ORIGINAL ARTICLE

Determinants of gender preference and its association with reproductive behaviour among pregnant women

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Abstract

Background: The changes in sex ratio reflect underlying socioeconomic, cultural patterns of a society. One of the serious concerns in India is declining female sex ratio. **Aims**: To know the factors determining gender preference by pregnant women, various reasons for such preference and its relation with reproductive behavior. **Settings and Design:** Dr Panjabrao Deshmukh Medical College and District Women hospital, Amravati. **Material and methods**: The cross sectional study was conducted on 400 pregnant women who were interviewed by systematic random sampling after informed consent. **Statistical analysis**: Binary Logistic regression analysis by enter method using SPSS version 16.0. **Results:** Out of fifteen independent variables on logistic regression, six variables were significantly associated with male child preference. The reasons for male child preference told by women were old age security (29.71%) followed by keeping family line (23.42%). **Conclusions**: The religion, age, socio-economic status, gravida, number of abortions and number of male children were having the strongest impact on male child preference.

Key Words

Gender Preference; Pregnant Women; Religion; Socioeconomic Status; Family Size.

Introduction

In the last few decades, India has developed both economic and social sector, but the prevailing gender discrimination is one of the major problem in the Indian society. The sex ratio in the country had always remained unfavorable to females. The sex ratio defined as the number of females per 1000 males in the population is an important social indicator to measure the extent of prevailing equity between males and females in a society [1]. As per 2001 census sex ratio of India is 933, the lowest amongst 10 most populous countries in world. Russia tops the list in sex ratio (1140) followed by USA (1029) [2]. The sex ratio in India is further declined to 914 as per 2011 census contributing trend of alarming condition towards lower female population [3].

Although the most possible explanation for the low female to male sex ratio in India is prenatal sex determination followed by selective abortion of female fetuses, in addition to other biological factor [4]. As man is usually head of the household and the decision maker, it is considered that the lineage of the family is after the name of the man [5]. The male child preference is one of the reasons given for high fertility and is believed to have a strong effect on the number of additional children above the desired minimum size [6]. The impact of socio-economic development, educational status, legal interventions and other unknown factors influencing gender preference is need to study.

Aims & Objectives

To know the factors determining gender preference by pregnant women, various reasons for such

preference and its relation with reproductive behavior.

Material and Methods

The present descriptive study was carried out at antenatal care clinic established by Dr. Panjabrao Deshmukh Medical College and in District women hospital, Amravati city of Maharashtra. The study population comprised of pregnant women attending antenatal care clinic irrespective of gestational age.

Sample size - Assuming gender preference by pregnant women as 50%, minimum sample size required for the study was 384. The sample size was determined at 10% relative precision and 95% confidence level with the help of practical manual for sample size determination by S.K. Lwanga and S. Lemshaw [7]. Total 400 pregnant women were enrolled in the study by systematic random sampling technique over a period of 1st Jan 2013 to 30th June 2013. The women registered at antenatal care clinic were interviewed after taking informed consent in local language. The information was collected on socio-demographic factors, maternal factors, gender preference, contraceptive practices and desired family size and knowledge about Pre-Conception and Pre- Natal Diagnostic Techniques (PCPNDT) act among the women attending ANC clinic. The classification of socioeconomic status suggested by B.G. Prasad was adopted [8]. The ethical approval was obtained by Institutional Ethical Committee.

Statistical analysis – The analysis was done by logistic regression analysis with enter method to find out independent association of individual factor after controlling other factors using SPSS version 16.0 software. The factors excluded from analysis as caste of women, number of family members, sex of last born child, number of living female children which were not significant on univariate analysis. The dependent variable selected was male child preference and quantified to be '1, if the mother had male child preference and 0, otherwise. The fifteen independent variables considered were age of women, duration of marriage, religion, residence, education of women, education of husband ,occupation of women ,occupation of husband , type of family, socioeconomic status ,number of male children, family size, gravida and number of abortions and knowledge of PCNDT act.

