ORIGINAL RESEARCH PAPER

Community Medicine

STUDY ON KNOWLEDGE OF FAMILY PLANNING AMONG MARRIED WOMEN IN REPRODUCTIVE AGE GOUP IN AN URBAN AREA OF NORTHERN KERALA

KEY WORDS: Family planning; knowledge, sterilization.

Dr Arya Lokesan Ratnam* Department of Community Medicine, Academy of Medical Sciences, Pariyaram, Kannur, Kerala, India. *Corresponding Author

Dr Jayasree Anandabhavan Kumaran Department of Community Medicine, Academy of Medical Sciences, Pariyaram, Kannur, Kerala, India.

ABSTRACT

BACKGROUND India is the second most crowded nation in the world. India will become the most populous country in the world in near future if it follows the current growth rate. Family planning is one of the best methods to tackle this problem. The aim of the study is to assess the knowledge of family planning among married women in reproductive age group in an urban area of northern Kerala.

METHODS A community based cross sectional study was conducted in Kandangali, the field practice area coming under Urban Health Training Centre of a tertiary care Centre from June, 2016 - July, 2017. A total of 491 married females in reproductive age group were studied. A semi-structured pre-tested self-administered questionnaire was used to collect information. . Data was analysed using SPSS software.

RESULTS: Out of 491 married females, 98.4%, 0.8% and 0.8% were Hindus, Muslims and Christians respectively. Majority (57%) of them belongs to a family size of less than or equal to 4 members. Majority (97.4%) of women had an educational qualification more than high school and most of the study participants (35.2%) were graduates. Majority (71.5%) of the women were housewives. Most of the study participants have average knowledge (62.3%) about family planning methods. Still there are misconceptions regarding condom and male sterilization. The main source of information about family planning was from health workers. Majority (95.7%) of them had heard of condom (95.7 percent) and the least heard method was injectable (10.6%).

CONCLUSION: Majority of women had average knowledge towards family planning; still there are misconceptions especially about male sterilization and condom. Continuous health education program have to be conducted about family planning methods.

INTRODUCTION

India is the second most crowded nation in the world. According to census report 2011, Indian population stands at 1.2 billion.(1) India will become the most populous country in the world in near future if it follows the current growth rate. The population growth can negatively affect the economic growth and it might become extremely difficult to deal with its demographic implications in future. Family planning is one of the best methods to tackle this problem. National family planning method was first launched by India, in the year 1952.(2)

An expert committee (1971) of the WHO gave the definition of family planning as "´the methods/practices that help individuals or couples to attain certain objectives:

- To avoid undesirable births.
- To bring about desirable births.
- To regulate the intervals between pregnancies
- To control the time at which births occur in relation to the ages of the parent; and
- To determine the number of children in the family."(3)

Family planning is also an important measure that ensures safe motherhood. It helps to reduce maternal mortality and morbidity. Effective family planning measure helps in spacing child births thus ensuring better health of both mother and child, especially in case of high risk mothers. When the births are properly spaced, the child is more likely to receive proper care and nutrition, thus thereby reducing child mortality and morbidity. Family planning practices not only benefits mother and children but also the family and indirectly the whole nation.(4)

Family planning in Kerala

Before 1950's, the awareness regarding family planning practices was low in Kerala, similar to other states in India. The official family planning program in Kerala was introduced only by the mid- fifties. From a level close to zero, the use of family planning methods in Kerala achieved a level of 75%. As elsewhere in India, family planning method followed in Kerala was predominantly tubectomy, as compared to vasectomy, and it still continues to be the most popular method in the state.(5)

The three temporary methods promoted by the government family planning program are: pills, IUDs, and condoms. Knowledge regarding these three modern temporary contraceptive methods in Kerala has decreased by two percentage points from NFHS-2 to NFHS-3. NFHS-3 survey also reported that the percentage of women who knew about male sterilization had fallen from 94% in NFHS-2 to 74% in NFHS-3.(6)

The aim of this study is to assess the knowledge of family planning methods among currently married females in reproductive age group in an urban area of Northern Kerala.

MATERIALS & METHODS

Study design: Community based cross sectional study.

Study period: June 2016 – July 2017

Study setting: In the field area coming under Urban Health Training Centre, of a tertiary care centre.

A community based cross sectional study was conducted in Kandangali, the field practice area coming under Urban Health Training Centre. Kandangali is located under Payyanur Municipality, Kannur district, Kerala. A house to house survey was carried out and all married females aged between 15 to 49 years were included in the present study. Those participants who did not give consent for the study, who underwent hysterectomy, and those who were not there at home at the time of interview were excluded.

