

Knowledge, attitude and utilization of contraception among nursing students in tertiary health facilities in Nigeria

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Abstract

Background: An unplanned or unwanted pregnancy is one of the contributory factors to maternal mortality in developing countries as some of these results in abortions performed in unsafe environments. As part of design to improve women's access to family planning services a need assessment survey was carried out to determine the knowledge and attitude of nursing students of two tertiary hospitals in Nigeria on contraception as well as ascertain their contraceptive utilization.

Methods: Comparative cross-sectional study design was utilized for the study and it was carried out over a period of 7 months. A total population of 200 was selected for the study. An interviewer administered questionnaire was used to collect data.

Results: The mean age of respondents in Delta State

University Teaching Hospital (DELSUTH) was 25±5 years, compared to 23±4 years for University of Benin Teaching Hospital (UBTH). In DELSUTH 87% were single compared to 89% in UBTH ($p>0.05$). Respondents with good knowledge of contraception were 65.0% in DELSUTH compared to 63.0% in UBTH ($p>0.05$) while contraceptive utilization was 58.0% and 59.0% respectively.

Conclusion: Contraceptive utilization in the two populations is fair. There is the need to further improve its uptake.

Keywords: Comparative Assessment; Contraception; Nursing students

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Introduction

Contraception also known as birth control or fertility control are methods or devices used to prevent pregnancy. The methods are classified into traditional and modern methods. The traditional methods include fertility awareness. This involves understanding a woman's fertility pattern and making use of that knowledge to avoid pregnancy. This method is 75-96% effective in preventing pregnancy.^{1,2,3} This method has been used since ancient times. The modern methods of contraception became available only in the 20th century. They are more effective and safe. Among the modern methods of contraception; the most effective is sterilization.

Sterilization by means of vasectomy in males has a success rate of 99.8 percent and tubal ligation in females has a success rate of 99.5%.^{4,5,6} Intra uterine devices (IUD) and implantable contraceptives have 95-98 percent success rate in preventing pregnancy. This is followed by a number of hormonal contraceptives, including oral pills, patches, vaginal rings and injections

with success rate of 90-94 percent. Less effective modern contraceptives include barriers such as condoms, diaphragms, contraceptive sponges e.t.c. The barriers have an added advantage of preventing sexually transmitted infection such as HIV/AIDS. Their success rate is between 78 and 92%. The least effective contraceptive methods are the spermicides and the withdrawal method. Sterilization although highly effective, is not reversible; however this is not so for the other contraceptive methods^{7,8,9}

Each year over 200 million women become pregnant and over 70 million of them are either unplanned or unwanted^{3,8,10} An unplanned or unwanted pregnancy is one of the leading cause of maternal mortality in developing countries. Reasons for such high number of unintended pregnancies include low rate of contraceptive use, contraception failure and unmet needs^{9,11,12} About 222 million women who want to avoid pregnancy in developing countries are not using a modern contraceptive method.¹¹ The use of contraception in developing countries has decreased the number of maternal deaths by 40% and could prevent 70% if the full demand of contraception were met.^{13,14,15} Some young women with unintended pregnancies obtain abortions; many of which are performed in unsafe environment leading to increased morbidity and mortality as well as high school drop out.^{4,16,17} In Africa one in 26 women die of maternal causes as opposed to one in 9400 in Europe.⁴ These deaths are largely preventable if these pregnancies were prevented by the

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use of effective contraceptives.^{4,13,18} In Nigeria, it has also been shown that the use of contraception is low; with a contraceptive prevalence of 14.6 percent^{19,20,21} In effort to improve contraceptive utilization, this study was carried out to assess the knowledge, attitude and utilization of contraception among nursing students in tertiary health facilities in Edo and Delta States of Nigeria.

