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Study on Determinants of Contraceptive Use: A Community Based Study in Eligible Couples

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Abstract

Background: family planning methods are influenced by a variety of interrelated factors such as age at marriage, education, economic status, religion, number of living children, knowledge about contraceptives, availability, accessibility and quality of services In spite of many programmes, couples are not aware of contraceptive methods even though they are wish to follow small family norm and still there is a gap between knowledge, attitude and practice. In a developing country like India, despite widely available contraception methods, still there is poor acceptance due to ignorance or fear of complications using them.

Methodology: The present cross sectional study was conducted at PHC, field practice area of Department of community medicine, Jawahar Lal Nehru medical college and Hospital Bhagalpur. Study duration of two years. According to DLHS-3 prevalence of contraceptive acceptance in Bihar state was 63.2%. Sample size is calculated by taking prevalence rate of contraceptive use (63.2%) at 5% significance level and 10% allowable error. There are 28 anganawadi centers in our study area. A list of eligible couples was obtained from each anganawadi and 10 eligible couples was selected randomly by Stratified Random Sampling.

Results; The total prevalence of contraceptive use in the study area was 58.6%. It was found that practice of family planning methods was high among Hindu (87.2%) compared to Muslims (12.8%). It has been found that 40% of study population was from nuclear family. Forty six percent of the acceptors of contraceptives were held from nuclear family as compared to 32% from joint family.

Conclusion: The Female literacy rate is exceptionally higher than national average. Early marriage is a prominent feature in the study area. Different factors namely age at marriage, type of family, number of living children, literacy status of female partner, and socioeconomic status significantly affect contraceptive behaviour of the study population**.**

Keywords: Eligible couple, contraception, sterilization.

Introduction

Family planning is defined as the ability for individuals and couples to attain their desired number of children and plan the spacing and timing of their births through use of contraceptive methods[1]. The benefits of family planning have become increasingly recognized worldwide, including improved health, economic, and social

outcomes for women and families, as well as public health, economic, and environmental benefits at the population-level. At the individual-level, the health benefits for women and infants include the prevention of pregnancy-related health risks and deaths in women, reductions in infant mortality and the rate of unsafe abortions, the prevention of the transmission of HIV/AIDS from mother-to-child (PMTCT), and prevention of sexual transmission of HIV and sexually transmitted infections (STI) between partners[1]. Family planning also has significant economic benefits for families and for society as a whole[2]. By slowing thegrowth of a population, women have more earning potential and families are able to devote more resources to each child, resulting in reductions of poverty Despite the known benefits of family planning, globally more than 120 million women aged 15 to 49 who are married or in a union have an unmet need for family planning[4]. An unmet need for family planning refers to women capable of reproducing who are not using contraception, but wish to postpone their next birth or to stop childbearing all together[5]. Since 1952, the National Family Planning Program has been implemented in Indiato stabilize the birth rate, as the rapid growth of population affects the economic status of the country. Reducing fertility holds a high priority in national public health objective of India. In today's scenario, fertility control is the most important way to check the highly growing population. According to NFHS 3, the contraceptive acceptance rate in India is 56%, of which only about 10% are using spacing methods. The most popular method of contraception used is sterilization (67%). Among those using sterilization 99% are women. Although the couple protection rate has increased from 22.8% in 1981 to 56%, the impact in reduction of birth rate has not been as significant as most of the couples who accepted sterilization had 3 or more children. Therefore to bring down the birth rate significantly special attention is being given to younger couples with two or less children through the promotion of spacing methods.

Acceptance of family planning methods are influenced by a variety of interrelatedfactors such as age at marriage, education, economic status, religion, number of living children, knowledge about contraceptives, availability, accessibility and quality of services. In many developing countries males often dominate when important decisions are taken in the family such as on reproduction, family size and contraceptive use. All the above mentioned facts favor the interviewing of both husbands and wives when ascertaining family planning attitudes. Postpartum family planning services offer a unique opportunity to address both the high unmet need for family planning and birth spacing services. Women are most likely to access health services during the peripartum period. Both maternal and child health visits provide an important chance for contraceptive counseling and provision.[9] Educating the women about family planning methods during antenatal visits is useful to make decision so that they start contraceptive method immediately following delivery. In countries such as India, health services still remain underutilized because of limited knowledge and accessibility.

Objectives

To study socio-demographic factors related to contraceptive use,To assess the types of family planning methods practiced by eligible couples

