Original Article

# Choice of contraceptive method among females attending family planning center in Hayat Abad Medical Complex, Peshawar

Raheelah Amin
Department of Community Medicine, Khyber Girl's Medical College, Peshawar.
**Email: raheelahamin@yahoo.com**

## Abstract

**Objectives:** To identify the pattern and causes of making contraceptive choices among females attending family planning centre in Peshawar, Pakistan.

**Methods:** The simple observational study based on convenient sampling was conducted at the family planning centre of Hayatabad Medical Complex, Peshawar, from October to December, 2010. Included were 104 females who were asked about their contraceptive use and the reason for their decisions. The variable used for contraceptive choices, included effectiveness (against preventing pregnancy), easy availability, side effects of the method, general health issues, cost factor and permanence of the method.

**Results:** It was found that 49 (46.7%) females were currently using injectables; 18 (17.1%) pills; 18 (17.1%) IUDs; 19 (10.5%) tubal ligation; and 9 (8.6%) condoms. The major causes for making the choices were effectiveness (n=32; 30.5%); easy availability (n=19; 18.1%); side effects (n=11; 10.5%); reproductive tract infections (n=3; 2.9%); and cost factor (n=2; 1.9%). Respondents who choose more than one reason were 23.8% (n=25). It was observed that 60% (n=63) of respondents were first-time users, while the rest gave history of using some method in the past. Out of this proportion, pills and barrier method were used in most patients. Among the illiterate group of 35 (55.2%) respondents, 18 (28.6%) chose injectables; 6 (9.5%) chose IUCDs; and 6 (9.5%) tubal ligation. Similarly, 13 (20%) respondents from poor socio-economic group and 15 (22.9%) respondents from the middle group chose injectables.

**Conclusions:** When given choices and balanced information about contraceptives, more women are likely to continue the method. Respondents from the lower socioeconomic and illiterate group chose injectables in high proportion due to their effectiveness and easy availability. Side effects of the method and health concerns were less considered, while the cost factor was the least considered.

**Keywords:** Contraception, Family planning services, Health service delivery. (JPMA 62: 1023; 2012)

## Introduction

The global burden of ill-health from reproductive and sexual diseases accounts about 20% for women and 14% for men.[1] The situation in Pakistan is no more different even offer adding the general load of infectious diseases it. Reproductive ill-health causes problems of general malnutrition and pregnancy complications leading to maternal mortality. Family planning is a way towards better reproductive health.

To achiee Millennium Development Goals (MGDs) target 5-A and 5-B[2] efforts have to be made for providing effective family planning services to the community. Family planning can also help to achieve all MDGs.[3]

Pakistan is one of the countries with a huge population. The fertility rate is about 3.28 children per women[4] and the maternal mortality rate is 280 per 100,000[5] which indicates that higher number of pregnant women are at risk. An effective family planning programme can reduce the burden of unwanted pregnancies and thus improve both the fertility and mortality rates.

Family planning is the fourth pillar of the safe motherhood initiative.[6] Maternal and infant mortality rates can be decreased by reducing unwanted pregnancies which is an outcome of family planning. A successful family planning programme prevents unwanted pregnancies and thus saves and improves lives of women.[7] It becomes very important to successfully launch a family planning programme. Family planning is a cost-effective intervention in under-developed countries. It improves weight, body mass index, vaccination status and overall well-being of the target population.[8]

The unmet need of family planning is 14 per cent (2007) in Pakistan.[9] Patient satisfaction from family planning services is low.[10] Keeping these factors in mind, the study was designed to look into the causes of different choices being made about family planning methods. Family

planning programme is being run in country since the 1960s. It has developed a good infrastructure of service delivery, but when the fertility indicators are taken into account, the achievements of the family planning programme lose much of their gloss.

Expert demographers and family planning specialists have stated that the programme in Pakistan has entered the plateau phase mainly due to the weakened execution at all levels and a narrow method mix, with few effective options of short-term methods. To increase the use of contraceptives in Pakistan, it is very important to get the perspective of users regarding contraceptive choices. The study was designed to look into the factors contributing towards choosing different methods of contraception.

## Subjects and Methods

The simple observational/cross-sectional study was conducted at the Family Planning Centre of Hayatabad Medical Complex, Peshawar, between Oct-Dec, 2010.

