

Sex-Selective abortions: A Heinous form of Gendercide

Prof. Madhurima Verma
Department of Sociology,
University School of Open Learning,
Panjab University, Chandigarh, India
madhurima764@gmail.com

Abstract

Preference for son and prenatal sex-selective abortion is gender-based violence. Sex selective foeticide is basically a consequence of sexist attitudes and institutions of Indian society. There is preference for male child by parents especially in north western states of Haryana and Punjab in India. These states that have experienced quite rapid economic development in recent decades show lowest sex ratio in India. Sons are considered to be security for old age. They are preferred because they are considered to have a higher wage-earning capacity (especially in agrarian economies) and they continue the family line. On the other hand, discrimination against girls in India is related to dowry and patriarchal family systems. For centuries, son preference has led to postnatal discrimination against girls. This discrimination against women has become so embedded in Indian society that some families would rather not have daughters at all. Persistent son preference and the spread of prenatal sex determination technology have led to the practice of prenatal sex selection thus making the juvenile sex ratios highly masculine. In spite of the fact that Government of India has banned these tests, there is a wide misuse of modern sex-selection tests today, spreading from large cities to smaller towns to villages, and from more affluent groups towards the lower strata of society. There is a nexus between Doctors, health workers and families who don't want daughters in this misdeed. Additionally, advocates of population control with cynical logic of 'Fewer women = Lesser Procreation' have placed Indian women in the category of 'endangered species'. An attempt has been made in this paper to focus on causes of declining sex ratio and its adverse social consequences.

Key words: Sex selection, Female foeticide, Son Preference, Discrimination against Girl child, Violence against women.

Introduction

Sex ratios at birth refer to the ratio of male to female children, born in a specific period such as a year, or among all the children ever born to cohorts of women. In most societies around the world more boys are conceived at birth and there is more female foetal wastage consequently more boys are born. It leads to a fairly stable sex ratio at birth in countries with good vital registration, of approximately 104 to 106 boys per 100 girls (Johansen and Nygren, 1991). Subsequently, mortality rates at every age are slightly greater for boys than for girls due to a

combination of biological and behavioural factors. Thus, with increasing age the population sex ratio balances out with a slight tilt in favour of females. Most societies irrespective of level of income or development exhibit this pattern. In societies that have marked preference for male children however, a different pattern is seen. In South Asia, population sex ratios are persistently male dominant. These skewed sex ratios at birth combined with masculine sex specific survival rates have generated the problem of millions of “missing” females in East and South Asia (Coale 1991; Sen,1992).

Sex Ratio thus becomes an important social indicator to measure the extent of prevailing equity between males and females in a society at a given point of time. Sex ratios within India fluctuate according to district, region, age groups and castes which points to differences in beliefs, practices, differing levels of discrimination against females, and the effect of migration when large numbers of men leave rural areas to work in the cities. Furthermore, even when districts ratios are combined, India’s overall sex ratio remains very low. According to the Census of India 2011, the sex ratio is 940 for the country as a whole. The sex ratio in India had always remained unfavourable to females. It varies from region to region and from state to state. In some parts of the country these are in favour of girls whereas in others it shows quite reverse trend. There is clear cut north-south and east-west divide in the country when it comes to sex ratio. The Northern zone traditionally had a wheat-based agrarian economy (where women are less involved), and social systems marked by dowry, exogamous marriage and the seclusion of women. In contrast, the South is broadly characterized by rice-based agrarian systems (with a much greater role for women), endogamous marriage systems, marriage payments that are more egalitarian between bride’s and groom’s families, and less seclusion of women. Women’s literacy and education levels are also much higher in the South than the North. The status of women is higher in the South, which also has lower fertility and mortality rates, and more “normal” sex ratios (Dyson and Moore, 1983). The present paper focuses exclusively on two states i.e. Punjab and Haryana in northern part of the country which has lowest sex ratio in the country.

