

INFLUENCE OF BREAST CANCER BROADCAST MEDIA CAMPAIGNS ON THE HEALTH BEHAVIOUR OF WOMEN IN SOUTH-EAST NIGERIA

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Abstract

Cancer is a major contributor of morbidity and mortality globally. Health experts insist that raising awareness on early detection and prevention is the surest way to reduce cancer fatality. Consequently, World Health Organizations (WHO) and other organizations have executed campaigns to this effect. This study, therefore, investigated the influence of breast cancer broadcast media campaigns on the health behaviour of women in South-East Nigeria. The study was anchored on two theories: Health Belief Model and Cognitive Dissonance theory. The research method used was explanatory mixed method. The findings of this study showed that 43.8% of the responses indicated that there is significant relationship between the level of awareness to breast cancer and the level of knowledge of breast cancer risk factors, prevention, treatment, screening methods and practice. It was found that 55.0% of the responses indicated that there is a significant relationship between the level of knowledge of the breast cancer risk factors, prevention, treatment, screening methods and practice, and the attitude towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice. It also observed that 60.0% of the responses showed that there is a significant relationship between the level of attitude towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice and the extent to which women practice Breast Self-Examination and the screening methods due to the campaigns. This was seen in the cross tabulation between the questions “do you agree that performing breast self-examination and having clinical breast examination can help for early detection and reduction?” and “how often do you perform breast self-examination”? The study suggested the need for emphasis on a change in life style of women and more so, encourages women to perform Breast Self-Examination and Clinical Breast Examination regularly because the study found out that in as much as the women are aware of breast cancer, it has not really impacted on their life style which is a very strong contributor of breast cancer.

Keywords: Influence, Breast Cancer, Broadcast Media, Health Behaviour.

Introduction

Breast plays a significant role in the life and self-identity of a woman. A disorder in the breast can cause great uneasiness and disfigurement, loss of attractiveness and even death.

Breast cancer is one of such disorders that pose a major health problem mostly among women.

The Cancer Statistics Worldwide (2012) estimated 14.1 million new cases of cancer worldwide, 6.7 million of these in women. This number is expected to increase to 24 million by 2035. According to World Health Organization (2008), cancer accounts for 13% of all deaths registered globally and 70% of that figure occurs in middle and low income countries of which Nigeria is among. The International Agency for Research on Cancer (IARC), stressed that there will be 21 million new cases of cancer every year and 13 million cancer deaths by the year 2030 (IARC Report, 2013). The Medical Director, Optimal Cancer Care Foundation, Dr Femi Olaleye, recently said that breast cancer killed one in every 25 Nigerian women. The World Health Organization (WHO, 2008) has declared breast cancer as the number one cancer scourge afflicting human beings. It is estimated that in every 100,000 Nigeria women, 116 of them have breast cancer (Akpor, Akhator & Akpo, 2010).

Breast cancer is curable if detected early. WHO projects that about 84 million people may die by 2015 if urgent strategies are not implemented to arrest the cancer scourge (WHO, 2013). There is need for a drastic improvement as regards medical care and screening practices in Nigeria and Africa as a whole, so as to reduce the high mortality rate caused by breast cancer. Aside the lack of improved resources such as medical care and screening practice, the high rate of mortality caused by breast cancer can be attributed to the lack of adequate media campaigns, poor public awareness and knowledge of the disease which affect the health behaviour of women, absence of organized programmes, delayed presentation and lack of access to effective treatment options. Most patients detect this late and are diagnosed when the breast cancer must have developed into an advanced stage (stage 3 or 4 breast cancer) and affected other organs (Weinstein and Sandman, 2002).

Several campaigns were organized by such bodies like The Wellbeing Foundation-2013; LEAH Foundation-2011; Pink Pearl Foundations; Breast Cancer Association of Nigeria (BRECAN); Care Organization for Public Enlightenment (C.O.P.E)-1996; Breast Without Spots; Princess Nikky Foundation-1995; National Cancer Institute's Centers for Excellence in Cancer Communication Research; Medical Women's Association of Nigeria (MWAN); Bournvita. Some of such campaigns initiated by these bodies are: *Ozioma*, which means "good news" or "gospel" in the Nigerian ethnic Igbo language; Your Health Today; Ndu Ndi Nne (the life of women); Alife & Well; Health Watch; Health is Wealth; Health-wise Show; Dr. Ketch; Health & Wellbeing; Health Moment & Breakfast Aerobics, etc.

