

WHEN KNOWLEDGE DOES NOT TRANSLATE TO PRACTICE: A STUDY OF THE INFLUENCE OF CERVICAL CANCER CAMPAIGNS ON NIGERIAN FEMALE UNDERGRADUATES IN ENUGU STATE

ODOH Miriam Chinemerem¹
ONWUKWALONYE Benjamin²
ONYEBUCHI Alexander C.³ Ph.D

¹⁻²Godfrey Okoye University, Enugu, Enugu State

³Imo State University, Owerri

Correspondence Email: gmbeonochuks@gmail.com, greatonyebuchi@gmail.com.

Abstract

This study sought to ascertain how cervical cancer awareness campaigns have influenced the knowledge, attitude and practice of female undergraduates of Nigerian universities. The study which was anchored on the Health Belief Model (HBM) employed survey research method. A sample size of 400 female students drawn from the population of Godfrey Okoye University Enugu and Enugu State University of Science and Technology was used in the study. The questionnaire was employed as instrument for data collection. The data collected were analyzed using Statistical Package for Social Sciences (SPSS). The study found out that the level of awareness about cervical cancer is high among female undergraduates. Interpersonal communication was found to be the major source of information about cervical cancer among female undergraduates. The study reveals that effective use of the social media will help to create more awareness among female undergraduates about cervical cancer and other health issues. The study revealed that the knowledge and attitude level about cervical cancer is also high among the female undergraduates. Despite the high level of awareness, knowledge and attitude, the study found out that the practice of female undergraduates towards cervical cancer detecting, preventing and treatment is low. The researcher recommends that campaigns seeking to create awareness about cervical cancer should not stop at general awareness, but should be focused on seeking to influence positive behaviour of females as relates seeking to detect, prevent and treat the disease. Social media platforms should be heavily engaged for such campaigns as most female undergraduates are very active on social media platforms more than they are active on other types of media.

Keywords: Cervical Cancer, Awareness, Campaign, Awareness Campaign and Cancer.



Introduction

Cervical cancer is an important public health problem. It is the third cancer in frequency in women worldwide and second most common cancer among women in developing countries (International Agency for Research on Cancer 2005). According to Foundation of Women's Cancer (2013) cervical cancer is caused by abnormal changes in either of these cell types (squamous or flat cells) in the cervix.

National Cancer Institute (2012) posits that cervical cancer begins in cells on the surface of the cervix. Over time, the cervical cancer can invade more deeply into the cervix and nearby tissues. This cancer is said to be caused by Human papilloma virus (HPV) which is the most common viral infection of the reproductive tract mainly transmitted through sexual contact and most people are infected with HPV shortly after the onset of sexual activity. It takes 15 to 20 years for cervical cancer to develop in women with normal immune systems. It can take only 5 to 10 years in women with weakened immune systems, such as those with untreated HIV infection (WHO, 2017). Cervical cancer tends to occur in midlife. Most cases are found in women younger than 50 years. It rarely develops in women younger than 20 years. Many older women do not realize that the risk of developing cervical cancer is still present as they age. More than 15% of cases of cervical cancer are found in women over 65 years. However, these cancers rarely occur in women who have been getting regular tests to screen for cervical cancer before they were 65 years (American Cancer Society 2014).

Agbola (2009) posits that four out of every five new cases of cervical cancer are reported from developing countries. There is also high incidence of mortality. This is because there are little or no facilities for screening programmes to detect precancerous lesions early and treat, especially the preventable ones like breast and cervical cancers. Another reason for the high incidence is that there is generally low awareness about the disease in the populace.

Cervical cancer is of public health significance. It is a growing understanding that cervical cancer is a disease that affects women all over the world and has killed so many. This cancer is well known in some places and less known in some other places in the world. Unfortunately, here in Nigeria and other sub-Saharan countries health policy makers have not accorded it priority. This may be due to the perception of some people who regard cancers generally as diseases of the western world. Changes in lifestyle and urbanization have made some of the diseases previously thought to be foreign to affect our people (Nwozor & Orugudosi 2013).

Akintayo and Bello (2015) quoting World Health Organisation (WHO) said that cervical cancer kills about 270 000 women every year. It has been called “a case study in health equity” because most (85%) of these deaths occur in the developing

world. In large part, this inequity is due to the lack of cervical cancer screening programmes in those countries. Cervical cancer according to (Anorlu, 2004; Parkin et al., 1999; Shoell et al., 1999) accounts for approximately 300,000 deaths annually worldwide and half a million new cases are reported each year.

