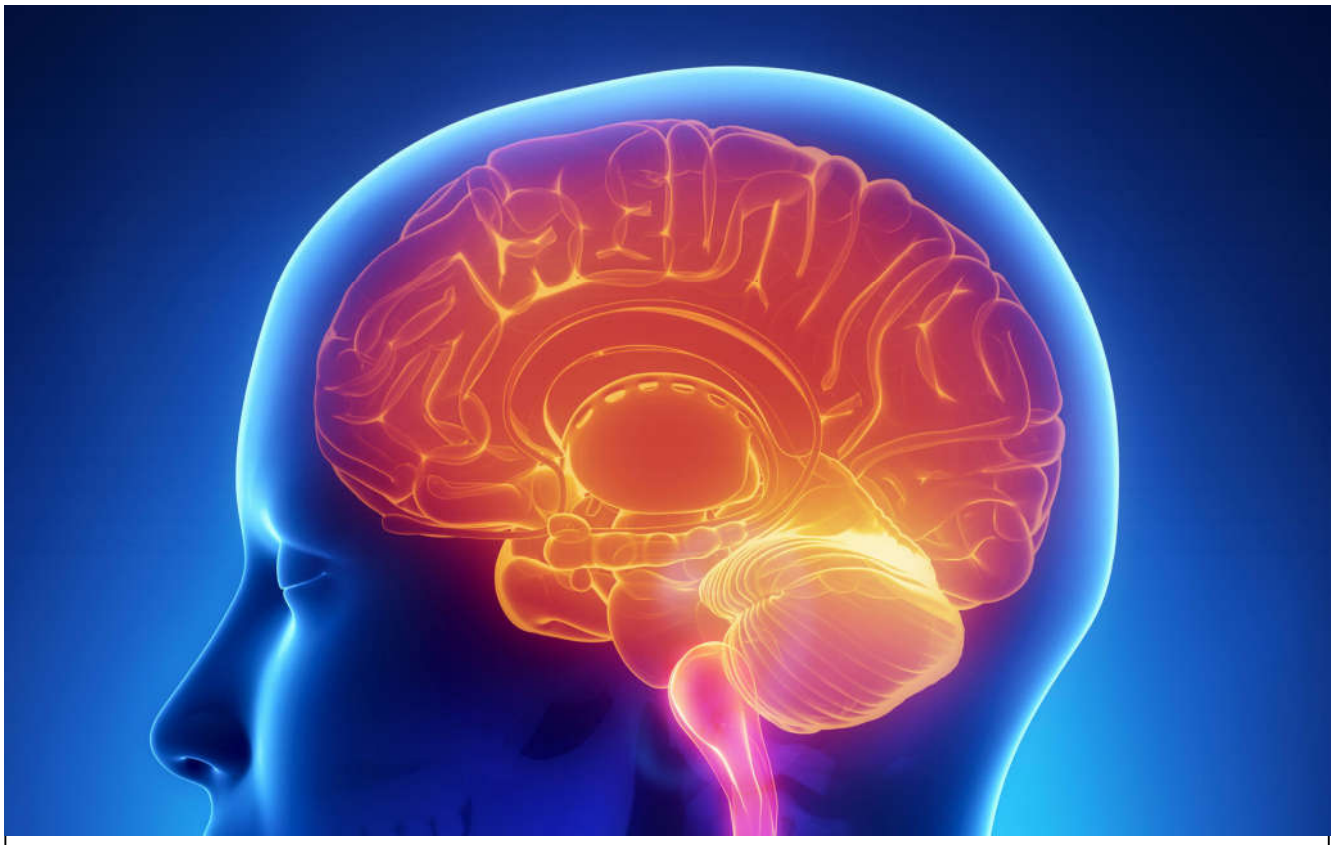

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RESEARCH ARTICLE

KNOWLEDGE AND ATTITUDE OF PRENATAL DIAGNOSTIC TECHNIQUES ACT AMONG THE ANTENATAL WOMEN-A HOSPITAL BASED STUDY

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ABSTRACT

Back ground: The objective of the study is to assess the knowledge and attitude of the antenatal women regarding the PNDT Act

