

Full Length Research Paper

Cervical cancer education for behavioural change among antenatal patients for prevention of cervical cancer in Ondo State, Nigeria

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ABSTRACT: This study looked into cervical cancer education for behaviour interventions among antenatal patients in Ondo State, Nigeria, to prevent cervical cancer. The study employed a Quazi experimental research design with pre and post-intervention without a control group. The study's population consists of all women of childbearing age in Ondo State. The sample for the study was 120 consented participants selected throughout the state. The samples were selected after obtaining ethical approval from Ondo State Ministry of Health and the Federal Medical Centre Research and Ethic committee. A multi-stage sampling technique was used to select the participants. The face, content and construct validities of the instrument were established. The correlation coefficient index of 0.85 was obtained and the instrument was considered valid. The reliability coefficient of 0.88 was obtained and was considered good and reliable for the study. The research questions raised were answered descriptively using percentage,

mean, standard deviation while all the hypotheses were tested at a 0.05 level of significance using inferential statistics. Based on the analysis of data of this study, there was a significant main effect of treatment on behavioural modification and attitudinal change of the participants towards cervical cancer prevention. Based on the findings of this study, it was therefore concluded that cervical cancer could be prevented through early detection, behavioural modification and attitudinal change to a positive lifestyle to enhance a good prognosis. The researcher recommended that there should be regular training of health workers to improve their interpersonal relationship with the target population. Cervical cancer education should be directed towards attitudinal change to avoid risky health behaviour to enhance a decrease in the morbidity and mortality rate of cervical cancer.

Keywords: cervical cancer, antenatal, behavioural change, modification, attitude, prevention

INTRODUCTION

Cancer is a terminal illness and it occurs in different stages and it can affect all ages regardless of race, ethnic and religious affiliation. Cervical cancer is a unique disease that is only affecting the female reproductive organ called cervix (WHO, 2001; United Nation Population Fund, 2007). The primary underlying cause of cervical cancer is the Human Papilloma Virus (HPV). Early sexual debut, multiple sexual debuts, multiple sexual partners, family types especially polygamy, HPV infection, smoking, genetic predisposition and compromised immunity are associated with the

development of cervical cancer. Cervical cancer contributes to mortality among women especially those in developing countries (Ayinde and Omigbodun, 2003; WHO, 2004; Mutyaba et al., 2007; Adewole, 2008). However, all cervical cancer intervention programmes centred on building awareness for behaviour modification, increasing screening for early detection to reduce morbidity and mortality rate of cervical cancer. To be effective, a cervical cancer prevention programme must include a package of education, screening, and pre cancer treatment services that reach the majority of

women at risk of the disease.

Statement of problem

Over 80% of cervical cancers in Sub-Saharan Africa are detected in late stages, predominantly due to lack of information about the disease, lack of screening services, bad lifestyle and vaccination is limited. Nigeria is ranked 5th in the world in term of cervical cancer mortality and 2nd in Africa (WHO, 2016). The researchers believe that if there is adequate knowledge about the disease among the population at risk, there will be an increase in awareness level thereby improving their attitude positively and lead to behavioural modification for early reporting for screening, getting their vaccination as expected, willingness to accept commodity supply by government and having positive thinking and attitude towards good lifestyle. The burden of cervical cancer is not merely represented by alarming figures. The researcher observed that there is a lack of community awareness around the disease, and knowledge regarding cervical cancer amongst health workers who should be engaging in public education is low. These factors, coupled with minimal access to available screening services, which are not routine, contribute to the late patient presentation. Also, data on cervical cancer are insufficient. The available data were the ones made available by various health facilities within the geographical area where the study is being carried out.

Purpose of the study

The purpose of the study includes assessing the attitude of antenatal patients towards the prevention of cervical cancer and to ensure behavioural modification to enhance an improved interpersonal relationship.

Research Questions

- (i) What is the attitude of the participants towards behavioural modification on cervical cancer prevention?
- (ii) What is the effect of cervical cancer education on participants risky health behaviour towards cervical cancer prevention?

Research Hypotheses

The following research hypotheses were formulated to guide the study and were tested at a 0.05 level of significance:

1. There will be no significant main effect of treatment of family type on cervical cancer prevention.
2. There will be no significant main effect of treatment on the behavioural modification and educational status of the

participants towards cervical cancer prevention.

3. There will be no significant main effect of treatment on the educational status of the participants and risk factors of cervical cancer prevention.

