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Original Research Article

Knowledge and barriers towards use of family planning methods among women: a study from Western India

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ABSTRACT

Background: Family planning is an important component of reproductive health. Through family planning, couples can plan the number and spacing of their children. The use of family planning method depends on the various factors such as knowledge and largely on the barriers faced by women. The objective of the study was to assess the knowledge and barriers towards use of family planning methods among women.
Methods: This study was conducted at Village Dhawa, Jodhpur, Rajasthan. Data were collected from 380 married women selected by convenient sampling technique. Data collection tool included Self-structured knowledge questionnaire and barrier rating scale. Analysis was done by using descriptive and inferential statistics.
Results: Most commonly used method of family planning was Sterilization. More than half of women (58.4%) had fair knowledge regarding family planning methods. Mean knowledge score was 15.48±3.14. Unawareness about the existing method was most reported barrier and Costs too much was least reported barrier. The knowledge level of women had significant association with religion and occupation (p level <0.05).
Conclusions: Overall women had fair level of knowledge regarding family planning methods. Lack of awareness emerged as a key barrier in use of these methods by women. There is need to implement extensive awareness programs and empower women as active decision makers with respect to use of family planning methods.

Keywords: Barrier, Family planning, Family planning methods, Knowledge, Women

INTRODUCTION

Family planning (FP) allows couple to determine and ascertain the desired number of children as well as spacing of their births. It has direct impact on health, wealth and well-being of people. Family planning and correct choice of contraception is very essential. World health Organization (WHO) has recognized access to safe, effective and affordable contraception as a universal human right. Many International and National Health organizations has promoted family Planning at large scale so that women do not have to bear the burden of multiple and unwanted pregnancies.[1,2]

Family planning is defined as a way of thinking and living being voluntarily adopted by an individual or couples based upon the knowledge, attitude and responsible decisions in order to promote the health and welfare of the family groups and thus contribute effectively to the social development of a country.[1] It is an effective measure to control the population growth. With the population of one billion, India is the second most populous country in the world. With only 2.4% of world's land area, India is a habitat to about 16% of world's population. India will become the most populous country by overtaking china up to 2045, if current trends continue.[3]Indian government with its focus on containing the high population growth provides easy accessibility and affordability of family planning services and commodities. Efforts to control population growth in India has started long back in the year 1952 when National Family Planning Programme was launched and

National Population Policy was passed. There after periodically various initiatives have been taken by government of India at national and local level.[2-4]

Despite of the efforts of Government of India and national health agencies, still the nation is not able to achieve the set fertility related indices and targets. The number of women with unmet need for family planning is higher in India than anywhere else in the world. The couple protection rate is about 40%, which is way behind the set target of 60% (National Family Health Survey IV 2014-15). Rajasthan is one of the largest states by area in the country with significant population growth rate. National surveys have reported different rates of acceptance of various family planning methods. There have been seen regional variations in unmet need of contraception. Contraceptive use is higher in urban areas than in rural areas. Among different regions of Rajasthan, Western region evidently has highest total unmet need (18.7 %).[2,5]

The utilization of various family measures especially by women largely depends upon the knowledge of various contraceptive methods available. Various research studies conducted across the country report inadequate to fair knowledge regarding various family planning methods among women. Further the acceptance and use of these methods among women is also affected by various barriers. Family interference, cultural as well as religious restrictions followed by health concern and fear of permanent loss of fertility, side effects, incomplete or erroneous information about their use or where to procure, fear of complications and poor health services have been identified as common reasons leading to poor acceptance of family planning measures.[2,3-6]

It is evident from various research studies that most of the women know little or have inadequate or incorrect information about family planning methods. Varied false and misleading information, myths or taboos attached with use of family planning measures further make the situation more challenging. Being an important issue, there is dearth of research data from western part of Rajasthan.

With this background, this study is aimed in assessing knowledge and barriers towards use of family planning methods among women residing in Western Rajasthan, India.

METHODS

Study setting

The study was undertaken at Dhawa, a village situated in western part of Rajasthan, India. Village Dhawa is part of Luni Tehsil in Jodhpur district of Indian state of Rajasthan. The total population of the village as per Primary Health Centre record 2019 was 6000.

Sample and sampling technique

This descriptive study was carried out among 380 married women of reproductive age group (18-49 years). Data was collected from October 2019 to December 2019. Women available at time of data collection and willing to participate were recruited for the study by non probability (convenient) sampling technique. Sample size was calculated using Slovin's formula.[7]

$n = N \div (1+Ne2)$

$n= 6000 \div (1 + 6000\times (0.05)2 = 378$

Where n = Number of samples, N = Total population and e = Error tolerance.

At the time of study, the total population of Dhawa was 6000 (As per PHC record, 2019), error tolerance: 5%.

