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Knowledge, Attitude and Practice (KAP) regarding Sex Determination among Married Women – A Comparative Study between Urban and Rural Area

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ABSTRACT

Research Question:

- 1) What is the knowledge, attitude and practice (KAP) of married women regarding sex determination?
- 2) Is there any difference in KAP regarding sex determination between urban and rural women?

Setting: Community based study in randomly selected, urban and rural areas of Ahmadabad district.

Study Design: Cross-sectional study.

Participants: 385 married women in the reproductive age group (15-49 years).

Methodology: Study was conducted from March 2007 to April 2008. A pre-designed and pre-tested questionnaire was used to collect data by house to house visits.

Results: A significant difference was observed between urban (91.1%) and rural (96.4%) women regarding awareness about sex determination. Sonography as a technique for sex determination was done at private hospital known to the majority of women (>90%) in both the areas. Persons who underwent sex determination were the main source of information both in urban (44%) and rural (52.2%) areas. In both areas, one fourth women were in favour of sex determination and 13 to 14% of women had undergone for sex determination.

Key words: *Sex determination, Urban, Rural*

INTRODUCTION

Sex selection is the process of determining the sex of the unborn child (foetus) and eliminating it if it is of a sex unwanted by the parents. In India this invariably means eliminating the female foetus.⁽¹⁾ As son preference is prevalent in India,^(2,3) so if couple continue to bear children in order to have a minimum number of desired sons, they would exceed the two child norm advocated by national family planning programme.⁽³⁾ During the process of fertility transition the conflicting desires of controlling fertility & at the same time achieving the wanted sex composition of children (which includes at least one son) put pressure on couples to intervene the biological process of reproduction through sex selective abortion for the fulfilment of both these desires.⁽³⁾ Sex selection has many forms: from female infanticide to female feticide and the technologically sophisticated pre-conception sex selection.⁽¹⁾

These sex-selective abortions are preceded by sex identification, which is done by amniocentesis, chorion villous biopsy & ultra-sonography. The techniques are intended for the determination of genetic abnormalities. However, in the past few decades, they are being misused to determine the sex of the foetus. For several parents, there is no or less moral guilt attached to elimination of a foetus, as compared to killing the girl child after she is born.⁽¹⁾

Sex ratio is also calculated for various age groups, the most important being 0-6 years. An adverse sex ratio here shows that fewer girls are being born compared to boys and so indicates discrimination against the female foetus - this could be at the time of conception, gestation or delivery. The easy availability of sex selection procedures and the unethical practice of pre-birth sex selection are responsible for the current situation to a large extent.⁽⁴⁾

NFHS-3 finds the child sex ratio to be 918 for India as a whole. For urban area, NFHS-III finds that child sex ratio is same as that of census 2001 but for rural area it is lower (921) than census 2001 (934).⁽⁵⁾ Also, studies showed that son preference also depend whether women live in urban or rural area.^(2,6)

Hence, the present study was conducted to know KAP regarding sex determination among married women along with to identify that is there any difference in KAP regarding sex determination between urban and rural women.

MATERIAL AND METHODS

A community based cross-sectional study was conducted from March, 2007 to April, 2008 in urban and rural areas of Ahmedabad district. In urban area, out of seven field practice areas of B. J. Medical College, Ahmedabad, Kalapinagar vibhag-1 was selected randomly. Rural area of Ahmedabad has seven blocks. Out of which Viramgam block was selected randomly. Out of 8 PHCs of Viramgam block, study was conducted in Karakthal PHC which was selected randomly. Currency method was used for random selection.

Sample size was calculated with assumption that 50 % of reproductive women are aware of sex determination and 50% are not aware. Sample size was calculated by using the formula,

$$h = \frac{Z_{1-\alpha} \sqrt{\delta^2}}{p(1-p)}$$

where confidence interval $(1-\alpha) = 95\%$,

δ is 10% of p

So estimated sample size was 385 married women in the reproductive age group (15-49 years). Out of 385 women, 192 from urban and 193 from rural area were interviewed.

Data collection was done through pre-designed and pre-tested proforma by house to house visits after taking informed consent. Following information was collected: Socio-demographic details, religion, caste, type of family, family composition, education and occupation of family members, Socio-economic status (modified Prasad classification), awareness, attitude and practice of sex determination.

Statistical Analysis: Epi info version 3.4 was used for analysis. To test statistical significance Chi square test was used.

RESULTS

TABLE-I AGE WISE DISTRIBUTION OF RESPONDENTS

Age(Years)	Urban (N=192)	Rural (N=193)
15 - 19	1(0.52%)	3 (1.56%)
20 – 24	43 (22.39%)	50 (25.91%)
25 – 29	42 (21.87%)	37 (19.17%)
30 – 34	49 (25.52%)	41 (21.24%)
35 – 39	24 (12.5%)	25 (12.95%)
40 – 44	15 (7.8%)	25 (12.95%)
45 - 49	18 (9.3%)	12 (6.21%)
Total	192 (100%)	193 (100%)

Maximum numbers of women were in the age group of 20-34 years both in urban (69.78%) and rural (66.32%) areas. There is no statistical significant difference in the mean age of

studied reproductive women of urban area (30.93 ± 7.3 years) & rural area (30.65 ± 7.8 years). ($Z = 0.65$, $P > 0.05$)

