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Knowledge, practice and barriers in utilization of family planning methods among married couples of urban and rural areas of Sikkim

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Abstract

Background: Overpopulation continues to be the main problem around the globe. Family planning also promotes gender equality as well as educational and economic empowerment for women. It is equally important for men to step forward to be at par with women in sharing their family planning responsibility.

Objectives: To compare knowledge, practices and analyze what factors may affect the barriers in utilization family planning methods among married couples in rural and urban area of Sikkim.

Method: This is descriptive comparative research with sample size of 200 married couples, 100 couples from each urban and rural area, within the age group of 18- 49 years were recruited through stratified random sampling technique from randomly selected urban and rural areas of West Sikkim. Data was collected through structured interview schedule.

Result: The married couples in urban residents (92% males, 60% females) had higher scores on family planning knowledge than rural residents (72% males, 52% females). Significant difference was noted between knowledge level of the males of urban and rural area (3.01, $P<0.05$), and between knowledge of males and females of rural area (3.29, $P<0.05$). There was a significant difference between the barrier scores between males of urban and rural area (3.012, $p<0.05$). Overall knowledge on family planning method was associated with urban females' age at marriage ($P<0.05$) and in rural, with females' years of marriage ($P<0.05$), whereas among rural males' years of marriage had influence on the knowledge level of family planning method ($P<0.05$).

Conclusion: The study concluded that with the increase in the knowledge, there is decrease in the barriers in utilization of family planning methods in both urban and rural areas.

Keywords: Family planning methods, barrier, knowledge, practice, married couples

Introduction

Family planning allows a couple to decide on the number of children they want and the spacing between their deliveries. It has a direct impact on people's health, wealth, and well-being. Family planning and the proper use of contraceptives are critical. Access to safe, effective, and inexpensive contraception is a universal human right, according to the World Health Organization (WHO). Many international and national health organizations have supported family planning on a big scale to alleviate the burden of many and unwanted pregnancies on women^[1].

Family planning is defined as a style of thinking and living that an individual or couple freely adopts based on knowledge, attitude, and responsible actions in order to promote the health and welfare of family groups and thus effectively contribute to a country's social development. It's a good way to keep population growth under control. India is the world's second most populous country, with a population of one billion people. India, with only 2.4 percent of the world's land area, is home to roughly 16 percent of the world's people. If current trends continue, India will overtake China as the world's most populous country by 2045^[1, 2]. 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"^[2]. Family planning could prevent as many as one in every three maternal deaths by allowing women to delay motherhood, space birth, avoid unintended pregnancies and abortion and stop childbearing when they reached their desired family size^[3].

A woman's ability to space and or limit her pregnancies has a direct impact on her health and well-being as well as on the outcome of each pregnancy [4]. A trend analysis of the latest National Family Health Survey 2015-16 shows that women are compelled to be responsible for keeping family sizes small even as contraceptive prevalence rate declines in many states in India [2]. Despite heavy measures taken by various governments in developing countries, fertility is still on the rise. For example, men and women in developing countries tend to want large families with husbands desiring more children than their wives [4,5].

Scope and need for the study

According to National Family Health Survey 4(2015-2016), India Fact Sheet the current use of Family Planning Methods was any method 53.5%, any modern method 47.8%, female sterilization 36.0%, male sterilization 0.3%, IUD/PPIUD 1.5%, pill 4.1%, condom 5.6% [5, 6]. Whereas according to National Family Health Survey 4(2015-2016), Sikkim India Fact Sheet the current use of Family Planning Methods was any method 46.7%, any modern method 45.9%, female sterilization 17.6%, male sterilization 3.4%, IUD/PPIUD 6.3%, pill 11.6%, condom 5.2% [5, 6].

Hajira S and Kishore K conducted a community-based cross-sectional study of 300 married women to determine the factors impacting their family planning practices, and the results revealed that 58.6% of the women were actively utilizing contraception. Tubectomy was used by 71.59% of the women, and vasectomy was used by none of the men. The reasons for not using contraception were a desire for more children (56.48%), a belief that there is no need for any contraception (20.16%), and a belief that it is against religion (10.48%) [5]. Women bear the brunt of the burden of family planning measures. In the previous ten years, little has changed in the pattern of family planning strategies used by Indian couples. Men and women have equal responsibilities when it comes to family planning, but they do not share equal responsibility [7]. The lower uptake of male contraceptives appears to be attributed mostly to a lack of understanding about various family planning methods, as well as their awareness and desire to use them [8,9].

Jayanthi TP, Abishek B conducted a cross-sectional study to explore women's knowledge on birth spacing, reasons for poor adoption of temporary contraceptives and barriers in using it in a tertiary maternity hospital with 270 women. The findings show that 43% percent had adopted temporary contraceptives, however discontinuation rates within 3 years was 90%. Low perceived risk of pregnancy (53%), inadequate knowledge and fear of side effects of the contraceptive (27%), and lack of spousal support (14%) were reasons for not adopting contraceptives. It was concluded that wide knowledge-preference-practice gap in use of temporary contraceptives exists [7].

