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Original Research Article

Implications of socio-economic factors on contraceptive choices among women in North East India: a perspective

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ABSTRACT

Background: Socio economic status plays a vital role in determining the awareness and conscious decision making of a woman pertaining to contraceptive use. Family planning has been recognized as one of the most cost-effective solutions for achieving gender equality and equity by empowering women with knowledge and in making reproductive choices by accessing contraceptive methods.

Methods: A cross sectional study was conducted on 1000 married women of reproductive age group in the Department of Obstetrics and Gynaecology, NEIGRIHMS, Shillong, Meghalaya, from April 2021 to April 2022. NEIGRIHMS being a tertiary referral centre caters to patients from the entire North Eastern Region of India. A validated questionnaire was used for sociodemographic information, knowledge, awareness and attitude towards different contraceptive methods.

Results: Out of 1000 married women, 82.5% women were aware about contraceptive methods, 67.5% women had knowledge on the different types of contraceptive methods available and only 370 (37.04%) of the participants are using at least one type of contraceptive methods and of these, 280 (28%) women preferred condom. Bivariate analysis revealed that factors such as current age, economic status and occupation, were seen to influence the utilization of contraceptive methods among women.

Conclusions: While it is noteworthy to see the efforts made by the Government towards achieving the various health targets but sincerer and dedicated efforts are needed to ensure increased awareness about the importance of family planning.

Keywords: Contraception, North East India, Family planning methods, Awareness

INTRODUCTION

Family planning has been recognized as one of the most cost-effective solutions for achieving gender equality and equity by empowering women with knowledge and in making reproductive choices by accessing contraceptive methods.¹ Family planning is widely viewed as important to numerous developmental goals. These include progressed child health, decreased poverty starvation, universal schooling, environmental sustainability and decreased maternal mortality and morbidity due to unsafe abortions.²

The United Nations Conference on Human Rights at Tehran in 1968 and The Bucharest Conference on the World Population held in August 1974 recognized family planning as a basic human right which stated that “all couples and individuals have the basic human rights to decide freely and responsibly the number and spacing of their children and to have the information, education, and means to do so.” The developing countries are facing a rapid increase in the population and it has become a global phenomenon.³

For people belonging to the world’s poorest people, fee is a serious barrier to contraceptive. The envisioned 370

million Indigenous humans in the world are 'behind of everybody, everywhere'.⁴

The speedy growth of populace in India, the most populated country in the world, is indicative of the slow development of family planning programs. The central authorities of the federal union of India initiated the first government population stabilisation programmes in 1951. This initiative made India into one of the first nations to formulate a countrywide family planning program in 1952. Since the seventies, average fertility rates in India have fallen by half, and use of contraceptive technology (sterilisation being the most important) has tripled, nevertheless, the overall contraceptive use in India is below the expectations.⁵

Even with the Government efforts, the contraceptive use in India is as low as 49 percent among married women. It is the lowest in the states of Manipur (24%), Meghalaya (24%) and Bihar (24%), followed by Goa (26%) and Nagaland (27%).⁶

According to the National family health survey (NFHS-5) performed in 2019–2020, the majority 27 percent of women in Meghalaya have an unmet need for birth control, a 6% increased since NFHS-4. The total unmet want for own family planning includes those with unmet need for limiting (8.6%) and spacing (18.3%) births. Presently, 50 percent of the demand for family planning is being satisfied and 41 percent of the demand is being satisfied by modern methods.^{7,8} Contraceptive services are furnished free of cost in public health clinics/services centers. However, these services have a tendency to be spread thin and understaffed due to a severe human aid shortage. According to a current evaluate within the Lancet on human sources for health in India, Meghalaya has simply 2.5 medical experts according to 10,000 residents' ratio, the bottom rate of any Indian state.⁹

Various sociodemographic elements such as age, range of live births, schooling, and socioeconomic repute play a major role in acceptance of contraception. Education being the most influential tool for adopting family planning, as educated women understand the advantage of having less and well-educated children.^{10,11} Study done by Barman et al shows that socioeconomic status, age and number of live births, play a major role in usage of contraception by women.¹² However, a study done by Gogoi et al in Manipur, shows that sociodemographic elements doesn't influence the usage of contraceptive methods except age of the women.¹³

Hence, this study aims at understanding the volume of knowledge and practices of family planning with the correlation between contraceptive use and diverse sociodemographic elements, in an effort to discover the elements influencing the utilization of contraceptive methods among the studied population and give awareness about contraception.

