper examines the legal cases of sex selection in Nigeria, with much emphasis on its methods and effects on family balancing. The paper however derives its strength from both primary and secondary materials.

Keywords: sex selection, family balancing, gender identification technology, prenatal genetic diagnosis (PGD).

1. INTRODUCTION

Sex selection has been in existence for a very long time. People have been attempting to choose the sex of their baby for thousands of years, whether it was by making offerings to the gods or eating a specific kind of food. The world over, and especially in Africa and Asia, couples show a preference for particular sex of children; either male or female. This preference may arise due to economic reasons, customs of the people, or simply for a “gender balanced family”. Whatever the reasons, the fact still remains that couples would like to be able to choose the sex of their children. However, recently, science has caught up with this desire.

Since ancient times, sex selection has always been on the agenda for many homes. Even the old Chinese believed that the male sperm comes from the left testis. Aristotle, for example, advised those wanting a boy to have intercourse when the wind is in the north. Other people have assumed that special diets, the timing of intercourse in relation to ovulation, binding up one of the testicles during intercourse, or the position during intercourse, might facilitate sex selection. In Nigeria for instance, some people believe that if some people drink some back of tress or leaves they will have male children.

Apparently, every folk culture has its own strategies. However, Modern science has provided people with new and more effective, methods for sex selection. This is commonly seen as a welcome development insofar as sex selection for medical reasons is concerned. However, sex selection for non-medical reasons has been the subject of continuing ethical and public policy debate in many countries. The latest round in this debate was fuelled by the public consultation held in

the United Kingdom on the initiative of the Human Fertilisation and Embryology Authority (HFEA) in 2002, and the HFEA's subsequent decision to continue to limit the use of sex selection techniques in licensed centres to cases 'in which there is a clear and overriding medical benefit'¹. This is now also given a further legal underpinning in the amended British Human Fertilisation and Embryology².

2. WHAT IS SEX SELECTION

Sex selection refers to the practice of using medical techniques to choose the sex of offspring. The term "sex selection" encompasses a number of practices including selecting embryos for transfer and implantation following IVF, separating sperm, and selectively terminating a pregnancy. Sex selection is the attempt to control the sex of the offspring to achieve a desired sex. It can be accomplished in several ways, both pre- and post-implantation of an embryo, as well as at childbirth. Sex selection, also known as Gender selection, refers to families attempting to influence or select the sex of their baby either through low-technology³ (such as, the Shettles Method⁴, the Whelan Method⁵, Douching to change the pH balance in the vagina, taking fluids or cold medications to alter the cervical fluid, taking vitamins and mineral supplements or special diets, or by using gender selection kits, many of which are bought off of the internet)⁶ or high-technology means⁷ (such as, Ericsson Method and IVF with Pre-implantation Genetic Screening/Diagnosis (PGD/PGS))⁸.

Consider the following hypothetical scenarios: Three couples schedule consultations with Dr. Adejo, a well-known Gynaecologist and infertility specialist. Adeola and Bidemi have the first consultation. They have been married for ten years and are both carriers for Tay-Sachs disease⁹. They have a 25% chance of passing this disorder on to their children. Three years ago, the couple had their first child, Femi, who was born with Tay-Sachs disease. After a gruesome six months of suffering, their son died. The couple desperately wants to have another child but does not want to bear the pain of losing another child or have a child that will suffer for the entirety of his or her life the way Femi did.

Comfort and Daniel have the second consultation. They are an unmarried couple whose five year old daughter, Nicole, has leukemia. Nicole's doctors believe that they can best treat her with a stem cell transplant, typically performed by transplanting stem cells found in an umbilical cord¹⁰. Comfort and Daniel want to have another child as a "savoir sibling,¹¹" a child conceived with a particular genetic makeup so the stem cells from that child's umbilical cord can be used to save the older sibling's life. They are worried; however, that the child will not be a genetic match for Nicole and they will not be able to use the stem cells for Nicole's benefit.

