

DOI: <http://dx.doi.org/10.18203/2320-1770.ijrcog20195314>

Original Research Article

Contraceptive practices and awareness: a survey among nursing staff at a tertiary care hospital

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Received: 17 September 2019

Accepted: 06 November 2019

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ABSTRACT

Background: India is the second most populous country in the world next to China. Increasing the contraceptive awareness and practice and proper implementation of family planning services are the major tool for improving the health of the population along with stabilizing it. Knowledge and contraceptive practice in the Nursing personnel can positively or negatively influence the population coming in contact with them. Objective of this study was to investigate the knowledge and practice of contraceptive methods among the nursing staff at a tertiary care set up.

Methods: Tertiary care set up, cross sectional study. This was a cross sectional study conducted over a period of three months. Fifty staff nurses under the age of 49 years were interviewed through a pre-designed questionnaire regarding knowledge and use of contraceptive methods.

Results: Contraception was practiced in 88 percent of the staff nurses. Barrier method of contraception was the most commonly used form of contraception. Permanent method of contraception was opted in 14 percent of cases. Fifty-seven percent of the females were aware of emergency contraception. Twenty-eight percent of females had used emergency contraception in the past.

Conclusions: A high percentage of nursing staff was practicing some form of contraception; however, the use of permanent methods and hormonal methods remains low. Only half of study population was aware of post coital methods of contraception with only 28 percent having used it in the past.

Keywords: Abortion, Awareness, Contraception, Emergency contraception, Staff nurses, Sterilization

INTRODUCTION

India is the second most populous country in the world next to China. If the current trend of increase in population continues, by 2045 India may become the leading country in the world overtaking China in terms of population.¹

Increasing the contraceptive awareness and practice and proper implementation of family planning services are the major tool for improving the health of the population

along with stabilizing it. Knowledge and attitude of Nursing personnel who are both service providers and health educators to the community can influence the contraceptive behaviour of the people exposed to them. Lack of awareness, misconceptions and negative attitude towards contraception in nursing personnel can both act as a barrier for their personal use and also prevent them from promoting contraception methods to the beneficiaries. In this study we have surveyed 50 nursing staff working at tertiary care hospital, regarding their knowledge and use of various contraceptive methods.

METHODS

This was a cross sectional study conducted over a period of three months (January 2018 to March 2018) at a tertiary care set up wherein 50 staff nurses were interviewed through a preformed questionnaire after taking informed consent. The inclusion criteria were all staff nurses under the age of 49 years. Subjects not consenting for the study were excluded from the study. The questionnaire included details such as the age of the person, job and qualification of husband, type of family, number of living issues, awareness of various methods of contraception, contraceptive usage and the use of emergency contraception.

Awareness of emergency contraception was assessed by asking two questions:

- If a woman had unprotected intercourse, is there anything she can do within three days to prevent pregnancy and
- Awareness of methods of post-coital contraception.

Statistical analysis

Descriptive statistics was analyzed with SPSS version 17.0 software. Continuous variables are presented as mean±SD. Categorical variables are expressed as frequencies and percentages. The Pearson's chi-square test or the chi-square test of association was used to determine if there is a relationship between two categorical variables. $P < 0.05$ was considered statistically significant.

RESULTS

Table 1: Age distribution.

Age groups	Frequency	%
25 - 29 years	8	16.0%
30 - 34 years	21	42.0%
35 - 39 years	8	16.0%
40 - 44 years	6	12.0%
45 - 49 years	7	14.0%
Total	50	100%
Mean±SD	35.38±6.14	
Min-Max	27-49	

A total 50 married women were included in this study. The demographic characteristics of the women included in the study have been depicted in the tables below (Table 1 and Table 2). Majority of women were in the age group of 30-34 years. The most commonly used methods in the age groups of 25-29 years and 30-34 years were natural and barrier methods of contraception. With advancing age, the use of intrauterine devices and permanent methods (sterilization) increased. Seventy-four percent of women were Hindu by religion, 18 percent were Christian by religion. Husbands of all the subjects were

literate. Majority of women had nuclear families (64%). The deciding member for the use of a particular method were both husband and wife in 62 percent of cases, in eight percent it was the husband, in ten percent it was woman herself and in ten percent of the cases it was the doctor. ten percent of women had two live issues. Nine women had undergone induced abortions. Three out of these had history of induced abortion twice.