Study population:

All married women of Reproductive age group (15-49 years) living in the field practice area (Kandangali).

Inclusion Criteria:
1. Married women in reproductive age group.

Exclusion Criteria:
1. Women who underwent hysterectomy.
2. Women who were mentally challenged.
3. Women who were widow/separated.

Sampling:
All married women of Reproductive age group (15-49 years) living in the field practice area were covered.

Tools:
A pre tested self-administered semi-structured questionnaire.

Questionnaire was standardized after conducting a pilot study.

Data collection method
The study was conducted in the field practice area coming under Urban Health Training Centre. With the help of accredited social health activist (ASHA) workers in the area, a house to house visit was done. Participants were, married women aged between 15 years and 49 years, residing in the field practice area. From those who were willing to participate in the study, written informed consent was obtained. Data were collected using a semi-structured pre-tested self-administered questionnaire recording socio-demographic background (age, level of education, occupation, religion, family size, age at marriage, number of children, birth interval, and socio economic status) and knowledge on family planning.

Knowledge was assessed by giving scores to different family planning method with maximum total score being 9 and minimum score being zero. Knowledge was graded as poor (0-3), average (4-6) and good (7-9).

Pilot testing:
Pilot testing was done among twenty reproductive age group women of study population and the required changes were made in the questionnaire.

Socio economic scale:
In this study, modified B.G Prasad scale (2016) is used to assess the socio economic status (SES).

Statistical Analysis
The data was entered in Microsoft Excel 2007 spread sheet and analysed using SPSS version 16.0 software.

RESULTS
The total number of participants in the study was 491.

Table no.1: Age wise distribution of the study population (n=491)

Age group (in years)	Frequency	Percentage
15-19	2	0.4
20-24	30	6.1
25-29	71	14.5
30-34	108	22.0
35-39	110	22.4
40-44	100	20.4
45-49	70	14.3
Total	491	100.0

Table no.1 shows that out of 491 study populations, majority were in the age group 35 – 39 years (22.4%) and 30-34 years (22%) and the least were in the age group, 15-19 years (0.4%). The mean age of the study participants was 35.93± 7.28 years.

Table no.2: Religion wise distribution of the study population (n=491)

Religion	Frequency	Percentage
Hindu	483	98.4
Muslim	4	0.8
Christian	4	0.8
Total	**491**	**100.0**

Table no.2 shows that, out of the 491 married women 98.4% of the women belong to Hindu religion.

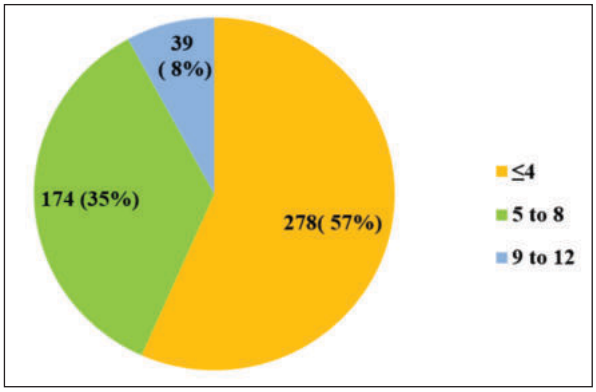


Figure no.1: Distribution by number of family members (n=491)

Figure no.1: shows that, 57% of the total study population belongs to a family size of less than or equal to 4 members and 8% belongs to a family size of 9 to 12 members.

Table no.3: Socio-demographic factors of the study participants (n=491)

Factors	Frequency	Percentage
Education		
Primary school	3	0.6
Middile school	10	2.0
High school	126	25.7
Intermediate school/post diploma	148	30.1
Graduate	173	35.2
Profession	31	6.3
Total	491	100
Occupation		
unemployed	22	4.5
unskilled	12	2.4
Semi skilled	30	6.1
skilled	38	7.7
Clerical/shop owner	9	1.8
Semi profession	19	3.9
House wife	351	71.5
Professional	10	2.0
Total	491	100.0

Table no.3 shows that, Majority (35.2%) of the total study population were graduates and 6.3% had professional qualification. There was no illiterate in study population. Majority (71.5%) of the study population were housewives.

Table no.4: Distribution according to age at marriage. (n=491)

Age At Marraige	Frequency	Percentage
<18 years	72	14.7
18 to 26 years	379	77.2
27 to 35 years	40	8.1
Total	491	100.0

Table no.4 shows that, majority (77.2%) of the study population got married between the age group 18 to 26 years. The mean age at marriage of mothers was 21.7 years with a SD of 3.3 years.