The dramatic fall in the sex ratios in India, especially in the states of Punjab and Haryana, in the last decade has alarmed demographers and social scientists. Research shows that sex determination tests have diffused rapidly in India. The tests really took off around 1981, when a private clinic was opened in Amritsar, Punjab, by a physician trained in the United States, who openly advertised the use of amniocentesis for sex determination. Various clinics and hospitals followed suit, and the tests spread from Punjab to other states and from big cities in these states to small towns and villages (Kishwar,1987). According to Parikh (1990) between 1978 and 1983, around 78,000 female fetuses were aborted after sex determination tests in India (Parikh, 1990). Technology that allowed parents to either predict the sex of the foetus and selectively abort the female foetus, or select the sex of the foetus, was welcomed. This nearly universal

demand for the technology in turn motivated several doctors to open clinics all over the country, and to advertise their services widely. The advertisements have worked in tandem with word of mouth to fuel the rapid spread of the tests. Both the profit potential of the tests and their compatibility with the Indian social, economic, and ideological fabric, then, has insured rapid diffusion across state, class, caste, and community lines.

Sex selective abortion is the most heinous form of violence as it takes 'right to be born and right to life and right to live' from females. This gender based violence at birth is the manifestation of the patriarchal hegemonic tendency of eliminating recruitment of females in human society. Sex Selective abortion is highly compatible with Indian society. Parents are used to giving blatantly favorable treatment to boys, and this can easily be extended to the foetus. Abortion does not carry a stigma in most Indian communities, and the Indian government has made abortion legal on broad grounds, and has sought to make it widely available. Evidence suggests that such abortions are being used predominantly by those with one or more living daughters, but no living sons (Booth et al.1994; Ganatra et al. 2001; Khanna, 1997). However, one study in North India found distortions in the sex ratio even among first births (Dahiya,1998) and over a quarter of the women having sex selective abortions in a study in western India already had a living son (Ganatra et al. 2001). While women opt for sex selection out of choice or force of circumstances needs independent research in itself. Doctors on the other hand who promote and offer sex selection are often driven by profit motives and they continue to justify their decision on humanitarian grounds. According to them they are helping to relieve the woman and her family of economic and social burdens, especially if they already have girl children. (Kulkarni, 1986). Such attitude led to the proliferation of clinics with ultrasound facilities all over India, even in remote rural communities without access to other basic health facilities. It resulted in unabated sex selective abortions in country and consequently sex ratio reached to all time low. To check this imbalance in sex ratio a law banning the use of prenatal technologies for sex selection, the Pre-Natal Diagnostic Techniques (PNDT) Act, was passed in 1994, which came into effect in 1996. However, 2001 census showed that the states of Haryana and Punjab continued with low sex ratio of 861 and 876, respectively. Further, the Census of India 2011 reported deterioration in sex ratio in the age group of 0–6 years at an alarming rate. This is occurring even among the educated, affluent families. Thus, abortions legislation failed to check the sex selective abortions. Kishwar(1993) points out that laws are not likely to be effective in society where son preference is strong and deeply embedded in patriarchal structure. These are difficult to implement. Sex selective foeticide is most heinous form of violence existing in India due to sexist attitudes and institutions of our society.

The adverse sex ratio in this part of country is not recent phenomenon, in fact from the time census figures are available, and Punjab has had the dubious distinction of being the Indian state with the most negative sex ratio. In the early days of the British Raj, colonial officials were

surprised by the widely disproportionate sex ratios in some North Indian communities and speculated about their causes. For example, the 1868 Punjab census, identifying Muslims, Hindus, and Sikhs as the major communities, noted an excess of males in all groups, the phenomenon characterized all sects, ages, and districts of the Punjab. The practice of sex-selective child care and a strong preference for boys is still evident in this part of the country.

