



## Awareness and use of Contraceptive Methods in Women of Child Bearing Age Group: A Cross Sectional Study

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### Abstract

**Introduction:** Contraception is important for reasons such as for wellbeing of women, controlling the explosion of population and for wellbeing of the children themselves. The choice of contraceptive methods must take into consideration efficacy, safety, non-contraceptive benefits, cost and personal likes and dislikes of the involved couple. The decision to use contraception depends upon factors such as motivation level, need and awareness of methods of contraception and the educational level of couple.

**Materials and Methods:** This was a cross sectional study in which 300 married and sexually active women of child bearing age group were included. Demographic details of all the patients were noted. Type of contraceptive methods used currently and duration since when it was being used was also noted. The level of knowledge about common contraceptive methods such as condoms, oral contraceptive pills, intrauterine contraceptive device (IUCD) natural methods and permanent methods such as tubectomy and vasectomy was assessed. The data was tabulated and analyzed using Minitab Version 17 software. For statistical purposes P value less than 0.005 was taken as statistically significant.

**Results:** Out of the studied cases most common age group was between 26-30 years. Out of 300 women 172 (57.33%) women were using some or the other form of contraception while 128 (42.66%) women were not using any method. The most common contraceptive methods used were tubectomy (Permanent sterilization) which was being used by 71 (23.67%) patients followed by barrier methods (11.33%), safe period method (7.33%), oral contraceptive pills (6%), intrauterine contraceptive devices (IUCD) (5%) and emergency contraception (4%). Educational qualification was found to be the most significant determining factor for using contraceptives. 10 women were found to be completely unaware of methods of contraception.

**Conclusion:** Contraception is an important part of healthy sexual life of women of child bearing age group. The choice of contraceptive method must be chosen carefully taken in to consideration individual factors. Increasing educational level has a direct impact on use of contraceptive methods.

**Keywords:** Contraception, Women of child bearing age, Educational level, awareness.

## Introduction

Practice of contraception has been prevalent in some or the other forms since ancient times. Today contraception and voluntary control of fertility is important for reasons such as for well being of women, controlling the explosion of population and for wellbeing of the children themselves<sup>1</sup>. Improper spacing of children not only will affect the maternal well being but also cause neglect of the children. The choice of contraceptive methods must take into consideration efficacy, safety, non-contraceptive benefits, cost and personal likes and dislikes of the involved couple<sup>2</sup>.

Natural contraceptive methods which have been used by couples for contraception include coitus interruptus and natural family planning (avoiding sexual intercourse during the period when pregnancy is likely to occur)<sup>3</sup>. The other commonly used and more reliable method of contraception includes barrier methods such as male and female condoms, diaphragms, cervical caps and spermicidal agents such as nonoxynol-9<sup>4</sup>. The hormonal contraceptives which are commonly used include oral contraceptive pills (progesterone only pills and combination pills), injectable hormonal contraceptives and hormonal implants<sup>5</sup>. The other methods of contraception include intrauterine contraceptive devices and permanent sterilization that includes vasectomy (males) and tubectomies (females). Contraception in special situations such as following unprotected sexual intercourse may consist of emergency contraceptive pills (combined and progesterone only), Levonorgestrel and ulipristal acetate<sup>6</sup>.

Contraceptive methods play a crucial role not in limiting the family size but also, they have associated non-contraceptive beneficial effects such as decreased chances of transmission of sexually transmitted diseases including HIV infection (Barrier methods)<sup>7</sup>. Improving maternal health and anemia by proper spacing of children. They are also an important part of management of patients in whom pregnancy is absolutely contra indicated such as in severe mitral stenosis, mitral

regurgitation, coarctation of aorta and other complex congenital or acquired heart diseases<sup>8</sup>.

The choice of contraceptive method depends upon the factors such as informed choice of couple which in turn may be influenced by factors such as previous experience, cultural or religious beliefs and advice of colleagues or friends. The marital status, frequency of sexual relations, whether the couple is desirous of or planning pregnancy in near future and medical conditions if any should also be considered in choosing a method. Moreover, there are certain type of contraceptive methods which should be avoided in certain specific conditions for example a woman who is predisposed to thrombosis should avoid hormonal contraceptives similarly when the risk of sexually transmitted diseases is more than barrier methods should be preferred. In women having history of repeated pelvic inflammatory diseases intrauterine contraceptive devices should be avoided<sup>9</sup>.

