



# **Knowledge Regarding Contraceptive Methods among Married Women Attending Tertiary Care Hospital**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. Authors KF and SK designed the study, wrote the protocol and wrote the first draft of the manuscript. Authors Neelam and KB managed the analyses of the study and literature searches. Authors Kalsoom and SH managed the statistical analysis and contribution in manuscript writing. All authors read and approved the final manuscript.*

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## **ABSTRACT**

**Objective:** To determine frequency of adequate knowledge of contraceptive methods among married women attending tertiary care hospital for antenatal care.

**Study Design:** Cross sectional study.

**Setting:** Department of Gynaecology and Obstetrics, Jinnah Postgraduate Medical Center, Karachi.

**Duration:** From June to December 2016.

**Materials and Methods:** Total 118 married women presented for antenatal care were included. Women were evaluated by administering a questionnaire to assess knowledge about contraception methods. Knowledge was labeled as adequate if responders correctly answered  $\geq 70\%$  of the questions. Descriptive statistics and Stratification were performed. Post-stratification Chi-square test was applied and p-value  $\leq 0.05$  was taken as significant.

**Results:** The mean age was 29.25±5.08 years. Mean gestational age was 11.52±4.54 weeks. Mean duration of marriage was 4.50±2.77 years. 61% study subjects were found with adequate knowledge of contraception. Adequate knowledge had a significant correlation with age, duration of marriage, parity, residence, and education level.

**Conclusion:** Around 61% of the married females were observed with adequate knowledge regarding contraceptive procedures. The female knowledge was significantly associated with age, duration of marriage, parity, residence, socio-economic status, and education level.

*Keywords: Adequate knowledge; contraceptive methods; married women.*

## 1. INTRODUCTION

The health status of children and mothers is a global issue [1]. Many government authorities have implemented strategies to improve these indexes, family planning is one of these strategies [2]. The rapid growth of the world's population is putting a burden on scarce resources of developed countries. Family planning poses significant consequences in demographic dynamics, as uncontrolled fertility threatens Pakistan's economic stability. Family planning is a valuable method of improving perinatal and maternal wellbeing and lowering perinatal and maternal mortality [3]. Contraception is planning, provision and use of birth control to prevent health risks related to closely spaced pregnancies, reducing infant mortality, preventing spread of sexually transmitted diseases and controlling population growth [4]. A couple's deliberate decision to restrict or gap the population of their children using contraception methods is referred to as Family planning [5,6]. A large majority of women do not have adequate knowledge about method of contraception (MOC). One study showed that only 52.4% of women had adequate knowledge of methods of contraception [7]. In 1951, India introduced the National Family Welfare Programme with the goal of lowering the birth frequency to the level required to keep the population stable and meet the needs of economy of the nation. In India, the Family Welfare System has been identified as a focus sector, and it is being enforced as a 100% government funded scheme. This results in very low rate of use of contraceptive methods [7]. Vasectomy, Lactational Amenorrhea Procedure (LAM), tubal ligation, Intrauterine Devices (IUDs), and hormonal approaches (injectable and oral) are the most effective contraceptive techniques, with failure rates of 1-6 pregnancies for each 10000th female using these methods correctly and reliably for the 1st year (half year for LAM). It is challenging to reverse tubal ligation and Vasectomy, LAM is only effective in postpartum periods, and IUDs are

not widely available. While more accessible and reversible hormonal systems increase the likelihood of adverse drug reactions. Three key challenges in using modern contraceptives have been reported, with the fear of adverse effects, inadequate care quality, and objections from respected members of the society or family members being the most relevant. Following the end of mothers' previous pregnancy, the neonates born less than 1 year have been shown to have a higher risk of dying prior to their 1st birthday as compared to children born following a longer period [8]. In underdeveloped countries, where very few females receive adequate antenatal treatment, family planning counseling during antenatal phase is only provided to a small number of females [9]. This highlights the importance of using contraception soon after giving birth, as this is the time when most women's fertility begins to return. Lack of knowledge is the main factor for the decreased use of contraceptives use and its failure, as a national study observed that there is still an extensive gap between knowledge desire and practices of postpartum women regarding contraception and further studies are recommended [10]. However this study has been conducted to determine frequency of adequate knowledge of contraceptive methods among married women attending tertiary care hospital for antenatal care through a questionnaire.