TABLE-II SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Sr. No.	Characteristics	Urban (N=192)	Rural (N=193)
1.	RELIGION		
	Hindu	192(100%)	193(100%)
2.	SOCIAL CLASS		
	Class- I	45(23.4%)	1(0.5%)
	Class- II	50(26.0%)	48(24.9%)
	Class- III	56(29.2%)	53(27.5%)
	Class- IV	40(20.8%)	81(42.0%)
	Class- V	1(0.5%)	10(5.2%)
3.	TYPE OF FAMILY		
	Nuclear	140(72.9%)	105(54.4%)
	Joint	38 (19.8%)	32 (16.6%)
	Three Generation	14 (7.3%)	56 (29.0%)
4.	EDUCATION		
	Illiterate	26(13.5%)	89(46.1%)
	Primary	70 (36.5%)	67 (34.7%)
	Secondary	65 (33.9%)	34 (17.6%)
	Higher Secondary	16 (8.3%)	2 (1.0%)
	Collage	14 (7.3%)	1 (0.5%)
	Professional	1 (0.5%)	0 (0.0%)
5.	OCCUPATION		
	Labourer	14 (7.3%)	78 (40.4%)
	House Wife	161 (83.9%)	102(52.8%)
	Gov. Service	10 (5.2%)	4 (2.1%)
	Private Job	6 (3.1%)	3 (1.6%)
	Farmer	0 (0.0%)	5 (2.6%)
	Other	1 (0.5%)	1 (0.5%)

Study of Socio-demographic characteristics revealed that all the respondents belonged to Hindu religion in both areas.

In urban area, studied women were equally distributed in different socio-economic class (class I-IV) except class V whereas in rural area majority of the respondents belonged to class III and class IV.

More urban respondents (72.9%) were from nuclear family as compared to rural respondents (54.4%). Three generation family were observed more in rural area (29.0%) as compared urban area (7.3%)

In urban area, majority of women (70.1%) were educated up to primary and secondary level. Only 16.1% of women had higher qualification. In rural area 46% of women were illiterate. 51% educated up to primary and secondary level and only 1.5% had higher qualification. Occupation wise distribution showed that majority of women were house wife both in urban (83.9%) and rural areas (52.8%). 40% of rural women employed as labours as compared to urban women (7%).

TABLE III - KNOWLEDGE, ATTITUDE AND PRACTICE OF WOMEN REGARDING SEX DETERMINATION

Aware about sex determination				
	Urban (N=192)	Rural (N=193)	Chi square Value	P Value
Yes	175(91.1%)	186(96.4%)	4.50	P<0.05
No	17(8.9%)	7(3.6%)		
Technique used for sex determination				
Sonography	164(93.71%)	184(98.92%)	5.63	P<0.05
Don't Know	11(6.28%)	2 (1.08%)		
Places where sex determination done				
Govt. Hospital	1(0.57%)	2(1.1%)		
Private Hospital	155(88.57%)	182(97.85%)	15.94	P<0.05
Don't Know	19(10.85%)	2 (1.1%)		
Source of information for sex determination				
Husband	10(5.7%)	4(2.2%)		
Relative	16(9.1%)	10(5.4%)		
Mass media	31(17.7%)	17(9.1%)	12.93	P<0.05
Person who underwent SD	77(44.0%)	97(52.2%)		

Neighbour	41(23.4%)	58(31.2%)		
Sex determination of child should be done or not?				
Yes	51(29.14%)	45(24.19%)	0.89	P>0.05
No	124(70.86%)	141(75.81%)		
Ever undergone for sex determination				
Yes	24(13.71%)	24(12.90%)	0.82	P>0.05
No	151(86.29%)	162(87.1%)		

96.4% of rural women were aware of sex determination as compared to urban women (91.1%). The difference was found to be statistically significant.

There was a significant difference between urban and rural area regarding knowledge of technique used for sex determination, place where sex determination can be done and sources of information for sex determination.

Out of those women who were aware about sex determination, the majority of women both in urban (93.71%) and rural (98.92%) areas knew that Sonography was used as a technique for sex determination. None of the women was aware about amniocentesis and chorion villus biopsy as method of sex determination. In both urban (88.57%) and rural (97.85%) areas, maximum number of respondents replied that sex determination was done at private hospital. The differences were found to be statistically significant. Persons who underwent sex determination were the main source of information both in urban (44%) and rural (52.2%) area. According to 29.14% urban women and 24.19% rural women, sex determination should be carried out. In the present study, nearly 13 to 14% of women in both areas had undergone for sex determination for child during their pregnancy.

DISCUSSION

In present study, 96.4% of rural women were aware of sex determination as compared to urban women (91.1%). Rural women were significantly better aware of sex determination technique (Sonography) and place where it is done (mainly at private hospital) as compared to urban women. Major source of information was from the person who underwent for the sex determination in both the areas. Such a widespread awareness and source of information highlights the existing practice of sex determination. Study carried out by Puri *et al* reported that 88.4% of women were not aware of sex determination techniques where as 11.6% were aware, out of which 99.97% said private hospital as the place where sex determination is done.⁽⁴⁾ In present study women were more aware about sex determination as compared to study done by Puri *et al* which was a hospital based study.

Nearly 24% urban and 29% rural women were in favour of sex determination which is an alarming sign. The study conducted by Ashturkar showed that 10.47% rural women had gone for sex determination during their pregnancy for male child.⁽⁷⁾ Similar finding was

observed in the present study. In both urban and rural areas, 13 to 14% of studied women underwent for sex determination for male child. The result showed practice of sex determination is prevalent in studied population.

There is aggressive promotion of the small family norm (Two child norm) without the required community interventions to change the preference for a male child, along with the easy availability of sex selective procedures, parents targeted for elimination of all female child till a male child is finally conceived, could be playing havoc with the birth and survival of female children.

CONCLUSIONS

Present study showed rural women were better aware about sex determination compared to urban women. An attitude of rural woman towards sex determination is same as that of urban women. Practice of sex determination for child by urban and rural women was same.

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