The decision to use or not to use family planning services is the product of a number of demographic and service-related barriers. Literature suggests that within married couple, husbands and wives do not always have the same aspirations towards family planning issues [10]. Acharya R and Surender S¹¹ conducted a study in Bihar and Tamil Nadu to identify the relationship between contraceptive use and family size and result indicates that the good husband-wife communication is the foundation for actual practice of contraception to limit or to space births.

Materials and Methods

Non-experimental survey approach with Descriptive Comparative research design was used to assess and

compare the knowledge, practice and barriers affecting the utilization of family planning methods among the married couples of urban and rural areas of Sikkim. The study was conducted in randomly selected urban and rural area of West Sikkim consisting of 8 constituencies in 2018.

Disproportional stratified sampling technique was used to select the sample from the Population. The entire population was made homogeneous groups called strata in terms of area of resident (Urban and rural) followed by second strata in terms of gender (male and female), then simple random sampling technique was used to select 50 males and 50 females from each area of residents. Sample size was determined by using previous study and the calculation was based on the prevalence rate of contraceptive use (70%) at 5% significance level and 10% error by using following formula: $n = 4pq/L^2$, where $p = 70%$ (Prevalence of contraceptive use in Sikkim), $q = 30%$ (100-p), $L = 10\% = 4 \times 70 \times 30 / 4 = 171.4$. The researcher increased and kept the sample as 200, keeping in mind about the dropouts. 200 married couples between the age group of 20 to 49. 50 male and 50 female married couples from each area, who spoke Hindi, English, or Nepali, willing to participate, and present during the data collecting period were selected. Married couples who had permanent sterilization were not included in the study.

The data was collected through interviewing technique. Three predesigned structured tools were used to assess the married couple's knowledge, practice and barriers in utilization of family planning methods in urban and rural area for which validity and reliability was established. The permission was taken from the Ward councilor and Panchayat of the urban and rural area.

Tool I consists of two sections, Section I consists of Part A- Background data (8 items) to collect the background information, Part B- Personal data of the married couples (12 items) and Section II consists of Practice profile of married couples residing in urban and rural area regarding family planning methods (9 items). Tool II consist of interview schedule for assessing the knowledge regarding the family planning and its methods which specifies the objectives of family planning, different types of Family planning methods, meaning of temporary methods, meaning of permanent methods, different methods of temporary methods and different methods of permanent methods. It composed of 32 items with the scoring of 1 for every correct response and 0 for every incorrect response. Scores above 75% was considered good knowledge, scores between 50 to 74% as average and scores less than 50 was considered poor knowledge. The reliability was checked by split-half technique and reliability was found 0.8, which indicated good reliability of the tool.

Whereas Tool III was a Barrier assessment scale to assess the barriers that affect the married couples from utilizing the family planning methods which specifies the different domains of barriers which include Cognitive barrier, socio-cultural barrier, barriers related to the method itself, reproductive barriers, Psycho-social barriers, Physical barriers, medical barriers, administrative barriers. It composed of 24 items to assess the barriers with the scoring of 1 for every "agree" response and 0 for every "disagree" response. The reliability was checked by interrater method and the percentage of agreement was $r=1$, which indicated 100% agreement of the tool.

The tool was sent to an expert for translation into Hindi and

Nepali, as well as a reverse translation into English to ensure the tools' language authenticity. The ethical approval was obtained from Institutional Ethics Committee (IEC) of Sikkim Manipal University. Prior to the interview, the respondent signed a consent form.

Statistical Analysis: The data was analyzed using IBM SPSS statistics 16 windows (SPSS Inc., Chicago, USA).

Various statistical analyses were performed to analyze the data. The Chi-square analysis was used to determine the degree of association and independent t test to analyze and compare the difference in knowledge and barrier among the male and female married couples. Statistical difference was considered significant as the p-value was less than 0.05 at 95% confidence level.

Results

Table 1: Socio-demographic profile (N=200,n=100)