Nneka and Onyekahave the third consultation. The couple has four healthy daughters but they have always wanted a son. Nneka and Onyekahave would like to have another child, with the hopes of finally having a boy. Nneka is getting older and is worried that if they do not have a son this time around they may never have one and Onyekahave may marry another wife.

¹Human Fertilisation and Embryology Authority. *Sex selection: choice and responsibility in human reproduction*. London: HFEA; 2002. Also *Human Fertilisation and Embryology Authority. Sex selection: options for regulation*. London: HFEA; 2003.

²Human Fertilisation and Embryology Authority. *Act 2008*

³Low-tech means not involving high technology; using long-established technology.

⁴The **Shettles Method** of sex selection is a natural method devised by Landrum B. Shettles, M.D., a pioneer in in vitro fertilization research at Columbia University.

⁵The **Whelan Method** of gender selection is virtually the opposite of the **Shettles Method**. A woman named Elizabeth Whelan, Sc.D., published a book, *Boy or Girl: You Can Pick the Sex of Your Child*, in 1977 based on the theory that biochemical changes in a woman's body may favor the Y-bearing (boy producing) sperm occur earlier in a woman's cycle.

⁶Low tech methods of gender selection, available at <http://www.gendersselectionauthority.com/low-tech-methods-of-gender-selection> accessed on 28th August 2015.

⁷Hi-tech means using the most advanced and developed machines and methods.

⁸High tech methods of gender selection, available at <http://www.gendersselectionauthority.com/high-tech-methods-of-gender-selection> accessed on 28th August 2015.

⁹A devastating disorder that typically results in death during the first few years of life. Medline Plus, Tay-Sachs Disease, <http://www.nlm.nih.gov/medlineplus/taysachsdisease.html> accessed August. 28, 2015.

¹⁰National Marrow Donor Program, available at <http://www.marrow.org> accessed 28/8/2015.

¹¹KatrienDevolder, Preimplantation HLA typing: Having Children to Save Our Loved Ones, *31J.Med. Ethics* 582, 583, 2005.

These couples have something in common, they are all seeking Dr. Adejo's help to have the "perfect" child. Dr. Adejo assures each couple that he will be able to help them in some way. In these hypothetical scenarios, the couples are each enquiring about having the "perfect" child, however, their definition of the ideal child and the reasoning behind their desires seem to differ greatly. Adeola and Bidemi want to have a healthy child that will not have to suffer through the same devastating disorder that took their first son. Daniel and Comfort want to save their five year old daughter Nicole, but it is unclear whether they would actually want to have another child if Nicole was not sick. Nneka and Onyeka want to have a son, but it is unclear why; perhaps to simply balance their family, or perhaps because many people have an inherent desire to have a son to carry on the family name¹². The crucial goal in these three scenarios is essentially the same. Nonetheless, their intentions for seeking sex selection differ.

3. METHODS OF SEX SELECTION

A variety of techniques are available for sex identification and selection. These include techniques used before fertilization, after fertilization but before embryo transfer and, most frequently, after implantation.

- **Pre-fertilization**

Techniques for sex selection before fertilization include timing sexual intercourse and using various methods for separating X-bearing and Y-bearing sperm (1–5). No current technique for pre-fertilization sex selection has been shown to be reliable¹³. Recent attention, however, has focused on flow cytometry separation of X-bearing and Y-bearing spermatozoa as a method of enriching sperm populations for insemination. This technique allows heavier X-bearing sperm to be separated; therefore, selection of females alone may be achieved with increased probability¹⁴.

Some of the techniques employed under this method are Ericsson method, IVF/PGD technique, Sperm sorting and Timing methods.

- **Post-fertilization and Pre-transfer**

Assisted reproductive technologies, such as IVF, make possible biopsy of one or more cells from a developing embryo at the cleavage or blastocyst stage (6). Fluorescence in situ hybridization can be used for analysis of chromosomes and sex selection. Embryos of the undesired sex can be discarded or frozen¹⁵.