Materials and Methods

The study was carried out in Delta State University Teaching Hospital (DELSUTH) a tertiary health facility located in Oghara, Delta State and University of Benin Teaching Hospital (UBTH), a tertiary health facility located on a 150-acre site along the Benin-Lagos express way. Comparative cross-sectional study design was utilized for the study and was carried out over a period of 7 months (April to November 2013). All female clinical nursing students in DELSUTH and UBTH and who are willing to participate in the study were included. Sample size formula for studying two populations (groups) was used to determine the minimum sample size.

$$N = n_1 + n_2 = 4(Z_{\alpha} + Z_{\beta})^2(P)(1-P)/d^2 \quad (12)$$

Substituting for the formula above, $N = 142$. To make up for non-response cases; 10% of the calculated sample size was added which is $(142+15) = 157$. Therefore the minimum sample size for the study is 157; however a sample size of 200 was conveniently accommodated. Data was collected using semi-structured, administered questionnaire. The questionnaires were collected, sorted and analyzed using the statistical package for scientific solution (SPSS) version 20.0. Frequency tables and cross tabulation were constructed and where applicable results were tested for significance at 0.05. Knowledge about contraception was assessed using nine questions. A score of 0-3 was taken as poor knowledge; a score of 4-6 was taken as good knowledge, while a score of 7-9 was taken as excellent knowledge. Attitude was assessed using a set of 4 questions, while utilization was assessed using a set of 7 questions. Ethical clearance was obtained from the ethical committees of DELSUTH and UBTH before the commencement of the study; informed consent was also obtained from the respondents before administering the questionnaire.

Results

A total of 200 questionnaires was administered, retrieved and analyzed. The mean age of respondents in DELSUTH is 25.5 ± 5.8 years compared to 23.8 ± 4.0 years in UBTH ($p=0.015$). Eighty seven (87.0%) of DELSUTH respondents are singles compared to 89.0% in UBTH ($p=0.663$). Sixty five percent (65.0%) of the respondents in DELSUTH had good knowledge of contraception, while 30.0% had poor knowledge, compared to 63.0% with good knowledge and 34.0% with poor knowledge in UBTH ($p=0.549$) as shown in Table 1.

Table 1. Characteristics and contraception knowledge and utilization among female students of schools of nursing in two teaching hospitals in south-south Nigeria

Variable	DELSUTH	UBTH	P
Age, years, mean±SD	25±5	23±4	0.015
Single, n (%)	87 (87.0)	89 (89.0)	0.66
Sexually active, n (%)	75 (75.0)	73 (73.0)	0.872
Knowledge of contraception, n (%)			
Poor	30 (30.0)	34 (34.0)	0.549
Good	65 (65.0)	63 (63.0)	
Excellent	5 (5.0)	3 (3.0)	
Positive attitude to contraception, n (%)	69 (69.0)	63 (63.0)	0.206
Use contraceptive, n (%)	58 (58.0)	59 (59.0)	0.709
Commonly used contraceptives, n (%)			
Condoms	44 (44.0)	34 (34.0)	0.197
Oral contraceptive	34 (34.0)	30 (30.0)	
Injectables	10 (10.0)	19 (19.0)	
Intrauterine devices	3 (3.0)	2 (2.0)	
Others	9 (9.0)	15 (15.0)	
Reasons for not using contraception, n (%)			
Against religious beliefs	15 (15.0)	19 (19.0)	0.233
Morally wrong	8 (8.0)	11 (11.0)	
Associated with promiscuity	6 (6.0)	3 (3.0)	
Others	2 (2.0)	4 (4.0)	

Thirty one percent (31.0%) of the respondents in DELSUTH had negative attitude towards contraception compared to 37.0% in UBTH ($p=0.206$). Among the respondents who had negative attitude towards contraception; a higher proportion in DELSUTH 12.0%, compared to 17.0% in UBTH believed that contraception was against their religious belief to use contraception ($p=0.233$).

Seventy five percent of DELSUTH respondents were sexually active compared to 73.0% in UBTH ($p=0.872$). Fifty eight percent (58.0%) of the respondents in DELSUTH use one form of contraception compared to 59.0% in UBTH ($p=0.709$). Among the respondents who use contraception, 44.0% in DELSUTH compared to 34.0% in UBTH used condom ($p=0.197$).

