ORIGINAL ARTICLE

Change in Post Partum Family Planning Behaviour Observed in Pakistani Men and Women in a Squatter Settlement in Karachi: A Pre-Post Observational Study

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ABSTRACT

Background: Unfortunately, in Pakistan, there are many myths associated with family planning practices hence general reluctant perception of couples is observed especially just after childbirth. In fact, post partum is the most vulnerable period to discuss contraception. In our study, we aimed to see the change in post partum contraceptive behaviours after thorough counselling to individuals in a squatter settlement in Karachi, Pakistan.

Methods: This is a pre-post observational study done from September 1st 2018 until November 15th 2018 in a squatter settlement in Sikanderabad Karachi. A total of 1023 subjects, both males and females of reproductive age group were recruited in the study. The base line knowledge was assessed by using pre-prepared extensive questionnaire adapted from Best Paper Practice (BPP) PPFP (Post Partum Family Planning) Royal College of Obstetrics and Gynaecology (RCOG) about contraceptive behaviours, after taking informed consent and providing privacy. After filling the pre-test forms, an awareness talk describing the advantages and disadvantages of all methods of contraception currently available in Pakistan, was discussed in detail. Data was analyzed using SPSS 20 filled a post-test questionnaire consisting of the same questions. Mc-Nemar's test was used to see the difference in the pre and post questionnaire. p-value <0.05 was considered significant.

Results: Knowledge of use, side effects and efficacy of all the contraceptive methods was enhanced considerably post session showing statistically significant results (p-value <0.00).

Conclusion: It is clearly seen that giving contraceptive education helped couples to choose the appropriate contraceptive method to give birth spacing.

Keywords: Obstetrics; Gynaecology; Contraception; Progesterone.

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INTRODUCTION

Family planning is defined by WHO as "a way of thinking and lining that is adapted voluntarily, upon the basis of knowledge, attitudes and responsible decisions by individuals and couples, in order to promote the health and welfare of family group and thus contribute effectively to the social development of a country" [1]. Family planning is desperately needed in Pakistan due to the rapid increase in population. There are many factors, which are hindering in effectively providing family planning in Pakistan such as low literacy rate, poverty, religious beliefs, inadequate access, misconceptions, poorly trained providers and insufficient health care programs. Even in developed countries like Canada, the level of education regarding OCP's side effects and

benefits was not adequate to use them without any hesitation[1].

As OCPs are the most commonly used method[2] but the misperception about side effects and any bad experience resulted in their non-use[3] so considering that, counselling plays a tremendous role in providing satisfaction to effectively select their desired method, which ultimately leads to good compliance with the chosen method[4]. These barriers were also observed in our study, which was done at Sikanderabad where the average family size is 8-9 people. It is not considered norm in this area to talk about family planning matters. It is therefore important to raise the awareness of contraceptive methods and thus individuals could plan their birth spacing and enjoy a healthy life. Although there is remarkable progress in making contraception widely available, there is poor acceptance of these methods due to lack of adequate knowledge and information about their use. In keeping, all the above facts in view this study was carried out to determine the change in postpartum contraceptive behaviours by assessing the knowledge, attitude and practice of contraceptive methods

METHODS

A total of 1023 subjects as taken in previous studies[5] both males and females of reproductive age group, 15-45 years were enrolled in the study. A group of 4th year undergraduate students assessed the base line knowledge of contraceptive behaviours individually after taking informed consent and providing privacy. After filling the pre-test questionnaire adapted from Best Practice Paper (BPP) Post Partum Family Planning (PPFP) RCOG, an awareness talk describing the advantages and disadvantages of all methods of contraception currently available, was discussed. The discussion was interactive and all concerns and queries were addressed and answered. Brochures and handouts with pictures were given to the participants in addition to 20 minutes thorough discussion about family planning methods.

Interpreters were present to minimize language barriers as some of the subjects spoke Pushtun language. The participant to see the change in contraceptive behaviour filled a post-test questionnaire consisting of the same questions. Data was analyzed using SPSS 20. Mean and standard deviation were taken out for numerical variables, frequency, and percentage for categorical data. Mc-Nemar's test was used to see the difference in the pre and post knowledge about use, efficacy and side effects. p-value <0.05 was considered significant

RESULTS

Mean age of the participants was 30±9 years. Majority participants were females (87.3%) while 12.7% were males. Most of the subjects were married (87.1%) while 9.6% were single and 2.5% divorced. Mean years of marriage was seen to be 10±8 years. Mean number of off springs were 3±2. When educational status was inquired, majority (52.7%) were uneducated. Maximum number of subjects (75.3%) earned less than Rs. 30000 as demonstrated in Table 1.

