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Research Article

A study on contraceptive use among married women of reproductive age group in a rural area of Tamilnadu, India

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ABSTRACT

Background: India was the first country in the world to formulate the national family planning programme in the year 1952 with the objective of “reducing the birth rate to the extent necessary to stabilize the population at a level consistent with requirement of national economy. The objective of this study was to study contraceptive use among married women of reproductive age group in a rural area of Tamilnadu.

Methods: A cross sectional study was conducted from December 2014 to January 2015 in Sree Mookambika institute of medical Sciences, Kulasekharam among the married women in eligible couples group attending the hospital. Sample size was calculated to be 84. Inclusion criteria: married couple with female in age group of 15 - 45 years and sexually active and having the ability to communicate in local language.

Results: The mean age was 30.95 years (SD = 6.421). Formal education was received by 100% women. Majority are Christians (48.8%) followed by Hindu (46.4%) and Muslim (4.8%). Among the respondents (n = 84), 33.7%, 41.7%, 2.4% and 22.6% had parity of 1, 2, 3 or more and none respectively. Most of the women (71.4%) belonged to middle class group. 94% of women were aware of sterilization. This study shows a significant association between number of children and contraception usage (p<0.05). As parity increases contraception usage rate increases. Similar association is seen between number of male children and contraception practice (0.006). Also acceptance for permanent method of family planning increased with increasing parity (0.00) and number of male children (0.04).

Conclusions: The study reveals good knowledge and favorable attitude of rural couples towards contraception. Contraceptive knowledge and practice was influenced by exposure to family planning messages.

Keywords: Contraceptive, Reproductive age group, Family planning

INTRODUCTION

India was the first country in the world to formulate the national family planning programme in the year 1952 with the objective of “reducing the birth rate to the extent necessary to stabilize the population at a level consistent with requirement of national economy.”¹

Family planning assists “families in achieving the number of children desired with appropriate spacing and timing, ensuring optimal growth and development of each

family member”. Failure to plan a pregnancy can adversely affect the health of the mother, the child and the families as a whole. It also protect from high-risk pregnancy, unsafe abortion, reproductive tract infection and STDs including HIV/AIDS

The international conference on population and development (ICPD) defined voluntary family planning services as a fundamental human right as well as couples’ right. Gaps in reproductive health/family planning and sexual health care account for nearly 1/5th of the

worldwide burden of illness and premature death and 1/3rd of illness and death among reproductive age group women.²

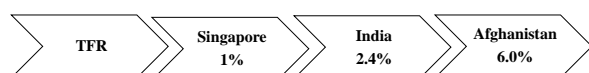
The population of India at 0.00 hours of 1st march 2011, as per the provisional population totals of census 2011 is 1, 210, 193, 422 compared to a total of 1, 028, 737, 436 in 2001. In absolute terms, the population of India has increased by more than 181 million during the decade 2001 - 2011. Three most populous ones, China, India and USA together account for four of every ten persons of the world. At present a little more than one out of every 6 persons in the world is from India.

The United Nations has estimated that the world population grew at an annual rate of 1.23 percent during 2000 - 2010. With a definite slowing down of population growth in china, it is now estimated that by 2030, India will most likely overtake china to become the most populous country on the earth with 17.9 percent population living here.³

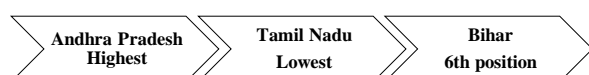
According to 2011 census, total population in Tamil Nadu is 7, 21, 47, 030 and the annual growth rate is 15.6% (2001 - 2011).⁴

The TFR for the country remained constant at 2.6 during 2008 and 2009 with Bihar reporting the highest TFR at 3.9 while Kerala and Tamil Nadu continued its outstanding performance with the lowest TFR of 1.75.

TFR



In India



In 1965 - 2009 periods, contraceptive usage has more than tripled from 13% of married women in 1970 to 48% in 2009 and the fertility rate has more than halved from 5.7 in 1966 to 2.4% in 2012 but the national fertility rate is still high enough to cause long term population growth.⁶

Family planning in India is based on efforts largely sponsored by Indian govt. Evidence concerning contraceptive use or non-use, choice of method and adherence to regimen may help to guide clinical and public health education programs and policies to provide optimal contraceptive choice and to optimise adherence and thereby reducing unintended pregnancy. Demographic changes often take years to be evident, making it difficult to predict how today's an action will affect the future size and distribution of populations.