Results

The majority of the pregnant women were between age group of 20 to 30 years with an average age of 24.5 (± SD 3.5) years. Out of total women 11% of the women were aged 30 years and above and no teenage pregnancy was noted in present study. The mean duration of marriage was 3.75 years (± SD 2.79). The majority of the women were Hindu by religion (72%) followed by Muslim (14.8%) and Buddhist (12%). Fifty percent of the women resided in urban area. The study subjects who belonged to joint family were 275 (68.7%).The means and standard deviations of gravid status number of abortions, number of living male children and family size were 1.86 (± SD 0.947), 0.24 (± SD 0.58), 0.3 (± SD 0.51) and 2.06(± SD 0.45)respectively .When enquired about knowledge of PCPNDT act, it was found to be 65.5%.

In logistic regression analysis, out of fifteen classified variables, only six were identified as significant impact on the male child preference in the study population. These variables were age of women, religion, socio economic status number of living male children, gravid status, and number of abortion as shown in Table-1. Nagelkerke r square for fitted model was 0.244.

Among the various factors religion was one of the factor found to influence the male child preference. The Muslim women were less likely to prefer the male child($p < 0.05$; OR=0.305 ;CI=0.115-0.805).The women having age more than 30 years had 0.320 odds of male child preference than women age less than 30 years($p < 0.05$; OR=0.320; CI=0.115-0.888). The odds of women belonging to upper socioeconomic status was 0.481($p < 0.01$; OR=0.481; CI=0.299-0.774). Thus, inverting this odds for easy interpretation, women with low socioeconomic status were having more than twice the probability to prefer male child than upper-socioeconomic status. The women not having any living male child were 80% chances to prefer further male child than those having at least one male child($p < 0.01$; OR=0.191; CI=0.108-0.339).The women who were pregnant for more than once 4.131 times more likely preferred for male gender child than primi-gravida ($p < 0.01$; OR=4.131; CI=1.665-10.253). When looking forward about history of abortions, the women not having any abortion previously were 2.23 times more likely to prefer male child in current pregnancy than those having history of abortions in the past (Table 1).

When inquired about reasons behind male child preference 29.71% of the women responded that old

age security was the most common reason followed by lineage i.e. keeping family line (23.42%). They thought that only male child can perform the funeral rituals of their parents. The higher male child preference for male child was also due to the demand by the in-laws or pressure from the other family members. The other reason told by women was income purpose (12.57%). The women having female child in the family, 5.14% of them prefer for male child in current pregnancy (Table 2). Five women from very poor socioeconomic culture had not preferred male child as they did not possess any asset to transfer to their male child and build his future safe and stable.

One of the beliefs among 50% of the women was that no support in old age was expected from female child as she has to leave her parents' home after marriage .Among the various other reasons, 26.72% of the women perceived that it is very difficult to rear a female child. The females were considered to be liabilities because of the tradition of dowries by 16.37% of the women. The fear of harassment of women and domestic violence after marriage was also one of the reason told by 6.89% of them (Table 3).

Ten percent of the women preferred female child in the current pregnancy as there was no any female child in their family line and also other couples in their family did not have any female child. Other reasons for female child preference were that the female child is having emotional bond with their parents than male child.

Discussion

The preference for male child is influenced by various socioeconomic, religious and cultural factors In present study 42% of the women preferred male child in current pregnancy .The study by Vedpathak V et al [9] revealed 35% preference for male child by pregnant women. The women aged more than 30 years and those pregnant more than once preferred male child in the current pregnancy. Majority of these women were planned current pregnancy only for male child. The preference for male child was less among Muslim women as compared to Buddhist and Hindu religion. They thought that children are god's gift whatever is the sex of child. Hindus traditionally consider it essential that a male child light the parent's funeral pyre as quoted by Ramaiah J et al [10]. The majority of the women from lower socioeconomic status had male child preference as compared to upper socioeconomic status as observed in other studies [9,11].

The residence and education of women was not significantly associated with male child preference in our study but studies by Vedpathak et al and Chavada M et al showed significant association between education and residence with male child preference [9,12].

The women having history of spontaneous abortion in the past did not prefer for male child in current pregnancy as they suffered from stress due to fetal loss and they wanted only child of any gender to complete family. The strongest determinants of gender preference were number of living male children to the women. The women having at least one male child had no strong desire for male child in current pregnancy as the expected family size was only two with desire of one male and other female child .Thus small family norm has exacerbated the preference for a male child as stated by Pal et al [13]. A study by Dasgupta M [14] observed that strong preference for male child and was affected by sex composition of children in the family.