## 2. MATERIALS AND METHODS

### 2.1 Settings

This study was conducted at Department of Gynaecology & Obstetrics, Jinnah Postgraduate Medical Center, Karachi.

### 2.2 Duration

Six months from June 2016 to December 2016.

### 2.3 Sample Technique

Non-probability consecutive sampling was used for the study.

## 2.4 Study Design

### Cross Sectional Study

#### 2.4.1 Inclusion criteria

- Patient of age >18 and <40 years presenting for antenatal care before 20 weeks of gestation.
- Married women
- Agree to participate in the study

#### 2.4.2 Exclusion criteria

- Tubal ligation done
- Documented history of hysterectomy

## 2.5 Data Collection Procedure

The study was performed after the approval from college of physicians & surgeons Pakistan and Jinnah postgraduate medical centre ethical review committee. The women were enrolled from OPD of department of gynaecology and Obstetrics, Jinnah postgraduate medical centre, Karachi. Those women who fulfilled the inclusion/exclusion criteria of the study were asked for written consent. Baseline demographic data were recorded in proforma. Women were evaluated by administering a questionnaire (Appendix A) to assess knowledge about contraception methods. During administration of questionnaire, each question was read to the patient and the patient was given 10 to 15 second to respond. Question was considered correct if verbal response is consistent with acceptable responses. Knowledge was labeled adequate as per operational definition. A database was developed on SPSS 20.

## 3. RESULTS

Total 118 married female patients were evaluated to determine frequency of adequate knowledge of contraceptive methods. Mean age of study subjects was 29.25±5.08 years. The mean gestational age of study subjects was 11.52±4.54 weeks. Mean parity of study subjects was 2.72±1.81. Average duration of marriage of study subjects was 4.50±2.77 years. Out of 118 study subjects, 76.3% belonged to urban areas and rests of the 23.7% belonged to rural areas. Most of study subjects (31.4%) had received education up to primary level while most of the husbands (35.6%) had received education up to secondary level. It was observed that, most of the study subjects (50.8%) belonged to middle class of society Table 1.

Questions were asked to find out adequate knowledge of contraception. The detailed frequency distribution of correct responses of questions has been presented in Table 2.

In our study, 61% study subjects were found to have adequate knowledge of contraception. The frequency distribution has been presented in Fig. 1.

Stratification was done with respect to age, gestational age, duration of marriage, parity, residence, education level, education level of husbands and socio-economic status was done to observe effect of these modifiers on outcome i.e. adequate knowledge of contraception. The results showed that there was significant association of adequate knowledge with age ( $p=0.00$ ), residence ( $p=0.00$ ), socio-economic status ( $p=0.05$ ) and education level ( $p=0.02$ ). While no significant association was observed with education level of husband ( $p=0.66$ ). The detailed results of frequency and associations are presented from Table 3.

## 4. DISCUSSION

Two hundred million pregnancies are reported to occur annually globally, of these 50% are unplanned while 25% unwanted; unsafe abortion has become an immediate response to address these pregnancies arising from poor or no contraceptive use especially in developing countries, these unsafe abortion practices have been identified to contribute significantly to maternal deaths globally [11]. Hence, there is a need for contraceptive information based services to influence fertility control. However in this study 118 married female patients were evaluated to determine frequency of adequate knowledge of contraceptive methods and 61% subjects were found with adequate knowledge of contraception. On the other hand Khan A et al. [12] found 81% females having awareness about any contraceptive method. In another study of Haider G et al. [13] around 135 (76.7%) females were aware of injectable contraception methods, 89 (50.5%) were aware of sterilization method and 86 (48.8%) were aware of contraceptive pills method. The awareness of IUCD was reported in 71 (40.3%), while 81 (46.0%) females were aware of condoms. Ayub A et al. [14] also reported that the most of the married females (90.2%) were found to have knowledge regarding common contraceptives methods.