Small changes in childbearing trends today have huge implications for future population size.

Keeping in view the above points, the present study was designed to find out the contraceptive practice and identifying the different variables which affect the contraceptive usage among the married women in eligible couples group attending Sree Mookambika institute of medical Sciences, Kulasekharam.

According to NFHS III survey 2005-06, 98 percent of women know one or more methods of contraception. Female sterilization is the most widely known method among women (97 %). Among the three spacing methods offered by the government family planning programme (pill, IUD, and condom), the pill is most widely known among women (85 %). Emergency contraception is known to only 11 percent of women. Contraceptive prevalence rate in India is 56%. Female sterilization accounts for two-thirds of total contraceptive use and the highest (37%). Among the spacing methods, the most widely used methods are condoms and rhythm (5%). The use of the three modern spacing methods together accounts for 18 percent of the CPR. Unmet need for family planning was 13% in India and 8.9% for Tamil Nadu. More married women with unmet need live in India than in any other country - approximately 31 million (urban - 8.8%, rural - 9.1%).⁷

According to DLHS III 2005-06.⁸

Table 1: Current use of family planning methods.

Any method (%)	54.0	51.1	60.2	52.5	48.8	61.9
Any modern method (%)	47.1	44.4	53.0	45.2	42.0	53.4
Female sterilization	34.0	34.1	34.6	34.3	34.1	34.7
Male sterilization	1.0	1.0	0.7	0.9	0.9	0.9
Pill (%)	4.2	4.1	4.4	3.5	3.0	4.7
IUD (%)	1.9	1.4	2.9	1.8	1.1	3.7
Condom (%)	5.9	3.8	10.6	4.6	2.8	9.3
Any traditional method (%)	6.7	6.5	7.2	7.2	6.8	8.4

In 2005, the contraceptive prevalence rate in Tamilnadu is 55.3% for the whole sample, which represents the state. It is 55.8 percent for rural and 54.6 percent for urban areas.⁹

Contraceptive knowledge, attitude and practice among eligible couples of rural Haryana.¹⁰

Results showed that the overall knowledge about any method of contraception was 97.2%. The knowledge was higher for female sterilization (93.2%) and low for spacing methods (86.8%, 77.6%, and 91.2% for oral pills, IUCD, and condom respectively) and male sterilization (86.2%). 59.2% of the interviewed couples were

practicing family planning methods. Female sterilization was the most common chosen method used by 46.0% of couples. Couples not practicing contraception were 40.8%.

The objective of this study was to study contraceptive use among married women of reproductive age group in a rural area of Tamilnadu.

METHODS

A cross sectional study was conducted from December 2014 to January 2015 in Sree Mookambika institute of medical Sciences, Kulasekharam among the married women in eligible couples group attending the hospital. The ethical requirements were fulfilled. Sample Size is calculated by $[Z(\alpha)]^2 PQ/d^2$. Sample size was calculated to be 84. Study was interview based. Systemic random sampling was used. All the selected females were interviewed, based upon a semi-structured pre designed and pre-tested performa after taking consent from the subject. Confidentiality of the data were ensured to the study participants. The participation was on voluntary basis.

Inclusion criteria

Married couple with female in age group of 15 - 45 years and sexually active and having the ability to communicate in local language.

Exclusion criterion

- Unmarried women
- Participants not willing to respond even after requesting and ensuring confidentiality were excluded from the study
- Females suspected to be suffering from infertility were also excluded from the study. Inability to conceive after 1 year of marriage and cohabitation with husband was taken as the criterion for infertility.

Interview with each woman lasted for 15-20 minutes. The questionnaire consisted of demographic characteristics including age, marital status, level of education, and employment. Questions were asked regarding previous pregnancies and family planning method used knowledge about contraceptive methods like condoms, combined oral contraceptive pills (COC), injectable hormones, intrauterine contraceptive device (IUCD), and natural methods. The knowledge of permanent method of contraception like tubal ligation and vasectomy was also assessed. The source of knowledge and the women's attitude towards the contraception in the form of motivation, involvement of spouse and/or self and acceptability of contraception were recorded. Questions regarding factors responsible for non-use of contraception were also asked. Descriptive analysis was done and the

results were given in percentages. SPSS 20.0 was used to analyze the data.

