Knowledge of Contraceptives Methods and Appraisal of Health Education among Married Woman

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Abstract: The study aimed to assess knowledge of contraceptives methods and appraisal of health education among married women. Longitudinal/ cohort interventional design was used in randomly selected population. The one group pre-test post-test used to appraisal of health education on status of knowledge among 1200 married women at Jabalpur city. Results - Majority 42.5% of sample were from the age group of 28-37 years, 64.7% were had age at marriage was 18-25 most of them were having more than one child while 53.8% and more than half of them were housewife 52.9% and among them maximum had high school education 23.8%. Majority of women knew about female sterilization 93.6% followed by the chemical method (oral pills) 72% and mechanical method of family planning (loop and condoms 48.3%. After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%. Sociodemographic variable were significantly associated with existing knowledge and level of married women specially age at marriage, age at first child, occupation, income, education.

Keywords: Contraceptives Methods, Health Education

1. Introduction

India was the first country in the world to implement National Family Planning Programme in 1952. In spite of availability of a wide range of contraceptive and mass media campaigns and information, education and communication programmes, the population control remains a distant dream to achieve.

The low use of spacing methods is reflected in early child bearing and short birth intervals. Wherever, services exist, women are constrained for using the family planning methods by cultural mores or pressure to rebuild the population. The recent changes in the institution of family, education and economic independence of women have affected the traditional system and brought some structural changes in the status and role of women as a housewife in the family[1]. India alone has a population of 1 billion. It could be more important to understand the factors that led to this population explosion and the complex links between population growth rates and levels of development. And to acknowledge that India is in the midst of a demographic transition, with fertility rates definitely declining, though not as fast as was expected[2] The United Nations "World Population Prospects", released on 24th February, 2005 in New York, estimates that there will be 1,395m people in India by 2025, and 1,593m in 2050.[3]

2. Rationale of the study

An unwanted pregnancy may lead to an induced abortion. From the point of view of health, abortion outside the medical setting is one of the most dangerous consequences of unwanted pregnancy. There is also evidence of higher incidence of mental disturbances among mothers who have had unwanted pregnancies[4]. The health impact of family planning occurs primarily, through the avoidance of unwanted pregnancies, limiting the number of births and proper spacing, and timing the births particularly the first and last, in relation to the age of the mother[5]. Recent studies on adolescent reproductive health in Kenya indicate high incidence of maternal mortality and morbidity. The incidence of health problems varied by socio-economic and demographic characteristics of the mothers. Early pregnancies have also been associated with higher than usual risk of morbidity during childbirth and high incidences of maternal and perinatal deaths [6]. In India lack of information, or misinformation, about different methods can confuse and discourage people from using any contraception. Some women are prevented from using any contraception. Some women are prevented from using contraception by a partner or are unable to access services because of their youth or unmarried status. In many cases, these obstacles can be overcome through contraceptive education and social marketing programs.

The natural family planning methods, like calendar rhythm, basal body temperature, cervical mucus Ovulation method special circumstances periods of erratic ovulation puberty, lactation, pre menopause, discontinuation of ovulation effectiveness of natural family planning achieving pregnancy, achieving couple autonomy [3]. Women who had accepted the monthly Injectable contraceptives Cyclofem and Mesigyna and had attended family planning centers to learn the acceptability of these two Injectable contraceptive, shown successfullness of these Injectable contraceptives[7]. Whereas Better-educated women are
much more likely than less-educated women to practice contraception, and women who work outside of the home are more likely than those who do not to use contraceptives [8].

There is also lack of knowledge and awareness of the women regarding method of family planning give rise a problem to mother as well as child and in the family. Education gives a better understanding, and makes the person think scientifically [9].

3. Review of Literature

Family planning is an important issue for many developing countries worldwide, including South Asia. In India, despite a governmental programme supporting family planning and despite the improvements over the last few decades, Family planning in India is based on efforts largely sponsored by the Indian government. In the 1965-2009 period, contraceptive usage has more than tripled (from 13% of married women in 1970 to 48% in 2009) and the fertility rate has more than halved (from 5.7 in 1966 to 2.7 in 2009), but the national fertility rate is still high enough to cause long-term population growth.[10]

