



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. The factors 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.

Most of the female feticide cases in India are preventable and the PC & PNDT Act is very helpful for reducing the rate of Female Feticide. Hence the emphasis of my study is to assess the knowledge, attitude & practice related to PC & PNDT Act among the pregnant women in Bikaner so that we can find out the various reasons of very less sex ratio in Bikaner and also to inform and educate them about PC & PNDT Act so that this social evil of gender imbalance can be removed from the society by preventing the female feticide because it is very necessary for the overall socioeconomic progress of India.

#### Material and Method

During the study period over 6437 pregnant women visited for ANC in Antenatal OPD in Gynaecology & Obstetrics department of Zanana Hospital associated with PBM group of hospitals and attached to S.P. Medical College, Bikaner and out of these 1000 antenatal women were selected for study. A systematic sample was taken (sampling interval: average number of adult women attending the clinic divided by 5). Only women of reproductive age (between 18 years up to 49 years) were selected for an interview. When a woman did not match the age criteria or refused for the interview, the next woman attending the consultation was selected. The reason of refusal was noted on a separate sheet.

#### Study Period

The study was proposed, planned and carried out between September 2011 to February 2012.

#### Type of Study

It is a Cross sectional study.

#### Methodology

- The Schedule contains form A, B and C.
  - Form A includes family compositions, demographic and socioeconomic profile.
  - Form B was framed in 3 separate sections for assessing Knowledge, Attitude & Practice regarding PC & PNDT Act in English thereafter the questions were asked individually person to person in Hindi/ local language of Bikaner and led by myself. The study involved collection of information regarding knowledge and attitude of the Antenatal Women about PC & PNDT ACT using multiple choice questions (MCQs). The variables included to evaluate knowledge on PC & PNDT ACT were, awareness about declining sex ratio, possibility of intra uterine sex determination and methods, punishment associated with misuse of PC & PNDT ACT and its extent. The attitude of Antenatal Women was assessed by questions like whether they will like to determine the sex of the fetus, if sex of the fetus is opposite what they will like to do and if their friend / family members wants to do in-utero sex determination what they will advise.
  - A separate form C was also framed for assessment of Practices about PC & PNDT Act. In this form the variables included to evaluate practices were miscarriage rate, MTP, sex determination and sex selective abortion etc.
  - After explaining the purpose of the study the consent was taken from Antenatal Women. The Antenatal Women were also being informed the purpose of the study and to ensure that it would not affect the consequences of her delivery. After that the questions were asked.
  - The KAP schedule was scored in order to create an index score upon which to evaluate participants' knowledge, attitudes and practices. Each question was graded as highly important, moderately important, or important. Each "highly important" question was given 5 points for the correct answer(s); 3 points for moderately important; and 1 point for important. Thus for a correct answer to a highly important question, respondents score 5 points and 0 for a wrong answer. Those who score 60% or more were included as having knowledge or having positive attitude. This allows a weighted index score to be given to each schedule. The weighted index scores of respondents will then give an accurate measure of the level of knowledge, attitude, and practices in terms PC & PNDT Act. The scores were used to describe levels of knowledge attitudes and practice in relation to dependent variables (e.g. age, socio-economic status, literacy, parity, caste, religion etc).
- The data were collected and then analyzed by SPSS Software.


illiterate to 86.5% among Graduate & above. These observations are found statistically highly significant.

There is increasing trends of knowledge about PC & PNDT Act is seen with higher socioeconomic group. The difference of knowledge about PC & PNDT Act varies between 36.5% among class V to 66.1% among class I. These observations are statistically highly significant. The difference of knowledge about PC & PNDT Act with Parity varied between 42.06% in Primipara to 63.3% in Grand Multipara. These observations are found statistically highly significant.

There is increasing trends of preference for male child is seen with decreasing literacy status. The difference of preference for male child varies between 36.5% among graduate & above to 81.9% among illiterate. These observations are statistically highly significant. There is increasing trends of preference for male child is seen as the parity status is increased from Primipara to Grand Multipara. The difference of preference for male child varies between 58.7% among Primipara to 86.6% among Grand Multipara women. These observations are statistically highly significant.