METHODOLOGY

The research design for this study is quasi experimental research design of pre-test post-test with control group design was used for this study. The treatment effect is determined by the change in the dependent variable in the control area from the change in the dependent variable in the test area. The target population for this study were all women of childbearing age attending health facilities in Federal Medical Centre, Owo; UNIMEDTHC, Ondo; UNIMEDTHC, Akure and SSH, Okitipupa. The sample for this study was 240 women between 18 - 45 years of age in Ondo State, using random and purposive sampling technique to select one secondary health institution in each of the three Senatorial Districts in the State for the treatment group and random sampling technique was used for the selection of the control group for the study from the remaining health facilities. 120 participants for the treatment group and 120 participants for the control group. The instrument for the study was a self-developed questionnaire. The validity of the instrument was established and found to be 0.85. The reliability of the instrument was established and found to be 0.88. The researcher administered the instrument to all the participants before and after the introduction of the treatment. The variation in the scores after the treatment revealed the main treatment effect for the study. The data generated were analyzed using descriptive statistics for all the research questions generated for the study while inferential statistics were used for all the hypotheses formulated for the study. All the hypotheses were tested at a 0.05 level of significance.

RESULTS AND DISCUSSION

The participants showed an increase in positive behaviour towards cervical cancer prevention through a behavioural change (Table 1). The behaviour towards behavioural change on frequent clinical cervical cancer screening is desirably increased from pre-test mean score of 1.58 to post-test mean score of 3.42 showing significant improvement in the behavioural modification of the respondents. Adequate knowledge about cervical cancer screening could help to practice safer sex behavioural modification increased from pre-test mean score of 2.15 to 2.91 post-intervention. The behaviour towards not willing to receive medical treatment from any hospital regardless of the screening results improved positively with a pretest mean score of 2.60 and the post-

Table 1: Behavioural modification of the participants

Item	Pre-test Mean-score	Post-test Mean-score	Variation in the Mean score
Frequent clinical cervical cancer screening is desirable	1.58	3.42	1.84
Adequate knowledge about cervical cancer screening could help to practice safer sex	2.15	2.91	0.76
Not willing to receive medical treatment from any hospital regardless of the screening results	2.60	3.54	0.94
I will encourage all women of childbearing age to participate in cervical cancer screening	2.25	2.78	0.53
Pap smear is a must for all women of childbearing age	2.51	3.43	0.92
Total	11.09	16.08	4.99

Table 2: Attitude of the participants towards risky health behaviour and cervical cancer prevention.

Items on the attitude of the participants towards risky health behaviour and cervical cancer prevention	pre-test Mean score	post-test Mean score	Variation in the mean score
Untreated sexually transmitted diseases are deadly	2.42	2.66	0.24
Self-medication should be discouraged	2.46	2.66	0.20
Illicit drug trafficking	2.33	2.63	0.30
Condom use is not desirable since one cannot have cervical cancer through unsafe sex	2.27	2.72	0.45
Excessive intake of alcohol should not be entertained	2.27	2.78	1.01
Oral and anal sex is a form of civilization	2.34	2.63	0.29
Smoking and substance abuse has nothing to do with cervical cancer	2.30	2.64	0.34
Cervical cancer is a deadly disease if not screened and treated	2.38	2.62	0.24
Having multiple sexual partners is for pleasure	2.20	2.70	0.50
Total	20.97	24.04	3.07

test mean score of 3.54. The behaviour towards encouraging all women of childbearing age to participate in cervical cancer screening increased positively from the pre-test mean score of 2.25 and post-test mean score of 2.78. The pre-test mean score for an item on Pap smear is a must for all women of childbearing age of 2.51 increased to the post-test mean score of 3.43. The attitude of the participants towards risky health behaviour was at the negative ladder of the attitudinal scale with the pretest mean score ranges from 2.20 to 2.38 while the attitude of the participants' post intervention improved drastically and moved towards the positive ladder of the continuum. The variability in their post-test mean-score accounts for the effectiveness of cervical cancer education towards behavioural modification for the prevention of cervical cancer (Table 2).

Hypothesis 1: There will be no significant main effect of treatment of family type on cervical cancer prevention.

Table 3 shows that [$F(3,116) = 3.489$; $p < 0.05$] greater than F -tab of 1.59. Therefore, hypothesis 1 is rejected. By implication, there is a significant interaction effect of treatment in the attitude of the respondents as regards their family type towards cervical cancer prevention. Table 4 shows that polygamy family type differs significantly from monogamy family type in their attitude

towards cervical cancer prevention at 0.05 level of significance. Similarly, there is a significant difference between serial monogamy family type and monogamy family type in their attitude towards the prevention of cervical cancer at 0.05 level of significance.

Hypothesis 2. There will be no significant main effect of treatment on the behavioural modification and educational status of the participants towards cervical cancer prevention.

