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Original Research Article

Gender Preference among Term Pregnant Women at the Time of Delivery in a Tertiary Care Center: A Cross-Sectional Study

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ABSTRACT:

Introduction: Gender preference remains a significant social and public health issue in Nepal, influencing reproductive behavior and sex ratio at birth. This study aimed to describe gender preferences among term pregnant women and the reasons underlying these preferences. **Methods**: This observational, cross-sectional study was conducted at Kathmandu Medical College and Teaching Hospital from August 2025 to December 2025. A total of 380 term pregnant women were enrolled using convenience sampling. Data were collected using a pretested, interviewer-administered questionnaire and analyzed descriptively using PSPP version 2.1.1. **Results**: Among 380 participants, 155 (40.79%) were aged 26–30 years, and 232 (61.00%) were primigravida. No specific gender preference was reported by 105 (27.60%) women, while 132 (34.70%) preferred a male child and 143 (37.60%) preferred a female child. The primary reason for male preference was social security (49, 37.12%), while the caring nature of daughters (48, 33.57%) was the main reason for female preference. A total of 268 (70.50%) women did not wish to know the fetal sex, although 239 (62.90%) had knowledge of prenatal sex determination. Gender preference was perceived as good by 230 (60.50%) participants. **Conclusions**: Gender preference remains prevalent among term pregnant women, with female preference marginally higher than male preference. Social security and the caring nature of daughters were the leading reasons for male and female preference, respectively. Continued awareness campaigns promoting gender equality are warranted.

Keywords: Gender preference; Pregnant women; Prenatal sex determination; Sex ratio; Term pregnancy

INTRODUCTION

Male gender is a high-priority desire in many communities, and Nepal is no exception. Nepalese society is patriarchal, and bias between sons and daughters persists with a preference for sons. Currently, the fertility impact of son preference has led to a rise in sex-selective abortion, which is more prominent in some Asian countries.[1] Most regions in East and South Asia have seen a drop in fertility rates and a clear shift toward smaller families.[2] Globally, gender preferences for children have been frequently noted. Despite this decline in fertility, Nepal's sex ratio at birth (SRB) grew from 103.5 in 1991 to 106 in 2011.[3]

Most studies on gender preference have been conducted among antenatal women during early pregnancy or in community settings. Data on gender preference among term pregnant women at the time of delivery, particularly in tertiary care settings in Nepal, remain limited. This study was conducted with the objective of describing the gender preferences of pregnant women at term and exploring the reasons underlying these preferences.

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METHODS

This was an observational, cross-sectional study conducted at Kathmandu Medical College and Teaching Hospital (KMCTH) from August 2025 to December 2025. Ethical approval was obtained from the Institutional Review Committee of KMCTH (Ref: 21072025/29). Every participant was informed about the study, and written informed consent was obtained.

The sample size was calculated using the formula $n = (Z^2 \times p \times q)/e^2$, where n is the minimum required sample size, Z is 1.96 at a 95% confidence interval, p is the prevalence of sex preference taken as 55.60% from a previous study,[4] q is 1−p, and e is the margin of error set at 5%. Substituting these values yielded $n = (1.96^2 \times 0.56 \times 0.44) / 0.05^2 = 379.34$, which was rounded to 380 participants.

The inclusion criteria were pregnant women at term (≥37 weeks of gestation) presenting to KMCTH for delivery. The exclusion criteria were intrauterine fetal death (IUFD) and twin pregnancy. Convenience sampling was adopted, whereby women who were available and willing to participate during the study period were enrolled until the required sample size was reached.

Clinical and demographic information for each participant was gathered in the obstetrics unit by one of the authors using a pretested, interviewer-administered questionnaire in Nepali. The questionnaire was pretested by a team of experts in the department who were not involved in the study. It included general medical history, past and present obstetric history, demographic profile, desire and reason for sex preference, and knowledge about prenatal sex determination.

Data were collected in Microsoft Excel 2007 (Microsoft Corp., Redmond, WA, USA) and analyzed using PSPP version 2.1.1. As this was a descriptive study, no inferential statistical tests were performed; frequencies and percentages were used to summarize categorical variables. There were no missing data, as all questionnaires were checked for completeness before data entry.

RESULTS

A total of 380 term pregnant women were enrolled in the study. The sociodemographic profile of the participants is presented in **Table 1**. The majority of participants were aged 26–30 years and were primigravida. Most had completed at least higher secondary education, and the majority belonged to the middle socioeconomic class.

