

## Original Research Article

# A study on knowledge, attitude and practice of family planning and determinants of fertility among different socio religious groups in a southern city: a cross sectional study

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### ABSTRACT

**Background:** The present study was conducted to assess knowledge, attitude, the practice of family planning and to study the determinants of fertility in different socio religious population in Tirupati, Andhra Pradesh, India.

**Methods:** The present cross-sectional study was carried out among 150 study subjects using a self-administered questionnaire. The data was collected and analyzed with Epi info version 7.

**Results:** Only 144 participants actively participated and given their consent. Majority of them have knowledge about any one method of contraception. An average of both Muslim and Hindu religion have known about the natural contraceptive methods, oral contraceptive pills and IUCD was equal and an average of 11-12% of the participant were aware about side effects of oral contraceptive pills. The objections to contraceptive preventing women from using contraceptives coming from husbands and mother-in-law were strongly agreed/agreed in Hindu and Muslim population almost similar. The religious believes were strongly agreed/agreed in Muslim women than Hindu. Even though most of the participants visited or consulted with health care professionals in health center for family planning and 3/4th of them were using contraception. While comparing the four proximate determinants of fertility, index of contraception had greater impact on fertility than others.

**Conclusions:** The present study highlighted that most of the women have not practised and have less knowledge about modern contraceptive methods. Innovative approaches have to be planned, tested and implemented to ensure their access to information, contraceptive methods and family planning services.

**Keywords:** Contraceptive, Family planning, Fertility determinants, Socioreligious groups, Total fertility rate

### INTRODUCTION

India is the second largest populated country after China in the world with a rapidly growing population at the rate of 16 million per year as per 2011 population census data. The Government of India launched a family welfare program in 1950's to accelerate the economic and social development by reducing the population growth. But this program has met with only marginal success. This is because people of India have different levels of

awareness and acceptance of methods of family planning and the people are multilinguistic, multireligious and multi-ethnic.<sup>1</sup>

Before launching a special program, understanding of the different levels of awareness and acceptance of methods of family planning, a thorough understanding of the differentials and determinants of fertility and mortality is essential. In recent years, there is need for studies to understand the factors determining the fertility and family

planning acceptance and practices among different religious groups, so that more specific knowledge can be gained about factors determining family planning acceptance by particular communities, which can then be used for developing suitable program for them.

In India, almost 80% of the population are occupied by Hindu religion after which, Muslim religion is the second most largest community constituting about 14.23 percent (172 millions) of total population (2011 census). Hinduism is majority religion (92.82%), Islam is second most popular religion in city of Tirupati with approximately 6.05% (17,858), and Christianity is 0.74% (census 2011). The present study was carried out to assess the knowledge, attitude and practice of family planning in different socio religious groups in southern city of Tirupati and also to study the determinants of fertility.

## METHODS

A cross sectional study was conducted over a period of one month among 150 women (sample size). Which was calculated by using unmet need for family planning in Chittoor and contraceptive prevalence and the formula was  $(Z\alpha)^2 \cdot p \cdot q / l^2$ . The married Muslim women of reproductive age group 15-45 years of age and women who gave written consent were included in the study. Descriptive statistics was used for data analysis. All the collected data were analysed with regard to the information given by the subjects in the set questionnaire.

The study was carried out at areas nearer to government maternity hospital (near Mahathi Auditorium, Galiveedhi, near Alipiri, Tummalagunta, Akkarampalle, Anasapalli near Mangalam) in Tirupati. The data was collected about knowledge, attitude and current practices of family planning and also determinants of fertility by scheduled questionnaire from 150 participants. The study subjects were selected by quota sampling method in the reproductive age group of 15-45 years, so that selected sample is representative of that population. The scheduled questionnaire was structured based on the objectives of the study. Participants who met inclusion and exclusion criteria, who consented to participate in the study were asked questions as per questionnaire to assess the level of knowledge, attitude, current contraceptive practices and determinants of fertility. Total fertility rate calculated by product of,

**Index of marriage (proportion of females married):** Calculated as the weighted average of the age-specific proportions married,  $m(a)$ , with the weights given by the age-specific marital fertility rates,  $g(a)$ .