History points out that Punjab because of its prosperity and strategic location in North West India attracted many outside invasions which indirectly influenced its culture. The geographic location and historical making of Punjab played a crucial role in building negative notions against women in the state. Additionally, there was a demand of male workers for agrarian society. Thus, the culture of the state adopted both female infanticide and male preference. Studies of son preference refer to patriarchy by way of an explanation, but we need to sharpen our understanding of what exactly this means and how it affects the way in which daughters are received in a family. Many societies are patriarchal, or to put it more precisely, patrilineal and patrilocal. Patrilineality includes passing on the main productive assets through the male line, while women may be given some movable goods in the form of dowry or inheritance. This constrains women's ability to sustain their economic level without being attached to a man. Patrilocality involves a couple residing at the man's home, which goes hand in hand with inheritance especially in peasant societies where land is the main productive asset that is inherited.

This description would broadly fit many societies around the world. Why then is strong son preference manifested only in some societies and not in others? The answer to this lies in the extent of flexibility in the logic of patrilineal kinship. In Punjab, the logic of patrilineality is very rigid. For example, it would be extremely rare for a daughter to inherit land. A man without sons might adopt one from among the man's male kin, or take another wife or concubine. The driving motivation is to continue the family line by whatever means possible. Belonging to a lineage confers membership of society, so enormous importance is placed on the maintenance of genealogies, carefully recording lineage ties between men for generations on end.

Kinship systems and the construction of gender

In states of Punjab & Haryana, the traditional social organization prevailing in the early decades of this century (and to a large extent also today in rural areas) was one in which clans had their own territories. Villages had their dominant clan (sometimes more than one), to which most men belonged. Strict exogamy was maintained by these clans, so wives would be brought in from elsewhere. A strong sense of clanship pervaded the village, making men from other clans feel like interlopers. Thus, it is that only men constitute the social order and women are the means whereby men reproduce themselves. Women are the biological reproducers, but it is through the father that a child acquires a social identity and is incorporated into the social order. Since only boys remain in the lineage, the significant social reproduction is that by the

father of the son. Women are recorded, if at all, only in the capacity of the wives of the men who gave rise to succeeding generations of men. Men are the fixed points in this social order, and women are the moving points because lineages are strictly exogamous. When women marry, they leave their home and lineage, to be absorbed into their husband's lineage. Neither in their father's nor their husband's lineage can a woman ever aspire to the central position which is the simple birthright of any male born into the lineage.

When she marries, a woman is perceived to have been permanently exported from the family: her "slot" in the household ceases to exist and a new "slot" are created for incoming brides. In the rare cases when women do return, they and their parents have to struggle to make it work, because other members of the village resist the incursion on their property rights. In a patrilineal kinship system where marriages are arranged on principles of dowry and hypergamy, and where women are objects of exchange along with other forms of wealth, excess female mortality is argued to be an inevitable outcome (Goodkind,1995).

Economic factors influencing son preference

It is commonly argued that parents prefer sons because their perceived net value is higher than that of daughters. The argument is that sons can help on the family farm, and provide old age support to their parents while daughters have much less to offer and can even be a major economic drain if their marriage expenses are high. These are the terms in which discrimination against daughters has typically been explained, at least in India.

Old age support

The question of old age support is a good example of how kinship systems create economic incentives for son preference. Explanations of son preference place much emphasis on the fact that sons can provide old age support. In India, the majority of old parents live with their married sons. After marriage, a daughter is usually regarded as part of her husband's household and is generally expected to take care of her in-laws, but not her parents. Therefore, daughters are of limited long-term value for their own parents. Thus, in a society where parents lack institutional alternative to the family as a source of social insurance, they are likely to be concerned about their own security in old age (Kabeer, 2000).

Dowry

Dowries entail a transfer from the bride's family to the groom and his family at the time of marriage. Studies widely agree that the custom of dowry is a key issue in the understanding of the persistent son preference in India (e.g., Diamond-Smith et al. 2008; Jaggi 2001). The costs of daughters' weddings are a major drain on household resources in India, and there is growing evidence of dowry inflation (Clark,1987). Indeed, advertisements for sex-selective abortion sometimes state that making a small expense on daughters feels like a net drain on household resources.

