

Women's decision versus couples' decision on using postpartum intra-uterine contraceptives

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Abstract

Background: In conservative societies of low- and middle-income countries, the decision-making process is heavily influenced by male partners.

Aims: To assess the male partner's influence on female partner's ultimate decision regarding uptake of postpartum intra-uterine contraceptive device (PPIUCD)

Methods: This was a prospective, analytical study conducted at Abbasi Shaheed Hospital, Karachi, Pakistan, from 1 March 2016 to 30 August 2016. The study included 566 pregnant women who were counselled regarding postpartum contraception (PPC) and asked to choose their preferred method. The choice was noted before and after discussion with their spouse. Discordance was assessed using McNemar's test for paired samples, taking $P \leq 0.05$ as statistically significant.

Results: Among those counselled, 470 (83.03%) showed willingness to accept PPC. Out of these, 142 (30.2%) chose PPIUCD initially. After discussion with their spouse, only 82 (17.4%) accepted PPIUCD. The discordance between original decision of the woman and final decision to accept PPIUCD was statistically significant ($P < 0.001$).

Conclusions: The discordance between original decision and final decision shows considerable influence by males on uptake of PPIUCD.

Keywords: postpartum contraception, postpartum intrauterine contraceptive device, acceptance, decision-making, discordance

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Introduction

Family planning has been described as a powerful tool to reduce maternal mortality, particularly in countries with high population growth rate and low contraceptive prevalence (1,2). According to surveys in low- and middle-income countries, the number of women wanting to avoid conception and therefore needing effective contraception was 867 million (57%) in 2012 (3). However, the unmet need for modern contraceptives remained significant in South Asia at 83 million (34%), and Sub-Saharan Africa at 53 million (60%) (3). The postpartum period is potentially an ideal time to begin contraception as women are strongly motivated and receptive to accept family planning methods during this time (4,5). Unmet need is especially high in women in the postpartum period (6) and access to safe and effective contraceptive services is of utmost importance for a woman to prevent unwanted/mistimed pregnancy (7).

Intrauterine contraception (IUCD) is the most cost-effective method of contraception today and is accepted worldwide (8). The postpartum insertion of an IUCD provides a convenient opportunity for the woman to receive a long acting reversible contraceptive. This is particularly important for women who have limited access to medical care (9). Contraceptive use in Pakistan is only 35%, with modern methods used by 26.1%. The provision and use of long-term contraceptives such as

IUCD has always been low (around 2%), and the unmet need among married women is 20%. The median interval between births is 28 months and more than one third of Pakistani children are born less than 24 months after a previous birth (10,11).

Barriers to contraception uptake include availability, cost, social or cultural norms and potential conflict with male partner's fertility preferences (12). Barriers to the uptake of postpartum intrauterine device (PPIUD) insertion include provider advice against the IUD, patient failure to return for a postpartum visit, and early repeat pregnancy (13). The International Federation of Gynaecology and Obstetrics (FIGO) has proposed a policy that seeks to institutionalize PPIUD services as a routine part of antenatal counselling and delivery room services, thus ensuring provision of postpartum intrauterine contraceptive device if accepted (9).

Postpartum family planning/ postpartum intrauterine contraceptive device (PPFP/PPIUD) was introduced in the Region as a part of a FIGO initiative for preventing unsafe abortion. (14,15). After the initial success with post-abortion contraception, postpartum contraception (PPC) was also introduced as an essential component (16). The allocated training teams trained a variety of health professionals in inserting copper IUCD and assisted in counselling the women regarding PPC. The Abbasi Shaheed Hospital has made it compulsory to advocate

PPC and encourage the uptake of at least one modern contraceptive method prior to discharge from the hospital (16).

While the obstacle of availability is overcome by PPC facilities and the social and cultural aspects are clarified by effective counselling, the influence of the male partner still remains, especially in male-dominated societies. Studies show a significant impact of male partner's intent on the ultimate use of a contraceptive method by a couple; thus, barriers to women's unmet need for contraception include their husbands' opposition, religious beliefs, poor knowledge, and lack of communication between spouses (17,18,19).

