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Study on Knowledge and Awareness about Various Methods Of Contraception among Postnatal Women at a Tertiary Care Hospital

Dr.Preethi.S, First Author
MBBS, MS obstetrics & gynaecology , junior resident ,chettinad hospital & research institute, chennai , tamil nadu
Dr.Vijayalakshmi , Coressponding Author
,MBBS, MS obstetrics & gynaecology , professor ,chettinad hospital & research institute, chennai , tamil nadu

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I. INTRODUCTION:

Man is the creator of all the wealth, said Karl Marx and without man, all other resources remain idle. Thus population plays a crucial factor in the development of a country's economy[1]. India is the second largest country in the world in terms of the size of population. Rapidly increasing population of India is a result of prevailing high birth rates and a large decline in the death rate in our country. India is expected to add nearly 273 million people to its population between now and 2050, an UN report said in 2019, forecasting that the country will cross China by 2027[2].

The Government of India launched a family planning program in 1950s itself anticipating this trend and to accelerate the economic and social development by reducing the population growth[3]. But this program has met only moderate success as reflected by current statistics. This may be due to the fact that people of India are multilinguistic, multireligious and multiethnic. Hence this could be overcome by developing special programs addressing the needs of different groups[4]. Koranne et al have insisted that educational and motivational activities from doctors and health workers are needed to promote the use of contraception[5]. The extent of acceptance of contraceptive methods still varies within societies and also among different religious groups since the implementation of family planning program in 1952[6]. Latest round of National Family Health Survey (NFHS-5) data stated decline in the unmet need of family planning among married women aged 15-49 years[7]. However, still there exists a gap in knowledge, attitude and practice of contraception which is viewed as essential to a variety of development goals such as improved child health, reduced poverty and hunger, universal education, environmental sustainability and reduced maternal morbidity and mortality[8].

Our study was undertaken to assess the knowledge, awareness, attitude and factors affecting the outcome of contraceptive methods among women of reproductive age group in Chennai, Tamil Nadu. This also will help to have a better understanding of the situation in order to help the government in formulation of policies and modify its approach towards contraception.

Aims And Objectives:

1. To assess awareness and use of various methods of contraception among postnatal women.
2. To assess the attitude of the women towards various contraceptive methods.

II. MATERIAL AND METHODS

This is a Hospital based Descriptive cross sectional study conducted in the department of Obstetrics and Gynaecology at Chettinad Hospital and Research Institute, Kelambakkam, Tamil Nadu. The study was conducted over a period of two years from June 2021 to June 2022.All women who delivered at Chettinad Hospital and Research Institute, were administered a questionnaire to assess their knowledge, use and level of awareness about various contraceptive methods. Informed consent was taken before collecting the data. The data collection was done by principal investigator with a structured questionnaire which included patient name, age, level of education, parity status, occupation and marital history. Obstetric history like number of children, number of years of spacing between each child were obtained.Level of awareness about various contraceptive methods like Barrier methods (male condoms and female condoms), Oral contraceptive pills, Injectable like Depot Medroxy progesterone (DMPA), Intra uterine contraceptive device like Copper-T, Surgical methods like vasectomy for males and tubectomy for females were obtained.This questionnaire also included the knowledge about

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side effects and non-contraceptive uses like protection against Sexually transmitted diseases.

Statistical analysis: The corresponding case numbers were used to trace the questionnaires and the information was rechecked and entered. Quantitative variables like age, Age Difference between First and second children, Age Difference between second and third children and Mean course and duration of contraception use were expressed as mean andstandard deviation. Description of categorical variables like Age Category, Education, Parity, awareness and use of various methods of contraception like barrier methods, OCPS, injectables DMPA, IUD (Copper T) and Surgical Methods were expressed as frequency and proportion.

III. RESULTS

Out of 302 participants, majority of them belonged to the age category of ≥ 21 to 30 years which is 192 participants(63.6 %), followed by age group less than 20 years which is 72 participants(23.8%) and 38 participants (12.6%) belongs to the age group of ≥ 31 to 40 years. The mean age of the study participants was 24.54 ± 4.76. In terms of educational status, 117 (38.7 %) completed graduate, 76 (25.2 %) completed high school, 46 (15.2%) completed post graduate, 45 (14.9%) completed higher secondary school and 18 (6.0 %) completed middle school. Among 302 participant, 156 (51.7%) were primi, 78 (25.8%) were Gravida 2, 61 (20.2%) were Gravida 3 and 7 (2.3 %) were Gravida 4. Mean age difference between First and second children was 2.21 ± 0.69 years. Mean age difference between second and third children was 2.16 ± 0.66 years. Median marriage duration with current pregnancy was 3 years, minimum marriage duration was one year and maximum marriage duration reported was 14 years.

