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Original Research Article

Association between socio-demographic factors and acceptance of family planning methods among scheduled caste women of Jorhat district, Assam

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ABSTRACT

Background: In spite of the high knowledge, the rate of contraceptive methods use is not so satisfactory in India. The main objective of the health and family welfare programme is to reduce the knowledge, attitude and practice gap among the people of different societies, castes, religions and regions. The objective of the study is to find the association between socio-demographic factors and acceptance of family planning methods among the women belong to scheduled caste community which is one of the backward communities of India.
Methods: A community based cross sectional study was conducted among scheduled caste community of Jorhat district, Assam. 612 married women of reproductive age group were selected using multistage sampling technique. Data were collected by personal interview using pretested, predesigned proforma. Chi-square test was used to see the association and all the analysis were done using SPSS- version 23.
Results: 98.2% knew the family planning methods and 87.5% had positive attitude but only 65.3% practiced the methods. 58.3% women did not use the family planning methods because they want more children. The major source of information was mass media (76.8%) and majority of women (47.1%) used oral contraceptive pill (OCP) following by condom (21.6%). Most of the socio-demographic factors had significant association with the practice of family planning methods.
Conclusions: There is a need to understand the various factors which influence the practice of family planning methods so that the it would help in designing effective family planning programme.

Keywords: Socio-demographic factors, Association, Family planning methods, Scheduled caste

INTRODUCTION

About 61% of the global population live in the world's most populous continent Asia. Among the countries, China alone has 1.44 billion people and India 1.39 billion, accounting for 19% and 18% of the world's population respectively**.** According to the Indian census of 2011, the population of India was exactly 1,210,193,422, which means India has crossed the 1-billion mark.[1] That means the population of India has been growing at the rate of 2.2% per annum since independence (1950-51 to 1999-00). This excess population is itself a symptom of over-population. This problem is becoming more and more acute day by day due to rapidly increasing population by about 22 million persons a year.

Various studies have projected that India will be world's number-1 populous country, surpassing China, by 2025. According to a latest report by United Nation, India is projected to surpass China as the most populous country of the world in next year.[2] The Economist's data journalism says that India is expected to overtake China as the most populus country within April,2023.[3] In spite

of the fact that the population policies, family planning and welfare programmes undertaken by the Govt. of India have led to a continuous decrease in the fertility rate, yet the actual stabilization of population can take place only by 2050.[1,2]

China has achieved rapid growth in spite of its high population growth. But, developing countries like India, face the problem of overpopulation more than the developed countries and it affects most of the world. The population problem creates many other problems in various fields of development such as social, economic, cultural, educational, political etc.

India's rapidly growing population is the most serious obstacle to its socio-economic development.[4] It is not possible to reduce the existing size of population. But it is, of course, possible to slowdown the rate at which population is increasing.

The control of births seems to be the most common method of checking the growth of population. Simply educating men and women about contraception can have big impact. Family planning and efficient birth control can help in women making their own reproductive choices.

Family planning means to control the birth rate and planning the size of the family in a manner, compatible with the physical and socioeconomic resources of the parents and conducive to the health and welfare of all members of the family. According to WHO, family planning means a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of family groups and thus contribute effectively to the social development of a country.[5,6]

India is the first country throughout the world to adopt the family planning methods since 1951.[4,7] This method plays a vital rule in controlling the upward growth rate. It became the first country in the developing world to create a state sponsored family planning program, the National Family Planning Program.

However, the achievement of the family planning programme is not quite satisfactory and the adoption rate is still very slow especially among the poor people. The problem of practicing family planning is essentially a problem of attitude change. Because usually people are generally in favor of family planning but in spite of this, the rate of contraceptive use is low. [7] There is more important to stimulate social changes affecting fertility such as rising the age of marriage, increasing the status of women, education and employment opportunities, old age security, compulsory education for children etc. It might be expected that development of mass education and communication, awareness about family planning programmes would be one of the solutions to the problem of family planning, so that people may understand the benefits of a small family.

The main objective of the health and family welfare programme is to reduce the knowledge, attitude and practice gap among the people of our country. Therefore, we need to know more about the individual role of the socio-cultural factors and programme factor, particularly the quality of family welfare services and care in influencing the variation in the family planning performance among the people of various groups in our society regarding age, religion, caste, community, societies etc. The family planning programme is being characterized by an enormous variation in its performance over the region, at the state as well as over districts in a state.[6]

Scheduled caste (SC) and Scheduled tribes (ST) are two backward communities as compared to other classes of the society. During the period of British rule in the Indian subcontinent, they were known as the depressed classes. The term scheduled caste has been defined under clause (24) of Article 366 of Indian constitution. Majority of them are in the rural areas and in the informal, unorganized sector. They are inadequate in education, health and productive resources. Therefore, they remain largely marginalized, poor and socially excluded. The government and the concerned citizens should know the problems faced by the Scheduled Caste people.

