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PERCEPTION OF THE RELATIONSHIP BETWEEN MULTIPLE SEXUAL PARTNERS AND CERVICAL CANCER BY FEMALE UNDERGRADUATES OF UNIVERSITY OF IBADAN.

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ABSTRACT

Invasive cervical cancer is the commonest cause of cancer morbidity and mortality in African women and multiple sexual partners is a major risk factor. This study seeks information on female undergraduates of University of Ibadan's perception of the relationship between sexual partners and cervical cancer. Data were derived from questionnaires administered to 312 female undergraduate students selected from the twelve faculties in the University of Ibadan using convenience sampling technique. Participants' demographic characteristics did not have any influence on their perception about the relationship between multiple sexual partners and cervical cancer. Majority (67%) did not perceive any relationship between them. The median age of sexual debut and number of sexual partners was 15 years and 4 respectively. Early sexual debut was associated with peer pressure and ignorance. Appreciable number (50%) perceived multiple sexual partners as a cause of HIV/AIDS and not cervical cancer. Two hypotheses were tested using chi-square and regression analysis. The first hypothesis was significant at two degrees of freedom and was therefore supported while the other was not supported. Initiatives to encourage later commencement of coitus and limiting the number of sexual partners would have a favorable impact on risk of cancer of the cervix and other sexually transmitted infections. This study therefore suggests lack of awareness of the relationship between multiple sexual lifestyle and cervical cancer. A dire need to strengthen this in awareness programmes is conspicuous and nurses are well poised to enhance this.

INTRODUCTION

Cervical cancer is a major burden on women's health around the world[1]. It is estimated that there are approximately 466,000 new cases of cervical cancer annually among women worldwide[3]. The vast majority of theses cases are in developing countries[3]. Over 80% of the estimated 231, 000 deaths which occur annually due to cervical cancer also occur in these countries: Nigeria, Liberia, Togo, Ghana, Cameroon and many other developing countries of the world where screening programmes are not well established or minimally effective[4, 5]. Human papillomavirus (HPV), a common cause of sexually transmitted infections, is the most important factor in the development of cervical dysplasia that may lead to cervical cancer. Women are generally infected with HPV in their teens and 20s, but cervical cancer can take up to 20 years after the initial HPV infection to develop[6]. The incidence and mortality vary widely between countries with up to a 10-fold difference between high and low risk regions. Nonetheless, significant declines in the incidence and mortality of cervical cancer have been noted in the last forty years, particularly in areas where screening programs are better organized[6].

KEYWORDS: Female undergraduates, University of Ibadan, Perception, Multiple sexual partners, Cervical cancer.

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The increased occurrence of cervical cancer has long been associated with women who have multiple sexual partners, first intercourse at early age, history of venereal diseases and women whose male partners in turn have multiple sexual partners[7,8]. Similarly, the major risk factors for cervical cancer according to Turkistanli, Sogukpinar, Sayadam and Aydemir[9] include: early age at first intercourse, multiple sexual partners, low socio-economic status, infection with human papilloma virus, cigarette smoking and extended use of oral contraceptives. Although, prevalence varies in different regions, it generally reaches a peak at about 20% in those aged 20-24 years, with a subsequent decline to approximately 30% among woman over thirty years. Unfortunately, there has been no significant change in most developing countries because the risk factors are still prevalent and the organization as well as the huge material and human resources required for mass screening are lacking.

In view of the findings from literature, the researchers were prompted to determine if the respondents, a very unique and important segment of the society identify their susceptibility to cervical cancer and work towards modifying their risk. The aim of this study was to explore the perception of female undergraduates of the relationship between multiple sexual partners and cervical cancer.

Research Questions

What is the perception of female undergraduate students of University of Ibadan of the relationship between cervical cancer and multiple sexual partners?

What are the causes attributed to cervical cancer by female undergraduate students of University of Ibadan?

Will demographic characteristics such as age, marital status, economic power, religion and tribe influence their perception of risk factors associated with cervical cancer?

METHODS

This was a descriptive study designed to identify the perception of female undergraduates of the relationship between multiple sexual partners and cervical cancer. The study took place at the University of Ibadan. Participants were selected from all the faculties as at the time of data collection: Agriculture, Basic Medical Sciences, Clinical Sciences, Public Health, Veterinary Medicine, Pharmacy, Law, Arts, Education, Technology, Sciences and Social Sciences as depicted in Figure 1. The University of Ibadan founded in 1948, has a catchment area of students from various ethnic groups and foreign nations especially from the ECOWAS countries. The University is located along the old Oyo road and it offers undergraduate and postgraduate programmes.