Adoption of PPIUCD as PPC can help meet the unmet need of contraception in Pakistan. Postpartum period is one of the most vulnerable periods where health needs of women as well as the risk of a future unwanted pregnancy should be acknowledged. In this regard uptake of PPIUCD as PPC is crucial. The present study assesses the male partner's influence on female partner's ultimate decision regarding uptake of PPIUCD in a public sector hospital in Pakistan.

Methods

The present research was a prospective, analytical study conducted on pregnant women aged 20–40 years, registered at the antenatal clinic of Abbasi Shaheed Hospital's Gynaecology department. The study was conducted from 1 March 2016 to 30 August 2016. Abbasi Shaheed hospital is a public sector tertiary care centre in Karachi, the most populous city in Pakistan. Karachi has a population of 20 million and is divided into five districts and Abbasi Shaheed hospital receives patients from three out of the five districts. Non probability consecutive sampling technique was used to enroll women. All pregnant women presenting at the antenatal clinic in any trimester who planned to deliver at the facility were told about the study and asked to participate. Those who fulfilled the inclusion criteria and consented to participate were enrolled. Excluded from the study were those with just one antenatal visit and who did not plan to deliver at the facility.

After obtaining written and informed consent, all women who met the inclusion criteria ($n = 566$) received structured counselling by trained health professionals. The women were briefed regarding PPC, its benefits, methods available in the hospital and emphasized the efficacy of PPIUCDs. This approach enabled the woman to make a voluntary and informed choice. At the end of the session women were asked about their willingness to use PPC and to choose a method from the mix provided. If a woman chose IUCD as the preferred contraception she was identified as an 'original PPIUCD acceptor' and labeled as such on her antenatal records. She was asked to discuss this option with her male partner and communicate all the information to him. Women are mostly unaccompanied by their male partners so the consent for this initial counselling was obtained by women only.

On her next visit she was asked about her final decision regarding acceptance. Those who mutually agreed to use PPIUCD were then labeled as 'acceptors'. In cases of decision discordance the reasons for refusals were inquired and further counselling was offered. Those who finally accepted the PPIUCD after all the sessions and had no contraindications to PPIUCD had the device inserted at the facility postpartum. All women provided informed consent and ethical approval for the study was taken from the institutional review board. Data on sociodemographic characteristics including age, socioeconomic status, educational status, occupational status, parity, duration to next delivery, original decision by the woman and final decision were collected in individual files and later included in the data collection form.

Statistical analysis

Data were analyzed using SPSS software program version 15.0 (IBM, Armonk, USA). Frequencies and percentages were calculated for the qualitative variables. The outcome variables were original and final decision by the woman after discussion with her spouse. Effect modifiers were controlled through stratification of maternal age, socioeconomic status, educational status, occupational status, parity range and expected duration to next delivery in order to see their effect on outcome variables. A bivariate analysis was conducted to test for a possible association between each dependent variable and the independent variables. The Pearson chi square test was used to assess associations between variables for an alpha error of 5%. Binomial logistic regression analysis was conducted to measure the strength of these associations. Discordance between the original decision by woman and the decision after discussion was assessed using McNemar's test for paired samples, taking $P \leq 0.05$ as statistically significant.

The variables with their respective categories were: age range (20–25 years, 26–30 years, 30–35 years and 35–40 years); educational status: illiterate (never went to school), primary (grades 1–5), secondary (grade 6–matriculation) and higher (intermediate to graduation); socioeconomic status: lower class (monthly income $\leq 10\,000$ rupees), middle class (monthly income 10 000–40 000 rupees) and upper class (monthly income $> 40\,000$ rupees); occupational status (unemployed/employed); parity range ($< 4 / > 4$); expected duration to next delivery (< 3 years/ > 3 years); original decision to accept PPIUCD (yes/no); and final decision to accept PPIUCD (yes/no).

Results

Contraception

During the study period, 566 women satisfied all inclusion criteria and were counseled regarding PPC; among those counseled, 470 (83.03%) showed willingness to accept PPC. The basic sociodemographic and clinical characteristics of women accepting PPC are shown in Table 1.

