

Examining the Complexities of Sex-Selective Abortion in Contemporary and Colonial India: A Literature Review

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ABSTRACT

The persistent "missing women" phenomenon in India, characterized by skewed female-to-male sex ratios at birth, is due to the multi-century practice of femicide, both through female infanticide as well as sex-selective abortion. This literature review explores various dimensions of sex-selective abortion both in Indian contemporary and colonial society, focusing on sociocultural motivators, current and past legal frameworks, and future methods of addressing this issue. This paper examines historical colonial legacies, contemporary societal dynamics, and current sex-selective abortion practices to argue that sex-selective abortion is incentivized by current institutions in contemporary India. Furthermore, findings conclude that to truly eliminate the sex selection process, sociocultural motivators, including son preference, must be addressed without demonizing or criminalizing abortion as a whole. Furthermore, it is also concluded that legal frameworks have consistently failed to address the complexities of sex-selective practices and that community-based and other interventions are more promising.

Introduction

The skewed female-to-male sex ratios at birth, favoring males, remain a persistent issue across numerous Asian nations, including India. This "missing women" phenomenon has resulted in a deficit of approximately 37 million women in India and is the result of, typically, sex bias in familial care and upbringing. However, it is pertinent to mention that not all Indian states have such skewed rates monolithically (Sen, 2003). According to Dr. Amartya Sen, the country is split into "two nearly contiguous halves," where western and northern states like Punjab, Delhi, and Gujarat have ratios between "79.3 and 87.8 girls per 100 boys" and southern states like Kerala and Adhra Pradesh have "93.6 to 96.6 girls per 100 boys" (Sen, 2003). This split cannot solely be accounted for by factors such as lack of economic stability in the region or lack of equal access to education, as skewed sex ratios are present in states with flourishing economies, like Gujarat, and regions with high female secondary school enrollment rates (Sen, 2003). A skewed sex ratio holds significant implications such as a decreased labor force and employment opportunities for women and an increased national crime rate, among many others (Gulczyński, 2023).

One motivator within the sex selection process is stated son preference, which entails the beliefs and practices that promote sons over daughters, oftentimes resulting in preferential treatment. It has been found that spouses who seek to obtain a sex-selective abortion tend to have a stated son preference, and, in severe cases, commit sex-selective neglect or infanticide if the abortion is not obtained (Robitaille & Chatterjee, 2016). Furthermore, prenatal sex preference can result in post-natal discrimination of daughters, leading to downward social mobility for daughters and potentially female infanticide (Robitaille & Chatterjee, 2016). The contemporary existence of both sex-selective abortions and female infanticide is likely due to indecision regarding son

preference among spouses, and a critical analysis of both practices typically yields similar motivations (Robitaille & Chatterjee, 2016). However, the current Indian legal system's attempts to enforce bans on prenatal sex selection technology or promote population control at the state level have only further stigmatized the already highly stigmatized process of abortion. Therefore, societal motivations, such as stated son preference, that drives the sex selection process must be identified and targeted to eradicate this "missing women" phenomenon.

Furthermore, it is imperative to define the term "pro-choice" within the landscape of Indian abortion care. The concept of "choice" within a Western context would assume that an individual's decision to obtain an abortion, while reflective of broader cultural norms and attitudes, is still a highly individualized process dependent on an individual's personal beliefs, circumstances, and autonomy (Sarkaria, 2009). However, this notion of choice, often prevalent in Western discourse surrounding abortion, simplifies complex realities faced by women globally. There are universal motivations behind an individual's choice to obtain an abortion, such as an initial unwanted pregnancy or abnormalities within the fetus. However, the social stigma surrounding a girl child is unique to and incentivized within regions of India unlike those in the US, for example. As Dr. Suchitra Dalvie, gynecologist and co-founder of the Asia Safe Abortion Partnership, puts it: "[many Indian women] are being threatened with violence, threatened with abandonment" if they are to give birth to a female child (S. Dalvie, personal communication, May 7, 2024). Therefore, framing the issue solely in terms of individual choice overlooks the systemic inequalities that constrain women's agency. Thus, to promote choice globally, the motivations behind the sex selection process as a whole must be targeted.

