



Original Article

To Determine the Frequency of Discontinuation of Post-Partum Intra Uterine Contraceptive Device (PPIUCD) within 3 Months and its Causes

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ARTICLE INFO

Key Words:

Intrauterine Devices, Discontinuation, Side Effects

How to Cite:

Mand, Q. Z. ., Rashid, M. ., Mughal, M. ., Matloob, I. ., Noreen, A. ., Khurshid, K. ., & Usman, M. (2023). To Determine the Frequency of Discontinuation of Post-Partum Intra Uterine Contraceptive Device (PPIUCD) within 3 Months and its Causes: Frequency of Discontinuation of PPIUCD. *Pakistan Journal of Health Sciences*, 4(06), 248–252. <https://doi.org/10.54393/pjhs.v4i06.889>

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Received Date: 2nd June, 2023

Acceptance Date: 22nd June, 2023

Published Date: 30th June, 2023

ABSTRACT

Pakistan has a high fertility rate of 3.8 and a low contraceptive prevalence of 35%. Worldwide studies have shown that poorly spaced pregnancies have a negative impact on both the health of mothers and their children. **Objective:** To determine the frequency of early discontinuation of post-partum intra uterine contraceptive device within 3 months and its causes. **Methods:** A quantitative cross-sectional study was carried out at Services Hospital Obstetrics and Gynecology unit Lahore for a period of 6 months from 1st October 2022 to 31st March 2023. 236 pregnant women who underwent post-partum intra uterine contraceptive device insertion and agreed for a follow up were recruited after written consent. They were followed up by the researcher himself for 3 months. The data (age, parity, literacy, early discontinuation (yes/no) and factors for discontinuation i.e. side effects, discontinuation for their husband's dislike or in-law's opposition and desire for more children was recorded on a specially designed proforma. **Results:** The frequency of early discontinuation of IUCD was found in 51 (21.61%) patients. Among the causes, side effects (60.78%) was the main cause of discontinuation followed by discontinuation due to their husband's dislike or in-law's opposition (21.57%), desire for more children (5.88%) and myths (3.92%). **Conclusions:** This study concluded that about one third of the patient's frequency of early discontinuation of IUCD was 21.61% with side effects being the main cause of discontinuation followed by discontinuation due to their family pressure.

INTRODUCTION

Pakistan has a high fertility rate of 3.8 and a low prevalence of contraception i.e. 35%. Worldwide studies have shown that poorly spaced pregnancies have a negative impact on both the health of mothers and their children [1]. About 65% of women lack access to contraception. Lack of knowledge, the absence of easily available family planning services, and restrictions on women's movement owing to cultural and socioeconomic circumstances are the causes of the poor use of contraception [2]. If the birth takes place in a medical setting, the time of delivery offers the ideal chance to address their need for contraception. Women

are frequently discharged after giving birth and contacted six weeks later for advice on contraception [3]. The two main categories of contraceptive techniques are modern and traditional. The conventional techniques are calendar method and coitus interruptus, however the modern methods include female sterilization, vasectomy, the pill, intrauterine device (IUD), injectables, implants, male condoms, female condoms, lactational amenorrhea, and emergency contraception [4, 5]. Contraceptive cessation rates vary significantly depending on the technique utilized. IUD users typically have the lowest discontinuation

rates, whereas condom users and, to a lesser extent, injectable users have the highest rates [6]. Women with poor parity and those whose planned family size had not been reached at the beginning of the segment of usage are more likely to stop using contraceptives [7]. In deciding whether to use contraception, the choice for family size appears to be more significant than the preference for the sex of children [8]. Women who wish to space their pregnancies, however, are twice as likely to stop using the IUD during the first year as women who want to limit pregnancy. Studies have shown that women who are younger, have less education, have tried other forms of contraception, and are more likely to stop using IUDs. However, education does not always appear to be a significant factor [9, 10]. IUCD discontinuation was detected in 18.9% of women in the study, and nearly half (49.8%) of the respondents mentioned side effects as the primary motivator, followed by a wish for additional children (34.0%). 7.7% of women also stopped because their spouses disapproved of them or their in-laws objected to them [11]. In another study, adverse effects were the primary factor in early discontinuation (34.7%). Woman's occupational status (house wife 44.9%), husband's occupational status (business 32.7%), illiterate women (26.5%) and urban area (79.6%) were the other factors for early discontinuation [12]. Another study found that pregnancy desire (50.9%), menorrhagia (10.4%), recurrent vaginal infections (9.0%), and other factors were the most frequent causes of cessation [13]. As the contraception for family planning is evolving nowadays in our country, but majority of our public think that intrauterine contraceptive devices are not safe and efficacious for contraception. As there is a racial difference among its acceptability, thus this study generated some useful data for local population. Then based on these results, antenatal counseling should be done in every female for IUD insertion in order to avoid the unwanted pregnancy. Once major factors are identified then efforts can be made to modify these factors like health promotional programs for appropriate management strategies and therapy in order to decrease the discontinuation of IUD.

