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Original Research Article.

Assessment of Knowledge, Attitude and Practices of Pregnant Women Regarding Prenatal Diagnostic Techniques and Gender Preference in Janakpur, Nepal

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ABSTRACT

Background: Alterations in sex ratio reflect the underlying socioeconomic and cultural aspects of a society. Deviations in sex ratio is mainly the result of different mortality rate in men and women, sex migration, sex ratio at birth (the number of male live births for every 100 female births) and at times due to inadequacy in population record. With the advancement of prenatal diagnostic techniques, a new trend of "gender determination of unborn child and female feticide" has emerged. This trend is becoming a major factor in altering the sex ratio particularly in underdeveloped countries. The present study was conducted with the aim of assessing the knowledge, attitude and practices of pregnant women regarding prenatal diagnostic techniques and gender preference.

Materials and Methods: A cross-sectional and observational study was conducted during period of April, May and June, 2018 at the antenatal Out Patient Department (OPD) of Mithila hospital, Janakpur. All the pregnant females attending OPD during the study period were included in the study. A pre-designed questionnaire was used to assess the demographic, social profile, knowledge about prenatal diagnostic techniques and gender preference of the subjects. All the data thus obtained was arranged in a tabulated form and expressed as percentage. All the data was analyzed using SPSS software.

Results: There were 97.5% Madheshi and 2.5% Pahadi in the study. Majority of the subjects i.e. 75.5% were resident of rural areas. Rest of them belonged to urban areas. 83.5% were Hindu. There were 69.5% of the subjects who were unaware about the method of contraception. There were still 59.5% of the who wanted to know the sex of the unborn child. There were 40.5% women who didn't want to know the gender of the unborn child. 67% of the subjects had knowledge about the method of sex determination. 87.40% women would want to abort the female child after gender identification.

Conclusion: The present study demonstrated that majority of females were aware of the gender determination techniques and protocols, but the number of females aware of the gender determination act was limited.

Keywords: Demographic, Pregnant, Prenatal Diagnostic Technique, Ultrasonography, Sex.

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INTRODUCTION

Gender ratio is a significant social gauge that measures extent of principal equity amongst males and females in the society and is defined by number of females/1000 males. Alterations in sex ratio show the underlying socioeconomic and cultural aspects of a society. Census of Nepal reported 94.6 males per 100 females in 2011.[2] However according to the New Delhi-based Asian Centre for Human Rights (ACHR) study, child sex ratio at birth in Nepal is 100 girls per 104 boys in the year 2016.[3] It indicates a 10% increase in male population in 5 years in Nepal.

In a study conducted by Aryal et al the sex ratio at birth in hospital deliveries was found unbalanced with inclination towards male, more so in women with high parity.[4] Frost et al found a post-legalization rise in Conditional sex ratios (CSRs) indicating that sex-selective abortion is becoming more common in Nepal.[5]

Yearning for male child results in repeated pregnancies, premature deaths and induced abortions (female feticide). Birth of female infant is taken as a curse with economic and social responsibilities.[6] His Majesty's Government announced the Nepal

criminal code (Muluki Ain) on 1st Chaitra 2058 (16th March, 2002) and Royal assent was given on 10th Ashoj 2059 (27th September, 2002). The new law legalizes abortion under the following conditions:

- Up to 12 weeks of gestation on the request of the pregnant women.
- Up to 18 weeks of gestation in case of rape or incest.
- At any gestation if the pregnancy is harmful to the pregnant women's physical and mental health as certified by an expert physician.
- At any gestation if the fetus is suffering from a severely debilitating or fatal deformity as certified by an expert physician.
- Listed medical practitioners will provide comprehensive abortion care services.
- Only the pregnant woman holds the right to choose to continue or discontinue the pregnancy. If the pregnant woman is less than 16 years of age or not in a position to give consent (mentally incompetent), the nearest guardian or relative can give consent for abortion services.
- The law prohibits termination of pregnancy of any gestation for the sole purpose of sex selection.

The present study aims to assess the knowledge, attitude and behavior of pregnant women towards prenatal diagnostic techniques and gender preferences.

MATERIALS AND METHODS

A cross-sectional and observational study was conducted during period of April, May and June, 2018 at the antenatal OPD of Mithila hospital, Janakpur. The study observed 200 pregnant females reporting to the hospital for regular checkups. All the subjects were informed about the study and written consent was obtained from them in their vernacular language. The study was also approved by the Institutional board. The institute caters to the needs of all the sections of the society but majority of the clients are of middle and lower class. A pre-designed questionnaire was used to assess the demographic and social profile of the subjects. The validity of the proforma was tested using a pilot study. Required alterations were made in the proforma based on the problems faced in the questionnaire during the pilot study. Age, ethnicity, religion, occupation, education, residential status of both husband and wife were noted. Level of knowledge regarding contraception, prenatal diagnostic techniques, centers providing such services and gender preference of all the to-be mothers were noted They were questioned about the knowledge and attitude towards the government act of sex determination. They were also questioned about the methods of contraception. Women were asked about their thoughts on sex determination as a criminal offence and impact of sexual imbalance. All the data thus obtained was arranged in a tabulated form and expressed as percentage. All the data was analyzed using SPSS software.