Variables	Category	Urban				Rural			
		Male, n=50		Female, n=50		Male, n=50		Female, n=50	
		f	%	f	%	f	%	f	%
Age in completed years	18-23	3	6%	4	8%	0	0%	2	4%
	24-29	11	22%	17	34%	10	20%	22	44%
	30-35	15	30%	11	22%	21	42%	18	36%
	36-41	10	20%	11	22%	12	24%	6	12%
	42-47	7	14%	6	12%	3	6%	2	4%
	48 and above	4	8%	1	2%	4	8%	0	0%
Educational Status	No Formal education	0	0%	0	0%	0	0%	1	2%
	Primary school	3	6%	4	8%	3	6%	1	2%
	Middle school certificate	3	6%	15	30%	14	28%	22	44%
	High school Certificate	27	54%	22	44%	19	38%	4	8%
	Post-high school certificate	8	16%	1	2%	5	10%	8	16%
	Graduation	8	16%	7	14%	7	14%	3	6%
	Post-graduation and above	1	2%	1	2%	2	4%	0	0%
Methods to prevent pregnancy	Condoms (n=50)	50	100%	50	100%	50	100%	50	100%
	Oral pills (n=50)	50	100%	50	100%	50	100%	50	100%
	Copper - t (n=50)	50	100%	50	100%	50	100%	50	100%
	Injectables (n=50)	38	76%	46	92%	38	76%	47	94%
	ECP (n=50)	28	56%	39	78%	28	56%	42	84%
	Male sterilization (n=50)	48	96%	45	90%	41	82%	38	76%
	Female sterilization (n=50)	50	100%	50	100%	49	98%	48	96%
Source of information	Media (n=50)	30	60%	36	72%	35	70%	30	60%
	Friends (n=50)	12	24%	27	54%	19	38%	23	46%
	Partner or family (n=50)	25	50%	30	60%	20	40%	26	52%
	Health workers (n=50)	33	66%	40	80%	46	92%	34	68%
	Others (n=50)	1	2%	3	6%	0	0%	2	4%

Table 2: Personal data of the married couples (N=200,n=100)

Variables	Category	Urban				Rural			
		Male, n=50		Female, n=50		Male, n=50		Female, n=50	
		f	%	f	%	f	%	f	%
Health Care Facility (n=50)	Government hospital	39	78%	39	78%	48	96%	48	96%
	PHC nearby	12	24%	12	24%	9	18%	9	18%
	Private Hospitals	4	8%	4	8%	5	10%	5	10%
	Private clinics nearby	2	4%	2	4%	3	6%	3	6%
	Others	0	0%	0	0%	0	0%	0	0%
Health care facility accessibility	Easy	44	88%	44	88%	49	98%	49	98%
	Difficult	6	12%	6	12%	1	2%	1	2%
Decision- maker of the family	Husband	0	0	0	0	0	0	0	0
	Wife	0	0	0	0	0	0	0	0
	Both	50	100%	50	100%	50	100%	50	100%
Age at marriage in years	15-19	1	2%	5	10%	0	0%	3	6%
	20-24	11	22%	24	48%	8	16%	37	74%
	25-29	32	64%	21	42%	30	60%	10	20%
	30 and above	6	12%	0	0%	12	24%	0	0%
Years of marriage	0-5	27	54%	27	54%	21	42%	21	42%
	6 to 11	6	12%	6	12%	19	38%	19	38%
	12 to 17	10	20%	10	20%	5	10%	5	10%
	18-23	5	10%	5	10%	3	6%	3	6%
	24 and above	2	4%	2	4%	2	4%	2	4%
Children	Yes	41	82%	41	82%	47	94%	47	94%

	No	9	18%	9	18%	3	6%	3	6%
Number of children	1	19	38%	19	38%	32	64%	32	64%
	2	16	32%	16	32%	13	26%	13	26%
	3 and above	6	12%	6	12%	2	4%	2	4%
Age at first child	15-19	2	4%	2	4%	0	0%	1	2%
	20-24	6	12%	7	14%	6	12%	23	46%
	25-29	25	50%	32	64%	28	56%	21	42%
	30 and above	8	16%	0	0%	16	32%	2	4%
How many children do you prefer	1 to 2	37	74%	37	74%	46	92%	47	94%
	3 to 4	12	24%	12	24%	3	6%	2	4%
	5 and above	1	2%	1	2%	1	2%	1	2%
Discussion with spouse about no. of children	Yes	41	82%	41	82%	47	94%	47	94%
	No	9	18%	9	18%	3	6%	3	6%
Have all your pregnancies been planned	Yes	39	95%	39	95%	45	92%	45	92%
	No	2	5%	2	5%	2	8%	32	8%

As shown in Table 2, majority of the married couples in both urban (78%) and rural area (96%) availed the health care facility through Government hospitals and reported that the health care accessibility was easy for them. All were involved in the decision-making regarding family planning. Majority of the males in both urban and rural area got

married at the age of 25-29 years of age and majority of the females in both urban and rural area got married at the age of 20-24 years. In both urban (95%) and rural (92%) area married couples reported that their previous pregnancies were planned as shown in Table 2.

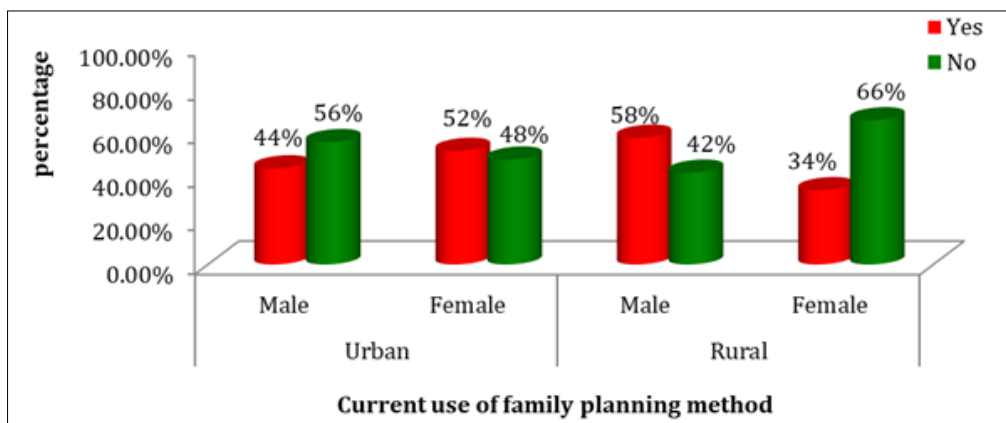


Fig 1: Distribution of based on the current use of family planning methods (N=200,n=100)