Through an analysis of the historical colonial legacies, contemporary societal dynamics, and current sex-selective abortion practices in India, this paper argues that the sex-selection process is rooted in a complex connection between cultural norms, economic pressures, and gender biases. This paper is not comprehensive, as it cannot possibly encompass all the variables of this issue and the diversity of India's population, but it strives to connect the role of institutions and systems with women's devaluation to better understand the "missing women" phenomenon. However, from the themes explored, it was concluded that targeting abortion or individual reproductive choices, whether through legal intervention or social coercion, is largely ineffective due to the socioeconomic determinants that contribute to its existence. These determinants include patrilineal and patriarchal kinship systems, stated son preference, dowry, and the use of imported sex-screening techniques.

Methods

A search on the databases Academic Search Premier and JSTOR for peer-reviewed articles was conducted. Preliminary searches included using a combination of the keywords "sex-selective abortion" and "India" in all databases for online journals and full texts. This preliminary combination, not part of the literature review, in Academic Search Premier and JSTOR yielded 21 and 689 results respectively. Additionally, combinations of keywords such as "sex selection," "female infanticide," and "abortion," as sex-selective abortion can also be described in those terms, were used. Irrelevant papers were excluded by abstract screening. Furthermore, full-text screening was conducted on all results to determine if they were relevant and if they contained the inclusion criteria. Sources were then categorized on whether they primarily contained information on contemporary or colonial abortion practices. This paper also includes peer-reviewed sources from references found in the literature on sex-selective abortions in India, and while all results produced by the literature review were read in full and consulted, not all sources were used. The literature review produced 29 peer-reviewed articles in total (Fig. 1). Furthermore, a videoconference interview with a professional was conducted through Zoom as a supplemental source.



Inclusion and Exclusion Criteria

This systemic review included both inclusion and exclusion criteria. Academic papers that were to be reviewed must include the following inclusion criteria: 1) the paper must be from a peer-reviewed journal, and 2) the paper discusses either modern or colonial abortion practices, attitudes towards abortion, or social determinants of expressed son preference/sex preference. Papers that were excluded in the full-text review contained at least one of the following exclusion criteria: 1) the paper is not in English, 2) the paper primarily focuses on regions or countries outside of India, 3) full-text version of the paper is not accessible, 4) the publication type is a commentary, editorial, opinions piece, or generally not a research-based paper.

Videoconference Interview

One interview was conducted and recorded via Zoom with Dr. Suchitra Dalvie, gynecologist, co-founder, and coordinator of the Asia Safe Abortion Partnership (ASAP). ASAP works to advance reproductive rights by increasing access to reproductive healthcare and safe abortions. Interview questions ranged from asking about personal experience (e.g. "Can you share any personal experiences or anecdotes, particularly about the sex-selection process and any ethical dilemmas you faced?") to policy-centered questions (e.g. "Do you know of any particular reproductive health policies or initiatives in India aimed at improving access to safe abortion services or addressing the sex selection process?") to gain a holistic and first-hand account of recent sex-selective abortion practices.

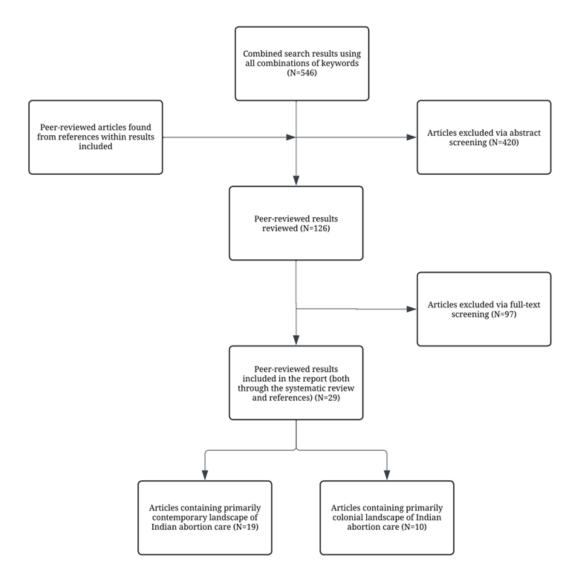


Figure 1. Literature review flowchart.

Results

29 peer-reviewed articles were reviewed and findings were categorized into two main categories — the colonial landscape of abortion care (19 articles) and contemporary practices (10 articles).

