

## Knowledge, Awareness and Practices (KAP) Regarding Contraception Among Females Attending a Tertiary Care Hospital, Himachal Pradesh

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### ABSTRACT

**Introduction:** Though there are reports of increasing contraceptive practices but decrease in population growth is not up to the mark, so there is a need to look into the causes of this discrepancy.

**Aim:** To obtain information from women of reproductive age group regarding their contraceptive knowledge, actual usage, factors influencing awareness and usage, and reasons of discontinuation.

**Methods:** All non-pregnant married women between age group of 18-49 years attending gynaecology outpatient department and giving consent were selected for the study. Statistical analysis was done by using SPSS 21.0 and appropriate statistical tests were applied.

**Results:** Though awareness of contraception was 96.15% in our study, actual usage was 78.28%. Education, parity and socio-economic status influenced the usage and choice of contraception. Terminal methods of contraception were the most preferred after family completion followed by condoms for spacing. Discontinuation of Intrauterine Contraceptive Devices (IUCDs) and Oral Contraceptive Pills (OCPs) was mainly due to side effects and taboos. Most of the times, awareness was provided by the doctor and media.

**Conclusion:** Women were aware of the importance of limiting the family size and have access to family planning facilities; yet usage is less because of taboos, myths, low level of education,

increased rate of discontinuation, and probably lack of proper knowledge about how and when to use a particular method.

**Key Words:** Contraception, Awareness, Education, Knowledge, Sterilization.

### Abbreviations:

CD: Condoms, OCP: Oral contraceptive pills, IUCD: Intrauterine contraceptive device, IMP: Implants, INJ: Injectable, EMER: Emergency contraception, TL: Tubectomy, VAS: Vasectomy, MTP: Medical termination of pregnancy.


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### Article History:

**Received:** 15-06-2017, **Revised:** 26-06-2017, **Accepted:** 01-07-2017

### Access this article online

Website: <a href="http://www.ijmrp.com">www.ijmrp.com</a>	Quick Response code 
DOI: 10.21276/ijmrp.2017.3.4.015	

### INTRODUCTION

India is one of the most populous nations in the world ranking second after China, with an annual growth rate of 1.64%; and high total fertility rate of 2.3 per woman.<sup>1</sup> The Indian family planning programme was initiated more than 50 years ago in 1952, and was adopted as an extension approach in 1966. According to the service statistics of the programme, contraceptive prevalence increased from 12% at the end of March 1971 to nearly 56% in 2005-06 as per National Family Health Survey 3.<sup>2</sup> However, there is wide gap between statistics of usage of contraceptive practices and actual fall in birth rate. Studies have found that unregulated

fertility disrupts the health of family and child; and also has an impact on the economy of society and nation at large.<sup>3</sup> A study done to investigate knowledge and use of contraceptive methods and awareness of emergency contraception among women working in the hospital showed that high percentage of females in literate women population used contraception; however, the awareness of emergency contraception was low.<sup>4</sup> Another study done to obtain information from low-income urban married women regarding their contraceptive knowledge, practices, and utilization of the services showed that awareness regarding importance of

limiting the family size and having family planning facilities was low due to level of education, increased rate of discontinuation, and lack of proper knowledge of the use of contraception.<sup>5</sup> One more study done found that Women's autonomous decision is significantly associated with contraceptive use but there is no link between woman's education and contraception.<sup>6</sup>

The main determinants of the use of family planning services are awareness, education and accessibility of services. Though women are aware of various contraceptive methods, still they are not able to use them due to incomplete knowledge, family beliefs and social taboos and sometimes side-effects.<sup>3-6</sup>

This study was planned to know the awareness of contraception, its usage, factors influencing the actual usage of contraceptives and source of information about contraception with reasons for discontinuation.

**MATERIALS AND METHODS**

The study was carried out in the Department of Gynaecology, at Maharishi Markandeshwar Medical College and Hospital, Kumarhatti (Himachal Pradesh). All non-pregnant, married females between 18-49 years of age willing to give written informed consent were included in the study. Women seeking treatment for infertility, not willing to give consent were excluded from the study. All women who were eligible for study and attending the outpatients department were given a questionnaire.

