

Experience of Married Population about Different Contraceptive Methods, their Usage, and Effectiveness in Terms of Success and Failure

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Abstract

Background: Contraceptives are the agents used to prevent unplanned pregnancies. There are various methods of contraception but the choice of the right contraceptive for each couple is necessary to promote maternal and child health.

Objectives: Our objectives were to find the prevalence of use and effectiveness of different contraceptive methods, and satisfaction in couples.

Materials and Methods: A cross-sectional study was conducted for 7 months in the OPDs of Allied Hospitals of RMU. Married couples with both spouses above the age of 18 were included and the exclusion criteria were: (1) Women with menopause or fertility disorder (2) Men with impotence or any other fertility disorder (3) People who had permanent surgical procedures. Data were collected from 360 couples through convenient sampling. Data was analyzed through SPSS version 22.

Results: Of 360 couples, 66% females and 33% males used contraceptive methods. The most frequent method of contraception was barrier method (47.8%). Most of the methods were used for 1 to 3 years (32.7%) with an 87.1% satisfaction rate. 77.3% of the couples were consistent with use of contraception while 21.4% of couples were not consistent.

Conclusion: Contraceptives are mostly used by educated women and housewives. Use is more prevalent among urban population. The barrier method is the most used but has the highest failure

rate. The most effective method is sub-dermal implant followed by IUCD.

Keywords: contraception, contraceptive effectiveness, patient satisfaction, family planning methods

Introduction

Contraceptives are the agents used to prevent unplanned pregnancies and to ascertain that there is maximal space between births to reduce maternal and child mortality and improve their health.¹ Unplanned pregnancies are those that are not wanted at the time or that are wanted later.² In developing countries, girls are wedded at an early age and the gap between consecutive births may also be less due to which they are at an increased risk of morbidity and mortality. Their educational and economic development is also less which further adds on to it.³ In Iran, for example, girls in their teenage years are not prepared for marriage because of a lack of sexual and reproductive healthcare services.⁴ Contraception can be achieved by using several methods including oral contraceptive pills, intrauterine devices, contraceptive injections, condoms, diaphragms, contraceptive patches, vaginal rings, withdrawal method, tubal ligation, and vasectomy.⁵ Women living in developing countries generally have more pregnancies as compared to those living in developed countries.⁶ To bring down the high maternal mortality rate, family planning has been recognized by the Safe Motherhood Initiative (a primary component of RHC) as one of the important measures along with care given before, during, and after birth.⁶

Family planning is a preventive measure for unintended pregnancies which helps to lower maternal ill health and the number of deaths due to pregnancy. Being a part of FP, contraceptives are regarded as a growing intervention to boost the development of 5 SGDs without costing a lot of money.⁶ Planned Parenthood has a very

significant role in controlling the population.⁷ Pakistan is the world's seventh most populated country with a population of 207.8 million (6th census). According to WHO, it is expected that the population will increase to 285 million by 2050.⁸ Hormonal contraceptives have played a vital role in controlling female fertility in recent years. Although hormone treatments have their side effects, their effect on female reproductive function is not very well understood. However, in some cases long-lasting hormonal changes, either during menopause or because of some endocrine pathological disturbance can end up causing sexual dysfunction.⁹

Ethiopia started an initiative called Sexual and Reproductive Health Strategy (2015-2016) which resulted in a decline in gender inequities. Improvement in female education, reduction in genital mutilation, and setting a higher age of marriage are big steps taken by Ethiopia in the last few years.¹⁰ To ensure the regular use of contraception, a female's self-confidence in her fertility years and her husband's involvement needs to be raised, according to a cross-sectional study conducted in India.¹¹ A study conducted in New York from 2016-19 found that the postpartum IUCD insertion had increased success rates in multiparous women of 20-25 years who were guided regularly in their antenatal and intrapartum period.¹² A study conducted in the US in 2010 stated that the most effective contraceptives were long-acting

hormonal contraceptives followed by IU Copper devices, short-acting hormonal contraceptives then barrier and natural methods.¹³ In 2018, research in France reported that modern contraceptive methods are convenient and have more success rates than natural and barrier

methods.¹⁴ Research conducted in North Carolina in 2003 found that the use of non-latex condoms is more prevalent but they are less effective as compared to latex condoms due to the increased rate of clinical breakage.¹⁵ In 2018, a study from Europe found that women weighing >50 kg who are using IUDs have slightly less weight gain as compared to women who use ENG and LNG implants.¹⁶ A study carried out in Southern Nigeria shows that approximately half of the population of the study knows about injectable contraceptives.⁷