Table 1. *Sociodemographic Profile of the Participants (n = 380)*

Variable	Category	n (%)
Age Group (years)	Less than 20	7 (1.82)
	20–25	51 (13.42)
	26–30	155 (40.79)
	31–35	115 (30.26)
	Greater than 35	52 (13.68)
Gravida Status	Primi	232 (61.00)
	Multi	148 (39.00)
Education	No formal education	1 (0.26)
	School (< Grade 10)	66 (17.37)
	School (Passed Grade 10)	57 (15.00)
	Higher secondary	100 (26.32)
	Bachelors	125 (32.89)
	Masters	31 (8.16)
Socioeconomic status	Upper middle	22 (5.79)
	Middle	294 (77.37)
	Lower middle	64 (16.84)

The desire to know the fetal sex and gender preference among participants are shown in **Table 2**. Most participants did not express a desire to know the fetal sex. Regarding gender preference, a slightly higher proportion preferred a female child compared to a male child, while over one-quarter reported no specific preference.

The reasons for male preference are summarized in **Table 3**. Among women who preferred a male child, social security was the most frequently cited reason, followed by having a previous female child.

The reasons for female preference are presented in **Table 4**. Among women who preferred a female child, the perceived caring nature of daughters was the most common reason, followed by the perception that daughters can be friends to their mothers.

The perception of gender preference and knowledge of prenatal sex determination are shown

Table 2. *Desire to Know the Sex and Gender Preference among Study Participants*

Variable	Category	n = 380 (%)
Desire to Know the Sex	No	268 (70.50)
	Yes	112 (29.50)
Gender Preference	No preference	105 (27.60)
	Male	132 (34.70)
	Female	143 (37.60)

in **Table 5**. The majority of participants perceived gender preference as good, while over one-third considered it bad. Regarding knowledge of prenatal sex determination, nearly two-thirds reported having such knowledge.

Table 3. *Reasons for Male Preference*

Reasons	n (%)
Social security	49 (37.12)
Societal pressure	16 (12.12)
Family pressure	26 (19.70)
Previous female child	36 (27.27)
Others	5 (3.79)

Table 4. *Reasons for Female Preference*

Reasons	n (%)
Previous male child	30 (20.98)
Female can be friends to mother	32 (22.38)
I like female child	14 (9.79)
Due to her caring nature	48 (33.57)
Others	19 (13.29)

Table 5. Perception of Gender Preference and Knowledge of Prenatal Sex Determination

Variable	Category	n (%)
Perception of Gender Preference as Good or Bad	Bad	142 (37.40)
	Good	230 (60.50)
	Neutral	8 (2.10)
Knowledge of Prenatal Sex Determination	Yes	239 (62.90)
	No	141 (37.10)

DISCUSSION

This study evaluated gender preference among 380 term pregnant women at the time of delivery at Kathmandu Medical College and Teaching Hospital. The majority of participants (155, 40.79%) were aged 26–30 years, followed by 115 (30.26%) aged 31–35 years. This age distribution is consistent with the findings of Dawadi et al., who reported a mean age of 30.23 years among married women in far-western Nepal.[5] In contrast, Thapa et al. reported a mean age of 25 ± 3.75 years among primigravidae,[6] which is lower than the predominant age group in our study. This difference may reflect the inclusion of both primigravida and multigravida women in our study, as well as the urban tertiary care setting.

Regarding gravida status, 232 (61.00%) participants were primigravida and 148 (39.00%) were multigravida. This is comparable to the study by Thapa et al. which focused exclusively on primigravidae.[6] The predominance of primigravida in our study may reflect the tendency for women to seek delivery at a tertiary care center for their first pregnancy. Regarding education, 125 (32.89%) participants had completed a bachelor's degree, 100 (26.32%) had higher secondary education, and 294 (77.37%) belonged to the middle socioeconomic class. This high level of education and middle-class status may have influenced the gender preference patterns observed, as educated women may be more likely to express gender-neutral attitudes.[7]

In our study, 268 (70.50%) participants did not express a desire to know the fetal sex, while 112 (29.50%) reported wanting to know the fetal sex prior to delivery. This finding contrasts with the study by Thapa et al. which reported that 44.00% of expectant mothers were interested in learning the sex of the fetus.[6] The lower proportion in our study may reflect increased awareness of the legal prohibition of prenatal sex determination in Nepal, as well as the higher educational level of our participants. Similar findings were observed in studies conducted by Kansal et al., where the majority of women did not show gender preference,[8] and by Sukar-Uddin et al., who found that only about one-third of women wanted to know the sex of the unborn baby.[9] Another study from eastern India reported that approximately one-third of pregnant women desired fetal sex determination.[4]

