Original Article

DOI: 10.17354/ijss/2016/62

Comparative Study of Knowledge, Attitude and Practices toward Contraception among Tribal and Non-Tribal Wives of Eligible Couples in a Rural Area of Assam

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Abstract

Background: If all unplanned pregnancies could be eliminated, it is estimated that there would be 22 million fewer abortions each year, and the associated complications would be lessened.

Aims and Objectives: (1) Compare knowledge, attitude, and practices toward contraceptives among wives of tribal and non-tribal eligible couples of Rani Community Development Block, Kamrup, Assam, (2) to study various factors influencing contraceptive practices.

Materials and Methods: It is a community based cross-sectional study done from August 2014 to July 2015. Wives of currently married couples in the reproductive age group of 15-45 years were interviewed. A total of 150 tribal eligible couples and 150 non-tribal eligible couples were taken for the study.

Results: Knowledge about contraceptive methods is almost universal about 90.6% of tribal wives, and 92.33% of non-tribal wives knew about contraceptive. Association of age, education status, occupation, and socioeconomic status was found to be statistically significant with contraceptive usage.

Conclusion: Besides having a good knowledge about contraception the practice is still lagging, and only 36% among tribal and 46% among non-tribal are using modern methods of contraception which is very low. Regarding modern contraceptive prevalence rate, although there was some improvement compared to the past national averages; however, the current figure for prevalence rate is still low when compared to the national target.

Key words: Attitude, Contraception, Knowledge, Practices, Tribal and non-tribal

INTRODUCTION

Contraception is defined as intentional prevention of conception or impregnation by interfering with the normal process of ovulation, fertilization and implantation through the use of various devices, agents, drugs, sexual practices, or surgical procedures.

Access this article online

IJSS

www.ijss-sn.com

Month of Submission : 12-2015
Month of Peer Review : 01-2016
Month of Acceptance : 01-2016
Month of Publishing : 02-2016

Acceptance of contraception by a couple is governed by various socio-cultural factors, such as religion and education of husband and wife. Use of various contraceptive methods varies within different societies, caste, religion, and regions. This variation which is at an individual, family and community level influenced by various factors such as socioeconomic status, literacy, religious acceptance is always a matter of concern among the researchers trying to unearth the real hindrance of various family welfare program.[1]

According to the National Family Health Survey (2005-2006) Schedule Tribes in India have very high total fertility rate (3.12) than other social groups and

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National Health Policy of India prioritizes Schedule Tribe population as special needs group for extending the health care services.[2] Besides having all the resources, there are still some hindrance which is acting as barrier for contraceptive usage.[3] Keeping these in background the objective of my study is to:

1. Compare knowledge, attitude, and practices toward contraceptives among tribal and non-tribal wives of eligible couples of Rani Community Development (CD) Block, Kamrup, Assam
2. To study various factors influencing contraceptive practices.

MATERIALS AND METHODS

Rani CD Block comes under Kamrup district of Assam situated having geo points 25.80° North 91.27° East. The total area of Kamrup District is 3105 km^2 with a total population of 1,517,542. Rani comes under the filed practice area of Department of Community Medicine, Gauhati Medical College. This is a community based cross-sectional study done from August 2014 to July 2015. Wives of currently married couples in the reproductive age group of 15-45 years were the respondents.

Inclusion Criteria

1. Wives of eligible couples where wife is in the age group of 15-45 years
2. Residing in the Rani area at least for a period of 1-year.

Exclusion Criteria

1. Wives of eligible couples not giving consent for the study
2. Divorced, separated, and widowed couples are excluded from the study.