- **Post-implantation**

After implantation of a fertilized egg, karyotyping of fetal cells will provide information about fetal sex. This presents patients with the option of terminating pregnancies for the purpose of sex selection¹⁶.

4. REASONS FOR SEX SELECTION

There are many different reasons why a family might want to choose the sex of their baby, but for this work, it shall be classified under three major classes which are: medical and non-medical reasons.

- **Medical Reason**

Sex selection for medical reasons is the type of sex selection done in order to avoid the transmission of disease to a next generation. This reason is widely regarded as acceptable because it is aimed at avoiding health risks rather than at providing the prospective parents with a child of a specific sex¹⁷.

¹² Rachel E. Remaley, "The Original Sexist Sin": Regulating Preconception Sex Selection Technology, *10HEALTH MATRIX* 249, 277–78 (2000).

¹³ Vidal F, Fugger EF, Blanco J, et al. *Efficiency of MicroSort flow cytometry for producing sperm populations enriched in X- or Y-chromosome haplotypes: a blind trial assessed by double and triple colour fluorescent in-situ hybridization*. (*Hum Reprod*. 1998) 13(2):308-312

¹⁴ Kanavakis, E; Traeger-Synodinos, J. *Preimplantation Genetic Diagnosis in Clinical Practice*, (*Journal of Medical Genetics* 2002) 39(1): 6-11.

¹⁵ Kanavakis, E; Traeger-Synodinos, J. *Preimplantation Genetic Diagnosis in Clinical Practice*, (*Journal of Medical Genetics* 2002) 39(1): 6-11.

¹⁶ Kanavakis, E; Traeger-Synodinos, J. *Preimplantation Genetic Diagnosis in Clinical Practice*.

From the scenarios listed earlier, Adeola and Bidemi's reasons for sex selection is an example of medical reason and also that of Comfort and Daniel. Often the reason a family wants to select the sex of their child is for a medical reason. This could be because the family is genetically predisposed to passing on a sex-linked genetic disease, many of which are inherited by the mother but only affect her male children.

Sex selection can help in preventing genetic disease; for example, haemophilia which occurs only in boys, so a couple at risk of passing on this disease might choose to only have girls. Another medical reason for sex selection may in fact be psychological. For example, Family rebuilding for couples who have lost a child and want to have another child of the same gender.

- **Non-Medical Reason**

Sex selection for non-medical is also referred to as social reasons is the type of sex selection done in order to satisfy parental procreative desire, that is, because of a sex preference that the prospective parents would want to see fulfilled¹⁸. This reason has been the subject of recurrent ethical and public policy debate in many countries.

This practice is ethically controversial and most countries have restricted or even banned the practice. Any other reasons other than to avoid sex-linked genetic disorder is thus termed non-medical reason. Some examples of reasons for sex selection for non-medical reasons are;

- Cultural reasons for example, those of Nigeria or Kenyan culture may prefer boys
- Family balancing for couples who already have a child of one sex and want to ensure they have a child of the other
- A couple may have always dreamed of having a child of a particular sex and want to ensure that happens.

Parents may have many important reasons for wanting to select the sex of their offspring either boy or girl, and there can be a wide variety of reasons for this preference. The experience of rearing a child of a given sex may matter a great deal to them¹⁹. They may wish to balance their family in order to have the experience of raising children of both sexes. The desire for balancing maybe especially strong for couples who have already had several children of one sex and who are unwilling to attempt a further pregnancy without assurance that the additional child will be of the preferred sex. In such cases, sex selection is a material aspect of that person's reproductive decision making. Sometimes there's a background cultural privileging of one sex over another, leading parents to feel that a child of that sex is more important and therefore more worth having. Parents may have many different reasons to wish to parent a child of a particular sex at a given point in their reproductive lives, reasons that do not necessarily reflect gender bias.

However, while sex selection can be effective means of avoiding the birth of a child with a sex-linked genetic disorder, this work however focuses on the use of sex selection for non-medical reasons.

