

Contraception knowledge, Awareness and perception among Nursing students

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Abstract:

Introduction: World Health Organization (WHO) states that comprehensive education about sexuality has a central role in preparing young people for safe, productive, and fulfilling lives in a world where Human Immunodeficiency Virus (HIV), sexually transmitted infections (STIs), unintended pregnancy, gender-based violence and gender inequality still pose a serious risk to well-being. Lack of knowledge and awareness as well as false perceptions of health care-workers could be the contributing factor towards malpractice of contraception in society. Therefore, this study was aimed to assess the knowledge, awareness and perception among nursing students

Materials and Methods: Present cross sectional study was conducted amongst the 200 nursing students of both gender of third and final year over a period of 4 month. Questionnaire for assessing knowledge, awareness and perception was obtained from literature review of related published studies. Scale measured knowledge from maximum 8 to minimum 0. A score of ≥ 5 was taken as good knowledge while score of < 5 termed as poor knowledge. Scale measured awareness from maximum 14 to minimum 0. Scores < 10 were taken as low awareness, ≥ 10 as high awareness

Observations and Results: maximum students i.e.184 (92 %) were from age group 19 to 24 years and majority were females 156 (78 %). Equal proportion of students participated from final and third year. Maximum i.e.128 (64 %) were unmarried. Good knowledge score (≥ 5) was present in 132 (66%) students out of which 24(18%) were males and 108 (82%)were females. Poor knowledge score (< 5) was present in 68 (34%)students out of which 20(30%) were males and 48(70%) were females. High awareness score (≥ 10) was present in 152(76%) students out of which 16(11%) were males and 136(89%) were females. Low awareness score (< 10) was present in 48 (24%) students out of which 28(58%) were males and 20(42%) were females. In perception score , maximum students responded with agree .

Discussion: Knowledge level about contraception among young nursing students was good and supported by excellent attitudes; however, it was insufficient or poor among students who had not received any training during the degree. Students who obtained information from healthcare providers had significantly higher levels of knowledge and excellent attitudes toward contraceptive use.

Conclusion:Nursing students are the future healthcare professionals and have an important role to play in improving public health hence they need to be acknowledged with true knowledge of contraception

Keywords: Nursing, Contraceptive

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I. Introduction

The global population today stands at over 6 billion, one sixth of which is in India. Uncontrolled population growth is recognized as single most important impediment to national development¹ Despite the fact that India was first country in the world to implement a national population control programme in 1952, the country is still struggling to contain the baby boom². Nursing sector serves as a point of contact between the doctors and patient, awareness of contraception in nurses is must for them as they have ability to impact patient as they spent more time with patients³. The World Health Organization (WHO) states that comprehensive education about sexuality has a central role in preparing young people for safe, productive, and fulfilling lives in a world where Human Immunodeficiency Virus (HIV), sexually transmitted infections (STIs), unintended pregnancy, gender-based violence and gender inequality still pose a serious risk to well-being¹

Scientific evidence shows that sex education programs can lead to delayed sexual intercourse, reduced unprotected sex, fewer sexual partners, and increased contraceptive use⁴. However, in many countries there is a

lack of adequate formal and planned training on sexuality and contraceptive methods¹. WHO promotes educational programs as a preventive measure for individuals regardless of whether they are sexually inactive or active². Increase in the level of knowledge about contraception in adolescents has been widely used as the only variable to confirm the effectiveness of educational programs for the prevention of unwanted pregnancies⁵ and other programs aimed at avoiding other consequences such as STIs of risk behaviours in young people⁵. Knowledge is the basis for directing attitudes, and both knowledge and attitudes are essential for reducing risky sexual behaviour⁵. Educational programs must include the variables of knowledge, skills, and attitudes. Traditionally, educational programs have been delivered using a vertical teaching methodology and have based their effectiveness on increasing the level of knowledge without addressing attitudes toward use, but the latter is a key element in program success⁶. To protect young people from the risks associated with sexual and reproductive health, it is therefore important to determine their level of knowledge, attitudes, behaviours, and needs³. Healthcare workers have an important role to play to acknowledge the importance and right concept of contraception among married couples to reduce the rate of morbidity⁶. The lack of knowledge and awareness as well as false perceptions of health care workers could be the contributing factor toward malpractice of contraception in society. Therefore, this study was aimed to assess the knowledge, awareness and perception among nursing students

