

Where have all the young girls gone?

The rise in female foeticide in India

The widespread availability of ultrasound scans in India is giving rise to abortion of female foetuses on an unprecedented scale, according to research by Sonia Bhalotra. The sharp change in the sex ratio could lead to many social problems.

An ultrasound scan in India costs about £10, which is inexpensive for the rich and affordable for the poor. Advertisements in rural areas highlight how small this sum is relative to the cost of a dowry. So while sex-selective abortion was made illegal in India in 1994, it has continued since that date at an increasing pace.

Pre-natal sex detection technology is improving continuously, enabling more reliable resolution of the foetal image earlier in pregnancy. At the same time, the development of smaller and more mobile ultrasound scanners has increased market penetration and rural households are rapidly catching up with urban households.

It is striking that the emergence of this phenomenon in the mid-1980s and its intensification in the mid-1990s coincided with a period of sustained economic growth in India. The growth take-off is widely associated with deregulation of industry and trade. An unintended consequence is that it became easier to import ultrasound machines and, subsequently, for multinationals to start large-scale production in India.

In this way, the practice of sex selection has been facilitated by an intersection of recent

economic, demographic and technological change with deep-rooted social preferences. We estimate that nearly half a million girls are aborted each year, which is more than the number of girls born annually in Britain.

The practice is concentrated among relatively rich and educated families. This flies in the face of ideas about backward women being enslaved to old customs. But it is consistent with 'modern' women being more receptive to new technologies and wanting fewer children. These factors appear to override

Indian parents conduct pre-natal sex selection even after they have a son: they seem to want two boys and one girl

lower self-reported 'son preference' among women of higher socio-economic status.

Conditional on wealth and education, it is Hindu women, especially high caste women, who conduct sex selection. There is no discernible evidence of sex selection among Muslim women. A likely explanation is that, even if they have a similar preference for sons, their religion is more abhorrent of abortion.

Before our study there was considerable anecdotal evidence of abortion of girls in India and suggestive changes in the sex ratio, but no clear causal evidence. As there are no direct records of the practice, sex selection is inferred from changes in the sex ratio at birth.

By analysing data on half a million births in India over more than three decades, our research identifies a dramatic decrease in the ratio of girls to boys being born after, and only after, the arrival of ultrasound machines. This trend is only evident for children born

second or later in the family birth order: there is no decrease in the ratio of girls to boys at birth among first-born children.

We therefore treat the sex of the first birth as random. On this basis, we argue that families in which the first birth is, by chance, a girl, are more likely to engage in sex selection of subsequent conceptions than families in which the first-born is a boy. We further argue that the incentive to practice sex selection increases with parity, as the number of births approaches target fertility.

Our strategy involves comparing the chances of a girl as compared with a boy birth before and after the arrival of ultrasound, in families with and without a first-born son, at different parities. The implicit multiple 'differencing' in this approach takes out of the equation factors other than foeticide that might influence the level and trend in the sex ratio at birth.

While we find that the availability of ultrasound scans plays a crucial role in enabling abortion of girls, it also plays a positive role in improving pre-natal care. It would not therefore be desirable to ban the use of scanners. But once they are in use, it is difficult to monitor the ban on pre-natal sex detection because families and (often unqualified) private medical practitioners collude in evasion of the law.

The phenomenon of female foeticide touches on many of the dilemmas of modern times, including the ethics of scientific progress, gender equality, human rights and freedom of choice. Even where preferences over child sex are relatively balanced, as in the UK, so that issues of gender inequality and an unbalanced demography are muted, the ethical issues are live. For example, the UK

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Human Fertilisation and Embryology Authority has banned sex selection for primarily moral reasons.

Son preference is an old tradition in India and other parts of Asia. Previously, poor families with limited resources for food and healthcare made sons a priority because they offer security in old age. Over the centuries, neglect of daughters led to a gradual erosion of the share of women in society. What is new is that girls are now being consciously eliminated before birth on such a large scale that it is creating a sharp change in the sex ratio.

Indian families put enormous weight on having a son. Elderly parents live with sons till they die, at which point the son lights the funeral pyre, which is meaningful in Hindu culture. But these needs are met by one son. A striking and novel finding of our research is that parents conduct pre-natal sex selection even after they have one son. Indian families appear to want two boys and one girl.

The scale of the problem suggests a future of unmarried men at the bottom of the socio-economic distribution in India, increasing violence against women and other ills of an unbalanced society.

This article summarises 'Where have all the Young Girls Gone? Identifying Sex Selection in India' by Sonia Bhalotra and Tom Cochrane, CMPO Working Paper No. 10/254 (<http://www.bris.ac.uk/cmipo/publications/papers/2010/wp254.pdf>)

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Trends in the proportion of females at birth by birth order and previous sex composition (five-year moving averages)

Figure 1: First births and later births in families with previous boys show no tendency for a deficit in girls to emerge with the appearance of ultrasound

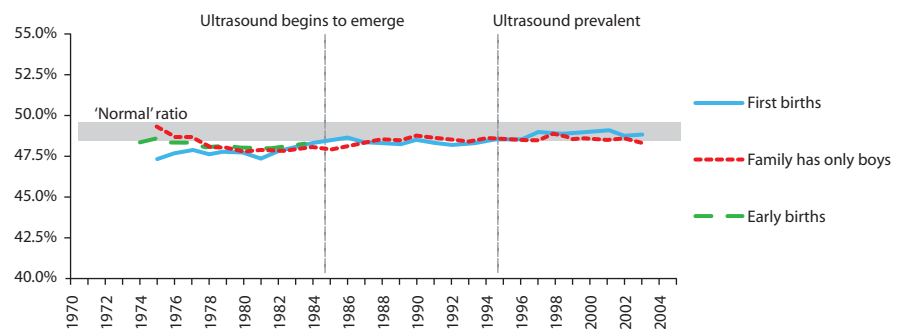


Figure 2: Among second births, the probability of a girl birth falls sharply with the appearance and spread of ultrasound but only in families with no previous boys (note: for second births, families with at least one boy are effectively families with only boys)

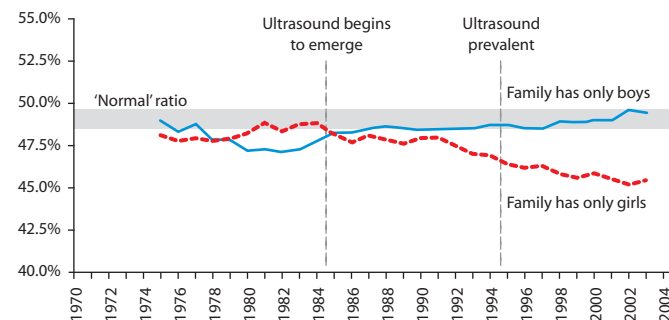


Figure 3: Third births behave like second births but show a larger divergence between families with and without a previous boy