Table 5 shows that [$F(1,118) = 0.761$; $p < 0.05$] greater than F -tab of 0.15. Therefore, hypothesis 2 is rejected. By implication, there is significant interaction effect of treatment in the behavioural modification of the participants as regards their educational status towards cervical cancer prevention pre and post intervention. The respondents with more educational qualification were more conscious to take informed decision for behaviour modification towards the prevention of cervical cancer post intervention.

Hypothesis 3. There will be no significant main effect of treatment on the educational status of the participants and risk factors of cervical cancer prevention.

Table 6 shows that [$F(4,115) = 13.19$; $p < 0.05$] greater

Table 3: Summary of ANOVA showing the attitude of participants as regards their family type.

Variables	Sum of Square	Df	Mean Square	F-cal	F-tab	P	Decision
Between Groups	22.595	3	7.532	3.489	1.59	0.05	Significant
Within Groups	250.396	116	2.159				
Total	272.992	119					

Table4: Post Hoc analysis using scheffe for the source of difference.

Family type	Mean Difference	1	2	3	N	F	Sig.
Polygamy	0.770	*	*		49	3.489	0.311
Monogamy	0.589				58		0.320
Serial Monogamy	0.556	*			13		0.778

Table 5: Behavioural modification of the participants as regards their educational status.

Variables	Sum of Square	Df	Mean Square	F-cal	F-tab	Decision
Between Groups	19.308	1	19.308	0.761	0.15	Significant
Within Groups	2992.559	118	25.361			
Total	3011.867	119				

Table 6 : Summary of ANOVA on knowledge of risk factors of cervical cancer and educational status.

Variables	Sum of Square	Df	Mean Square	F-cal	F-tab	P	Decision
Between Groups	6.370	4	21.011	13.19	1.59	0.05	Significant
Within Groups	2416.297	115	1.593				
Total	2422.667	119					

Table 7: Post Hoc Analysis showing the source of difference on risk factors based on educational background.

Educational qualifications	1	2	3	4	5	Mean	N
Below primary school leaving cert				*	*	1.2	8
Primary school leaving cert				*		1.1	42
WASC O'L						1.7	47
NCE/Diplomas						1.8	12
First degree				*		2.5	11

than F-tab of 1.59. Therefore, hypothesis 3 is rejected. By implication, there is a significant interaction effect on the knowledge of the participants as regards their education status on risk factors of cervical cancer post-intervention. The participants with more educational knowledge were more conscious about the risk factors of cervical cancer after the intervention. Hence to locate the source of difference in the interaction effect, there is a need for a Post Hoc test. Table 7 shows that below primary school leaving certificate and primary school leaving certificate holder to differ significantly from the first-degree holder in their knowledge on cervical cancer risk factors towards cervical cancer prevention at 0.05 level of significance. Similarly, there is a significant difference between the holder of NCE/Diploma and WASC O'L in their knowledge on risk factors towards cervical cancer prevention. There exists a significant interaction effect of

main treatment between NCE/Diploma and first-degree holders in subjecting themselves to cervical cancer prevention on risk factors at 0.05 level of significance. The finding on the attitude of the respondents as regards their educational status towards cervical cancer prevention showed a significant difference; the finding of the present study is in agreement with the study conducted by Nisreen Arif and Farzana (2015). The higher the educational background of the participants, the higher the ability to prevent cervical cancer. This particular disease is preventable and vaccination will go a long way in the prevention of cervical cancer. In a study conducted by Winnie et al. (2016); in Nairobi, Kenya. It was discovered that those with formal education were conscious of taking preventive measures as compared with those without formal education. The finding of this study revealed that participants with higher educational

background showed more positive attitude towards prevention of cervical cancer. This finding is also in conformity with earlier studies conducted by Adewole (2008) and NisreenArif and Farzana (2015). The finding from this study showed an increased in positive behaviour towards cervical cancer prevention through a behavioural change following the introduction of the treatment. This finding indicated a significant interaction effect of treatment on behavioural modification of the participants which is in conformity with the study conducted by Ayinde and Omigbodun (2003) on Knowledge, attitude and practices related to prevention of cancer of the cervix among female health workers in Ibadan. The conformity in this study may be as a result of homogeneity in the cultural background, ethnicity and geographical location of the participants.

Conclusion

Based on the findings of this study it could be concluded that cervical cancer education would bring about increase in advocacy, awareness, early reporting, detection of cervical cancer at early stage leading to good prognosis. The cervical cancer education would lead to attitudinal change and behavioural modification for the prevention of cervical cancer.

Recommendations

Based on the findings of this study the following recommendations were made:

- (i) There should be more advocacy and awareness campaign to increase the knowledge of prevention of cervical cancer
- (ii) Cervical cancer education should be directed towards attitudinal change to avoid risky health behaviour.

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