**Index of contraception, Cc (prevalence of contraceptive usage):** Estimated as  $1 - 1.8ue$ ,  $u$  = average proportion of married women currently using contraception (average of age - specific use rates);  $e$  = average contraceptive effectiveness (average of use-effectiveness levels by age and method).

**Index of abortion, Ca (abortion prevalence):** Calculated from the information of lifetime experience of induced abortions (TA), contraceptive use ( $u$ ).

**Ci (inhibiting effect of breast feeding):** The ratio of the average birth intervals without and with lactation will be called the index of lactational in fecundability.

**Total fecundity rate:** Average number of live births expected among women who during their entire reproductive period remain married, do not use any contraception, do not have any induced abortion and do not breastfed their children.<sup>2</sup>

The collected data was analyzed by using Epi info version 7, in terms of mean, percentages and the results was presented in tables. The data were cross-checked numerous times to ensure its accuracy and validity.

## RESULTS

The study was conducted in Southern part of Tirupati at Mahathi Auditorium, Pedda Chavidi street, Galiveedhi, near Alipiri, Tummalagunta, Akkarampalle.

**Table 1: Sociodemographic profile of the participants (n=144).**

Variables	Range	Number	Percentage
Age (years)	<20	9	6.4
	20-35	97	67.0
	>35	38	26.6
Education	Illiterate	27	18.9
	Primary	55	38.5
	Secondary	41	28.8
	Intermediate	17	11.8
	Graduation	3	2.0
Occupation	Home maker	104	72.3
	Self employed	32	22.3
	Job holder	8	5.3
Parity	Primi	21	14.9
	Gravida -2	40	27.7
	Multigravida	70	48.9
	Grand Multi	12	8.5
Socio economic status	High	11	7.4
	Upper middle	23	16.0
	Lower middle	95	66.0
Family type	Low	15	10.6
	Nuclear	120	83.0
Religion	Joint	24	17.0
	Hindu	60	42.0
	Muslim	81	56.0
	Christian	3	2.0

In this study a total of 150 members were participated. Among these six participants were not willing to give

consent due to fearing of their family members or other reasons. Only 144 participants actively participated and given their consent.

The results showed that majority of the participants were in the age group of 20-35 years (67.0%) with average age was 28.5 years. Many of the participants were educated up to primary school (55, 38.5%) followed by secondary education (41, 28.8%). The participants who studied up to secondary school and above were 8% more in case of Hindu people than Muslim people. A large proportion of the participants were home makers about 70-72% in both Muslim and Hindu population. According to family type, nuclear family was recorded high percentage 83.0% (120) follows joint family 17.0% (24). Most of the participants were belong to low middle-class socio-economic status (95, 66.0%) followed by 16.0% (23) of upper middle class. In this study majority of the participants belonged to Muslim religion correspond to 56% (81), Hindu religion people constitutes 42% (60), and Christians were only 2% (Table 1). As majority of participants belonging to Muslim religion followed by Hindu religion in these areas and the data was analysed among these two population groups. Regarding knowledge related questions, only 55.3%, 44% of the participants know a place where method of family planning was obtained in Hindu population and Muslim population respectively.

Condoms are one of the contraceptive method of choice was known 15% more in Hindu population than Muslim population. An average of 33%, 28%, 34% people in both Muslim and Hindu religion have known about the natural contraceptive methods oral contraceptive pills and IUCD respectively. A large majority of the participants among both Muslim and Hindu religion known female sterilisation is one way of preventing pregnancy was about 93 (98.9%). Almost equal number of the participants in both religions (69-70%) agreed that health education is important for women who want to use contraceptives and also answered that by usage of condoms will prevent Sexually Transmitted Infections (STIs). Only an average of 11-12% of the participant were aware about side effects of oral contraceptive pills. About 31.9% and 29% women among Hindu and Muslim population respectively were aware about emergency contraception. A majority of the women (62%, 84.0%) was disagree the contraceptive pills do not guarantee 100% protection. Only 7 (out of 61) and 11 (out of 80) participants answered the emergency contraception is a substitute for regular contraception. 40.4% and 52% were not having idea about the stage of menstrual cycle likely to conceive in Muslim and Hindu population respectively, and large majority of participants 79.8% (Hindu), 75% (Muslim) were agreed ideal age to bare first child between 20-30 years (Table 2).

