



ACCEPTANCE OF MODERN METHODS OF CONTRACEPTION AND THEIR UTILISATION BY CAFETERIA APPROACH AMONG POSTPARTUM WOMEN WITH UNMET NEEDS FOR FAMILY PLANNING IN A TERTIARY CARE HOSPITAL IN SOUTH INDIA

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Abstract

Background: Contraception is one of the basic fundamental right for every women of reproductive age to reduce unplanned pregnancies and promote women health. The choice and time of initiation of contraception depends on women's level of knowledge regarding various modern methods. India is the first country to launch National Family Planning Program. In spite of availability of various modern contraceptive methods, usage of these methods is very low in developing countries like India. This study is done to find out the level of awareness of various contraceptive methods, and their acceptance and factors influencing their usage among postpartum women.

Materials & Methods: This is a Cross-sectional questionnaire-based study carried out in the Department of Obstetrics and Gynaecology at Government Maternity Hospital, Tirupati among 500 women in their immediate and extended postpartum period upto 1 year of last child birth. Data was collected using a pre-designed, structured questionnaire after briefing the study and taking informed consent. The level of awareness, acceptance and reasons for refusal collected.

Results: Majority of the women in the present study are in the age group of 21-25 years (50.8%) followed by 15-20 years(22.8%). About 35.8 % of women were educated upto intermediate and 32.8% of the women had secondary school education. Unskilled work was the most common occupation among the study women comprising of 50.8%. Awareness regarding availability of various contraceptive methods was present among 59.4% of the women and 40.6% were still unaware of contraceptives. Majority of the women opted for permanent method i.e tubectomy (40%). About 33.8% opted for IUCD and 12% opted injectable Depot Medroxy progesterone acetate. OCP's were opted by 8.3% women and only 5.3 % opted barrier methods (condom).

Conclusion: The level of awareness and acceptance for contraception among postpartum women in developing countries like India is very low which may be mainly due to less education ,socioeconomic status, access to health care and religious beliefs. Effective Family Planning programs are to be conducted to improve knowledge and remove myths regarding contraception.

Key words: Contraception, Unmet needs, Cafeteria approach, Eligible couple, IUCD,OCP.

Introduction

India is the second most populous country in the world with 1.42 billion population next to China (1.425 billion) which is the most populous country even by January 2023. United Nations Population Prospects estimated that India's population is projected to overtake China by April 2023 reaching 1.428 billion. Universal access to sexual and reproductive health for all women is Target 5.6 of the Sustainable Development Goals, promoted by the United Nations and adopted by 193 countries.(1) Contraception is the key to achieve this SDG. India was the first country in the world to launch family planning program in 1952 (National population policy, 2000).(2) Family planning can prevent more than 30% of maternal deaths and 10% of child mortality if couples spaced their pregnancies more than two years apart.(3) WHO(2006) recommended the interval between a live birth and the next pregnancy should be two years (24 months).(4) Short birth intervals < 24m increases risk of pregnancy related complications and maternal death.(5)

About 6% of all Indian women of reproductive age are postpartum in a given year (6). Data from the National Family and Health Survey (NFHS) 2015–16 suggest that 45.6% of postpartum women used a method of contraception within 12 months of birth, which is substantially lower than among women of reproductive age generally, 53.5% (7). There are no available estimates of PPC use globally or within the South Asian region, however one review from low and middle income country (LMIC) suggested a comparable modern PPC use rate of 41.2% in LMICs, and 42.4% in the South/South East Asian region specifically (8). The overall usage of contraception in India has increased in the most recent 2019–21 wave of NFHS, to 66.7% among all women of reproductive age. Despite this increase in use, more than a quarter of births (27%) occurred within 24 months of the preceding birth (e.g. before the WHO-recommended birth interval) (9). Recent work suggests an increase in postpartum contraceptive use among young women from 33% in 2015–16 to 42% in 2019–21, coupled with increases in pregnancy health service utilization.

A nationally representative study found that India's demand for family planning satisfied (DFPS) with modern contraceptive methods was 70% in 2005, with heavy reliance on female sterilization rather than reversible contraceptive methods (10). Government policy has since changed, as laid out in the 2014 Family Planning 2020 action plan (11), which still promotes sterilization with monetary compensation (both for individuals undergoing the procedure and for the health providers) but also includes reversible modern contraception.