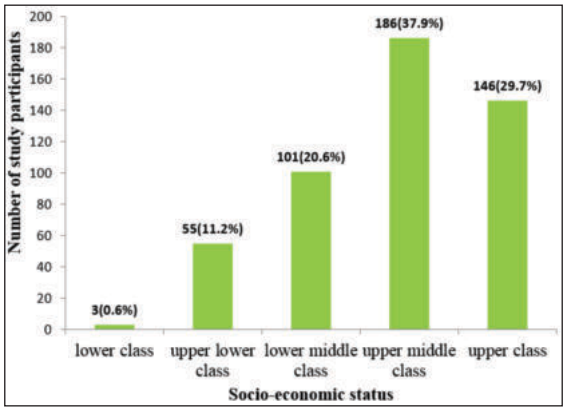
Table no.5: Distribution by number of children (n=491)

No of children	Frequencey	Percentage (%)
0	31	6.3

1	124	25.5
2	309	62.9
3	25	5.1
4	2	0.4
Total	491	100.0

Table no.5 shows that majority of the study population (62.9%) has two children and 0.4% has four children.

Fig no 2: Socio-economic status* of the study population (n=491)



*Updated B G Prasad scale 2016

Fig no: 2 show that majority (37.9%) of the study participants belongs to upper middle class and 0.6% belongs to lower class.

Knowledge

All the study population (100%) have heard of/ aware of family planning methods

Table 6: Reported sources of information regarding family planning methods

Source of Information	Frequency	Percentage
Health worker	354	72.1
Husband	173	35.2
Doctor	126	25.7
Family	78	15.9
Friends	74	15.1
Television	66	13.4
Books	90	18.3
News paper	48	9.8
Radio	2	0.4
Co-workers	41	8.4

Out of the total population, majority (72.1%) of them had the source of information about family planning from the health worker. Source of information from husbands and doctors were 35.2% and 25.7%, respectively. Radio (0.4%) was the least mentioned source of information about family planning method.

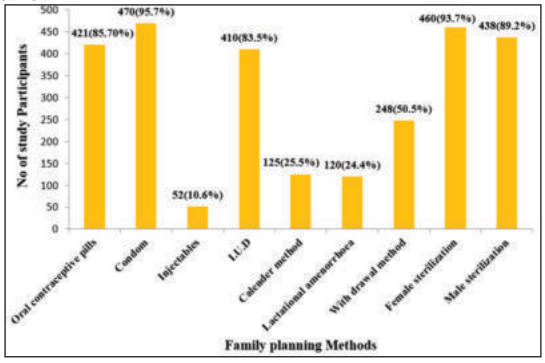


Fig no.3: Types of family planning methods known to study participants

Most of them were aware of at least two methods. Awareness of the condom was highest (95.7 %). Awareness of permanent methods (female sterilization and male sterilization) was also quite high (at 93.7 %and 89.2%, respectively). Awareness of natural methods (withdrawal method, lactational amenorrhea, and Calendar method) was at 50.5%, 24.4%, and 25.5%, respectively. Among the study participants, injectable (10.6%) was the least aware method.

Table no. 7: Awareness about side effects of family planning methods.

Method (n*)	Frequency	Percentage (%)
O.C.P(n=421)	137	32.5
I.U.D(n=410)	165	40.2
Injectable(n=52)	8	15.4
Male sterilization	12	2.7
Female sterilization(460)	51	11.1

*n is the total no of study participant who have heard about the particular family planning method.

Table no.7: shows that, the awareness about side effects of permanent methods of contraception (male sterilization and female sterilization) were 2.7% and 11.1% respectively, while those of temporary methods (I.U.D, O.C.P and Injectable) were 40.2%, 32.5% and 15.4% respectively.

Table no. 8: Side effects of natural methods as perceived by study participants.

Methods (n*)	Perception	Percentage
Calendar method(125)	57	45.6
Withdrawal method(248)	105	42.3
Lactational amenorrhea(120)	49	40.8

*n is the total no of study participant who have heard about the particular family planning method.

Table no. 8: shows that, out of the total participants who knew about calendar method, 45.6% of them had perception that, it was not a reliable method.

About 42.3% of the respondents who was aware of withdrawal method think it is not a reliable method.

Among the total respondents who knew about lactational amenorrhea, 40.8% of them had perception that, it was not a reliable method.