Labor force participation: paid employment and the value of wives versus daughters

The main form of female labor force participation in agrarian settings is through women working on the family farm. Women's work on the family farm tends to be discounted as merely an extension of their domestic work. Little distinction is made between whether the woman did the harvesting and the cooking. This is further complicated by the fact that the extent of under-reporting is greater where women's position in the kinship system is more marginal. For example, official statistics show that the State of Haryana in Northwest India has an especially low rate of female labor force participation, but in fact women do almost all the manual labor on the fields through the whole crop cycle, while men spend short periods of time ploughing with tractors and operating tube wells (Rao, 1993).

A few economists blamed the Green Revolution for devaluing women in Punjab and Haryana. It dramatically increased food production but adversely affected women's work participation. Evidence from Punjab, Haryana, UP, and Tamil Nadu, shows that the Green Revolution narrowed the range of agrarian tasks, displaced women from traditional occupations, and placed them at the bottom of the new labour hierarchies. Women's occupations became increasingly impermanent and casualized due to technological changes coupled with traditional norms about the gender-based division of labour (Das,1987). Though the initial impact of Green Revolution technology was to increase the demand for labour to fertilize, weed, and harvest the new High Yielding Varieties (HYV's), this trend was short-lived, and did not much involve women. Other related factors identified as intensifying discrimination against girls during the past decades include marginalization of female labour as a result of the shift to mechanized forms of agriculture. The shift to cash crops too served to create enormous wealth within certain communities, particularly in North India, which led to higher demands for dowry and a heightened perception of female liability within the household (Sen,1982).

Thus, even if women are responsible for most of the actual labor input into agriculture, the production is perceived to be that of the men because they own the land and take the managerial decisions around it.

The experience of son preference

Bearing sons is important for a woman to gain standing in her husband's household. A woman's main source of standing in her husband's family is as the mother of the future men of the family. In Northern India for example, a woman is called "X's mother." If the first is not a son she will be renamed as soon as she bears a son, because being called a boy's mother is much more prestigious than a girl's mother. For men, too, having a son brings full membership of society as he has now performed the critical function of social reproduction. Women who, for whatever reason, have no son could face a very uncertain future as they are more vulnerable

and marginalized. This may explain why women are more likely to be highly motivated for son-selective reproductive behaviour.

The fact that economic development devalues women is alone not sufficient to make families discriminate against daughters. It is pointed out that both economic and cultural factors are jointly responsible for the variations in the status of women, and consequent sex differentials in the birth, care and survival of male and female children (Miller,1981).

Socio-cultural trends in India do place women at an increased disadvantage. The parental choice to rear sons rather than daughters appears to be rooted in notion of sons carrying out last rites for parents provide salvation is deeply embedded in our culture.

Given the strength of son preference in the states of Punjab and Haryana, the financial and psychological costs associated with these medical technologies do not appear to be a heavy burden. These states have experienced relative uniformity in son-selective reproductive behaviour using modern technologies irrespective of residence, geographical region, or socioeconomic status. There is little doubt that motivations for prenatal sex screening and sex-selective abortion stem from strong son preference along with gender discrimination against women. The risk and insecurity that patriarchy imposes on women represent a powerful systematic incentive to prefer raising sons. Research studies reveal the wider distribution, privatization and commercialization of sex identification and abortion facilities, a greater awareness and use of relatively cheap facilities in clinics and hospitals, and the absence or partial absence of regulation have allowed sex identification facilities to mushroom and intensify already low female survival rates.

Implications

The declines in overall sex ratio in general and child sex ratio in particular are not without consequences. The fact that distortions in sex ratio, unless it is of a substantial magnitude, or is very pervasive and continuous for a fairly lengthy period, usually takes long to appear significantly in the social landscape and arrest attention. The implications of sustained decline also have long gestation periods for manifestation to come to the fore.