II. Material and Method

Present cross sectional study was conducted amongst the 200 nursing students of MGM Nursing Institute Aurangabad over a period of 4 month from August 2022 to November 2022. Ethical committee permission was obtained prior to commencement of present study. Participation of students in this study was voluntary and it was informed to the students that completion and submission of the questionnaire with consent consider participation in this study. High level of confidentiality and anonymity was maintained throughout the study. Students fulfilling inclusion criteria were enrolled. Details regarding age, gender, year of study and marital status was obtained from all participants.

- Study design – Cross sectional study
- Sample size -200
- Study period –August 2022-to November 2022
- Study area –MGM Hospital Aurangabad

Inclusion criteria

Third and final year nursing students studying at MGM Nursing institution, Aurangabad of both gender

No Exclusion criteria

Assessment Tool

Questionnaire for assessing knowledge, awareness and perception was obtained from literature review of related published studies^{8,9,10}. Reliability coefficient of the questionnaire was calculated using SPSS, version 20 with Cronbach's alpha value of 0.78.

- A. Knowledge:** It consists of 8 questions which assess knowledge of contraception. There are two responses (correct and incorrect response). 1 point was given to correct response and 0 to incorrect response. The scale measured knowledge from maximum 8 to minimum 0. A score of ≥ 5 was taken as good knowledge while score of < 5 termed as poor knowledge
- B. Awareness:** It consists of 7 questions which assess awareness of contraception. There are three responses (agree, not sure and disagree). 2 point given to disagree, 1 to not sure, 0 to agree. The scale measured awareness from maximum 14 to minimum 0. Scores < 10 were taken as low awareness, ≥ 10 as high awareness
- C. Perception:** It consists of 10 questions which assess perception of contraception. There are three responses (agree, not sure and disagree).

Statistical Analysis

Data collected were entered into an SPSS version 20. Data are expressed as mean \pm SD, frequency and percentage N (%). 'Unpaired t-test' was used for comparing the two groups, χ^2 -test was used to evaluate correlation between two variables. Statistical significance was assumed if P value less than 0.05

III. Results

Table 1: Distribution of demographic history of nursing students

Sr No.	Variable	Number of cases (N=200)	Percentage (%)
1	Age		
	i. 19-24 ii. 25 to 29	184 16	92% 08%
2	Gender N (%)		
	i. Male ii. Female	44 156	22 % 78 %
3	Year of study N (%)		
	i. Third Year ii. Final Year	100 100	50 % 50 %
4	Marital status N (%)		
	i. Married ii. Unmarried	72 128	36 % 64 %

Table no 1A

Marital status

Age	Married	Unmarried	
19-24	57	127	184
25-29	15	01	16
Total	72	128	

In **Table 1** showing distribution of demographic history, maximum students i.e.184 (92 %) were from age group 19 to 24 years and majority were females 156 (78 %). Equal proportion of students participated from final and third year. Maximum i.e.128 (64 %) were unmarried.

