



Relationship between the Age and Educational Level and Practice of Breast Self-Examination among Women Attending Antenatal Clinics in Gusau, Zamfara State, Nigeria

Binta Usman Mayana^{*1}, Garba Muhammad Kanwa¹, Yakubu Lawali² and Okonkwo Chika³

¹ Federal Medical Center Gusau, Nigeria

²Department of Nursing Sciences, Usmanu DanFodiyo University Sokoto, Nigeria

³Federal College of Education Technical Gusau, Nigeria

*Corresponding Author

Binta Usman Mayana
Email:

Article History

Received: 25.03.2020

Accepted: 20.04.2020

Published: 29.04.2020

Abstract: Breast cancer is the leading cause of death among women worldwide. The most effective means of prevention is by early detection via Breast self examination (BSE). This study identified the relationship between age and educational level on practice of BSE among women attending ANC in Zamfara state, Nigeria. A quantitative cross sectional design was employed using structured questionnaire. A sample of 292 participants was selected for the study using quota sampling technique. Statistical Package for Social Sciences (SPSS version 22.0, IBM Corp, New York) was used for data analysis. Chi square was used to establish significant relationships. Findings of this study suggest that there was a significant relationship ($CV=5991, X^2=15.19$) between age of the respondents and the practice of breast self-examination. However, relationship was not established between educational level of the respondents and practice of breast self-examination ($CV=7.81, X^2=4.87$). Therefore, there is a need for health education and awareness programme by health care practitioners regarding BSE..

Keywords: Breast, Awareness, Practice, Cancer, Death.

Copyright @ 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

Research Article

BACKGROUND THE STUDY

Breast cancer is the most common form of cancer affecting women in Nigeria with an overall incidence of about 15.3/100,000 women (Okobia, Bunker, Okonofua, & Osime, Knowledge, 2006; American Cancer Society, 2011). The risk factors for the development of breast cancer were: age, menarche, parity, menopausal status, age at first live birth, family history, use of exogenous hormones, alcohol consumption, breastfeeding, genetic mutations, and benign breast disease (American Cancer Society, 2013). Similarly, Carney, Miglioretti, Yankaskas, Kerlikowske, Rosenberg, Rutter, and Ballard-Barbash, (2008), Individual and combined effects of age, breast density, and hormone replacement therapy use on the accuracy of screening mammography are also the risk factors.

Early diagnosis decreases mortality and increases quality of life (Mason, & White, 2008). In this regard, breast self-examination (BSE) is one of the

important tools for early diagnosis because it creates breast cancer awareness and promotes self-responsibility for health care among women (Crossing, & Manaszewicz, 2003; Petro-Nustas, & Mikhail 2002).

Thornton, (2008), stated that Northern Nigeria, especially Zamfara State, is among the less educationally developed states. This might also include knowledge regarding BSE. Studies conducted in the Southern part of the country where literacy level is higher than the Northern part indicate that there is a significant relationship between educational level and knowledge and practice of BSE among women. However, there are no studies that determine the influence of educational level on the knowledge and practice of BSE among women in Northern Nigeria. Therefore, this study examined the relationship between age and educational level on practice of BSE among women attending ANC in some selected hospital in Zamfara state, Nigeria.

Citation: Binta Usman Mayana *et al.*, M. (2020). Relationship between the Age and Educational Level and Practice of Breast Self-Examination Among Women Attending Antenatal Clinics In Gusau, Zamfara State, Nigeria. *Glob Acad J Med Sci*, 2(2), 8-12.

METHODOLOGY

Research Design

A quantitative cross-sectional design was employed which was conducted to gather information from client on self-breast examination.

Population of the Study

The population of the study is 1086 (FMC(423) Specialist Hospital(412) and General

Hospital (251)) people and this figure was arrived by using the weekly record of women attending antenatal clinic.

Inclusion criteria: pregnant women; those registered for ANC, Those women living in Gusau

Exclusion criteria: women who come to hospital for other reason rather than ANC; non pregnant women; those women that came for the first visit.

Sampling Size Determination

In order to obtain sample size, a formula $n = \frac{N}{1+N(e)^2}$ was used (slovins, 2006).

n= Sample size

N= Target population (N=300)

e= Margin of error (e=0.05)

$$\begin{aligned}
 n &= \frac{1086}{1 + 1086(0.05)^2} \\
 &= \frac{1086}{1 + 1086(0.0025)} \\
 &= \frac{1086}{1 + 2.72} \\
 &= \frac{2.72}{1086} \\
 &= 291.92 \\
 &\approx 292
 \end{aligned}$$

Hospital	Number of booked women	Sample selected
FMC	423	114
Specialist hospital	412	111
General hospital	251	67
Total	1086	292

Sampling Techniques

The researcher adopted quota to administer questionnaire to women attending ANC at selected hospitals i.e FMC Gusau, Specialist Hospital and General Hospital Gusau.