The above Figure 1 reveals that, in the urban area, 56% males and 48% females were not using any form of family planning methods while in the rural area, 42% males and 66% females were not adopting any family planning measures. It is also reported that 44% of male in urban area

and 58% of the male in rural area adopted condom as commonest method among males whereas oral contraceptive methods were found as commonest method among females of urban and rural areas.

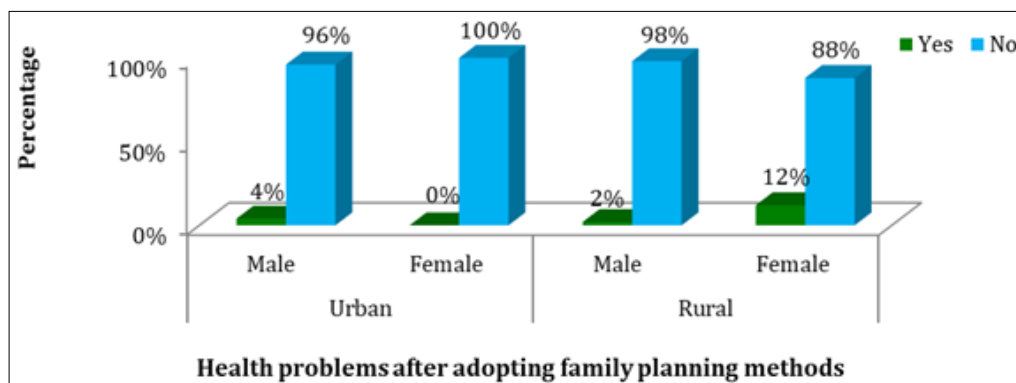


Fig 2: Distribution of based on health problems after adopting family planning methods (N=200, n=100)

Figure 2 shows that 4% male from urban area (abrasion in skin) and 12% female (headache and vomiting) and 2% male (skin rashes) in rural area reported health problems

after the adoption of family planning methods. Whereas majority didn't report any form of health problems.

Table 3: Distribution of married couples in terms of their practice profile(N=200,n=100)

Variables	Urban				Rural			
	Male		Female		Male		Female	
	f	%	f	%	f	%	f	%
Have you been told about what to do if you had problem?								
Yes	9	18%	2	4%	1	2%	12	24%
No	41	82%	48	96%	49	98%	38	76%
Reason for the choice of FPM								
No reason	26	52%	19	38%	18	36%	14	28%
Little or no side effects	5	10%	4	8%	12	24%	6	12%
Suitable and reliable	13	26%	18	36%	15	30%	19	38%
Affordable/available	6	12%	9	18%	5	10%	11	22%
Other reasons	0	0%	0	0%	0	0%	0	0%
Do you intend to use any FPM in future?								
Yes	4	8%	3	6%	4	8%	7	14%
No	9	18%	10	20%	4	8%	4	8%
Not yet decided	37	74%	37	74%	42	84%	39	78%
If yes, what would be the method of choice?								
Condoms	4	8%	1	2%	3	6%	0	0%
Oral pills	0	0%	1	2%	0	0%	1	2%
copper-t	0	0%	1	2%	0	0%	2	4%
Injectables	0	0%	0	0%	0	0%	3	6%
Emergency contraceptives	0	0%	0	0%	0	0%	0	0%
Female sterilization	0	0%	0	0%	0	0%	1	2%
Male sterilization	0	0%	0	0%	0	0%	0	0%
natural method	0	0%	0	0%	1	2%	0	0%
How often health worker visit your home?								
Never	20	40%	20	40%	21	42%	21	42%
Once a week	3	6%	3	6%	0	0%	0	0%
Once in 2 weeks	0	0%	0	0%	0	0%	0	0%
Once in a month	7	14%	7	14%	4	8%	4	8%
Once in 2 months	20	40%	20	40%	25	50%	25	50%
Are you provided with information of fpm?								
Yes	30	100%	30	100%	26	90%	26	90%
No	0	0%	0	0%	3	10%	3	10%
Is your privacy respected by the health worker?								
Yes	30	100%	30	100%	26	90%	26	90%
No	0	0%	0	0%	3	10%	3	10%

Result in Table 3 shows that married couples had no specific reason regarding the choice of family planning methods and had not decided regarding the use of family planning method in future. Majority reported that the health worker visits their home once in 2 months and they have

been provided with the necessary information regarding family planning methods through health worker and their privacy is respected by the health worker while discussing family planning.