The total population of female undergraduate students in the University at the time of data collection was 4,017 according to University of Ibadan Management Information System.[10] Convenience sampling technique was used in selecting the participants. The students were met in their lecture theatres immediately after the lecture. Those who indicated willingness to participate in the study via consent and who were available in their various faculties during data collection participated in the study. A total of 400 undergraduate students participated in the study with only 312 being properly filled, completed and fit for analysis. Data collection continued until the sample size represented approximately 10% of the whole population of female undergraduate students and it lasted 7 weeks. Structured questionnaire was used to collect the required data. It was divided into five sections: Section A consisted of the demographic variables, B elicited information about knowledge of cervical cancer, C attitude and practice about sex, D perception of the relationship between multiple sexual partners and cervical cancer, and E on perception of prevention and screening for cervical cancers.

Content and face validity were ascertained and test-retest reliability was carried out on 20 female undergraduates who were randomly selected from the target population but who did not participate in the actual study at an interval of two weeks to ensure consistency. A reliability coefficient 'r' of .89 was obtained. Permission to

collect data was obtained from the different faculties with a letter of introduction from the Head of Department of Nursing. Participants were informed of the purpose of the study, and the benefits that they stand to derive from it, such as being better informed about their health behaviour especially regarding the prevention of cervical cancer were highlighted. Moreover, their consent was sought, confidentiality was ensured and no coercion was used to enhance participation while the voluntary nature of the study was also emphasized. Confidentiality was guaranteed and no name was required. The students were approached around their lecture areas where the instrument (questionnaire) was given to them for completion and retrieved immediately. A few of them were followed to their hall of residence for retrieval on request. Data were coded and subjected to Statistical Package for Social Sciences (SPSS), version 17. Participants were from different faculties as shown in Figure1.