Table 1: Demographic and social characteristics of the study

Variable	Frequency	Percentage
Ethnicity		
Madheshi	195	97.5
Pahadi	5	2.5
Residence		
Urban	49	24.5
Rural	151	75.5
Religion		
Buddhist	2	1
Christian	1	0.5
Hindu	167	83.5
Muslim	30	15
Husband's education		
Illiterate	63	31.5
Primary	43	21.5
Secondary	70	35
Intermediate	16	8
Graduate	8	4
Post graduate	0	0
Wife's education		
Illiterate	97	48.5
Primary	45	22.5
Secondary	47	23.5
Intermediate	10	5
Graduate	1	0.5
Post graduate	0	0

Table 2: KAP amongst pregnant women regarding sex determination

Variable	Frequency	Percentage
Do you know about contraception methods? If yes, name the method used		
No	139	69.5
DMPA	16	8
OCP	12	6
Tubal ligation	1	0.5
IUCD	5	2.5
Wants to know the sex of unborn child/or in future		
Yes	119	59.5
No	81	40.5
Knowledge about the method of sex determination		
No	66	33
Yes	134	67
Do you know ultrasound as a method of sex determination		
Yes	134	67
No	66	33
Do you know place of sex determination Preferred child gender in the family		
Son	139	69.5
Daughter	11	5.5
Daughter=Son	50	25
Yes	79	39.5
No	121	60.5
Action taken if sex is determined.		
Abortion	104	87.40
Give birth	15	12.60
Knowledge about SD & abortion law?		
Yes	47	23.5
No	153	76.5
Knowledge about imbalanced sex ratio?		
Yes	27	13.5
No	173	86.5

RESULTS

A total of 200 pregnant females were included in the study. Table 1 shows the demographic distribution of the subjects. There were 97.5% Madheshi and 2.5% subjects were Pahadi. Majority of the subjects i.e. 75.5% were resident of rural areas. Rest of them belonged to urban areas. Majority of subjects i.e. 167 (83.5%) were Hindu. There were 15% subjects who belonged to Muslim religion. 48.5% women were illiterate in comparison to 31.5% men. There were 22.5% subjects who had education till primary level and 22.5% had education till secondary level. There were 32 (16%) women who had prior induced abortion after gender identification for female child.

Table 2 shows the Knowledge, Attitude and Practice (KAP) findings amongst the study subjects. There were 69.5% of the subjects who were unaware about the method of contraception. There were 59.5% women who wanted to know the gender of the unborn child. There was still 40.5% of the who did not want to know the sex of the unborn child. 67% of the subjects had knowledge about the method of sex determination. 33% were not aware about that. Ultrasonography (USG) as a method of gender determination was known by 67% of the subjects. There were 60.5% of the subjects who were unaware about the place of sex determination. Only 12.60% of the subjects who wanted to know the gender of the unborn child (n= 119) were ready to give birth to the child even if the unborn child was female. Rest of the women (87.40%) were determined to have an abortion. Knowledge about sex determination and abortion law was known by only 23.5% of the subjects, 76.5% of the women were unaware of any such law. Imbalanced ratio as a matter of issue was known by only 13.5% of the females.

DISCUSSION

Female feticide is an unfortunate emerging trend in terai areas of Nepal. With the presence of new technology of gender determination, the major suffering is by Nepalese women since birth to the grave is now protracted from womb to tomb. A sudden decline in the gender ratio in coming years is expected with an increased presence of ultrasound technologies. These technologies have made early gender determination inexpensive and easily accessible.[7] Major frequency of the abortions is

being done to terminate female child. More than 10 million female infants have been aborted over the past two decades. Our study showed that 67% of the females knew ultrasound as a method of gender estimation. In a survey conducted by CREPHA[8], over half the married women (57 per cent) were aware of the ultrasound technology as method of sex determination. In our study 69.5% women reported that the gender of the child preferred by the family was male. Only 5.5% family had a preference for girl child. This same kind of observation was seen amongst women in studies conducted by Puri et al[9] where 56% females and by Vaderaet al [10] showed that 58.5% of the women had preference for a son. The reason the women gave preference to sons were similar in many studies.[9,10]

In our study, there were 69.5% of the subjects who were unaware about the method of contraception. Leone T et al concluded in their study that the level of sex preference in Nepal is substantial and sex preference is an important barrier to the increase of contraceptive use.[11] In the study 60% of the women wanted to know the sex of the unborn child in comparison to 40% who didn't want to know the gender of the unborn child. 67% of the subjects had knowledge about the method of sex determination, 33% were not aware about that. Ultrasound as a method of gender determination was known to 67% of the subjects. There were 60.5% of the subjects who were aware about the place of sex determination. 53% of the subjects were determined to go for abortion if female gender was detected in USG and only 8% of the females were ready to give birth even if the after gender of unborn child was female. Knowledge about sex determination and abortion law was known only to 23.5% of the subjects in comparison to 76.5% of the women who were unaware of any such law. Imbalanced sex ratio as a matter of issue was known to only 13.5% of the females. While evaluating the knowledge about reduction in gender ratio in India by S. Ghose et al only 13.5% were aware about declining gender ratio similar to our observation.[12] Ironically a huge number 67% were quiet updated about the facilities of prenatal gender estimation and they were also aware about USG technique similar to the results seen by Srivastav et al[13] and also in a study conducted at Pondicherry.[10]

CONCLUSION

The present study demonstrated that majority of the females were aware of the gender determination methods and protocols, but the number of females aware of the gender determination act was very low. Majority of the women had a preference for son. Only few females were aware about the imbalanced sex ratio.

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