Colonial Landscape of Abortion Care and Female Infanticide (1800s — 1946)

Prior to British colonization, abortion was not regulated. The East India Company, a British trading company, gained formal governmental control over colonial India, setting the "foundations of an Anglo-Indian legal system," and with that abortion rights laws (Washbrook, 1981). The topic of abortion was contentious within English society and was viewed through a lens of morality by British overseers in colonial Indian society (Roychowdhury, 2022). British authority already found the practice of female infanticide as evidence of Indian "savagery," and anti-abortion laws were quickly introduced, though loosely enforced, in support of the same belief.

By the nineteenth century, induced abortion was criminalized in India by the Indian Penal Code and Code for Criminal Procedure in which anyone seeking a termination that was not "medically indicated to save the life of a pregnant woman" would face legal punishment (Jesani & Iyer, 1993). At this time, ironically, abortions under circumstances beyond the risk to the pregnant mother's life were performed frequently and clandestinely by English medical practitioners (Shirafi, 2020). This practice soon found its way into Indian clinics and society, with various physicians and midwives assisting women seeking illegal terminations. In the mid-nineteenth century, a Punjabi Assistant Surgeon of the Indian Medical Service described abortion, or *batti*, prior to its legalization as a somewhat common practice that midwives induced through a variety of herbal remedies and internal medicines (Singh, 1885). These criminally induced abortions were rarely reported to the police or investigated (Singh, 1885). Social factors, such as child marriages, contributed to the high demand for abortion and other reproductive health services (Singh, 1885). Not only were the methods of inducing abortion risky, as current reproductive technologies were not introduced until the 1970s, but the maternal fatalities associated with these methods underscored the urgent need to ensure safer abortion practices.

Furthermore, many medical practitioners observed that there was much leniency within the criminal justice system in charging or investigating women who had sought abortions (Singh, 1885). The frequency of induced criminal abortions, coupled with the leniency within the law, demonstrates how many physicians were more willing to uphold physician-patient confidentiality and female autonomy over the law. Despite this leniency, the criminalization of abortion only served to exacerbate the maternal mortality rate where India had the second highest maternal mortality rate globally (Menon, 1995). Rates of amateur abortion, terminations carried out by unskilled or non-professionals or within an unsuitable environment, also skyrocketed due to a lack of access to safe abortion services (World Health Organization, 2012). Within the colonial period, severe complications as a result of amateur abortions could have been significantly mitigated if abortion had been decriminalized, therefore increasing access to professional medical services.

In colonial India, many abortions were induced "by mouth" using traditional abortifacients and "patient pills," typically imported from Britain (Shirafi, 2020). The efficacy of such abortifacients is widely contested, as an "effective" substance would be able to terminate the pregnancy without killing the mother, a standard that was difficult to measure as many women died from ingesting herbal abortifacients specifically due to its poisonous qualities (Shirafi, 2020). While abortion methods from the early 19th to 20th century were often rudimentary and possibly ineffective, methods of deducing the sex of a fetus through prenatal technologies were not yet created. Despite this, skewed sex ratios were still prominent within many Indian states and castes. Per census data from 1901-1921, "in Punjab, United Provinces and Rajputana castes such as Hindu rajputs, Hindu jats, and gujars with 'a tradition' of female infanticide had a much lower number of females per thousand males compared to castes without such tradition" (Vishwanath, 2004). The aforementioned "tradition" of female infanticide entails a commonly accepted and unspoken practice within certain castes to kill a female infant, typically to avoid a future dowry payment or loss of parental property, as women could not inherit such property even once they were married. However, it is important to note that while higher castes, especially rajputs, had more skewed male-to-female sex ratios, it cannot be concluded that lower castes did not similarly partake in this practice, especially as increased land acquisition and intermingling between castes occurred at least by the mid-18th century (Vishwanath, 2004). Additionally, patrilineal kinship systems, in which women could not inherit parental land or property, did not exist in every region of India. Regions in the state of Kerala, in the South, exhibited sex ratios that favored female infants and contained matrilineal systems of land ownership, called Marumakkathayam, ensuring that the capital of the natal family is entrusted to the daughters (Moothedath, 2015). British revenue policies were cited as further motivation behind female infanticide, as many natal families struggled with financing both marriage dowries and a hefty land payment (Chakraborty & Kim, 2010). Through the systematic devaluation of women by reducing them to capital in the form of dowry as well as rigid structures of patriarchal land ownership, son preference was incentivized for the natal family to maintain their socioeconomic status.