Due to advanced medical care, the life expectancy is rising. Hence people live longer and need arises to have support in old age by male child .The old age security was the main reason for preference for a male child followed by lineage in present study. The foremost reason for non-preference for a girl-child was the fact that girls do not stay with the parents after marriage, The findings were similar to report by UNFPA [13,15]. One of the reason for non-preference of female child in present study was to give dowry to female during marriage. This was also observed by other study [16]. This a hospital based study conducted on pregnant women, hence findings could not be generalized to whole population. This was the limitations of our study. There is need to conduct community based study to know the views of other family members about gender preference and solutions to minimize gender discrimination.

Conclusion

The sex preference for male child is due to lineage and support in old age. The daughter is considered as a liability due to not staying with parents, dowry and social customs. This suggests that financial incentives or support for girl children may play a role in reducing gender imbalances. This will raise the value of girl children and thereby make it more promotive for parents to have girls. These imbalances appear to be aggravated by recent technological developments

permitting selective abortions. The sex determination at early pregnancy should be strictly prohibited as stated under PCNDT act by enforcing the law. The awareness of community against gender discrimination is present need. The change in mindsets of the people against female child as liability and male child as an asset is necessary in present era.

Authors Contribution

POL: Study concept, Study designing, Data collection Manuscript writing and review, Statistical Analysis. VDK: Literature search, Schedule preparation, Data collection, Analysis, Manuscript review; AKJ: Manuscript editing and review Schedule preparation.

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Tables

TABLE 1 LOGISTIC REGRESSION OF MALE CHILD PREFERENCE BY ENTER METHOD

Variables	B	S.E.	Wald	Sig.	Exp(B)	95 % C.I. for EXP(B)	
						Lower	Upper
Age > 30 yrs	-1.140	0.521	4.785	0.029*	0.320	0.115	0.888
Muslim religion	-1.189	0.497	5.724	0.017*	0.305	0.115	0.807
Hindu religion	-0.109	0.354	0.094	0.759	0.897	0.448	1.795
Rural area	-0.047	0.245	0.037	0.848	0.954	0.591	1.541
Duration of marriage	-0.329	0.352	0.874	0.350	0.720	0.361	1.434
Women Education above high school	0.943	1.007	0.876	0.349	2.567	0.356	18.484
Women Education below high school	1.182	0.995	1.413	0.235	3.262	0.464	22.910
Husband Education above high school	-0.635	0.779	0.664	0.415	0.530	0.115	2.439
Husband Education below high school	-0.487	0.753	0.418	0.518	0.614	0.140	2.689
Occupation of husband	-0.142	0.249	0.322	0.570	0.868	0.532	1.415
Women as housewives	0.106	0.423	0.063	0.802	1.112	0.485	2.549
Type of family	0.057	0.262	0.048	0.827	1.059	0.634	1.769
Upper Socioeconomic status	-0.731	0.242	9.111	0.003*	0.481	0.299	0.774
Gravida	1.419	0.464	9.358	0.002*	4.131	1.665	10.253
Number of Abortion	0.805	0.416	3.746	0.043*	2.236	0.990	5.051
Number of living male children	-1.654	0.291	32.231	0.000*	0.191	0.108	0.339
Family size	0.533	0.328	2.650	0.104	1.705	0.897	3.241
Knowledge of PCPNDT act	0.273	0.252	1.173	0.279	1.315	0.801	2.156

TABLE 2 THE REASONS FOR MALE CHILD PREFERENCE GIVEN BY PREGNANT WOMEN

*Reasons for male child preference	Number	Percentage
Old age security	52	29.71
Lineage	41	23.42
Family Pressure	34	19.42
Income purpose	22	12.57
Social status	17	9.71
Already having female child	9	5.14
**Multiple responses*		

TABLE 3 REASONS FOR NON PREFERENCE TO FEMALE CHILD GIVEN BY PREGNANT WOMEN

Reasons for non-preference of female child	Number	Percentage
Not staying with parents	58	50.0
Difficulty to rear up	31	26.72
Dowry problem	19	16.37
Women violence after marriage	8	6.89
**Multiple responses*		