Materials and Methods: First 100 women were selected at a hospital in Melmaruvathur, The antenatal women were assessed by pre tested, semi structured questionnaire and the outcome was compared to their educational status, parity, residence etc

Results: Majority of them were primipara (61%), from urban area (28%) and Hindu (89%). 34 had studied less than SSLC and 50 had just finished SSLC. Most (90%) belonged to lower class of socio-economic strata and 94% of the study populations were housemakers.

Conclusion: Large prospective multicentre studies may be undertaken and hence the declining sex ratio problem can be addressed and reversed.

INTRODUCTION

India is facing a demographic nightmare in terms of gender imbalance. According to the Census of India, 2011, the sex ratio is low i.e 940 females per 1000 males. But the more worrying fact is the juvenile sex ratio (female –male ratio of children below 6 years) is even lower (914/1000) and has fallen from 927 girls/1000 boys in 2001[1,2]. This rate of decline is alarming. If this trend continues, there would be further reduction in the number of girls and women in future leading to serious socio-cultural problems including population imbalance and violence. Sex selective abortion is found to be a major factor responsible for this. The MTP Act was implemented in 1972 and the prenatal diagnostic technique s arrived in India in 1975 for determination of genetic abnormalities. However these techniques are widely used for determining the sex of the fetus and subsequent abortions if the fetus is female. To prevent this practice of sex selective abortion using the prenatal diagnostic techniques, Government of India enacted the PNDT (Regulation and prevention of Misuse) Act on 20.9.1994. Subsequently this Act has been amended in 2002 and 2003 to Pre-conception and Pre-natal Diagnostic Techniques (PC & PNDT), Prohibition of Sex Selection Rules. Although government is trying its best to increase the awareness of the people regarding the PC & PNDT Act, it has not been reflected in practice yet. In contrast to the general trend in India, Pondicherry has shown an improvement in the sex ratio from 964/1000 in 1991 to 990/1000 in 2001[3]in 2011 it is 1038[8]. Which is a highest. The factor responsible for this positive change deserve to be studied and elucidated which can then be followed or taken care by other states with the negative trend.
One basic assumption underlying this positive trend is the improvement in knowledge and attitude about PC & PNDT Act. Present study is one of the step in attempting and trying to assess the knowledge and attitude of PC & PNDT Act among pregnant women visiting the ante-natal clinic of Dept of OBG, MAPIMS, Melmaruvathur.

MATERIALS AND METHODOLOGY

The present study was conducted in the antenatal clinic of MAPIMS Hospital from October 2014 to October 2015. During this study period the antenatal women visiting the clinic were explained regarding the nature of the study while awaiting consultation with the doctor. First hundred antenatal women who consent to participate in the study were interviewed by the Medico Social worker in the department of OBG using a preformed and pretested questionnaire. The questionnaire, a structured and partly open-ended one was administered without any prompting. The variables included to evaluate knowledge on PNDT were, awareness about declining sex ratio, possibility of intra uterine sex determination and methods, punishment associated with misuse of PNDT Act and its extent. We tried to qualify knowledge by giving a score of one to each right

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answer and then grading the scores of one, two and three as poor, average and good scores respectively.