In Nigeria, Adewole et al in 1997 asserts that the national incidence of cervical cancer is 250/100,000. However, Oguntayo et al in 2011 says that cervical cancer was the leading cause of gynecological cancers in Northern Nigeria, which according to him accounts for 65.7% of all gynecological cancers. Abiodun et al in 2013 stated that the burden of cervical cancer in Nigeria is huge. They observed that Nigeria has a population of over 40 million women aged 15 and above who are at risk of cervical cancer. Obviously, they projected that it accounts for 63% of genital cancers. Thus, the current estimation according to them indicates that every year 14,550 women are diagnosed with cervical cancer and 9,659 die from the disease. It is projected that in 2025, there will be 22,914 new cervical cancer cases and 15,251 cervical cancer deaths in Nigeria.

The good news is that these deaths are avoidable. Kawonga (2003) notes that cervical cancer is a preventable disease because it has a latent period and starts with a pre-invasive stage that is curable; it is possible to detect the disease early and take necessary steps to prevent progression to life-threatening advanced stage of the disease.

It is therefore very essential that the masses, especially females are well informed about cervical cancer and how deadly it is. They need to know that this deadly disease is preventable and that it can be cured if it is detected during the pre-invasive stage. The media has the very important role of creating such awareness.

Brown et al (2012) opined that the mass media campaigns have long been used as a tool for promoting public health by enhancing knowledge and awareness of health-related issues. In Nigeria, several efforts have been made in recent times to create awareness about cervical cancer and how it can be prevented and treated. A non – governmental initiative known as The Mass Medical Mission is among the pioneers of community-based mass cervical cancer screening campaign in Nigeria. The initiative has been renamed National Cancer Prevention Programme (NCP). The aim of the campaign is to mobilize Nigerian females to be screened, vaccinated, and treated in order to be protected against cervical cancer (*Vanguard*, 2015).

The only fool proof protection against the Human Papiloma Virus is vaccination. It is therefore necessary that women embrace regular screening as an easy and very cheap way of preventing cervical cancer (*Vanguard*, 2016).

February 4, 2017 was observed as World Cancer Day. The focus of the campaign was to create awareness and encourage everyone to be committed to reducing the global burden of cancer. This can be done by regular screening and early detection (Nigerian Health Watch 2017).

During the 2017 World Cancer Day, several media channels were used as vehicles for creating awareness about cervical cancer. Go Uni Radio Enugu for instance hosted a Gynecologist, Dr. Tochukwu Enebe in a programme “Look it up”. The programme emphasized that early detection is essential for cancer treatment and sensitizing females about cervical cancer will enable them take possible steps to prevent the occurrences of cervical cancer.

Statement of the Problem

This Day Newspaper (2011) observed in their editorial report that the dreaded Acquired Immune Deficiency syndrome (AIDs) virus is yet a deadlier killer-disease, especially among the women folk. With at least a woman dying every hour from the disease, cervical cancer is indeed a ravaging scourge that deserves to be tamed with all the efforts we can muster.

Cervical cancer is the malignant neoplasm of the cervix uteri. Globally, there are nearly 1.5 million cases of clinically recognized cervical cancer. Eighty five percent (85%) of these are in developing countries like Nigeria. While industrialized countries have reduced its incidence by over 70% in the last 50 years, the burden seems to be on the rise in less developed countries. It is expected that the incidence of cervical cancer in developing countries will rise from 444,546 to 588,922 between 2012 and 2025 (Abiodun et al. 2014).

Considering the harmful threats posed by cervical cancer towards women, the media ranging from the broadcast, print and social media have been engaged for campaigns seeking to improve the knowledge of women about this deadly disease, and to mobilize them for necessary actions of regular screening, vaccination and early treatment.

Enormous amount of human and financial resources, and efforts logistics have gone into those campaigns. Examining the influence of these campaign efforts is the burden of this research work.

Objectives of the Study

The main objective of this study is to ascertain how cervical cancer awareness campaigns have influenced the knowledge, attitude and practice of female undergraduates in Nigerian Universities. The specific objectives were to;

- i. Ascertain the level of awareness about cervical cancer among female



- students of Nigerian Universities.
- ii. Examine how the various media channels influence awareness about cervical cancer among female students of Nigerian Universities.
- iii. Find out the level of knowledge about cervical cancer among female students of Nigerian Universities.
- iv. Examine the attitude of female students of Nigerian Universities about cervical cancer detection, prevention and treatment measures.
- v. Examine the practice of female students of Nigerian Universities to cervical cancer detection, prevention and treatment measures.

Research Questions

The research questions of this study were;

- i. What is the level of awareness about cervical cancer campaign among female students of Nigerian Universities?
- ii. How does the various media channel influence the awareness about cervical cancer among female student of Nigerian Universities?
- iii. What is the level of knowledge about cervical cancer among female students of Nigeria Universities?
- iv. What is the attitude of female students of Nigerian Universities to cervical cancer detection, prevention and treatment measures?
- v. What is the practice of female students of Nigerian Universities to cervical cancer prevention measures?