Ethical considerations

The study was approved by institution ethics committee, All India Institute of Medical Sciences (AIIMS) Jodhpur, Rajasthan, India. Informed written consent was taken from the subjects and they were assured of confidentiality with autonomy to withdraw self from the study at any time of data collection.

Data collection

Data was collected through face to face interview method with help of self-structured tools. The socio-demographic details were collected using socio-demographic data sheet. Knowledge questionnaire was used to collect knowledge of women regarding family planning methods which consisted of 28 multiple choice questions related to Basics of FP methods, Types of FP methods, duration of family planning methods, complication of FP method, Management of complications. The knowledge levels were categorized as good (score >21), fair (score 14 - 21), poor (score<14). 19 item rating scale was used to assess the barriers regarding use of family planning methods among women. Each item was assessed on a scale of 3 points i.e. Always (Score 3), Sometimes (Score 2), and Never (Score 1). The tools were pilot tested and were found to have good reliability (>0.72).

Data analysis

Collected data were analysed using SPSS 16.0 (IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp). Descriptive statistics were calculated to summarize demographics and key variables. Inferential statistics were applied (Chi-square, Fisher's exact test and correlation coefficient) to determine the association of knowledge levels with selected demographic variables and the correlation between Knowledge score and barriers among women, respectively. For all associations $p<0.05$ was considered statistically significant.

RESULTS

Sociodemographic details

Table 1 presents sociodemographic details of women. Mean age of women was 30.2±0.9 years. About 78.2% of women were Hindu. Education wise about 38.4% of women were illiterate, 26% had studied up to primary level. More than half (55.3%) of the women had monthly family income ≤20,000 Indian rupees. About 60.8% of women had >7 years of married life. Nearly 44.2% of women had more than 2 living children. All of the women had heard about family planning methods. Almost equal numbers of women got information from Health worker, family and friends, followed by 55% received information from husband and 42% from social media.

Table 1: Frequency and percentage distribution of women in terms of Socio-demographic variables (n=380).

Socio-demographic Variable	F (%)
Mean age±SD (years)	30.2±0.9
Religion	
Hindu	297 (78.2)
Muslim	83 (21.8)
Education	
Illiterate	146 (38.4)
Primary	101 (26.6)
Secondary	57 (15.0)
Senior secondary	45 (11.8)
Diploma	12 (3.2)
Graduates and above	19 (5.0)
Occupation	
Housewife	309 (81.4)
Government job	02 (0.5)
Private job	37 (9.7)
Others	32 (8.4)
Monthly income (family) Rupees	
≤20,000	210 (55.3)
≥20,001	170 (44.7)
Years of married life (years)	
<1 year	31 (8.2)
2-4 years	62 (16.3)
4-7 years	56 (14.7)
>7 years	231 (60.8)
No. of living children	
Nil	30 (7.9)
1	65 (17.1)
≥2	285 (75.0)
Have you ever heard of contraceptives?	
Yes	380 (100.0)
Sources of information regarding contraceptives*	
Husband	209 (55.0)
Friends and family	250 (66.0)
Health worker	243 (64.0)
Social media	159 (42.0)

*Note: Multiple response were given for sources of information regarding contraceptives by each subject.

Use of contraceptive methods

Out of total 380 women, 238 women (63%) were using one or other type of contraceptive method as depicted in Figure 1. Table 2 illustrates the present use of family planning methods. Nearly 30% of women had undergone sterilization followed by 23.5% of women used condom as contraceptive method. About 18% of women used oral contraceptive pills and 12% were using IUCD as temporary contraceptives. Coitus interrupts and calendar methods were used by 3.7% and 2.5% of women respectively while lactational amenorrhea (1.3%) was least used method.

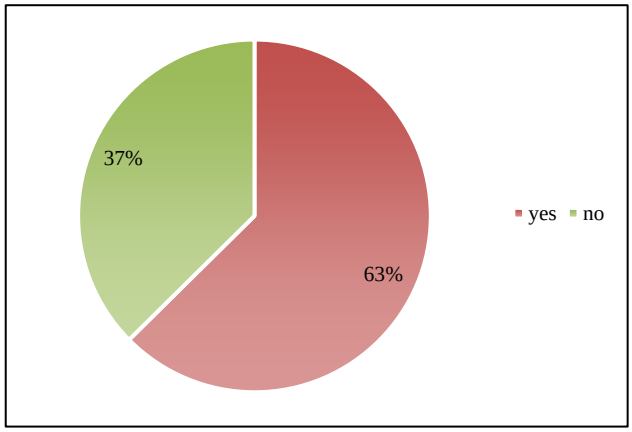

Figure 1: Use of contraceptives among women (n=380).