The highest percentage of women accepting PPC were as follows: 26–30 years (184, 39.1%), middle class (244, 59.1%), secondary education (200, 42.6%) and unemployed (362, 77%). PPC was accepted by 304 (64.7%) women who wanted an interval of less than three years to next birth and by 368 (78.3%) women who had less than four children (Table 1).

Acceptors of PPIUCD

Out of 470 women who accepted PPC, 142 (30.2%) indicated that PPIUCD was their preferred choice (Table 1).

Table 1. Sociodemographic and clinical characteristics of women accepting postpartum contraception (n= 470)

Characteristics	N	%
Age range		
21–25	76	(16.2%)
26–30	184	(39.1%)
31–35	162	(34.5%)
36–40	48	(10.2%)
Parity		
Less than 4	368	(78.3%)
Greater than 4	102	(21.7%)
Grade		
Lower class	174	(37.0%)
Middle Class	244	(51.9%)
Upper class	52	(11.1%)
Female socioeconomic status*		
Illiterate	28	(6.0%)
Primary	172	(36.6%)
Secondary	200	(42.6%)
Higher	70	(14.8%)
Female occupational status		
Unemployed	362	(77.0%)
Employed	108	(23.0%)
Age range		
Less than 3 years	304	(64.7%)
More than 3 years	166	(35.3%)
Original decision		
Original refuser	328	(69.8%)
Original acceptor	142	(30.2%)
Age range		
Less than 3 years	304	(64.7%)
More than 3 years	166	(35.3%)

*Socioeconomic status: lower class (monthly income ≤ 10 000 rupees), middle class (monthly income 10 000–40 000 rupees), and upper class (monthly income > 40 000 rupees)

**Educational status: illiterate (never attended school), primary (grades 1–5), secondary (grade 6–matriculation) and higher (intermediate to graduation)

With regard to their initial decision, the PPIUCD was most acceptable to women aged 36–40 years (16, 33.33%), higher education (30, 42.9%), upper class (24, 46.2%) and employed (52, 48.1%). The PPIUCD was accepted by 56 women (33.7%) who wanted an interval of more than three years to next birth and had less than four children (118, 32.1%). Higher socioeconomic status ($P = 0.024$) and being employed ($P < 0.001$) was significantly associated with a woman's decision to opt for PPIUCD (Table 2).

Post-discussion with spouse

Following discussion with their spouse, only 82 (17.4%) accepted PPIUCD (Table 1). Only 12 (23.1%) women of higher socioeconomic status were able to convince their husbands. Those with higher education fared better and reached consensus in 22 (31.4%) cases ($P = 0.006$). Compared to those unemployed, only 24 (22.2%) of employed women decided to receive PPIUCD post-discussion ($P = 0.136$). Thus, only educational status showed significant association with the final decision of woman to select PPIUCD ($P = 0.006$) (Table 2).

Association between original choice and characteristics of women

Women of higher socioeconomic status were twice as likely to choose PPIUCD as their original decision ($P = 0.005$) compared to women of lower status. Women with higher education were more likely to opt for PPIUCD as compared to illiterate women ($P = 0.002$). Those employed were 3.9 times more likely to accept PPIUCD than those not employed ($P < 0.001$). Women with less than four children were more than twice as likely to accept PPIUCD compared to those with more than four children (0.003) (Table 3).

Association between final decision and characteristics of women

After discussion with their spouse, women who were employed ($P = 0.027$) or had higher education were more likely to accept PPIUCD ($P = 0.004$) (Table 3). Thus, the multiple regression confirmed that accepting PPIUCD was associated with higher socioeconomic status of woman and being employed. It also showed a significant association between higher education of woman and having less than four children. This analysis further confirmed the association between educational status of woman and her final decision of accepting PPIUCD even after discussion with spouse.

Discordance as shown by McNemar test

The discordance between original decision of women and final decision to accept PPIUCD was statistically significant ($P < 0.001$) (Table 4).