**Table 2: Frequency and percentages of the responses on the knowledge related questions among Hindu and Muslim religion.**

Question related to knowledge	Hindu				Muslim			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
<b>Do you know a place where you can obtain method of family planning?</b>	33	55.3	27	44.7	36	44	45	56.0
<b>Do you know about various methods of contraception</b>								
Natural methods	22	36	38	64.0	26	31.9	55	68.1
Condoms	27	45	33	55.0	24	30.0	57	70.0
Oral contraceptive pills	17	27.7	43	72.3	21	26	60	74.0
IUCD	20	33.0	40	67.0	28	35.1	53	64.9
<b>Do you know about female sterilisation is one way to avoid pregnancy?</b>	59	98.9	1	1.1	79	97.5	2	2.5
<b>Is health education is important for women who want to use contraceptives?</b>	43	72.3	17	27.7	57	70.5	24	29.5
<b>Do you know usage of condoms reduces transmission of STI?</b>	42	70.0	18	30.0	49	60.6	32	39.4
<b>Do you know about side effects of oral contraceptive pills?</b>	8	12.8	52	87.2	8	10	73	90.0
<b>Are you aware of emergency contraception?</b>	19	31.9	41	68.1	23	29	58	71.0
<b>Do you know contraceptive pills do not guarantee 100% protection?</b>	37	62.0	23	38.0	68	84	13	16.0
<b>Do you think emergency contraception can substitute for regular contraception?</b>	4	7.4	56	92.6	11	13.5	70	86.5
<b>Do you know which stage of menstrual cycle likely to conceive?</b>	24	40.4	36	59.6	42	52	39	48.0
<b>Do you know that ideal age to bare first child between 20-30 years</b>	48	79.8	12	20.2	61	75	20	25.0

**Table 3: Attitude towards family planning in Muslim religion (n=81).**

Attitude questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	N	%	N	%	N	%	N	%	N	%
<b>Do you think is it necessary to know about the contraceptives</b>	30	37.2	37	45.7	6	7.4	5	6.4	3	3.2
<b>Do you think that Contraception should be used to limit the number of children</b>	28	34.0	41	50.0	7	8.5	4	5.3	2	2.1
<b>Do you know that contraceptive methods can be used to increase inter-pregnancy interval</b>	32	39.4	36	44.7	5	6.4	6	7.4	2	2.1
<b>Do you agree that contraceptive methods can protect the health of family and community?</b>	28	35.1	44	54.3	5	6.4	3	3.2	1	1.1
<b>Do you know that birth spacing is important for both mother and child health?</b>	29	36.2	32	39.4	16	19.1	3	3.2	2	2.1
<b>Do you accept that objections to contraceptives preventing women from using contraceptives coming from</b>										
Husband	22	27.7	35	43.6	13	16.0	9	10.6	2	2.1
Mother in law	27	33.0	34	41.5	9	11.7	8	9.6	3	4.3
Father in law	6	7.4	9	10.6	37	45.7	19	23.4	10	12.8
<b>Do you agree that vasectomy is also method of choice for sterilisation?</b>	2	2.1	5	6.4	61	75.5	9	10.6	4	5.3
<b>Are you in belief that Islam-religion preventing the women from using contraceptives?</b>	18	22.3	37	45.7	16	19.1	8	9.6	3	3.2
<b>Are you in belief that male child must be born to a women?</b>	8	9.6	14	17.0	22	26.6	32	39.4	6	7.4

**Table 4: Attitude towards family planning in Hindu religion (n=60).**

Attitude questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	N	%	N	%	N	%	N	%	N	%
<b>Do you think is it necessary to know about the contraceptives</b>	21	35.2	27	44.8	6	10.4	4	6.0	2	3.6
<b>Do you think that contraception should be used to limit the number of children</b>	19	31.5	30	50.5	6	9.5	4	6.4	1	2.1
<b>Do you know that contraceptive methods can be used to increase inter-pregnancy interval</b>	25	41.2	26	43.5	4	6.5	4	6.8	1	2.0
<b>Do you agree that contraceptive methods can protect the health of family and community?</b>	20	34.0	33	55.0	4	6.4	2	3.5	1	1.1
<b>Do you know that birth spacing is important for both mother and child health?</b>	20	34.0	24	40.0	11	18.0	2	4.0	2	4.0
<b>Do you accept that objections to contraceptives preventing women from using contraceptives coming from</b>										
Husband	14	24.0	24	40.0	10	16.5	8	13.5	4	6.0
Mother in law	18	30.0	25	42.0	8	13.5	7	11.5	2	3.0
Father in law	6	10.5	7	12.4	32	52.8	10	16.5	5	7.8
<b>Do you agree that vasectomy is also method of choice for sterilisation?</b>	2	3.0	2	4.0	27	45.2	23	38.6	6	9.2
<b>Are you in belief that Islam-religion preventing the women from using contraceptives?</b>	5	8.1	7	12.4	13	22.4	21	35.5	13	21.6
<b>Are you in belief that male child must be born to a women?</b>	5	8.5	6	10.5	21	35.5	18	29.6	10	15.9