Among married maximum i.e. 57 (79%) married students were from age group of 19-24

Table 2: Distribution of knowledge score among nursing students

Sr No.	Variable	Correct Response N (%)		Incorrect Response N (%)		Total N (%)	P Value
		Married	Unmarried	Married	unmarried		
1	Have you ever heard of contraceptive method?	72(36%)	128(64%)	0	0	200	-
2	The risk of getting certain types of cancer in women can be reduced by birth control pills	38(19%)	22(11%)	34(17%)	106(53%)	200 (100 %)	<0.001
3	A woman will not be able to get pregnant for at least two months after she has stopped taking birth control pills	30(15%)	24(12%)	42(21%)	104(52%)	200 (100 %)	0.004
4	Male condoms can protect against sexually transmitted diseases	48(24%)	68(34%)	24(12%)	60(30%)	200 (100 %)	0.06
5	Common side effects of contraceptive pills include weight gain and mood swing	04(2%)	00	68(34%)	128(64%)	200 (100 %)	-
6	It is safe to have sex during the infertile period	35(17.5%)	15(7.5%)	37(18.5%)	113(56.5%)	200 (100 %)	<0.001
7	There is an increased risk of breast cancer in women taking estrogen containing oral contraceptive	60(30%)	76(38%0	12(6%)	52(26%)	200 (100 %)	0.0004
8	In order to get birth control pills, a woman must have a pelvic exam	35(17.5%)	35(17.5%)	37(18.5%)	93(46.5%)	200 (100 %)	0.002

Table 2 showing distribution of knowledge score, good knowledge score (≥ 5) was present in 132(66%) students out of which 24(18%) were males and 108(82%) were females. Poor knowledge score (< 5) was present in 68 (34%) students out of which 20 (30%) were males and 48(70%) were females. There is significant difference in the knowledge specifically about oral contraceptive pills in married and unmarried nursing students, According to this study married nursing students has more knowledge as compared to unmarried students

Table 3: Distribution of awareness score among nursing students

Sr No.	Variable	Agree		Not Sure		Disagree		Total N (%)	P value
		M	UM	M	UM	M	UM		
1	Only women are responsible to use contraceptive method	10(5%)	02(1%)	04(2%)	04(2%)	58(29)	122(61)	200 (100 %)	0.0004
2	Contraceptive methods bring more damage than benefit to health	26(13)	26(13)	06(3)	56(28)	40(20)	46(23)	200 (100 %)	0.01
3	Contraceptive methods can protect the health of family and society	50(25)	50(25)	12(6)	48(24)	10(5)	30(15)	200 (100 %)	0.00003
4	The use of contraceptive methods in young people will increase the risk of infertility in the future	27(13.5)	27(13.5)	30(15)	64(32)	15(7.5)	37(18.5)	200 (100 %)	0.01
5	Contraceptive pills do not guarantee 100% contraception	60(30)	110(55)	02(1)	02(1)	10(5)	16(8)	200 (100 %)	0.62
6	Women experiences of side effects linked to changes in contraception use that is, changing to a safer form of contraceptive	50(25)	74(37)	12(6)	34(17)	10(5)	20(10)	200 (100 %)	0.10
7	Discussion about contraception with spouse is embarrassing	10(5)	02(1)	02(1)	20(10)	60(30)	106(53)	200 (100 %)	0.0004

In **Table3** showing distribution of awareness score, high awareness score (≥ 10) was present in 152 (76%) students out of which 16(11%) were males and 136(89%) were females. Low awareness score (<10) was present in 48 (24%)students out of which 28 (58%) were males and 20 (42%) were females. The awareness about contraception are more in married nursing students and married nursing students are free about discussing about contraception with spouse