Table2: Distribution of women according to the present use of various family planning methods (n=238).

Present use of family planning methods	F (%)
Natural method	
Coitus interrupts	9 (3.7)
Calendar method	6 (2.5)
Lactation amenorrhea	3 (1.3)
Temporary method	
Condom	56 (23.5)
IUCD	28 (12.0)
Pills	43 (18.0)
Injectables	21 (8.8)
Permanent method	
Sterilization	72 (30.2)

Knowledge status of women

Nearly 47% of women gave correct response regarding types of barrier methods. 49% correctly answered question related to newly added injectable hormonal contraceptive. 57% of women rightly answered regarding commonest complication of IUCD and 82% of them gave correct response regarding permanent method of family planning. More than half (58.4%) of women had fair knowledge level regarding family planning methods,

followed by 39.2% of women had poor level of knowledge and only 2.4% women had Good level of knowledge regarding family planning methods (Figure 2). Mean knowledge score was 15.48±3.2 which infers that on an average, women had fair knowledge regarding family planning methods.

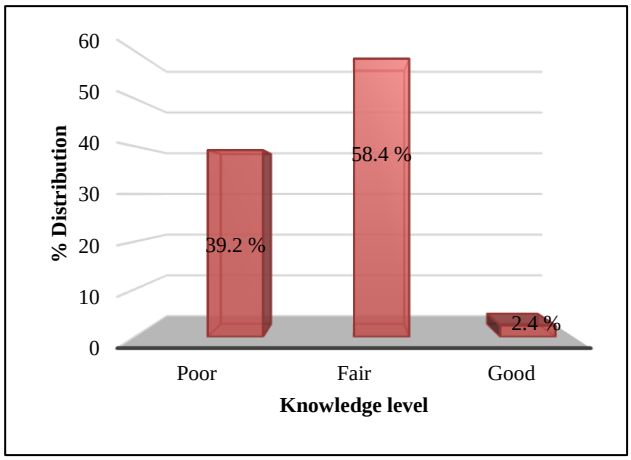

Figure 2: Levels of Knowledge among women regarding family planning methods (n=380).

Barriers regarding use of family planning methods

Results showed that item number 16 i.e. "unawareness about the existing method" (mean score 1.71±0.81) was most reported barrier followed by item number 18 i.e. "fear of side effects" (mean score 1.64±0.77), item no 9 i.e. "dislike of existing methods" (mean score 1.60±0.84), item number 17 i.e. "Unawareness about sources" (mean score 1.51±0.71) respectively. The four least reported barriers were item number 6 i.e. "costs too much" (mean score 1.12±0.40) followed by item number 14 i.e. "sexual displeasure" (mean score1.13±0.41), item number 13 i.e. "in laws opposition" (mean score1.20±0.53), item number 3 i.e. "religious reason" (mean score 1.21±0.56) respectively.

Association of knowledge levels with socio demographic variables and correlation between knowledge and barriers: The knowledge level of women were found to have significant association with religion (17.58, p value: 0.000), occupation (18.02; p value: 0.052) and use of contraceptives (14.85; p value: 0.001) (Table 4). There was weak negative correlation (r=-0.163) between the knowledge and barriers towards use of family planning methods.

Table 3: The item wise mean barrier score and ranking of the items on barrier scale.

Items	Mean±SD	Rank
Hard to get	1.26±0.57	12
Inconvenient to use	1.50±0.72	5
Religious reason	1.21±0.56	16
Too young to use	1.31±0.64	9
Interferes with health	1.47±0.68	6
Costs too much	1.12±0.40	19
Effects on normal body functions	1.33±0.62	7
Cause Infertility	1.25±0.54	13
Disliking of existing method	1.60±0.84	3
Unavailability of services at health centre	1.28±0.60	10
Need of hiding contraceptives in home	1.22±0.56	14
Husband opposition	1.32±0.63	8
In-Laws opposition	1.20±0.53	17
Sexual displeasure	1.13±0.41	18
Family pressure to have more children	1.21±0.57	15
Unawareness about the existing method	1.71±0.81	1
Unawareness about sources	1.51±0.71	4
Fear of side effects	1.64±0.77	2
Farness of health centres from home	1.27±0.62	11

Table 4: Association of knowledge levels with selected socio-demographic variables (n=380).

Socio-demographic variable	Level of knowledge			df	χ^2	P value
	Poor	Fair	Good			
Religion						
Hindu	100	189	8	2	17.58	0.00*
Muslim	49	33	1			

Continued.