Section II: Assessment of married couple’s knowledge regarding family planning methods

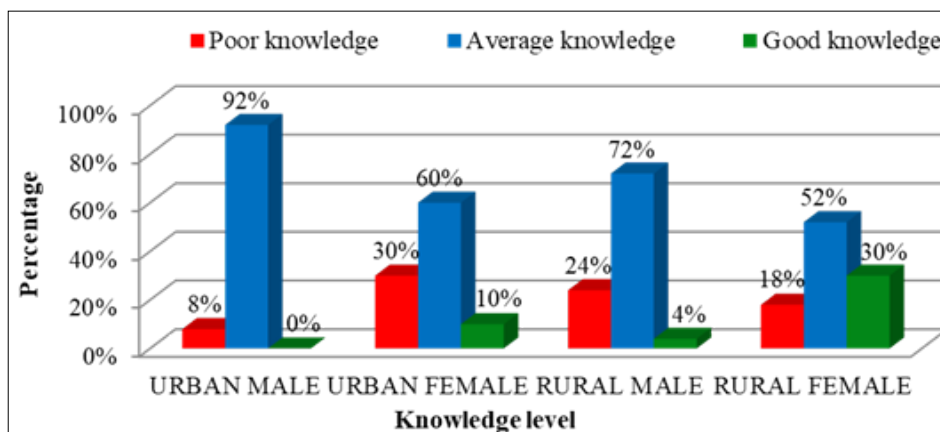


Fig 3: Level of knowledge score regarding family planning (N=200,n=100)

Majority of the males in urban area (63.06%) and females in rural area (67.38%) had higher knowledge regarding the

family planning methods whereas 30% of the urban, 18% of the rural female and 24% of the rural male had poor

knowledge regarding family planning method as shown in Figure 3.

Table 4: Independent t test to assess difference in the knowledge of married couples regarding family planning methods in terms of gender (N=200, n=100)

Area of Residence	Knowledge towards family planning methods				't' test
	Male n=50		Female, n=50		
	Mean ± SD	Mean%	Mean ± SD	Mean%	
Urban area	20.18 ±2.9	63.06%	18.02 ±4.2	61.31%	0.63
Rural area	19.62± 5.6	56.31%	21.5±6.2	67.2%	3.29*)
't' test	3.01*		1.59		

*t' (98), = 1.98, P<0.05

There is a significant difference in the level of knowledge regarding family planning methods between males and females of rural area (3.29, p<0.05) as well as among the

males of urban and rural area (3.01*, P<0.05) as shown in Table 4 through independent t test.

Section III: Domain wise barrier score in utilization of family planning method in Rural area N=200, n=100(50, 50)

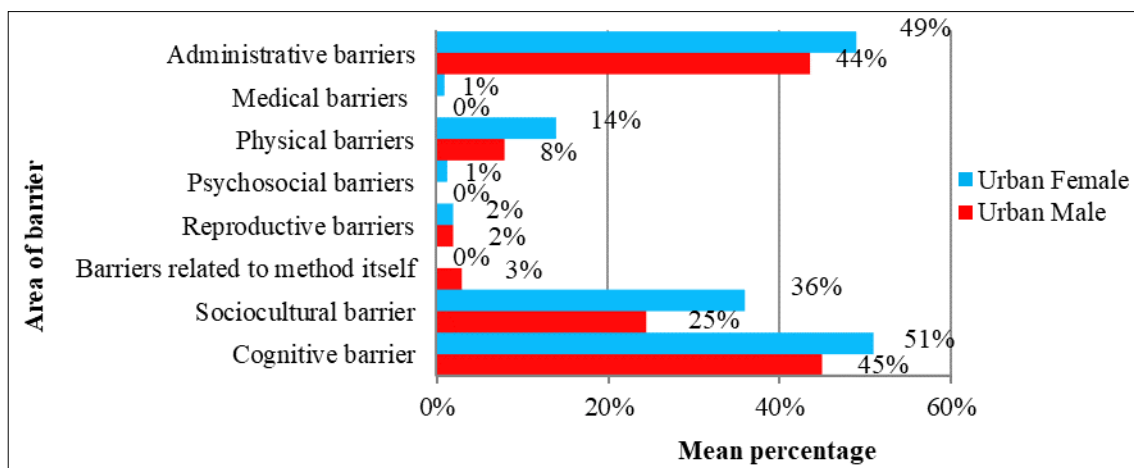


Fig 4: Domain-wise barrier score in utilization of family planning methods in urban area (n=100)