\*(No women between age 43 to 49 yrs. visited antenatal clinic during the study period for antenatal check up)

An increasing trends of Positive Attitude about PC & PNDT Act is seen with increasing age. The Positive Attitude about PC & PNDT

to take their own decisions for the fate of you fetus. 84.6% want to prevent the female feticide.16% study population confessed that will go for sex determination before delivery in future. (Table-10) 12.9 % of study population confessed that they have done MTP during previous pregnancy. Majority of them done due to already having two or more daughters(43.41%) and 18.61% having already a daughter while 21.71% have done MTP due to Family/ Husband's pressure. (Table 11)11.4% of study population has confessed that they will go for MTP in future. Out of them majority (62.28%) will do due to preference of male child and 16.67% will do due to already having daughter/daughters. (Table 12).

There is increasing trends of knowledge about PC & PNDT Act is seen with increase of literacy status. The difference of knowledge about PC & PNDT Act with Literacy status varies between 41.9% among

PARITY	ATTITUDE		TOTAL
	POSITIVE	NEGATIVE	
PRIMI PARA	270 (75.2%)	89 (24.8%)	359 (100%)
MULTI PARA	366 (59.9%)	245 (41.1%)	611 (100%)
GRAND MULTI PARA	13 (43.3%)	17 (56.7%)	30 (100%)
TOTAL	649 (64.9%)	351 (35.1%)	1000 (100%)

**Table 9:** association of attitude regarding pc & PNDT act with parity of antenatal women.

S.No.	PRACTICES	YES	NO	TOTAL
1.	Will contribute to prevent Female Feticide	846	154	1000
2.	Will go for sex determination before delivery	160	840	1000
3.	Will go for a genetic counseling before conception for the purpose of having a son	23	977	1000
4.	Will use modern techniques of (PC & PNDT) in future	201	799	1000
5.	Will provide equal opportunities for son and daughter	980	20	1000
6.	Have right to take your own decisions for the fate of your fetus	889	111	1000
7.	Will help for increasing the awareness about the PC & PNDT act in the community	988	12	1000

**Table 10:** assessment of practices about pc & pndt act among study population.


Act with Age varies between 52%.9 to 86.8%. The difference in attitude with age is highly significant. There is increasing trends of Positive Attitude about PC & PNDT Act with increasing Literacy status. The Positive Attitude about PC & PNDT Act increases with Literacy from 57.1% among Illiterate to 84.6% in Graduate & above. This difference is statistically highly significant. Highly statistical significant difference of Positive Attitude about PC & PNDT Act is seen with change in socioeconomic status, where as the positive attitude among the highest socioeconomic class is least (51.4%), it is maximum amongst the lower socioeconomic class (77.1% in class IV and 70% in class V). There is a decreasing trend of Positive Attitude with parity. The Positive Attitude about PC & PNDT Act with parity decreases from 75.2% (Primipara) to 43.3% (Grand Multipara). The difference in attitude with parity is statistically highly significant. 98.8% of study population is willing to increase the awareness of PC & PNDT Act and 98% women are agreeing to provide the equal opportunity for son and daughter. 88.9% women answered that they have right to take their own decisions for the fate of their fetus. 84.6% want to prevent the female feticide. 16% study population confessed that will go for sex determination before delivery in future. Major reason given for undergoing MTP is already having daughter / daughters (62.02%) other major reason for MTP is due to Family/ Husband's pressure (21.71%). Majority (62.28%) is

willing for MTP due to preference of male child and 16.67% willing due to them already having daughter/daughters.

### Discussion

During the study period over 6437 pregnant women visited for ANC in Antenatal OPD and out of these 1000 antenatal women were interviewed who were between the age group of 18-49 years and gave the consent for interview.