METHODS

After approval from institutional ethical review committee the quantitative cross-sectional study was carried out in Department of Obstetrics & Gynecology, Services Hospital, Lahore from 1st October 2022 to 31st March 2023. Non-probability, consecutive sampling technique was chosen. Sample size of 236 was calculated by taking 95% confidence level, 5% margin of error and taking expected percentage of rate of early discontinuation of IUD as 18.9% [11]. All pregnant women 20 to 45 years of age undergoing

vaginal delivery or cesarean section who gave written consent for IUCD insertion and agreed for a follow up were included in study. Informed written consent was taken from each woman. All women were followed by researcher himself for 3 months. Those who opted for interval intra uterine contraceptive device, had a contraindication for post-partum intrauterine contraceptive device, did not consented for follow up were excluded from the study. All the data (age, parity, early discontinuation (yes/no) and factors for discontinuation, side effects (yes/no), discontinuation due to their husband's dislike or in-law's opposition (yes/no) and desire for more children (yes/no) was documented on a specially designed proforma. The collected information was analyzed by computer software SPSS version 25.0. Mean and standard deviation were calculated for quantitative variables i.e. age and parity. Frequency and percentage were calculated for qualitative variables i.e. early discontinuation (yes/no) and factors for discontinuation.

RESULTS

Age range was from 20 to 45 years with mean age of 28.36 ± 5.77 years. Majority of the patients 159 (67.37%) were between 20 to 30 years of age as shown in Table 1.

Table 1: Distribution of patients according to Age (n=236)

Age (In years)	No. of Patients
20-30	159(67.37)
31-45	77(32.63)
Total	236(100)

Mean \pm SD = 28.36 ± 5.77 years

Mean parity was 2.36 ± 0.84 (Table 2).

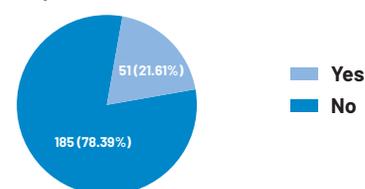
Table 2: Distribution of patients according to parity (n=236)

Parity	No. of Patients
≤ 2	140(59.32)
> 2	96(40.68)

Mean \pm SD = 2.36 ± 0.84

Frequency of early discontinuation of IUD was found in 51 (21.61%) patients (Figure 1).

Figure 1: Frequency of early discontinuation of IUD (n=236)



In this study, side effects (60.78%) are the main cause of discontinuation followed by discontinuation for their husbands' dislike or in-law's opposition (21.57%), uneducated (7.84%), desire for more children (5.88%) and myths (3.92%) as shown in Table 3.

Table 3: Frequency of causes of early discontinuation of IUD (n=51)

Causes	No. of Patients
Uneducated	04(7.84)
Side effects	31(60.78)
Discontinued due to their husbands' dislike or in-law's opposition	11(21.57)
Desire for more children	03(5.88)
Myths	02(3.92)