In this study, study subjects were found to have 29.25±5.08 years of mean age and 11.52±4.54 weeks of mean gestational age and the results showed that there was significant association of adequate knowledge with age, residence and socio-economic status and education level. Similarly Naqvi S et al. [15] found almost similar mean age as 29.7 ± 7.2 years. However, Khan A et al. [12] reported 29.88±6.38 year of mean age for their study subjects.

In this series most of the women were poor socioeconomically and in these women illiteracy was also high. Consistently in the study of Haider G et al. [13] reported that 112 (63.6%) females were found to be of poor class, 55 (31.2%) were middle class, whereas 9 (5.1%) females were found to be of upper class. Illiterate females were 68 (38.6%), primary education status was found in 61 (89.7%) females, Secondary education status was found in 41 (60.2%) females and education level up to higher secondary was

found in 6 (8.8%) females. On the other hand Ayub A et al. [14] also documented that Because of their poor socio-economic status (and inadequate knowledge, nearly 50.5% of the surveyed females were illiterate; around 16.8% of females had received education below primary level, 26.5% females had received secondary education, and 6.5% of females had received education up to Matric level. The poor SES and low rate of literacy among couples are listed as possible explanations for the low CPR. The correlation between low CPR and illiteracy and poverty has been well established. In Pakistan's contraceptive demand survey, low SES was identified as an obstacle in using latest contraceptive methods. [16] In a secondary study of the family planning and national reproductive health survey 2000, Saleem and Bobak discovered that educational status of females was a central factor in increasing family planning activities [17].

**Table 1. Descriptive statistics of demographic characteristics of the patients n=118**

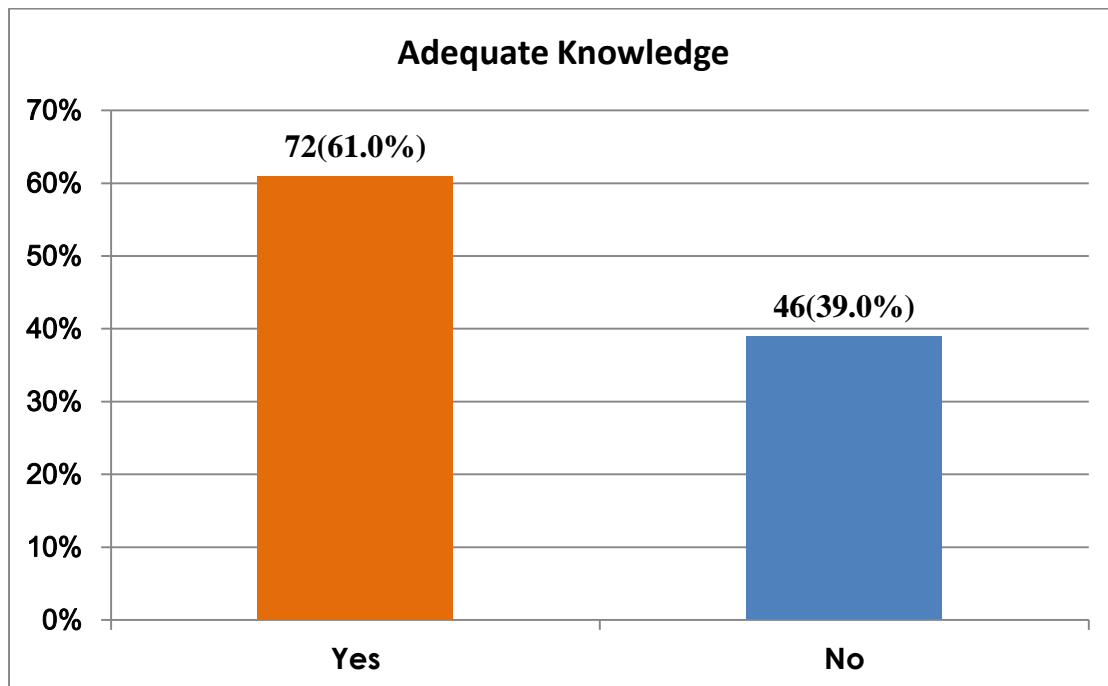
Variables	Statistics
Age (year)	
Mean±SD	29.25±5.08
Minimum	19
Maximum	38
Gestational age (weeks)	
Mean±SD	11.52±4.54
Parity	
Mean±SD	2.72±1.81
Marriage (years)	
Mean±SD	4.50±2.77
Residence	
Urban	90(76.3%)
Rural	28(23.7%)
Educational status	
No education	31(26.3%)
Primary	37(31.4%)
Secondary	21(17.8%)
Intermediate	14(11.9%)
Socioeconomic status	
Lower	44(37.3%)
Middle	60(50.8%)
Upper	14(11.9%)