According to Annual Health Survey 2010-2011, contraceptive prevalence including both traditional and modern method among the eligible couples of Kamrup district of Assam is 78.8%.[3] For comparative analysis and in the absence of the availability of similar studies, the sample size was calculated assuming the difference in percentages of contraceptive practices among tribal and non-tribal eligible couples as 15%. Using the formula for comparison of two proportions, and taking prevalence of contraceptive use among non-tribal as 78.8% (p_1), with a difference of 15% on either side, for 95% confidence interval and 80% power, the sample size calculated was 142 in each group, rounding the figure to 150, i.e., there will be 150 tribal eligible couples and 150 non-tribal eligible couples making a total sample size of 300 eligible couples.

$$n=(Z_{\alpha/2}+Z_{\beta})^2*(p_1(1-p_1)+p_2(1-p_2))/(p_1-p_2)^2$$

There are 54 villages under the Rani CD block according to census 2011. On the basis of the proportion of the tribal population, the villages are divided into two group tribal and non-tribal, 23 tribal villages and 28 non-tribal villages. Using random number table, 10 villages from each group are selected, and from each village, 15 wives of eligible couples are selected. Thus, making a total sample size of 300 eligible couple 150 tribal and 150 non-tribal eligible couples. Data were collected by house to house visit using a pre-tested pre-designed schedule containing both open and closed ended question. Data were compiled in Excel sheets and analysis was done using Graphpad's Instat taking a $P < 0.05$ statistically significant. Ethical permission was taken from Institutional Ethics Committee.

RESULTS

A total of 150 tribal and 150 non-tribal wives of eligible couples were selected. The maximum number of tribal wives (28%) and non-tribal wives (30%) were in the age group of 26-30 years. While among the tribal wives the least number of wives were seen in the age group of 41-45 years (9.33%) and among non-tribal it was the 15-20 years age group (7.33%) (Table 1). Among tribal couples about 78% were Hindu are 22% are Christian. There were no

Table 1: Distribution of socio demographic profile of tribal and non-tribal wives of eligible couples

Characteristics	Tribal (%) *n*=150	Non-tribal (%) *n*=150
Age (wives) in years		
15-20	15 (10)	11 (7.3)
21-25	27 (18)	31 (20.6)
26-30	42 (28)	45 (30)
31-35	30 (20)	27 (18)
36-40	22 (14.6)	18 (12)
41-45	14 (9.33)	18 (12)
Education level		
Illiterate	30 (20)	26 (17.3)
Primary school	25 (17.3)	16 (10.6)
Middle school	21 (14)	20 (13.3)
High school	33 (22)	31 (20.6)
Matriculate	24 (16)	30 (20)
Higher secondary	11 (7.3)	17 (11.3)
Graduate and above	6 (4)	10 (6.6)
Occupation		
Home makers	59 (39.3)	52 (34.6)
Daily wage earners	42 (28)	37 (24.6)
Business	39 (26)	47 (31.3)
Service	10 (6.6)	14 (9.3)
Socioeconomic status (B.G. Prasad)		
Class I	8 (5.3)	10 (6.6)
Class II	22 (14.6)	18 (12)
Class III	25 (16.6)	32 (21.3)
Class IV	40 (26.6)	37 (24.6)
Class V	55 (36.6)	53 (35.3)

Figures in parenthesis represent column-wise percentage

tribal couples of Islam religion. However, among the non-tribal couples about 36% were Muslim and only 3.4% were Christian. About 20% of the tribal wives were illiterate which is higher than the non-tribal wives (17.33%). In both tribal and non-tribal groups, the maximum number of wives had studied up to high school.

About 39.33% of tribal wives and 34.67% of non-tribal wives were housewives. Only 6.67% of tribal and 9.33% of non-tribal were doing service either under Government or Private sector. Most the housewives were also seasonal cultivators who help their husbands at the time of sowing and harvesting. In this study, maximum number of couples including tribal and non-tribal belong to Class V socioeconomic class, 36.6% and 35.33% among tribal and non-tribal eligible couples, respectively (Table 1). Among tribal 42.6% couples were below poverty line and among non-tribal 38.6% were below poverty line. The proportion of BPL couples among tribal is higher than the non-tribal which emphasized that they are an underdeveloped community. Among the tribal couples about 54% were living in joint families while among non-tribal it is 61.4%. Among the tribal wives majority (50%) were Parity 2 and among non-tribal 40% are Parity 2. There were only 5% tribal wives with Parity 0.