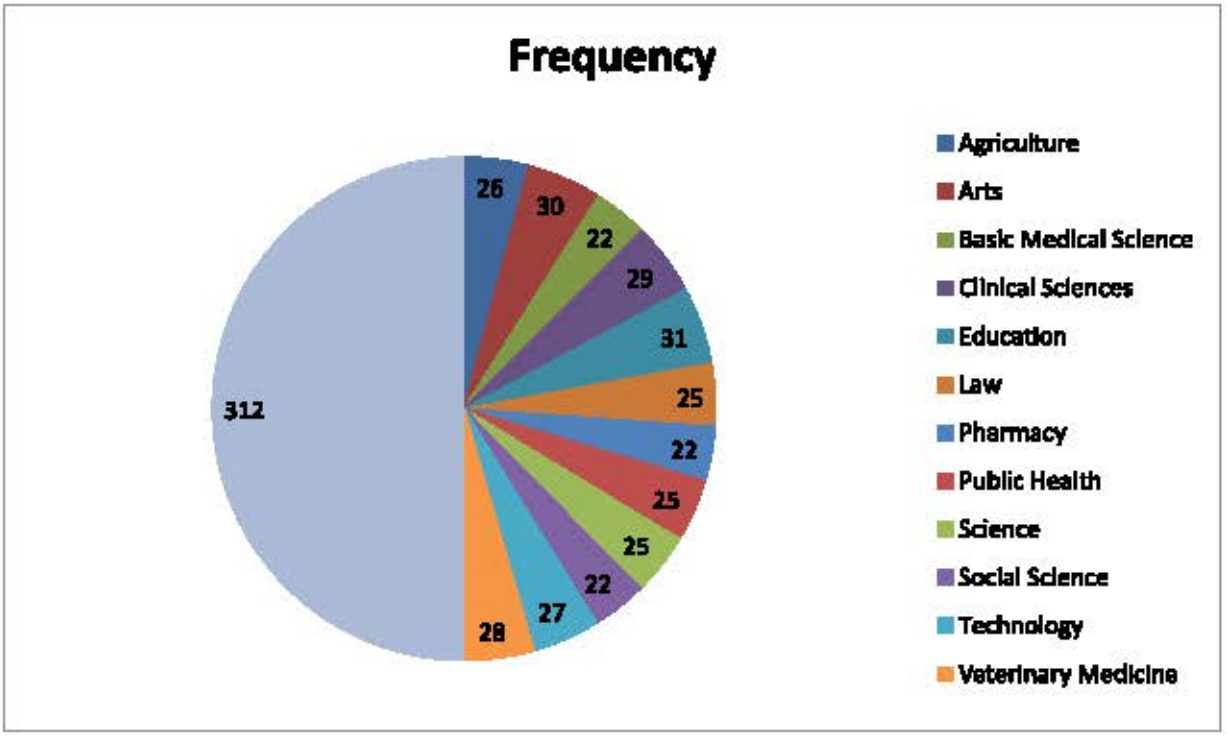

Figure 1: Distribution of respondents by faculty of study

RESULTS

Table 1: Socio demographic status of respondents

Age group (Years)	Frequency	Percent
<20	157	50.3
21-25	118	37.8
26-30	35	11.2
>30	2	0.6
Marital Status		
Single	294	96.2
Married	18	3.8
Ethnic Group		
Yoruba	203	65.1
Ibo	106	34.0
Hausa	2	0.6
Urhobo	1	0.3
Total	**312**	**100**

Table 2: Respondents' perceived causes and symptoms attributed to cervical cancer

Causes of cervical cancer	Wrong		Right	
	No	%	No	%
Causes by a Virus	178	57.0	134	43.0
Having sex at early age	155	50.0	155	50.0

Known cause by either: Smoking, consumption of alcohol and using hormonal contraceptives	223	71.5	89	28.5
Symptoms of cervical cancer: Bleeding between menstruation, profuse offensive vaginal discharge, Swelling of the abdomen and pain	204	65.4	108	34.6
Total	**760**	**65.8**	**395**	**34.2**

Figure 2: Female undergraduate students of the University of Ibadan will not perceive any significant relationship between cervical cancer and multiple sexual partners.

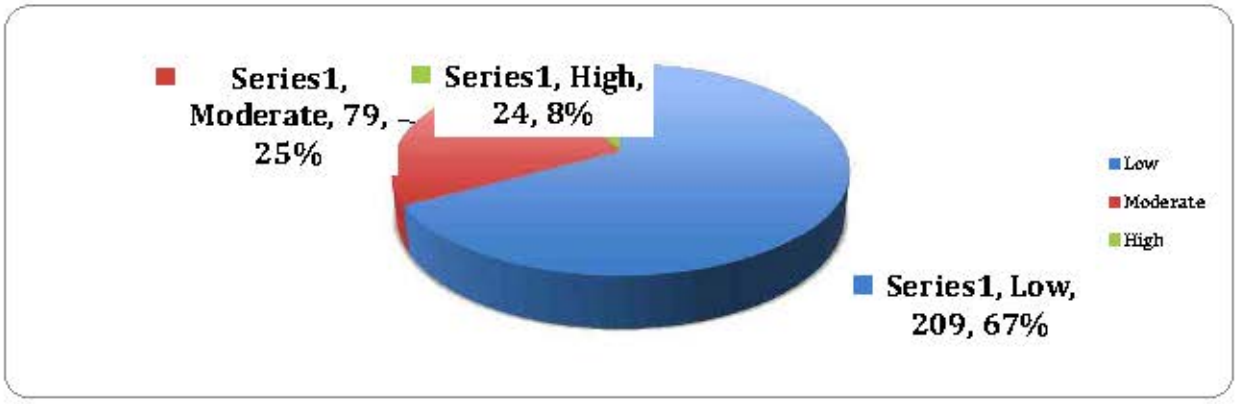

Table 3: Analysis of Variance

Source	DF	Mean square	F Value	Prob>F	R^2	Adj R^2
Model	4	38.00	3.24	0.005	0.64	0.56
Error	307	11.73				
C Total	311					

Table 4: Regression estimates

Coeficients	DF	Estimate	T-Value	Prob
Intercept	1	3.885921	2.451	0.0148
Age	1	0.026274	2.012	0.0125
Marital Status	1	-0.073449	-0.078	0.9380
Religion	1	0.182204	0.393	0.4149
Tribe	1	0.217994	0.660	0.2395