METHODS

Study design and area

A cross sectional study was conducted in the Department of Obstetrics and Gynaecology of OPD, NEIGRIHMS, Shillong from April 2021 to April 2022. The study group included 1000 married women above 18 years attending the outpatient department (OPD) and emergency services. This descriptive design based cross-sectional study was conducted to assess the association between women's socio-economic status and their contraceptive choices.

Data collection and procedure

Data was done by face-to-face interviews on paper-based forms using a predesigned validated questionnaire. Organized random sampling was done with a random start. The women were asked regarding knowledge, awareness, and attitude towards different contraceptive methods along with the reasons for non-using or stop using of contraception. Information on various sociodemographic factors such as age, educational status, number of live births, family structure, occupation and income were also collected.

The questionnaire also enquired about source of knowledge, problem associated with usage of contraceptives, knowledge and awareness about family planning and expenditure on contraceptives if any.

Statistical analysis

The raw data which was collected from the respondents were first entered to excel and then required checks were put in, to ensure nominal data entry errors. Once entered, data cleaning was carried out. All the quantitative data was then transferred to statistical package for the social sciences (SPSS) for further analysis. Data thus collected were tabulated and descriptive analysis was done to describe the results in percentage. In order to examine the factors determining the use of any contraceptive methods, a binary regression analysis was carried out. Contraceptive methods as the dependent variable, and a set of independent variables were employed. Odds ratios (OR) are given with 95% confidence intervals (CI). $P \leq 0.05$ was considered significant for the statistical analyses.

RESULTS

Demographic characteristics

A total of 1000 women participated in the study. The mean age of the respondents was 31.05 (SD: 6.67) years. Majority of the women in the study population are in the age group of 25–35 years (62.5%). The nearest government facilities located at distance of 2-10 km (42%). A majority of them live in a nuclear family (69.5%) compared to a joint family (30.5%). Regarding educational status, it is found that a majority of the women (24.5%)

had completed their higher secondary school education and very few of them were illiterate (5%). In term of occupation majority of the women are housewife (61.5%) followed by professional workers (29%). Mostly the participant falls under the monthly income of Rs. 10,000-20,000 (30%) with 97% on non vegetarian diet (Table 1).

Table 1: Distribution of respondents by different socio economic status.

Variables	No. of women	Percentage
Age (years)		
<25	155	15.5
25-35	625	62.5
36-45	195	19.5
>45	25	2.5
Nearest govt. health facility (km)		
<2	400	40
2-10	420	42
>10	180	18
Occupation		
Professional	290	29
Clerical/shop/farm	40	4
Daily wages	55	5.5
House wife	615	61.5
Level of education		
Illiterate	50	5
Primary school	200	20
Secondary school	215	21.5
Higher secondary	245	24.5
Graduate	235	23.5
Post graduate	55	5.5
Monthly income		
<10,000	220	22
10,000-20,000	300	30
21,000-30,000	200	20
31,000-40,000	100	10
>40,000	180	18
Family type		
Joint	305	30.5
Nuclear family	695	69.5
Diet		
Veg	30	3
Non veg	970	97

Preferable choice of contraceptive method and reason for it adoption

Out of 825 women, with appropriate knowledge about contraceptive methods only 370 numbers of women adopt or willing to use contraception. Majority of the women 103 (28 %) preferred condom, followed by OCPs 89 (24%) and IUD 82 (22%).

Minimum preferred were given to injection 29 (8%) and female sterilisation 22 (6%). 45 (12%) women who have opted for more than 1 contraceptive methods (Figure 1).

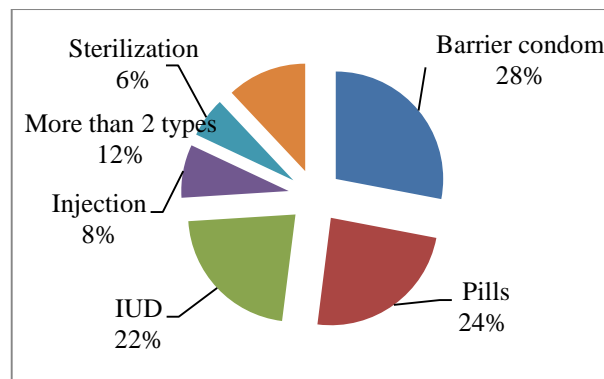


Figure 1: Different types of contraceptives used (percentage).