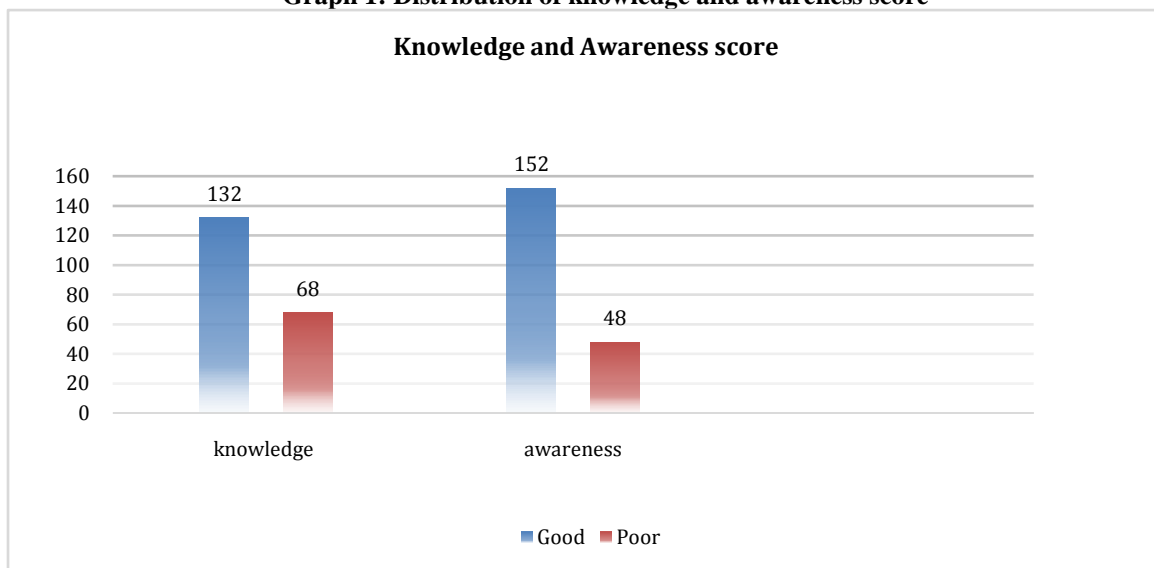
Table 4: Distribution of perception score among nursing students

Sr No.	Variable	Agree		Not Sure		Disagree		Total N (%)	P Value
		M	UM	M	UM	M	UM		
1	According to Islamic teaching, the use of contraceptive methods is considered a permissible action	50(25)	102(51)	10(5)	16(8)	12(6)	10(5)	200 (100 %)	0.1
2	It is unnecessary to purchase contraceptive	10(5)	40(20)	02(1)	40(20)	60(30)	48(24)	200 (100 %)	0.006
3	Courage is needed to purchase condoms from pharmacies, conventional shops or dispensaries	48(24)	86(43)	02(1)	18(9)	22(11)	24(12)	200 (100 %)	0.94
4	Using condoms will create less sexual pleasure during sexual intercourse	68(34)	04(2)	00	106(53)	04(2)	18(9)	200 (100 %)	<0.00001
5	Change in male attitude that is, to participate in contraception, may increase contraceptive prevalence in some areas	60(30)	64(32)	10(5)	54(27)	02(1)	10(5)	200 (100 %)	<0.00001
6	Contraceptives may reduce fear of unplanned pregnancy and afford woman the freedom to enjoy the sexual relationship	70(35)	46(23)	00	42(21)	02(1)	40(20)	200 (100 %)	<0.00001
7	Contraceptives allow women to pursue higher education by delaying pregnancy and gain some measure of economic security	55(27.5)	77(38.5)	02(1)	12(6)	15(7.5)	39(19.5)	200 (100 %)	0.02

8	It is complicated to use contraceptive methods	60(30)	16(8)	02(1)	46(23)	10(5)	66(33)	200 (100 %)	<0.00001
9	Sex education including contraception should be introduced in early age	45(22.5)	55(27.5)	15(7.5)	21(10.5)	12(6)	52(26)	200 (100 %)	0.008
10	Health care providers must provide counselling on contraceptive methods, mechanism of action, best time to use and possible side effects to all women	70(35)	114(57)	02(1)	02(1)	00	12(6)	200 (100 %)	0.04

In **Table 4** showing distribution of perception score, maximum students responded with agree. According to this study the perception about contraception are more better in married nursing students.

