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AWARENESS AND PRACTICE OF BREAST SELF EXAMINATION FOR EARLY DETECTION OF BREAST CANCER AMONG FEMALE ADOLESCENTS IN SELECTED SECONDARY SCHOOLS ADO-EKITI, NIGERIA

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ABSTRACT: *This study evaluated the level of awareness and practice of BSE among senior secondary school girls in Ado-Ekiti. Method: A cross-sectional descriptive study design with 240 female adolescents in selected secondary schools in Ado-Ekiti was adopted. Data was obtained by the administration of structured questionnaires. SPSS was utilized for the analysis of data while descriptive statistics and Chi Square were used to present data at* $\alpha_{0.05}$ *level of significance. Results: Respondents mean age was 15.6 +1.17 while about 43% of respondents had moderate level of awareness of BSE. Conclusion: The level of awareness was significantly associated with practice of BSE as both level of awareness and practice were low as calculated value of 10.0 is greater than the tabulated value 3.84. The study revealed poor awareness of breast cancer and poor practice of BSE. There is a need for sensitization on BSE among adolescents through.*

KEYWORDS: Awareness, Breast Self-examination, Breast Cancer, Female Adolescents, Practice.

INTRODUCTION

The most prevalent cause of cancer deaths among feminine folks globally and in Nigeria is cancer of the breast (Nwafor & Nwafor 2018). Globally, the yearly incidence of the disease which affects women is about 900,000 (Agodirin et al., 2017). A projection of 627,000 fatalities by the World Health Organization (2019) among women has been ascribed to cancer of the breast accounting for fifteen percent fatalities among women. The organization stated further that as the incidence of breast cancer kept increasing among women in advanced nations so it also increases worldwide. Africa's annual incidence rate of breast cancer has witnessed a more rapid rise than in North America and Europe (Agodirin et al, 2017). The illness has been documented to manifest early among women in Nigeria. (Yonglan et al., 2018). Also, breast cancer is the most common cancer among the women word wide (Agbonifoh, 2016). The high death rate as a result of occurrence of breast cancer can actually be abridged by prompt diagnosis as studies have shown that few number of women check their breast status monthly

(Agbonifoh, 2016)). It has been reported that early screening of cancer of the breast can bring about the reduction of incidence rate of death among the affected persons (Agbonifoh, 2016). The minimum stage of detection breast cancer occurrence was 16 years whereas the highest age of occurrence was 42.6 years (Oluwatosin, 2012). Inadequate level of consciousness of early diagnostic procedures with the investigation of cancer of the breast was rampant in emerging countries (Hanna and Kangolle, 2010).This can be adduced as the reason why the presentation of breast cancer usually comes up very late among the Nigeria women that been affected by this illness and very little or no effect of therapy could be derived from it.

Even though there some concrete indications that signifies that the elderly women in emerging countries usually come for late presentation of cancer of the breast (Rivera-Franco MM & Leon-Rodriguez, 2019). There is available data that reviewed the issues associated with information as well as opinions women have concerning the cancer of the breast and its care. This might be of help towards the therapeutic health searching behaviours (Azubuike, 2017). Unlike Clinical breast examination (CBE), and mammography in which the person has to visit hospital along with the use of special equipment by trained personnel, BSE is not capital intensive and can be easily examined by individual women themselves (WHO, 2019; Obaji et al., 2013). Several studies (Memon et al., 2015; Rahman et al., 2019; Philip et al, 2005) also recognized that constructive suggestion occurred in between investigation of breast self-examination and early discovery of breast cancer. It has been revealed that most of the tumors of the breast are self-known and many of them are through self-discoveries through BSE actors. (Birhane et al., 2017). The practice of breast self-examination is very important in the prompt identification of any changes in the breast. It has also been established that cancer can occur in women as young as sixteen years and the teenage period is a time in which some health behaviours could be entrenched, which would stay till adulthood (Kyle, 2013). Timely discovery of cancer of the breast could be achieved by enabling female students to be aware of BSE practices. This would make possible valuable interventional solutions for regulating the illness and eradicating the death rate (Kyle, 2013). Although studies have been undertaken among various groups of populations in the world, targeting school teachers, young women, health workers, sex workers, pre-menopausal women, university students, and secondary school adolescents (Ndikubwimana et al; 2016), yet, little is documented about the practice and consciousness of BSE within the female secondary students in Ado-Ekiti, Western Nigeria. This study therefore assessed the awareness and practice of BSE among female senior secondary school students in Ado-Ekiti, Nigeria.