Review of Concepts

Overview of Cervical Cancer

It has been generally reported by International Agency for Research on Cancer in 2005 that cervical cancer is the third cancer in frequency in women worldwide and second most common cancer among women in developing countries. Their work observed that the disease is mainly caused by Human Papiloma Virus. In their explanation, cervical cancer begins in cells on the surface of the cervix and can invade more deeply into the cervix and nearby tissues. They explained that cervical cancer cells can spread by breaking away from the cervical tumor and it can travel through **lymph vessels** to nearby **lymph nodes**.

In the same vein the National Institute of Cancer (2012) also stressed that cancer cells can spread through the **blood vessels** to the lungs, liver, or bones. After the spreading, cancer cells may attach to other tissues and grow to form new tumors that may damage those tissues.

Cervical Cancer Stages

According to the Foundation of Women's Cancer (2013) cervical cancer is grouped into four stages. The stages are:

Stage I: The cancer found only in the cervix at this stage one.

Stage II: The cancer at this stage spread from the cervix to the upper part of the vagina or the tissue around the uterus. It has not spread to the pelvic wall. (The pelvic wall is the muscle and connective tissues that line the insides of the pelvic bones.) Cancer cells may also be found in the lymph nodes in the pelvis.

Stage III: The cancer has spread to the lower part of the vagina or to the pelvic wall. It may block the flow of urine to the bladder. Cancer cells may also be found in the lymph nodes in the pelvis.

Stage IV: The cancer spread to other body parts within or outside of the pelvis. Cancer cells may be found in the bladder, rectum, abdomen, liver, intestines or lungs.

Sign and Symptoms of Cervical Cancer

The early cervical pre-cancers or cancers sometimes do not have any signs or symptoms. This is the reason why it is important for women to have regular screening with a Pap test alongside that of HPV test. The America Cancer Society in 2014 observed that the symptoms often do not start until the cancer has spread to nearby areas. The symptoms of cervical cancer include the following;

- Abnormal vaginal bleeding. This bleeding can occur after sex, during the stage of menopause, and spotting between periods, or having periods that are longer or heavier than usual.
- An unusual discharge from the vagina
- Pain during sex

Overview of Media Campaign

Media campaigns according to Wakefield, Loken, and Hornik (2010), can be seen as a series of measures taken to influence attitudes and opinions. It can be of short duration or over long periods. They are widely employed to expose high proportion of large population to messages through existing media such as billboards, radio, television, magazine, newspaper, internet, et cetera. The mass media campaign can produce positive changes or prevent negative changes in health – related behaviours across large populations.

Brown et al (2012), states that the mass media campaigns have long been used as a tool for promoting public health by enhancing knowledge and awareness of health-related issues. Considerable resources have been devoted to mass media campaigns designed to encourage the general public to become more active. These campaigns are designed to increase awareness and knowledge about benefits of physical activity, influence attitudes and beliefs about physical activity, and change physical activity behaviors within populations at community, state, or national levels.

Messages are transmitted using channels such as newspapers, brochures, manuals, radio, TV, billboards, and websites either singly or in combination.

Wakefield, Loken and Hornik, (2010) stated that campaigns have been employed, over past decades, to affect different health behaviours in large populations and the great promise of these media campaigns anchors on their competence to carry well defined behaviorally focused messages to target audience repeatedly over time.

However, they can be of short period of time or of long duration, they might stand alone or be combined with other organized programmes like clinical/health or institutional outreach or may complement policy change. Therefore, multi ways of disseminating campaign messages are employed, if health campaigns are part of broader social marketing programmes.

Cervical Cancer Awareness Campaign

In order to make women aware of cervical cancer, January 1st to 31st has been set aside as “Cervical Health Awareness Month.” The aim is to raise awareness about how women can protect themselves from HPV (human papilloma virus) and cervical cancer. HPV is a very common infection that spreads through sexual activity. It's also a major cause of cervical cancer (Health Finder 2017).

In Nigeria, the mass medical mission, a non – governmental initiative, pioneered community-based mass cervical cancer screening campaign which was covered by Vanguard Newspaper in 2015. This initiative was renamed the National Cancer Prevention Programme (NCP). The objective of the initiative is to protect millions of Nigerian from cancer. The initiative enabled over 100,000 Nigerians to be directly screened, vaccinated and treated through the awareness created. The NCP is currently helping to protect millions of Nigerian from cancer.