Table 2: Demographical distribution.

	Number	Percentage
Religion		
Hindu	37	74
Muslim	1	2
Sikh	3	6
Christian	9	18
Husbands education		
12 th	07	14
Graduation	33	66
Postgraduation	10	20
Deciding member for the use of a particular method		
Couple together	31	62
Self	10	20
Husband	4	8
Doctor	5	10
Type of family		
Joint	18	36
Nuclear	32	64
No of live issues		
0	05	10
1	19	38
2	25	50
3	1	2

Distribution by religion, husband's education, deciding member for the use of a particular method, type of family, number of live issues, history of induced abortions.

Table 3: Awareness and usage of various contraceptive methods.

Awareness	Frequency	%
Safe period	48	96.0%
Withdrawal method	50	100.0%
Barrier method	50	100.0%
Oral contraceptive pills	50	100.0%
Copper intrauterine devices	50	100.0%
Depot Provera	6	12.0%
Permanent sterilization	50	100.0%

Table 3 depicts the awareness of various contraceptive methods in the study population. Most of the staff nurses were aware of most of the methods of contraception except depot Provera, the awareness of which was particularly low and inaccurate. Majority of information

was gathered through their study curriculum, colleagues and health professionals.

The awareness about most of the methods of contraception was similar in all the age groups. The younger age groups were more aware of depot Provera as a mode of contraception; however, this wasn't statistically significant (Table 4).

Table 5, 6, 7 depicts the awareness of various methods of contraception depending on educational status of the husbands, type of family and religious background of the woman respectively. The awareness about depot Provera was significantly higher in women whose husbands were graduates or postgraduates. Women belonging to various religious backgrounds and family types were equally aware of the various methods of contraception.

Table 4: Awareness of methods of contraception in various age groups (p < 0.05).

Age groups		25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	Total	p value
Total cases		8	21	8	6	7	50	
Awareness	Safe period	n (%) 8 (100%)	20 (95.2%)	8 (100%)	5 (83.3%)	7 (100%)	48 (96.0%)	0.478
	Withdrawal	n (%) 8 (100%)	21 (100%)	8 (100%)	6 (100%)	7 (100%)	50 (100%)	-
	Barrier	n (%) 8 (100%)	21 (100%)	8 (100%)	6 (100%)	7 (100%)	50 (100%)	-
	Oral contraceptive pills	n (%) 8 (100%)	21 (100%)	8 (100%)	6 (100%)	7 (100%)	50 (100%)	-
	Copper intrauterine devices	n (%) 8 (100%)	21 (100%)	8 (100%)	6 (100%)	7 (100%)	50 (100%)	-
	Depot Provera	n (%) 4 (50.0%)	16(76.2%)	6 (75.0%)	3(50.0%)	4 (57.1%)	33 (66.0%)	0.541
	Permanent sterilization	n (%) 8 (100%)	21 (100%)	8 (100%)	6 (100%)	7 (100%)	50 (100%)	-

Table 5: Awareness of contraceptive methods depending on husband's educational status (p < 0.05).

Husband occupation		12 th pass	Graduate	Postgraduate	Total	p value
Total cases		7	33	10	50	
Awareness	Safe period	n (%) 7 (100%)	31(93.9%)	10 (100%)	48 (96.0%)	0.585
	Withdrawal	n (%) 7 (100%)	33 (100%)	10 (100%)	50 (100%)	-
	Barrier	n (%) 7 (100%)	33 (100%)	10 (100%)	50 (100%)	-
	Oral contraceptive pills	n (%) 7 (100%)	33 (100%)	10 (100%)	50 (100%)	-
	Copper intrauterine devices	n (%) 7 (100%)	33 (100%)	10 (100%)	50 (100%)	-
	Depot Provera	n (%) 4 (57.1%)	19 (57.6%)	10 (100%)	33 (66.0%)	0.040
	Permanent sterilization	n (%) 7 (100%)	33 (100%)	10 (100%)	50 (100%)	-

Table 6: Awareness of contraceptive methods depending on type of family.