The overall knowledge about PC & PNDT act among antenatal women was 52.4% in the present study which is much higher as compared to Sridharan et al. done in 2001 which showed only 32% have knowledge about PC & PNDT Act. The reason for higher awareness in present study may be that the Sridharan study was done in 2001 and at that time the literacy status was much lesser as compared to 2011 and also there is a big role of electronic media for increasing awareness and knowledge in last decade (2001-2010). As an impact of strong advertisement by diagnostic centers even illiterate group are now quite aware of the facility.

In study by S. Ghose et al. maximum knowledge regarding PC & PNDT Act was seen in age group 20-25 yrs. The knowledge decreased both above and below this age group. In the present study increasing trend of knowledge with age was seen, the knowledge about PC & PNDT act among the various age group increased from 49.4% to 60.5% in the lowest to highest age group but the difference was not statistically significant.

S. Ghose et al. revealed in a study that there was good knowledge (75%) about the PNDT Act among the pregnant women. High literacy status of women in Pondicherry (74.13% for females) may have played a role. Srivastava et al. showed that awareness regarding PNDT Act was significantly associated with the literacy status of females, 62% of those who studied up to secondary were aware of PNDT Act as compared to less than 26% were aware among the illiterate group. In the present study also an increasing trends of knowledge about PC & PNDT Act was seen with increase of literacy status. The difference of knowledge about PC & PNDT Act with Literacy status varies between 41.9% among illiterate to 86.5% among Graduate & above. These observations were found statistically highly significant. 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.

The present study also revealed that there was increasing trends of knowledge about PC & PNDT Act is seen with higher socioeconomic group. The difference of knowledge about PC & PNDT act with socioeconomic status varies between 36.5% among class V to 66.1% among class I. These observations are statistically highly significant.

There was also highly significant difference in knowledge about PC & PNDT act with Parity status.

B N Vadera et al. showed that 58.5% of women gave preference to male child. A study carried out by Puri et al. showed that 56% women in the slums of Chandigarh showed preference to male child while in the present study it is 67.8% of all study population who gave the preference to male child.

The various reasons for son preference mentioned by the women include that he is the support and provider in old age; brings in dowry instead of draining family resources; keeps the family name alive; performs the last rites; on investing in sons, say on education or business, the wealth remains in the family. The main perceived reason for not wanting daughters was dowry by all the respondents.

Every year, as millions of women marry, they dream of starting a family, of having their homes filled with tiny cries and the happy laughter of gurgling babies. In India however, pregnancy is too often followed by the question of whether the unborn child is a girl or a boy.

“*Announcement of the birth of a son by beating of brass plates but at the birth of a daughter break earthen pots.*” Marriage in the Hindu fold of life is still traditionally considered essential for procreation and the continuation of the ‘*gotra*’ (lineage). Blessings showered on the bride during a wedding, consist of the line “*Ashthau bhavantu putran*,” meaning “May you be blessed with eight sons.” Prior to conception, mantras from the *Atharva Veda*, one of four most sacred books of Hinduism, are prescribed for chanting so that if the fetus is female it will be transformed into a male. The traditional joint family is patriarchal. Even though migration and increasing urbanization has led to more nuclear families, the patriarchal ways are still embedded in the psyche of the Indian man. Despite the legal emancipation of women in India, their education and employment in modern occupations, the traditional bias regarding female children has not undergone a change.

In most parts of the country son is a major obsession. One son is a cause for joy while two are seen as a lifetime for celebration, the

In the Present study 21% of study population has experienced miscarriage in previous pregnancy. Out of them majority (61.43%) have done MTP due to various reasons. 12.9% of study population has done MTP during previous pregnancy. Majority (43.41%) of them done due to already having two or more daughters and 18.61% having already a daughter while 21.71% have done due to family/husband's pressure.

Study by AJ Singh et al. revealed that majority (67%) of respondents had some test done during current pregnancy either for confirmation of pregnancy or they were advised by doctor to undergo the test. 13% women admitted that they had Sex Determination Test (SDT) done while in the present study it is found that 93.8% of study population reported that they had some test done during their current pregnancy. 65.8% had ultrasound test done for fetal well being as advised by the doctor, 13.3% women confessed that they did it for sex-determination

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