METHODOLOGY

Selection of Participants

The study adopted a cross-sectional descriptive study from January to March 2017. The study population consisted of 240 students who were in the senior secondary (SS) classes (1–3) aged between 14 and 18 years. They were purposively selected because of the fact that they would have reached puberty and would adequately fit into the study. One hundred and twenty girls each were selected from Mary Immaculate Girls Grammar School and Christ Girls School; both in Ado-Ekiti. The SS1–3 students were selected by multi-stage clustering and simple random sampling. Permission was taken from the two School Authorities to conduct the research. Informed consent was taken with full pledge of confidentiality before conducting the

research work. Structured questionnaire were used to collect data which made up of four sections eliciting information about: socio-demographic characteristics (section A), awareness about breast cancer (Section B): Knowledge on early discovery of breast cancer with the use of breast self-examination (Section C), and exercise of breast self-examination (Section D). The instrument was pre-tested by the administration of the structured questionnaires to twenty-four SS 3 students at Fiwasaye Girls Grammar School, Akure Ondo state. The consistency of the instrument was tested through split-half method and Cronbach alpha reliability coefficient which was found to be 0.860. The questionnaire was appraised and essential adjustment were made before the commencement of study. All completed questionnaires were collected and screened for completeness manually by the investigator after which the frequencies of all variables were computed. The data were analyzed using SPSS software version 20. Descriptive statistics including percentages, frequencies, and measures of central tendencies and chi-square tests were used to determine the degree of association of variables. All analyses were done at 5% level of significance.

Ethical Approval: All procedures were performed in compliance with relevant laws and institutional guidelines and that the appropriate institutional committees have approved them.

Informed Consent: Informed Consent was taken from the School Principals and the respondents before administration of questionnaires.

RESULTS

Table 1 reflects the socio-demographic characteristics of respondents. A total of 120 respondent each from Mary immaculate and Christ Girls School Ado Ekiti, making total of 240 respondents from both schools. The respondents were all females (100%). The ages ranged from 14 to 18 years in the three senior secondary school (SSS) classes, with 35.0, 33.3 and 31.7% of the respondents in SS1, 2 and 3 respectively. The mean age of the students was 15±1 year, while majority (93%) were Christians and 92% of the students Yoruba.

Table 2 shows the awareness of respondents concerning cancer of the breast. The study revealed that 29.6% of the respondent had good level of awareness of cancer of the breast, while 73.9% did not have knowledge that breast inspection could help in the timely recognition of breast malignance. Also 49% reported that they are not conscious of how breast self-examination (BSE) is being carried out, 32% reported that BSE is not necessary to be done by female. Sixty eight percent of the students acceptably acknowledged that breast cancer is a non-infectious communicable illness, 53% knew that breast suckling is not instrumental of breast cancer also 85% responded that malicious eye does not cause cancer of the breast. Nevertheless, around 17% of the students recognized that being overweight in some women, can increase the danger of developing breast cancer while 24% of the respondents knew that late child bearing at ages above 30 years amongst women could predispose them to having cancer of the breast. Forty six percent of the respondents identified that use of oral contraceptives increases the predisposition of women to breast cancer while 45% of the respondents recognized that a hard blow to the breast could cause cancer later in life. Forty-one percent among the students identified that majority of breast tumors are malignant. 34% reported they are too young to carry BSE out. 24% reported that it is difficult to remember to do while 39% reported that they have the fear of detecting abnormality. Finally, 39% of the

respondents reported that they are afraid of exposing their self to the opposite sex. In the aspect of practice, merely 9.2% respondents practice BSE, 21.0% said they got their information about BSE through friends and 26.0% participants said via mass media, health personnel in 31.0%, and others 22.0%.