In terms of barrier method knowledge, 279 (92.4 %) participants had heard of condoms, 234 (77.5 %) were aware of female condoms, 229 (75.8 %) were aware of condom protection against STDs and 48 (15.9 %) were aware of condom failure rate. Around 213 participants (70.5 %) strongly agreed that they had adequate knowledge of barrier methods. Considering knowledge about OCPs, 189 (62.6%) participants ever heard about OCPs, 189 (62.6%) participants ever taken OCPs in the past, 189 (62.6%) were aware of its side effects and 85 (28.1%) strongly agreed that they have adequate knowledge about OCPs. Out of 302 participants, 29 (9.6%) had heard about DMPA, 16 (5.3%) had taken DMPA in their past and only 18 (6%) strongly agreed that they have adequate knowledge about DMPA. Around 128 (42.4%) participants had ever heard about copper T, 80 (26.5%) participants used IUD in their past, 80 (26.5%) participants were aware about number of years copper T can be used and 100 (33.1%) participants have strongly agreed about adequate knowledge of IUDs. Regarding surgical methods of contraception, all 302 (100%) participants had heard of tubectomy, 100 (33.1%) had undergone tubectomy, 46 (15.2%) were aware of its failure rate, 189 (62.6%) were aware of tubectomy surgery's reversibility, and 132 (43.7%) participants strongly agreed that they had adequate knowledge about surgical methods.

Table 1: Basic Characteristic of the study participants

Basic Characteristic	Number	Percentage
Age Category		
Less than 20 years	72	23.8 %
≥ 21 to 30 Years	192	63.6 %
≥ 31 to 40 years	38	12.6 %
Mean Age ± Standard deviation	24.54 ± 4.76	
Education		
Middle School	18	6.0 %
High School	76	25.2 %
Higher secondary school	45	14.9 %
UG	117	38.7 %
PG	46	15.2 %
Parity		
Primi	156	51.7 %
G2	78	25.8 %
G3	61	20.2 %
G4	7	2.3 %

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Mean Age Difference between First and second child ± SD in years (n = 146)	2.21 ± 0.69	
Mean Age Difference between second and third child ± SD in years (n = 68)	2.16 ± 0.66	
Median Marriage Duration [IQR] in years	3 [7]	
Minimum Marriage duration in years	1	
Maximum Marriage duration in years	14	
Total	**302**	**100 %**

Table 2: Awareness and use of various methods of contraception among study participants

Contraceptive methods	Number	Percentage
Barrier Method		
Heard about Condom	279	92.4 %
Aware about female condom	234	77.5 %
Aware about condom protection against STDs	229	75.8 %
Failure rate of Condom	48	15.9%
Adequate knowledge about Barrier Method		
Strongly Agree	213	70.5 %
Agree	83	27.5 %
Some what	3	1 %
Not at all	3	1 %
OCPS		
Ever heard about OCPS	189	62.6 %
Ever Taken OCPS	189	62.6 %
Aware of Side effects	189	62.6%
Adequate knowledge about OCPS		
Strongly Agree	85	28.1 %
Agree	96	31.8 %
Some what	14	4.6 %
Not at all	107	35.4 %
INJECTABLE - DMPA		
Ever Heard about DMPA	29	9.6 %
Ever taken DMPA	16	5.3 %
Adequate knowledge about DMPA		
Strongly Agree	18	6 %
Agree	9	3 %
Some what	86	28.5 %
Not at all	189	62.6 %
IUD (COPPER T)		
Ever heard about Copper T	128	42.4 %
Ever used IUD	80	26.5 %
Aware about number of year copper T can be used	80	26.5 %
Adequate knowledge about IUD		
Strongly Agree	100	33.1 %

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Agree	70	23.2%
Some what	65	21.5 %
Not at all	67	22.2 %
Surgical Methods		
Heard about Tubectomy	302	100%
Under gone Tubectomy	100	33.1 %
Aware about Failure Rate	46	15.2 %
Aware about reversibility of Surgery	189	62.6 %
Adequate knowledge about Surgical Method		
Strongly Agree	132	43.7 %
Agree	102	33.8 %
Some what	68	22.5 %
Not at all	0	0
Total	302	100 %

IV. DISCUSSION:

Contraception is an important intervention to reduce unwanted pregnancy and hence its benefits have become increasingly recognized worldwide to promote healthy living among women by improving health, economic and social outcomes for women and families as well as public health, economic and environmental benefits at the population level[9].

Mean age of the study participants was 24.54± 4.76 years. This is almost similar to the findings of **Hladky et al**[10]where the mean age of total respondents was 31.9(0.3)years, 31.3(1.24)years for current IUC users and 34.1(1.81)years for past IUC users. Similar findings are also found in **Bharti Sahu et al**[9]and **Wodaynew et al**[11] where 80% of 480 postpartum women were in the age group of 15 to 30 years and 68% of 106 postpartum women %) were between the age group of 25 and 34 years.