Knowledge regarding family planning methods among rural women were knew about family planning. All the women trusted family planning and believed it to be good for their health. 86.6% thought it was also good for their children's health and that it allowed parents to provide a better life for their children. [11] This Canadian Contraception Study describes findings related to Canadian women's familiarity with, opinions about, and use of various contraceptive methods. Familiarity was almost universal for oral contraceptives and condoms, but less than 60% of women. These findings confirm the central place of oral contraceptives and condoms in the contraceptive awareness and practices of Canadian women. [12]

The prevalence of, and sociodemographic factors associated with, family planning practices among currently married women regarding access to information, nearly 66% of women had seen family planning messages on television within the past month; exposure to family planning messages through this medium was greater than through radio (55%). Regarding knowledge, oral pills were the most widely known modern method (90%) followed by female sterilization (88.3%) and injections (87.6%). Regarding attitudes, 91% of women and 78% of their husbands approved the use of family planning methods. Regarding practices, the prevalence of married women who used family planning methods was 27%, with oral pills being the predominant method (32%). Regarding sociodemographic factors, more than 4 living children, exposure to family planning messages on TV, and husband's approval were the main factors associated with the use of family planning methods [13]

Almost all the women (98.8%) were using a contraceptive method with the knowledge of their husband and had his support for continuing the same. There was no concept of using any family planning method for either postponing the first conception after marriage or spacing between the two child births. A large majority of women (70.5%) used a

family planning method for the first time only after completing their desired family size. There is need to promote spacing methods by policy makers and field workers and motivate couples to accept them [14]. The common belief that men’s resistance to condom use within stable relationships cannot be overcome may be exaggerated. HIV prevention programs should address the reproductive health needs of these couples [15].

According to those who had ever used the method, its advantages were that it was easily accessible, did not require a visit to health services, and had no side-effects. Current users reportedly believed that the method was less prone to failure than modern methods. From these findings, the researchers drew the lesson that couples need better access to accurate information on modern methods, provided in a non-threatening, client-friendly environment. However withdrawal, which enables men to take responsibility for contraception, may continue to play a role as a "natural" method with no side-effects for many years in several programmes [16].

Much more time should be spent in teaching contraception in the Greek medical schools to ensure the delivery of adequate family planning guidance by future practitioners [17]. There is a gap between knowledge (88%) and use (64.6%) of contraceptives among females of reproductive age group [18].

4. Aims and Objectives

Knowledge of contraceptives methods and appraisal of health education among married woman.

4.1 Objectives

1) To assess the status of knowledge, of contraceptive methods among married woman before and after health education.

2) To correlate the selected demographic variables with the status of knowledge regarding knowledge of contraceptive methods.

4.2 Assumptions

- Married woman will have very little knowledge regarding use of contraceptive methods.
- Married woman will improve the knowledge regarding use of contraceptive methods.
- Nurses have an important role to imparting knowledge regarding use of contraceptive methods.

4.3 Hypothesis

- H0: There will be no significant difference in knowledge of contraceptive methods among married woman.
- H1: There will be significant difference in knowledge regarding contraceptive methods among married woman.
5. Material and Methods

The study aimed to epidemiological correlates of use of contraceptives methods and appraisal of health education on status of knowledge among married women.

5.1 Research Approach

The research method adopted for the present study was evaluatory approach because the present study was aimed to epidemiological correlates of use of contraceptives methods and appraisal of health education on status of knowledge among married women.

5.2 Research Design

In the present study, Longitudinal cohort interventional design was used in randomly selected population. The one group pre-test post-test used to appraisal of health education on status of knowledge among married women.

5.3 Setting of the Study

The study was conducted in the 60 municipal corporation wards of Jabalpur city. Jabalpur city is governed by Municipal Corporation which comes under Jabalpur Metropolitan Region. The Jabalpur city is located in Madhya Pradesh state of India.

5.4 Population

The population of the present study comprised of Married women in reproductive age group (18-45 yrs) of 60 municipal corporation wards of Jabalpur city.

6. Sample and Sampling Technique

Sample size for this study was 1200 Married women approximately 20 from each wards from 60 municipal corporation wards of Jabalpur city were selected which fulfilled the sampling criteria. Randomly selected married women considering inclusion and exclusion criteria was thought to be the most appropriate for this study.

6.1 Sampling criteria

Inclusion criteria
1. The study subjects will be included in the study only from municipal corporation wards
2. The study subjects will be those who are married.
3. The study subjects will be in the age of 18-45 years.
4. The study subjects will be those who are willing to participate in the study.