In Indian society, women play a greater role as compared to men in the delivery of health care system as they are the principal provider of informal health care in families and communities. They have to take decisions on the health care of family members either directly or indirectly. However, most of the women are not conscious and aware about their health. They give birth to many children to satisfy their husband or other family members, though they cannot provide proper food, cloths, shelter, education etc. Ultimately it becomes a big burden to the society.[8] Usually, these types of problems are common in socially backwards communities specially in Scheduled caste and Scheduled tribes. So, considering all the factors, it is necessary to assess the knowledge, attitude and practice along with utilization family planning methods of the women belonged to this community.

The objective of the study is to find the association between socio-demographic factors and acceptance of family planning methods among the women belong to scheduled caste community which is one of the backward communities of India.

METHODS

Study setting

The study was conducted among the scheduled caste women of Jorhat district, Assam. The study area "Jorhat"

is one of the major cities of Assam. As per the census 2011, the total population of Assam was 3,12,05,576. Out of which Jorhat district has 1,092,256 population with 556,805 males and 535,451 females. A total of 88,665 scheduled caste people live here. Among them 45,194 are males and 43,471 are females.[9]

Study population

Married women of reproductive age group (15-49 years) who belong to the Scheduled Caste community were the study participates of the study.

Study design

The study was a community based cross sectional study.

Inclusion criteria

Married women of reproductive age group (15-49) years belonged to Scheduled Caste community were included in the study.

Exclusion criteria

Unmarried women and women who were not willing to participate during the data collection period were excluded for the study.

Sample size

According to NFHS-4, 55.7% women belongs to Scheduled caste community, had knowledge about any method of contraception.[10] Considering this as prevalence and taking relative error of 10%, confidence interval of 95%, design effect 2, the sample size for the study is calculated and obtained as 612.

Data collection

Data collection was performed by personal interview using pretested, predesigned proforma. Prior consent was obtained from the participants before the interview. Information regarding attitude about family planning of the respondents was assessed by asking some questions based in qualitative approach. In case of absence of the female participant of the family, the participant of the next family was considered. The information about the husband was collected from both the husband himself and his wife.

Sampling technique and procedure

Data are collected using multistage random sampling technique which may be described as follows-

At first stage - From 5 Revenue circles of Jorhat district, 3 circles were selected by simple random sampling.

At second stage - A representative no. of Gaon Panchayat were selected from each of the three circles by simple random sampling.

At third stage - Considering the availability of the Scheduled Caste people, one representative village from each of selected Gaon Panchayat was chosen by convenient sampling technique. The villages where the maximum number of scheduled caste family reside by, were known with the help of district administration and district census report 2011.[11]

At fourth stage - A sample of 204 study participants were selected from each village using probability proportional to size (PPS) sampling to get the required sample size.

Statistical analysis

The collected data were tabulated and analyzed using SPSS version-23. For categorical data, chi square test of significance is used to see the association between the variables and to find the p-value. P-value <0.05 is considered as significant under 95% confidence interval**.** The multiple logistic regression analysis was use to see the odds ratios of the socio demographic variables regarded as predictors in relation to the outcome variable "practice". Each predictor was tested independently to calculate a crude odds ratio (COR).

RESULTS

Around all study participants had knowledge about any type of family planning methods (98.2%). Majority of married women (84.5%) had knowledge about the Oral contraceptive pill (OCP) while 76.8% knew about the condom. Sterilization and IUD was known by 48.8% and 35.6% study participants. The major source of information was found as mass media (76.8%) followed by Doctor/Health workers/Health care Institution (68.2%).