On an average, the centre was catering to the needs of 400 clients per month. Total patient inflow in the obstetrics and gynaecology out-patient department was more than 2000/month. As the survey was qualitative in nature, random purposeful sampling method was used. The sample size was calculated at 95% confidence level with 50% margin of answer being yes or no in a population size of 500. The sample size thus, was 104. The margin of error came out to be 8.5%, which should be considerd as a limitation of the study.

Women seeking contraceptive services at the Family Planning Centre of the hospital were included. Patients who did not avail such services at the center, were excluded from the study. A questionnaire was developed and used after pre-testing. Informed consent was taken before distributing the questionnaire.

Socio-demographic characteristics were recorded such as age, education, economic status, number of children and the age of last child born. The main objective of the study was to identify the choice of contraceptive being made on the basis of six pre-determined variables i.e. effectiveness (against preventing pregnancy), side effect from contraceptive use, general health risks, permanence factor (of the method), preventing reproductive tract infections (UTIs) and easy availability.[11] The study population was divided into three groups based on their level or lack of education: illiterate, secondary, and higher. Current method of contraceptive use was recorded along with past usage history along with the reason of discontinuation if any. Data was analysed through SPSS version 17 and various variables were worked out. As data variables were nominal in types cross-tabulation was used. Chi square test with Monte Carlo, correction and Fisher's exact test was used for statistical analysis.

## Results

The age range of the 104 women in the study was from 18 to 45 years, with a mean of 32.6±6.6 years. Most of the respondents belonged to areas adjacent to the hospital. There were 58 (55.2%) illiterate respondents, while 27 (26.7%) had secondary-level education, and 19 (18.1)% had higher education. The majority (n=48; 45.7%) belonged to lower middle class (income between Rs5000-15000/month), while 38 (36.2%) belonged to the poor class (income less

**Table-1: Method in current use & Reason for using that method with level of education.**

| | | Level of Education | | | |
|---|---|---|---|---|---|
| | | **Illiterate** | **Secondary** | **Higher education** | **Total** |
| Method in Current Use | First time user | 0 (---) | 1(1.0%) | 0 (---) | 1(1.0%) |
| | Pills | 7 (6.7%) | 4(3.8%) | 7 (6.7%) | 18(17.1%) |
| | Injectables | 30(28.6%) | 16(15.2%) | 2 (1.9%) | 48(45.7%) |
| | IUCDs | 10 (9.5%) | 5(4.8%) | 3 (2.9%) | 18(17.1%) |
| | Tubal ligation | 10 (9.5%) | 1(1.0%) | 0 (---) | 11(10.5%) |
| | Barrier method | 01 (1.0%) | 1(1.0%) | 7 (6.7%) | 9 (8.6%) |
| Total | 58(55.2%) | 28(26.7%) | 19 (18.1%) | 105(100%) | |
| Reason for using contraceptive method | No reason given | 1(1.0%) | -- | -- | 1(1.0%) |
| | Effectiveness | 19(18.1%) | 8(7.6%) | 5(4.8%) | 32(30.5%) |
| | Cost factor | (--) | 1(1.0%) | 1(1.0%) | 2(1.9%) |
| | Side effect | 4(3.8%) | 3(2.9%) | 4(3.8%) | 11(10.5%) |
| | Permanence | 8(7.6%) | 4(3.8%) | -- | 12(11.4%) |
| | Availability | 12(11.4%) | 4(3.8%) | 3(2.9%) | 19(18.1%) |
| | Infections | 2(1.9%) | 1(1.0%) | -- | 3(2.9%) |
| | More than one factor | 11(10.5%) | 7(6.7%) | 6(5.7%) | 24(22.9%) |
| | More than two factors | 1(1.0%) | -- | -- | 1(1.0%) |
| Total | 58(55.2%) | 28(26.7%) | 19(18.1%) | 105(100%) | |

Statistical test applied for method in current use & level of education; Chi- square test with Monte Carlo correction at 95% confidence interval was found significant i.e. value (0.000). Fisher's exact Test value was 32.752. 10 cells had expected count less then 5. The minimum expected count was 0.18.