Table 3 revealed relationship among socio-demographic features and level of awareness of BSE. The table showed that age and class of the participants were significantly associated with awareness of BSE while table 4 showed the relationship between socio-demographic characteristics and practice of BSE. The table revealed that there was a significant difference between the awareness and practice of breast self-examination, despite the level of awareness yet the practice level was low (X^2_{Tab}= 3.84 and X^2_{cal}= 10).

Table 4 revealed that Some of respondent at age of 16 -18 years 51% did not engaged in BSE also 86% of Christian and 84% of Yoruba do not practice breast examination, among SS1, SS2, SS3 Student 34%, 30.8% and 25.8% didn't practice the BSE, only very view student practice BSE.

The major why for not practicing breast self-examination include not having a breast problem in majority of the participants, some said they don't think is necessary to do it and some said since they are not pregnant, they don't need to examine their breast.

From table 4, the hypothesis reviewed that there is significant relationship between levels of awareness with practice of BSE. $P<0.05$

DISCUSSION

Socio-Demographic Characteristics of Students in the Study Area.

The mean age of 15.6 ± 1.2 years shown in this study is in line with the structure of education in Nigeria which necessitates students to move in to secondary school at the age of 12 years and finish at the age 18 years. This was slightly lesser to the mean age of 16.0 ± 0.9 years documented in a research work in Turkey among senior school students (Karayurt et-al, 2014). There was significant relationship between age and knowledge scores. This is in agreement with (Nwaneri *et al*, 2017) who reported that older women expressed lower knowledge of risk factors about cancer of the breast among cross section of British women which was clearly shown amidst women of lower social economic status (SES).

Majority of respondents had a little awareness of breast cancer which is in agreement to study conducted in Abuja (Isara & Ojedokun, 2011). This might be attributed to the fact that Abuja is a more cosmopolitan environment than Ado-Ekiti, similar findings were reported at Tanzania by Ngida et al., 2019 that the majority of the participants had never heard of BSE. The role of teachers in disseminating information about BSE among secondary school students could not be over emphasized as this study has shown the poor input of teachers as a major source of information. Educating teachers about breast cancer enhances the dissemination of accurate information on breast cancer to the students as early as possible. BSE practice among the study population was poor, the major reason being the lack of knowledge of its performance. Oluwatosin and Oyedepo, 2012; Karayurt et-al, 2016 also documented the poor practice of BSE across all age categories in different research works in Nigeria and globally. It is however

creditable to observe the readiness of the girls to practice BSE if trained. An argument for the provision of interventional programmes to be made available for this particular age category would be a welcome development. This is a pointer to Health Educate Teachers on the need to extend the facts about BSE to younger women as against the older women who are perceived to be more vulnerable. This is because imbibing prompt social configurations about BSE patterns and having acceptable level of facts and exhibitions for these young adults is important to guarantee accurate and active practise of BSE presently and in the future. Another explanation given by the respondents for not carrying out the practice of BSE was the lack of awareness to being susceptible to cancer.

The lack of awareness about the ailment could be attributed to low level of knowledge including related risk factors. There was significant association between the awareness of BSE and practice. This was in line with similar study by Isara & Ojedokun (2011) who reported that the respondents who had a good awareness of BSE practiced it more than those who did not. This was not in agreement with other studies in Nigeria and Iran among older women (Faronbi & Abolade 2012). Increased awareness of cancer of the breast and BSE is essential to kick start interest in taking more concrete steps towards health changing behavior among this group of individuals. This could be achieved by educating the teachers so that they can enhance the practice of BSE among the students. The younger the age, at which females have been exposed to facts and knowledge of BSE, the greater the likelihood of compliance to the practice of BSE in the future. Sufficient awareness and screening practices of breast cancer can help in early detection of cancer of the breast can and low practice of BSE in an emerging Nation such as Nigeria.