Instrument for Data Collection

Questionnaire was the instrument used for collection of data. The questionnaire consists of four sections ABC and D. Section A (consists of respondent bio or demography data), section B (Question related to the level of awareness of breast self-examination), section C (questions on factors affecting the practice of breast self-examination and section D (consists of questions to rule out the relationship between the level of awareness and practice of breast self examination).

Procedure for data collection

The researcher distributed the questionnaires to the client after approval from the ethical committee of the various hospitals and from various nursing officers (CNOs) and finally oral consent from the

respondents sought. Those who consented were given the questionnaire to fill. Those that cannot read, it was read and explained to them with the assistance of a research assistant.

Data Management and Analysis

The data collected was analyzed using SPSS version and presented using a simple frequency distribution table, mean and standard deviation. Chi-square was used for inferential statistics to establish relationships.

Measurement scale: on level of awareness

01-2.4 no awareness

2.5-2.9 low awareness

3.0-3.4 moderate awareness

3.5-4.0 high awareness

Ethical Consideration

Ethical approval was sought from various hospitals. Permission from the various CNOs and an consent form was given to the respondents and consent was obtained.

RESULT

Table 1 Socio-Economic and Demographic Characteristic

Item	Response	Frequency	Percentage %
Age	18 - 22 years	32	10.96
	23 - 27years	123	42.12
	28 - 32 years	90	30.82
	33 years and above	47	16.10
	Total	292	100.0
Religion	Islam	255	87.33
	Christianity	37	12.67
	Others	0	5.2
	Total	292	100.0
Occupation	Full Housewife	205	70.21
	Civil servant	66	22.60
	Student	21	7.19
	Total	292	100.0
Level of Education	Primary	99	33.90
	Secondary	108	36.99
	Tertiary	85	29.11
	Total	292	100.0

Responses from the above table showed that majority of the respondents 123 (42.12%) aged between 23-27, followed by those age between 28-32 -90 (30.82%). The religious distribution of the respondents showed that 255 (87.33%) of the respondents practice Islam and 37(12.67%) of the respondents practice Christianity. The above table also indicate that 205

(70.21%) of the respondents were full housewives while 66(22.60%) of the respondents are civil servants and only 21 (7.19%) of the respondents were students. The table also showed that 99 (33.90%) of the respondents had primary level of education, majority 108 (36.99%) of the respondent had secondary education; 85 (29.11%) of respondents had tertiary level of education

Table 1 Awareness and practice of breast self examination

Responses	Awareness		Practice			
	frequency	Percentage	Frequency	percentage		
YES	222	76.03	122	41.78		
NO	70	23.97	170	58.22		
Respondents Practice of Breast self Examination by Age						
Age	Regular practice		Irregular practice		Total/frequency	
	F	%	F	%	F	%
18 - 22 years	2	11.11	16	88.89	18	14.75
23 - 27years	7	26.72	36	83.72	43	35.25
>28 years	25	40.98	36	59.02	61	50
Total	34	27.87%	88	72.13%	122	100
Respondents Practice of Breast Self Examination by Education						
Education	Regular practice		Irregular practice		Total/frequency	
Primary	2	18.18	9	81.81	11	9.02
Secondary	5	13.16	33	86.84	38	31.15
Tertiary	26	38.80	41	61.19	67	54.92
Non	1	20.00	5	83.33	6	4.92
Total	34		88		122	100

The table above shows that, majority 222 (76.03%) of the women said they are aware of breast self-examination. Majority 170 (58.22%) of women have never practice breast self-examination and only 122 (41.78%) of women reported to have practiced breast self-examination. The table also shows that among those who practiced breast self-examination, 34

(27.87%) practiced it regularly (monthly) and 88 (72.13%) practiced it irregularly. Women of more than 28 years of age practiced it more regularly than those in other age groups with 40.98%. The table also shows that, women with tertiary level of education practice breast self-examination more compared to others with secondary school education with 67 (54.92%).