India is experiencing a demographic phase characterized by high fertility and moderate mortality rates, resulting in a rapid population increase of 28 million per year, or 2.1%. Unplanned pregnancies burden healthcare resources and negatively affect women's health, making family planning crucial for child welfare and survival.(12)

The World Health Organization (WHO) recommended initiation of postpartum contraceptive utilization within 6 weeks after delivery.(13) It estimates that contraceptive use has averted approximately 308 million unintended pregnancies in 2018 alone.(14) PPFP primarily aims to prevent unintended and closely-spaced pregnancies within the first year after giving birth.(15) Eligible couple is defined as where women is in reproductive age (15-49 years) and in need of contraception. They are counseled regarding all the available options with benefits and side effects and allowed to choose a method they wish known as Cafeteria approach. The present study is undertaken to know the level of awareness regarding modern contraception and their acceptance among women of reproductive age so as to take further measures to address Unmet needs for both spacing and limitation.

Aim

To find out the awareness, acceptance and utilization of modern contraceptive methods among postpartum women in a Tertiary care hospital.

Objectives

1. To study the awareness, acceptance, and preferred choice of modern contraceptive methods among postpartum women in a Tertiary care hospital.

2. To identify the reasons for non acceptance of modern contraceptive methods.
3. To identify the unmet needs of Family planning and contribute to development of knowledge in the same among eligible women.

Inclusion criteria

All eligible Women in reproductive age(15-45 yrs) in immediate postpartum period and interval period (extended postpartum) upto 1 year after last child birth.

Exclusion criteria

Women not willing to participate in the study, antenatal women, currently using contraceptive, age of child more than one year, and those who have undergone concurrent sterilization .

Materials and Methods

This is a Cross-sectional questionnaire-based study carried out in the Department of Obstetrics and Gynaecology at Government Maternity Hospital, Tirupati . A total of 500 postpartum women who meet the eligible criteria and were willing to participate in the study were selected by convenient sampling method and enrolled in the study. Postpartum women in postnatal ward and those who attended Family planning op upto 1 year from last child birth were included. All women were briefed about the study and their informed consent was taken. Data was collected using a pre-designed, structured questionnaire. Detailed information on demographic details, awareness of various modern contraceptive methods, reasons for non-acceptance, and other relevant factors influencing contraceptive use were noted. They were counseled about the available modern contraceptive methods and allowed to choose a method of contraception of their choice by Cafeteria approach . Their level of awareness, acceptance, and reason for refusal was assessed. All the data is analysed in MS Excel necessary percentages were calculated.

Results

Majority of the women in the present study are in the age group of 21-25 years (50.8%) followed by 15-20 years(22.8%) and 26-30 years (19.4%). This may be due to high reproductive potential between 15-30 years of age. About 35.8 % of women were educated upto intermediate and 32.8% of the women had secondary school education .

Unskilled work was the most common occupation among the study women comprising of 50.8% and 33.4% women were house wives. Only about 15.8% women were doing skilled work . About 37.4% women had family income between 10000-25000, and 33.8% income less than 10000, which reflects the impact of education ,occupation and income over knowledge and acceptance about various aspects of reproductive health and family planning as shown in table 1.

Table 1– Demographic details of the women in the present study

Demographic details	N umber (n)	Percentage (%)
Age (years)		
15-20	114	22.8
21-25	254	50.8
26-30	97	19.4
30-35	30	6
>35	5	1
Education		
Illiterate	27	5.4
Primary school	73	14.6
Secondary school	164	32.8
Intermediate	179	35.8
Degree	57	11.4

Occupation		
House wife	167	33.4
Unskilled	254	50.8
Skilled	79	15.8
Economic status		
<10000	169	33.8
10000-25000	187	37.4
>25000	144	28.8
Religion		
Hindu	335	67
Muslim	92	18.4
Christian	73	14.6
Place of Residence		
Rural	310	62
Urban	107	21.4
Tribal	83	16.6

Majority of the women in the present study belonged to Hindu community (67%) & 18.4% were muslims,14.6% Christians and majority of women in Muslim and Christian community opted for multiple childbirths reflecting the impact of religion over parity and avoidance of contraception . About 62% of the women were residing in rural area and 21.4% in urban areas , which reflects the probability of access to health care facility as shown in table 1.

About 35.6% of the women were had 2 previous child births , 27.4% had 3 child births and 26.4% had 1 child birth as shown in table 2.

Table 2– Parity distribution of women in the present study

Parity	Number (n)	Percentage (%)
1	132	26.4
2	178	35.6
3	137	27.4
4 and more	53	10.6

Among the women who participated in the study, 171 (34.2%)were in initial 6 weeks , 108 (21.6%) were in less than 6 months duration and 221 women (44.2%) were within 12 months from last child birth.