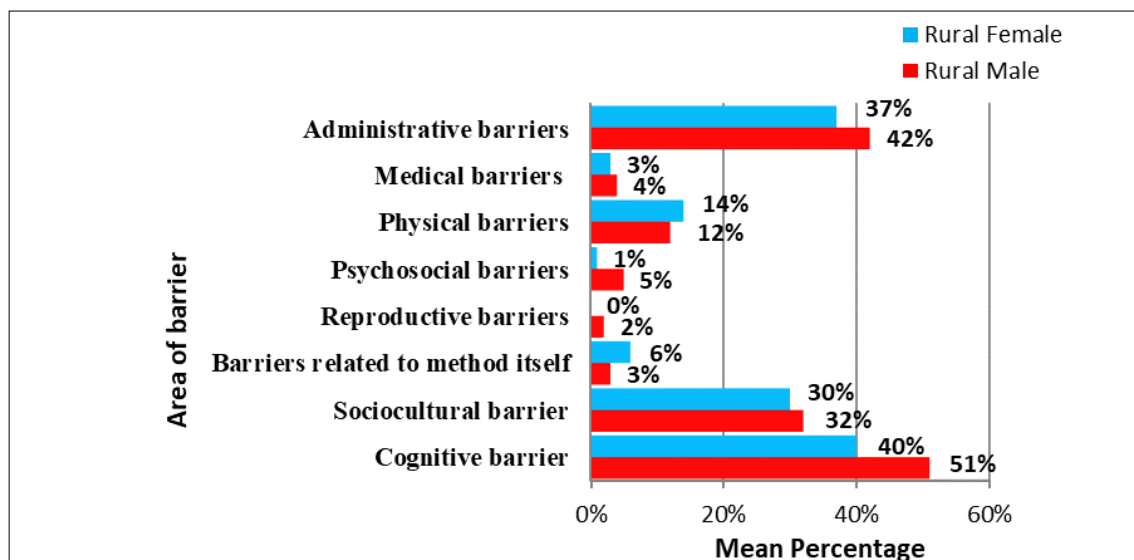


Fig 5: Domain wise barrier score in utilization of family planning methods in rural area (n=100)

The above Figure 4 shows that 51% males and 45% females had cognitive barriers, whereas 49% males and 44% females had administrative barriers (Health centers geographically not accessible, Health centers have limited variety of family planning methods, The health workers do not provide proper information regarding the family planning methods for the choice and adoption, I believe that health centers have limited number of trained personnel to impart counseling

services on family planning methods, I feel service rendering time for family planning method is not convenient) towards the utilization of family planning methods in the urban area. Further the result shows that the married couples, 40% males and 51% females in the rural area had cognitive barriers, 37% males and 42% females had administrative barriers, towards the utilization of family planning methods as shown in Figure 5.

Table 5: Difference in the barrier scores of married couples regarding the utilization of family planning methods (N=200,n=100)

Area of Residence	Barriers in utilization of family planning methods				't' test
	Male n=50		Female, n=50		
	Mean ± SD	Mean%	Mean ± SD	Mean%	
Urban area	4.3 ±1.4	17.75%	4.8± 1.8	20.08%	1.76
Rural area	4.9 ±2.69	20.6%	4.4± 1.92	18.2%	1.24
't' test	3.012*		1.591		

df₉₈ =1.48, p<0.05

Majority of the females in urban area and males in rural area have high barriers in utilization of family planning methods. There is a significant difference in the barrier encountered

by the males of the urban and rural area (3.012, P≤0.05) regarding the utilization of family planning methods as shown in table 5.

Section IV: Findings related to the association between the knowledge and barriers with the demographic variables

Table 6: Association between knowledge scores of married couples of urban area with demographic variables

SI No.	Selected variables	Knowledge scores									
		Males of urban area					Females of urban area				
		<Med	>Med	df	χ ²	p-value	<Med	>Med	df	χ ²	p-value
1.	Age										
1.1	<32 years	8	16	1	0.85	>0.05	17	11	1	1.16	p>0.05
1.2	>32 years	12	14				10	12			
2.	Religion										
2.1	Hindu	17	10	3	5.591	P>0.05	16	11	3	1.43	p>0.05
2.2	Christian	2	7				5	4			
2.3	Muslim	1	0				1	0			
2.4	Buddhist	6	7				6	7			
3.	Education										
3.1	< High school	20	13	1	2.88	p>0.05	21	20	1	1.17	p>0.05
3.2	<High school	6	11				7	2			
4.	Occupation										
4.1	Non-working	0	2	1	0.61	p>0.05	12	13	1	1.3	p>0.05
4.2	Working	26	22				16				
5.	Type of family										
5.1	Joint	7	12	1	0.33	0.05	17	14	1	0.04	p>0.05
5.2	Nuclear	14	17								
6.	Monthly income										
6.1	< 15,000	4	3	1	0	05	31	26	1	0.35	p>0.05
6.2	>15,000	21	22				21	22			

df,1=3.84 ;df,3=7.82 ;p<0.05

The table 6 the median score was used to see the association between the married couples with their demographic variables, and it shows that there is no association between

the knowledge scores of urban married couples with the demographic variables, at 0.05 level of significance as p>0.05.

