Research article

Research on reasons for not accepting postpartum family planning in first 48 hours, in a tertiary care hospital

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Abstract

Introduction: Postpartum family planning (PPFP) is an essential service to prevent unwanted pregnancies, to keep birth spacing, thus preventing poor maternal, perinatal, and neonatal health outcomes in subsequent pregnancies.

Objectives: To identify the reasons for not accepting PPFP and actual percentage of PPFP in the first 48 hours as well as the most preferred method of PPFP, most preferred interval contraceptive method in a tertiary care hospital.

Methodology: The present study is a descriptive cross-sectional study, conducted in all four obstetric units in De Soysa Hospital for Women, Colombo 08. Inclusion criteria – Postpartum Mothers (within the first 48 hours after delivery) the time from 25th of September 2019 until the sample size of 289 is reached.

Results: 152 (51.5%) of the participants accepted PPFP. Only 20 (13.3%) accepted contraceptive methods during the first 48 hours of the postpartum period. Regarding not accepting the PPFP, 53 (37.8%) planned to use in the future (Interval methods), 31 (20.1%) due to husband's disapproval, 20 (12.1%) due to fear of side effects and 18 (12.9%) wanted to have many children. The most popular PPFP method was subdermal implant 82 (57.7%), followed by PPIUD 48 (33.8%) and PP- LRT 12 (8.5%) among participants.

Conclusion: Approximately 50% of the study population accepted the PPFP and subdermal implant as the commonest mode of contraception. The commonest factor for denying contraception was the expectation of using the interval contraceptive methods in the future.

Key words: post partum family planning, subdermal implant, post-partum LRT, maternal and perinatal death, interval contraception

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Introduction

Family planning (FP) is a very important concept in improving the quality of life of families by spacing and delaying the pregnancies and avoiding unwanted pregnancies. So it is recognized as a key life-saving intervention for mothers and their children. The promotion of family planning in countries with high birth rate has the potential to avoid 32% of all maternal deaths and nearly 10% of childhood deaths[1].

FP can reduce more than 30% of maternal deaths and 10% of child mortality if couples space their pregnancies more than 2 years apart[2]. If pregnancies are closely spaced (within the first year postpartum) it risks both mother and baby. It can cause preterm delivery, low birth weight and small for gestational age etc[3]. Also risk of child mortality is higher for very short birth-to-pregnancy interval (<12 months). If pregnancy interval was 24 months, under-five mortality would decrease by 13%. On the other hand, if couples wait 36 months, the decrease would be 25%. Having inter pregnancy interval more than 24 months enables mother to regain her health after the delivery. It gives her to provide more love, care and affection to the family[4]. postpartum family planning (PPFP) is the concept which mainly focuses on prevention of unintended and closely spaced pregnancies through the first 12 months following childbirth[5]. There are various methods which can be used as PPFP such as post-partum sterilization, Post-Partum Intra Uterine Device (PPIUD), progesterone only methods (sub dermal implants and injections), oral contraceptive pills and condoms[5]. According to an analysis of Demographic and Health Surveys data from 27 countries, 95% of women who are 0-12 month postpartum want to avoid a pregnancy in the next 24 months; but 70% of them are not using contraception[6].

Health care personnel can educate family regarding integrating PPFP opportunities during Ante Natal Clinic (ANC) visits, ante natal wards, post-natal wards and neonatal and child health clinics[5]. Also mothers can receive PPFP facilities within first 48 hours from where they deliver the baby.

Postpartum Intrauterine Device (PPIUD), sub dermal implants and female sterilization can be offered within first 48 hours after the delivery in tertiary care hospitals. Ministry of Health, Sri Lanka in collaboration with the Sri Lanka College of Obstetricians and Gynaecologists (SLCOG) implemented a project promoting PPIUD use within first 48 hours after delivery[7].

Even though postpartum family planning facilities are available in majority of hospitals in Sri Lanka in both public and private sectors, there is a significant unmet need. So, my research question was to identify the reason for not accepting a post partum family planning method when it is available, and rest of the other specific objectives are to identify the actual percentage of accepting PPFP, most preferred method of PPFP, most preferred interval contraceptive method and possible intervention which can improve the PPFP.

Studies done in Sri Lanka showed the effectiveness on education about FP during antenatal clinic, antenatal wards and pre discharge is high.