Discussion

Majority, 157 (50.3%) of the respondents were aged ≤ 20 years with only 2 (0.6%) being 30 years and above. This shows that the average age of the participants is ≤ 20 years. This is in line with the average age of commencement of sexual intercourse among Nigeria youths[11]. Also, majority of them, 294 (96.2%) were single while only 18 (3.8%) were married. This is expected as the study was conducted among undergraduate students. It was further discovered that 134 (43%) of the respondents were right that a virus causes cervical cancer while majority of them, 178 (57%) were wrong (Table 2). This is a reflection of poor understanding of multiple sex partners as a cause of cervical cancer as observed in literature[12,13]. There was a half-way opininon on whether having sex at an early age can predispose one to cervical cancer especially with HPV implication. Furthermore, most of the respondents 223,71.5% did not know that consumption of alcohol was the only one, out of the listed options of smoking, consumption of alcohol, using hormonal contracptives, and socio-economic factors as causes of cervical cancer, that is not directly related. Similarly, most (65.4%) of the respondents did not know that only swelling of the abdomen out of bleeding between menstruation, profuse offensive viginal discharge, swelling of the abdomen and pain, is not a symptom of cervical cancer. Further result of pooled figure showed that 65.8 percent of the respondents did not know the cause attributed to cervical cancer. The chi-square value of 115.346 at 4 degrees of freedom showed a significant difference between the two levels. However, since the higher percentage had no known causes attributed to cervical cancer, it is concluded that the female undergraduate students of the University of Ibadan did not know the causes atrributed to cervical cancer.

Two hypotheses were tested in line with the research questions. One was to ascertain respondents' perception of the relationship of cervical cancer with multiple sexual partners while the other was to test the influence of demographic variables on perception about cervical cancer and multiple sexual partners. They were tested using Pearson's correlation method and were presented in Figure 1, Tables 3 and 4 respectively. The result in figure 1 showed that majority, 67.0% of the students had low perception about the relationship between multiple sexual partners and its consequent cause of cervical cancer. However, 25.3% of the respondents have moderate level of perception. Furthermore, the result revealed that only 7.7% of the respondents have high level of perception about the relationship between cervical cancer and multiple sexual partners. The chi-square for equality of proportion showed that with chi-square statistic of 173.558 at 2 degress of freedom, there is a siginificant difference between the three levels. Most of the respondents have low level of perception about the relationship between cervical cancer and multiple sexual partners. The hypothesis were therefore suppoted.

The second hypothesis stated that the demographic characteristics will not siginificantly affect their perception of the

relationship between multuple sexual partners and cervical cancer. The result in Table 3 showed that the model is explained by 64 percent R-sequared, which implied that the variablity in the dependent variable can be explained by the independent factors. It further informed that with an 'f' value of 3.24 and a probablity value of 0.036, the independent variables (age, marital status, religion and tribe) jointly, could significantly influnce the perception of risk factors. Similarly, the coefficients showed that except for age, all other variables were not significant

For the second hypothesis, which state that the demographic characteristic will not significantly affect their perception, the result in Table 4 showed that the model is explained by 64 percent R-squared, which implied that the variability in the dependent variable can be explained by the independent factors. It further informed that with an 'f' value of 3.24 and a probability value 'f' of 0.036, the independent variables (age, marital status, religion and tribe significantly and jointly influence the perception of risk factors. Similarly, the coefficients showed that except for age, all other variables have no significant influence on the respondents' perception of the relationship between cervical cancer and multiple sexual partners. Furthermore, since the coefficient of marital status is negative, it implied that the single students have lesser influence on the relationship between multiple sexual partners and cervical cancer. The hypothesis is neither rejected nor supported. However, since the greater percentage, 96.1% as shown in Table 4 are single, this hypotheses still points to the fact that many of the female participants did not perceive any relationship between multiple sexual partners and cervical cancer.

Implications for Nursing

The findings from the study has a lot of implications for nursing in that there has been a lot of emphasis on the prevention of cervical cancer through cervical cancer screening test. However, many young ladies do not know the cause of cervical cancer, and the influence of having multiple sexual partners or frequent sexual intercourse and susceptibility to cervical cancer. Thus, there is the need to emphasize this on all awareness programmes to modify their sexual behaviour. Turkistani et al.,[9] expounded on the role of nurses and midwives in cervical cancer prevention and detection. This, was stated can be carried out through well organized and applied public education and mass screening programme which can substantially reduce the mortality from cervical cancer especially among a vulnerable population like female undergraduates. Besides, every meeting with nurses can act as a cue-to-action to provide this salient information so that measures can be taken to prevent cervical cancer. This is in line with Rosenstock's health belief model where by individuals seek to modify negative health behaviours[14,15].