**Table 2. Frequency distribution of knowledge of contraception questions (n=118)**

Q. No.	Question	Correct Answer n (%)
1	Use of condom has 100% success rate for contraception.	41(34.7)
2	Tampons are used by females much like male condoms	38(32.2)
3	Oral contraceptive drugs should not be used in fever	88(74.6)
4	Oral contraceptive drugs may cause weight gain.	104(88.1)
5	Emergency oral contraceptive pills are also available	91(77.1)
6	Intravenous injectable has same drugs as in oral pill.	98(83.1)
7	IUD can be placed by female herself	98(83.1)
8	Hysterectomy is not a preferred method of contraception.	81(68.6)
9	Pregnancies can never occur during breast feeding period	40(40.7)
10	husband should ideally be part of contraception method decision	45(38.1)

**Table 3. Knowledge of contraception according to age, duration of marriage, residence, educational status and socioeconomic status n=118**

Age group	Adequate knowledge		Total	p-value
	Yes (n=72)	No (n=46)		
<30 years	40	40	80	0.00*
>30 years	32	6	38	
Total	72	46	118	
<b>Residence</b>				
Urban	68	22	90	0.00*
Rural	4	24	28	
Total	72	46	118	
<b>Educational level</b>				
No education	13	18	31	0.02*
Primary	22	15	37	
Secondary	13	8	21	
Intermediate	11	3	14	
Graduate or above	13	2	15	
Total	72	46	118	
<b>Educational level of husband</b>				
No education	11	3	14	0.66**
Primary	12	8	20	
Secondary	23	19	42	
Intermediate	21	13	34	
Graduate or above	5	3	8	
Total	72	46	118	
<b>Socio-economic status</b>				
Lower	22	22	44	0.05*
Middle	38	22	60	
Upper	12	2	14	
Total	72	46	118	



**Fig. 1. Frequency of adequate knowledge of contraception (n=118)**

A study from Karachi reported that educational status and SES of females was correlated with rapid decline in fertility [18]. Knowledge and awareness of various methods of contraception

are the key factors in acceptance for family planning as well as choosing a specific method. Even though almost every respondent was aware of at least one contraception method, while new contraception method was less than optimal. In a comparison of two surveys, the application of condoms and sterilization increased from 4.2 to 9% and 6 to 9.5%, respectively, whereas the usage of IUCDs stood at about 3.5 % in both of the studies. Female sterilization is commonly used by Pakistani females after they have reached their target family size. [19] In a national assessment of the lady health workers (LHWs) initiative, Douthwaite and Ward discovered that LHWs were effective in increasing contraceptive acceptance in rural regions of Pakistan. [20] According to a national survey, married females residing within 5 kilometers of two community-based employees were slightly more inclined to use current reversible approaches than those without access. [21] A study conducted in Karachi reported that fear of adverse effects was a commonest explanation provided by non-users, indicating a lack of awareness about contraceptive usage, effectiveness, and protection [22]. There are some limitation as a single-center experience study which was conducted with small sample size and in urban environment therefore, the results might not be generalizable to larger populations.

## 5. CONCLUSION

The findings show that 61% of the females have knowledge about contraceptive procedures. There was significant correlation of adequate knowledge with age, duration of marriage, parity, residence, socio-economic status, and education level. This emphasizes the importance of education in improving the knowledge of the females on contraceptive methods. Further media campaigns, especially in local languages, must be initiated. To strengthen provider-client interactions, community health professionals need more rigorous training.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

This study was conducted after the approval from college of physicians & surgeons Pakistan and

Jinnah postgraduate medical centre ethical review committee.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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