**Table-2: Method in current use & reason for using that method compared with family income.**

| | | Family Income | | | |
|---|---|---|---|---|---|
| | | Poor | Lower middle | Upper middle | Total |
| Method in current use | First time user | 0 (---) | 1(1.0%) | 0(---) | 1(1.0%) |
| | pills | 2(1.9%) | 9 (8.6%) | 7(6.7%) | 18(17.1%) |
| | injectables | 21(20%) | 24(22.9%) | 3(2.9%) | 48(45.7%) |
| | IUCDs | 7(6.7%) | 9 (8.6%) | 2(1.9%) | 18(17.1%) |
| | tubal ligation | 7(6.7%) | 4 (3.8%) | 0 (---) | 11(10.5%) |
| | barrier method | 1(1.0%) | 1 (1.0%) | 7(6.7%) | 9 (8.6%) |
| Total | 38(36.2%) | 48(45.7%) | 19(18.1%) | 105(100%) | |
| Reason for using contraceptive method | No reason given | 1(1.0%) | -- | -- | 1(1.0%) |
| | Effectiveness | 11(10.5%) | 17(16.2%) | 4(3.8%) | 32(30.5%) |
| | Cost factor | -- | 1 (1.0%) | 1(1.0%) | 2 (1.9%) |
| | Side effect | 1 (1.0%) | 6 (5.7%) | 4(3.8%) | 11(10.5%) |
| | Permanence | 6 (5.7%) | 6 (5.7%) | -- | 12(11.4%) |
| | Availability | 9 (8.6%) | 7 (6.7%) | 3(2.9%) | 19(18.1%) |
| | Infections | 2 (1.9%) | 1 (1.0%) | -- | 3 (2.9%) |
| | More than one factor | 7 (6.7%) | 10 (9.5%) | 7(6.7%) | 24(22.9%) |
| | More than two factors | 1 (1.0%) | -- | -- | 1(1.0%) |
| Total | 38(36.2%) | 48(45.7%) | 19(18.1%) | 105(100%) | |

Statistical test applied for method in current use & family income: Chi- square test with Monte Carlo correction at 95% confidence interval was found significant i.e. value (0.000). Fisher's exact Test value was 34.604. 12 cells had expected count less then 5. The minimum expected count was 0.18.

**Table-3: Reason for using contraceptive method & Method in current use.**

| | | Method in Current Use | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | First time user | Pills | Injectable | IUCDs | Tubal ligation | Barrier method | Total |
| Reason for using contraccetive method | No reason given | -- | -- | -- | -- | -- | 1(1.0%) | 1 (1.0%) |
| | Effectiveness | -- | 4(3.8%) | 20(19%) | 8(7.6%) | -- | -- | 32(30.5%) |
| | Cost factor | -- | 1(1.0%) | 1(1.0%) | -- | -- | -- | 2 (1.9%) |
| | Side effect | -- | 2(1.9%) | 5(4.8%) | 1(1.0%) | 1(1.0%) | 2(1.9%) | 11(10.5%) |
| | Permanence | -- | -- | 2(1.9%) | 3(2.9%) | 7(6.7%) | -- | 12(11.4%) |
| | Availability | -- | 8(7.6%) | 8(7.6%) | 1(1.0%) | 1(1.0%) | 1(1.0%) | 19(18.1%) |
| | Infections | -- | -- | 2(1.9%) | 1(1.0%) | -- | -- | 3 (2.9%) |
| | More than one factors | 1(1%) | 3(2.9%) | 9(8.6%) | 4(3.8%) | 2(1.9%) | 5(4.8%) | 24(22.9%) |
| | More than two factors | -- | -- | 1(1.0%) | -- | -- | -- | 1 (1.0%) |
| Total | | 1(1%) | 18(17.1% | 48(45.7% | 18(17.1% | 11(10.5% | 9(8.6%) | 105(100%) |

than Rs 5000/month), and belonged to the upper middle class (income more than 15000/month). The mean number of children per woman was 4.5±2.1. The mean age of the last child was 2.2 years ranging between one month and 13 years. Respondents who had a child below six months were 3 (29.5%), below one year but greater than six months, 19 (18.1%); and below two years but greater than one year, 26 (24.8%). Rest of the respondents had older children. Majority of the women (n=66; 62.9%) chose the contraceptive method by themselves, while 12 (12.4%) decided with the help of their relatives, and 26 (24.8%) chose on the advice of healthcare providers.

The method of contraception used was as follows: 9 (8.6%) used barrier methods like condoms; 18 (17.1%) used pills; 49 (46.7%) used injectables; 18 (17.1%) used intrauterine devices; and 11 (10.5%) came for tubal ligation. The pattern of contraceptive used was cross-tabulated with education level and socioe-conomic group (Table-1 and 2). Among the illiterates injectables were popular, followed by IUCDs and tubal ligation.