Table 1 Knowledge of PNDT* *PNDT Pre-Natal Diagnostic Techniques

Characteristics	Knowledge			Total	chi square	p value
Age in years	Poor	Knowledge	Good			
<20	7(30)	11(55)	2(15)	20		
20-25	11(21)	46(79.3)	0(0)	58		
25-30	3(16.7)	14(77.7)	1(5.6)	18	14.80	0.02*
>30	2(50)	1(25)	1(25)	4		
Total	23	72	5	100		
Education	Poor	Average	Good			
<SSLC	10(29.4)	23(67.7)	1(2.9)	34		
SSLC	13(26)	36(72)	1(2)	50		
Graduate	0(0)	7(78)	2(22)	9	12.53	0.05*
Post graduate	0(0)	6(86)	1(14)	7		
Total	23	72	5	100		
Parity	Poor	Average	Good			
Primi	15(19.7)	46(75.4)	0(0)	61	8.25	0.016*
Multi	8(21)	26(67)	5(12)	39		
Total	23	72	5	100		
Residense	Poor	Average	Good			
Urban	5(17.8)	21(75)	2(7.2)	28	0.85	0.065
Rural	18(25)	51(70.8)	3(4.2)	72		
Total	23	72	5	100		

*p< 0.05 significant

Table 2 Attitude on sex determination

Characteristics	Attitude		Total	chi square	p value
	Right	Wrong			
Age in years					
<20	13(65)	7(35)	20		
20-25	39(67.2)	19(32.8)	58		
25-30	14(77)	4(23)	18	2.68	0.44
>30	4(100)	0	4		
Total	70	30	100		
Education					
<SSLC	18(53)	16(47)	34		
SSLC	38(76)	12(24)	50		
Graduate	8(86)	1(14)	9	7.92	0.04*
Post graduate	6(86)	1(14)	7		
Total	70	30	100		
Parity					
Primi	41(67.2)	20(32.8)	61		
Multi	29(74.3)	10(25.7)	39	0.57	0.44
Total	70	30	100		
Residense					
Urban	24(86)	4(14)	28		
Rural	46(64)	26(36)	72	4.57	0.03*
Total	70	30	100		
Knowledge					
poor	12(52.1)	11(47.9)	23		
Average	53(73.6)	19(26.4)	72	6.07	0.048*
good	5(100)	0	5		
Total	70	30	100		

Figures in paracentheses are percentages, *

The attitude of the women was assessed by questions like Attitude was assessed by asking about the sex determination as a crime and thought of doing sex determination during pregnancy. Whether they would like to determine the sex of the fetus,if the sex of the fetus were opposite what they would like to do and if their friend wants to do in-utero sex determination what they would advise. The answer to the question "is intrauterine sex determination right?" was taken as a proxy variable for the attitude, 'Yes' being the wrong and 'No' being the right attitude. Information given by the participants and their identity were kept confidential. All the questions were asked in the participant's language or else the meaning was conveyed properly. Ethical committee of the institute approved the study. Data were entered in MS Excel and analyzed using Statistical Package of Social Sciences (SPSS) 17.0. Statistical significance was set at $P \leq 0.05$.

RESULTS

The 100 pregnant women constituting our study population were aged 18 to 32 years. Majority of them were primipara (61%), from urban area (28%) and Hindu (89%). Among the multipara, 4 were grand multipara, the present pregnancy being of the 4th order or above. Of all these women, 34 had studied less than SSLC and 50 had just finished SSLC. Most (90%) belonged to lower class of socio-economic strata and 94% of the study populations were housemakers. Regarding the knowledge of these women on PNDT Act, 95% were aware of the availability of a method for intra-uterine sex determination, but a lesser number (75%) knew that doing so is punishable under the law and even fewer (45%) were aware of the declining sex ratio in the country. In a similar study from Chandigarh, 65% of the pregnant women considered determining sex of an unborn child as a crime, but only 16% were aware that it is a punishable under the law[4]. The knowledge about PNDT Act and the provision of punishment for prenatal sex determination is much higher in these women of Pondicherry. Knowledge was cross-tabulated with the socio-demographic variables (Table no.1) to find out if any association existed between these variables and the knowledge about PNDT among these pregnant women. Majority of the study subjects had average knowledge (72%) followed by 23% having poor and only 5% having good knowledge. The trend was the same in all age groups except those above 30 years, 50% of who were poor in knowledge regarding PNDT.