One of the many immediate consequences of sex ratio imbalances is the 'marriage squeeze' characterized by inability of men in marriageable age to find suitable partners. Such a deficit of women of marriageable age is, in fact, already being felt in several pockets of India. But when occurring at a larger scale, this will impact marriage patterns in several ways.

First, having less women of marriageable age will mean that a significant proportion of men will have to delay their marriage.

Second, however, the ultimate effect of delayed marriages will also affect younger generations of men, when they reach their 20s; they will not only be in surplus as a result of their own initial

sex ratio at birth, but they will also face a backlog of older, unmarried men, who will still be in the “marriage market”. This bottleneck will not be solved exclusively by delaying marriages, due to the cumulative impact of skewed sex ratio at birth on several generations.

Third, a proportion of men will subsequently have to forego marriage altogether. The poorest men will be disproportionately affected by this marriage squeeze, and that several among them may end up remaining single simply for lack of resources to marry. Indeed, they are likely to become the main victims in the new marriage system, which will probably act as a strong destabilizing factor, and may translate into class-based tensions.

Fourth, the entire family structure will also undergo significant changes under the impact of prolonged or permanent bachelorhood. Although these unmarried men will be accommodated within the family structure that to with a reduced share of domestic power because of their marital status. A few other unmarried men may choose to live on their own, resulting in single households. In regions where a significant proportion of parents today have a single son, risk of sons remaining unmarried would mean the end of the traditional patrilineal family.

Reports in the national and vernacular media have been highlighting the increasing incidents of ‘sale of girls’ to the affluent but female deficient states of Haryana and Punjab. In these transactions, the girls are generally from poor families from West Bengal, Assam, Orissa, Chhattisgarh, and even the southern states of Andhra Pradesh and Tamil Nadu. Some of the journalistic reporting correctly correlates many such ‘marriages’ in the rural areas to the adverse sex ratio. However, the focus of the reports on sensational cases of sale and purchase of underage girls conceals the actual nature and range of marital and other transactions resulting from the poor sex ratio. Men who are unable to find wives and need them for their domestic, sexual and reproductive services buy women from poor families. The man pays the girl’s parents to acquire a wife.

As landholdings shrink and an adverse sex ratio makes women scarce, wife-buying and sharing are no longer frowned upon in Punjab’s Malwa region. While earlier farmers used to have 50 acres, the average landholding has shrunk to 2 acres in this area and this small piece of land has to support three to four brothers. If all of them marry and have children, there will be no land left to divide. The shortage of women has potentially led to a system of fraternal polyandry (sharing of one or more wives by several brothers). Some people in parts of Punjab and Haryana are practicing polyandry induced by the low sex ratio and/or by economic considerations of controlling family size to prevent further sub-division of land.

The situation of the women who are brought from other regions is very bad. They face the great burden of adjustment having been extracted from their local and cultural context. Marriage divests them of their sources of social security, their cultural moorings and they are forced to embrace their husband’s culture in totality. Most of these “bought-up wives” have no

proper registration of their marriages, and as a result, they have no legal status as wives. This renders them vulnerable to sexual exploitation by their husbands' brothers, male relatives and friends. They are also subjected to social isolation and cultural deprivation as "outsiders." Very few of them, therefore, try to assert themselves. Under the circumstances, it is impossible to expect them to stand up and fight for their own rights and those of their wives or children.

Extreme deference ensured through loss of mobility and freedom, loss of social safety networks, loss of cultural practices that made life fun and tolerable is traded for an economically more secure life. The woman thus accepted is torn from her own societal and cultural context; bereft of her 'social body'; it is only her physical self that is considered important for its capability to supply labour-reproductive and other – that is seen as constituting her persona in her marital home. The violence that 'outside' women face may be greater than that faced by local women since they do not have access to parents and brothers to appeal to in case of difficulties. Their parents are too far and too poor to offer any kind of help. Nor do the girls wish to return home to become a burden on their poor families.