The women who chose the method because of effectiveness were 32 (30.5%); who considered the cost factor were 2 (1.9%); who considered side effects and health issues were 11 (10.5%); permanence was considered by 12 (11.4%), easy availability was considered by 19 (18.1%); reproductive tract infections were considered by 3 (2.9%); and rest of the respondents (n=25; 23.8%) gave more than two reasons for choosing the contraceptive method (Table-3; Figure).

The reasons for choosing contraceptive methods were cross-tabulated with the level of education and socio-economic status. Almost similar data was observed for levels of education and socio-economic groups in reasons

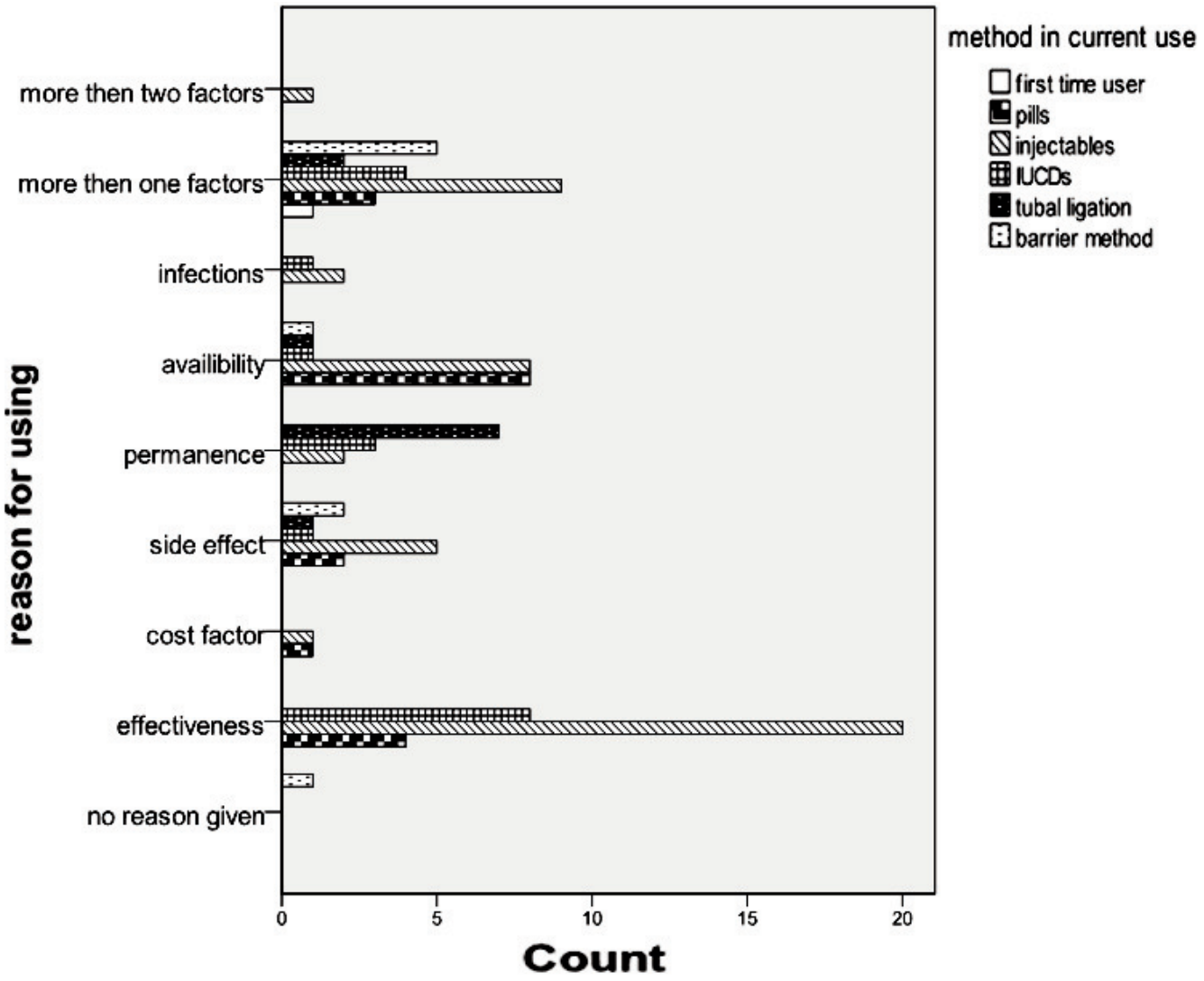


Figure: Comparison of current method in use with reason for choosing the method (data in table III shown in graphical form).

for choosing the contraceptive method. Past history of contraceptive use was present in 14 (39%) respondents.