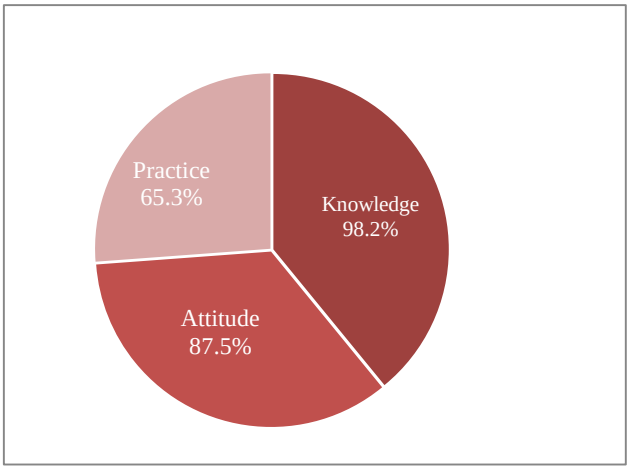

Figure 1: Knowledge, attitude and practice of study participants.

The study revealed that 87.5% of the respondents had positive attitude towards the family planning methods. 9.8% had negative attitude and 2.9% study participants gave no response. About 69.6% study participants informed that their family members seemed to have positive attitude towards family planning.

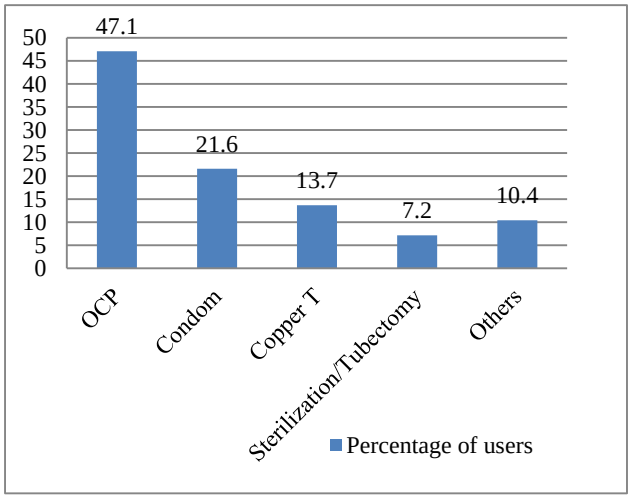

Figure 2: Contraceptive users.

Figure 1 shows that although all participants had the knowledge and favorable attitude towards family planning methods, only 65.3% were using any type of family planning methods. Out of them 25.4% were practicing traditional and 74.6% were using any type of modern methods. Almost 54.4% women used any method ever before.

Among the user of modern method of family planning, maximum of them 47.1% had used oral contraceptive pill (OCP) following by condom 21.6% and copper-T 13.7% (Figure 2). On the other hand, among the traditional method user, maximum 19.4% used withdraw method.

Regarding the non-user, it was cleared that 58.3% women did not use the family planning methods because they want more children. Approximately 20.9% did not use any method due to health concern. Moreover 19.6% of study participants informed that their partner opposed to use the family planning methods. About 33.3% of them availed from health care institutions and 29.4% from Government Hospital and 23.6% from medical shop/pharmacy.

Almost 35.3% participants used contraceptive methods to prevent unwanted birth as well as for spacing of birth. 84.5% contraceptive user said that they felt no side effect. The study also said that only 18% women could take the decision of using contraceptive methods independently.

For the study, average age at marriage was obtained as 19.5±4.0 years and majority of women (63.7%) were housewives. The study explored the different socio-demographic factors that might be associated with acceptance of family planning methods. Table 1 showed that half of the respondents were from the age group 25-35 years of age and almost all of them (50.7%) had accepted any type of family planning methods. Only 0.5% of them were illiterate. Most of them completed their education up to under Metric level (41.0%) while 19.4% of them were became graduate and above. Approximately three quarters of the study participants were facing unemployment problem. That's why majority of women earned below Rs.1000 per month only. Maximum women (64.2%) lived in nuclear family.

Table 1: Association between socio-demographic factore and acceptance of family planning methods by SC women.

Socio-demographic factors	Classification	No. of person (n=612)	Acceptance of FP methods (n=402)	P value
		N (%)	N (%)	
Age (in years)	15-25	111 (18.1)	72 (17.9)	p<0.0001*
	25-35	308 (50.3)	204 (50.7)	
	35-45	184 (30.1)	123 (30.6)	
	Above 45	9 (1.5)	3 (0.7	
Education	Illiterate	12 (1.9)	2 (0.5)	p<0.0001*
	Under metric	241 (39.4)	165 (41.0)	
	HSLC	127 (20.7)	75 (18.7)	
	HS	130 (21.2)	82 (20.4)	
	Graduate and above	102 (16.7)	78 (19.4)	
Income (per month)	Below 1000	344 (56.2)	214 (53.2)	p<0.0001*
	1000-5000	113 (18.4)	85 (21.1)	
	5000-10000	125 (20.4)	90 (22.4)	
	More than 10,000	30 (4.9)	13 (3.2)	
Employment Status	Employed	140 (22.8)	120 (29.5)	p<0.0001*
	Unemployed	472 (77.2)	282 (70.5)	
Type of family	Nuclear	393 (64.2)	285 (70.9)	p<0.0001*
	Joint	219 (35.8)	117 (29.1)	

Table 2: Socio-demographic factors tested against the acceptance of family planning methods in multiple regression analysis.