The questionnaire consisted of questions pertaining to the age of the participant, family size, socio-economic status, literacy status, awareness and type of contraceptive used, source of information for contraception and reason for non-usage and drop out.

**Study Period**

The study was conducted over a period of one year from October 2014 to September 2015 in the Department of Obstetrics and Gynaecology after approval from the Institutional Ethics Committee. Written informed consent of all participants was taken before enrolling her for the study.

**Statistical Analysis**

The data collected was entered in the MS Excel spreadsheet, coded appropriately and later cleaned for any possible errors. Normally distributed data were presented as means ± standard deviation (SD), or 95% confidence intervals (CI). Analysis was carried out using SPSS (Statistical Package for Social Studies) for Windows version 20.0 and online Graph Pad software (Prism 5 for Windows) version 5.01. During data cleaning, more variables were created so as to facilitate association of variables. Clear values for various outcomes were determined before running frequency tests. Pearson's chi square test was used to evaluate differences between groups for categorized variables. All tests were performed at a 5% level of significance, thus an association was significant if the p value was less than 0.05.

**Table 1: Distribution of patients according to demographic parameters (n= 3270)**

S No	Parameter	Number of Patients (%)
1.	<b>Age (years)</b> 18-22: 23-27: 28-32: 33-37: 38-42: 43-47: >48	151(04.6): 389(12.0): 835(25.5): 665(20.3): 564(17.2): 306(09.4): 360(11.0)
2.	<b>Education Status</b> Illiterate: Primary: Secondary: Higher	624(19.1): 726(22.2): 1348(41.2): 572(17.5)
3.	<b>Socio-economic Status</b> Poor: Middle: Upper	568(17.4): 2582(79.0): 120(03.6)
4.	<b>Parity</b> Nulli para: Para 1: Para 2: Para 3: Para 4 & above	247(07.5): 529(16.2): 1466(44.8): 696(21.3): 332(10.2)

**Table 2: Awareness and Practise of Contraceptive method in different age group**

Age (yrs)	No.	Barrier (CD)	OCP	IUCD	Natural	IMP	INJ	EMER (MTP)	Permanent (TL/ VAS)	Nil	
18-22	<b>Awareness</b>	151	149	129	96	00	00	31	36	62	00
	Practise		34	34	27	00	00	00	00	00	124
23-27	<b>Awareness</b>	389	304	210	157	00	00	30	128	155	30
	Practise		182	96	69	26	00	00	65	65	156
28-32	<b>Awareness</b>	835	745	577	363	65	00	92	30	636	00
	Practise		310	242	84	65	00	00	125	459	64
33-37	<b>Awareness</b>	665	483	482	476	123	00	65	65	484	66
	Practise		209	182	90	00	00	00	91	423	92
38-42	<b>Awareness</b>	564	562	546	450	33	00	34	35	560	00
	Practise		222	216	124	00	00	00	93	486	84
43-47	<b>Awareness</b>	306	188	186	125	37	00	32	00	211	00
	Practise		306	34	31	00	00	00	00	189	33
> 48	<b>Awareness</b>	360	330	248	304	00	00	00	00	306	30
	Practise		110	00	26	00	00	00	00	73	31
<b>Total</b>	<b>Awareness</b>	3270	2761	2378	1971	258	00	284	294	2414	126
	Practise		1373	804	451	91	00	00	374	1695	584
<b>%</b>	<b>Awareness</b>		84.4	72.7	60.27	7.89	00	8.68	8.99	73.8	3.85
	Practise		42	24.6	13.8	2.8			11.4	52	18
<b>p value</b>			<0.05	<0.05	<0.05	<0.05			<0.05	<0.05	

CD: Condoms, OCP: Oral contraceptive pills, IUCD: Intrauterine contraceptive device, IMP: Implants, INJ: Injectable, EMER: Emergency contraception, TL: Tubectomy, VAS: Vasectomy, MTP: Medical termination of pregnancy.

