

ORIGINAL RESEARCH ARTICLE

SEX PREFERENCE AND ITS ASSOCIATION WITH REPRODUCTIVE BEHAVIOR AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC IN A TEACHING HOSPITAL, POKHARA

Nirsuba Gurung^{1,*}, Sakun Singh²

¹Women Health and Development, Manipal College of Medical Sciences, Nursing Program, Phulbari, Pokhara-11, Nepal

²Maternal Health Nursing, Manipal College of Medical Sciences, Nursing Program, Phulbari, Pokhara-11, Nepal

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***Correspondence to:** Nirsuba Gurung, Women Health and Development, Manipal College of Medical Sciences, Nursing program, Phulbari, Pokhara-11 Nepal.
Email: nirsuba.gurung@manipal.edu.np

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ABSTRACT

Background: Nepal is basically having patriarchal societies where men are considered as a head of family and society. Gender discrimination is one of the major problems in the Nepalese society which adversely affects women health and development. So, the study aimed to find out sex preference among the pregnant women and how it affects reproductive behavior like use of family planning, abortion and fertility intention.

Methods: A cross-sectional descriptive study was carried out in Gynecology and Obstetrics outpatient department (OPD) of a Teaching Hospital in Pokhara. A total of 272 pregnant women were recruited through convenient sampling technique. Data collection was done by face to face interview. Data was entered in MS-Excel 2007 and analyzed in SPSS version-16. Chi-Square was used to find out the association between variables.

Results: The mean age of the pregnant women were 25.51 years. Almost all the respondents were literate and 69(62.1%) of them were unemployed. More than half (57%) of the respondents had never used any method of family planning. Among 272 respondents 59(21.7%) of them had son preference which was significantly associated with age (p-value-0.028), educational level (p-value-0.000), and history of abortion (p-value-0.029).

Conclusions: Despite of increasing education level of women still one third of the women had sex preferences. Sex preferences leads to decrease use of family planning, increased abortion rate and high parity which affects health of the women. It was observed that reproductive behavior is relatively affected by sex preferences.

INTRODUCTION

Family is the smallest and the fundamental unit of a society. The household size, composition and normal sex ratio are crucial to maintain continuation of human life.¹ Male gender is being high priority desire in many communities where Nepal also could not escape from such issue. Currently the fertility impact of son preference has led to rise in sex-selective abortion, which is more prominent in some Asian countries.²

Sex preference in Nepal has received little concern, possibly because the sex ratio of Nepal (96.0) is similar to expected value which may be the result of extensive labor migration.^{3,4} It was observed that, the sex ratio at last birth among the Nepalese women, who claim to have completed their families or to have been sterilized is driven by son preference.⁵ The fact that Nepali women get more children if the first born are girls, is well known, which can be justified by the data available in demographic and health survey (DHS).⁶

Studies from Nepal and India have disclosed that, son preferences is still prevalent in south-east Asian Society⁷⁻⁹ whereas few studies showed preferences of both girl and boy by most parents.^{1,10}

Strong gender preferences, combined with infanticide, sex-selective abortions, or sex-selection technologies, may lead to a serious distortion in the natural sex ratio.¹⁰ Furthermore, gender preferences may have substantial implications for a couple's fertility behavior.¹¹ So the present study aimed to assess the sex preferences among pregnant and its association with reproductive behavior of women.

METHODS

A hospital based cross-sectional descriptive study was done among the pregnant women attending antenatal care (ANC) clinic in Manipal teaching hospital (MTH), Pokhara. The hospital was purposefully selected as it deliver free safe motherhood services to pregnant mothers of Pokhara as a tertiary care centre. A convenient sampling was used to select pregnant mothers attending ANC clinic at MTH. Based on 23 % prevalence of male child preference among the pregnant women attending a tertiary hospital of Goa, India¹² and considering 5 % of probable error at 95 % CI, the sample size was estimated as 272. The total 272 pregnant women were recruited for the study.

The study was approved by Ethical Review Committee, MTH.

Data were collected using self-constructed, structured questionnaire which consisted information regarding socio-demography, reproductive behavior and sex preference. Content validity was maintained by consulting the subject experts. Two stage back translation of the instrument was done to maintain its validity. Data were collected from November, 2019 to March, 2020. Data were collected by face to face interview of the pregnant women which took nearly 10-15 min with one respondent.

All the collected data were reviewed, checked and organized daily for the completeness and accuracy. The data was coded and entered in MS Excel 2007 and export into the IBM SPSS version 16.0 for analysis. Data was summarized using descriptive statistics such as frequency, percentage, mean and standard deviation. Chi-Square was used to find out association between sex preference and selected variables at 0.05 significance level.