Modern Sex-Selective Abortion Practices

Decades after Indian independence in 1947, abortion was legalized through the Medication Termination of Pregnancy (MTP) Act of 1971. The legalization of abortion was likely due to a variety of factors including overpopulation rhetoric and concerns regarding the complications of illegal and nonqualified abortions (Connelly, 2006). Additionally, increasing abortion, as well as access to contraceptives was a method wielded for population control. Overpopulation rhetoric is defined by the idea that many of India's societal ills, such as poverty, were a result of overpopulation. Many American and other Western population control organizations "manufactured" this rhetoric to create international concern regarding rapid population growth. Organizations such as Population Control "produced over 1.5 million copies of a pamphlet that coined the term 'Population Bomb" and such views were motivated, in part, by a concern for "the supremacy of Western civilization" (Connelly, 2006).

Furthermore, access to contraceptives increased dramatically in the decades after independence, with the early 1950s marking India's establishment of the world's first dedicated family planning department (Mateen & Shah, 2023). A 1950s initiative established "2,500 clinics nationwide to provide free contraceptives for low-income clients," an impressive feat that promoted family planning and contraceptive use primarily amongst lower-income populations (Connelly, 2006). Furthermore, various government-sponsored family planning publicity campaigns were aired nationwide, and clinics continued to open in rural areas. Family planning campaigns like the "Bol, Bindass Bol (Just say it and say it freely)" campaign were introduced to promote sterilization methods and rural clinics providing contraceptives (Mateen & Shah, 2023). However, it was noted that rural areas could not adequately train and provide for enough employees at overburdened healthcare facilities that had an outreach of about 66,000 people (Connelly, 2006). Many rural clinics started after the "Bol, Bindass Bol" campaign were largely ineffective due to the lack of training and professional credentials employees possessed.

Additionally, the introduction of new reproductive technologies (NRTs) that could determine fetal sex worked alongside postcolonial India's overpopulation rhetoric. While female infanticide and postnatal sex selection were recorded practices, prenatal sex determination technologies were not yet introduced in the precolonial period. However, by the late 1970s, the use of relatively affordable NRTs such as amniocentesis, fetoscopy, and ultrasounds increased, correlated with a rise in prenatal sex selection, and therefore widening female-to-male sex ratios at birth (Madan & Breuning, 2014). While the primary function of such NRTs is to identify fetal abnormalities or fetal sex, the advent and misuse of these technologies created a secondary function: prenatal sex selection. A study conducted from 1984-1985 within an abortion center in Mumbai showed that "almost 100% of the 15, 914 abortions carried out following sex determination ... were of females" (Madan & Breuning, 2014). Increasing access to reproductive technology furthermore correlated with increased sexselective abortion rates regardless of caste, education, religion, and class, as even working-class and lowercaste people could afford this testing (Patel, 2007). To address this issue, the Pre-Conception and Pre-Natal Diagnostic Techniques (PC-PNDT) Act in 1994 was introduced to "provide for the prohibition of sex selection, before or after conception, and for regulation of pre-natal diagnostic techniques" (Bhakwatani, 2012). Dr. Dalvie clarifies that this law acts to "criminalize any diagnosis of the fetus," regardless if "an abortion is later pursued" (S. Dalvie, personal communication, May 7, 2024). However, this law in addition to other legal interventions proved ineffective, as indicated by a notable increase in the male-to-female sex ratio at birth in 2020 (108.1:100) compared to the 1970s (105.5:100) (Pew Research Center, 2022). Furthermore, the implementation of this act was inconsistent as the use of NRTs, such as ultrasound equipment, did not necessarily imply an intent to pursue a sex-selective abortion (Nagpal, 2013). Therefore, the responsibility of identifying illegal use is placed on providers, and, due to commercial interests or a desire to protect patient-provider confidentiality, NRTs are ineffectively regulated (Nagpal, 2013). Additionally, the PC-PNDT Act fails to address the many systemic factors that drive the sex selection process, including past and current family planning policies that



actively encourage two-child households, inadvertently incentivizing sex preference among familial units. Thus, according to Dr. Dalvie, "unless you create equality for girls and women in society, the laws can only go so far" (S. Dalvie, personal communication, May 7, 2024).