The use of contraceptive methods by an individual or couple depends upon factors such as level of awareness, education, purpose of contraception and 1st but not the least religious beliefs. The type of contraceptive used largely depends upon the individual choice of the couple but health care workers may give proper advice so that the concerned couple can make an informed decision best suitable in their situation<sup>10</sup>. We conducted this cross section observational study to find out the level of awareness, individual characteristics and type of contraception used by women of child bearing age group attending our OPD for various reasons.

## Materials and Methods

We conducted this cross-sectional study of 300 women attending OPD of our department for various reasons. A uniform interview questionnaire was used to interview all the patients. Written informed consent was taken from all the women. Questions were asked in the language best understood by the patients. Demographic details of all the patients such as

age, height, weight and marital status, socioeconomic status and educational qualification was noted in all the cases. Details such as duration of marriage, number of living children, any obstetric related event in the past were also noted. The patients were enquired about presence of any systemic illness such as diabetes or hypertension. The awareness about contraceptive methods was assessed and noted. Type of contraceptive methods used currently and duration since when it was being used was also noted. Those who were not using any contraceptive method were further interviewed regarding reason for not using it. Any side effects associated with contraceptive use was also enquired into. Who convinced them for contraceptive use was also asked for. The level of knowledge about common contraceptive methods such as condoms, oral contraceptive pills, intrauterine contraceptive device (IUCD) natural methods and permanent methods such as tubectomy and vasectomy was assessed. Women were encouraged to speak up about any doubt, perceived side effects and problems they faced while using contraceptive methods and appropriate advice was given. The data was tabulated and analyzed using Minitab Version 17 software. For statistical purposes P value less than 0.005 was taken as statistically significant. Microsoft office was used for preparation of charts and graphs.

#### Inclusion Criteria

1. Women of child bearing age group attending OPD for any reason.
2. Married and active.

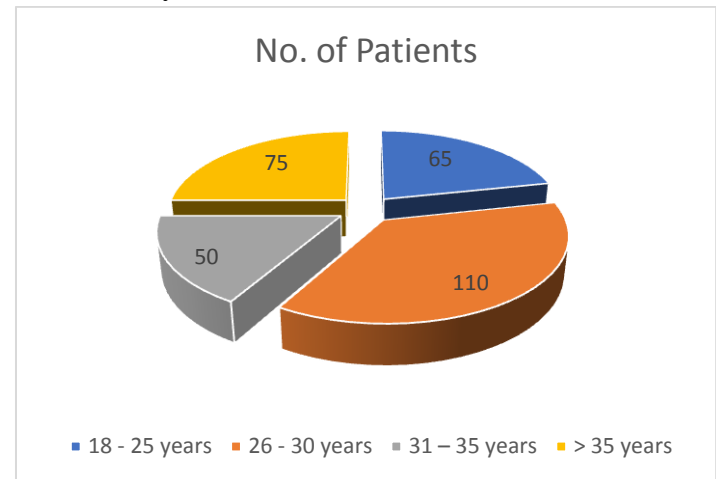
#### Exclusion Criteria

1. Unmarried women
2. Patients who refused consent.
3. Patients who were not consistent in their responses or when the answers were found to be unreliable.

#### Results

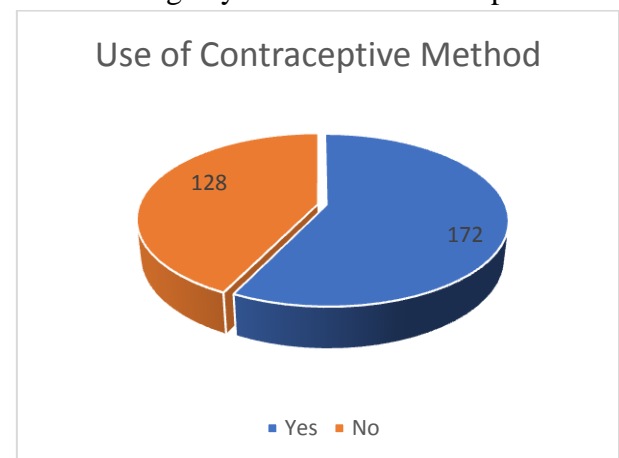
300 women of child bearing age group were interviewed regarding the use of methods of

contraception and its duration. The analysis of the age groups of the patients showed that the most common age group amongst the interviewed cases was between 26-30 years (36.67%) followed by > 35 years (25%), 18-25 years (21.67%) and more than 31-35 years (16.67%).



**Figure 1:** Distribution of the cases on the basis of Age Groups

Out of the studied cases some or the other method of contraception was being practiced by women 172 (57.33%) women while 128 (42.66%) women were not using any method of contraception.