The older women would have been exposed lass to the IEC on declining sex ratio and PNDT Act in their younger age as the IEC has been intensified in the recent years. Of all those with good knowledge, 40% were less than 20 years. The proportion of women with average and good knowledge increased within each group as the education level increased. Though this is not statistically significant, in another study on pregnant women in Gujrat, the awareness of the consequences of female foeticide was significantly increased with education[5]. Education in general improves the status of women in the society and gives them a wider outlook and understanding beyond the confines of their family. Parity had no influence, but women from urban setting had better knowledge than their rural counterparts (not significant).

The final change in behavior and practice comes about when there is a change in the attitude. Knowledge may or may not lead to a change in attitude. Table no.2 shows the distribution of the socio-demographic variables as well as knowledge in relation to the attitude among these women. With increasing age the proportion of women with right attitude has increased with each group. Similarly, a greater proportion (74.3%) of the multipara, who are older in age, had the right attitude as compared to the primipara (67.2%) which though not significant is an important observation. Multipara with lesser knowledge and urgency to complete the family must be under

pressure from the family members to have a child with the desired sex, so is expected to favour sex determination. But their right attitude shows that inspite of lower knowledge and family pressure, women themselves do not want to waste their pregnancies and when faced with a situation where their pregnancy might get aborted, they do not favour sex selection. Analyzing education and attitude in our study group showed that up to graduation level, inceasee in education is accompanied with an improvement in the attitude in these ante-natal women. So, feel unnecessary to know the sex of the child prenatally. Another interesting observation was that attitude in the subjects was similar in both the urban and rural women. In India, the social milieu is such that a female child is the cause of much physical and mental torment to the mother irrespective of the background of the family.

So when it comes to knowing the sex of the unborn child with an idea of aborting if unfavorable, the urban exposure does not make any difference to the mother. None of the variables was significantly associated with attitude excepting knowledge. Increase in knowledge of PNDT Act, has influenced the attitude to sex determination in the positive direction in this study. Other relevant studies are, study which was conducted by Ghose S *et al*[9].found that 95% of the pregnant women were aware of the availability of a method for intrauterine sex determination. When they were asked whether female foeticide was punishable, 53% of the participants said that they were aware that doing so was punishable under the law. A study by Puri S *et al*.[4]in slums of Chandigarh showed that only 11.66% of subjects had knowledge where sex determination can be done and 65.5% agreed to the fact that it is a crime, but only 16% were aware that it was punishable under the law. Kansal R *et al*. [10]also revealed that 84.5% respondents were aware that prenatal diagnostic tests are illegal. A study by Siddharam S *et al*.[11]in his study, when they were asked regarding the various techniques which were used for prenatal sex determination, 73% participants said that ultrasound was the right modality, 6% said that it was amniocentesis and 19% said that they didn't know about the techniques. . Similarly a study by Shrivastava S *et al.*[12] conducted at Bareilly revealed that 80% females were aware of prenatal sex determination and 67% unaware of PNDT Act. More than 90% of the study participants knew about the places where sex determination can be conducted which is similar to that reported in earlier studies [13,14].

CONCLUSION

The sex ratio of 914 in the 0-6 age group is only the national average for India. There are areas within the country where the ratio has dropped to well below 830[6].Tamil nadu is defying the trend and is a ray of hope for the country. This study shows a good knowledge (75%) about the PNDT Act among the pregnant women and knowledge to be associated with attitude. The high literacy status of women in Tamil nadu (73.86%for females)[7] may have played a role. This study design and size is not adequate to comment on the factors responsible. Studies to this end should be taken up in a large scale so that the process Of reversing the declining sex ratio by Tamil nadu is understood better. The urgent need of the hour is not only reverse the trend but to achieve a healthy sex ratio by rest of the country. Our children should not live through the nightmare.

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