Type of family		Joint	Nuclear	Total	p value
Total cases		18	32	50	
Awareness	Safe period	n (%) 17 (94.4%)	31(96.9%)	48 (96.0%)	1.000
	Withdrawal	n (%) 18 (100%)	32 (100%)	50 (100%)	-
	Barrier	n (%) 18 (100%)	32 (100%)	50 (100%)	-
	Oral contraceptive pills	n (%) 18 (100%)	32 (100%)	50 (100%)	-
	Copper intrauterine devices	n (%) 18 (100%)	32 (100%)	50 (100%)	-
	Depot Provera	n (%) 12 (66.7%)	21(65.6%)	33 (66.0%)	0.941
	Permanent sterilization	n (%) 18 (100%)	32 (100%)	50 (100%)	-

Eighty-eight percent of women were using some form of contraception, barrier method being the most commonly used method (34%) followed by natural methods and intrauterine devices. The use of OCPs was considerably low. Fourteen percent of women had undergone permanent sterilization (Table 8). Table 9 depicts the age-

wise distribution of contraceptive usage. The use of permanent sterilization increases with age and this association was statistically significant.

Table 10 below shows the usage of emergency contraception (mainly Tab levonorgestrel 1.5 mg taken

within 72 hours of unprotected intercourse). Forty percent of the females were aware of emergency contraception. Only 28 percent had used them in the past.

Out of the six nurses not using contraception, four were planning a second pregnancy. One of the non-user's husband stayed abroad and one was afraid of the side effects (Table 11).

Table 7: Awareness of contraceptive methods depending on religious background.

Religion		Christian	Hindu	Muslim	Sikh	Total	p value
Total cases		9	37	1	3	50	
Awareness	Safe period	n (%) 9 (100%)	35 (94.6%)	1 (100%)	3 (100%)	48 (96.0%)	0.866
	Withdrawal	n (%) 9 (100%)	37 (100%)	1 (100%)	3 (100%)	50 (100%)	-
	Barrier	n (%) 9 (100%)	37 (100%)	1 (100%)	3 (100%)	50 (100%)	-
	Oral contraceptive pills	n (%) 9 (100%)	37 (100%)	1 (100%)	3 (100%)	50 (100%)	-
	Copper intrauterine device	n (%) 9 (100%)	37 (100%)	1 (100%)	3 (100%)	50 (100%)	-
	Depot Provera	n (%) 5 (55.6%)	26 (70.3%)	1 (100%)	1 (33.3%)	33 (66.0%)	0.444
Use	Permanent sterilization	n (%) 9 (100%)	37 (100%)	1 (100%)	3 (100%)	50 (100%)	-

Table 8: Frequency of usage of various contraceptive methods.

Usage	Frequency	%
Safe period	11	22.0%
Withdrawal method	7	14.0%
Barrier method	17	34.0%
Oral contraceptive pills	4	8.0%
Copper intrauterine devices	10	20.0%
Depot Provera	0	0.0%
Permanent sterilization	7	14.0%
None	6	12.0%

*(total does not add up to a 100% as more than one form of contraception was used by many staff nurses).

Table 9: Age-wise distribution of usage of various contraceptive methods (p < 0.05).

Age groups		25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	Total	p value
Total cases		8	21	8	6	7	50	
Usage	Safe period	n (%) 2 (25.0%)	5 (23.8%)	3 (37.5%)	0 (0.0%)	1 (14.3%)	11 (22.0%)	0.535
	Withdrawal method	n (%) 1 (12.5%)	2 (9.5%)	3 (37.5%)	0 (0.0%)	1 (14.3%)	7 (14.0%)	0.286
	Barrier method	n (%) 2 (25.0%)	9 (42.9%)	2 (25.0%)	3 (50.0%)	1 (14.3%)	17 (34.0%)	0.524
	Oral contraceptive pills	n (%) 2 (25.0%)	0 (0.0%)	2 (25.0%)	0 (0.0%)	0 (0.0%)	4 (8.0%)	0.055
	Copper intrauterine device	n (%) 3 (37.5%)	2 (9.5%)	2 (25.0%)	2 (33.3%)	1 (14.3%)	4 (8.0%)	0.419
	Permanent sterilization	n (%) 0 (0.0%)	1 (4.8%)	1 (12.5%)	0 (0.0%)	5 (71.4%)	7 (14.0%)	<0.001
	None	n (%) 0 (0.0%)	5 (23.8%)	0 (0.0%)	1 (16.7%)	0 (0.0%)	6 (12.0%)	0.197

Six women opted for only natural methods of contraception (safe period and withdrawal) in the light of high failure rate for the fear of side effects associated with other methods.