Table no.9: Side effects of condom as perceived by study participants

Reason (n=151)	Frequency(Percentage)
Itching	70 (46.3%)
Loss of sexual pleasure	12 (7.9%)
Allergy	101(66.88%)

*n is the total no of study participants who reported that they are aware of side effects of condom.

Table no.9 reveals the perception of study participants related to condom. Among the total study participants, 151(32.1%) of them believe there are side effects related to condom. Out of which 66.88%, 46.3% and 7.9% believe use of condom cause allergy, itching and loss of sexual pleasure respectively.

Table no.10: Side effects of male sterilization as perceived by study participants.

Reason (n=12*)	Percentage
Loss of libido	3 (25%)
Difficult to do heavy works	9 (75%)

*n is the total no of study participants who reported that they are aware of side effects of male sterilization.

Table no.10 reveals the misconceptions related to male

sterilization. Among the total study participants, 12 (2.7%) of them believe there are side effects related to male sterilization. Out of which 75% (9) believe male sterilization causes reduced work out put and 25% (3) believe male sterilization will result in loss of libido.

Table no.11: Knowledge about family planning methods

Grading	Frequency	Percentage
Poor	57	11.6
Average	306	62.3
Good	128	26.1
Total	491	100.0

Table no.11 shows that 62.3% had average knowledge about family planning method and 26.1% had good knowledge.

Knowledge questions were scored. Maximum score obtainable was 9 and minimum score was zero. Knowledge was graded as poor (0-3), average (4-6) and good (7-9).

DISCUSSION

Socio-demographic profile

The majority of the study participants were in the age group 35 – 39 years (22.4%) and 30-34 years (22%). The mean age of the study participants was 35.93± 7.28 years. This was almost similar to NFHS-3 report of Kerala. In their report, maximum number of reproductive age group women belongs to the age group 35- 39 years (15.9%).(7) Among the study population, 98% of them belonged to Hindu religion. Only 4(1%) were there in both Muslim and Christian religion.

Education

In the present study, Majority (35.2%) of the females is graduates, 30.1% of them had an education level up to intermediate school/diploma and almost all (97.4%) had an educational qualification more than high school. None of the females were illiterates. NFHS-4 report of Kerala which showed that about 97.9% of women in the age group, 15-49 are literate and 72.2 % of the women have completed 10 or more years of education. (8)

Occupation

In the present study, even though majority of females have education more than high school, 76% were unemployed. According to NFHS-3 Kerala only 29% of currently married women in the age group of 15 to 49 years are employed. (7)

Socio economic status

Based on updated B G Prasad classification (2016) of socio-economic status, 37.9% of the study population belonged to upper middle class and 29.7% belonged to upper class. Very few, 0.6% of them belonged to lower class. This was similar to the finding in NFHS-3 Kerala, based on wealth index where 40% of rural households were in the highest wealth quintile and 6% in the lowest two wealth quintiles. (7)

Family size

In the present study, 57% belonged to a family size with less than or equal to four members. About 35% of the study population belonged to a family size with five to eight members and 8% belonged to a family size with 9 to 12 members. According to NFHS-3 Kerala, an average household in Kerala comprises of four members. (7)

Knowledge

The choice of selection of family planning method depends on the awareness about each method. There is no such thing called as an "ideal contraceptive method", that is why the concept called cafeteria approach came up. Under cafeteria approach we are offering the couples/ clients with all the available contraceptive method, so they can choose one method based on their need and demand. The knowledge regarding each method is very important so that, they can choose the right one according to their need. Findings of this study revealed that all are aware of at least one family planning method. Similarly a study conducted in Dharwad, India by Sunitha et al got the same result, all the respondents were aware of at least one method of contraception. (9) There are various studies showing different levels of awareness among contraceptive method. A study conducted in northern Kerala by Harpeet et al(10) revealed, the awareness level about contraception as 55.7%, where as another study by Lavanya et al conducted in Andhra Pradesh, observed that 96.8% were aware of one or more of family planning methods.(11)

Source of information

Health workers especially ASHA workers and female health workers are the key persons, who can convey the knowledge and solve the queries about family planning methods to the people in the community. In this study the major source of information about family methods were from health workers (72.1%). In a study done by Prachi et al in Sikkim, 73% of the respondents reported media as the main source of information. (12) A study by UrujJahan in Uttar Pradesh also reported, media as the main source of information.(13) A hospital based study conducted by Rozina et al in karachi also observed that media as the major source of information of contraceptives in 64% of women.(14) This study report is comparable with the study done by Mohammad et al at Chhattisgarh , they found health worker as the major source of information about family planning method.(15) Similar to it, Nirmala Jaget et al also found, the main source of information was through health workers followed by television.(16)