Social Determinants of Sex-Selective Practices

Both stated and unexpressed son preferences are still ingrained in Indian society despite various legal interventions to prevent such preferences. Patrilineal kinship systems, and patrilineality in general, often rendered sons both the beneficiaries of heritable land and the main financial caretakers of parents in old age (Fors & Lindskog, 2023). Any role the wife or young women within this family dynamic, as Dr. Dalvie notes, assumes would be "an unpaid caregiver to [the son's] parents" as "women typically leave" the family house after marriage and "don't share [their] earnings with [their] parents" (S. Dalvie, personal communication, May 7, 2024). Parental and spousal son preference manifested in the use of reproductive technologies to ensure the birth of a son and preferential treatment given towards sons after birth, called gender-biased fertility strategies. Despite this, a 2010 study found that sex-selective abortions and family planning, in general, more commonly occurred after the birth of the first child, and the sex ratios of first-born children were relatively equal, 1.05, in contrast to ratios at higher birth orders (Fors & Lindskog, 2023). Furthermore, a 2023 study found that "health investments by parents declined, particularly ante-natal visits by a pregnant mother to a clinic, vaccine take-up for pregnant women and their children, and duration of breastfeeding" specifically in families who expressed a stated son preference, implying that such preference could manifest into postnatal infant discrimination, neglect, and in extreme cases, mortality (Sharma, 2023). Although neglect of female infants after birth and sex-selective abortions are prevalent among higher socioeconomic classes and castes, girls from lower-income families face elevated risks of premature death due to gender-biased food distribution and insufficient healthcare access (Nagpal, 2013). The behaviors of families with firstborn female children should also be analyzed as, after the passing of the PN-PNDT Act, these families typically have larger birth orders, or larger numbers of children within the family (Sharma, 2023). Engaging in such "fertility-enhancing behaviors" to ensure the birth of a son further widens the gender gap, as girls are more likely to be born into larger families with a lowered ability to invest equally in each child (Sharma, 2023). Such systematic devaluation of female children could potentially lead to a "female under-class," as argued by Edlund (Edlund, 1999). Therefore, it is necessary to address the social determinants of sex-selective abortion choices rather than criminalizing this practice as a whole.

Similarly, dowry practices have historically fueled stated son preference and postnatal discrimination of female infants as mentioned previously. By reducing a woman to the capital burden she exerts on her natal family, it is significantly easier for many Indian families to opt for gender-biased fertility strategies that ensure a daughter is not born. Property-owning families, typically of higher socioeconomic classes, despite their capacity to provide dowries, feared a transition of property to the son-in-law could occur through the marriage (Nagpal, 2013). Conversely, lower-class families desired to evade the financial burden of dowry payments as well as the potential harassment associated with refusing to fulfill dowry obligations (Nagpal, 2013). To combat rising rates of domestic violence and harassment against women, the Dowry Prohibition Act of 1961 was passed to eliminate this practice legally (Lodhia, 2024). However, both the practice of dowry and dowry-related crimes, such as pressure from the groom or groom's family to the bride's family to still pay a fee, continue to persist in India. More specifically, Dr. Dalvie mentions how dowry still thrives in Indian society "in a form that cannot be caught through the law" by "calling it a gift [from the bride to the groom's side], though it was essentially dowry" (S. Dalvie, personal communication, May 7, 2024). The law has failed to provide an appropriate solution in the face of dowry, which contributes to the use of gender-biased fertility strategies and preferential treatment of sons.



Discussion

The prevalence of female infanticide and sex-selective abortion in contemporary India is due to various motivators and sociocultural determinants. Concepts like dowry, which fuels stated son preference, weak legal frameworks, and current government-sponsored family planning programs collectively contribute to the continuation of sex-selective abortions. Furthermore, the legal and medical systems of contemporary India contribute to the continuation of sex-selective practices by failing to challenge the dominant power structures that enable the widespread use of NRTs.

Feasibility of Future Legal Approaches

The impact of current legal and policy measures aimed at combatting sex-selective abortions in India, such as the MTP or PC-PNDT Act, remains limited without concurrent efforts to address sociocultural attitudes and current harmful legislation. This includes efforts to control fertility and population growth that are still embedded in state policy. New proposals for population control bills in Uttar Pradesh, which aim to cultivate a "small family ideal" and promote a "two-child norm," can be detrimental to regions with limited family planning services and access to contraception (Mishra, Chandra, & Paul, 2022). Additionally, population control bills cannot lead to true population stabilization without government investment in social development and promoting reproductive autonomy. Eliminating population control policies, and other legal interventions that correct for past harmful policies, is a crucial legislative action that should be pursued.