Reason for not adopting any form of contraception

Of the 630 number of women who are not using any of the contraceptive methods, 240 (38.09%) report that they do not require or not interested to use contraception; 139 (22%) of them want to conceive, 120 (19.04%) lack awareness, 77 (12.2%) fear side effects, 21 (3.33%) find contraception inconvenient to use, 14 (2.22%) due to partner opposition, 19 (3.01%) due to religious beliefs (Table 2).

Table 2: Reason for not adopting of contraceptives (n=630).

Reason for not using contraceptive	Number of women	Percentage
Not required/not interested	240	38.09
Lack of awareness	120	19.04
wanted to conceive	139	22.06
Inconvenience to use	21	3.33
Partner opposition	14	2.22
Fear of side effects	77	12.2
Religious belief	19	3.01

Expenditure on contraceptives

The 370 women who used contraceptive method, 192 (52%) informed that they don't have to pay for it while 178 (48%) have to pay with mostly 74 (41.67%) expenditure of less than 100 per month (Table 3).

Table 3: Expenditure on contraceptives.

Characteristics and response	Number of women	Percentage
Ever have to pay for contraception? (N=370)		
Yes	178	48
No	192	52
Monthly expenditure for contraception (N=178)		
<100	74	41.66667
100-200	52	29.16667
>300	52	29.16667

Analysis of sociodemographic factors associated with the adoption of contraceptive method

To assess the adjusted effects of the selected variables such as age, occupation, education, economic status on contraceptive use, we considered logistic regression models.

The binary regression analysis and odds ratio (OR) of sociodemographic factors associated with the use of contraceptive methods were determinants among the women (Table 4). Findings from the analysis show that women of the age group 25–35 years are more likely to use

a contraceptive method, with an OR of 1.75 (C.I. 4.62-0.66).

Women who are working such as daily wages and professional with ORs at 5.83 (C.I. 64.83-0.52) and ORs at 3.68 (C.I. 32.08-0.42) respectively, are more likely to adopt a contraceptive method than women who are housewife. Women belonging to groups income of Rs31,000-40,000 and Rs10,000-20,000 per month are more likely to use a contraceptive method than those others groups with ORs at 2.85 (C.I. 9.67-0.84) and ORs at 2.09 (C.I. 5.59-0.78) respectively. In this present study, education has not shown any association with Women adopting the contraceptive methods.

Table 4: Binary logistic regression analysis of sociodemographic factors associated with the adoption of family planning methods.

Variables	Adopter, N (%)	Non-adopter, N (%)	Total	Odds ratio	95% CI of OR
Age (years)					
<25	30 (19.35)	125 (80.65)	155	Reference	
25-35	305 (48.8)	320 (51.5)	625	1.75	4.62-0.66
36-45	35 (17.95)	160 (82.05)	195	0.91	3.05-0.272
>45	0 (0)	5 (100)	25	0	
Occupation					
Farmer/clerical	5 (12.5)	35 (87.5)	40	Reference	
Professional	100 (34.48)	190 (65.52)	290	3.68	32.08-0.42
Daily wages	25 (45.45)	30 (54.55)	55	5.83	64.83-0.52
House wife	240 (39.02)	375 (60.67)	615	1.78	15.19-0.21
Level of education					
Illiterate	20 (40)	30 (60)	50	Reference	
Primary school	80 (40)	120 (60)	200	0.64	2.70-0.153
Secondary school	100 (46.6)	115 (53.4)	215	0.58	2.43-0.14
Higher secondary	110 (45)	135 (55)	245	0.384	1.63-0.09
Graduate	50 (21.28)	185 (78.72)	235	0.41	1.72-0.09
Post graduate	10 (18.18)	45 (81.81)	55	0.33	2.43- 0.046
Monthly income					
<10,000	96 (43.64)	124 (56.36)	220	Reference	
10,000-20,000	134 (44.7)	166 (55.3)	300	2.09	5.59-0.78
21,000-30,000	50 (25)	150 (75)	200	1.23	3.63- 0.42
31,000-40,000	45 (45)	55 (55)	100	2.85	9.67-0.84
>40,000	45 (25)	135 (75)	180	1.76	5.32-0.58