Table 7: Association between knowledge scores of married couples of rural area with demographic variables

SI no.	Selected variables	Knowledge scores n=100 (50, 50)									
		Males of rural area					Females of rural area				
		≤Med	>Med	df	χ ²	p-value	≤Med	>Med	df	χ ²	p-value
1.	Age										
1.1	≤32 years	9	9	1	0.18	p>0.05	20	15	1	0.46	p>0.05
1.2	>32 years	18	14				7	8			
2.	Religion										
2.1	Hindu	17	18	3	4.3	p>0.05	17	18	3	2.04	p>0.05
2.2	Christian	0	2				1	1			
2.3	Muslim	1	0				1	0			
2.4	Buddhist	8	4				8	4			
3.	Education										
3.1	≤High school	20	16	1	0.89	p>0.05	18	21	1	0.02	p>0.05
3.2	>High school	5	9				6	5			
4.	Occupation										
4.1	Non-working	1	1	1	0.44	p>0.05	17	11	1	1.15	p>0.05
4.2	Working	25	23				10	12			
5.	Type of family										
5.1	Joint	7	12	1	0.02	p>0.05	17	14	1	0.07	p>0.05
5.2	Nuclear	14	17								

5.1	Joint	5	4				5	4			
5.2	Nuclear	21	20				22	19			
6.	Monthly income			1	0.26	$p>0.05$			1	1.03	$p>0.05$
6.1	≤ 15,000	14	17				15	16			
6.2	>15,000	10	9				12	7			

df,1=3.84 ;df,3=7.82 ; $p<0.05$

The table 7 shows that there is no association between the knowledge scores of rural married couples with the demographic variables, at 0.05 level of significance as $p>0.05$.

Table 8: Association between barrier scores of married couples of urban area with demographic variables

Sl no.	Selected variables	Barrier scores n=100 (50,50)									
		Males of urban area					Females of urban area				
		≤Med	>Med	df	χ^2	p-value	≤Med	>Med	df	χ^2	p-value
1.	Age			1	3.30	$p>0.05$			1	7.39*	$P<0.05$
1.1	≤32 years	15	9				23	5			
1.2	>32 years	23	3				9	13			
2.	Religion			3	0.42	$p>0.05$			3	2.29	$p>0.05$
2.1	Hindu	24	3				15	12			
2.2	Christian	8	1				7	2			
2.3	Muslim	1	0				1	0			
2.4	Buddhist	12	1				9	4			
3.	Education			1	2.09	$p>0.05$			1	0.04	$p>0.05$
3.1	≤ High school	31	2				26	15			
3.2	>High school	12	5				6	3			
4.	Occupation			1	0.21	$p>0.05$			1	1.39	$p>0.05$
4.1	Non-working	2	0				14	11			
4.2	Working	41	7				18	7			
5.	Type of family			1	0.50	$p>0.05$			1	6.38*	$P<0.05$
5.1	Joint	15	4				8	11			
5.2	Nuclear	28	3				24	7			
6.	Monthly income			1	0.32	$p>0.05$			1	0.06	$p>0.05$
6.1	≤ 15,000	6	1				4	3			
6.2	>15,000	37	6				26	17			

df,1=3.84 ;df,3=7.82 ; $p<0.05$

In table 8 , the data shows that there is no association between the barrier scores of males of urban area with the demographic variables, whereas, significant association is found between the barrier scores of females of urban area

with the age (7.39) and type of family(6.38) as $p<0.05$. No association was established with the other demographic variables.

Table 9: Association between barrier scores of married couples of rural area with demographic variables n=100 (50, 50)

Sl no.	Selected variables	Barrier scores									
		Males of rural area					Females of rural area				
		≤Med	>Med	df	χ^2	p-value	≤Med	>Med	df	χ^2	p-value
1.	Age			1	0.10	$p>0.05$			1	0.02	$p>0.05$
1.1	≤32 years	11	7				18	17			
1.2	>32 years	21	11				8	7			
2.	Religion			3	2.03	$p>0.05$			3	1.30	$p>0.05$
2.1	Hindu	23	12				18	17			
2.2	Christian	1	1				1	1			
2.3	Muslim	0	1				0	1			
2.4	Buddhist	8	14				7	5			
3.	Education			1	0.01	$p>0.05$			1	4.19*	$p<0.05$
3.1	Less than High school	22	14				16	23			
3.2	More than High school	9	5				9	2			
4.	Occupation			1	0.11	$p>0.05$			1	6.41*	$p<0.05$
4.1	Non-working	2	0				19	9			
4.2	Working	30	18				7	15			
5.	Type of family			1	0.67	$p>0.05$			1	4.32*	$p<0.05$
5.1	Joint	4	5				8	1			
5.2	Nuclear	27	14				18	23			
6.	Monthly income			1	1.72	$p>0.05$			1	1.20	$p>0.05$
6.1	≤ 15,000	22	9				18	13			
6.2	>15,000	10	9				8	11			

df,1=3.84 ;df,3=7.82 ; $p<0.05$

The above table 9, depicts that there is no association between the barrier scores of the males of rural area with the demographic variables, as the obtained chi-square values were not significant at 0.05 level of significance, whereas, there was a significant association between the barrier scores of females of rural area with the educational status (4.19), occupation (6.41) and type of family (4.32), at 0.05 level of significance. No association was established with the other demographic variables.