Table 1: Distribution of participants with respect to demographic indicators.

Indicators		Frequency	%
Age (Year)	(Mean±SD)	30±9	
Gender	Female	893	87.3%
	Male	130	12.7%
Marital Status	Single	98	9.6%
	Married	891	87.1%
	Divorced	26	2.5%
	Widowed	8	0.8%
Duration of Marriage (Year)	(Mean±SD)	10±8	

No. of Children	(Mean±SD)	3±2	
Education Status	Uneducated	539	52.7%
	Metric Equivalent	201	19.6%
	Inter - Equivalent	185	18.1%
	Undergraduate	98	9.6%
Monthly Income (PKR)	<30,000	770	75.3%
	30,000 - 60,000	230	22.5%
	60,000 - 99,999	0	0.0%
	1,000,000+	23	2.2%
Househ old Members	(Mean±SD)	6±3	
Total		**1023**	

It was seen in our study that 65 and 223 participants who had no prior knowledge about the adverse effects and efficacy of condoms respectively pre-session, became aware of them post session, however 762 and 559 subjects remained unaware even after the educational session. Similarly, 8 and 86 subjects who were aware of condoms' adverse effects and efficacy respectively remained knowledgeable post session while 188 and 155 subjects remained ignorant post session as demonstrated in Table 2 and 3. All results are statistically significant (p-value <0.0001.

Table 2: McNemar's test to assess knowledge about use and side effects before and after session on family planning contraceptives.

Family Planning Contraceptive		**Post Session Usage**		**Post session Side effects**		**p-Value**
Pre-Session		**Ignorant**	**Enlightened**	**Ignorant**	**Enlightened**	
POP	Ignorant	217	664	213	657	<0.0001*
	Enlightened	42	100	47	106	
COCP	Ignorant	119	704	267	581	<0.0001*
	Enlightened	22	178	27	148	
Progesterone Injection	Ignorant	176	715	273	573	<0.0001*
	Enlightened	11	121	14	163	
IUCD	Ignorant	176	692	279	583	<0.0001*
	Enlightened	21	134	41	120	

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TL	Ignorant	114	833	416	500	<0.0001*
	Enlightened	13	63	65	42	
Vasectomy	Ignorant	222	684	37	32	<0.0001*
	Enlightened	1	116	405	566	
ECP	Ignorant	285	622	405	566	<0.0001*
	Enlightened	35	81	19	33	

*COCP: Combined Oral Contraceptive Pill; IUCD: Intrauterine Contraceptive Device; TL: Tubal Ligation; ECP: Emergency Contraceptive Pill *Significant at <0.05*

704, 581 and 250 participants had no baseline knowledge about COCs about the usage, adverse effects and efficacy respectively became aware of it however, 119, 267 and 642 subjects respectively did not gain any knowledge post session. 178, 148 and 24 participants who had adequate knowledge about the use, side effects and efficacy of COCs respectively retained their knowledge while 22, 27 and 79 respectively could not recall represented graphically in Graph 1 and 2. All results were statistically significant (p-value<0.0001).

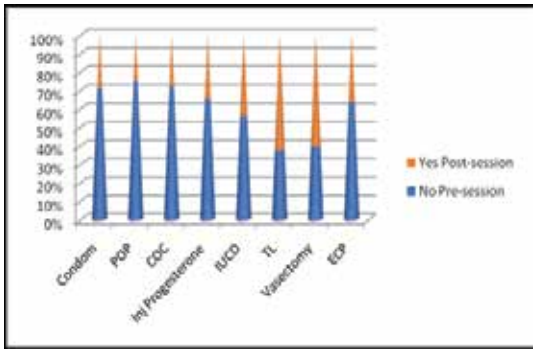
Table 3: McNemar's test to assess knowledge about efficacy before and after session on family planning methods.