Methodology

Study design

The present study was a descriptive cross-sectional study.

Study setting

The study was conducted in all four obstetric units in De Soysa Hospital for Women, Colombo 08 (DSHW).

Study population

Inclusion criteria – Postpartum Mothers (within first 48 hours after delivery) who are delivering their babies in DMH in the time from 25th of September 2019 until the sample size is reached.

Exclusion criteria

1. Mothers whose babies are in PBU or NICU.
2. Mothers who are having stillbirth in this pregnancy.
3. Mothers who are diagnosed to have postpartum psychological issues.

Sampling and sample size

The study will include all mothers in study population and the data was collected from 25th of September 2019 until the sample size is reached.

Sampling: Expected proportion

From a primary survey done in De Soyza Hospital for Women in 2018, the acceptance of PPFP in DSHW in 2017 was 25%. According to that the expected proportion for this research was taken as 0.25.

Sample size = $Z_{1-z/2}^2$ p (1-p)/d^2
= 1.96* 1.96*0.25 (1-0.25)/0.05*0.05
= 288.12
Sample size = 289

With 10% of non-respondent rate – sample size is 318.

Data collection

Investigators were the Intern House Officers working in relevant postnatal wards in DSHW in 2018. They went through the admission book of particular ward and selected the study population. After finding the mother, the investigator explained the study objectives; importance and outcome of the study and written informed consent was obtained in their own language. Only the mothers who were willing to participate to the study were selected. Then the interviewer questioned the participants and marked the relevant responses given by the mothers.

Data analysis

Data from all questionnaires were first entered into Microsoft excel sheets and stored in a password protected computer. Then they were analyzed using SPSS statistical analytical software.

Ethical concerns

There were no major ethical issues related to this study; no interventions, invasive procedures were carried out. The target population was not a vulnerable group. The names and addresses were not collected as a part of data collection. The data were stored in password-protected computers and data were only accessible to the investigators. Ethical clearance was obtained from the Ethics Review Committee, National Hospital of Sri Lanka.

Administrative clearance

The administrative clearance was obtained from Director of DSHW.

Results

A descriptive cross-sectional study was conducted at all four obstetric units in De Soysa Hospital for Women, Colombo 08 (DSHW) among 295 mothers.

Table 1. Demographic information

Variable	Frequency (%)
Age	28 ± 5.59 years
Religion	
Buddhist	100 (33.9)
Islam	88 (29.8)
Hindu	69 (23.4)
Catholic	38 (12.9)
Highest Educational Qualification of the mother	
Less than O/L	101 (34.2)
O/L	87 (29.5)
A/L	85 (28.8)
Degree	22 (7.5)
Highest Educational Qualification of the father	
Less than O/L	104 (35.4)
O/L	107 (36.4)
A/L	63 (21.4)
Degree	20 (6.8)
Number of children	
1	158 (53.7)
2	80 (27.2)
3	45 (15.3)
4	9 (3.1)
5	2 (0.7)
Age of the last child	5 ± 2.43 years
Monthly income	
Less than 25000	54 (18.6)
25000-50000	161 (55.5)
More than 50000	75 (25.9)