The chi square value is calculated to be 15.19 ($X^2=15.19$) and the critical value was 5.991 ($CV=5.991$) under 0.05 level of significance. So the chi square value is statistically significance. This shows that, the null hypothesis is rejected and accepted the alternate hypothesis. Therefore there is a relationship between age and practice of breast self-examination. On the relationship between level of education and practice of breast self-examination, the chi square test result is statistically insignificant ($CV=7.81$, $X^2=4.87$) therefore we failed to reject null hypothesis.

DISCUSSION OF FINDINGS

The result of this Findings shows that majority of the respondents 123 (42.12%) aged between 23-27, followed by those age between 28-32 -90 (30.82%). The religious distribution of the respondents showed that 255 (87.33%) of the respondents practice Islam and 37(12.67%) of the respondents practice Christianity. Similarly, the findings also indicate that 205 (70.21%) of the respondents were full housewives while 66(22.60%) of the respondents are civil servants and only 21 (7.19%) of the respondents were students. The findings also showed that 99 (33.90%) of the respondents had primary level of education, majority 108 (36.99%) of the respondent had secondary education; 85 (29.11%) of respondents had tertiary level of education. These findings are somewhat similar to that of Sani, and Naab in sokoto.

Based on the relationship between the age of the respondents and the practice of BSE among women, this study established that there is significant relationship ($CV=5.991$, $X^2=15.19$). This is in agreement with a study conducted by Sani in Sokoto where a significant relationship between the respondents age group and the frequency of practice of Breast Self-Examination was established ($X^2 = 5.882$, $df = 2$, $P = 0.027$). In the other hand, the study established no relationship between the level of education and practice of breast self examination ($CV=7.81$, $X^2=4.87$). However, this is contrary to that conducted in sokoto which established significant relationship between the educational level of the respondents and the frequency of the practice of BSE ($2 = 12.572$, $df = 3$, $P < 0.01$). the differences might have existed because the number of those with higher education in their study is higher.

Recommendations

- Health workers should encourage the ante- natal attendance on practicing self breast examination.
- Government should organize seminar in the various local government on self breast examination.
- The traditional rulers should encourage the women of the community on attending ante-natal clinic.

- Government should organize program through mass media to educate women of the community on the benefit of self breast examination.
- The women of the community should be informed on the advantages of self breast examination.

REFERENCE

1. Abdulrahman, S., & Naab, F. (2014). Relationship between age and Breast Self-Examination among women in Nigeria. *Journal of Nursing and Health Science*, 3 (6), 34-39.
2. Agbo, P. S., Khalid, A., & Oboirien, M. (2014). Clinical Presentation, Prevalence and Management of Breast Cancer in Sokoto, Nigeria. *Journal of Women's Health Care* 3:149, doi:10.4172/2167-0420.1000149
3. Al-Azmy, S. F., Alkhabbaz, A., Almutawa, H. A., Ismaiel, A. E., Makboul, G., & El-Shazly, M. K. (2013). Practicing breast self-examination among women attending primary health care in Kuwait. *Alexandria Journal of Medicine* 43, (10), 281-286.
4. Alharbi, N. A., Al-Shammari, M. S., Almutari, B. M., Makbul, G., & El-Shazly, M. K.(2012). Knowledge awareness and practices concerning breast cancer among Kuwait Female Teachers. *Alexandria Journal of Medicine*, 48, 75-82.
5. Alwan, N. A., Al-Diwan, J. K., Al-Attar, W. M., & Eliessa, R. A. (2012). Knowledge, attitude & practice towards breast cancer & breast self-examination in Kirkuk University, Iraq. *Asian Pacific Journal of Reproduction*, 1(4), 308-311.
6. Amasha, H. A. (2013). Breast Self-Examination and risk factors: Awareness of Jordanian Nurses. *Health Science Journal*, 7(3), 303-314.
7. American Cancer Society. (2011). Breast cancer: early detection. Atlanta, GA: American Cancer Society Inc.
8. American Cancer Society. (2013). Breast Cancer, Facts and Figures, 2013 – 2014. Atlanta, GA: American Cancer Society.
9. Bilge, U., & Keskin, A. (2014). Breast cancer screening knowledge in a Turkish population: Education is necessary. *Procedia-Social and Behavioural Sciences*, 116, 1861-1863.
10. Buranaruangrote, S., Sindhu, S., Mayer, D. K., Ratinthorn, A., & Khuhaprema, T. (2014). Factors influencing the stages of breast cancer at the time of diagnosis in Thai women. *Collegian*, 21 (4), 11-20.
11. Carney, P. A., Miglioretti, D. L., Yankaskas, B. C., Kerlikowske, K., Rosenberg, R., Rutter, C. M., ... & Ballard-Barbash, R. (2003). Individual and combined effects of age, breast density, and hormone replacement therapy use on the accuracy of screening mammography. *Annals of internal medicine*, 138(3), 168-175.
12. Crossing, S., & Manaszewicz, R. (2003). Breast Self-Examination: Be alert but not alarmed? *Medical Journal of Australia*, 178 (12), 646–647.