Due to the widespread acceptance of sex-selective abortion, both in the healthcare system and within and between familial units, legal sanctions or nationwide bans on NRT use, through the PC-PNDT Act, or even abortion as a whole will cause an increase in self-induced and generally unsafe abortions (Nagpal, 2013). Loose enforcement of the PC-PNDT Act is already due to the difficulty in establishing a correlation between NRT use, sex-determination, and termination. Other variables, such as provider motivations also need to be analyzed, as most sex-selective abortions are performed within a private healthcare system. However, the availability or accessibility of NRTs does not always lead to their misuse or for sex-selective purposes. Rather than focusing on the regulation of NRTs, researchers have recommended implementing policies aimed at addressing the root causes of expressed son preference, such as legislation that targets dowry or patrilineal systems of inheritance (Fors & Lindskog, 2023). Before legal approaches are considered, addressing sociocultural motivators behind the sex selection process is necessary.

Community-Based Approaches

Current public awareness campaigns, such as the previously mentioned "Bol Bindass Bol" campaign, are largely ineffective due to their primary focus on promoting contraceptive use and sterilization methods. While such campaigns may be effective in disseminating accurate information regarding contraceptive use or available sexual healthcare services, they don't necessarily target sex or son preference. Community-led interventions that promote the value of women as more than a burden on the natal household are essential. Engaging with community members as well as gynecologists through dialogues, workshops, and participatory forums allows for a deeper understanding of local perspectives and attempts to reduce commercial interests that providers may harbor (Chakravarty et al., 2022). Increased collaboration between local nonprofits specializing in reproductive health and regional leaders could result in comprehensive and regionally-specific awareness campaigns. For example, media campaigns within other Asian nations with skewed sex ratios at birth, such as the "Love your Daughters" campaign in South Korea, led to increased regulation of NRTs (Nagpal, 2013). National initiatives



should always be supported and supplemented at the regional level to cater each endeavor to the diverse communities India contains.

Conclusion

This paper, using the 29 academic papers found, concludes that sex selection practices, rooted in the colonial period, have only increased since the introduction of NRTs. Furthermore, results highlighted the prevalence and impact of modern sex-selective abortion practices, while also shedding light on historical contexts and their implications in the modern landscape of Indian abortion care. Contemporary sex-selective practices can be attributed to many factors, including dowry, stated son preference, the advent of NRTs, as well as legal failures. Findings reveal how the widespread adoption of NRTs, aimed originally at detecting fetal abnormalities, has inadvertently facilitated prenatal sex determination and subsequent sex-selective abortions. These practices persist despite legislative efforts, indicating a disconnect between policy and societal attitudes and motivations that guide the sex selection process.

Additionally, while efforts from local non-profits and public health campaigns have been promising steps in addressing the various sociocultural determinants of the sex selection process, significant work lies ahead. The complexity and historical nature of these determinants highlight the need for nuanced understanding and targeted interventions beyond traditional public health strategies. Efforts to address sex-selective abortion must consider sociocultural norms, economic incentives, and legal frameworks that shape individual and familial decisions. By comprehensively evaluating these dimensions, Indian providers and advocates can develop more effective interventions aimed at addressing the root causes of sex-selective abortion.

Limitations

Despite the attempt to create a comprehensive search strategy within this literature review, a larger variety of keywords could have been used within the literature review process in order to avoid excluding relevant peer-reviewed papers. Additional keywords include "sex-based termination," "termination," "medical termination of pregnancy," "sex-determination," "son preference," and "sex preference." Furthermore, exclusion criteria within the review setup included excluding papers that weren't in English. Excluding these papers based solely on language criteria may result in an incomplete representation of results, potentially biasing the review's conclusions towards English-language perspectives and excluding valuable contributions from local researchers and providers. For future literature reviews, having multiple screeners would not only reduce selection bias but would allow for more papers in various languages to be reviewed.

Additionally, some limitations were apparent in academic papers found within the literature review. Firstly, many papers were constrained to a small subset of clinics providing abortions in India, reducing the applicability of the findings to the rest of the clinics in the region. Furthermore, one case study found within the literature review included interviews of women seeking sex-selective abortions. However, this same case study reported the private providers these patients sought out to the police, and raids were later conducted on the clinics containing ultrasound equipment. Thus, due to social desirability bias, interviewees may have felt pressured to align their responses with the interviewer's agenda. Therefore, the reliability of the interviews and statements collected may have been compromised.



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