The most known method

The most known method of contraception among the respondents in this study was condom 95.7%, followed by permanent method of family planning (female sterilization and male sterilization) which was 93.7% and 89.2%, respectively. The least known method was injectables with 10.6%. The findings were similar to the study done by Mohammad et al at Chhattisgarh. According to their study, the most known method was condom (95.65%) followed by female sterilization (85.09%) and intra uterine device (76.39%).(15) Another study conducted by Lavanya et al, maximum awareness was for permanent method (tubectomy and vasectomy) of sterilization and none of them in their study was aware about injectables.(11)Also a study done in Uttar Pradesh by UrujJahan et al observed that OCPs (74.8%) as the most commonly known method followed by condom (68.8%) and intra uterine device (56.6%). For them the least aware method was natural methods. (13)

Temporary method of contraception

Among the temporary methods of contraception, the most known method in ourtudy was condom (95.7%) followed by oral contraceptive pills (85.7%) and IUDs (83.5%) and the least known method was injectables (10.6%). Arjit et al in Lucknow found that the least aware method among temporary contraception as injectables (1.1%) and the most aware method as OCPs (95.7%) followed by copper T (46.8%). (17) A study done by Arti Patel et al among postpartum women in Ahmedabad , observed that the most known method among temporary contraception was condom followed by copper T and injectables and the least known was oral contraceptive pills(18).

Permanent method of contraception

Among the permanent method of contraception the most aware method in our respondents is female sterilization (93.7%) and that of male sterilization it is 89.2%. Another study conducted by Mohammad Jawed et al in Chhattisgarh also showed same kind of result in his study, the most aware method among permanent method was female sterilization (97%) followed by male sterilization (86%). (15) Similarly study conducted in Trissur district, Kerala by Suchithra E.T et al (2015) observed that female sterilization was the most

aware permanent method among the respondents compared to male sterilization. (19)

In contrast to this study, the report of study done by Prachi Renjhan et al in Sikkim revealed that the awareness of permanent method of contraception was the least and it was only 12 %.(12) A qualitative study conducted by Stella Babalola et al in Nigeria found that the percentage of respondents who were aware about female sterilization and male sterilization was only 23.9% and 7.9% respectively. (20)

Misconceptions related to family planning methods should be discouraged, especially male sterilization. It can affect an individual's decision to utilize family planning method. In the present study, among the total study participants, 12 (2.7%) of them believe there are side effects related to male sterilization. Out of which 9 (75%) believe male sterilization causes reduced work out put and 3 (25%) believe that male sterilization will result in loss of libido. Similarly, respondents participated in a study done by Kishori Mahat et al in Nepal expressed fears that men who obtained a vasectomy makes one weak and impotent. (21)

Misconceptions about condom also exist. In this study, among the total study participants, 151 of them believe that there are side effects related to condom. Out of which 66.88%, 46.3% and 7.9% perceived that the use of condom cause loss of sexual pleasure, itching and allergy respectively. Lack of proper knowledge might be the reason for the misconceptions and fears related to family planning methods.

Natural methods of contraception

Knowledge about natural methods of contraception is quite low in the current study compared to temporary and permanent methods of contraception. Awareness about withdrawal method, lactational amenorrhea and calendar method were 50.5%, 24.4% and 25.5% respectively. Similarly Kanchan Lata et al from Bihar also found that, knowledge about withdrawal method and Calendar method were only 24.8% and 6.7%, which was low compared to permanent and temporary methods. (22) The same result was got in a study done by Suchithra et al in Kerala, they observed the awareness of withdrawal was only 2% and that of calendar method it was 7.9% only. (23)

CONCLUSION

To conclude, the mean age of the study participants was 35.93 (SD 7.28) years and that of husbands was 43.49 (SD 9.83) years.

Out of 491 married females, 98.4%, 0.8% and 0.8% were Hindus, Muslims and Christians respectively. Majority (57%) of them belongs to a family size of less than or equal to 4 members. About 37.9% of the study participants belong to upper middle class and 29.7% belongs to upper class.

In the present study, 97.4% of women had an educational qualification more than high school and most of the study participants (35.2%) were graduates. Majority (71.5%) of the women were housewives.

All of the study participants have heard of family planning and the main source of information was from Health workers. Majority (95.7%) of them had heard of condom (95.7 percent) and the least heard method was injectables (10.6%).

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Declarations

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Ethical approval: Departmental Ethical clearance been taken.

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