Bolded text indicates statistically significant differences ($p < 0.05$)

DISCUSSION

In developing countries, family planning is recognized to be an effectual system of improving the health of mothers and children and play the foremost parts in mortality and fertility transitions. Family planning also plays an influential role in women empowerment. Good knowledge and practice on contraception means good reproductive health, hence awareness on contraceptive methods is momentous.

This study shows that even though 82.5 percent of the women are aware of family planning methods, only 37.04 percent of them are using any contraceptive methods. This

kind of occurrences of high awareness but low rate of practice was also reported by NFHS-5 were the knowledge on contraceptive methods is universal in Meghalaya but only 27 percent used any kind of contraceptive methods. Studies done by Kerketta and Kumar and Gogoi also display similar reports.^{14,15}

The use of contraception is high in age group of 25–35 years than those below 25 years and above 35 years. The reason behind low frequency usage of contraceptive methods among women aged <25 years could associate with the fact that most of these young women lack accession to family planning message and services. Other reason could be due to society stigma were newly married

couple are expected to reproduce and proliferate their family. Among the older women, the reduce frequency of contraceptive methods could be due to the fact that there is less coital frequency occur as women age or maybe they depend on others methods such as string tie which they don't like to mention during the interview. However, there is a decent chance that mostly older women are not sexually active.¹⁶

The most preferable contraceptive method use in this study were found to be condom (28%) followed by OCPs (24%). This was also reported by Brahmhattet al in Gujarat and Sherpa et al in Karnataka.^{17,18} The reason associated with majority of women chooses to use condom than any other contraceptive method could be due to easy availability.

In this study, higher education doesn't show any increase in usage of contraception. This could be a positive indication towards population control as the uneducated women also have knowledge and awareness regarding contraception. The NFHS-5 shows similar results with our finding which reported that the usage of contraceptive prevalence decrease with increase of schooling, where 6 percent of uneducated married women have use female sterilization compare to 5 percent of educated women.⁷

Women with high-income are more likely to use contraceptive methods as compare to women belonging to low-income groups. In this study women earning more than Rs. 30,000 per month are more likely to adopt contraceptive methods than women whom earn less than Rs. 10,000 per month. Similar findings, by NFHS-4 and Shumayla and Kapoor which have reported that an upper socioeconomic rank woman have high rate of using contraceptive method.^{6,19} It's also seen that working women are likely to adopt contraceptive methods than housewife, similarly finding reported by McDougal et al.²⁰ Contraceptive provide support to women's employment by improved the career outcomes. It helps women balancing between their professional and personal choices, as it gives them the liberty to plan a family. This study reveals that current age, economic status and occupation are important factors that influence the utilization of contraceptive methods among women.

Limitations

Limitations of this study are firstly, it was a hospital-based study. Having a community arm for the study would have helped us further in understanding the poor uptake of contraceptives. Secondly, the spouse or partner's input would have been beneficial since partner opposition was one of the reasons for not adopting any type of contraceptive measure.

CONCLUSION

From this study we can conclude that there is awareness about family planning and knowledge about contraceptive methods among the women in North East India. However,

in spite of having a decent knowledge about contraception, there is a discrepancy between the use of contraceptive methods and the knowledge. This has been observed in all the states of India as well. There is a strong association between that current age, economic status and occupation with utilization of contraceptive methods, with condom being the most preferable methods. Indian government has maintained constant efforts in setting up its vast networks regarding family planning such as availability of services and awareness programs to control population growths. Population explosion could lead the nation to perilous time, if the utility of these facilities are remaining low. To overcome this obstacle, it is significant to organize far more awareness campaigns/programs highlighting the important of contraception methods and its positive effects, dissipating the misunderstandings and fears associated with it usage.

While it is noteworthy to see the efforts made by the government, both at the central and state level, to push the North Eastern part of the country towards achieving the various health targets but sincerer and dedicated efforts are needed to ensure increased awareness about the importance of family planning and its socio economic implications.

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