Go Uni Radio Enugu in a programme “Look it up” was also used as a medium to raise awareness campaign on how cervical cancer is dictated, its signs and symptoms, risk factors and preventions. In a discussion with a Gynecologist at the Enugu State Teaching Hospital Dr. TochukwuEnebe, he pointed out that HPV is a kind virus because unlike other virus it allows its patient to be treated if one detects the cancer early. Also according to Dr. Enebe health education of the girl child about cervical cancer will make her aware of the disease and enable her to take possible steps to prevent the occurrence of this cancer. The programme also initiated that the transmission of message about cervical cancer from one person to the other will make a maximum number of women to be totally aware of the disease.



In the year 2015, the United State of America, the **National Cervical Cancer Public Education Campaign sponsored by The Gynecologic Cancer Foundation to mark the** fifth annual Cervical Cancer Screening Month presented a programme known as “Take the Pledge.” **This programme is geared towards** encouraging women to pledge to do their part to prevent cervical cancer by scheduling an annual gynecologic exam.

Empirical Review

Nwozor, C.M & Oragudosi, A.L. (2013). Awareness and Uptake of Cervical Cancer Screening among women in Onitsha, South – East, Nigeria.

This study was carried out to investigate the awareness of cervical cancer screening and uptake among women in Onitsha, Anambra State Nigeria. The researchers noted that cervical cancer is of public significance but unfortunately Nigeria and other Sub-Saharan country's health policy makers have not accorded it priority. The researchers stated that this may be due to the perception of some people who regard cancers generally as disease of the Western world. The researchers also stated that people are now affected with the diseases that were previously thought to be foreign.

The researchers found out in the study that the awareness of cervical cancer in Onitsha is low and the uptake as well is poor. The reason adduced by the respondents for not doing the test was because of lack of awareness followed by cost and lack of facility.

The study therefore recommended that public enlightenment campaign targeting women should be instituted and cervical cancer screening programme should be made affordable and available to women.

Dirksing, K.N (2016). Implementation and Evaluation of a social media campaign to promote cervical cancer prevention and control.

The purpose of this study was to develop, implement and evaluate a social media campaign for Cervical Cancer Free South Carolina (CCFSC) during Cervical Health Awareness Month in January 2016. Two social media plans were developed during Cervical Health Awareness Month in January 2016. The purpose of these social media plans was to spread awareness about cervical cancer prevention and control.

The first plan was created for CCFSC's own use; it included five tweets and three Facebook posts for each day in January. The second plan was created for use by partners of CCFSC; it included one tweet and one Facebook post for each day in January.

The CCFSC posts were entered into Buffer, an online social media posting system that automatically shares the posts daily. CCFSC partners were instructed to copy



posts from the partner social media plan to their own social media accounts, in addition to liking, sharing, and retweeting CCFSC's posts.

Discussion of findings shows that the social media plan evaluation provides useful information regarding which posts are most effective in increasing cervical cancer, HPV, and HPV vaccine awareness and knowledge.

Balogun, M.R et al (2012) Cervical Cancer Awareness and Preventive Practices: A Challenge for Female Urban Slum Dwellers in Lagos, Nigeria.

The core objectives of this study was geared to know the awareness of cervical cancer, attitude towards the disease and screening practice of women residing in two urban slums in Lagos. The researchers used multistage sampling in the selection of samples who were interviewed with a structured questionnaire.

The findings in this study showed that the awareness level of women about cervical cancer was very low. The proportion was much lower than those found in other community-based African studies among women of low socio-economic status. This could be explained by the low educational level of women in this study and their undeserved population with limited access to health information and services. This lack of awareness resulted to the absence of cervical cancer screening practice among the female urban slum dwellers in this study.

Theoretical Framework:

This study was anchored on Health Belief Model (HBM). This model was propounded by Hochbaum in 1958 and was later modified by Rosenstock and Becker in 1966 and 1974 respectively. This is a behavioral model which Sharma & Romas (2012) believes that human behavior is regulated by a number of beliefs about threats to an individual's health. This simply means that the more an individual belief that a particular action or behavior would affect their health; the more likely they are to adjust their subsequent action for the purpose of their wellbeing.

Lawrence (2000) stated that the health belief model is derived from psychological and behavioral theory with the foundation that the two components of health-related behaviour are desire to avoid illness, or conversely get well if already ill and belief that a specific health action will prevent or cure illness.

Colleen et al (2000) affirmed that the HBM supports the idea that individuals will take action to prevent the occurrence of any illness, if their perception is that;

- a) They are personally vulnerable to the condition or threat of the disease.
- b) The consequences of the condition or disease would be serious to their wellbeing.

