

The 50 Million Missing Women

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The epidemic of gender selection is ravaging countries like India & China. Approximately fifty million women are “missing” in the Indian population. Generally three principle causes are given: female infanticide, better food and health care for boys and maternal death at childbirth. Prenatal sex determination and the abortion of female fetuses threatens to skew the sex ratio to new highs. Estimates of the number of female fetuses being destroyed every year in India vary from two million to five million. This review from India attempts to summarize all the currently available methods of sex selection and also highlights the current medical practice regards the subject in south-east Asia.

KEY WORDS: Sex selection; fetal sex determination.

*Application of technology should be in
consonance with the laws of nature.*

—Dr A.P.J. Abdul Kalam
Director
Defence Research & Development
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INTRODUCTION

We are not talking about long-range nuclear-tipped missiles here, but this quote applies to the epidemic of gender selection that is ravaging countries such as India and China. Approximately 50 million women are “missing” in the Indian population. Generally three principal causes are given: female infanticide, better food and health care for boys, and maternal death at childbirth. The situation is similar in China and other Asian and Middle Eastern countries. Prenatal sex determination and the abortion of female fetuses threatens to skew the sex ratio to new highs—with unknown consequences. Various methods now exist for attempting to choose to have a baby

of a desired sex. In a male-oriented society such as India, the commonest methods employed by the vast majority of the populace, usually after two female children is ultrasound directed fetal sex determination at 13/14 weeks gestational age and in more affluent urban areas the chorionic villus sampling technique at 8/9 weeks. Sex selection has become a national crisis in India and China, where cheap mobile ultrasound clinics travel the countryside testing pregnant women. Women who discover that their fetus is female often opt for legal abortions referred to as MTPs (Medical Termination of Pregnancy). Estimates of the number of female fetuses being destroyed every year in India vary from two million to five million. This practice has reportedly skewed sex ratios from the natural 106 boys to 100 girls to as high as 130 boys to 100 girls. Such results led both China and India to ban ultrasound testing for the purpose of sex selection. Recognizing and seeking to control this perilous trend, the government of India outlawed prenatal sex determination on January 1, 1996. The new law makes it illegal to advertise or perform the tests (with a few exceptions) and punishes the doctor as well as relatives who encourage the test and the woman herself with fines from 10 to 50 thousand rupees and jail terms from 3 to 5 years. But all that this act did was to bring about an entirely new

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underground market for sex determinations. Doctors now charge a premium for the services. In a bureaucratic administrative setup, this gave corrupt government officials a lucrative business opportunity to extort bribes from flourishing sex selection clinics across the country.

HISTORICAL DEVELOPMENTS

Attempts to select children's sex have a long history, from the herbal nostrums recommended by traditional healers to more recent therapists' advice about which forms of intercourse are allegedly likely to produce girls or boys. The selection of gender has been a quest of couples for as far back as recorded history allows. Early drawings from prehistoric times suggest that sex selection efforts were being investigated by our earliest ancestors. Later history shows intense interest in sex selection by early Asian, Egyptian, and Greek cultures. Anaxagoras, a fifth century B.C. Greek philosopher, believed that semen from the right testicle produced sons, while semen from the left testicle resulted in the birth of a daughter. Believing the same theory, men in the Balkans would squeeze the right side of their scrotums in the hope of increasing the odds of having a son. A misconception that persisted till as late as the sixteenth century was that male babies developed in the right side of the uterus. *The Perfumed Garden*, written by Shaikh Nefwazi, recommended turning the woman on her right side after the man had ejaculated. The *Charaka Samhita*, a manual written around 800 B.C. in India, advised prospective parents who expressed a preference for sons that they should "abstain from intercourse for a week, gazing every morning and evening upon a majestic white bull or stallion, being entertained by pleasant tales, and feeding their eyes on men and women of gentle looks." Mistaking vaginal secretions for semen, ancient Greek, Hebrew, and Indian literature stated that both men and women produced semen. Sons were born when the male semen was predominant. Masturbation after a period of sexual abstinence usually results in the ejaculation of a greater amount of semen. Based on this observation, sexual abstinence was recommended for men who wanted sons. An ancient Chinese birth chart predicts sex of the child based on the age of the mother at conception and the month of conception. This is followed by documented scientific efforts beginning in the 1600s to sway the chances of achieving a pregnancy by a variety of methods. Research and work carried out in the 1980s and 1990s have finally provided methods offering the chance of

obtaining a desired pregnancy gender outcome that ranges from excellent to virtually guaranteed.

Some natural gender selection methods are based on the observation that a conception attempt, relative to ovulation, is more likely to result in the conception of a specific sex. Attempts to time conception for a specific sex relative to ovulation have been made by measuring hormonal levels, basal body temperature, and cervical mucus observations. Other natural methods include radical diets, frequency and positions of intercourse, vaginal douching, etc. These methods are commonly used throughout the world, but the effectiveness of these natural gender selection methods have not been well documented.

MORE RECENT DEVELOPMENTS

Timing intercourse for gender selection is based on the life and mobility of sperm; it has been suggested that the androsperm (Y-bearing sperm) are stronger and faster but do not survive for very long. Gynosperm, (X-bearing sperm), on the other hand, are slower but have greater staying power, consequently a longer life span (1). Intercourse position is also based on the mobility of sperm, with shallow penetration (missionary position) favoring the conception of a baby girl, with deep penetration (rear entry) favoring the conception of a baby boy (1). The Whelan Method is in complete disagreement with the Shettles method and suggests the opposite (2). Whelan says to have intercourse 4–6 days so as to conceive a boy before your basal body temperature goes up. To conceive a girl, intercourse should occur 2–3 days before ovulation.

In 1984, the World Health Organization published a study that failed to confirm gender predominance when timing conception relative to ovulation (3). Unterburger had made observations with respect to alkalinity and acidity and gender predetermination (4). Women recommended to use an alkaline douche (for overcoming fertility problems) conceived a higher than usual number of boys (4).

Langendoen and Proctor first published *The Pre-Conception Gender Diet* in 1982, on the basis of results reported by Stolkowski and Lorrain in 1980 (5). The theory is that by altering your diet to include and exclude certain foods, the conditions in the reproductive tract will be directly affected, increasing the odds of conceiving a particular sex. This theory is also consistent with the oriental philosophy that everything has a yin or yang quality and the foods supplied in the boy diet (boys and alkaline) are all yang and the