Contraceptive satisfaction from the current method was expressed by 82 (79%) respondents, while 14 (13.3%) had various complaints and were not satisfied even though they continued to use the same method. The rest (n=8; 7.6%) were first-time users, so could not give any response in this regard. Respondents who had history of unwanted pregnancy in the past were 21 (34.3%).

## Discussion

Resistance to family planning methods is decreasing in many conservative societies. In Afghanistan, for instance, a study showed that religious leaders were more concerned about safety and infertility then religion.[12] Men supported modern contraceptives once they were educated about contraceptive safety, effectiveness and non-harmful side-effects.[12] Many factors are involved in making contraceptive choices.[13]

Studies done in Kasala (Sudan) and Nis (Serbia) have shown that literacy level is strongly associated with the use of contraception.[14,15] As our study was based on a single family planning centre, no conclusion was drawn about the general population and the link with literacy. However, it was found out statistically that the method of choice was strongly related to the level of education. In the illiterate group, the method of choice was injectables, while highly educated group opted more for pills and condoms. Similar results were found for method of contraception and socio-economic status, as the contraceptive method was strongly

related to the socio-economic group.

No significant difference was found in the three groups of illiterate, secondary education and highly educated based on reason for making family planning choices. Effectiveness and easy availability of the method were the main factors in making contraceptive choices.

It was observed that almost half of the women seeking family planning services availed of injectables hormones. Similar findings were reported by other studies as well.[16] Pills and IUCDs were the second most common method in use. A study in Nigeria showed IUCDs as the most commonly used method (74.6%) in females attending family planning centers.[17]

Contraceptive choices are made due to various reasons. Skewed contraceptive method mix is observed in data collected from 34 countries when one method predominated by about 50%. Such a data reflects cultural preferences, social norms, restrictive family planning policies and providers' bias.[18]

In our study, effectiveness of the method was the most important factor for the respondents. It could be one reason for coming to the family planning centre as the injectables and the IUCDs cannot be managed at home. Other studies have shown that IUCDs are the most effective contraceptives with a failure rate of only 0.8%, while the injectables show a failure rate of 3% and pills, 8%.[19]

The study showed that side effects to health were the second major concern while choosing the family planning method as it was believed that weight gain and irregular periods occur because of injectables. Data from other studies show that such beliefs were unimportant and side effects with oral contraceptives are of lesser importance for discontinuation than widely believed.[20] Other studies show that no important increase in non-specific side effects with oral contraceptive occurs and counselling about side effects, even including the label packaging is unwarranted and probably unethical.[21]

The study showed that the majority of women did not want more children, but still opted for semi-permanent methods of short duration as injectables, and tubal ligation were not the methods of choice. Similarly, easy availability of the contraceptives at the Family Planning Centre encouraged its use. Other reasons like reproductive tract infections and the cost of the method were least considered because the contraceptives were available at very nominal charges.

Some studies have concluded that knowledge about specific methods and sources is limited[22] and the use of modern method varies in different South Asian countries.

The users should be given more choices as new safer methods are available. e.g. Levo-norgestrel-releasing intrauterine system. It has shown very good results by combining the benefits of oral contraceptives and copper T.[23] User satisfaction is strongly associated with the information given at the time of the IUCD insertion.[24] Strong advocacy programmes are needed to successfully achieve family planning goals.[25]

A few limitations in the study were observed as data was based on the respondents attending the Family Planning Centre. The data cannot be generalised as females using barrier method or pills are not expected to be regular visitors to family planning centres.

## Conclusion

Provision of family planning services is an issue of human rights and providing choices and information about contraception ensures quality of care which increases the likelihood of the success of the method. More exploratory studies are needed to look at family planning client's perspective.