Notwithstanding the notable increase in campaigns initiated by state governments and non-governmental organizations, it appears breast cancer has remained on the increase and even more feared than the dreaded HIV/AIDS. According to Adebamowo and Ajayi (2001), incidence rate has increased from 13.8-15.3 per 100,000 in the 1980s, to 33.6 per 100,000 in 1992 and 116 per 100,000 in 2001.

With more broadcast campaigns on breast cancer and proper training in Breast Self-Examination (BSE) alongside regular Clinical Breast Examination (CBE), there is the

possibility for early detecting of breast cancer. Regular performing of BSE by women will enable them become familiar with both the appearance and how their breasts feel, helping them to detect any changes early (Odusanya, 2001). Sreberny (2005) affirms that when campaign is effectively done, it plays a pivotal role in changing people's knowledge, attitudes and (health) behaviour.

Statement of the Problem

The menacing increase of breast cancer occurrence has resulted in the growing emphasis on awareness campaigns on issues of breast cancer among women in the Nigerian society. The issue of health no doubt borders on the existence and wellbeing of everybody and should actually be accorded the top priority attention it deserves. . Efforts at making people become aware of government and non-governmental organization's campaigns especially those relating to their health must not be handled with levity.

Several state governments and non-governmental organizations in their efforts to reduce breast cancer occurrence, have been involved in media campaigns to create awareness and improve health behaviour of breast cancer across the country.

There is no doubt that the mass media generally influence the public either negatively or positively. However, it is still doubtful whether the mass media have been successful in bringing about the desired change attitudes and habits that generally predispose them to cancer such as unhealthy behaviours, smoking, drug abuse, etc. It also appears the lifestyles of the women are not in conformity with the key campaign messages of most agencies focused on awareness creation with little or no emphasis on the life style/behaviour of women which is a major contributor to breast cancer.

Hence, this study investigates the influence of breast cancer broadcast media campaigns on the health behaviour of women in South East Nigeria.

Research Questions:

The following research questions guided the study:

1. What is the level of awareness of women in South East Nigeria on breast cancer risk factors, prevention, treatment, screening methods and practice?
2. Have the knowledge level and health behaviour of women in South East Nigeria towards breast cancer risk factors, prevention, treatment, screening methods and practice increased as a result of their awareness to the campaigns?
3. What is the attitude of women in South East Nigeria towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice?
4. To what extent do women practice Breast Self-Examination and the screening methods due to the campaigns?

Research Hypotheses

1. **H1:** There is significant relationship between the level of awareness to breast cancer broadcast media campaigns and the level of knowledge of breast cancer risk factors, prevention, treatment, screening methods and practice.
2. **H1:** There is significant relationship between the level of knowledge of breast cancer risk factors, prevention, treatment, screening methods and practice, and the attitude towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice.
3. **H1:** There is significant relationship between the attitude towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice and the extent to which women practice Breast Self-Examination and the screening methods due to the campaigns.

Literature Review

Breast Cancer

Breast cancer was the form of cancer most often described in ancient documents. Cancers of the internal organs were essentially invisible to ancient medicine because of rare autopsies. Breast cancer, however, could be felt through the skin, and in its advanced state often developed into fungating lesions: the tumor would become necrotic (die from the inside, causing the tumor to appear to break up) and ulcerate through the skin, weeping fetid, dark fluid (World Cancer Report, 2008).

Worldwide, breast cancer accounts for 22.9% of all cancers (excluding non-melanoma skin cancers) in women. In 2008, breast cancer caused 458,503 deaths worldwide (13.7% of cancer deaths in women). Breast cancer is more than 100 times more common in women than in men, although men tend to have poorer outcomes due to delays in diagnosis (Kennedy, 2006; National Center for Health Statistics, 2006).

Prognosis and survival rates for breast cancer vary greatly depending on the cancer type, stage, treatment, and geographical location of the patient. Survival rates in the Western World are high; for example, more than 8 out of 10 women (85%) in England diagnosed with breast cancer survive for at least 5 years. In developing countries, however, survival rates are much poorer (National Cancer Institute).

Breast cancer and its treatment make up a great physical, psychosocial and economic challenge across the world and in resource limited societies particularly. The features of the disease in Africa are always patients coming for treatment in hospitals when the disease has reached an advanced stage. Campaigns (awareness) and knowledge of breast cancer differs among communities and population groups the world over. Studies conducted to assess the knowledge of breast cancer among women have revealed satisfactory levels in some places (Grunfield, Ramiez, Hunter, & Richard, 2002), while other reports especially from developing countries such as Nigeria have revealed inadequate knowledge and awareness of the disease (Adebamowo, et al; 2003; Adebamowo & Ajayi, 2000).