13. Ghodis, Z., & Hojjatoleslami, S. (2012). A Survey about educational needs of Breast Cancer and BSE in Iranian Women. *Procedia-Social and Behavioural Sciences*, 46, 2561-2565.
14. Jemal, A., Bray, F., Forman, D., O'Brien, M., Ferlay, J., Center, M. & Parkin, D. M., (2012). Cancer Burden in Africa and Opportunities for Prevention, 118, 2012, 4372-84
15. Ku, Y. (2004). Chinese Cultural Beliefs about Breast Cancer and Breast Self-Examination. *Taiwan Journal of Hospice Palliative Care*, 9 (4), 313-335.
16. Mason, T. E., & White, K. M. (2008). The role of behavioural, normative and control beliefs in breast self-examination. *Women's Health*, 47 (2), 39-56.
17. Mohamed, N. A. El-Magrabi, N. M., & Ahmed, S. S. (2013). Evaluation of Breast Cancer Knowledge and Breast Self- Examination Practices among Adolescent Blind Girl's in Qena Governorate. *Life Sci J* 10 (2), 1143-1156.
18. Okobia, M., Bunker, C. H. Okonofua, F. E., & Osime, U. (2006). Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study. *World Journal of Surgical Oncology*, 4 (10), 4-11.
19. Olowokere, A. E., Onibokun, A. C., & Oluwatosin, A. O. (2012). Breast cancer knowledge and screening practices among women in selected rural communities of Nigeria. *Journal of Public Health and Epi*, 4(9), 238-245.
20. Oluwole, O. C. (2008). Awareness, Knowledge and Practice of Breast-Self Examination amongst Female Health Workers in a Nigerian Community. *Sudan JMS*, 3(2), 99- 104.
21. Onwere, S., Okoro, O., Chigbu, B., Aluka, C., Kamanu, C., & Onwere, A. (2009). Breast Self-Examination as a method of early detection of Breast Cancer: knowledge and practice among ANC attendees in South-Eastern Nigeria. *Pak J Med Sci*, 25(1), 122-125.
22. Umbreen, B., Muhammad, C., & Shahid, T. (2011). Is Breast Self-Examination (BSE) Still Relevant? A Study on BSE Performance among Female Staff of University of Malaya. *Asian Pacific J Cancer Prev*, 12, 369-372.
23. Oztuek, M. Engin, V. S., & Kisioglu, A. N. (2010). The practice of breast self-examination among women at Gulistem district of Isparta. *Eastern Journal of Medicine*, 4(2), 47-50.
24. Petro-Nustas, W., & Mikhail, B. I. (2002). Factors associated with breast self-examination among Jordanian women. *Public Health Nursing*, 19 (20), 263-71.
25. Registe, M. F., & Porterfield, S. P. (2012). Health Beliefs of African American women on BSE. *American College of Nurse practitioners*, 8 (6), 446-451.
26. Rosenberg, R., & Levy-Schwartz, R., (2003) Breast cancer in women younger than 40 years. *International Journal of Fertility and Womens Medicine*, 48(5), 200-205.
27. Thomas, B., Stamler, L. L., Lafreniere, K. D., Ray, R. M., Gao, D. L., Kolesar, J. k., ... & James, B. K. (2002). Using the internet to identify womens' sources of breast health education and screening. *Women & Health*, 36, 33-48.
28. Thornton, H., & Pillarisetti, R. R. (2008). Breast awareness and breast self-examination are not the same. What do these terms mean? Why are they confused? What can we do? *European Journal of cancer*, 44, 2118-2121.
29. Vahabi, M. (2005). Knowledge of breast cancer and screening practices. *Health Education Journal*, 64(3), 218-228.
30. Wilke, L. G., Broadwater, G., Rabiner, S., Owens, E., Yoon, S., Ghate, S., ... & Seewaldt, V. (2009). Breast Self-Examination: Defining a cohort still in need. *The American Journal of Surgery* 198, (20) 575-579.