Mean age difference between first and second children in the present study (n=146) in years is 2.21 ±0.69 years, whereas the mean age difference between second and third children (n=146) in years is 2.16 ±0.66 years. There was significant association between number of live births and current and past IUC users among total respondents ($p<0.01$)[10].There were 53.2% of the current IUC users bearing 1-2 live children. **Ekabua et al**[12]studied that the sociodemographic profile of women surveyed accounted for 79.4% aged 20–39 years; 78.9% married; 54.8% had secondary education; and 61.9% were para 2–4.

Almost 92.4% had heard about condom as barrier method, 77.5% were aware of female condom, 75.8% were aware about condom protecting against STDs.70.5% strongly agree to have adequate knowledge about barrier method. **Hladky et al**[10] had reported that majority 72.97% had satisfied by the current usage of condoms.

Nearly 62.6% had heard about OCPS, 75.5% had ever taken OCPS, 62.6% were aware about side effects of OCPS.28.1% strongly agree to have adequate knowledge about OCPS**. Hladky et al**[10] had reported that majority 88.76% had satisfied by the current usage of OCPS.

Only 9.6% had heard about DMPA as injectable contraceptive, 5.3% had ever taken DMPA, 75.8% were aware about condom protecting against STDs.70.5% strongly agree to have adequate knowledge about DMPA method. **Hladky et al**[10] had reported that majority 72.27% had satisfied by the current usage of DMPA.

42.4% had heard about Copper T as IUD, 26.5% had ever used IUD, 26.5% were aware about number of years copper T can be used.33.1% strongly agree to have adequate knowledge about IUD(COPPER T) method. **Hladky et al**[10] has reported that 61.32% of the study respondents had satisfied with IUC as current usage method. We discovered that the majority of respondents were aware of IUC and that more than half thought it was safe. Even IUC users have a limited understanding of IUC in detail. IUC use, however, seems to be benefiting from efforts to dispel falsehoods and promote the safety and effectiveness of IUC. Later research has refuted the link between IUC, infection, and infertility [12,13]. According to the most recent NSFG data, IUC was chosen by 5.5% of reproductive-aged women using reversible contraception. In contrast to a 1996 study by Forrest, which found that just 21% of respondents thought IUC was safe, our data reveal that 49% of respondents thought IUC was safe, and only 8% did not. This shift in attitudes about IUC safety reflects improved favorability[14]. Additionally, one of the study had found that only one-third of respondents thought an IUC increased the chance of infertility and that at least half of

respondents did not believe an IUC increased the risk of a STI[13,15].

100% had heard about tubectomy as surgical method, 33.1% had undergone tubectomy, 15.2% were aware about failure rate.43.7% strongly agree to have adequate knowledge about surgical method. This study findings are inconsistent with the findings of **Jaiswal et al**[16]where (422/440) 95.9% were aware about contraception, maximum towards IUCD (80.8%) and condom (79.8%) followed by sterilization (61.37%). But these study findings are similar to that of **Gaikwad et al**[17] which showed 91% awareness for sterlisation, 81% for IUCD, 42% for barrier method and 17% for DMPA. Similar findings are obtained in **Rokade et al**[18]which also showed highest awareness for female sterilization (91.4%) followed by condom (85.2%), OCPS (74.7%), IUD (72%) and DMPA (8%).

V. LIMITATION:

The only patients that sought medical attention at a tertiary facility were included in the study . Therefore, the results of this study cannot be applied to the entire state of India or to India as a whole. In order to have a healthy and prosperous India, policymakers and field workers must properly promote the spacing approach and encourage couples to use contraception.

VI. CONCLUSION:

The current study revealed that postpartum women are not well informed about contraception. All pregnant women must receive regular counselling, regardless of their place of booking. The women should have access to information on a variety of contraceptive techniques and be free to select the one they prefer. The family planning services must be improved tocreate programs to encourage women to utilize contraception in order to reduce the number of births.

According to the study, the postpartum period is a prime opportunity for patients to get advice and put it into practice, which will help her health last a long time. It has been observed that postpartum use of contraceptives is higher among women who receive counselling while giving birth in the hospital.

RECOMMENDATIONS:

According to the study's findings.

1. The health personnel should educate ANC attendants about the value of post-partum family planning to improve their understanding, attitude, and practice of family planning,
2. The health extension worker and other interested parties should pay more attention in rural areas regarding education about the value of post-partum family planning for the benefits for bothn the infant mothers.
3. The majority of women largely rely on short-acting techniques,highlighting the need for improved access to long-acting and permanent family planning treatments, which are very effective ways for women to accomplish their targeted pregnancy spacing.

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