For women, the deficit situation may not improve their status at all, despite what a rudimentary economic model would have us believe. Scarcity of women would not enhance their position in society, due to the simultaneous increase in pressure to marry, higher risk of gender-based violence, rising demand for sex work and the development of trafficking networks. Moreover, their reduced demographic share in democratic regimes would translate into a weaker political voice in public decision-making; a trend that could be reinforced by women's lessened involvement in non-domestic activities, such as outside employment and civil life. Societies with adverse female sex ratio have indicated the presence of customs like polyandry, abduction and purchase of women. It is strongly felt that contrary to raising the status of women, adverse sex ratio would increase the incidence of rape, prostitution and violence against women. Data provided by the Women's Commission of Punjab and Haryana indicates a steep rise in crimes against women. According to the data, on an average, two women in Haryana and one in Punjab were criminally assaulted each day. In Punjab, at least two cases of kidnapping and one of molestation were reported daily. As per NCRB data (2015-16), rape cases reported in Punjab decreased to 838 from 886 in 2015, the same has increased from 1070 to 1187 in Haryana. The number of gang rapes witnessed in Haryana in 2016 is 191 as compared to 104 in 2015. Haryana has witnessed a sharp increase in cases of rape against girl children as well. In 2016, 85 cases of rape were reported in Haryana where the victim was below the age of 12 years as compared to 35 such cases registered in 2015.

In their bold and controversial book *'Bare Branches: The Security Implications of Asia's Surplus Male Population'* Valerie Hudson and Andrea den Boer assert that low sex ratios can trigger domestic and international violence. They project that by 2020 there could be as many as 31 million surplus men aged 15 to 35 living in India. The Chinese term for such men is 'guang gun-

er' or 'bare branches,' referring to the fact that they are not able to find spouses and bear legitimate children. In a society in which women are an increasingly scarce resource, men who are less successful socially and economically are more likely to fail to find spouses and become bare branches.

CONCLUSION

Sex selective abortions indicate sexist bias. When fetuses are deliberately killed simply because they are females, all women living in that society are reminded of the social devaluation of their status. It is an extreme form of violence where an unborn child is denied a freedom to live. A society where a child is killed before birth because of her gender cannot be considered developed.

The declining sex ratio is a matter of great concern as it will lead to serious demographic imbalances and adverse social consequences. These imbalances appear to be aggravated by recent technological developments permitting selective abortions, and will have important economic and social implications in the decades to come. There is serious evidence of gender imbalances in this part of the country. It is a highly patriarchal society where women are effectively marginalized in the social order. The cultural patterns generate a critical dichotomy between the value of a girl to her parents and her value to her husband's family. So long as the custom persists for women and their future productivity to be totally absorbed by their in-laws, parents are likely to perceive daughters as a drain and prefer to raise sons. It is argued that even if women get educated and their labour force participation in formal sector increase they won't be able to contribute to their natal home as their income go to their husbands' home. Further, the custom of dowry forces parents to treat daughters as liability; the sons on the other hand are asset who bring dowry.

The fact that sons are the major source of old age support is culturally determined as there is no intrinsic reason why parents cannot seek such support from their daughters as prevalent in other societies. Nor can adequate pensions and savings offer peace of mind for one's old age, as long as people believe that they will be not receive salvation in the afterlife unless sons provide the necessary rituals.

Mere public awareness cannot curb this evil practice of female foeticide, strong legal interventions are also required. It is indicated that patriarchal values, harmful norms and attitudes are the main impediment in ensuring gender equity. Norms and values are hard to change. Thus, commitment of society in general, is even more important.

Efforts to raise the status of women as a whole are a somewhat indirect route to reducing son preference because of the dichotomy between the values of a girl to her parents versus that of a woman to her in-laws. What is required is to reduce the incentive to discriminate against girls by making daughters and sons more equally valuable to their parents.