**OBSERVATIONS**

A total of 3270 females were enrolled in the survey in one year. The demographic parameters are shown in Table 1. Majority of females 25.5% were in the age group of 28-32 years, with 41.2% having secondary level of education, majority belonged to middle socioeconomic status (79%) and 44.8% had two children.

**Awareness and Practise of Contraceptive Methods**

The awareness and practise of contraceptive methods is shown in Table 2. 96.15 % (n=3144) were aware about one or more type of contraception. All the participants in our study were not aware about implants being a method of contraception. Most women were aware of barrier contraception (84.4%), followed by permanent methods (73.8%) and contraceptive pills (72.7%) while the awareness for emergency contraception was quite low (8.99%).

Out of 3144 women who were aware of contraception, 584 participants had never practised any method of contraception, hence, usage was by 2560 females i.e. 81.42% of the aware ones

and 78.28% of the total study population. Medical Termination of Pregnancy (MTP) as a method of contraception was undertaken by 11.4% participants, either for unwanted pregnancy or as a method of spacing between children. Majority females in 18-27yrs age group didn't practise contraception even for spacing as most of them were planning for conception though the awareness of contraception was quite high in this age group. Condom usage was quite good (42%) in all age groups. Most women after the age of 28yrs had tendency towards permanent sterilization (n= 1696 i.e. 52% including 193 vasectomies) after completion of the family. The comparison between the practise and awareness showed that though awareness for barrier contraceptive, OCPs and permanent methods was quite good, but actual usage was significantly (p<0.05) low for each method. Awareness for condoms, OCPs and permanent sterilisation was comparable but there was a trend favouring permanent methods followed by condoms and then pills in actual usage.

**Table 3: Awareness and Practise of Contraceptive method by education, parity and socio-economic status**

Parameter		Barrier (CD)	OCP	IUCD	Natural	IMP	INJ	EMER (MTP)	Permanent (TL/VAS)	Nil
Education	Illiterate (n=624)	248 (39.7)	34(5.4)	00	00	00	00	52(8.3)	446(71.5)	170(27.2)
	Primary (n=726)	215 (29.6)	217(29.9)	150(20.7)	14(1.9)	00	00	23(3.1)	344(47.4)	188(25.9)
	Secondary (n=1348)	575(42.6)	283(21)	240(17.8)	31(2.3)	00	00	196(14.5)	742(55)	149(11.1)
	Higher (n=572)	335(58.5)	270(47.2)	61(10.6)	46(8)	00	00	103(18)	164(28.7)	77(13.4)
Parity	0 (247)	00	00	00	00	00	00	09(3.6)	00	00
	1 (529)	328 (62)	165(31.2)	121(22.9)	65(12.3)	00	00	50(9.5)	110(20)	00
	2 (1466)	475(32.4)	445(30.4)	186(12.7)	26(1.8)	00	00	110(7.5)	979(66.8)	00
	3 (696)	400(57.5)	149(21.4)	114(16.4)	00	00	00	127(18.2)	605(87)	00
	4 (332)	170(51.2)	45(13.5)	30(9)	00	00	00	78(23.5)	299(90)	00
Socio economic status	Low (568)	163(28.7)	09(1.6)	57(10)	00	00	00	39(6.9)	486 (82.4)	151(26.6)
	Mid (2582)	1103(42.7)	780 (30)	361(14)	61(2.3)	00	00	252(9.7)	1645(63.7)	430(16.6)
	Upper (120)	107(89.2)	15(12.5)	33(27.5)	30(25)	00	00	93(77.5)	64(53.3)	03 (2.5)

CD: Condoms, OCP: Oral contraceptive pills, IUCD: Intrauterine contraceptive device, IMP: Implants, INJ: Injectable, EMER: Emergency contraception, TL: Tubectomy, VAS: Vasectomy, MTP: Medical termination of pregnancy.