Table 2. Percentage of women accepting PPIUCD at initial visit and those accepting PPIUCD after discussion with male partners

Characteristics	Count (accepters of PPC) N= 470	Women accepting PPIUCD at initial visit (original decision) n= 142		Women accepting PPIUCD after male partner consultation (final decision) n=82	
		(n) percentage	P value ^a	(n) percentage	P value ^a
Age range					
21–25	76	22 28.9%	0.877	8 10.5%	0.218
26–30	184	58 31.5%		38 20.7%	
31–35	162	46 28.4%		26 16.0%	
36–40	48	16 33.3%		10 20.8%	
Female socioeconomic status					
lower class (monthly income ≤ 10 000 rupees)	174	46 26.4%	0.024*	34 19.5%	0.234
middle class (monthly income 10 000–40 000 rupees)	244	72 29.5%		36 14.8%	
upper class (monthly income > 40 000 rupees)	52	24 46.2%		12 23.1%	
Female educational status					
Illiterate	28	8 28.6%	0.092	4 14.3%	0.006*
Secondary	172	50 29.1%		30 17.4%	
Primary	200	54 27.0%		26 13.0%	
Higher	70	30 42.9%		22 31.4%	
Female occupational status					
unemployed	362	90 24.9%	<0.001*	58 16.0%	0.136
employed	108	52 48.1%		24 22.2%	
Parity					
less than 4	368	118 32.1%	0.097	64 17.4%	0.952
greater than 4	102	24 23.5%		18 17.6%	
Duration to next delivery					
less than 3 years	304	86 28.3%	0.219	52 17.1%	0.792
more than 3 years	166	56 33.7%		30 18.1%	

^aPearson's chi-square test

*P value is significant at < 0.05 level

Table 3. Variables associated with choosing PPIUCD at initial visit and choosing PPIUCD after consultation with male partner: binomial logistic regression (n=470)

Model	B	Odds Ratio	95% CI	P value
Women choosing PPIUCD as PPC (original decision)				
Socioeconomic status	1.038	2.822	1.361-5.853	0.005
Upper	-0.094	0.910	0.556-1.490	0.005
Middle				0.708

Table 3. Variables associated with choosing PPIUCD at initial visit and choosing PPIUCD after consultation with male partner: binomial logistic regression (n=470)5 (concluded)

Model	B	Odds Ratio	95% CI	P value
Lower(reference)				
Educational status	-0.679	0.507	0.186-1.379	0.002
Illiterate	-1.288	0.276	0.142-0.536	0.183
Primary	-0.896	0.408	0.223-0.748	<0.001
Secondary				0.004
Higher(reference)				
Occupational status (employed)	1.368	3.928	2.344-6.582	<0.001
Parity (<4)	0.957	2.604	1.373-4.936	0.003
Women choosing PPIUCD after male partner consultation (final decision)				
Occupational status (employed)	0.681	1.977	1.081-3.615	0.027
Educational status	-1.157	0.315	0.094-1.048	0.004
Illiterate	-1.049	0.350	0.172-0.712	0.060
Primary	-1.227	0.293	0.148-0.581	0.004
Secondary				<0.001
Higher(reference)				

Predictive variables: age range (20-25 years:1/ 26-30years:2/ 30-35 years:3/ 35-40 years:0); educational status[Illiterate (Never went to school):1/ Primary (Class1-5):2/ Secondary (Class 6-Matric):3/ Higher (Intermediate to graduation):0]; socioeconomic status lower class (monthly income ≤ 10 000 rupees):0/ middle class (monthly income 10 000-40 000 rupees) 1/upper class (monthly income > 40 000 rupees) 2] occupational status(employed:1/employed:0); Parity range(<4:1 />4:0) ; expected duration to next delivery(< 3 years:1/>3 years:0)

Table 4. Discordance between original decision by woman and the decision after consultation with male partner

Model	Final decision regarding acceptance of PPIUCD after consulting male partner		P value ^a
	refuser	acceptor	
Original decision regarding acceptance of PPIUCD (woman's decision)			
original	328	0	<0.001*
refuser	(84.5%)	(0%)	
original	60	82	<0.001*
accepter	(15.5%)	(100.0%)	

^aMcNemar's test

*P value is significant at < 0.05 level

Model summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	524.901 ^a	.103	.146

^aEstimation terminated at iteration number 4 because parameter estimates changed by less than 0.001.

Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	7.884	8	.445

Discussion

The results of this evaluation showed that willingness to start PPC in women is high at almost 80%. The uptake of PPIUCD in this population was also significant, with

three out of every ten women opted for PPIUCD (30.2%); this is notable progress considering the prevalence of IUCD uptake in the Region of just 2% (10,11). In the current study, women of aged over 26 years, wanting contracep-

tion for less than three years and having fewer children were more inclined to using PPC. This trend suggests the success of fertility awareness programmes that have been implemented by the government and certain non-government organizations (20,21).

It was unsurprising that employed women belonging to upper social classes wishing to limit family size were three to four times more likely to opt for PPIUCD compared to women coming from the lower and middle classes, unemployed, or having more children. Their decision to accept PPIUCD reflects their empowerment as individuals in society. A similar trend has been reported from other low and middle-income countries where unmet need for family planning is strongly influenced by woman's status and her spouse's will to use any contraceptive method (22). These women represent an independent and wage earning section of society and who can take certain decisions for themselves.

Elsewhere in the world, such as Tanzania (23) and Kenya (24), contraception is usually a couple's decision. However, when the male partner was involved in the decision, one out of every three women who initially accepted PPIUCD declined its use as PPC (17.4% post discussion with spouse versus 30.2% when initially offered PPIUCD). This result concurs with the conclusion of a Mozambican study where a husband/partner's healthcare decision-making power in the relationship had a significantly negative effect on a Mozambican woman's intention to use contraceptives (25).

Women who were educated were more likely to convince their spouses and the education level of the woman was associated with agreement on their decision to use PPIUCD. The proportion of employed women accepting PPIUCD compared to those unemployed did not show a statistically significant association initially, but when regression analysis was performed, employed women were twice as likely to convince their spouse. Therefore, having a higher level of education and employment were significantly associated with accepting a reliable, long acting, coitus independent method such as PPIUCD. This finding concurs with a report from Pakistan indicating that contraceptive use was strongly associated with woman's education (26).

This result may simply reflect a generally greater resistance to PPIUCD from male spouses or it may be that women who are less educated or are not employed are not able to negotiate their decision (27). A possible rationale behind this connection is that the financial contribution made by women enables them to control certain decisions including their reproduction (28).

Before the advent of PPC services in the delivery rooms of the hospital, it was believed that women would not opt for PPC immediately after birth. The fact that after a relatively short period of time, 30% of women chose to use PPIUCD despite their almost total lack of familiarity with PPC methods suggests that acceptance of PPIUCD may increase markedly once these methods become better known (29). Counselling improves the odds of acceptance

of contraception postpartum and it has been suggested that counselling should start from the antenatal period (30,31). Abbasi Shaheed hospital incorporated such counselling for women coming for antenatal visits, but the women are usually unaccompanied by men. Even when they are accompanied, most men are conservative and do not approve of discussions that involve contraception.

Two out of three women were able to convince their spouse, which shows the quality of counselling that is being received by women. However, the simultaneous opposition from spouses is alarming and needs to be addressed. If one out of every three women drops out just because they were unable to convince the spouse, unmet need for family planning would still remain. Despite the fact that services are being provided at the institution, women would still be unable to adopt their preferred method of contraception. It is believed that this is the first analysis to report the impact of this discordance on women's uptake of PPIUCD as PPC since the inception of these services in the country.

Limitations

The primary limitation of the study is its single centre design, which can affect the generalizability of results. Another limitation is the fact that women were unaccompanied during antenatal visits and they had to convey the content of counselling to their male partners. To overcome this, another session was conducted for all refusers to ensure that all information is conveyed, yet some bias still remains. Further qualitative studies using in-depth interviews and focus group discussions to understand and analyze the beliefs and attitudes of women, their power balance as well as the perspectives of husbands, are needed.

Policy implications

Awareness programmes regarding PPC for males are crucial for increasing its acceptance rate. A separate counselling session for male partners needs to be included and deemed mandatory for all hospital births to ensure uptake of PPC.

Conclusion

The discordance between original decision and final decision shows considerable influence by males on uptake of PPIUCD. Our study shows that one out of every three women who originally prefers PPIUD drops out just because they are unable to convince their spouse. Programmes that incorporate counselling for male partners need to be initiated in these male-dominated societies. Reasons for resisting PPIUCD by male partners need to be elucidated and clarified. For any family planning programme to reach its full potential, inclusion of male partners essential.