Exclusion criteria
1. Widows and diverse women will be not included in the study.
2. The study subject who are not willing to participate in the study.
3. The study subject with permanent method of sterilization.

6.2 Instrument

The instrument termed as “Contraceptive methods knowledge” for married women was used to assess the knowledge regarding Contraceptive methods. The instruments consist of two parts:

1. Sociodemographic scale
2. Contraceptive methods knowledge inventory

6.3 Data Collection Technique

The present study aimed at assessing the existing knowledge and practice of contraceptive methods and effectiveness of health education in terms of knowledge gained by married women in selected areas of Jabalpur City. Thus, convenient sampling technique was used.

6.4 Development of the Tool

The structured questionnaire was prepared for assessing the knowledge and practice regarding contraceptive methods among married women. The health education was prepared on contraceptive methods. Opinions and suggestions of experts in the field and the exposure of investigator in the area of research were considered.

6.5 Scoring

A score of (1) is assigned to correct response and (0) assigned to each wrong answer. Total score of the knowledge of contraceptive methods was 16 and misconception about contraceptive methods were 15. The score range from a minimum of zero to a maximum of 16.

The status of knowledge has been classified as:

<table>
<thead>
<tr>
<th>Status of knowledge</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>Poor</td>
<td>0 – 05</td>
</tr>
<tr>
<td>Average</td>
<td>06 – 10</td>
</tr>
<tr>
<td>Good</td>
<td>11 – 16</td>
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7. Validity of Tool

Content validity of health education was assessed by distributing to the research expert in the field of nursing, obstetrics and community department who validated the structured questionnaire and health education. The agreement level of the expert was 100 percent of the teaching programme.

7.1 Content validity

The structured questionnaire along with blue print and the health teaching were submitted to twenty experts. Experts were from the nursing and medical fields of community and obstetrics. Eleven experts from nursing field, seven experts were doctors in obstetrics and community department, one expert was educationist and one expert was statistician. Modification of items in terms of simplicity and order were made. Some items from demographic data were deleted and some items were added.
7.2 Criteria based validity

To establish criterion based validity instrument was administered to married women of Jabalpur city. It was found that instrument was tapping the area of knowledge successfully for which it was structured.

7.3 Reliability

After establishing the validity of the tool to be used for the study, the final tool was made and then the reliability of the tool was done. The reliability was done in five municipal corporation wards of Jabalpur city. In this study, the reliability determined by administering structured questionnaire to 100 married women of reproductive age group (18 yrs-45 yrs). Items of the tool were coded and the reliability co-efficient of correlation was calculated using ‘test retest method’. The method of test retest is used to test internal consistency of the tool as well as correlation to the item with the test as a whole. The correlation was obtained by using the Karl Pearson Formula. This was found as ‘0.82’ which is significant.

7.4 Health Education

The Health education for giving information about contraceptive methods and this was prepared after doing intensive study of the relevant literature related to contraceptive methods.

8. Ethical Considerations

Ethical clearance and approval to conduct this research was obtained from the Research Ethics Krishna Institute of Medical Sciences Deemed University, Karad. Permission to conduct the study was also requested from the Municipal corporation department of health and research department. The ethical considerations taken into account the personal and revealing nature of the study, which required that voluntary, informed consent, using the consent form designed for this study, needed to be obtained from the participants. Prior to administering the questionnaires, the aims and objectives of the study were clearly explained to the participants and written informed consent was obtained.

Confidentiality and anonymity were ensured throughout the execution of the study as participants were not required to disclose personal information on the questionnaire. Provisions were made to have participants’ concerns relating to the study addressed and misconceptions corrected. Participants were informed that their participation was voluntary and that they could withdraw from the study at any time if they wished to do so.

8.1 Pilot Study

The pilot study was conducted to assess the feasibility of the study and to decide data analysis plan. Administrative permission was granted formally from the Municipal corporation office (department of research). The pilot study was conducted on 100 married women of reproductive age group (18-45 yrs). The pre test was given on the first day. The health education was given to group. The post test was conducted after one month. Data was analyzed by statistical tests. The pilot study did not show any major change in the design of questionnaire and the health education developed by the researcher.

9. Procedure for Data Collection

A formal permission was obtained from the municipal corporation office of the Jabalpur.