**Table 4: Source of Information for contraception**

Source of information	No of patients (n= 3144)	Percentage %
Family	614	19.52
Health Worker	643	20.45
Friends	444	14.12
Chemist	65	02.06
Doctor	1383	43.99
Media	992	31.55
Reading Material	99	03.15

Table 3 demonstrates the contraception use depending upon the education level, parity and socio-economic status. Most of the participants were educated till secondary level and 19.1% participants were illiterate. The participants were reluctant for the use of injections or implants as is evident from the table, that none of them used these methods. The education level seemed to play its role as none of the illiterates tended to use IUCDs, this group of participants tended to prefer permanent sterilization (71.5%) after completion of their family, and 27.2% of illiterate participants did

not use any form of contraceptive method. In the participants with higher education level 18% preferred MTP with either one or two children.

The usage of contraceptive methods was least in the nulliparous group with the only method adopted in this group was MTP. Majority of participants who were primipara had inclination towards barrier contraception (62%) for spacing and 20% of them underwent permanent sterilisation. Majority of patients who were para 2 or more had inclination towards permanent sterilization.

Most of the participants in the low socioeconomic group preferred permanent sterilization as a method of contraception (82.4%), followed by use of barrier contraceptives (28.7%). Another aspect was that of all the participants' majority of participants who did not prefer any contraceptive belonged to low socio-economic group (26.6%). While women belonging to higher socio-economic strata preferred barrier contraceptive (89.2%), the IUCD usage was highest (27.5%) in higher socio-economic strata as compared to others strata. The use of oral contraceptive pills was highest in middle socio-economic strata (30%)

The source of information across all participants in shown in table 4, the most common source of information was the doctor (43.99%) followed by media (31.55%) and health workers (20.45%). Most of the information received regarding the information of contraception was by health care team and allied workers (66.5%) while reading material comprised on only 3.15% as source of information.

Another aspect on contraceptive use that was studied was the reason for drop out, a total of 2560 participants dropped out from one or other method of contraception during their lifetime. 72.5% (n=1856) went for permanent sterilization following completion of family. The other reason for drop out was the will to conceive, 542 participants (21.17%) wanted to conceive again. The other reasons for drop out were adverse effects reported, a total of 361 (14.1%) participants reported adverse effects which was mainly associated with the use of IUCDs. A small portion 5.99% (n=154) of participants dropped out from the study under the influence of myths/ taboos in the family or society regarding the use of contraceptives.

## DISCUSSION

Our centre is a tertiary care centre situated in Himachal Pradesh and caters to all type of population both rural and urban. Overall awareness of contraception was 96.15% in our study and 84.4% knew about barrier contraceptives, 73.8% and 72.7% was aware about permanent sterilization and oral contraceptive pills respectively. Awareness about IUCD was also 60.27%. In a study done by Sunita Ghike et.al. on rural population of Nagpur, Maharashtra, the awareness of contraception was present in 100% women.<sup>3</sup> In their study, maximum participants were aware about IUCD (67.5%), followed by condom (57.9%), OCPs (34%) and injections (14.9%) as methods of contraception. The results of our study bear quite a few similarities with this study as the awareness in our study was 96.15%, though an appreciable number of participants in our study were aware of permanent sterilization as a method of contraception.<sup>3</sup> In another study, awareness was only 55% as majority of the participants belonged to rural area (90%) and almost 59% were illiterate differs from our study as 96% participants in our study had awareness and only 19% were illiterate in our study.<sup>7</sup> Studies mention that in India, awareness about emergency contraception in the general population and paramedical workers is practically nonexistent<sup>8</sup> bears some resemblance with our study as even in our study the awareness on injection, implants and emergency contraception was practically nil though few participants were aware about MTP.<sup>8</sup>

Actual usage of contraceptives in the present study was there in 78.28% women which is comparable to 81% in a study done on working women by Takkar N et al.<sup>4</sup> Majority practised permanent

method (52% including 6% vasectomies) in all age groups followed by condoms (42%), OCPs (24.6%) and IUCDs (13.8%). 18% in the study group never practised any method. 11.4% females underwent MTPs for unwanted pregnancies as was also the choice of contraception in 11.7% women in another study.<sup>3</sup>