Awareness, Knowledge and Practices of Breast Cancer (An Empirical Review)

According to Peacey, Steptoe, Davidsdottir, Baban & Wardle (2006), a global survey of female university students illuminated that, although close to 95 percent of American participants knew that breast cancer disease can be hereditary, less than 20 percent knew that exercise, alcohol, and obesity are also risk factors. This narrows down to lack of emphasis on the life style of women which contributes to one of the causes of breast cancer.

In the studies conducted by Parkin, D.M., Bray, F., Ferlay, J., & Pisani, P. (2005) to assess breast cancer knowledge among women indicated level of satisfaction in some places, other reports, particularly from developing countries like Nigeria disclosed inadequate knowledge and awareness about the diseases (Okobia, Bunks, Okonofua & Usifo, 2006).

Osime, Okojie, Aigbekaen (2008, pp. 115-119) studied the knowledge, attitude and practice of breast self-examination among civil servant in Benin City, Nigeria. They found out that though 83% of the respondents had heard of breast self-examination, only 26% of them could correctly describe the procedure while only 15% practice it. They concluded that the level of awareness of breast self-examination among civil servants in Benin City was low. According to Okobia (2006, pp. 202-207), he indicated in his study on breast self-examination among women in urban dwelling in Edo state, Nigeria, that 58.7% of the women were aware of breast self-examination and 26.0% of the respondents could describe it correctly.

Balogun and Owoaje (2005) showed that 37.1% of traders in Ibadan knew about breast self-examination. The level of awareness was highest (38.7%) among those aged 50-59 years. The study indicated that the women who had tertiary education were more knowledgeable about breast self-examination than those who had primary education only.

Pharm and Mephee (1992, pp. 302-310) found out in a study they carried out that only 13% of Vietnamese women were aware of breast self-examination.

Madonat and Merrill conducted a study titled "Breast cancer risk factors and screening awareness among women nurses and teachers in Amman, Jordan". The study found that the adjusted mean screening awareness score for nurses was 88.3% while that of teachers was 73%. Nadia & Magda (2000, pp. 105-115) in a study done on knowledge, attitude and practice of breast self-examination on a group of working women in Cairo Egypt revealed that only 11.5% of the study group knew about breast self-examination.

In a study carried out by Ali, Salem, and Abdulla (2007, pp. 1432-1437) on breast self-examination among female nurses in Jordan revealed that all (100%) were aware of breast self-examination but only 52% performed it regularly. Adili Ndidi in her community medicine project indicated that 100% of the female medical students in Nnamdi Azikiwe University were aware of breast self-examination, 91.2% practiced it while 31% performed it monthly. Odusanya and Tayo (2001, pp. 844-848) also conducted a cross sectional survey among nurses in general hospital in Lagos and found out that more than one-third (39.7%) of the respondents knew that breast self-examination should be done monthly.

In the study carried out by Onyije, Zenebo, and Oboma (2010, pp. 75-82) on the knowledge and practice of breast self-examination among female students in tertiary institutions in Nigeria, reported that 37% of the respondents gained their knowledge of breast self-examination through a doctor, 27% from publications, 12% through the media, 3% through religious groups, whereas 6% of respondent's information was from organizations, 15% was from Nigerian cancer society programme.

Ozturk and Kisiogulu in 1999, showed that the influence of the media in public education among women in Galistan district of Isala about breast self-examination was greater than health personnel with 59.8% and 32.2% respectively.

Nevertheless, monthly performance ratios were significantly higher in those who were educated by health personnel.

Basey, Iruhe, Olowogeye, Adeyomoye, and Onajole (2010, pp. 11-15), conducted a study among nursing students in Lagos University Teaching Hospital which disclosed that 87.5% of the respondents did not know how to carry out breast self-examination, 26.7% felt that breast self-examination was not important, 20% believed they could never have breast cancer, 10% felt they were violating their bodies by palpating their breasts, 10% did not believe in the efficacy of the fact, while 3.3% were scared of being diagnosed with breast cancer.

Chandry, Srivastava, Fitch (1998, pp 1693-1710) conducted a survey to examine the knowledge, attitude and practices regarding breast cancer among South Asian women living in Canada, and found that only 12% of the study participants practice breast self-examination monthly.