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Competing interests: None declared.

Décision des femmes contre décision des couples pour le recours aux dispositifs intra-utérins du postpartum

Résumé

Contexte : Dans les sociétés conservatrices des pays à revenu faible et intermédiaire, le processus décisionnel est fortement influencé par les partenaires masculins.

Objectifs : Évaluer l'influence du partenaire masculin sur la décision finale du partenaire féminin concernant l'acceptation d'un dispositif contraceptif intra-utérin pendant la période du postpartum (DIUPP).

Méthodes : Il s'agissait d'une étude prospective et analytique menée à l'hôpital Abbasi Shaheed, Karachi (Pakistan), du 1^{er} mars au 30 août 2016. L'étude comprenait 566 femmes enceintes ayant reçu des conseils sur la contraception du postpartum et ayant été invitées à choisir leur méthode préférée. Le choix a été noté avant et après discussion avec leur conjoint. La discordance a été évaluée à l'aide du test de McNemar pour les échantillons appariés, en prenant $p \leq 0,05$ comme valeur statistiquement significative.

Résultats : Parmi les personnes conseillées, 470 (83,03 %) s'étaient dites prêtes à accepter la contraception par dispositif intra-utérin. Parmi celles-ci, 142 (30,2 %) avaient choisi le DIUPP initialement. Après discussion avec leur conjoint, seulement 82 (17,4 %) ont accepté le DIUPP. La discordance entre la décision initiale de la femme et la décision finale d'accepter le DIUPP était statistiquement significative ($p < 0,001$).

Conclusions : La discordance entre la décision initiale et la décision finale montre une influence considérable des hommes sur l'acceptation du DIUPP.

قرار المرأة مقابل قرار الزوجين بشأن استخدام وسائل منع الحمل داخل الرحم (اللولب) بعد الولادة

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الخلاصة

الخلفية: في المجتمعات المحافظة للبلدان منخفضة ومتوسطة الدخل، تتأثر عملية اتخاذ القرار بالشركاء الذكور بشدة.

الأهداف: تقييم تأثير الشريك الذكر على القرار النهائي للشريكة الأنثى فيما يتعلق باستخدام وسيلة منع الحمل داخل الرحم بعد الولادة.

طرق البحث: أجريت هذه الدراسة التحليلية الاستباقية في مستشفى عباسي شهيد، بمدينة كراتشي، باكستان، في الفترة من ١ مارس/آذار ٢٠١٦ حتى ٣٠ أغسطس/آب ٢٠١٦. وشملت الدراسة ٥٦٦ امرأة حامل حصلوا على استشارات بشأن وسيلة منع الحمل بعد الولادة وسُئلوا عن اختيار وسيلتهم المفضلة. كما سُئلوا عن اختيارهن قبل وبعد مناقشة أزواجهن. وتم تقييم اللاتوافق باستخدام اختبار مكناير للعينات المزدوجة، مع اعتبار $P \leq 0,05$ ذات دلالة إحصائية.

النتائج: ومن بين النساء اللاتي حصلن على استشارات، أظهرت ٤٧٠ (٨٣,٠٣%) امرأة رغبتهن في قبول وسيلة منع الحمل بعد الولادة. ومن بينهن، اختارت ١٤٢ (٣٠,٢%) امرأة وسيلة منع الحمل داخل الرحم بعد الولادة. وبعد مناقشة أزواجهن، قبلت ٨٢ (١٧,٤%) امرأة فقط وسيلة منع الحمل داخل الرحم بعد الولادة. وكان اللاتوافق بين القرار الأصلي للنساء وقرارهن النهائي بقبول وسيلة منع الحمل داخل الرحم بعد الولادة ذا دلالة إحصائية ($P < 0,001$).

الاستنتاجات: يوضح اللاتوافق بين القرار الأصلي للنساء وقرارهن النهائي تأثرهن الكبير بشركائهن الذكور فيما يتعلق باستخدام وسيلة منع الحمل داخل الرحم بعد الولادة.

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