Table 3-Awareness of availability of contraception

Awareness	Number (n)	Percentage (%)
Yes	297	59.4
No	203	40.6
Method		
Natural methods	22	7.4
Barrier method(condom)	42	14.4
IUCD	77	25.9
OCP	49	16.4
Injectables	38	12.7
Tubectomy	69	23.2

Awareness regarding availability of various contraceptive methods was present among 59.4% of the women and 40.6% were still unaware of contraceptives. Among the women who were aware of one or the other contraceptive methods, 25.9% women were aware of IUCD, 22.% were aware of

tubectomy, 16.4% were aware of OC pills, 14.4% aware of barrier method, only 12.7% know injectables, 7.4% know about natural methods of contraception and none of the study women were aware of subdermal implants and intrauterine inserts as per table 3. Majority of the women(58.6%) responded Health care providers as source of information. 23.4% had information from friends and relatives and ,16.8% got from media. This signifies the importance of health care provider to impart knowledge and awareness regarding reproductive health and family planning to eligible couple.

Table 4- Source of information among study women

Information source	Number (n)	Percentage (%)
Health care providers	207	58.6
Media	84	16.8
Friends & relatives	117	23.4

Table 5 -Prior contraceptive usage

Contraceptive usage	Number (n)	Percentage (%)
Yes	133	26.6
No	367	73.4

About 73.4% of the study women had no prior contraceptive usage, whereas 26.6 % of women had previous contraceptive usage. Among the women who used contraceptives previously, 54.1% of the women had 1 previous child birth, 25.5% had 2 births and 20.3% had 3 and above births. Only 35.2% women planned last pregnancy and majority (64.8%) had their pregnancy unplanned. This signifies the unmet needs of family planning among population.

Table 6 – Planning of last pregnancy among study women

Last pregnancy planning	Number (n)	Percentage (%)
Yes	176	35.2
No	324	64.8

About 68.4% women had counseling for contraception in the present postpartum period ad 31.6% didn't receive counseling . Contraceptive acceptance for modern methods was seen in 74.4% women in the present postpartum period and 25.6% still rejected contraceptive. All the women between 6 -1 2 months postpartum accepted contraception. About 25.6% women who didn't accept were in the immediate postpartum period and upto 6 months duration since last child birth.

Table 7 – FP counselling during present postpartum period

Counselling status	Number (n)	Percentage (%)
Yes	342	68.4
No	158	31.6

Table 8– Contraceptive acceptance in present postpartum period

Acceptance	Number (n)	Percentage (%)
Yes	372	74.4
No	128	25.6

Table 9– Reason for non acceptance in present postpartum period

Reason for rejection	Number (n)	Percentage (%)
Desire for more children	37	28.9
Male child desire	23	17.9
Spouse refusal	39	30.4

Fear of side effects	13	10.1
Fear of future fertility	5	3.9
Religious beliefs	7	5.4
No specific reason	4	3.1

Majority of the women opted for permanent method i.e tubectomy (40%). About 33.8% opted for IUCD and 12% opted injectable Depot Medroxy progesterone acetate. OCP's were opted by 8.3% women and only 5.3 % opted barrier methods in view of high failure rate as shown in table 10.

Table 10- Choice of modern contraception in study women in present postpartum period

Contraceptive choice	Number (n)	Percentage (%)
Barrier	21	5.6
IUCD	126	33.8
OCP	31	8.3
Injectable hormones	45	12
Sterilization	149	40

Table 11– Reason for acceptance among the study women

Reason for acceptance	Number (n)	Percentage (%)
Spacing	122	32.7
Economic issues	67	18
Prior satisfaction	34	9.1
Completed family	149	40

Majority (40%) accepted permanent sterilization in view of completed family, About 32.7% accepted modern methods of contraception for spacing between pregnancies for health improvement, 18% mentioned economic issues to be the reason,9.1% accepted as they had prior usage and satisfaction with modern methods of contraception as show in table 11.

Discussion

This study was conducted to assess the level of awareness , and acceptance of modern contraception and their acceptance among eligible couple where women is in reproductive age . In the present study, 70.2% women were in the age group between 21-30 years and almost 99% women between 15 to 35 years which signifies maximum reproductive potential in that age and need for effective family planning measures in that age. In study by **Sahu et al (16)**, majority of women, i.e., 73.8% of cases, were in the age group of 21 to 30 years. **Saini et al (17)** reported , maximum users of spacing methods in the age group of 20 to 29 years (63.7%).About 94.6% of the women had education in the present study and about 66.6% were working (skilled and unskilled work) and 66.2% had family income more than Rs.10000-25000..

Awareness and acceptance for contraception was more among educated women, employed women and women whose family income is more. This reflects the effect of socio demographic factors ,where women with more education, employed and better financial status has better access to health care, there by attaining better knowledge over various contraceptive methods.