Ertem and Kocer (2009) in a study on breast self-examination among nurses and midwives in Odemis Health district in Turkey found that 52% of the respondents performed breast self-examination a statistically notable relationship was found between higher levels of work experience and breast self-examination practice. The study indicated a strong belief in the breast lump being the most important reason for breast self-examination.

When people know that the factors that cause breast cancer are within their control, all they need to know is what should be done at a given time and what should not be done. For instance, it has been emphasized that meals rich in calories and fat, animal protein and refined carbohydrates should be consumed with caution. This is because they can be very harmful especially when not backed up with activities to break down energy. With this knowledge the women are empowered. All they need to do is control the levels of fat intake and consume healthy diets. This control however will to a large extent be determined by their perception of susceptibility to the disease and severity, benefits and barriers that can hinder positive behaviour (Stretcher & Rosenstock 1997 p.34).

Knowledge influences attitude and positive attitude culminates into practice. It is, therefore, very important that campaigns inform adequately, paying particular attention to barriers that hinder adoption of the desired behaviour.

Theoretical Framework

The Health Belief Model and the Cognitive Dissonance theory were used to situate this study and give the study a theoretical base.

The Health Belief Model

The HBM was first developed in the 1950s by social psychologists Godfrey Hochbaum, Irwin Rosenstock and Stephen Kegels working in the U.S. Public Health Services in order to understand the failure of people to adopt disease prevention strategies or screening tests for the early detection of disease (Conner, & Norman, 1996).

The relevance of the Health Belief Model to this study lies in the fact that the health of individuals within any given society or community is dependent on their ability to identify the risks for specific health problems. This ability is based to a large extent on the knowledge and right perception of the state of illness and the state of the pathological abnormality in any of the organs of the body system. This knowledge could be acquired via the broadcast media campaigns.

Cognitive Dissonance Theory

Leon Festinger (1951) synthesized a set of studies to distil a theory about communication's social influences. Cognitive dissonance is the psychological conflict from holding two or more incompatible beliefs simultaneously (Folarin, 2002). This theory explains that people tend to seek internal justification for their participation in behaviours that offer them little to permanently adopt said behaviours such as BSC & CBE, for early detection of breast cancer and reducing breast cancer risk factors.

This theory gives a basic explanation for the way humans react when they act outside of their beliefs. This theory enables the broadcast media to stir the women towards improving their health behaviour as regards breast cancer, its risk factors, prevention and screening methods. This theory promotes behaviour such as increased performance of breast self-examination for early detection.

Methodology

Research Design

Explanatory Mixed Method was adopted for this study. The explanatory mixed method is a research design that is in two phases and allows the researcher to first collect quantitative data with great attention (i.e. the first phase) and sequentially follow it up with the collection of qualitative information (the second phase).

To generate the required quantitative and qualitative data, survey and in-depth interview methods were used respectively.

Population of Study

The population of study is 8,211,604 women in the South-East geo-political zone of Nigeria according to the National Population Census (2006). The breakdown of the total population includes 1, 416,082 women who reside in Abia state, 2,059,844 women who reside in Anambra state, 1,112,791 women who reside in Ebonyi state; 1,671,795 women who reside in Enugu state and 1,951,092 women who reside in Imo State (National Population Commission, 2006).

Sample Size Determination

The sample size of 384 was drawn from the population of 8,211,604 using sample size calculator by Wimmer and Dominick with confidence level of 95% and confidence interval of 5.0%. The calculator demands for an over sampling. Bertlett, Kotrlik and Higgins (2001, p.46) stated that “if the researchers decides to use over sampling, let him estimate the response rate as a means of calculating for it”. To calculate for the over sampling procedure, a response rate estimate of 95% was adopted. Hence, the sample size for this study is **404** respondents.

Sampling Technique

The sampling technique used in the study was the multi-stage sampling technique to effectively investigate the variables in the study. Samples of the population were selected in stages.

Measuring Instruments

The measuring instruments used by the researchers were questionnaire and interview guide respectively to generate both quantitative and qualitative data for the study.