- c) The precautionary behaviour which they are to take effectively prevents the condition or disease.
- d) The benefits of reducing the treats of condition or disease exceed the cost of taking action. However, Bandura in 1997 expanded the tenet of HBM. He argued that two more steps need to be taken to achieve actual behavioural change. The steps are:
- e) Cues to action: This has to do with the various reminder messages and incentives which help individuals to adjust their behaviour to the requirement of a particular health campaign. (Bandura 1997).
- f) Self-efficacy: *Champion & Skinner* (2008) quoting (Bandura 1997) stated that *self-efficacy* is defined as the conviction that one can successfully execute the behaviour required to produce the outcomes.

Relating health belief model to this study implies that the way in which female students perceive media campaign on cervical cancer will determine their behaviour towards it. This simply means that they are likely going to adjust their attitude and practices to the messages of the cervical cancer awareness campaign when they discover that they might fall victim to the disease. The cervical cancer awareness campaign will propel the female undergraduates to take necessary precautions in avoiding ways of contacting the disease. Also it will prompt them to also take necessary preventive and treatment measures towards cervical cancer.

Methodology

To achieve the aim of this study, the survey research method was employed. Furthermore, multi - stage sampling technique was also adopted in selection of universities, faculties and departments to be used for the study.

Copies of questionnaire were used to gather information from 400 female students among the 4701 students population in Godfrey Okoye University (GOU) and Enugu State University of Science and Technology (ESUT).

Data presentation and Analysis

Research Question One:

What is the level of awareness about cervical cancer campaign among female students of Nigerian Universities?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very high	25	7.2	7.2	7.2
	High	123	35.3	35.3	42.5
	Undecided	70	20.1	20.1	62.6
	Low	100	28.7	28.7	91.4
	Very low	30	8.6	8.6	100.0
	Total	348	100.0	100.0	

Taking into consideration the fact that the findings of the study revealed that 89.1% of the respondents are aware of cervical cancer and 35.3% of the respondents have high awareness level of cervical cancer, it is clear that 62.2% according to the survey showed high level of awareness about cervical cancer. This study is however in contrast with the study conducted by Nwozor & Oragudosi in the year 2013 on Awareness and Uptake of Cervical Cancer Screening among Women in Onitsha, South-East. From their study, it was gathered that the awareness level about cervical cancer is low.

The differences in these two studies may have been tampered by the difference in time, place and target population. By 2013 not so much people were making use of gadget, so from this time 2013 to 2017 which is four years lapses is enough to change social behaviour because of the rapid advancement of technology. Also the target population of Nwozor & Oragudosi was Onitsha women who are known to be businesswomen unlike the population used in this study which are vibrant young students of Enugu State University of Science and Technology and Godfrey Okoye University Enugu.

Research Question Two:

How does the various media channel influence the awareness about cervical cancer among female students of Nigerian Universities?

Table 2: Which means do you believe will be most effective in disseminating health information to female students.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Family and Friends	49	14.1	14.1	14.1
Radio and Television	78	22.4	22.4	36.5
Newspaper and Magazine	12	3.4	3.4	39.9
Billboard	15	4.3	4.3	44.3
Social Media	194	55.7	55.7	100.0
Total	348	100.0	100.0	

From the data gathered 39% being the highest among other options noted that their knowledge of cervical cancer was first gotten from family and friends while 55% was of the opinion that social media system will be most effective in the dissemination of health information to female students. Thus, this survey reveals that inter-personal communication system influences the awareness about cervical cancer among female students of Nigerian Universities.

The use of social media in dissemination of health information in this study is in conformity with the study of Dirksing carried out in the year 2016 on Implementation and Evaluation of a social media campaign to promote cervical cancer prevention and control. The findings in this study shows that social media is a cost-effective, easy way to reach a large audience to raise awareness about a health issue.

In comparison of this two studies, it clearly shows that the use of social media in the dissemination of message especially health information will be very effective.

Research Question Three:

What is the knowledge level about cervical cancer among female students of Nigeria Universities?

Table 3: Respondents' response on whether the virus that causes cervical cancer is gotten during sex

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	185	53.2	53.2	53.2
Agree	70	20.1	20.1	73.3
Undecided	42	12.1	12.1	85.3
Valid Disagree	32	9.2	9.2	94.5
Strongly Disagree	19	5.5	5.5	100.0
Total	348	100.0	100.0	

Table 4: Respondents' response on whether cervical cancer is a disease that affects female reproductive organs

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	175	50.3	50.3	50.3
Agree	129	37.1	37.1	87.4
Undecided	30	8.6	8.6	96.0
Valid Disagree	10	2.9	2.9	98.9
Strongly Disagree	4	1.1	1.1	100.0
Total	348	100.0	100.0	

The findings of the study revealed that 53.2% and 50.3% of the respondents strongly agree that cervical cancer is gotten during sex and it affects the female's reproductive organ respectively. Although 61.8% of the respondents strongly agree that cervical cancer is a major cause of death among females further analysis revealed that 51.1% of the respondent agree that full blown cancer is not curable. The study also revealed that 45.4% of the respondents strongly agree that early screening and detection of HPV can prevent cervical cancer. Therefore it must be ascertained that 52.3% of the

survey showed **high level of knowledge about cervical cancer**.