Socio-demographic factors	Classification	No. of person (n=612)	Acceptance of FP methods (n=402)	Crude odds ratio	95% Confidence interval
		N (%)	N (%)		
Age (in years)	5-25	111 (18.1)	72 (17.9)	1 (Ref.)	0.6737,1.6761 0.6651, 1.794 0.0649, 1.143
	25-35	308 (50.3)	204 (50.7)	1.06	
	35-45	184 (30.1)	123 (30.6)	1.09	
	Above 45	9 (1.5)	3 (0.7	0.2708	
Education	Illiterate	12 (1.9)	2 (0.5)	1 (Ref.)	2.322, 50.75 1.517, 34.28 1.796, 40.63 3.328, 79.34
	Under metric	241 (39.4)	165 (41.0)	10.855	
	HSLC	127 (20.7)	75 (18.7)	7.2115	
	HS	130 (21.2)	82 (20.4)	8.5417	
	Graduate and above	102 (16.7)	78 (19.4)	16.25	
Income	Below 1000	344 (56.2)	214 (53.2)	1 (Ref.)	1.142, 2.979 0.9989, 2.443 0.0548, 0.192
	1000-5000	113 (18.4)	85 (21.1)	1.844	
	5000-10000	125 (20.4)	90 (22.4)	1.5621	
	More than 10,000	30 (4.9)	13 (3.2)	0.4645	
Employment status	Employed	140 (22.8)	120 (29.5)	1 (Ref.)	0.1489, 0.411
	Unemployed	472 (77.2)	282 (70.5)	0.2474	
Type of family	Nuclear	393 (64.2)	285 (70.9)	1 (Ref.)	0.3076, 0.6142
	Joint	219 (35.8)	117 (29.1)	0.4347	

In Table 2, multiple regression analysis was used to obtain the crude odds ratios and adjusted odds ratios of the acceptance of family planning methods against the socio-demographic variables. It was observed that women in younger age group used contraceptive less than women in the higher age group. Women who are in the age group 25-35 years and 35-45 years were more likely to be a contraception user than the age group above 45 years. (crude odds ratio were obtained as 1.06, 1.09 and 0.2708).

In case of education, it was clear that it has stronger association with the outcome variable. In the under matric group of education level, odds ratio was obtained as 10.855 that means the odds of using contraceptive is 10.855 higher among the under matric group taking the illiterate group as reference. As per the variable "income" concerned, the odds of high income are relatively less than the odds of low-income group for contraceptive use. Similarly in case of employment status and type of family there had negative association with the acceptance of family planning methods with CORs 0.2474 and 0.4347 respectively.

DISCUSSION

Individuals' attitudes for acceptance of family planning methods are influenced by many characteristics such as socio demographic factors, socio economic factors, location, knowledge of family planning methods, environmental factors etc. The study on socio demographic factors helps the researcher as well as understand the participates' culture, habit, attitude, life style, etc. of a research population which may affect their health and socio-economic condition. Many studies show that socio-demographic characteristics of a community had great impact on knowledge, attitude and practice of a particular factor.[12,13]

Our study revealed that half of the study participates (50.3%) were in the age group (25-34) years followed by (35-44) years (30.1%). The average age of females was found as 19.73±3.81 years with maximum of 30 years and a minimum of 15 years.

In our study, average age at marriage was obtained as mean 19.5±4.0 years whereas maximum 36 years and minimum 13 years. In a study of Assam, Bikash Das had obtained that only 1.8 % of the Scheduled Caste females have been registered as married under the minimum legal age 18 years in Assam [14]. In another study of Assam done by Ajit kumar Dey, the mean current age with standard deviation of women was obtained as 32.89 ±8.078 years [12] while in a study of Haryana by Gupta at el. the mean age of females was obtained as (32.76±4.6) years [15]. According to NFHS-3 Assam, the median age at first marriage is 20.4 years among women age (25-49) years. 31% of women age (20-24) years got married before the legal minimum age of 18, down from 39 % in NFHS-3. 15% of men age 25-29 years got married before the legal minimum age of 21, down from 16 % of men.[16]

Education makes people aware of their roles in the society and in the family. Education of an individual enhances his or her ability to think, analyse and act to better his future living. In this study it was found that

almost 31.7% women had passed the HSLC and only 11.8% women had completed the graduation.