Recommendations

Findings from this study revealed that many young women are not aware that having multiple sexual partners is a high risk factor for the development of cervical cancer irrespective of their age. This is similar to another study among Ibo women in Nigerian.It is therefore recommended that more awareness programme be carried out among the university students so that they can know that having multiple sexual partners can contribute to cervical cancer. In order to achieve this goal, cervical cancer should always be mentioned as one of the sexually transmitted infections (STIs) whenever there is health education discussions. In addition, nurses should assist young girls in modifying their sexual behaviours just as people are trained to help cigarette smokers or alcoholics modify their behaviour.

Summary and Conclusion

The study described the perception of female undergraduate students of the University of Ibadan of the relationship between multiple sexual partners and cervical cancer. Questionnaires were administered to 312 purposively selected respondents from the twelve faculties in the University of Ibadan. There is 50% awaereness level which did not translate to perception of any relationship between multiple sexual partners and cervical cancer. Discussion of findings and its nursing implications were outlined. Recommendations were made based on the findings.

References

1. U.S. Cancer Statistics Working Group, United States Cancer Statistics: 1999–2007 Incidence and Mortality Web-based Report, Atlanta: Department of Health and Human Services, CDC and National Cancer Institute,2010,<http://www.cdc.gov/uscs>, accessed Feb. 23, 2012.

2. Globocan, IARC (2012). Cancer Fact Sheets: Estimated Incidence, Mortality and Prevalence Worldwide in 2012. globocan.iarc.fr/Pages/fact_sheets_cancer.aspx

3. Programme for Appropriate Technology in Health (PATH). Planning Appropriate Cervical Cancer Prevention Programmes. 2nd ed. Seattle: Bill and Melinda Gates Foundation, 2000.

4. Cherenje ZM, Rusakaniko S, Kirumi L, et al. Situation analysis for cervical cancer diagnosis and treatment in East, Central and Southern African countries. Bull World Health Organ 2001; 79(2): 127-132

5. World Health Organization (WHO): Human papillomavirus and cervical Cancer. 2010. http:/www.who.int/mediacentre/factsheets/fs380/en/webcite

6. Jaiyeola, O.O, Ojemakinde, T.N, Izeuaye M. (2002).The Bethesda system: A Proposal for reporting abnormal cervical smears based on the reproducibility of cytopathologic diagnoses. Arch pathol Lab. Med 1998; 116:1155–8.

7. Juneja, A, Segal, A, Mitra, AB, Pandeu A. A survey on risk factors associated with cervical cancer. Indian Journal of cancer, 2003. 40 (1) 15–22.

8. Molano, M., Posso, H., Weidpass, E., Van den Brale, A.J, Ronderos, M., Franceschi S, Meijer C.J., Arslan, A. Munoz, N. Prevalence and determinants of HPV (2002). 87 (3) 324–333.

9. Turkistani, E.C, Sogukpinar, N, Saydam B.K, and Aydemir, G. Cervical cancer prevention and early detection – the role of nurses and midwives. Asian Pacific Journal of Cancer. 2003. 4 (1): 15–21.

10. Management Information System, University of Ibadan, November (2005).

11. Brabin, DE, Richard, RM. Diagnostic errors in colposcopy. Gynaecology Oncology 1999; 12: 259 - 64.

12. Ley C, Bauer HM, Reingold A, Schiffman MH, Chambers JC, Tashiro CJ, Manos MM. Determinants of genital human papillomavirus infection in young women. J Natl Cancer Inst. 1991 Jul 17;83(14):997–1003.

13. Liu J1, Rose B, Huang X, Liao G, Carter J, Wu X, Thompson C. Gynecol Oncol. 2004 Sep;94(3):803-10. Comparison analysis of characteristics of women with cervical cancer in high-versus low-incidence regions.

14. Rosenstock IM. The health belief model and preventive health behaviour. Health Education Monographs. 1974;2:354–386.

15. Rosenstock, Irwin M.; Strecher, Victor J., Becker, Marshall H. (1988). "Social learning theory and the health belief model". Health Education & Behavior 15 (2): 175–183. doi:10.1177/109019818801500203. Retrieved 11/2/13.

11. Cronje HS. Screening for cervical cancer in the developing world. Best Pract Res Clin Obstet Gynaecol 2005; 19(4): 517-529.

12. Megafu, M.U. Cancer of the genital tract among the Ibo women in Nigeria. Cancer 1979; 44(5): 187.