Discussion of Findings

Research Question 1

The researchers in research question one, sought to find out the level of awareness of women in South-East Nigeria on breast cancer risk factors, prevention, treatment, screening methods and practice. The quantitative analysis made on the extent the respondents received information of breast cancer from their preferred medium indicated that majority i.e. 182 (45.8%) of women are aware of breast cancer risk factors, prevention, treatment, screening methods and practice. This is not supported by the analysis from the qualitative data which indicated that majority of the health workers/selected women were convinced that the women are aware of breast cancer though not up to average figure. Osime, Okojie, Aigbekaen (2008, pp. 115-119) supported the findings in their study on the knowledge, attitude and practice of breast self-examination among civil servant in Benin City, Nigeria, indicating low level of awareness of breast self-examination among civil servants in Benin City.

Research Question 2

In research question two, the researchers sought to find out the knowledge level and health behaviour of women in South-East Nigeria towards breast cancer risk factors, prevention, treatment, screening methods and practice increased as a result of their awareness to the campaigns. Both quantitative and qualitative analyses made indicated that 211 (53.1%) which means that the average number of respondents are knowledgeable about breast cancer risk factors, prevention and screening methods. This was in contrast with Nadia & Magda (2000, pp. 105-115) in a study done on knowledge, attitude and practice of breast self-examination on a group of working women in Cairo Egypt revealed that only 11.5% of the study group knew about breast self-examination.

Research question 3

The researchers in research question three, sought to find out the attitude of women in South-East Nigeria towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice. Majority (250-63.0%) of the respondents while responding to the question on if they do agree that performing breast self-examination and having clinical breast examination can help for early detection and breast cancer reduction, strongly agreed that performing breast self-examination and having clinical breast examination can help for early detection and breast cancer reduction. All the analyses made under this research question, including the qualitative data indicated that the respondents have moderate attitude towards breast cancer, prevention and its screening methods.

Research Question 4

The researchers sought to find out the extent of practice by the women on the risk factors, prevention, treatment and screening methods due to their attitude towards breast cancer and their awareness of its campaigns. The data presented on if the respondents maintain regular checking of breast implies that 286 (72.0%) of the respondents used in the study do not maintain regular checking of breast. The qualitative data and Ali, Salem, and Abdulla (2007, pp. 1432-1437) supported the findings. This is also supported by a study carried out by Osime, Okojie, Aigbekaen (2008, pp. 115-119) showing that only 15% of respondents practice breast self-examination.

Summary of Findings

At the end of the analysis, various findings were made. Hence:

1. The findings of the study showed that (43.8%) of the responses indicated that there is significant relationship between the level of awareness to breast cancer broadcast media campaigns and the level of knowledge of breast cancer risk factors, prevention, treatment, screening methods and practice.
2. It was found that (55.0%) of the responses indicated that there is a significant relationship between the level of knowledge of the breast cancer risk factors, prevention, treatment, screening methods and practice, and the attitude towards

breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice;

3. It was also observed that (60.0%) of the responses showed that there is a significant relationship between the level of attitude towards breast cancer broadcast media campaigns on the risk factors, prevention, treatment, screening methods and practice and the extent to which women practice Breast Self-Examination and the screening methods due to the campaigns.

Conclusion

The researchers from the findings of this study concludes that majority of the respondents used in the study are aware of breast cancer.

Both quantitative and qualitative analyses made indicated that average number of respondents are knowledgeable about breast cancer risk factors, prevention and screening methods, while they moderately do not know how to dictate abnormality on the breast; all the analysis made under this research question, including the qualitative data indicated that the respondents have moderate attitude towards breast cancer, prevention and its screening methods.

It was also found that majority of the respondents used in this study do not maintain regular breast check.

The study finally pointed out that inadequate infrastructures; lack of adequate teaching/awareness on how to perform BSE; lack of support from government and interested stakeholders for women detected with malignant growth in the breast or with early stage of cancer; insufficient periodic community sensitization; and inadequate skills and attitudes of health workers as factors militating against breast cancer broadcast media campaigns towards improving the health behaviour of women in South-East Nigeria.

Recommendations

The obvious lack of proper health behaviour of women in South-East Nigeria towards breast cancer in this study further suggest a widespread of ignorance among the general public. Hence this study amongst others recommends that:

- 1) Health care providers and educators should employ adverts on radio and television at least 60 minutes per day in divided periods such as 30 seconds or 1 minute during the spaces and in-between musical interludes.
- 2) Media programme, including jingles which are presented in language that can be easily understood by people could also be used to provide necessary information.
- 3) Periodic community sensitization and awareness activities via community broadcast media sponsored by the health authority on the general health of the women including breast awareness.