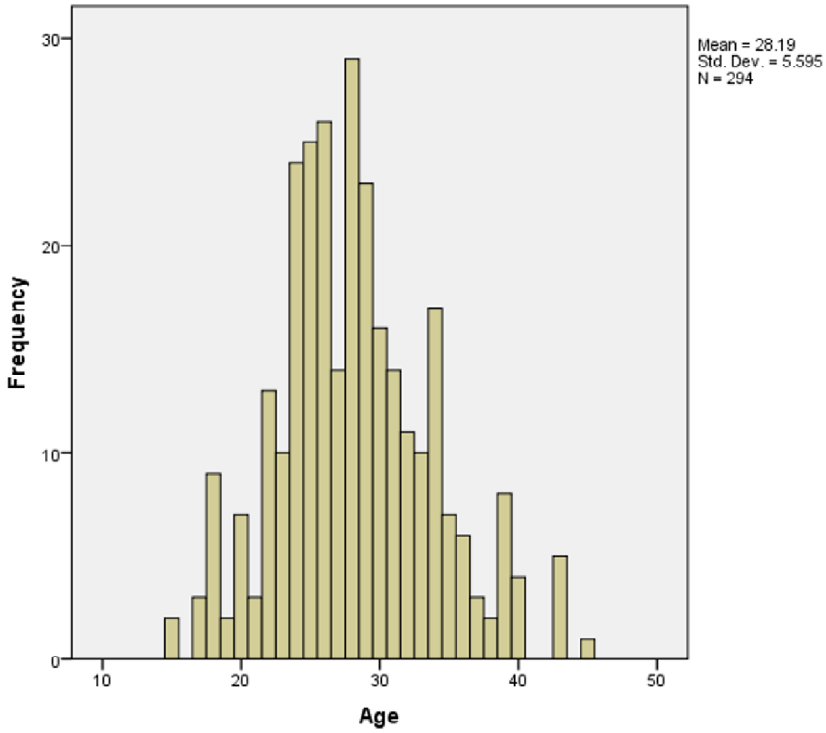

Figure 1. **Age distribution.**

Study was conducted among 295 mothers with average mean age of 28 ± 5.59 years with majority Buddhist 100 (33.9%) followed by Islam of 88 (29.8%) out of total sample. Considering the level of education of mothers, 101 (34.2%) had less than O/L qualification, 87 (29.5%) completed O/L and 85 (28.8) completed A/L, similarly for the fathers, 101 (34.2%) had less than O/L qualification followed by 107 (36.4%) whom completed O/L and 63 (21.4%) completed A/L.

With regard to the number of children, more than half of the sample 158 (53.7%) having least one child and 80 (27.2%) mentioned the fact that they have least two children in the family. The mean age of last child noted as 5 ± 2.43 years. Lastly on the income level of the participants, 161 (55.5%) of majority earned an income between 25,000 to 50,000LKR and 75 (25.9%) from total studied sample earning a monthly income more than 50,000LKR.

Table 2. Associated factors

Variable	Frequency (%)
Mode of delivery of current pregnancy	
NVD	171 (58.0)
Instrumental delivery	10 (3.4)
EM/LSCS	74 (25.1)
EL/LSCS	40 (13.6)
Acceptance of contraceptives	
Yes	152 (51.5)
No	143 (48.5)

(Continued)

Type of contraceptive accepted	
PPIUD	48 (33.8)
Sub dermal implant	82 (57.7)
PP-LRT	12 (8.5)
Whose advice lead for the acceptance	
MOH	19 (12.7)
PHM	28 (18.0)
Antenatal classes in hospital	48 (31.3)
Doctors in ANC	31 (20.7)
Doctors in antenatal wards	19 (12.7)
Other	7 (4.7)
Time of deciding the acceptance	
Before pregnancy	6 (4.0)
During PMH home visit	24 (16.0)
During antenatal clinics	86 (57.3)
During antenatal ward stay	14 (9.3)
During first 48 hours of postpartum period	20 (13.3)
Reason for acceptance	
To prevent unwanted pregnancies	16 (10.95)
To space the pregnancies	81 (44.5)
To limit the family size	49 (33.6)
Other reasons	16 (10.95)
Reason for not accepting	
Religious belief	8 (5.7)
Wants to have many children	18 (12.9)
Husband disapproval	31 (20.1)
Fear of side effects	20 (12.1)
Husband is not in Sri Lanka	11 (7.8)
Hope to use in future – Interval methods	53 (37.8)
Other reasons	5 (3.6)

Vaginal deliveries among 171 (58.0%) mothers resulted as the prominent mode of delivery of current pregnancy followed by EM/LSCS which managed among 74 (25.1%) mothers and more than half of the sample, 152 (51.5%) accepted the contraceptives. Considering the types of contraceptives accepted, a significantly higher proportion accepted sub-dermal implant and 48 (33.8%) mothers accepted PPIUD.

Antenatal classes in hospital of 48 (31.3%) and doctors in ANC 31 (20.7%) detected as widely preferable advising source which lead for the acceptance and 86 (57.3%) of mothers decided the acceptance during antenatal clinic visit followed by 24 (16.0%) mothers who accepted during PMH home visit. To keep space between pregnancies mentioned as the most common fact to accept the contraceptives and to limit the family size second commonest reason for acceptance. Nevertheless, 53 (37.8%) mothers mentioned they hoped to use in the future; – interval methods and not to accept a particular management method along with 31 (20.1%) who did not have husband's approval to proceed with the contraceptive method.