DISCUSSION

IUD usage increased from 11% in the middle of the 1980s to 17% in 2001, making it the second highest long acting reversible contraceptive being used in Pakistan [14]. Surprisingly, public knowledge about IUD and its usage has reduced over time, resulting in the IUD making up only 9.3% of the total number of methods [15]. Furthermore, the rural population uses it even less frequently [15, 16]. No data were available to explain the decline in IUD knowledge and use in Pakistan throughout this time period, however it may be related to vertical programs and the public sector's emphasis on both long-term and short-term solutions. There are little statistics on the usage of IUDs both globally [17] and in Pakistan; surveys conducted in several nations, including the most recent Pakistan Demographic and Health Survey, tend to fail to collect this data [16]. IUD discontinuation rates were recorded as 16.3%, 18.8%, and 22.7% after 6, 12, and 24 months, respectively, in a recent survey of Social Franchise Network clients conducted in 2011 in Sindh and Punjab provinces that was 21.51% in our study. Social Franchise Network is a business model in which service delivery outlets are given licenses to work under its brand name [11]. Additionally, a double-blind clinical trial in Pakistan revealed discontinuation rates of 3 %and 8%, respectively, for the Copper-T and 6 %and 7%, respectively, for the Multiload (copper 375 IUD) [18]. Unpublished statistics also show 12-month IUD dropout rates of up to 23% in a survey of 29 Pakistani districts [19]. In this study, frequency of early discontinuation of IUD was found in 51 (21.61%) patients that was approximately same as our study with side effects (47.06%) as the major cause of discontinuation which in our study was found to be 60.78% followed by desire for more children (33.33%) which in our study was 5.88%, discontinuation due to their husbands' dislike or in-laws' opposition (9.80%) that was 21.57% in our study, and myths(3.92%) that was the same in our study. In a study, discontinuation of IUCD was found in 18.9% women and nearly half (49.8%) of the respondents cited side effects as the main reason for discontinuation, followed by desire for more children at 34.0%. In addition, 7.7% discontinued due to their husbands' dislike or in-law's opposition [11]. In another study, side-effects were the main reason for early discontinuation(34.7%) that was also

the main reason of discontinuation in our study (60.78%). Woman's occupational status (house wife 44.9%), husband's occupational status (business 32.7%), illiterate women (26.5%) that in our study was 7.84% and urban area (79.6%) were the other factors for early discontinuation [12]. In another study, the most common reasons for discontinuation were the desire for pregnancy (50.9%) that was 5.88% in our study, heavy menstrual flow (10.4%), PID (9.0%) and others [13]. Studies have shown that women who are younger, have less education, have used other forms of contraception, and have attempted IUDs are more likely to stop using them. However, education does not always appear to be a significant factor [20, 21]. According to a study by Youssef conducted in Southern Jordan, planned pregnancies were the main driver for the discontinuation of all contraceptive methods [22]. Side effects and health issues, particularly with regard to IUDs, are significant factors in stopping use [21, 23]. Other prevalent causes of discontinuance include irregular bleeding, lower stomach pain, and vaginal discharge [24]. Dropout rates are high among women who take it to space out their pregnancies, and they go down as women get older and have more children. Women without a formal education are less likely to start using, but they are more likely to continue using [25]. Bhat and Halli noted in their article that women who wanted to space their pregnancies were twice as likely to stop using the IUD as those who sought to limit reproduction [26]. Additionally, studies found that as parity rises, IUD dropout rates are likely to decline. Age under 20 and nulliparity are the criteria that have been repeatedly linked to a greater likelihood of IUD discontinuation. It is known that nulligravida women's uterine cavities tend to be shorter, wider, and smaller than those of gravid women, which causes a higher rate of IUD ejection [27]. In a study, the desire for pregnancy was cited by 50.9% of participants as the main reason for IUD removal [28]. This is the main indicator noted by several authors in Kuwait, Irbid, Jordan, Ibadan [29-32]. This is due to the intrauterine device's widespread use as an effective, secure, reversible, and cost-efficient method of contraception [33]. In many cohort studies, between 72 and 96% of women became pregnant right away after having their IUCD removed [34].

CONCLUSIONS

This study concluded that frequency of early discontinuation of IUD was 21.61% with side effects (60.78%) are the main cause of discontinuation followed by discontinuation because of their husbands' dislike or in-law's opposition (21.57%), desire for more children (5.88%), and myths (3.92%). So, we recommend that antenatal counseling should be done in every female for IUD insertion, the expected side effects and when and how they settle - in

order to avoid the unwanted pregnancy. Health promotional programs should be arranged for appropriate management strategies and therapy in order to decrease the discontinuation of IUD.

Authors Contribution

Conceptualization: QZM, MU

Methodology: QZM, IM

Formal analysis: MR, IM, AN

Writing-review and editing: QZM, KK, MU, MM

All authors have read and agreed to the submitted version of the manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Source of Funding

The authors received no financial support for the research, authorship and/or publication of this article.

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