**Table 5: Frequency and percent distribution of practice towards family planning among Muslim and Hindu religion.**

Question	Muslim (n=81)				Hindu (n=60)			
	Yes		No		Yes		No	
	N	%	N	%	N	%	N	%
<b>Did you visited any health for family planning services?</b>	52	63.8	29	36.2	41	68.0	19.2	
<b>Are you using any contraceptive method to prevent pregnancy?</b>	31	38.3	50	61.7	24	40.0	36	
<b>Did you use contraceptives when you do not intend to get pregnant?</b>	51	62.8	30	37.2	44	73.0	16.2	
<b>The current method of contraception changes from time to time?</b>	19	23.4	62	76.6	15	25.5	44.7	
<b>Do you practicing any natural contraceptive method?</b>	22	26.6	59	73.4	14	24.0	45.6	

A majority of the participants in both Hindu and Muslim religion, strongly agreed/agreed that necessity to know about the contraceptives, the contraception should be used to limit the number of children and contraceptive methods were used to increase inter-pregnancy interval. They were also strongly agreed/ agreed that contraceptive methods can protect the health of family and community (about 88% in both the groups). The objections to contraceptive preventing women from using contraceptives coming from husbands and mother-in-law were strongly agreed/agreed by 64%, 71.3% and 72%, 74.5% in Hindu and Muslim population respectively. The three quarters of the participants, 74%, 75.5%, were strongly agreed/agreed that birth spacing is important for both mother and child health. About 10% (Hindu), 68% (Muslim) of the participants were strongly agreed/agreed that believes in religion preventing the women from using contraceptives. 26.6%, 34% in Hindu and Muslim peoples respectively strongly agreed/agreed they believes that male child must be born to a women. The vasectomy is also method of choice for sterilisation was strongly agreed/agreed by very less number 7% (Hindu) and 8.5% (Muslim)) of the participants (Table 3 and 4).

The results pertaining to the participants' family planning practices are shown in Table 5. Sixty-eight per cent of Hindu and 63.8% of Muslim participants visited or consulted with health care professionals in health center for family planning. But only 3/4th of them (40% (in Hindu religion), 38.3% (in Muslim religion)) using any one method of contraceptive method. Majority of them 73% (in Hindu religion), 62.8% (in Muslim religion) used contraceptives when they did not intend to get pregnant. Almost equal percentage (about 23-26%) of Muslim and Hindu population changes method of contraception from time to time and practicing natural method of contraception for family planning.

The fertility pattern changes over time which was caused by changes in one or more of the proximate determinants and their contribution to Total Fertility Rate (TFR). The determinants were calculated for the entire population under study, there are four proximate determinants of fertility which showed impact on fertility. Among those, index of contraception (Cc) playing an important role in decreasing the fertility rate, indicating that increase of contraceptive practice. In the present study, impact on

fertility is in the order of Cc (0.44) >Ca (0.59) >Cm (0.74) >Ci (2.41). Higher the value lower their impact on fertility (Table 6).