In the present study, 67% women belonged to Hindu community,18.4% Muslims . Contraceptive acceptance was more among Hindus when compared to Muslims who wished multiple children representing religious impact over family planning. In our study women residing in rural areas were 62%, urban area 21.4% and tribal areas 16.6 %. Urban women have more access to family planning programs and more knowledge about contraception than rural women, which is still poor among tribal women. In study by **Sahu et al (16)** and **Thyagarajan et al (18)**, urban women have more awareness than rural women. **Chaudhary et al (19)**reported that urban residence strongly influenced

contraceptive use. In the present study, 73.6% women had 2 and more live births who need either temporary or permanent method of contraception.

In the present study, 59.4% were aware of one or the other method of contraception and 40.6% were unaware. Among the women who were aware, 25.9% women were aware of IUCD, 22.2% were aware of tubectomy, 16.4% were aware of OC pills, 14.4% aware of barrier method, only 12.7% know injectables, 7.4% know about natural methods of contraception and none of the study women were aware of implants. In a study by **Gupta et al (20)**, the awareness was 91.8% which is very good and 88.7% were aware of tubectomy and 67.4% of condom. In a study by **Nath et al (21)** found the knowledge of post partum women was 72%, IUCD was the most commonly known methods followed by barrier methods i.e. 82.77% and 76.38%, injectable was known to 38.83% 9.72% were aware about lactation amenorrhea methods, few known to safe methods. **Kripa et al (22)** Karnataka found that around 88% of the post partum women knew that there are methods to prevent pregnancy. The level of awareness in our study is less when compared to above studies.

Source of information was health care providers (58.6%), friends and relative (23.4%) and media in 16.8% in the present study. **Sahu et al (16)** and **Sharma et al (23)** reported health care providers as main source of information 65.2% and 49% respectively. Only 26.6% had prior contraceptive usage in the present study.

In the present study, 68.4% women had counseling regarding various modern contraceptive methods and 31.6% didn't take counseling and these women were delivered at some primary and secondary health centres. In the present postpartum period, about 74.4% women accepted one of the available modern methods of contraception and 25.6% expressed non acceptance. In study by **Sahu et al (16)** acceptance is 73.9% which is almost similar to our study. results were found in studies done by **Kripa et al (22)** (37.1%) and **Singh et al (24)** (43.1%).

Among 25.6% women who rejected, 30.4% had objection from spouse 28.9% want more children and 17.9% has desire for male child. **Singh et al (24)** reported fear of side effect (24%) as the major reason in their study, followed by expectation of a male child (8%), while **Mahmood et al (25)** in their study reported lack of knowledge (32.5%) as the main reason for not using contraceptives.

About 40% of women preferred tubectomy, 33.8% opted IUCD (long acting reversible contraception), 12% opted for injectable Depot Medroxy Progesterone acetate and 8.3% opted OCP'S and 5.6% women opted barrier method in the present study. The contraceptive acceptance in study by **Sahu et al (16)** was 73.9%. In study by **Sahu et al (16)** maximum number of women preferred IUCD (38.8%) as their first choice followed by female sterilization (16.8%). Oral contraceptive pills (OCPs), condoms, natural methods, and injectables were preferred by 7.9, 5, 3.1, and 2.3% of women respectively. In **Thapa et al (26)** study, choices preferred by postpartum women were: 33.6% opted for IUCD, 20% for barrier method, 26.5% for Depo-Provera, 10% for progesterone pill, 3.9% preferred lactational amenorrhea method, and safe method 3%.

In the present study, All the women who underwent tubectomy had their family completed, 32.7% wants spacing for health, 18% had economic factors and 9.1% had already used some contraception previously and were satisfied with it.

Conclusion

After giving information about various family planning methods, women were asked for their own choice, and maximum number of women preferred IUCD as their first choice followed by female sterilization. Regular counseling is a must to all pregnant women from every health care centre in both rural and urban areas and cities starting in antenatal period. Awareness regarding modern family planning methods is very low and there is a wide gap between awareness and acceptance. There is need to strengthen the family planning services to improve awareness and acceptance of family planning to address the unmet needs for family planning.

Limitations

This study is a single centre study with limited sample size. The study focuses on immediate postpartum and extended postpartum period upto 1 year. It does not follow long term assessment.

Recommendations

There is need to strengthen Family Planning services to promote awareness regarding various modern contraceptives which have impact over women health with spacing between pregnancies. Counseling should be started in the antenatal period preferably involving family members and particularly husband to motivate using spacing methods to avoid unplanned pregnancy thereby reducing maternal mortality and morbidity. Unmet needs (for spacing & limitation) for family planning to be addressed. Women should have their right for reproductive health respected which promotes women empowerment which in turn contributes to development of nation.

Conflict of Interest- Not available

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