The difference of knowledge about various contraceptive methods among tribal and non-tribal wives was found to be statistically insignificant with $P = 0.3859$ (Table 2). Knowledge about a natural method like withdrawal is highest among both tribal and non-tribal wives, but knowledge about lactational amenorrhea and calendar method is low. Above 90% of the wives knew about any one of the contraceptive methods, besides this only 5.33% of tribal wives and 6.67% of non-tribal wives knew about implant contraceptives. Among the modern contraceptive methods, oral contraceptive pills (OCP) is the most popular method both in tribal and non-tribal wives, Cu-T (IUCD) is second most popular (73.33%) among tribal and tubectomy (80.67%) among non-tribal wives. Among tribal wives positive attitude toward contraception was found in 69.3% and 72% among non-tribal wives, on statistical analysis this difference among tribal and non-tribal was found to be insignificant ($P = 0.8984$) (Table 2).

Among the eligible couples 28% tribal couples and 34% of non-tribal couples were using one or more methods of contraception currently. This difference of usage rate among tribal and non-tribal is found to be statistically significant with a $P = 0.0238$ on Chi-square analysis (Table 2).

The most common source of information is health workers (Doctors, Nurses, ASHA, and MPW) among the tribal (51%) but among the non-tribal wives, the most common source (52%) was Mass Media (including Newspaper, Radio, TV). Among the tribal users, 40.5% were using natural methods of contraception out of which the most practiced one is withdrawal method (25.8%) and among the modern methods the most preferred one is the OCP, about 27.9% of the total users. Not a single couple had undergone vasectomy or used injectable contraceptives. OCP were the most preferred (31.8%) among the non-tribal also, and there were no users of injectable contraceptives and implants, but there is a single non-tribal husband who had undergone vasectomy.

It was seen that the maximum usage rate is in the age group of 26-30 years which is 88.09% and next to it is in the age group of 31-35 years (73.33%), the lowest usage rate is in the age group of 36-40 years (27.27%) and on doing Chi-square test this association is found to be significant with a $P < 0.0001$. Similarly, among the non-tribal wives the maximum usage rate (88.89%) is in the age group of 26-30 years and 31-35 years, lowest usage is in the age group of 41-45 years; on Chi-square analysis, this relation is found to be significant with a $P < 0.004$ (Table 3).

Table 2: Knowledge and attitude and practices about contraception among wives of tribal and non-tribal eligible couples

Parameters	Tribal wives (%)	%	Non-tribal wives (%)	%	Total	*P* value
Contraceptive knowledge						
Present	136 (90.6)	49.1	141 (94)	50.9	277 (92.33)	0.3859*
Absent	14 (9.4)	60.9	9 (6)	39.1	23 (7.67)	
Total	150 (100)	50	150 (100)	50	300 (100)	
Attitude						*P*=0.8984 χ^2=0.01630
Positive	106 (69.3)	49.5	108 (72)	50.5	214	
Negative	44 (31.7)	51.1	42 (28)	48.9	86	
Total	150 (100)	50	150 (100)	50	300	
Contraceptive						*P*=0.0238 χ^2=5.108
Users	93 (62)	45.1	113 (75.4)	54.9	206 (68.7)	
Non-users	57 (38)	60.6	37 (24.6)	39.4	94 (31.3)	
Total	150 (100)	50	150 (100)	50	300 (100)	

*Fisher's exact test figures in parenthesis represent column-wise percentage

On Chi-square analysis, the association between education level and contraceptive use is also found to be significant in both tribal and non-tribal wives with a $P = 0.002$ and <0.001 respectively (Table 4).

Of total 24 wives doing service either on Government or Private sector 19 were using contraception, among them 8 were tribals and 11 non-tribals. The association of contraceptive usage and occupation was found to be significant in both tribal and non-tribal wives (Table 5).