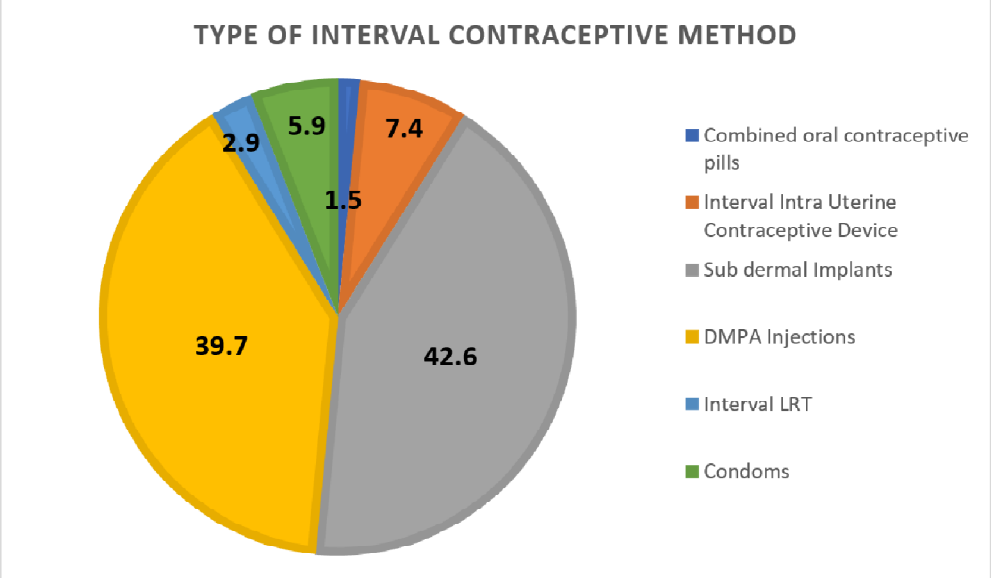

Figure 2. **Types of interval contraceptive methods.**

Among the mothers accepted the interval contraceptive methods, sub dermal implants considered as the most preferred with 29 (42.6%) mothers and DMPA injections noted as next highly accepted method among 27 (39.7%) mothers.

Table 3. Demographic factors associated with contraceptive methods

Variable	Hope to use in future (N=53)	Specific Reason (N=93)	P Value
Age			
Less than 30 years	43 (81.1)	64 (68.8)	0.106
More than 30 years	10 (18.9)	29 (31.2)	
Religion			
Buddhist	23 (43.4)	29 (31.2)	0.015
Islam	15 (28.3)	35 (37.6)	
Hindu	6 (11.3)	24 (25.8)	
Catholic	9 (17.0)	5 (5.4)	
Highest educational qualification of the mother			
Up to O/L	34 (64.2)	61 (65.6)	0.861
Above O/L	19 (35.8)	32 (44.4)	
Highest educational qualification of the father			
Up to O/L	37 (69.8)	71 (77.2)	0.327
Above O/L	16 (30.2)	21 (22.8)	

(Continued)

Number of children			
One	30 (56.6)	62 (66.7)	0.105
Two	19 (35.8)	19 (20.4)	
Three or more	4 (7.5)	12 (12.9)	
Age of the last child			
Up to 4 years	7 (30.4)	12 (38.7)	0.529
Above 4 years	16 (69.6)	19 (61.3)	
Monthly income			
Less than 25000	9 (17.0)	11 (12.1)	0.598
25000-50000	32 (60.4)	54 (59.3)	
More than 50000	12 (22.6)	26 (28.6)	

Regarding the acceptance of the contraceptives, there is a significant association observed with religion of the participants (p=0.015).

Table 4. Hypothesis testing

Hypothesis	P Value	Decision	Conclusion
H1: There is a relationship between Reason for not a ccepting and Age	0.106	Do not reject HO	There is no significant relationship between Reason for not accepting and Age
H2: There is a relationship between Reason for not accepting and Religion	0.015	HO reject	There is no significant relationship between Reason for not accepting and Religion
H3: There is a relationship between Reason for not accepting and Educational Qualification of the mother	0.861	Do not reject HO	There is no significant relationship between Reason for not accepting and Educational Qualification of the mother
H4: There is a relationship between Reason for not accepting and Educational Qualification of the father	0.327	Do not reject HO	There is no significant relationship between Reason for not accepting and Educational Qualification of the father
H5: There is a relationship between Reason for not accepting and Number of children	0.105	Do not reject HO	There is no significant relationship between Reason for not accepting and Number of children
H6: There is a relationship between Reason for not accepting and Age of the last child	0.529	Do not reject HO	There is no significant relationship between Reason for not accepting and Age of the last child
H7: There is a relationship between Reason for not accepting and Monthly income	0.598	Do not reject HO	There is no significant relationship between Reason for not accepting and Monthly income