The following schedule was followed for data collection. After identifying the sample, objectives of the study were discussed and consent for participation in the study was taken from the selected group. The investigator assured the subjects about the confidentiality of the data. The investigator herself administered the self structured questionnaire for the pre test. The duration of data collection for each sample was 30 to 40 minutes. During the pre test the participants were seated away from each other and discussion was not allowed to prevent contamination. The health education on contraceptive methods was disseminated to the experimental group after the pre-test and brief introduction. The instruction about post-test was given to the respective participants. Time taken for post test by each sample was 30 minutes. After the data collection, all the participants were thanked for their participation in the study.

Data collected were tabulated, analyzed and statistically evaluated. Chi-square test was used to find out significance difference among various socio-demographic groups who were having knowledge of contraceptives. Descriptive and inferential statistics were used to analyze the data in this study. The analysis was based on completed questionnaires. Data were imported into licensed copy of SSPS version 20 software. Analysis included frequency and percentage distributions of sample demographic variables, existing knowledge score about use of contraceptive methods. Inferential statistics used for Effectiveness of health education and association to various variables assessed by using Pearson Chi-Square test and Fisher's Exact Test.

10. Results and Discussion

The institution of marriage defines and circumscribes the life of a woman as wife, a mother and a house maker. Thus it is fairly common for both men and women to discuss family planning. Lack of time, education and awareness are deep rooted constraints for women to perform their multi-dimensional role. The present study aimed at assessing the existing knowledge and practice of contraceptive methods and effectiveness of health education in terms of knowledge gained by married women in selected areas of Jabalpur City. From the 60 municipal corporation wards approximately 20 eligible married women from each ward of Jabalpur city total 1200 sample were randomly selected for the study.

10.1 Sample Characteristics

Analysis of frequency percentage of demographic variable shows that majority 510 (42.5%) of sample were from the age group of 28-37 years, 776(64.7%) were had age at marriage was 18-25 and approximately 607 (50.6%) of them had first child at the age of 18-25 years most of them were having more than one child (multipara) 645(53.8%) and more than half of them were housewife 635 (52.9%), among
them maximum had high school education 285 (23.8%) , The majority of 579 (48.3%) were Hindu roughly 871 (72.6%) of married women were having menstruation ones in a month and 428 (35.7%) had monthly household income of 6000-10000 and most of them 777(64.8%), were from nuclear family. The important Source of knowledge about use of contraception methods was Family members and friends 74 (39.5%).

10.2 Findings related to knowledge of contraceptive methods

- Awareness plays an important role in motivating females to have a favourable attitude towards family planning and to adopt family planning behaviour. In the present study majority of women knew about female sterilization 1123(93.6%) followed by the chemical method (oral pills) 864 (72%) and mechanical method of family planning (loop and condoms) 579(48.3%) followed by the reason might be that the respondents were influenced by the effect of mass media (Television and Radio). Awareness about the natural method was low which might be attributed to the fact that there were no open discussions about these matters at home. Only 21% married women know about the emergency contraception.

- After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%.

- Before Giving health education maximum samples had poor knowledge 1177 (98.1%) of contraceptive methods and after administration of health education most of samples had good knowledge 1172 (97.7%) of contraceptive methods which shows that awareness about contraceptive method is important to increase use of family planning measures.

10.3 Finding related to Effectiveness of health education

Participatory education methods caused Participation in family planning education groups was not easy for these women. Effective family planning programmers can play an important role to bring down the fertility rate.

- In present study before health education most of the married women 97% had poor knowledge score of contraceptive methods which was increased to31% in average and 97.4% in good knowledge score after administration of health education.

- Pre test mean score was 2.8383 and S.D. was 1.2152 while in post test mean score was 13.6250 and S.D. was 1.44778 this showed significant difference in knowledge score before and after administration of health education.

- The paired sample mean was -10.7867 and S.D. was 1.7461. Since the p-value for the test is less than 0.01, the null hypothesis is rejected at 95.0% confidence levels.

10.4 Findings related to Correlation of demographic variables and existing knowledge of contraceptive methods

In the present study sociodemographic variable were significantly associated with existing knowledge level of married women specially age at marriage0.00, age at first child .004, occupation.003, income.000, education .000 were highly significant to existing (pre test) knowledge score whereas other variables like menses, current age, type of family, parity, religion and source of knowledge were not having association with existing (pre test) knowledge score.