Implication to Research

The findings revealed low awareness level of the female secondary school student, adequate periodic interventional programmes targeting young girls should be built into the school curriculum regarding BSE. Information can also be channel to the Parent during their Parent Teacher Association (PTA) meetings. Information, education and communication materials (IEC) can be made used of in the school's environment, all these can serve as interventions to help in reduction of breast cancer in our society

CONCLUSIONS

The outcome of this research showed the inadequate awareness of cancer of the breast and its related risk factors which cumulates in the poor practice of BSE among Senior Female Secondary School Students in Ado-Ekiti, Nigeria. Once the awareness of BSE among the students is achieved, it will enhance the early detection of Breast cancer and this practice would be a potentially useful approach for controlling the disease and reducing mortality.

Conflict of Interest

There was no conflict of interest within the authors

FUTURE RESEARCH

There should be further educational intervention Programme on the knowledge of BSE on the awareness of breast tumor in other to prevent breast cancer. There should be a further study on evidence base practice BSE related to cancer and its risk factors.

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APPENDIX

Table 1: Socio-Demographic Characteristics of Respondents

Variable	Frequency (N =240)	Percentage (%)
Age (years)		
13-15	101	42.1
16-18	139	57.9
Class		
SS1	84	35.0
SS2	80	33.3
SS3	76	31.7
Ethnicity		
Yoruba	222	92.5
Igbo	18	7.5
Religion		
Christian	226	94.2
Islam	14	5.8

Table 2: Respondents Awareness of Breast Cancer

Awareness levels	Frequency	%
Good	71	29.6
Average	102	42.2
Poor	67	27.9

Table 3: Relationship between Socio-demographic characteristics and level of Awareness of BSE

Variable	Awareness of Breast Self-Examination						P Value
	Good (%)	Average (%)	Poor (%)	Total (%)	X_{cal}	X_{tab}	
Age in Years							
13-15	29 (12.1)	31 (12.9)	41 (17.1)	101 (42.1)	15.78	5.99	< 0.05
16-18	42 (17.5)	71 (29.6)	26 (10.8)	139 (57.9)			
Class							
SS1	39 (16.3)	17 (7.1)	28 (11.7)	84 (35)			
SS2	19 (7.9)	29 (12.1)	32 (13.3)	80 (33.3)	55.43	9.49	< 0.05
SS3	13 (5.4)	56 (23.3)	7 (2.9)	76 (31.7)			
Religion							
Christian	66 (27.5)	100 (41.7)	60 (25.0)	226 (94.2)	5.56	7.38	> 0.05
Islam	5 (2.1)	2 (0.8)	7 (2.9)	14 (5.8)			
Ethnicity							
Yoruba	68 (28.3)	92 (38.3)	62 (25.8)	222(92.5)			
Ibo	3 (1.25)	10 (4.2)	5 (2.1)	18 (7.5)	1.82	5.99	> 0.05

Table 4: Relationship between Socio-demographic characteristics and practice of BSE

Variable	Practice of Breast Self-Examination				P Value
	Yes N (%)	No N (%)	X_{cal}	X_{tab}	
Age in Years					
13-15	7(2.9)	94(39.2)	1.04	3.84	
16-18	15 (6.3)	124(51.6)			<0.05
Class					
SS1	2(0.8)	182(34.2)			
SS2	6 (2.5)	74 (30.8)	12.91	5.99	>0.05
SS3	14 (5.8)	62 (25.8)			
Religion					
Christian	19 (7.9)	207(86.3)	2.64	3.84	<0.05
Islam	3(1.25)	11 (4.6)			
Ethnicity					
Yoruba	20 (8.3)	202(84.2)	0.09	3.84	<0.05
Ibo	2(0.8)	16 (6.6)			
Awareness					
Good	22 (9.2)	54 (23)			
Poor	19 (7.9)	145 (60)	10.00	3.84	<0.05