Most of the women (75%) of this particular community earned less than 1,000 Rs. per month and it may be due to the fact that 77.5% of them were facing the unemployment problem. Moreover, majority of women (63.7%) were housewives. The study revealed that 24.5% women were engaged in government jobs and 2.1% of them were engaged in private job. This picture reflects the poor economic background of the schedule caste community of the study area. In another study of Assam by Golak Chandra Dutta, it was obtained that 22% people earned Rs.0-2000 while 23% had earned Rs.2000-4000 only.[17]

Knowledge and attitude about family planning methods is the first step in the adoption of family planning. Majority of women of our study region were familiar with the different type of family planning methods and they had favorable attitude too. The study revealed that knowledge about any type of family planning method was found as 98.2% which is almost similar to the results of many other studies.[17,19] Clearly, every woman has heard about any one of the contraceptive methods regardless of educational background and socioeconomic status.

NFHS-4 Assam 2016-17 said that 98.4% women had knowledge about any type of modern method and 77.5% of women had sufficient knowledge about traditional methods of family planning.[10] Oral Contraceptive Pill was the mostly known methods of family planning (84.5%) followed by condom (76.8%). Mintu Dewri Bharali et al. also obtained that in Assam, among the modern contraceptive methods, oral contraceptive pills (OCP) is the most popular and well-known method for both tribal and non-tribal women.[17] On the contrary, 87.5% women knew about the traditional methods of family planning. The study revealed that majority of women had more than one source of information about family planning methods.

Approximately, 87.2% women seemed to have positive attitude towards family planning methods and 69.6% informed that their family members had positive attitude towards family planning methods.

According to NFHS-2016, the practice of any family planning method for all women in Assam is 52.4%. and in Jorhat district it is 53.0% [9]. In a recent study of Assam, Dr. Geeta Das obtained that out of 500 Scheduled Caste respondents, 74% had accepted family planning methods and 26% had not accepted it[8]. Mintu Deuri Bharali had also obtained that 68.7% females of eligible couples belongs to both tribal and non-tribal community used any type of family planning methods[17]. Our study revealed that besides having a good knowledge about contraception, the practice is still lagging and only 65.7% women were using any type of family planning methods.

Overall, it was observed that the factors such as age, education, income, employment status and type of family were significantly associated with the acceptance of family planning methods.

In Table 2, the results of multiple regression analysis were represented. Odds ratios were decreases as the age of the women increases. Here, Crude Odds Ratio (COR) are represented for bivariate analysis with each predictor independently against the outcome variable acceptance of family planning method.

As expected, our study revealed that education level is strongly associated with the acceptance of family planning methods. In the all groups of education level, the odds of using contraception are significantly associated in COR. The result is almost same as many other studies. According to a study of Liberia, Rourke Tara said that in Ethiopia, Sudan, Ghana, Uganda and Burkina Faso education level is associated with contraception use.[18] When all socio-demographic predictors were combined in a multivariate logistic regression model, the age group (40-44) years becomes significantly associated with contraception use. Women who are married still have reduced odds of being a contraception user; however, this relationship group is the only group with a significant association to contraception use.

It is clear that knowledge and awareness don't always lead to the use of family planning methods. Everyone needs to understand the level of awareness and practices in the community before implementing the family planning program. There is a need to educate and motivate the couples to practice the contraceptive methods along with the family planning and health care services.[19]

CONCLUSION

Like many other studies, our study revealed that all the socio-demographic factors such as age, education, income, employment status, type of family were significantly associated with the acceptance of family planning methods. Also, it was obtained that, in spite of the high knowledge, the rate of contraceptive methods used in schedule caste community is not so satisfactory. The solution of these problems may be containing in mass education and communication so that common people may understand the benefits of a small family today. Various family planning programmes need to take more attentive initiative to remove the gap between knowledge, attitude and practices of the women of reproductive age group belong to this particular community. Therefore, in designing effective family planning programmes, the government and policy makers must understand the various factors which influence the practice of family planning methods.

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