Discussion

The present study shows that the majority of the respondent that is 100% male and 88% females in the urban area, and 96% male and 68% in females of the rural area had inadequate knowledge regarding the family planning methods which is in contrast with the results of the study conducted in Karnataka, by S. Hema Varneshwari *et al.* [12], in which they stated that 92.8% of the population had the knowledge regarding family planning. In the present study, it was also found that very few of the urban population had an average knowledge regarding family planning that is 10% female in urban area, and only 4% males in rural area had good knowledge regarding the family planning in rural area. These findings were consistent with the study findings of Medical Social Worker, ICMR Project conducted in North Eastern part of India, Assam by Firdous Barbhuiya [13] which found that only 7% of the study population was fully aware about several family planning methods, 61% were partially aware and 32% were completely ignorant about the matter. However, the findings here are in stark contrast with the study findings of K. Sushmita and K. Kshitij [14] which revealed in their study that more than half of the married women 56.9% had good knowledge on family planning and 51.38% of respondents were currently using family planning methods.

The present study revealed that the current use of contraceptive was 58% in rural male and 52% in females of urban area which was similar to a study conducted by Hajira S & Kishore K⁶ in which the result showed that 58.6% of the women were currently using contraception. In addition, to that in the present study, only 2% of the females in rural area had undergone tubectomy contradicting the study of Hajira S & Kishore K⁶, which revealed that 71.59% of females had undergone tubectomy. In the study of Medical Social Worker, ICMR Project in NE India Assam Firdous Barbhuiya [13] it was revealed that the husbands 87% were the decision-makers regarding family planning, whereas in the present study, it was found that 100% of the samples in both urban and rural area that is both husband and wife were the decision-makers in matters of family planning.

The present study reveals that in the urban area, 44% males and 52% females were using the family planning methods, 56% males and 48% females were not using any form of family planning methods, while in the rural area, 58% males and 34% females were using some form of family planning methods and 42% males and 66% females were not using any family planning methods which contrasts the study of Kashyap Poonam *et al.* [15], where it was found that all women were aware of at least one contraceptive method, while 11% never used contraception.

The present study shows that 20.58% of rural male and 20.08% of urban female have reported the barrier in utilization of family planning methods. The data also revealed that administrative barriers, cognitive barriers and

socio-cultural barriers were reported by majority of the married couples in both urban and rural area. The findings of the study are consistent with the findings of the study conducted by S.Hemavarneshwari [12], where they revealed that 19.2% of the population had psycho-social barriers and 26.8% of the population showed socio-cultural barriers.

The present study findings are also consistent with the study findings of Mohammed Ahmed Waled Amen *et al.* [16], where the factors contributing to low usage of family planning services included couple's perception and knowledge, availability and affordability of family planning products, methods used, as well as obstacles in the use of family planning services. The present study revealed that there is a significant difference in the knowledge scores of urban and rural male was 0.56 which was found statistically significant (3.01, $p < 0.05$), and found consistent with the study findings of Gayathry D *et al.* [17] where it was showed that the overall mean knowledge scores of urban population was 22.60 ± 6.673 and rural population 14.48 ± 5.898 which was statistically significant, and there was difference in knowledge scores in the context of gender and place of residence.

The findings of the present study also reveals that there is no significant association of the current use of family planning methods with the knowledge scores of married couples of urban and rural areas, contradicting the study conducted by Anna Tengia-Kessy and Nassoro Rwabudong [18] in which it was revealed that there is a significant association between the knowledge scores and the current use of the family planning methods by the couples at 0.05 level of significance. The findings of the present study are contradictory to the study findings of Tsering Dechenla *et al.* [19], where it was found that the contraceptive use was high among the literate men (72.33%) and their wives (86.17%).

The limitation encountered during study was the tool used for data collection as the researcher relied on structured tool with close ended question (dichotomous response), which lead to restriction of free response by the couples. It was also observed during interview that some of the couples, who were practicing the method of family planning but did not like to reveal it, may have affected the outcome.

Conclusion

From the findings of the study, it can be concluded that majority of the married couples, in both urban and rural area belonged to the age group of 24-35 years of age. Most commonly used method of family planning was Condom. Married couples in both urban and rural area reported that they received the information regarding family planning through health workers. 63.06% of the males in urban area and 67.38% females in rural area had higher knowledge regarding the family planning methods. Majority of the married couples in both urban and rural area had faced cognitive barriers, administrative barriers and socio-cultural barriers which was affecting the utilization of family planning methods. Overall married couples had average level of knowledge regarding family planning methods. Lack of awareness emerged as a key barrier in use of these methods by men and women. So, it is essential to have an accurate knowledge about each family planning method which helps married couples to make informed choice, better switch over and continuity.

The study also concludes that there is need to implement

extensive awareness programs and empower both men and women equally as active decision makers with respect to use of family planning methods.

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