Family Planning Contraceptive		**Post Session**		**p-Value**
Pre-Session		**Ignorant**	**Enlightened**	
Condom	Ignorant	559	223	<0.0001*
	Enlightened	155	86	
POP	Ignorant	682	230	<0.0001*
	Enlightened	87	24	
COCP	Ignorant	642	250	<0.0001*
	Enlightened	79	52	
Progesterone Injection	Ignorant	603	316	<0.0001*
	Enlightened	38	58	
IUCD	Ignorant	527	407	<0.0001*
	Enlightened	50	39	

TL	Ignorant	335	552	<0.0001*
	Enlightened	75	61	
Vasectomy	Ignorant	366	557	<0.0001*
	Enlightened	30	70	
ECP	Ignorant	606	349	<0.0001*
	Enlightened	30	38	

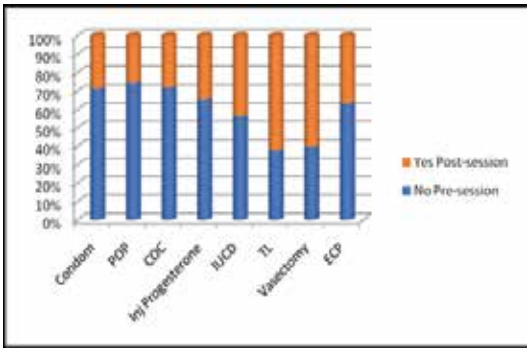
*COCP: Combined Oral Contraceptive Pill; IUCD: Intrauterine Contraceptive Device; TL: Tubal Ligation; ECP: Emergency Contraceptive Pill *Significant at <0.05*

When knowledge about inject able progesterone was assessed, it was seen that 715, 573 and 316 participants who had no clue regarding inject able progesterone's usage, adverse effects and efficacy respectively, gained awareness post session however 176, 273 and 603 respectively remained unaware post session. Whereas 11, 14 and 38 subjects who had previous knowledge regarding inject able progesterone's usage, adverse effects and efficacy respectively became unaware post session however 121, 163 and 58 respectively were able to recall all knowledge post session, shown in Table 2 and 3, all statistically significant (p-value <0.0001).



(a)

Graph 1a: Change in contraception behaviour pre and post session about side effects of various contraceptive methods.



(b)

Graph 1b: Change in contraception behaviour pre and post session about efficacy of various contraceptive methods.

Regarding knowledge about the usage, side effects and efficacy of IUCD, 692, 583 and 407 respectively ignorant subjects pre-session, gained knowledge, however 176, 79 and 527 respectively were not able to do so post session. Whereas 21, 41 and 50 subjects who already had some information about IUCD usage, adverse effects and efficacy respectively were unsure post session while 134, 20 and 39 respectively were able to recall post session, pictorially shown in Graph 1 (a, b), all statistically significant (p-value <0.00).

As far as permanent methods of contraception are concerned such as Tubal Ligation, 833, 500 and 552 subjects who were unsure about its usage, adverse effects and efficacy respectively pre-session were able to gain knowledge post session however, 114, 416 and 335 respectively were not able to do so. 63,42 and 61 who had all information about TL's usage, adverse effects and efficacy pre-session

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respectively retained the information however 13, 516 and 30 participants respectively were not able to recall post-session, as depicted in Table 2 and 3, all statistically significant (p-value <0.0001). As regards to ECP knowledge of usage, adverse effects and efficacy 622, 566 and 349 respectively who had no clue pre-session, gained information whereas 285, 405 and 606 respectively remained ignorant. Similarly 81, 33 and 38 who had knowledge about ECP's usage, adverse effects and efficacy respectively pre-session were able to recall post session, however 35, 19 and 30 became unaware post session as demonstrated in Graph 1 (a, b), all statistically significant (p-value <0.001).

DISCUSSION

Our study proved that knowledge regarding contraceptives is greatly enhanced post session with statistically significant results. A systematic review reiterated the benefits of awareness session on knowledge of various contraceptive methods[6]. Similar results were seen in a study done in Kashmir valley[7]and Spain[8]. Lack of information pre-test proves that public at large are generally unaware of contraceptive information. During postpartum period, the common reasons of contraception non-use is not having good information about contraception[9-11]. During the postpartum period, home visits to educate them have resulted in remarkable usage of contraceptives[12]. The decision of choosing the contraceptive method that effectively fulfils the need, desire and effectiveness is a complex step that will ultimately reduce the rate of not using the contraceptive methods and unwanted pregnancies[13].