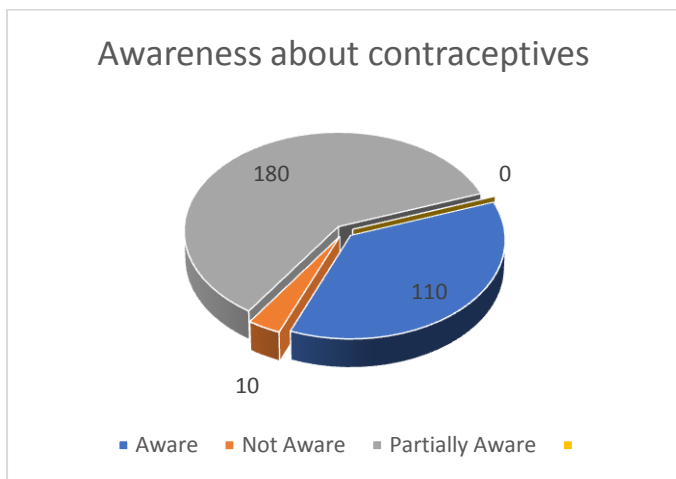
**Figure 2:** Use of Contraceptive Methods amongst the studied cases

Out of the patients who were using some or the other method of contraception the most common method was found to be tubectomy (Permanent sterilization) which was being used by 71 (23.67%) patients followed by barrier methods (11.33%), safe period method (7.33%), oral contraceptive pills (6%), intrauterine contraceptive devices (IUCD) (5%) and emergency contraception (4%).

**Table 1:** Contraceptives used by studied women

Contraceptive Method	No of Patients	Percentage
Not Practiced	128	42.67%
Safe Period Method	22	7.33%
Barrier Methods	34	11.33%
Oral Contraceptive Pills	18	6%
IUCD	15	5%
Tubectomy	71	23.67%
Emergency Contraceptives	12	4%
Total	300	100%

Out of 300 studied 180 (60%) patients were aware about methods of contraception while 110 (36.67%) patients were partially aware about the available contraceptives. 10 (3.33%) patients were totally unaware of any type of contraceptive method. All these 10 people who have never heard about contraceptives came from hilly and remote rural areas.



**Figure 3:** Awareness of contraceptive Options

The analysis of acceptance and adaptation of contraceptive methods showed that the use of contraceptives was more common in patients having 2 or more children. Out of the women using some or the other form of contraceptives women having 2, 3 or more than 3 children comprised of 26.67%, 10.67% and 8.67% patients respectively.

**Table 2:** Number of children and use of contraceptives in the studied cases

Contraceptive Method	No of Patients		No of patients using contraceptive methods	
	Number	Percentage	Number	Percentage
1	90	30.00%	34	11.33%
2	140	46.67%	80	26.67%
3	40	13.33%	32	10.67%
More than 3	30	10.00%	26	8.67%
Total	300	100.00%	172	57.33%

The analysis of the patients on the basis of religion showed that the most common women using contraceptives belonged to Hindu

community (53.33%) followed by Muslims (3.33%), Christians (1%) and others such as Sikhs (0.67%).

**Table 3:** Use of contraceptives and Religion of women

Religion	No of Patients		No of patients using contraceptive methods	
	Number	Percentage	Number	Percentage
Hindu	250	83.33%	160	53.33%
Muslim	45	15.00%	10	3.33%
Christian	3	1.00%	3	1.00%
Others	2	0.67%	2	0.67%
Total	300	100.00%	172	57.33%

The analysis of patients on the basis of educational qualification showed that out of the women using contraceptives majority were graduates (19.33%) followed by HSC (14.33%) and below HSC (12.33%). When the groups were compared on the basis of whether they were illiterate or educated showed that contraceptive methods were used more commonly educated women as compared to illiterate women and this difference was found to be statistically significant (P=0.0013).

**Table 4:** Educational Qualification and use of contraceptives

Educational Qualification	No of Patients		No of patients using contraceptive methods	
	Number	Percentage	Number	Percentage
Illiterate	57	19.00%	14	4.67%
Below HSC	73	24.33%	37	12.33%
Up to HSC	79	26.33%	43	14.33%
Graduate	71	23.67%	58	19.33%
Post Graduate	20	6.67%	20	6.67%
Total	300	100.00%	172	57.33%

**P=0.00013 (Significant)**

Majority of the patients were using contraceptives because they had already completed the family (25.67%) And were no more desirous of conceiving anymore. Other common causes of opting for contraceptives included birth spacing (14%), Career Commitments (10%) and financial constrains (7%).