Regarding gender preference, 105 (27.60%) participants reported no specific gender preference. Among those who expressed a preference, 132 (34.70%) preferred a male child, whereas 143 (37.60%) preferred a female child. This finding is notable, as it contrasts with the traditional son preference often reported in South Asian studies.[10,11] For instance, Dawadi et al. reported that among 280 respondents, son preference was more prevalent (52.90%), followed by no preference (31.80%) and daughter preference (15.40%).[5] Similarly, the Nepal Demographic and Health Survey 2022 reported a higher birth ratio of male children compared to females, indicating the persistence of son preference in Nepalese society.[12] However, our finding of a slight female preference (37.60%) over male preference (34.70%) aligns more closely with studies from South India, where young, educated pregnant women did

not exhibit substantial gender preference.[7] Kansal et al. further reported that around one-fifth of women preferred a male child in the current pregnancy.[8] Internationally, balanced gender preferences have been observed in some countries such as Indonesia, France, and Poland, while certain regions in Latin America and the Caribbean demonstrate a preference for daughters.[13-15] In contrast, North African and South Asian countries continue to show a strong preference for sons.[15]

Among women who preferred a male child (n = 132), the most frequent reason was social security (49, 37.12%), followed by previous child female (36, 27.27%), family pressure (26, 19.70%), societal pressure (16, 12.12%), and others (5, 3.79%). Among those who preferred a female child (n = 143), the most common reason was the perception of the caring nature of female children (48, 33.57%), followed by female can be friends to mother (32, 22.38%), previous child male (30, 20.98%), I like female child (14, 9.79%), and others (19, 13.29%). These findings are consistent with the study by Magar et al., who reported that the most frequent explanations for choosing a son or daughter were psychological (most siblings are of the opposite sex) and social (assistance with home chores, reduced divorce risk, and elder care/ support).[16] The preference for male children due to social security reflects the traditional view of sons as providers of old-age support, while the preference for female children due to their caring nature reflects the emotional value placed on daughters.

Regarding perception of gender preference, 230 (60.50%) participants perceived gender preference as good, while 142 (37.40%) considered it bad, and only 8 (2.10%) reported a neutral perception. This finding is concerning, as it suggests that gender preference itself is still socially accepted, even if the preference for sons over daughters is decreasing. This may reflect underlying societal norms rather than individual attitudes, and warrants further exploration in future studies.

Regarding knowledge of prenatal sex determination, 239 (62.90%) participants reported having such knowledge, whereas 141 (37.10%) indicated no awareness. This is higher than the 44.00% reported by Thapa at el.[6] and the 52.20% reported by Yasmin et al.[4] The higher awareness in our study may be due to the urban setting of our tertiary care center and the higher educational level of our participants. Despite this awareness, only 112 (29.50%) expressed a desire to know the fetal sex, which may indicate that knowledge does not necessarily translate into practice, possibly due to legal restrictions and ethical considerations.

This study has several limitations. First, it was conducted at a single tertiary care center in an urban area, which may limit the generalizability of the findings to rural or community settings. Second, convenience sampling was used, which may introduce selection bias, as women who present to a tertiary care center may differ from those who deliver at home or in primary care facilities. Third, the study relied on self-reported data, which may be subject to social desirability bias, particularly regarding sensitive topics such as gender preference and prenatal sex determination. Fourth, the reasons for gender preference were not operationally defined in the questionnaire, which may have led to varied interpretations by participants. Fifth, as a descriptive study, no inferential statistical tests were performed, so associations between variables (e.g., education level and gender preference) could not be assessed. Sixth, clinical outcomes such as postpartum depression, mother-infant bonding, and gender disappointment were not evaluated. Finally, as data were collected by one of the authors rather than by a blinded interviewer, interviewer bias cannot be excluded. These limitations should be considered when interpreting the findings.

CONCLUSION

This study demonstrates that gender preference remains prevalent among term pregnant women attending a tertiary care center in Nepal. While female preference was marginally higher than male preference in this sample, a considerable proportion of women reported no specific gender preference. The primary motivation for son preference was the perception of social security, while daughter preference was driven largely by the perceived caring nature of female children. The majority of women did not express a desire to know the fetal sex, despite a high level of awareness regarding prenatal sex determination. A substantial proportion of participants perceived gender preference as acceptable, indicating that societal norms favoring gender-based expectations persist. These findings highlight the need for continued public health education and awareness campaigns to promote gender equality and eliminate gender-based discrimination. Future research should include community-based samples and employ inferential statistics to identify factors associated with gender

preference, as well as explore the clinical and psychological implications of gender preference on maternal and child health outcomes.

Conflict of Interest: None.

Data Availability Statement: The data are available from the corresponding author upon reasonable request.

Ethical Consideration: Ethical issues (including plagiarism, data fabrication, and double publication) have been completely observed by the authors.

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Authors' Contribution:
Dipty Shrestha: Conceptualization, methodology, writing original draft, writing review and editing, supervising; ***Susmita Shrestha***: Validation of resources, writing review and editing; ***Dikshya Rai***: Data curation, investigation, writing review and editing; ***Rupika Bastola***: Methodology, formal analysis, writing review.

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