5. EFFECTS OF SEX SELECTION

Sex selection has been argued to have so many effects on the foetus, mother and in fact the society at large. In this work we shall look at the major effects of sex selection on the foetus, mother and the society.

As a result of the ban or restriction of sex selection in some countries such as china, India and South Korea, there is a potential unintended consequence from such bans. Specifically, one may be concerned that there are parents with strong son preference who will neglect unwanted daughters and this may reduce the well-being of girls who are born into such family.

Couples have relatively less control over the sex of their children than they do over the number of children, since the sex of children is determined through biological rather than behavioural processes. For this reason, as more couples in recent years tend to rely on sex-selective induced abortion to accommodate both a preference for boys and a small family- sized norm, a distortion of the sex ratio at birth is emerging.

¹⁷Kanavakis, E; Traeger-Synodinos, J. *Preimplantation Genetic Diagnosis in Clinical Practice*.

¹⁸Aghajanova L, Valdes CT. *Sex selection for nonhealth-related reasons*. (Virtual Mentor. 2012) 14(2):105-111

¹⁹Dondorp W, De Wert G, Pennings G, et al. *ESHRE Task Force on ethics and law 20: Sex selection for non-medical reasons*. (Hum Reprod.2013) 28(6):1448-1454.

There is also the issue of population sex imbalance (i.e. substantially more males than females, or females than males). There is a fear that most parents who want to select the sex of their child will choose to have sons, and that this will lead to a population skewed in favour of male children, many of whom won't be able to find partners when they grow up. Girl children (it is sometimes argued) may also suffer in the case of population imbalance, because if they're relatively scarce, this may lead to their being treated as commodities to be bought (or kidnapped) and sold, rather than as full persons with their own preferences and rights. In some countries where sex selection is widely practised it has indeed led to population imbalance²⁰. For example, in China in 2005, it was estimated that more than a million 'extra' males were born and that the number of males under the age of 20 exceeded the number of females by around 32 million.

In addition, there is concern that sex selection involves inappropriate control over nonessential characteristics of children and may place a potential psychological burden on, and hence cause harm to, sex-selected offspring²¹.

Demographic consequences are predictable: the imbalances at birth result in cohorts with skewed sex ratios which are now reaching adulthood. There are indications that this could have longer-term social implications, especially in the form of a "marriage squeeze"- leading to increased migration, including bride trafficking and abduction, increase polyandry and forced marriages in the shorter term. There are some examples of social tension, but some theories stating that the excess of males will inevitably result in violent conflict are as yet hypothetical and should be approached with great caution²².

6. CONCLUSION

Sex selection has been argued to have significant negative consequences in some countries and cultures and serious objections must be taken to the practice where these are likely to occur. However, this is not enough reason to think that such consequences (in particular, population sex imbalance) would occur in Nigeria, and hence this is no reason not to legalise it. Sex selection may sometimes be driven by sexist attitudes, but it needn't be, and often isn't, and it would be unfair simply to assume that everyone who wishes to choose the gender of their baby is a sexist. Even where there are sexist beliefs and attitudes in play (such as gender stereotyping by parents), sex selection is unlikely to be substantially harmful in the Nigeria context, although such cases may be morally objectionable, that is not on its own a strong enough reason to prohibit the practice. Generally, law is not expected to enforce morality in every case. Rather a regulating body is put in place to monitor and supervise this practice and help minimise any harmful effect.

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²⁰Wendy Rogers, Angela Ballantyne and Heather Draper, *Is sex selective abortion morally justified and should it be prohibited?*(*Bioethics*, 21, (2007)), 520-24: 522.

²¹ Sex selected offspring, available at http://www.eurekaalert.org/pub_releases/2003-09/sari-ssf092303.php accessed on 31 August 2015.

²²There are some studies that allude towards sex selection resulting in social imbalances. For instance, see the article on "Prenatal sex selection—When prenatal testing can threaten social harmony", in *Practical Ethics: (Ethical Perspectives in the News)*, University of Oxford, 16th June 2009). Available at <http://www.practicaethicsnews.com> accessed on 31 August 2015.

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