## References


1. Making Pregnancy Safer & Reproductive Health, WHO. SEARO, WHO [about 2 screens]. (Online) 2009 (Cited 201 Jan 17). Available from URL: http:///www.searo.who.int/EN/Section13/Section36/Section2439.htm.
2. United Nations, Millennium Development Goals. (Online) (Cited 2011 Feb 22). Available from URL: http://www.un.org/millenniumgoals/maternal.shtml.
3. FHI, Family Planning and Millennium Development Goals. (Online) (Cited 2011, Feb 22). Available from URL: http://www.fhi.org/en/RH/Programs/RtoP/res_FP_MDGs.htm.
4. Making Pregnancy Safer & Reproductive Health, WHO. SEARO, WHO [about 2 screens]. (Online) 2009 (Cited 2011 Jan 17). Available from URL: http:///www.searo.who.int/EN/Section13/Section36/Section1726.htm.
5. Index Mundi, Pakistan Total Fertility Rate. (Online) 2010 (Cited 2011 Feb 22). http://www.indexmundi.com/pakistan/total_fertility_rate.html.
6. The World Bank; Health, Nutrition and population. (Online) (Cited 2011, Feb 22). Available from URL: http://go.worldbank.org/V5EPGZUL40
7. Unicef, Pakistan, Statistics. (Online) 2010 (Cited 2011 Feb 22). Available from URL: http://www.unicef.org/infobycountry/pakistan_pakistan_statistics.html.
8. Gribble J, Voss ML. Family Planning and Economic Well-Being: New Evidence from Bangladesh. Washington, DC: Population Reference Bureau, 2009. (Online) (Cited 2010 Sept 29). Available from URL: www.prb.org/pdf09/fp-econ-bangladesh.pdf.
9. United Nation, Millennium development Goal Indicator, Series Name: Unmet need for family planning, limiting, percentage. (Online) 2010 Jun 23 (Cited 2011 Feb 23). Available from URL: http://unstats.un.org/unsd/mdg/SeriesDetail.aspx?srid=778.
10. Shah NA, Nisar N, Qadri MH. Awareness and pattern of utilizing family planning services among women attending Urban Health Care Center, Azizabad, Sukkur. Pak J Med Sci 2008; 24: 550-5.
11. New York Times, Health Guide, Birth control and Family planning, (Online) (Cited 2010 Nov 5). Available from URL: http://health.nytimes.com/health/guides/specialtopic/birth-control-and-family-planning/overview.html.
12. Huber D, Saeedi N, Samadi AK. Achieving success with family planning in rural Afghanistan. Bull World Health Organ 2010; 88: 227-31.
13. Lori Ashford. Ensuring a Wide Range of Family Planning Choices. Population Reference Bureau's policy brief, 2008. (Online) (Cited 2010 No 5). Available from URL: www.prb.org/.../PolicyBriefs/ensuringfamilyplanning.aspx.
14. Ali AAA, Rayis DA, Mamoun M, Adam I, Use of family planning methods in

Kassala, Eastern Sudan, BMC Research Notes 2011; 4: 43.

15. Radulovi?1 O, Šagri? C, Višnji?l A, Tasi? A, Markovi? R. The influence of education level on family planning. Med Biol 2006; 13: 58-64.
16. Naqvi S, Hashim N, Zareen N, Fatima H. Knowledge, attitude and practice of parous women regarding contraception. J Coll Physicians Surg Pak 2011; 21: 103-5.
17. Adeyemi AS, Adekanle DA, Komolafe JO. Pattern of contraceptives choice among the married women attending the family planning clinic of a tertiary health institution. Niger J Med 2008; 17: 67-70.
18. Sullivan TM, Bertrand JT, Rice J, Shelton JD. Skewed contraceptive method mix: why it happens, why it matters. J Biosoc Sci 2006; 38: 501-21.
19. James T. "Contraceptive Efficacy". In Hatcher RA, Trussell J, Nelson AL, Cates W, Stewart FH, Kowal D. Contraceptive Technology. 19th ed. New York: Ardent Media; 2007.
20. Westhoff CL, Heartwell S, Edwards S, Zieman M, Staurt G, Cwiak C, et al. Oral contraceptive discontinuation: do side effects matter? Am J Obstet Gynecol 2007; 196: 412.e1-6.
21. Grimes DA, Schulz KF. Nonspecific side effects of oral contraceptives: nocebo or noise. 2011; 83: 5-9.
22. Pachauri S, Santhya KG. Reproductive Choices for Asian Adolescents: A Focus on Contraceptive Behavior. Int Fam Plan Perspect 2002; 28: 186-95.
23. Sturridge F, Guillebaud J. A risk-benefit assessment of the levonorgestrel-releasing intrauterine system. Drug Saf 1996; 15: 430-40.
24. Backman T. Benefit-risk assessment of the levonorgestrel intrauterine system in contraception. Drug Saf 2004; 27: 1185-204.
25. Kols A. Reducing unmet need for family planning. evidence-based strategies and approaches. 2008; 25: 1-7.