# PERSPECTIVE

# Use of Sex Selection Techniques for Social Reasons: A Menace

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Sex selection skewed towards males is a malady that our society is grappling with. The desire to have a child of preferred gender has encouraged people to move beyond the ambit of traditions and explore scientific methods. Despite the controversies around sexselection for social reasons and strong regulatory mechanisms in place, the demand for such measures has not gone down. On the contrary, traditional practice of consuming indigenous medicines during pregnancy for a male child continues. Recent research highlights the harms of this practice in the form of birth defects and stillbirths. This has led to stricter enforcement of PCPNDT Act and has stimulated the propagation of messages on the harms of these practices in the community.

Keywords: Gender discrimination, PCPNDT Act, Sex ratio.

ender discrimination is a rule rather than an exception in most parts of the Indian society, even today. The matriarchal and matrilineal culture that the ancient world was part of, gradually gave way to a patriarchal culture assuming men's supremacy over women based on mere physical strength and their role in procreation [1]. The world has since then witnessed a gradual transition in this culture in present day society, where a son is seen as a torch bearer of the family name, heir to the family property, and one who can lit the funeral pyre. These traditions have necessitated the need to have a son by all means, as has been reported from various parts of the world including India.

#### **EVOLUTION OF SEX SELECTION TECHNIQUES**

Since time immemorial, people have been experimenting with measures such as having intercourse at a specific time and on certain days of the month, its relationship with lunar cycle, intake of specific diet and many more, on the basis of beliefs that a child of a preferred gender would be born if such measures are undertaken. This eventually gave rise to a myriad of other methods of ensuring a child of desired gender [2]. Further, as man progressed to the modern era, despite developments on various other fronts, gender selection through infanticide received social sanction in some communities.

The desire to have control over the gender of the unborn child took the form of several modern preconceptional measures like Shettle's and Ericsson's techniques [2-4]. This was followed by more sophisticated methods like sperm separation techniques [5-7]. While this kind of scientific upheaval reflected an innate desire to have an informed choice of giving birth to a baby of a preferred gender, this also proved to be a boon for couples with a X-linked or Y-linked disorder in the family. The sex pre-selection thus emerged as a tool to control such familial disorders. However, in India where X- or Y-linked disorders are rarely discussed, sex selection techniques are being misused to bear male offsprings.

Among post-conceptional measures, female feticide emerged as a major reason for abortions following the routine use of ultrasonography, a safe non-invasive method to detect fetal abnormalities and well-being. Its easy access and high reliability incited pregnant women to misuse this technology to resort to sex determination between the 3rd and 4th month of pregnancy, resulting in subsequent abortions if the fetus was a female, and thereby risking their lives. This practice, in particular contributed to a reduction in sex ratio over time.

Even today, families continue to conform to traditional practices for a male offspring. Many families resort to '*su badalne ki dawai*', or sex-selection drugs (SSD) [8] – medicines to be consumed during the first 2-3 months of pregnancy in order to facilitate the birth of a male baby. The medicines are generally known to be given in varied doses and prescriptions by faith healers, quacks, grocers, and doctors. These are prepared using a mix of herbal and non-herbal ingredients [8]. Reports indicate the widespread nature of the usage of such medicines [9,10]. A study from Northern India

highlighted that 0.5% of pregnant women consumed indigenous medicines for securing birth of a male child. This proportion increased to 10% if the first child was a girl and to 40% if they had two daughters [9].

Studies conducted in Haryana are testament to the fact that consumption of SSDs is associated with illeffects such as birth defects and stillbirths [11,12]. The prevalence of their intake varied from 7.3% to 10% among live born babies without apparent birth defects. However, among babies born with defects, the use rate was as high as 25%, while among stillbirths, it was around 16%. The results of these studies indicate that a pregnant woman consuming such medicines was at thrice the risk of giving birth to a baby with visible birth defects and the risk of stillbirths increased by around 2.5 times. The findings were similar to another study conducted in a tertiary hospital in Northern India on more serious congenital malformations [13]. Further, a biochemical analysis of these medicines to detect the presence of phytoestrogens and testosterone showed a very high level - almost 10 times higher than the maximum permissible limits [14].

### **REGULATORY MEASURES AGAINST GENDER SELECTION**

In the 1990s, when a skewed sex ratio became apparent in favour of males in India, the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) (PNDT) Act, 1994 came into being to regulate gender selection practices. However, laws did not deter communities from misusing advanced technologies for gender selection. Not only post-conceptional, but also pre-conceptional techniques were being sought after, and these did not come under the purview of the initial PNDT Act. For this reason, the Act was amended in 2003 to the Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act (PCPNDT Act) which prohibited sex selection of any kind [15].

Similar initiatives were taken in other parts of the globe as well [16]. Human Fertilization and Embryology Authority (HEFA), UK placed emphasis on the impact of sex selection on the child born [17]. HEFA recommended that sex selection for non-medical reasons should not be permitted in the UK. The ethical issues surrounding the newer technologies to have designer babies, such as right to life and equal treatment to female children are profound [18].

The Ethics Committee of the American Society of Reproductive Medicine have also indicated that gender selection for non-medical reasons should be strongly discouraged as it poses unwarranted gender bias, social harm and results in diversion of medical resources from genuine medical needs [19]. Several other countries across the world have prohibited gender selection techniques since scientific feasibility does not necessarily lead to desirability [20,21].

### **EVIDENCE TO ACTION – LESSONS FROM HARYANA**

Government of Haryana is committed to addressing the menace of sex selection and improving the situation. Study reports were published in national as well as local dailies and in social media, both in English and in vernacular, to disseminate the information to the community. Additionally, a light and sound play titled "*Aakhir kyon*" was staged to inform the community of the harmful effects of SSDs. Several requests were put forth to stage it in different parts of north India. Efforts are underway to address the demand.

Under the ambit of PCPNDT Act, First Information Reports (FIRs) are being lodged and raids are being conducted on those who are found to sell these spurious medicines or sell gender selection kits with the promise of facilitating the birth of a male child. A total of 360 such raids have been conducted successfully in a year's time in Haryana in 2015-16, out of which 36 raids were conducted on people selling SSDs, including two convictions. Strict enforcement of the Act has resulted in a slow but steady reversal of sex ratios in several districts of the state. For the first time in history, the sex ratio in Haryana has crossed 900. The commitment of the leadership of the country has led to the launch of 'Beti Bachao Beti Padhao' nation-wide campaign. Further, the pro-activeness of the Chief Minister at the state and District Magistrates at the districts, has made this campaign visible right up to the grass-root level. The country is slowly beginning to witness this campaign in its true spirit and meaning, exemplified by Haryana, and in the days to come it will definitely reach a successful milestone.

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