Among tribal users about 33% were from Class V socioeconomic status. The association was also significant between socioeconomic status (B. G. Prasad) and contraceptive use in both tribal and non-tribal wives (Table 6).

DISCUSSION

This study was conducted to compare the KAP toward contraception among wives of tribal and non-tribal. Similar to this study Pegu *et al.*, in their KAP study among the Khasi's found that the maximum number of wives were in the age group of 20-30 years (48%).[4] Bora and Kumar among the Garhwals, found that the literacy rate of wives is 63% only and the maximum number of wives (28.7%) studied up to primary level,[5] literacy rate in both the studies was lower than the present study.

Kaur *et al.*, in their study found that awareness was about 55.7% about various contraceptive methods out of which condom and OCP were the most commonly known. Similarly, in this study, the most known was OCP among

Table 3: Association of age (in years) with contraceptive usage among wives of tribal and non-tribal eligible couples

Age	Tribal (*n*=150) (%)		*P* value	Non-tribal (*n*=150) (%)		*P* value
	Users	Non-users		Users	Non-users	
15-20	9 (9.67)	6 (10.5)	χ^2=29.3, *P*<0.0001	7 (6.19)	4 (10.81)	χ^2=22.8, *P*<0.004
21-25	13 (13.97)	14 (24.56)		24 (21.2)	7 (18.9)	
26-30	37 (39.8)	5 (8.77)		40 (35.3)	5 (13.56)	
31-35	22 (23.66)	8 (14.04)		24 (21.2)	3 (8.11)	
36-40	6 (6.45)	16 (28.09)		11 (9.75)	7 (18.9)	
41-45	6 (6.45)	8 (14.04)		7 (6.19)	11 (29.73)	
Total	93 (100)	57 (100)	Total	113 (100)	37 (100)	

Table 4: Association of education status and contraceptive usage among wives of tribal and non-tribal eligible couples

Education level	Tribal (*n*=150) (%)		*P* value	Non-tribal (*n*=150) (%)		*P* value
	Users	Non-users		Users	Non-users	
Illiterate	15 (16.13)	15 (26.31)	χ^2=24.078, *P*=0.002, df=5	16 (14.1)	10 (27.02)	χ^2=29.70, *P*<0.001, df=5
Primary school	8 (8.60)	17 (31.57)		4 (3.53)	12 (32.43)	
Middle school	10 (10.75)	11 (19.29)		17 (15)	3 (8.10)	
High school	26 (27.96)	7 (12.28)		26 (23)	5 (13.51)	
Matriculate	21 (22.58)	3 (5.26)		27 (23.8)	3 (8.10)	
HS	8 (8.60)	3 (5.26)		14 (12.3)	3 (8.10)	
Graduate and above	5 (5.38)	1 (1.75)		9 (7.96)	1 (2.7)	
Total	93 (100)	57 (100)	Total	113 (100)	37 (100)	

Table 5: Association of occupation and contraceptive usage among wives of tribal and non-tribal eligible couples

Occupation	Tribal (*n*=150) (%)		*P* value	Non-tribal (*n*=150) (%)		*P* value
	Users	Non-users		Users	Non-users	
Home maker	27 (29.03)	32 (56.14)	χ^2=11.32, *P*=0.0101, df=3	32 (34.5)	20 (54.1)	χ^2=10.38, *P*=0.015, df=3
Daily wage earners	31 (33.33)	11 (19.29)		28 (24.7)	9 (24.32)	
Business	27 (29.03)	12 (21.05)		42 (30.9)	5 (13.5)	
Service	8 (8.61)	2 (3.5)		11 (9.73)	3 (8.10)	
Total	93 (100)	57 (100)	Total	113 (100)	37 (100)	

Table 6: Association of socioeconomic status (B.G. Prasad classification) and contraceptive usage among wives of tribal and non-tribal eligible couples