DISCUSSION

Family planning is defined by WHO as, "a way of thinking and living that is adopted voluntarily, upon the basis of knowledge, attitudes and responsible decisions

by individuals and couples, in order to promote the health and welfare of family groups and thus contribute effectively to the social development of a country”.

Table 10: Usage of emergency contraception (mainly levonorgestrel).

Emergency contraception	Frequency	%
No	36	72.0%
Once	5	10.0%
Twice	6	12.0%
Thrice	1	2.0%
4 times	1	2.0%
5 times	1	2.0%

Table 11: Reason for not using contraception.

Reason for not using contraception	Number	Percentage (Total 6)
Want of child in future	4	66.66%
Fear of side effects	1	16.66%
Husband stays abroad	1	16.66%

The study was conducted using a sample size of fifty staff nurses, who represent the urban educated working class. The contraceptive usage was as high as 88 percent. This is very high in comparison to the total contraceptive usage of 56.3 percent among married women in India as per the national family health survey 20052. Husbands of all the study subjects were educated and considering the fact that in 70 percent of cases using contraception the husband had an important role in deciding the use of a particular method, high contraceptive prevalence may be attributed to the high literacy levels of the population under study.

The level of awareness of contraceptive methods in our study group (except depot Provera) was in the range of 95-100 percent. This is in conjunction with other studies where in literacy levels have a positive impact on contraceptive awareness and usage. Tuladhar H et al also observed in their study that when women’s education was of secondary or higher level, awareness was 100.0%.³ His finding is in accordance with the studies done in Pakistan with 95.0% awareness in educated women as compared with 73.0% in illiterate women.⁴

Coming to the type of contraceptive used, permanent method of sterilization was used only in fourteen percent of the cases, rest of the cases using temporary methods. Among these barrier methods was the most commonly used followed by copper containing IUDs and natural methods. This is in accordance with the study by Kanojia et al. that spacing methods were more popular among educated urban population.⁵

Despite the fact that contraceptive usage has increased over a period of time, there exists a KAP-gap i.e. a gap between the knowledge, attitude and practices regarding

contraception.⁶ This was very true regarding the usage of hormonal contraceptives and female sterilization. Six women opted for only natural methods of contraception despite knowing the high failure rate for the fear of side effects. The use of OCPs was particularly low in contrast to the western countries where it is the method used most commonly.⁷ Knowledge about mirena and depot Provera as contraceptives was not only low but was also highly inaccurate. The usage of these for contraception was zero percent.

Another incidental finding of this study was that only two percent of subjects had more than two children. This depicts the acceptance of the two-child norm and attitude of the working women to go in for a small family.

Only 40 percent of the study population were aware of emergency contraception (mainly levonorgestrel). This is significantly low in comparison to western countries. A survey in United States showed that 36% of respondents realized that “anything could be done” to prevent pregnancy after unprotected sex and fifty five percent had heard about emergency contraception.⁸ A Swedish study by Aneblom et al, and a survey in Melbourne Health Clinic showed that awareness about emergency contraception was 83 and 80%, respectively.^{9,10} This was however much higher than what was reported by Tripathi et al, (2.7% of paramedical workers).

Drawbacks of this study was even though the population studied represents the literate working class but it does not represent all the working strata of society. Also due to lack of consent, hesitation on the part of the subjects, unmarried women could not be adequately interviewed.

CONCLUSION

To summarize, a high percentage of females in this urban, educated, working-women population used contraception. Spacing methods of contraception were more commonly practiced, among those barrier methods of contraception was the most popular method. Awareness of emergency contraception, injectable contraception and LNG-IUS was low and there is an urgent need to promote it.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Kumari S, Dhingra M, Ahmed SN. Contraceptive practices and awareness: a survey among nursing staff at a tertiary care hospital. *Int J Reprod Contracept Obstet Gynecol* 2019;8:4751-6.