RESULTS

Table 1: Reproductive behavior of respondents

n=272

Variables	Frequency (%)
Age at first pregnancy (years)	
15-19	32(11.8)
20-24	149(54.8)
25-29	80(29.4)
≥30	11(4)
<i>Mean±SD 23.24± 3.58 Min.:15 Max. : 38</i>	
Parity	
Primiparous	161(59.2)
Multiparous	111(40.8)
Number of live children (n=111)	
1	83(74.8)
2	25(22.5)
3	3(2.7)
Readiness for pregnancy	
Planned	202(74.3)
Unplanned	70(25.4)
Birth Spacing (years)(n=111)	
1-2	26(23.4)
≥3	85(66.5)
<i>Mean±SD 4.1± 1.9 Min.:1 Max. : 11</i>	
Previous use of Family planning	
Yes	117(43)
No	155(57)
Fertility intension after delivery	
No	83(30.5)
Temporary Family planning	139(51.1)
Permanent Family planning	50(18.4)
History of Abortion	
Yes	63(23.2)
No	209(76.8)
Type of Abortion(n=63)	
Spontaneous	29(46)
Medication	24(38.1)
Surgical Abortion	10(15.9)

The result of the study shows that mean age of the respondents was 25.51 years ranging from 15-42 years. Majority of them were between the age of 20 to 29 years. Half of the respondents belonged to ungrouped caste/ethnicity as per Health Management Information System (HMIS). On the other hand almost one-third of them had no intention to use any kind of family planning methods. Nearly one quarter of them had history of abortion. Among which half of them had induced abortion.

Table 1 presented that more than half of them were pregnant with their first child between 20-24 years of age. About 149(59.4%) of them were multiparous among which three quarters had one living child. On the other hand, almost one-third of them had no intention to use any kind of family planning methods. Nearly one quarter of them had history of abortion. Among which half of them had induced abortion.

Table 2: Sex composition and desired sex composition of the respondents

n=272

Variables	Frequency (%)
Sex composition of the child (n=111)	
One son	50 (45.0)
One daughter	34 (30.6)
2 Daughter	15 (13.5)
One son-one Daughter	6 (5.4)
Others	6 (5.4)
Desired Sex composition	
One son	1(0.4)
One daughter	4(1.5)
Two son	3(1.1)
1 son, 1 daughter	242(89.0)
More son than daughter	22(8.1)
Decision Maker for sex composition	
Husband	3(1.1)
Wife	6(2.2)
Husband and wife both	250(91.9)
Family	13(4.8)

Table 2 showed the sex composition of their child where nearly half of them already had a son. Whereas 15(13.5%) of them already had 2 daughter and still pregnant expecting son. Majority (89%) of the pregnant women desired to have one son and one daughter. Almost all of them responded that both husband and wife make decision for child number and composition.

Table 3: Sex preference among pregnant women

n=272

Variables	Frequency (%)
Sex Preference in present Pregnancy	
No	182(66.9)
Son	59(21.7)
Daughter	31(11.4)
Sex preference of first-born Child	
No	203(74.6)
Son	51(18.8)
Daughter	18(6.6)

Above table depicted that still 90 (33.1%) of pregnant women had sex preferences in present pregnancy and most of them had preferences for male child. Regarding the sex preferences of first-born child almost 3 quarter (74.6%)

of them had no any preferences for specific sex (Table 3). The table 4 showed that sex preferences of pregnant mothers was significantly associated with their age and level of education.

Table 4: Association between sex preferences and selected variables

n=272

Variables	Sex Preference		χ^2	p-value
	No Preference n (%)	Sex Preference n (%)		
Age of respondent (Years)				
<20	7(58.3)	5(41.7)	9.1*	0.028
20-24	84(75.7)	27(24.3)		
25-29	66(75.3)	35(34.7)		
≥30	25(52.1)	23(47.9)		
Place of Residence				
Rural	52(66.7)	26(33.3)	0.003*	0.975
Urban	130(67.0)	64(33.0)		
Ethnicity				
Ungrouped Caste/ethnicity	97(69.8)	46(32.2)	0.18*	0.914
Janajaties	56(66.7)	28(33.3)		
Others	29(64.4)	16(35.6)		
Educational Level				
Primary	12(41.4)	17(58.7)	20.69*	<0.001
Secondary	39(59.1)	27(40.9)		
Intermediate	52(69.3)	23(30.7)		
University	78(82.1)	17(17.9)		
Employment				
Unemployed	109(64.5)	60(35.5)	1.17*	0.278
Employed	73(70.9)	30(17.9)		
Type of Family				
Nuclear	52(59.8)	35(40.2)	2.94*	0.086
Joint	130(70.3)	55(29.7)		