This finding is in conformity with the study carried out by Mukama et al in 2017 on women's knowledge and attitudes towards cervical cancer prevention: a cross sectional study in Eastern Uganda. From this study, it was gathered that the general knowledge about cervical cancer prevention was relatively high among women.

Comparing the two studies, it can be understood that the knowledge level towards cervical cancer of both the female undergraduate of Nigerian universities and women of Eastern Uganda is considerably high.

Research Question Four:

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	179	51.4	51.4	51.4
Agree	125	35.9	35.9	87.4
Undecided	20	5.7	5.7	93.1
Disagree	18	5.2	5.2	98.3
Strongly Disagree	6	1.7	1.7	100.0
Total	348	100.0	100.0	

Table 6: Respondents' response on their agreement that checking oneself against early signs of cervical cancer can help in its prevention

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	227	65.2	65.2	65.2
Agree	113	32.5	32.5	97.7
Undecided	2	.6	.6	98.3
Disagree	1	.3	.3	98.6
Strongly Disagree	5	1.4	1.4	100.0
Total	348	100.0	100.0	

The findings of the study revealed that 51.4% of the respondents agree that it is necessary to visit the clinic for cervical cancer screening when you do not feel you are sick. Further analysis revealed that 65.2% of the respondents agree that checking

oneself against early signs of cervical cancer can help in its prevention and 38.5% of the respondents agree that abstinence from unprotected sex is a good way to prevent cervical cancer. Thus, it is clear that approximately 52% of the survey showed that the attitude of female undergraduates in Nigerian universities to cervical cancer detection, prevention and treatment measures is considerably high.

This finding is in relation to the study carried out by Mukama et al in 2017 on women's knowledge and attitudes towards cervical cancer prevention: a cross sectional study in Eastern Uganda. The study found out that the attitude of women in Eastern Uganda towards cervical cancer is mostly encouraging.

Comparing the two studies, it can be understood that the attitude level towards cervical cancer of both the female undergraduate of Nigerian universities and women of Eastern Uganda is considerably high.

Research Question Five:

What is the practice of female students of Nigerian Universities to cervical cancer prevention measures?

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	115	33.0	33.0	33.0
No	127	36.5	36.5	69.5
I don't know	106	30.5	30.5	100.0
Total	348	100.0	100.0	

Table 8: Respondents' response that measured how they personally paid attention to their cervix to check for signs and symptoms of cervical cancer

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	128	36.8	36.8	36.8
No	140	40.2	40.2	77.0
I don't know	80	23.0	23.0	100.0
Total	348	100.0	100.0	

The study found out that 36.5% of the respondents do not visit the clinic for cervical

cancer screening voluntarily when they are not feeling sick even though further analysis revealed that 58.6% of the respondents consistently avoid unprotected sex as a good way of preventing cervical cancer. The findings equally revealed that 40.2% of the respondents do not personally pay attention to their cervix to check for signs of cervical cancer. This shows that 45.1% of the information gathered stipulates that the preventive measures of cervical cancer in terms of practice of the female students of Nigeria universities is low.

This finding is in relation with the findings of Balogun, M.R et al in 2012 on Cervical Cancer Awareness and Preventive Practices: A Challenge for Female Urban Slum Dwellers in Lagos, Nigeria. Result from the study showed that due to low level of awareness about cervical cancer, it resulted to the absence of cervical cancer screening practice among the female urban slum dwellers in this study. Given these two studies, it clearly shows that even at this present stage the practice level towards the detection, prevention and treatment of cervical cancer is very low.

Summary of Findings

In the course of this study, the following findings below were made.

1. **The study found out that the female undergraduates have high level of awareness about cervical cancer.**
2. The findings revealed that inter-personal communication system influences the awareness about cervical cancer among female students of Nigerian Universities.
3. The findings also revealed that the level of knowledge about cervical cancer among female students of Nigerian universities is high.
4. The study found out that the attitude of female undergraduates in Nigerian universities to cervical cancer detection, prevention and treatment measures is considerably high.
5. The information gathered stipulates that the preventive measure of cervical cancer in terms of practice of the female students of Nigeria universities is low.