Discussion

The report of the study showed that sixty five percent of respondents from DELSUTH and sixty three percent from UBTH had good knowledge of contraception. This is significantly higher than the report from a study carried out in Port Harcourt, Nigeria where fifty six percent of respondents had good knowledge¹⁴. The high level of knowledge recorded in the study could be attributed to the study population used in the survey. The study

participants are nursing students and by virtue of their learning have access to wholesome information on matters of health compared to the study participants used in the Port Harcourt survey who are secondary school girls.¹⁴ The result of the study is however significantly lower than the over ninety percent reported among study respondents in a survey carried out in Amukpe, Sapele⁹. The study in Amukpe Sapele utilized rural women who are not educated and as a result the questionnaire was interviewer administered, and in the process of administering the questionnaire some education and sensitization may have gone on hand in hand thereby inadvertently educating and raising their knowledge on the subject matter.

Another important finding from the study is that 75.0% of the respondents in DELSUTH and 73.0% in UBTH are sexually active yet only 58.0% and 59.0% in DELSUTH and UBTH use a modern form of contraception. From the result of the study it shows that unmet needs for contraception among DELSUTH respondents are 17.0%, and 14.0% among UBTH respondents. Unmet needs for contraception refers to the gap between persons who are eligible to use contraception but are not using any form of modern contraception. From the study, the values of unmet need in DELSUTH and UBTH are lower than the national average which according to the National Demographic and Health Survey (NDHS) of 2008 was put at 20%.⁽¹⁹⁾ The value of unmet need found in the study are lower than the 2008 national average. It therefore follows that between the national survey in 2008 and the present study in 2013, awareness creation on the importance and need of modern method of contraception by way of, enlightenment campaigns, and health education that are continuously being carried out by the Society for family health, Federal and State ministries of health and the others are beginning to yield positive results, as the value for unmet need are getting lower.

Results of the study also showed that 58.0% of respondents in DELSUTH and 59.0% in UBTH use at least one form of modern contraceptive. This contrasts with finding from a Benin study where contraceptive utilization was as low as 39.0%.⁴ Similarly, another study among adolescents in Niger-Delta region, reported contraceptive utilization as low as 12.4% and 6.2% in Abia and River States respectively^{4,15}. The high level of utilization reported in this study is significantly higher than the national value for contraceptive utilization; which is put at 14.0%¹¹. This could be because the study was conducted among nursing students who have acquired more knowledge on health issues as well as on the benefits of contraception. This offers hope that with more awareness and enlightenment, Nigerian women would increasingly utilize contraceptive services.

The most common method of contraception used among the respondents was condom (44% and 34% from DELSUTH and UBTH respectively). This finding is in

variance with several studies previously conducted where traditional methods of contraception were reported to be most common. For instance, the study conducted in Port Harcourt, Nigeria reported that the most popular method used was the rhythm method (46.8%).¹⁴ Similarly a study conducted among undergraduates in Benin, Nigeria reported the withdrawal method as the most popular method.⁴ A study conducted in Sapele, Nigeria however, reported the oral contraceptive pills as the most common (51.3%).⁹ The finding from the study indicates that condom is the most popular method of contraception among the respondents in DELSUTH and UBTH. Since majority of the respondents (87.0% in DELSUTH and 89.0% in UBTH) are singles and the most common method of contraception among the singles is condom, this could possibly explain why the majority of the respondents are using condom. It could also be the most preferred because of the other benefits that condom offers such as its' ability to prevent the transmission of sexually transmitted infections as well as being widely available and easily accessible.

Conclusion

The level of knowledge on contraception is fair; the utilization is also fair but lower than expected for the level of knowledge. There is need therefore to further improve the uptake of contraception since unwanted pregnancies and unsafe abortions have been identified as the leading cause of maternal mortality in developing countries.

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