Graph 1: Distribution of knowledge and awareness score



IV. Discussion

Present cross sectional study was conducted amongst the 200 nursing students of both gender of third and final year over a period of 4 month. Questionnaire for assessing knowledge, awareness and perception was obtained from literature review of related published studies. All data were compiled and evaluated. Results obtained showed maximum students i.e.184 (92 %) were from age group 19 to 24 years and majority were females 156 (78 %). Equal proportion of students participated from final and third year. Maximum i.e.128 (64 %) were unmarried. Good knowledge score (≥ 5) was present in 132(66%) students out of which 24(18%) were males and 108 (82%) were females. Poor knowledge score (< 5) was present in 68 (34%) students out of which 20 (30%) were males and 48(70%) were females. There is significant difference in the knowledge specifically about oral contraceptive pills in married and unmarried nursing students, According to this study married nursing students has more knowledge as compared to unmarried students. High awareness score (≥ 10) was present in 152 (76%) students out of which 16 (11%) were males and 136 (89%) were females. Low awareness score (<10) was present in 48 (24%) students out of which 28(58%) were males and 20 (42%) were females. The awareness about contraception are more in married nursing students and married nursing students are free about discussing about contraception with spouse

In perception score, maximum students responded with agree. According to this study the perception about contraception are more better in married nursing students.

Sebastián Sanz-Martos et al (2020)¹¹ in their study enrolled total, 2914 university students (aged 18–25 years). Two validated questionnaires were completed by participants to assess their attitudes and degree of knowledge regarding the usage of contraceptives. Students pursuing nursing degrees who received contraceptive education had a success rate of nearly 70% compared to 15.3% for those who did not (p 0.001). Although there were no statistically significant differences in student training (p = 0.435), attitudes were considerably higher among students who took contraceptives during their first or last sexual encounter (p 0.001). The mean attitude score was 43.45 points (10-50). The degree of knowledge and attitudes toward the use of contraceptives showed a weak but significant link. Although having a fantastic attitude toward contraceptive usage is associated to using them during youth and adolescence, having an acceptable amount of sexuality and contraceptive method knowledge does not correspond to good attitudes toward their use. **Fatima Leon-Larios**

et al (2022)¹² conducted cross-sectional, analytic study with nursing degree students at the University of Seville. 478 pupils in all responded to the survey. One hundred percent of the students had heard of the ECP and were favourable toward it. A total of 25.7% had used the ECP, primarily due to the failure of a condom or the fact that they had never used any form of contraception. Knowledge gaps are associated with the mechanism of action of the ECPs, their effectiveness after repeated usage, and the type of ECPs that are available. Female students over the age of 20 who either used no method at all or withdrew used ECP more frequently ($p < 0.005$). More ECP-related education programmes are required, especially for aspiring health professionals who will instruct future generations of children and adolescents.

Young nursing students showed excellent attitudes and good knowledge about contraception, whereas those who had not had any training during their degree had inadequate or bad knowledge. Students who got their information from healthcare professionals had outstanding attitudes and considerably higher levels of understanding about using contraceptives, proving the value of having reliable information to advance such knowledge and attitudes relating the use of contraception to infertility. According to the current study, over half of the participants were confused whether using contraception would increase the risk of infertility. As a result, it is important to improve and broaden health education through student counselling. Adolescent reproductive health facilities should be implemented, therefore appropriate measures should be put in place. Additionally, there is a need for nursing educators to provide possibilities for higher-level training and debunking of myths so that nurses will be better prepared and have a positive attitude toward contraceptives in order to provide the general public with appropriate services.

V. Conclusion

There is a need to initiate awareness programs among nursing students by acknowledging them with true knowledge of contraception as these are the future healthcare professionals and have an important role to play in improving public health. Although Contraception of choice in young married women are oral contraceptive pills, still there is lack of knowledge about use of oral contraceptive pills among them. Additionally, there is a need for nursing educators to provide possibilities for higher-level training and debunking of myths so that nurses will be better prepared and have a positive attitude toward contraceptives in order to provide the general public with appropriate services.

Limitations

The primary drawback of the current study is the use of a questionnaire to gather the data, which might prevent a thorough analysis of the issue. The population of this study was students pursuing health care careers, which is another constraint. As a result, conclusions must be interpreted cautiously and may not apply to the overall community of young people.

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