Socio-demographic variable	Level of knowledge			df	χ^2	P value
	Poor	Fair	Good			
Education						
Illiterate	67	78	1	10	18.02	0.05*
Primary	39	59	3			
Senior secondary#	37	61	4			
Graduates and above##	6	24	1			
Using any type of contraceptives?						
Yes	78	151	9	2	14.85	0.001*
No	71	71	0			

*Significance at p level <0.05; ns: not significant at p level >0.05, #indicates merging of category of sec. and senior secondary, ##indicates merging of category of diploma and graduates and above.

DISCUSSION

India being a leader and pioneer in the field of family planning has initiated proactive measures from time to time to enhance the coverage and easy accessibility of various family planning methods. Various initiatives are put forth by Government of India at national and state level so as to increase utilization and meeting unmet need of contraception. But all this is not enough until and unless all eligible women have sufficient knowledge regarding use of these methods and there is also need to address the barriers effecting usage of these methods by women.

The results of the current study showed that the mean age of women was 30.2±0.9 years. Majority of the women were Hindu. Nearly 1/3rd of them had studied upto primary level. Similar results have been seen in the study conducted by Jahan et al and Mallick et al where majority of the women under study were above age 30 years and major proportion of sample had primary to middle level of education.[8,9] Contrary to these results, Vijay Sree and colleagues reported different age group characteristics as majority of the study subject were within age group 20-30 years and were illiterate.[10]

The findings of the present research study indicated that all the women had ever heard of family planning methods and their main source of information were friends/families and health workers respectively. Consistent results have been seen in the study conducted by Uma where almost 82% women were aware about family planning methods and most of them received information about FP methods from Health personnel.[11] Contrary to this, Shukla and researchers in their research study reported social circle as main source of information regarding family planning methods.[12]

As far as the utilization of various family planning methods is concerned, nearly 1/3rd of the study subjects were using one or other type of contraceptive method. Sterilization was the most common method and lactational amenorrhea was the least used method. These results are in line with the studies conducted by Hakim et al, Lavanya and Nazir et al where sterilization was the most common family planning measure.[13-15] Different results have been documented in studies conducted by Jahan et al and Lata et al as oral contraceptive pills and IUCD were reported as most widely used method respectively.[8,16]

Knowledge and awareness are the major determinants for utilization of family planning methods. The current study results showed nearly half of the subjects correctly knew about types of barriers methods, hormonal contraceptives and commonest complication of IUCD. Majority of women were aware about female sterilization. These results to much extent agree with the results of a study conducted by Devaru et al where majority of the study subjects had adequate awareness regarding female sterilization, IUCD complications and barrier methods of contraception.[17] The present study results revealed that about 39% of women had poor level of knowledge and very scanty number of women had good level of knowledge regarding family planning. These results are more or less collaborating with the findings of a study conducted by Priyadarshini et al which found that 40% and 43% of study participants had adequate and inadequate knowledge respectively.[6] Different results have been seen in a study conducted by Vijyalakshmi et al as nearly 69% mothers had poor knowledge and 27% had average knowledge.[18]

Barriers are the factors that affect the utilization and acceptance of family planning methods. In present study most common reported barriers were unawareness about existing method, fear of side effects and least reported barriers were costs too much and sexual displeasure. Consistent results have been reported in a study conducted by Prateek et al which observed that unacceptance by family/husband/religion, perceived fear of side effects and lack of knowledge are the most common reasons towards lesser use of contraceptive methods.[19] Sahasrabuddhe et al reported family interference, cultural as well as religious restrictions followed by health concern and fear of permanent loss of fertility as primary reasons for lesser acceptance and usage of family planning measures.[20]

The current study results show that Knowledge levels of the subjects were found to have significant association with Religion, Occupation and Use of contraceptives. A study conducted by Mathew et al and Sharma et al reported statistically significant association of knowledge regarding family planning measures with age, education, occupation, number of living children and current use of family planning methods.[21,22] One of the studies conducted by Vijyalaksmi et al observed statistically significant association of knowledge score with parity, place of residence and type of family.[18] A weak negative correlation had been reported between knowledge and barriers towards use of family planning methods in the present study. A study conducted by Thapa et al confirmed that improvement in the knowledge leads to lesser barriers and improved family planning practices.[23]

Several limitations should be considered. The results may not be generalized as the study was conducted at a single setting among sample chosen by convenient sampling technique.

CONCLUSION

The usage of family planning is highly depended upon the level of awareness among women and kind of barriers faced by women. The most commonly used method of family planning was permanent method (sterilization) and least reported method was lactational ammenorohea. Overall women had fair level of knowledge regarding use of family planning methods. A number of barriers were reported by women with respect of use of these methods. The knowledge level of women had significant association with religion, occupation and use of contraceptives. There is evident need to explore the various barriers which hinder acceptance and usage of family planning methods. There is need for aggressive advocacy and structured awareness program based on the knowledge gaps and identified barriers.

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