RESULTS

A total of 84 married women in age 15 - 45 years were studied. The mean age was 30.95 years (SD = 6.421).

Table 2: Education.

	Frequency	Percent
Profession/honours	24	28.6
Graduate/pg	24	28.6
Intermediate/post high school diploma	12	14.3
High school certificate	11	13.1
Middle school certificate	9	10.7
Primary school certificate	4	4.8
84		100.0

Table 3: Knowledge and awareness of contraception and source of information among women interviewed.

Awareness and source of knowledge of contraception		
Awareness of contraception		
Yes	84	100%
Family planning means		
Pregnancy prevention	37	44%
Birth spacing	36	42.9%
Planning for better future	49	58.3%
Birth limiting	45	53.6%
Others specify	1	1.2%
Methods known		
Natural methods	58	69%
Oral pills	51	60.7%
Injectable	23	27.4%
Implants	18	21.4%
IUCD	56	66.7%
Barrier methods	59	70.2%
Spermicides/jelly/foams	18	21.4%
Emergency contraception	28	33.3%
Sterilization	79	94%
Source of information		
Husband	13	15.5%
Health personnel	34	40.5%
Mass media	14	16.7%
Friends	6	7.1%
Relatives/ neighbours	4	4.8%
Others	19	22.6%

Total is not 100% as women knew of multiple methods of contraception and several sources of information

Formal education was received by 100% women. Majority are Christians (48.8%) followed by Hindu (46.4%) and Muslim (4.8%).

Among the respondents (n = 84), 33.7%, 41.7%, 2.4% and 22.6% had parity of 1, 2, 3 or more and none respectively. Most of the women (71.4%) belonged to middle class group.

In this study, 100% had awareness regarding any method of contraception.

94% of women were aware of sterilization. The main source of information is health personnel (40.5%).

Out of 51 women who were aware of oral pills, only 28.6% (n = 24) knew to start the first dose of OCP on the 5th day of menstruation and 20.2% (n = 17) knew to take the missed pill the moment she remembers.

Among women who were aware of sterilization (n = 79), 88.1% (n = 74) knew that it is a permanent procedure. Out of 56 women who knew about IUCDS, 16.7%, 21.5% and 61.9% did not know how it is used, the time of insertion and its contra indications. Among women aware of condoms, majority (45-65%) knew that it is protective against pregnancy and HIV/AIDS. 28.6% of women knew about the unsafe period in menstrual cycle that may result in pregnancy.

Out of 84 eligible couples, 75%, 48.8%, 27.4%, 41.7%, 42.9% and 9.5% were aware of the contraception availability at government hospitals, private hospitals,

dispensaries, primary health centres, pharmacies and others respectively. Even though 100% of women were aware of family planning measures, only 57.1% (n = 48) had used contraceptive methods. Sterilization (26.2%) was the most common method adopted.

Out of 48, only 40 are still using it. 42.9% (n = 36) did not practice any method of contraception. There were multiple responses to the reason for non-use. Majority didn't feel a need (28.6%), followed by superstitious beliefs (6%), scared of adverse medical effects (4.8%) and prevents future pregnancies (3.6%).

Table 4: The practice of contraception.

Practice of contraception		
Not practised any methods	36	42.9%
Natural methods	15	17.9%
Barrier methods	12	14.3%
Oral pills	2	2.4%
IUCDs	4	4.8%
Sterilization	22	26.2%
Emergency contraception	6	7.1%

*Total is not 100% as there were multiple responses

Among 8 couples who discontinued, majority (62.5%) stopped currently because of adverse medical effects.

Table 5: Family planning.

	Strongly agree%	Agree%	Disagree%	Strongly disagree%	Don't know%
Improves family standard of living	59.5	36.9	1.2	1.2	1.2
Natural methods of contraception can prevent pregnancy	29.8	35.7	13.1	4.6	16.7
Family planning should be made compulsory in India	59.5	26.2	9.5	3.6	1.2
Necessity of educating school students about family planning	35.7	33.3	14.3	9.5	7.1
Women can become pregnant after she					
Stop using OCP	23.6	36.9	7.1	4.8	27.4
Has removed IUCD	17.9	36.9	9.5	4.8	31

33.3% were practising the above methods for more than 2 years and majority (95.2%) did not experience any side effects. All 6 couples (7.1%) who had used emergency pills just used it once. 1.2% of women had become pregnant as a result of contraception failure. Majority of people (65-95%) showed a positive attitude towards family planning.