Conclusion

Based on the findings, the study concluded that aside students having high level of awareness and knowledge about cervical cancer, their attitude level towards cervical cancer detection, prevention and treatment is considerably high. It is deduced from the data gathered that the practice level of the student is low. This means that the female students do not check themselves to know their health status as it concerns cervical cancer.

Recommendations

The following recommendation were made in this study



1. Female undergraduate should endeavor to go for cervical cancer screening test even when they are not feeling sick. This will enable them to know the state of their health.
2. The government should use social services and social workers to educate the public on the dangers of cervical cancer either from house to house or from community to community since inter-personal communication has proofed to be effective in influencing the awareness about cervical cancer.
3. The government should also structure a way to visit schools and give them basic orientation about cervical cancer.
4. Social media should be used more frequently by the doctors and expert to communicate to Nigerian students about cervical cancer.

References

- Abiodun, O.A., Fatungase O.K., Olu-Abiodun, O.O., Idowu-Ajiboye, B.A., & Awosile, J.O. (2013). **An assessment of women's awareness and knowledge about cervical cancer and screening and the barriers to cervical screening in Ogun State, Nigeria.** *IOSR Journal of Dental and Medical Sciences*, 10(3), 52-58.
- Abiodun, O.A., Olu-Abiodun O.O., Sotunsa, J.O., & Oluwole, F.A. (2014). Impact of health education intervention on knowledge and perception of cervical cancer and cervical screening uptake among adult women in rural communities in Nigeria. *BMC Public Health*. Retrieved from <http://www.biomedcentral.com/1471-2458/14/814>.
- Adelusi B. (1978). Carcinoma of the cervix uteri in Ibadan: clinico-pathologic features. *Niger Medical Journal*, 8, 129-132.
- Adewole I.F., Edozien E.C., & Babarinsa I.A. (1997). Invasive and in Situ Carcinoma of the cervix in young Nigerians. A clinico-pathologic study of 27 cases. *Africa Journal Medical Sciences*, 26, 191-193.
- Agu, C.U (2013). *The Influence of Broadcast Media Campaigns on Vesico Vagina Fistula Prevention and Control in South- East Nigeria*. Retrieved from <http://repository.unn.edu.ng>
- Ajibo, O. (Producer). (2017, March 9). Look it up [Radio broadcast]. Enugu, Nigeria: Go Uni Radio.
- Akintayo, J.B., & Bello, A.A. (2015). Creating awareness on cervical cancer via radio broadcasting in Ikenne Local Government. *New Media and Mass Communication*. 41, 2224-3267
- American Cancer Society (2014). *Cervical cancer*. Atlanta, Ga: ACS.
- Anorlu, R.I (2004). Cervical Cancer: A sexually transmitted disease? *International Workshop on New Trends in the Management of breast and cervical cancers*, 45-46.
- Asemah, E.S., Gujbawu, M., Ekhareaf, D.O., & Okpanachi, R.A. (2012). *Research methods and procedures in mass communication*. Jos: Grat Future Publisher
- Balogun, M.R., Odukoye, O.O., Oyediran, M.A., & Ujomu, P.I (2012) Cervical



- cancer awareness and preventive practices: A challenge for female urban slum dwellers in Lagos, Nigeria. *African Journal of Reproductive Health* March, 26(1).
- Bandura, A. (1997) *Self-efficacy: The exercise of control*. New York, W.H. Freeman & co.
- Big war against cancer in Nigeria. (2015, February 3). Vanguard Newspaper.
- Brown, D.R., Soares, J., Epping, J. M., Lankford, T.J., Wallace, J.S., Hopkins, D., Buchanan, L.R., & Orleans, C.T. (2012). Stand-alone mass media campaigns to increase physical activity. *American Journal of Preventive Medicine*, 43(5), 551–561.
- Cancer: Time to wake up to the challenge in Nigeria. (2017, February 2). Nigeria Health Watch
- Champion, V.L., & Skinner, C.S. (2008). The health belief model. In Karen, G., Barbara K.R., & Viswanath, K. (Ed.), *Health behavior and health education theory, research, and practice* (pp.45-65). USA. Jossey-Bass
- Coffman, J. (2002). Public communication campaign evaluation: An environment scan of challenges, criticism, practice, and opportunities. Cambridge, M.A. Harvard Family Research Project. Retrieved from www.thelancet.com on 16 September 2016.
- Colleen, A., Redding, J., Rossi, S., Susan, R., Rossi, W., Velicer, F., James O. P., (2000). A study of health behaviour models. *The International Electronic Journal of Health Education*, 3, 180-193. Retrieved from <http://www.iejhe.siu.edu> on 16 September 2016.
- Dirksing, K.N (2016). Implementation and evaluation of a social media campaign to promote cervical cancer prevention and control (Master's thesis). Retrieved from <http://scholarcommons.sc.edu/etd/3361> on 3 January 2017.
- Foundation of Women's Cancer (2013). *Understanding the cervical cancer*. Chicago
- Healthfinder (2017). Cervical health awareness month. Retrieved from <https://healthfinder.gov/NHO/JanuaryToolkit.aspx>
- International Agency for Research on Cancer (2005). *IARC handbook of cancer prevention*. France. IARC Press.