Education level of women was a big influence on usage of contraception and choice of contraception. Use of condoms for spacing and permanent sterilisation after completing their family were the most preferred methods in all. Permanent sterilisation was the most preferred method by uneducated ones (71.5%) and literate ones preferred IUCDs as well as OCPs for spacing. Non practice of contraception was higher in illiterate group (27.2%), and in literates it was 15.8%. Earlier studies have also shown that there is a well-documented link between female education and use of contraception.<sup>4</sup> Improving women's education has been seen as one way to increase their status and autonomy and it has been proposed that autonomy acts as a mediator of the link between education and contraceptive use.

Most common source of information in present study was doctor (43.99%) esp. in cases of sterilisation followed by media (31.55%), health workers (20.45%), family (19.52%) and friends (14.12%). This observation was different from a study from Maharashtra<sup>3</sup>, where information sources were TV/ radio in 70% followed by relatives or neighbours (35%) and health workers (29%).

Majority users left spacing methods of contraception for permanent sterilisation (72.5%) due to their family completion and others wanted to conceive again (21.17%). 14.1% using IUCDs or pills left them due to some side effects. Myths or taboos were the cause of discontinuation in 5.99% as compared to a study where non-use due to family pressures was in 59% and due to myths in 2.1% (3). In another study, discontinuation with IUCD was very high (40%) mainly due to side effects.<sup>5</sup> Females usually link all their non-specific health issues to contraception and discontinue them mostly due to lack of complete knowledge and also difficult access to health provider especially in our area.

The research regarding contraceptive usage, knowledge, and practices in other developing countries has also shown a wide gap between awareness and contraceptive use.<sup>9-12</sup> A study from Ethiopia found that injectables were the most commonly preferred modern contraceptive (63.2%) followed by the oral contraceptive pill (21.2%).<sup>9</sup> In another study in Romanian and Czech women, Romanian women more frequently used natural contraception whereas Czech women significantly used hormonal contraception. The main factors in choosing contraception in Romania are safety and simplicity. In the Czech Republic, the main factors are reliability, contentment, and convenience.<sup>10</sup> A study from south-east Asia suggests that in Bangladesh contraceptive prevalence is (58%), similar to India (56%) and, somewhat lower in Nepal (48%).<sup>11</sup> Female sterilization was also the most prevalent method in Nepal (38%), but the injectable (21%) and male sterilization (13%) were also relatively common. On the other hand, almost one half of contraceptive users in Bangladesh rely on the pills (45%). A study from Nepal suggested husband's education level had more influence on the use of male sterilization and condoms.<sup>12</sup> These findings suggest that the contraceptive prevalence in other developing nations is also low; the prevalence of different methods varies from country to country depending upon social belief and customs.

## CONCLUSION

Though majority women are aware of the contraception, limiting their family size and have access to various methods, preference towards use of contraception for spacing is lacking and they rely on terminal methods after completing the family. In spite of using emergency contraception, they feel it more convenient to use pills for pregnancy termination which is mostly due to lack of proper education about use of different methods. Education plays an important role in increasing the acceptance of various spacing methods and choosing safer options than MTPs.

Proper selection of a method and regular follow up by the health provider should decrease the discontinuation rate and unwanted pregnancies, improving women health and may also help in reducing birth rate.

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**Source of Support:** Nil. **Conflict of Interest:** None Declared.

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**Cite this article as:** Monika Gupta, Monika Jindal, Anupa Sood, SPS Goraya, Sumit Chawla, Prithpal S Matreja. Knowledge, Awareness and Practices (KAP) Regarding Contraception Among Females Attending a Tertiary Care Hospital, Himachal Pradesh. Int J Med Res Prof. 2017; 3(4):70-74.

DOI:10.21276/ijmrp.2017.3.4.015