Socioeconomic status	Tribal (*n*=150) (%)		*P* value	Non-tribal (*n*=150)		*P* value
	Users	Non-users		Users	Non-users	
Class I	6 (6.45)	2 (3.5)	χ^2=8.461, *P*=0.0036, df=1	8 (7.1)	2 (5.4)	χ^2=7.550, *P*=0.0060, df=1
Class II	20 (21.51)	2 (3.5)		15 (13.3)	3 (8.1)	
Class III	18 (19.35)	7 (12.2)		30 (26.5)	2 (5.4)	
Class IV	18 (19.35)	22 (38.59)		28 (24.7)	9 (24.4)	
Class V	31 (33.33)	24 (42.10)		32 (28.3)	21 (56.8)	
Total	93 (100)	57 (100)	Total	113 (100)	37 (100)	

tribal and tubectomy among non-tribal wives.[6] Srivastava *et al.*, found that the female sterilization was the most popular method (82.2%) and emergency contraceptive pill was the least popular one.[7]

According to Annual Health Survey of Assam among the currently married women who are in the reproductive age group 67.7% are using contraceptive methods of which 38.4% are using modern methods and 28.2% are using traditional or natural methods. In Kamrup (rural) district, a total of 78.8% is using contraception out of which 46% are using modern and 32.9% are using traditional methods these findings go parallel to our study. Pegu *et al.*, found that among Khasi women only 38% were using contraceptives method, this low percentage of users may be due to non-inclusion of traditional or natural methods in the study. Rao and Babu also found that the users among the Rocha Kaya tribe were only 41.3%.[8] Kaur *et al.*, found that 40.1% of women were using contraception at the time of the survey. Similarly Mishra *et al.*, in the study among tribes of Bankura, West Bengal found that only 40.07% were using contraception at the time of the survey which is very low in comparison to our study.[9]

Similar to our study Mishra *et al.*, study in Bankura (West Bengal) among the tribal also found that highest usage rate was in the age group of 30-35 years, and the association with age was significant with a $P < 0.001$. Rao and Babu in the study among Racha Koyas of Andhra Pradesh found that among literate 41% of women are using contraceptive and 40.6% among illiterate which shows an insignificant association between education and contraceptive use. However, on the contrary, Mishra *et al.*, in the study among the tribes of Bankura, West Bengal found a significant association between education and contraceptive use. This study also shows a significant association between education status and contraceptives uses. Mishra *et al.*, like our study found a significant association of contraceptive use and socioeconomic status. Among upper class, the use of contraception is more in comparison with the lower class.

CONCLUSION

Knowledge about contraceptive methods is almost universal about 90.6% of tribal wives and 92.33% of non-tribal wives knew about contraceptive. The most known method of contraception among both tribal and non-tribal is Natural methods. The least known is implant contraceptive both in tribal and non-tribal wives. Though the knowledge about various contraceptive methods are universal except for some methods such as injectable and implant contraceptives. The attitude toward contraception is also positive among most of the non-tribal eligible couples (82%) and some of the tribal couples (68%). Besides having a good knowledge about contraception, the practice is still lagging, and only 36% among tribal and 46% among non-tribal are using modern methods of contraception which is very low. Regarding modern contraceptive prevalence rate, although there was some improvement compared to the past national averages, however, the current figure for prevalence rate is still low when compared to the national target. Use of vasectomy is also poor as only one couple out of 300 eligible couples opted for a vasectomy. Giving counseling for contraceptive use to both husband and wife together can play an important role to adopt family planning methods. Creating more awareness about vasectomy will help to create a positive attitude among the husbands for a vasectomy.

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How to cite this article: Bharali MD, Baruah R, Ojah J. Comparative Study of Knowledge, Attitude and Practices toward Contraception among Tribal and Non-Tribal Wives of Eligible Couples in a Rural Area of Assam. Int J Sci Stud 2016;3(11):84-89.

Source of Support: Nil, **Conflict of Interest:** None declared.