This study shows a significant association between number of children and contraception usage (p<0.05). As parity increases contraception usage rate increases. Similar association is seen between number of male

children and contraception practice (0.006). Also acceptance for permanent method of family planning increased with increasing parity (0.00) and number of male children (0.04).

DISCUSSION

In our study mean age was 30.95 (sd = 6.421). All women (100%) had knowledge of some method of contraception. The findings are similar to prevalence of knowledge reported by Takkar et al (100%) but higher than NFHS III (2005-06) which is 98%.^{7,11}

Knowledge about female sterilization was higher (94%) and it is low for spacing methods which was similar to the contraceptive prevalence study at rural Haryana and DLHS 3 (2007-08) and also corroborates with the NFHS III data.^{7,8,10}

Among spacing methods awareness was higher for condoms (70.2%) which corroborates with the study at Liaquat national medical college and hospital, Karachi and DLHS 3 (2007-08) followed by, natural methods (69%) IUCD (66.7%) and OCPs (60.7%) respectively.^{4,12}

Even though vast majority of women are aware only 57.1% practiced any method of contraception similar to the contraceptive prevalence rate in Tamil Nadu 2005 (55.6%) and NFHS III (56%).^{7,9} This suggest gap between awareness and practice. Similar findings are seen in the study at Karachi hospital.¹²

In the present study the awareness regarding sterilization was highest but only 22.6% practiced the method. Similarly among spacing methods 70.2% were aware of barrier methods but only 14.3% had ever used it, 69% had awareness about natural methods but only 17.9% had ever used it, 66.7% had knowledge of IUCDs but strikingly only 4.8% had ever used, 60.7% were aware of OCPs but only 2.4% had ever used it.

Several factors remained responsible for this gap between awareness and practices that include low compliance, lack of knowledge, religious beliefs and fear of side effects of contraception to low decision making power of women.

In our study one of the major reasons for the non-use (42.9%) of contraception was that the couples did not feel the need to use any (28.6%) whereas the reason was scared of adverse medical effects in a study conducted at a hospital Karachi.¹²

On the other hand among the women, who were using family planning methods, majority (62.5%) stopped currently because of adverse medical effects and the findings are similar to the contraceptive prevalence and awareness study done among Qatari women.² It has been shown that the rate of discontinuation is higher among women who have not been adequately counselled about side effects.

It is important as well to see who provides information regarding contraception. The lack of knowledge about contraception has the potential to dramatically affect the providers' ability to extent quality contraceptive care to their patient. In the present study, health personnel and mass media play the major role in awareness, 40.5% and 16.7% respectively responded as getting information through them. In contrast several other studies reported as mass media being the major source of information viz contraceptive awareness study among eligible couples of rural Haryana.¹⁰

It is important for contraceptive providers to have sound knowledge of various methods of contraception and their proper usage to allay fears about contraception. The government is stressing on proper family planning provision but access to quality healthcare and family planning provision should be met with, to make the family planning programme more successful.

In this study even though 33.3% of couples were aware of emergency contraception only 7.1% (n = 6) ever used it. In contrast awareness regarding emergency contraception is 11% among women according to NFHS III survey (2005-06) which is lower when compared to this study.⁷

Majority of women (65-95%) showed positive attitude towards contraception. Similar findings are noted in other studies; 77.5% in a study conducted at Karachi hospital; but factors like fear of side effects, economic constraints, cultural and religious beliefs, low motivation and non-access to providers hinders the use of contraception.¹²

Recommendation

The couples should be given information about contraceptives by the health personnel to motivate them.

Limitation of this study was hospital based study. So we can-not apply results to general population. As each unit in the study have not get equal chance of selection to be include in this study.

CONCLUSION

The study reveals good knowledge and favourable attitude of rural couples towards contraception. Contraceptive knowledge and practice was influenced by exposure to family planning messages. Women education and counseling of couples can play an important role to adopt family planning methods. Electronic media, health personnel and government's organizations can play a positive role to provide knowledge and overcome the knowledge/practice gap.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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