Review of Literature

The first authoritative book on the subject was „Kamasutra", by Vatsayana, in the 4th century A.D. Important agents mentioned were Kadamba fruit, seed of Red Lotus, Palas a flower, Salmoli flower, the Palm Leaf, old molasses, etc.,to be taken orally, Well before the advent of modern contraception, cruder methods of birth control were existed. If women could not prevent an unwanted conception from taking place, they practice abortion. There is also historical

evidence to suggest that if they could not prevent an unwanted birth from taking place, they even practiced infanticide.In the 18th and 19th centuries, condoms made from animal membranes were manufactured and sold. It was then called „Condum". In 1885 Dr H A Albutt, a leading physician of England, published a pamphlet, „The Wife"s Handbook", containing a description of birth control methods. As a result, his name was struck off the medical register in 1887 for „Infamous Conduct". Dr MarieStopes established the first birth control clinic, in 1921 at London[10]. In 1930"s the development of the first Latex Condom took place[11]. In 1952, "The Population Council" a voluntary organization was founded in New York under the chairmanship of John D Rockefeller III. Contraceptives provide a safe and effective way to regulate fertility and preserve health. In addition to their effectiveness in preventing pregnancy, some contraceptives also have substantial non-contraceptive health benefits. Contraceptive use can also help improve women"s status and qualities of life. Women with smaller, healthier families are likely to have increased opportunities participation in educational, economic and social activities. The relationship between contraception and women"s status is a dynamic one improving women"s educational and economic opportunities can also have an important impact on the acceptability and use of contraception. The use of modern contraceptive methods, including voluntary sterilization, to avoid unplanned childbearing has increased rapidly over the past 30 years, especially in countries with strong family planning programmes. Almost all of this increase reflects greater use by women rather than by their partners. The reasons for unmet need were opposition from husband/families and male child preference. In 18.2% of women, health concerns about contraceptives and side effects were responsible for unmet need. Difficulties were encountered by 8.2% for accessibility to family planning services and 5.8% women reported lack of information. In case of 9.1% of mothers, low fecundity was given as a reason. The high growth rate of population varies a lot from region to region and from community to community. Population is determined by birth rate, death rate and migration flows. This entire factor is in turn depending on numerous socio- economic factors. These factors are interacting in different ways and that is why it is not easy to identify and quantify them. So it has become necessary to study the factors influencing fertility and family planning adoption. Number of studies has been undertaken and they have identified various socio- economic, cultural and other variables which are responsible for family planning adoption. Hence study relating to the socio-economic actors determining family planning willbe reasonable only when this will consider its impact on fertility. The number of studies has identified that one of the important social factor which influences family planning and fertility behaviour of couples is religion. Alagarajan et al provided ample evidence of differentials in age at marriage by religion, being lower among Muslims than the Hindus. Krishnan (1976) analyzed the factors influencing fertility behaviour. In his study he observed that there is an impact of education on fertility behaviour of the couples in Kerala state. Gulati (1989) attempted to analyse about the role of occupation and determinants of fertility in the Asian countries. He observed that the female literacy, improvement in mortality condition, process of industrialization, educational levels, status of women, and contraception depicts significant impact on fertility. Bashir Ahmed et al (1990) examined determinants of desired family size of rural Bangladeshi women. The study had taken 5,513 ever-married women between 10 – 49 years. It was a two-stage analysis. In the first stage numeric and non-numeric responses for desired family size were examined. In the second stage determinants of desired family sire of those women who expressed numeric desire of the

desired family size were examined. Logistic and multiple-linear regression models were adopted.

Material and methods

A cross sectional study was carried out in Primary Health Centre Bhagalpur the rural field practice area of Department of Community Medicine, Jawahar Lal Nehru medical college and Hospital Bhagalpur. Bihar. This study was conducted f period of two year. The study population included eligible couples residing in rural field practice areaof JLNMCH Bhagalpur. Couples with wives aged between 15 and 49 years who were in need of family planning services are referred to as eligible couples. There are 28 anganawadi centers in the study area. A list of eligible couples was obtained from each anganawadi centre. The inclusion and exclusion criteria.

Inclusion criteria

Couples with wives age between 15 and 49 years who were in need of familyplanning services.

Exclusion criteria

Those who were not willing to participate in the study.

The sample size for each anganawadi strata worked out to be 8. It was decided to add 20% for the current sample size and decided to take 10 eligible couples per Anganawadi and made the sample size to 280. There are 28 anganawadi centers in the study area. A list of eligible couples wasobtained from each anganawadi and 10 eligible couples were randomly selected.

Stage – 1: list of eligible couples in 28 anganawadi centers made in 28 strata

Stage – 2: In each strata, 10 study subjects were selected by using simple random sampling method using random.

The Questionnaire was presented in the Department for critical review of the content, following which necessary changes were made in the Questionnaire. Data was collected using Pre tested semi structured Questionnaire by interviewingboth wife and husband. The subjects were informed about the study and each question was explained while responding them up with clarification of doubts. Simultaneously, height and weight was measured.

Results

Among 280 eligible couples, the proportion of husband was found to be high in31 – 40 years of age group (54.6%) followed by 21 – 30 years (29.3%), >40 years(12.5%) and ≤20 years (3.6%). The proportion of wife was found to be high in ≤20 years of age group (82.8%) followedby 21 – 30 years (13.6%). Only 3.6% were found in age group of 31 – 40 years

Table 1: Distribution Based on Education

Education	Husband		Wife	
	Number	Percentage	Number	Percentage
Illiterate	41	14.6	50	17.9
Primary	83	29.6	63	22.5
Secondary	118	42.1	140	50.0
Degree only	38	13.1	27	9.6
Total	280	100	280	100.0

In the present study, 14.6% of husbands were illiterate whereas 17.9% of wives were also illiterates, 29.6% of husbands had their education up to primary and 22.5% of wives had their education up to primary school. Secondary level education was 42.1% among husbands and 50% among wives. Altogether post SSLC and Degree state of education was found in nearly 13% of husbands compared to 9.6% of wives.