A Study conducted in Multan from 2019-20 reported that 91.6% of urban and 76.9% of rural women used contraceptives with the barrier method being the most effective followed by copper IUDs.¹⁷ In 2004, a study from Aga Khan University indicates that the use of the modern contraceptive method was 27.9%, which was influenced by the husbands' education and women having ≥ 3 children.¹⁸ In 2012, a qualitative descriptive study performed in district Rawalpindi showed that intrauterine contraceptive devices despite being the most efficient tool of contraception are least used by women due to rumors and myths about IUCD, inadequate counseling by service providers and inefficiency of the provider for safe and aseptic IUCD insertion.¹⁹ Research conducted in Okara revealed that the insertion of IUCD postpartum was more effective and safe as compared to interval IUCD.²⁰ A study conducted in Peshawar showed that females in whom contraceptive devices were inserted after cesarean and vaginal births experienced exclusion and displacement of the devices because of inadequate knowledge and malpractice.²¹

Our study will help in the betterment of family planning services by providing information about the most efficacious method of contraception. It

will also provide information about the factors that lead to the failure of contraceptive methods to avoid them in the future. It will aid in answering the myths regarding the use of certain contraceptive methods. Besides this, it will help in reducing maternal mortality among women using contraceptive methods.

Materials and Methods

A cross-sectional study was conducted for 7 months from May 2022 to November 2022 in the Outpatient Departments of allied hospitals of Rawalpindi Medical University (Holy Family Hospital, Benazir Bhutto Hospital and District Headquarters Hospital Rawalpindi). The study was conducted on married couples visiting the allied hospitals of Rawalpindi Medical University; married couples with both spouses above the age of 18 were included in the study while the following categories were excluded from the study: (1) Women who have reached menopause or have any fertility disorder (2) Men with impotence or any other fertility disorder (3) People who have undergone permanent surgical procedures like females with bilateral tubal ligation and males with vasectomy. Data were collected from 360 couples through convenient Sampling. A self-structured questionnaire prepared after a thorough literature review was used to collect data. It consists of the following five parts i.e., demographic details, obstetric history, knowledge about family planning, practice, and effectiveness of contraception. Participation was voluntary and anonymity and confidentiality was ensured. Data was entered and analyzed through SPSS version 22. Descriptive and inferential statistics were used. P value of less than 0.05 was considered significant.

Results

Data was collected from a total of 360 couples. From these 360 couples, 66% of females were using contraception while 33% of males were using contraceptive methods. Data has been entered and analyzed through SPSS v 22. P

value of less than 0.05 is considered significant. Frequencies and percentages of demographic variables i.e., education, residence, female education and male education are listed in **Table-I**.

Table-I Demographic variables and their relationship with use of contraception

Categorical Variables	Categories	Percentage	P value in relation to use of contraception	
Gender	Male	33.9	0.016	
	Female	66.1		
Education	Below matriculation	17	0.005	
	Matriculation	23.5		
	Intermediate	26.2		
	Graduation	29.5		
	Post Graduation	2.7		
Female Occupation	Employed	20	0.061	
	Housewife	78.4		
Male Occupation	Employed	89.7	0.072	
	Unemployed	8.9		
Residence	Urban	69.2	0.838	
	Rural	29.7		
Numerical Variables	Mean	Standard variations	Median	P value in relation to use of contraception
Number of Children	2.67	1.4	2	0.245
Age	32.84	7.8	32	0.165

Table-II: Percentages of usage of different methods of contraception, Change of method, and reason for change among couples.

Method of contraception	Percentages
Oral contraceptives	13.8
Injections	15.9
Lactation amenorrhea	4.1
Barrier methods	47.3
Intrauterine device	12.7
Subcutaneous implants	5.1
<u>Methods changed</u>	<u>Percentages</u>
Oral contraceptives	65.5
Injectable	16.1
Barrier	11.5
Intrauterine device	2.3
Subcutaneous implants	4.6
<u>Reason for changing method</u>	<u>Percentages</u>
Side effects	80.5
Unplanned pregnancies	19.5

Table-III Common side effects of different contraceptive methods experienced by couples