Discussion

Postpartum family planning (PPFP) is an essential service to prevent unwanted pregnancies, as well as to keep birth spacing for at least two years of duration, thus preventing poor maternal, perinatal, and neonatal health outcomes in subsequent pregnancies[1,2]. Previous surveys reported regarding the unmet need for postpartum family planning (PPFP) especially from the developing world, because many women become sexually active within the postpartum period prior to initiating a contraceptive method[3]. Therefore, PPFP has been a critical component of reproductive health as stated by the WHO[4]. Woman's contraceptive preference will change following childbirth during the postpartum period of six weeks if the woman is lactating and with regards to non-lactating mother's postpartum period, it can be altered as 3 or 4 weeks[2].

Our study revealed that about 152 (51.5%) of the participants accepted postpartum family planning (PPFP) while 143 (48.5%) study participants denied PPFP. Moreover, only 20 (13.3%) of participants accepted contraceptive methods during the first 48 hours of the postpartum period. A study conducted in a tertiary hospital in Thamilnadu, India, to rule out the readiness and admissibility of postpartum intrauterine contraceptive devices showed that 82.8% primiparous mothers accepted PPFP[5]. This percentage is quite higher than our results. In contrast, a study conducted in south-east Ethiopia by Alemayehu et al reported a low percentage, around 12.4% women accepted PPFP and this low percentage was due to religious beliefs and husband refusal[6]. These differences might be explained by the cultural impact and different degree of involvement of government and non-governmental reproductive health care organizations.

Considering the reasons for not accepting the PPFP among the women who participated in our study; most of our participants 53 (37.8%) were hoping to use in future (interval methods) followed by 31 (20.1%) husband's disapproval, 20 (12.1%) fear of side effects and 18 (12.9%) wanted to have many children. Similarly, Ethiopian study showed that commonest causes for rejection of PPFP was fear of complications (24.8%), religious beliefs (19.8%), and husband refusal (17.7%)[6]. Factors leading to not accepting PPFP might be associated with the educational level of husband and wife as well as awareness regarding the contraceptive methods[7]. In contrast, our study does not show any relationship between educational qualification of the mother or husband as a reason for not accepting PPFP. Furthermore, we did not find factors such as number of children, age of the last child and monthly income as reasons for not accepting PPFP. However, there is a significant association observed among the religion of the participants.

The most popular PPFP method among our participants was sub dermal implant 82 (57.7%), followed by PPIUD in 48 (33.8%) participants and leastly PP-LRT among 12 (8.5%) participants. The reason for sub dermal implant to become the most preferable PPFP might be due to being a long term contraceptive, user need minimum attention, low percentage of contraceptive failure and fertility is reversible after removal of implant according to their wish[8]. It is found that sub dermal implants are the commonest [n=29 (42.6%)], interval contraceptive method among our participants followed by DMPA injections among 27 (39.75%) participants. A meta-analysis done by Rubee et al demonstrated that long-acting reversible contraceptive usage has increased dramatically in African region followed by barrier methods, while IUCD use has also risen slightly[9].

Some of the mothers didn't give the consent for study and few mothers couldn't read and understand any of the three major languages in consent form. These mothers were not the recruited for the study. This was a study limitation.

Conclusion and recommendation

In this study, slightly above 50% of the study population only accepted the postpartum family planning method and subdermal implant is the commonest mode of contraception. The commonest factor for denying contraception was expectation of using interval contraceptive method in the future. So further research is required to identify the fraction that is actually receiving the interval contraceptive methods. However, more awareness programs should be carried out to encourage postpartum women in adhering to PPFP to prevent unwanted pregnancies, hence improving the maternal and infant quality of life.

Authors contributions

AMRKA is the principle author and PGS was the supervisor.

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Conflicts of interest

The authors declare that they have no conflicts of interest.

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