Table 2: Distribution Based on Type Of Family

Type of family	Frequency	Percentage
Nuclear	112	**40.0**
Joint	87	31.1
Three generation	57	20.4
Extended	24	8.6
Total	280	100.0

The most common type of family was nuclear (40%) followed by joint family(31.1%), three generation (20.4%), and extended (8.6%). Among total couples, 53.9% of them completed more than 5 years of married life, 18.9% of them completed 4 – 5 years of married life, 18.5% of them completed 2 -3 years of married life and only 8.5% of them completed less than 2 years of married life. About 73.6% of study subjects mentioned tubectomy as permanent family planning method and 11.8% as vasectomy whereas 14.6% of them did not know about permanent method of family planning ,The reasons for not using contraceptives was also explored and it was found that, ignorance was the reason in 19.5%, wanting male baby in 15.8%, religious in 9.7%, fear of side effects in 3.6% and want of more children in 23.1%. The opposition from the family to adoption of family planning was found in 45.1%. Among husbands who were practicing family planning methods, high proportionof them were in 35 – 39 years(34.7%) followed by 30 – 34 years (28.6%) and 25 – 29years (17.6%). Whereas among those who are not practicing family planning methods, high proportion of them were in 25 – 29 years (34.4%) followed by 30 – 34 years (25.8%) and less than 25 years (17.2%). This difference is found to be statistically significant. Among study subjects who were practicing family planning methods, 68.2% of them had completed their married life of more than 5 years, 19.5% completed for 4 – 5 years, 8.5% completed for 2 – 3 years and only 3.6% completed for less than 2 years. Among study subjects who were not practicing family planning methods, 33.6% of them had completed their married life of more than 5 years, 18.1% completed for 4 – 5 years, 32.7% completed for 2 – 3 years and only 15.5% completed for less than 2 years. This difference was found to be statistically significant.

Discussion

The population growth is yet to be stable in India after 4 decades of implementation of the family welfare issues at the primary care level. The health sector had attempted to find the contraceptive prevalence with various correlates that could have affected the contraceptive behavior. Factors known to affect contraceptive use are complex and interrelated, for example, women's status has been linked to their use of contraceptives and thus their fertility. Among indicators of female status are level of education, employment, mobility, and political activity. Multiple stakeholders, non-governmental organizations, and private sectors have been engaged in providing contraceptive services. Inspite of these efforts, several issues continue to daunt the programme and many goals remain underachieved, such as a significant proportion of pregnancies continue to be unplanned, contraceptive needs of millions of women remain unmet, and several subpopulation groups including adolescents and men continue to be underserved and neglected. Greater autonomy for women are also shown to lead greater contraceptive use. In the present study, 17.9% of wives were illiterate and 22.5% of wives had theireducation up to primary and Secondary level education was 42.1% among 50% among wives. Overall female literacy rate is 82.1%. Maximum proportion (75%) of study population used

contraceptive fall within class V–X. In contrast, only 16.5% contraceptive use rate is found among eligible couple who are illiterate. National average of female literacy was 65.5% as per census 2011. Similarly, male literacy rate among study population was 85.4%, which was also much higher than national average of 82.14%. In the present study, it was noted that 41.4% of couples had only one child and 21.1% of couples had two children whereas 2.9% of couples had three children. Present study reveals that contraceptive prevalence varies with the number of living children of study population. In subjects practicing family planning methods, 49.4% of families had one child, 28.7% of families had two children and 3% had three children. In this study 7.3% graduate or higher educated ladies were practicing family planning butRoumi Deb (2010) found it to be 3.9%. All these may be due to lower literacy status of the ladiesin that study. In the present study, 55.9% couples using contraception had no desire for further children. S Sultana et al, 2007 also found that most of the respondents had no desire for having more children. Analysis of type of family and contraceptive acceptance revealed slightly higher contraceptive use among nuclear families compared to joint families and these results were consistent with findings of Girdhar et al. Positive influence of education on contraceptive acceptance found in our study was in consistence with another study conducted by Girdhar et al in Ludhiana. Increase in number of living children increased the acceptance. The main reasons for non acceptance among the non users were: desire of pregnancy (23.1%), male child syndrome (15.8%), family opposition (45.1%), and lack of information on the source of availability of contraceptives (19.5%). Acceptance of contraception showed wide variation across the country and need to be investigated locally. Family income is at best a proxy indicator of the community. However it has been found in this study and supported by other studies also that showed improved economic status of the families promote acceptance of family planning methods.'Male child syndrome' is still a widely prevalent concept.

Conclusion

This study had shown that female literacy rate is exceptionally higher than national average and early marriage is a prominent feature in the study area. Different factors namely age at marriage, type of family, number of living children, literacy status of female partner, and socioeconomic status significantly affect contraceptive behaviour of the study population.

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