Notes:

1. Sex Ratio

Sex ratio	1991	2001	2011
India	927	933	943
Haryana	865	861	879
Punjab	882	876	895

Source: Census India

2. The state of Punjab is a part of the world's first and oldest civilizations, i.e. The Indus Valley civilization. It is a land of rivers, fertile soils and steady achievement. Punjab is situated in northwest India between 29'30" N to 32' 32" N latitude and 73' 55" E to 76' 50" E longitude. It is bordered by Pakistan on the west, and by four Indian states - Jammu and Kashmir on the north, Himachal Pradesh on its northeast and Haryana and Rajasthan on its south. Punjab occupies 1.54% of the country's total geographical area (50,362 Km²).
3. The state of Haryana is one of the 29 states in India, located in northern part of the country. It was carved out of the former state of East Punjab on 01-Nov-1966 on linguistic as well as on cultural basis. It is ranked 22nd in terms of area with less than 1.4% (44,212 km²) of India's land area. Chandigarh is the state capital.

References

- Booth,B, M.Verma ,R. Beri.(1994) Foetal sex determination in infants in Punjab, India: correlations and implications. *British Medical Journal* 309(6964): 1259–1261.
- Clark, Alice W. (1987). Social demography of excess female mortality in India: new directions. *Economic and Political Weekly* 22(17) : 12-21
- Coale, Ansley. (1991) Excess female mortality and the balance of the sexes in the population: an estimate of the number of 'missing females'. *Population and Development Review* 17 (3) : 517-523.
- Das Gupta, Monica. (1987). Selective discrimination against female children in rural Punjab, North India. *Population and Development Review* 13(1) :77 – 100.
- Dahiya,G.R.(1998) Female foeticide in rural Haryana. *Economic &. Political Weekly*. 33(32): 2191–2197
- Diamond-Smith, Nadia; Luke, Nancy; McGarvey, Stephen (2008).Too many girls, too much dowry: Son preference and daughter aversion in rural Tamil Nadu, India. *Culture, Health & Sexuality* 10(7): 697-708

- Dyson, Tim & Mick Moore. (1983) On Kinship structure, female autonomy and demographic behaviour in India. *Population and Development Review* 9(1): 35-60.
- Ganatra, B.R. S.S. Hirve, V.N. Rao. (2001) Sex-selective abortion: evidence from a community-based study in western India. *Asia-Pacific Population Journal* 16(2): 109–124
- Goodkind, Daniel. (1996) On substituting sex preference strategies in East Asia: does prenatal sex selection reduce postnatal determination. *Population and Development Review* 22 (1):111-126.
- Jaggi, Tonushree 2001: The economics of dowry: Causes and effects of an Indian tradition. *Journal of Economics* 4: 1-19.
- Johansen, Sten and Ola Nygren (1991.) The missing girls of China: a new demographic account. *Population and Development Review* 17(1): 35-51.
- Kabeer, Naila (2000) Inter-Generational Contracts, Demographic Transitions and the 'Quantity-Quality' Trade-off: Parents, Children and Investing in the Future. *Journal of International Development*, 12(4): 463-482.
- Khanna, K.(1997) Traditions and reproductive technology in an urbanizing north Indian village. *Social Science & Medicine*. 44(2): 171–180
- Kishwar, M. (1993). Abortion of Female Fetuses: is Legislation the answer? *Reproductive Health Matters*, 2: 113-15.
- Kulkarni, S. (1986) Sex determination tests in India: a survey report. *Radical Journal of Health*. 1(3): 99-102
- Miller, Barbara (1981) *The endangered sex: neglect of female children in rural North India*. Cornell University Press.
- Rao, Vijayendra (1993) Dowry 'inflation' in rural India: a statistical investigation. *Population Studies* 47 (2): 283-293.
- Sen, Amartya(1992) More than 100 million women are missing. *New York Review of Books* 20, December : 61-66.
- Sen, Gita. (1982) Women workers and the Green Revolution. In Lourdes Beneria (ed.) *Women and development; the sexual division of labor in rural societies*. New York: Praeger Publications, 29-64.