- 4) Women identified through this means with malignant growth in the breast or with early stage of cancer could be supported by government or other interested stakeholders for prompt treatment.
- 5) This study emphasizes the need for a change in life style of women and more so, encourage women to perform breast self-examination and clinical breast examination regularly.
- 6) Mass media messages should be incorporated as key machineries in broadcast media awareness campaigns for improving breast cancer care among women.

References

- Adebamowo, C.A., & Ajayi, O.O. (2001). Breast cancer in Nigeria. *African Journal of Medicine*, 19 (3), pp. 179-191.
- Adili Ndidi. (2007). Knowledge, attitude and practice of breast self-examination among female clinical students of Nnamdi Azikiwe University Teaching Hospital, Nnewi, Community Medicine Department. *Journal of breast cancer research*, 10(4), pp.111-121.
- Ali Abu, Salem, O.T., Abdulla Hassan M. (2007). Breast self-examination among female Nurses. *Shraze Medical Journal*, 8(2), pp. 1432-1437.
- Balogun, M.O., Owoaje, E.T. (2001). Knowledge and practice of breast self-examination among female traders in Ibadan Nigeria. *Annals of Ibadan postgraduates*, 3(2), pp. 10-16.
- Basey, R.B., Iruhe, K.N., Olowogeye, A.M, Adeyomoye, A.A., Onajole, A.T. (2010). Knowledge, attitude and practice of breast self-examination among Nursing students in Lagos University Teaching Hospital. *Academic Journal of Cancer Research*, 3(2), pp. 11-15.
- Cancer Research Report. (2012). No.104. U.K. Author
- Chris, K. H T. & Beng I. (2010). *Knowing your breasts. minimizing breast cancer risk! understand risk factors, preventive measures and early detection.* Malaysia.
http://www.bookoncancer.com/productDetail.php?P_Id=8
- Cohen, B.C. (1963). *The press and foreign policy.* Princeton, NJ: Princeton University Press.
- Folarin, B. (1998). *Theories of mass communication.* Ibadan, Nigeria.Sceptre Publishing Ltd.
- National Population Commission (2006).
- Odusanya, O.O. (2001). Breast Cancer Knowledge, Attitudes and Practices of Female School Teachers in Lagos, Nigeria. *Breast Journal*, 171- 175. [PubMed]
- Odusanya, O.O., Tayo, O.O. (2001). Breast cancer knowledge, attitude and practice among Nurses in Lagos Nigeria. *Actaacol*, 40(7), pp. 844-848.
- Okobia, M. (2006). Knowledge, attitude and practice of Nigerian women towards breast cancer. *World journal of Surgical Oncology*, 14(4), pp. 202-207.
- Onyije, F.M., Zenebo, V.C., Oboma, Y.I. (2010). Knowledge and practice of breast self examination among female student in tertiary institutes in Ondo state, Nigeria. *Continental Journal of Biomedical Sciences*, 4, pp. 75-82.
- Osime, O.C., Okojie, O., Aigbekaen, I.J. (2008). Knowledge, attitude and practice about breast cancer among civil servants in Benin city, Nigeria. *Annals of African Medicine*, 7(4), pp. 115-119.
- Ozturk, M., Engin, V.S., Kisioghu, A.N. (1999). The practice of breast self-examination among women at Gulistan District of Isparta. *Eastern Journal of Medicine*, 47:492.
- Sreberny, A. (2005). Gender empowerment and communication: Looking backwards and forwards. *International Social Science Journal* 57 (2), 285-300.
- Stretcher, V., & Rosenstock, I.M. (1997). *The Health Belief Model.* In Glanz K., Lewis F. M., &

- Rimer B. K., (Eds). *Health behaviour and health education: Theory, research and practice*. San Francisco: Jossey-Bass. PP 31-36. Retrieved on May 5th 2012 from http://www.health_belief_model.org
- Weinstein, N and Sandman, P.M. (2002). The precaution adoption modes. In Glanz, K. Rimer, B., and Lewis, F. (eds), *Health behaviour and health education*. San Francisco: Jossey-Bass.
- Wimmer, R.D. & Dominick, J.R. (2013). *Mass media research: an introduction*. US: Wadsworth cengage learning.
- World Global Cancer Rates (2006) Cancer Report.
- World Cancer Report, (2008). *International Agency for research on cancer*. Retrieved 2011 02pp. 26.
- WHO (2008). The global burden of disease: 2004 update
- World Cancer Report, (2011). *Breast cancer statistics* <http://canceraustralia.nbcc.org.au/breast-cancer/about-breast-cancer/breast-cancer-statistics>