In our study, we used a range of intervention methods such as brochures, printouts, audiovisuals and counselling session that proved to enhance the ideology of family planning methods. Results of a systematic review published in 2015 were consistent with the evidence that a range of educational interventions can help increase knowledge about the use of contraceptive methods[14].

In addition, a study done in Netherlands proved that in post partum contraceptive health education, women tend to choose a different contraceptive method than previously used. Educating women have an effect on their choices to the extent that women previously prone towards OCPs, chose either patch 16% or ring 65% (p<0,0001)[15].

The result collaborates with another study conducted in Switzerland in which 40% of women chose a different contraceptive than they were previously using after the post partum contraception counselling. They were imparted information about risk, side effects and benefits of each contraceptive method. Post-counselling, women who were not on any contraceptive method, 93% of them chose a contraceptive method. In addition, vaginal ring users (28% vs. 11% previously) and patch users (7% vs. 4% previously) increased (p <0.0001)[16].

A study in Nigeria showed that male condoms were used mostly as a mean of contraception 10 years ago but after counselling, injectable progesterone were the most common method followed by the oral contraceptives[17]. The post counselling knowledge increased significantly, from 5.5 points to 7.8 points (t = -16.7281, p = 0.0000, df = 460). In addition, the contraceptive prevalence rate also increased considerably, from 11.8% pre-counselling to 22.4% post-counselling (McNemar's x^2 = 125.41, p = 0.0000)[17].

A study done in New York showed the difference counselling makes by comparing women who had no counselling to women who were counselled in either prenatal/ postnatal period and women who were counselled in both (prenatal and postnatal). The study showed that they had 2.01 (95% CI, 1.55e2.59) and 2.74 (95% CI, 2.18e3.45) (p<0.000) increased odds, respectively, by using any method postpartum[18]. Hence, we can establish the benefits of contraceptive counselling. A study in India emphasizes the importance of contraceptive health education. Since, 97% women had little to no knowledge of contraceptive methods pre-counselling, however the proportion increased to 31% in average and 97.4% women with good knowledge post-contraceptive counselling[19].

Contraceptive education not only increases knowledge but it also changes one's perspective towards contraception and helps in deciding the most effective method[20,21]. Involving husbands in family panning counselling sessions can lead to mutual decision and ease the burden of decision making on women. Including religious leaders, community leaders and health workers can make health education sessions more effective and address the religious and socio-cultural concerns[22]. Depriving women of contraceptive counselling is equivalent to refusing to entitle women so contraceptive counselling should be an integral part[23]. This clearly reflects that better knowledge leads to adoption of more reliable contraceptive methods. Hence, promoting postpartum contraceptive counselling has a favourable impact on women. It enables them to have adequate space between births leading to healthy mothers[24]. It also changes the attitude towards contraceptives and enables them to decide more effective method[25]. The sample in our study mainly comprises Pashtun people in Sikanderabad. The women were counselled regarding postpartum contraceptives, however to make it more effective, men should be a part of counselling. We did not

follow women over a period to assess the impact of knowledge on their contraceptive habits and did not counsel from time to time in antenatal as well as postpartum period.

CONCLUSION

Family planning is the critical need for developing countries like Pakistan. To overcome the obstacles that are making difficult for contraception to become prevalent, education of people is very important. As it is evident from our study that how counselling markedly increased the awareness, attitude and knowledge about the various contraceptive methods and the postpartum counselling is the best time to counsel a woman for birth spacing and also to maintain a good health. Hence, we can establish the significant role of a good, well strategic counselling in increasing the knowledge about contraception, which will eventually lead to the safe and effective use of contraceptive methods.

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CONFLICT OF INTEREST

The authors declare no conflict of interest among them.

ETHICS APPROVAL

The Ziauddin Medical University has ethically approved the study.

PATIENT CONSENT

Each study participant was informed about the purpose and anticipated benefits of the research project. They were also informed on their full right to refuse, withdraw and partially reject part or all of their part in the study.

AUTHORS' CONTRIBUTION

SS and RH were involved in conception and designing of the study. MU and SG did bench work and were involved in writing the manuscript. FJ was involved in writing the manuscript, proof reading and supervising the project.

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