**Table 6: Determinants of fertility.**

Proximate determinant indices	Estimates value
<b>Index of marriage (Cm)</b>	0.74
<b>Index of contraception (Cc)</b>	0.44
<b>Index abortion (Ca)</b>	0.59
<b>Index of postpartum fecundability (Ci)</b>	2.41

Impact on fertility: Cc> Ca>Cm> Ci

## DISCUSSION

The knowledge and practice of contraceptive prevalence was more in participants who have at least secondary education or more. This study literacy rate somewhat more in Hindu people than Muslim people, it correlates with the study conducted by Qureishi et al.<sup>3</sup> It became an important tool for assessing the knowledge and to make appropriate measures to create awareness about different contraceptive methods. Even though majority of the participants were nuclear family type, most of the women reported husband and mother in law as the sole decision maker for family planning concerns. As per a study conducted by Kiran et al, only 20% women decide on choice of contraceptives on their own.<sup>4</sup> Sufian et al, conducted a study and concluded that in South Asia, women considerably have a lower socio status and autonomy and this seems to be associated with their lower control over fertility.<sup>5</sup> Most of the participants in these areas were belonging to low middle class socio economic status making them inaccessible and unaffordable.

Regarding knowledge related questions, approximately half of the population in both Muslim and Hindu people know a place where method of family planning was obtained and majority (99%) of them know about at least one type of contraceptive methods. It coincides with the study conducted by Qureishi et al in which they stated that 98.7% are having knowledge of family planning. About 98.9% of the participants were believing in female sterilisation is the way to avoid pregnancy.<sup>3</sup> Lincoln et al, conducted a study in 2017 in Fiji, found that 84.6% of the participants aware about sterilization.<sup>6</sup> In the present

study only an average of 25-35% of the participants had knowledge about condoms, natural contraceptive methods, oral contraceptive pills and IUCD are one of the contraceptive methods. There is necessity to create awareness among both religions (Hindu, Muslim) about oral contraceptive pills and IUCD.

A majority of the participants agreed that health education is important for women who want to use contraceptives and known that usage of condoms can prevent Sexually Transmitted Infections (STIs). The same results were obtained by a study conducted by Lincoln et al.<sup>6</sup> It was mainly known by mainly adds in the television, through various health education meetings. As only a minimal number of participants were aware about side effects and protection rate of oral contraceptive pills, detail education about uses, advantages and disadvantages of OCP's should be encouraged. Some participants were in belief that emergency contraception is substitute for regular contraception, this should be discouraged and appropriate contraception should be advised.

As compared to the study conducted by Lincoln et al a majority of the participants (84%) strongly agreed/agreed that necessity to know about the contraceptives, as they can be used to limit the number of children and to increase inter-pregnancy interval, there by contraceptive methods can protect the health of family and community, the present study also found that it was 82-83% in both religious groups.<sup>6</sup>

About more than half of the Muslim participants were strongly agreed/agreed that believes in Islam-religion preventing the women from using contraceptives in belief that Islam says more number of children and male child must be born to a women. In a study by Saifi et al stated that 34.55% of Muslim women not using any kind of contraceptive methods due to religious restriction and 30% not practicing contraceptive methods if they had female child as their first child.<sup>7</sup> Literacy rates were also lesser in Muslim population when compared to Hindu population. Almost all participants disagree with the vasectomy as a method of contraception.

As per study conducted by Shumayla et al although majority of the participants were visiting health centres for family planning, half of them were using contraceptives and most of them using contraception when they did not intend to get pregnant.<sup>7</sup>

A study conducted by Aghoja et al in Nigeria, found similar results as present study i.e., the factors associated with associated with low contraceptive usage were ineffective conveyance of the information regarding various contraceptive methods, low literacy level especially in Muslim population, fear of side effects, family concerns, low socio economic levels, cultural and religious beliefs.<sup>8</sup>

A high level knowledge of family planning did not match with practices in this study area. Most of the women have not practised modern contraceptive methods, and they did not use contraceptive because of religious believes, socio-cultural factors, disapproves husbands and mother-in-law and their traditional values. They need special programs for educational, economic upliftment. Innovative approaches have to be planned, tested and implemented to ensure their access to information, contraceptive methods and family planning services. Motivation towards practice of family planning is very important for improvement in community health well-being.

In the present study, the effect of determinant on fertility were compared. Contribution of index of marriage, effect of postpartum fecundability (lactational amenorrhea), index of abortion were very negligible. The effect of index of contraception on fertility reduction was more. It was compared to data collected by Majumder et al.<sup>9</sup>

## CONCLUSION

The present study highlights that the most of the women are not practising and have less knowledge about modern contraceptive methods. Moreover, other factors were also playing role, one needs to understand the level of awareness and practices in the community before implementing the family planning program. Innovative approaches have to be planned, tested and implemented to ensure their access to information, contraceptive methods and family planning services.

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