Side effects	Oral Contraceptives(%)	Subcutaneous Implants (%)	Injectable Contraceptives(%)	Barrier Methods(%)	Intrauterine Devices (%)
Headache	2.7	1.4	1.6	-	-
Breast tenderness	7.6	0.5	0.8	-	-
Abdominal pain	8.9	2.2	0.5	-	-
Breakthrough bleeding	7.3	2.2	2.4	-	-
Nausea	5.4	2.2	2.7	-	-
Mood changes	12.4	2.4	0.8	-	-
Weight gain	10.3	3.5	2.2	-	-
Reduced bleeding	6.5	1.9	0.8	-	-
Visual disturbances	2.4	0.5	2.7	-	-
No sexual satisfaction	-	-	-	4.9	-
Allergy or infection	-	-	-	10.8	-
Heavy cycles	-	-	-	-	4.3
Pain	-	-	-	-	7.8

Irregular spotting or bleeding	-	-	-	-	7
Foul-smelling discharge	-	-	-	-	8.1

Data of contraception use was taken from 360 couples and out of 360, 48 couples (13.4 %) had unplanned pregnancies. Most of the unplanned pregnancies occurred in couples using barrier methods (52% unplanned pregnancies). The least number of unplanned pregnancies occurred in couples using subcutaneous implants (6.25% unplanned pregnancies) and

lactation amenorrhea method (4.16%).

Most of the people were satisfied with the method they were using and were willing to continue this method in future (79.3%). While 20% of the couples were looking forward to some new method of contraception either due to side effects (88%) or due to unplanned pregnancy (12%).

Discussion

Our study showed that mostly women were using different contraceptive methods (66.1%) compared to males (33.9%) which is consistent with previous research. A study conducted in Zambia¹ showed that women with secondary education were more likely to use contraceptive methods than women with no education. Our study also showed that women who have graduated used contraceptive methods mostly (29.5%). Better understanding of the importance of family planning and better knowledge about contraceptive methods are the reasons of more usage of contraceptives among educated women. Moreover, our study revealed that unemployed women who are housewives use contraceptive methods more (78.4%) than women who are employed (20%) which is consistent with the results of the study conducted in Pakistan. Our study showed that urban population (69.2%) used contraceptive methods more than rural residents (29.7%). No previous study has shown

the relationship of this variable with contraceptive usage. Better living standards, better medical facilities and literacy rate in urban population support more usage of contraceptive methods among urban population.

We found that the barrier method is the most used method (47.8%) which is not consistent with a study conducted in Savannkhat province, Lao PDR, which showed most of the methods used are female dependent, injections being used most common (44.4%). In our study condoms being cheap, easy to use and having no side effects are the major possible reasons for their maximum usage as a contraceptive method. Moreover, women are fearful of the side effects of the hormonal methods, so the couples prefer non hormonal methods like barrier methods. Other studies³ revealed that most common side effects have been observed by hormonal methods. Our study also showed similar results with side effects most common with oral contraceptives. These side effects include

headache, breast tenderness, weight gain, hair loss, mood changes and abnormal bleeding. This also led to their change of contraceptive method. Additionally, our study showed that failure in terms of accidental pregnancies occurred during usage of withdrawal method and least in subcutaneous implants. So, the withdrawal method is the least effective method in terms of failure of provision of contraception. This is in congruence with the study conducted in Kenya³ which showed that failure rates are high among short acting contraceptive methods, withdrawal or periodic abstinence.

Our study also revealed that 23.8% couples have changed contraceptive method because of side

effects which is consistent with the study conducted in Kenya that showed similar results that side effects are the reason of change in contraceptive method. Our study also showed that most of the people are willing to continue their method of contraception in the future (79.3%), while 20% of the couples were looking for a new method due to either accidental pregnancy (27%) or side effects (73%). In our study 87.1% of couples were satisfied with the method they were using for contraception and 17% couples were not satisfied. Our study showed that the maximum couples used contraceptive for a period of 4 to 7 years and no previous research studies such variable in terms of contraceptive usage.

Conclusion

Our study showed that mostly women are the users of contraceptive methods and graduates and housewives used contraceptive methods more frequently than women who are employed. It was also observed that the urban population used the contraceptive method more than rural residents. Our study showed that the barrier method is the most used method, being inexpensive and easy to use. It was also observed that failure in terms of unplanned pregnancies occurred mostly during the usage of the barrier method and least in subcutaneous implants. Moreover, it was also seen that most people are willing to continue their method of contraception in the future. The maximum number of couples used contraceptives for a period of 4 to 7 years.

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