11. Discussion

Awareness plays an important role in motivating females to have a favourable attitude towards family planning and to adopt family planning behaviour. In the present study majority of women knew about female sterilization 1123(93.6%) followed by the chemical method (oral pills) 864 (72%) and mechanical method of family planning (loop and condoms) 579 (48.3%).100% women know one or more type of contraceptive methods. Other studies results shows that the knowledge about one or more methods of contraception, particularly modern contraceptive methods was 95.0%, knowledge about traditional methods of contraception was 72.0% in males and 46.4% in females. Similarly in another study eighty eight percent of the females in study sample were familiar with one or more methods of contraception (72.7%) were familiar with combined oral contraceptive pill (COCP), 60.7% were aware of intra uterine contraceptive device (IUCD) &76% knew about condoms) whereas 12% showed ignorance. In present study Only 21% married women knew about the emergency contraception. In support finding of study done on Knowledge, attitude and practice of emergency contraceptive among women who seek abortion care at Jimma University specialized hospital, southwest Ethiopia, out of all the respondents only nine women had awareness about emergency contraceptive. Seven of the women mentioned pills as emergency contraception and only two of them mentioned both pills and injectable as emergency contraception but none of them have ever used emergency contraceptives.

In present study concluded that knowledge barriers was relatively insignificant in the Jabalpur city, as 100% of the non-users were aware of at least one method of family planning. Knowledge of spacing methods was expressed by around half the women. In other study Out of 12 respondents 42% or 5 of them answered that they have fair knowledge regarding the topic of family planning. 4 of them or 33% indicate that they know only a little amount of information regarding the topic. 17% or 2 of them stated that they don’t know anything about family planning but has heard of it in the past. Lastly, 8% or 1 of them claims that she has never heard of the family planning.

After the health education married women knowledge was improved to 100% about female sterilization followed by condom 99%, skin implants 86%, oral pills 85% and emergency contraceptives 85%. Participation in family planning education groups was not easy for these women. Participatory education methods caused discomfort or
In the present study before health education, most of the married women had poor knowledge of contraceptive methods, which was increased to 31% in average and 97.4% in good knowledge score after health education. Pre-test mean score was 2.8383 and S.D. was 1.7461, while in post-test mean score was 13.6250 and S.D. was 1.44778. This showed a significant difference in knowledge score before and after administration of health education. The paired sample mean was -10.7867 and S.D. was 1.7461. Since the p-value for the test is less than 0.01, the null hypothesis is rejected at 95.0% confidence levels. In other supporting study results show that knowledge of contraception with no intervention was low with only 10 (12%) women knowing all the pill rules. Educational intervention had a highly significant effect on knowledge of pills failure, subsequent action (21), emergency contraception (24), Improvement in knowledge of all the pill rules occurred with provision of the summary leaflet (28% knew all the rules), the Family Planning Association's leaflet (27%), and asking questions (26%). Asking questions in addition to providing leaflets improved knowledge of contraception (39%) [22].

In the present study demographic variables current age of married women between 28-37 was significantly associated with knowledge of abstinence and emergency contraception. Whereas age at marriage was strongly associated with knowledge of Diaphragm, Foam, Jelly, herbs and abstinence while age at first child above 30 was found associated with knowledge of oral pill and abstinence. In present study parity (multipara) had significant association with knowledge of female sterilization while primipara, Hindu religion, menses, income, and joint family was associated with knowledge of condom where as service women strongly had association with knowledge of female condom, herbs and abstinence. Socioeconomic status was found significant association with knowledge of female sterilization, oral pill, IUD, Billing, Condom Diaphragm, Foam, Jelly, herbs, abstinence, female condom, male sterilization and emergency contraceptive. Joint family had higher significant association with knowledge of oral pill, condom and male sterilization.[9]

12. Limitation

Researches on personal and intimate themes, such as use of contraceptive methods, are limited in the results they obtain. The participants may not feel free to express all their feelings and the full reality of their life. The closeness of the researcher collecting the data with the women was an essential condition for running the participant observation process. This may have reduced the limitation of the research mentioned above. The results of this research were limited to this community and care must be taken not to generalize them in an indiscriminate way, although some natural generalizations are possible, because there are many similar urban communities in Jabalpur city.

13. Future Scope

The study throws light upon the awareness of women regarding family planning aspects. Thus the successful limitation of family size by the married women depends not only on their small family norms but also on their psychological acceptance of family limitation, knowledge of birth control methods, availability of contraceptives, psychological and economic costs and more importantly an environment favourable to the practice of birth control. A lot of educational and motivational activities and improvement in family planning services are needed to promote the use of contraceptives and reduce the high fertility rate.

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