**Table 5:** Purpose of Using Contraceptive Methods in studied cases

Purpose Of Using Contraceptive Methods	No of Patients	Percentage
Completed Family	77	25.67%
Birth Spacing	42	14.00%
Financial Problems	21	7.00%
Career	30	10.00%
Other causes	2	0.67%
Total	172	57.33%

The analysis of the source of information about the available contraceptive options showed that amongst the females using contraceptive methods most common source of information was health workers (18.33%) followed by husband (11.33%), Media (10.67%) and friends or colleagues (9.67%).

**Table 6:** Source of Information for contraceptive use

Source of Information	patients using contraceptive methods	
	Number	Percentage
Husband	34	11.33%
Relatives	22	7.33%
Health workers	55	18.33%
Media	32	10.67%
Friends/colleagues	29	9.67%
Total	172	57.33%

Finally, when an analysis was made as to the reason behind not using contraceptives it was found that out of 118 women not using any of the contraceptive methods 40 were desirous of pregnancy and were planning a child (33.90%). The other important cause for not using contraceptives were husband's reluctance (25.42%), perceived or past experience of side effects (15.25%) and religious reasons (13.56%). Complete unawareness was the cause in 10 (8.47%) patients.

**Table 7:** Reasons for not using contraceptive methods

Reason For Not Using Contraceptives	No of Patients	Percentage
Complete Unawareness	10	8.47%
Adverse Effects Of contraceptives	18	15.25%
Planning pregnancy	40	33.90%
Husband's Reluctance	30	25.42%
Religious Reasons	16	13.56%
Others	4	3.39%
Total	118	100%

## Discussion

We conducted this cross-sectional study of 300 women of reproductive age group. The aim of the study was to find out the level of awareness, individual characteristics and type of contraception used by women attending our OPD. Out of studied cases most common age group amongst the interviewed cases was between 26-30 years (36.67%) followed by > 35 years (25%), 18-25 years (21.67%) and more than 31-35 years

(16.67%). Amongst the studied cases contraception was being practiced by women 172 (57.33%) women while 128 (42.66%) women were not using any method of contraception. Amongst the women who were using contraception the most common method was tubectomy for permanent sterilization (23.67%). The other common methods of contraception utilized were barrier methods (11.33%), safe period method (7.33%) and oral contraceptive pills (6%). Various studies conducted by Indian researchers have reported similar use of contraceptives. Rema V. Nair et al conducted a study of 84 married women in age group of 15 - 45 years and were sexually active. The authors found that the most common method of contraception was sterilization which was done in 26.2% patients. The other common contraceptive methods used were natural and barrier methods which were practiced in 17.9% and 14.3%<sup>11</sup>.

In our study educated women were found to have been using contraceptives more commonly than less educated or uneducated females. Education was found to be one of the factors positively correlating with the use of contraceptives. When the patients were compared on the basis of education it was found that educated females were more likely to use contraceptives as compared to uneducated females and this difference was found to be statistically significant ( $P=0.00013$ ). Similar findings are reported by various authors and increasing educational qualification is found to have a direct impact on contraception use and almost all researchers have found that increased use of contraception is seen in educated couples as compared to less educated individuals. Adanu RM et al conducted a study to determine the predictors of use of modern contraception among women in Accra, Ghana<sup>12</sup>. The authors found that women with no formal education had a 48% reduction in the odds of having ever used contraception and a 66% reduction in the odds of currently using contraception. Similar positive correlation between education level and contraceptive use was reported by authors such as Thang N M et al

who concluded that Illiterate women with no formal education were significantly less likely to use modern methods of contraception<sup>13</sup>.

Finally, the analysis about the reasons due to which cases were not using any form of contraception was studied and it was found that apart from planning pregnancy the other significant causes of women's failure or reluctance to use any of the contraceptive method were husband's reluctance (25.42%) and experienced or perceived adverse effects of contraceptive use (15.25%) to use any of the contraceptive methods. Complete unawareness of contraceptives was found to be a reason in (8.47%) patients. Husband's reluctance was reported to be one of the important causes of not using any contraceptives by many researchers from developing countries including Kapil Yadav et al<sup>14</sup> and Cynthia F. Link<sup>15</sup>.

Conclusion: The use of contraceptive methods depends upon various factors such as whether the couple has completed their family or not, presence of systemic diseases and duration for which contraception is required. The increasing educational levels results in increased use of contraceptives.

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