* pearson's chi-square

Table 5: Association between sex preference and reproductive behavior

n=272

Variables	Sex Preference		χ^2	p-value
	No Preference n (%)	Sex Preference n (%)		
Age at first pregnancy				
<20	14(43.8)	18(56.2)	21.19*	<0.001
20-24	92(61.7)	57(38.3)		
25-29	66(82.5)	14(17.5)		
≥30	10(90.9)	1(9.1)		
Type of Pregnancy				
Planned	140(69.3)	68(30.7)	2.04*	0.154
Unplanned	42(60.0)	28(40.0)		
Previous use of Family planning				
Yes	73(62.4)	44(37.6)	0.18*	0.914
No	109(70.3)	46(29.7)		
History of Abortion				
Yes	35(55.6)	28(44.4)	4.776*	0.029
No	147(70.3)	62(29.7)		
Fertility Intention after delivery				
No use of Family planning	54(65.1)	29(34.9)	1.17*	0.278
Temporary Family planning	104(74.8)	35(25.2)		
Permanent Family planning	24(48.0)	26(52.0)		
Birth spacing between last two child (n=111)				
≤ 2 years	9(34.6)	17(65.4%)	0.652*	0.419
≥3 years	37(43.5)	48(56.5)		

* pearson's chi-square

The table illustrated that there is significant association between sex preferences and age at first pregnancy and history of abortion (Table 5).

DISCUSSION

The study attempted to find out the sex preference among pregnant women attending antenatal care clinic in a selected teaching hospital of Pokhara. Result depicted that out of 272 pregnant women 182(66.9%) had no any sex preference during current pregnancy. Study finding was supported by the finding of the studies conducted in Goa and coastal south India among pregnant women where 62.9% and 60.6% respectively had no sex preference.^{12,13} Contrarily, the study conducted in Kathmandu Medical College revealed that relatively higher proportion of pregnant women (80%) didn't expressed any sex preference.¹⁴ This may be due to the fact that Kathmandu is having higher literacy rate than Pokhara which leads to better understanding of women regarding adverse impact of sex preferences.

The study also revealed that 59(21.7%) had preferred to have male baby. The study finding is largely lower than the finding from the Nigerian study in which more than half (58.6%) of the pregnant mother wished to have male baby¹⁵. These results indicate that Nigerian women are having more preferences for son as compared to Nepalese pregnant women. Various studies had revealed that gender preference for children showed a strong tendency towards a mixed sex composition. In many European countries and Turkey girl preferences was more prevalent.^{1,16} This is because of the fact that most of the European countries are developed and they are not dependent on their offspring during old age but in Nepal due to religious belief and their dependency on son during old age, they are compelled to have male child for old age security

In this study the majority of pregnant women were primigravida that is in line with the study done in coastal India. In addition, multiparous women also had only one child. In contrast findings of other studies revealed that multiparous women had already more than one child either male or female.^{12,17,18} These findings implies that the family size of the respondents were small which is supported by the annual household survey 2015/16.¹⁹ Result depicts that three quarter of the women had planned pregnancy which ensures positive outcome of the pregnancy. This finding is proportionately higher than the result of the study done in Jordan and Pakistan where only 57.8% and 43.5% respectively had planned pregnancy.^{17,18}

The study result showed that among the multiparous women mean gap between last two children is 4.1 years which is comparatively higher than other study finding where average birth spacing between last two children were 2.92 years. Studies have also shown that average birth spacing also differ with the sex of the last child, average gap after male baby was 3.09 which was only 2.71 years after a female child.¹⁴ But in present study there was no such differences in birth spacing in regards to the sex of the last child. This illustrates that women under the study were well aware about the advantages of birth spacing in the pregnancy outcome.

Majority (89%) of the women desired to have one son and one daughter which is similar to the finding from the Sunsari district.¹¹ Likewise many literature depicted that parent preferred mixed sex of their children.^{1,10,13,18} Surprisingly the study from Pakistan revealed that half of them believed that ideal number of children should be 4 and 41.5% agreed that both sex should be equal in number.¹⁷ This may be due to their religious belief they don't prefer any family planning method and views children as god's gift.

In current study statistically significant association was seen between the sex preferences of the women and age (p-value-0.028) and level of education (p-value- <0.001). As educational level increases understanding level also increases and they may be able to understand the impact of gender preferences in their family and society. Educated women can better understand that there is no differences between son and daughter. But in contrast other studies didn't shows any such relation.^{12,14}

There was a significant association between sex preferences and age at first pregnancy (p-value-<.001) and history of abortion (p-value-0.029). Which indicates toward the practice of sex-selective abortion. Health professional has also acknowledged that sex selective abortion is in increasing trend in Nepal which may lead to critical complications.²⁰ Another study done in Sunsari District also revealed that history of abortion and contraceptive practices is strongly affected by sex preferences of the women.¹¹ But in this study no association was seen between sex preference and contraceptive practices (p-value-0.914).

Though the study had disclosed that sex preference is lower as compared to existing literature but still prevalent among pregnant women of Pokhara, the study was only limited to pregnant women who attended only one specific Hospital. So it is recommended that similar study can be conducted covering larger population.

CONCLUSION

It is concluded that as sex preference is still prevalent among pregnant women and it is relatively affecting reproductive behavior which will ultimately affect women's health. As the number of pregnancies increases risk of pregnancy related complication also increases. Recurrent abortions for specific sex desire may also adversely affects women's health. It is seen that there is intricate association between sex preferences and reproductive behaviors such as age at first pregnancy and abortion practice and fertility intentions.

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