- Kawonga (2003). Soul City 7 –Cancer of the cervix literature review. Women's Health Project. University of the Witwatersrand Johannesburg.
- Lawrence, W.G (2000). Definition of health belief model. USA. The Gale Group Inc. Macmillan
- Mukama, T., Ndejjo, R., Musabyimana. A., Halage, A.A., & Musoke, D. (2017). Women's knowledge and attitudes towards cervical cancer prevention: A cross sectional study in Eastern Uganda. BMC Women's Health. doi: 10.1186/s12905-017-0365-3.
- National Cancer Institute (2012). What you need to know about cervical cancer. Rockville. NCI publication.
- Nwuzor, C.M & Orugudosi A.L.(2013). Awareness and uptake of cervical cancer screening among women in Onitsha, South-East, Nigerian. Greener Journal of Medical Sciences, 3, 283-288.
- Obayi, P.M., Anorue, L.I., & Onyebuchi, C.A. (2016). Demystifying content and data analyses in social science research. Enugu. DeGreat Publishers.
- Obinna, C. (2016, August 9). N21,000 can save a woman from cervical cancer- Oncologist. Vanguard Newspaper. Retrieved from <http://www.vanguardngr.com/2016/08/>
- Oguntayo O.A., Zayyan, M., Kolawole, A.O.D., Adewuyi, S.A., Ismail, H., & Koledade, K. (2011). Cancer of the cervix in Zaria, Northern Nigeria. Ecancermedical science. 5, 219.
- Okeibunor, N.B. (2002). Evaluation of the media campaign on breast cancer in Edo State. Retrieved from <http://repository.unn.edu.ng>
- Parkin, D.M., Pisani, P., & Ferlay, J. (1999). Estimates of the worldwide incidence of 25 major cancers in 1990. International Journal of Cancer 80, 827-41.
- Pindiga, U.H., El-Nafaty, A. U., & Ekanem, I.A. (1999). Female genital malignancies in Maiduguri, Nigeria. A review of 328 cases. Trop Journal Obstetric Gynaecology. 16, 52-56.
- Rafindadi, A.H., Ifere, D.I., Shittu, S.O., Bako, A.U., &Olasinde, T.A. (1999). A



study of some aetiological factors in 41 cases of cancer of the cervix in Zaria. Niger Quarter Journal Hospital Medical. 9, 87-89.

Retrieved from <http://www.healthbeliefmodel/definitionandpatienteducation>.

Sankaranarayanan R. Budukh A.M., & Rajkumar, R. (2001). Effective screening programmes for cancer of the cervix in low- and middle -income developing countries. Bulletin of the World Health Organization, 79(10).

Sharma, M., & Romas, J.A., (2012). Theoretical foundations of health education and health promotion. London, Jones & Bartlett learning.

Shoell, W.M., Janicek, M.F., & Mirha, S.R. (1999). Epidemiology and biology of cervical cancer. Semin Surgeon Oncologist 16, 203-211.

Statistics Canada (2010). Survey methods and practices. Canada. Ministry of Industry.

The menace of cervical cancer. (2011, February 4). This Day, p.19.

Vizcaino A.P., Moreno V., Bosch F.X., Munoz N., Barros-Dios X.M., Borras J., & Parkin D.M. (2000). International trends in incidence of cervical cancer: 11. Squamous-cell carcinoma. International Journal of Cancer, 86(3):429-435.

Wakefield, M.A., Loken, B. and Hornik R.C. (2010). Use of mass media campaigns to changes health behaviour. Public Health journal. 376 (9748), 1261-1271. Doi: 10.1016/S0140-6736(10)60809-4. Retrieved from <http://www.isbnpa.org/> on 11 September, 2016.

Wimmer, R.D. ,& Dominick, J.R (1987). Mass Media Research: An Introduction. USA: Wadsworth Publishing Company.

World Health Organization (2017). Human papillomavirus (HPV) and cervical cancer . Retrieved from <http://www.who.int/mediacentre/factsheets>.

Yamane, T. (1973) Statistics: An introductory analysis, New York: Harper and Row.