CRITICAL EXAMINATION: ASSESSING WORLD CANCER DAY COVERAGE IN **NIGERIAN NEWSPAPERS**

Fatima Mohammed and Ibrahim Abubakar

Department of Media and Communication, Bayero University, Kano, Nigeria

Abstract: Cancer remains a formidable public health challenge worldwide, characterized by uncontrolled abnormal cell growth leading to the formation of tumors with potentially devastating consequences. Despite significant advancements in diagnosis and treatment, the global burden of cancer continues to escalate, with profound implications for individuals and societies alike. Drawing on insights from The International Agency for Research on Cancer (IARC) 2020 report and findings by Mahesar et al. (2021), this study underscores the urgency of addressing cancer as a leading cause of morbidity and mortality. The IARC report highlights alarming statistics, revealing that one in five individuals will confront cancer in their lifetime, with staggering mortality rates affecting millions globally. Moreover, Mahesar et al. (2021) shed light on the enduring impact of cancer, indicating that over 50 million individuals live within five years of a cancer diagnosis, emphasizing the imperative for comprehensive survivorship care. Against this backdrop, this study delves into the multifaceted dimensions of the global cancer epidemic, elucidating key factors contributing to its prevalence and impact. By synthesizing empirical evidence and epidemiological data, the research offers valuable insights into the complex interplay of genetic, environmental, and lifestyle factors driving cancer incidence and mortality rates. Furthermore, the study explores the implications of the growing cancer burden on healthcare systems, economies, and social well-being, emphasizing the need for concerted efforts to mitigate its impact. Through an interdisciplinary approach encompassing public health, oncology, and health policy, this research aims to inform evidence-based strategies for cancer prevention, early detection, and treatment, ultimately striving towards a future where cancer is no longer a leading cause of suffering and premature death.

INTRODUCTION

Keywords: Cancer, global burden, mortality, epidemiology, Cancer is a disease which occurs when public health.

changes in a group of normal cells within the body leads to uncontrollable abnormal growth forming a lump called a tumor that causes severe pains to the victims. With the exception of cancer of the blood, (leukaemia) this is true of all kinds of cancers. If these tumors or lumps are not early detected and treated, they will grow inside the body of the host victims and spread into the surrounding normal tissue, or to other parts of the body via the bloodstream and lymphatic systems which usually affect the digestive, nervous and circulatory systems or worse still, release

hormones that may affect body function. Being a significant public health crisis and one of the leading causes of death globally, The International Agency for Research on Cancer (IARC) 2020 report demonstrated that one in five people falls victim to cancer throughout their lifetime. It also shows that one in eight men and one in eleven women die from cancer related health challenges globally. The implication of this data according to Mahesar et al. (2021) is that over 50 million people live currently within five years of a past cancer diagnosis. The reports moreover, estimated that million new cases were encountered in 2020, in which the proportion of cancer deaths contributed to 10 million people around the world.

Cancer of all kinds has formed global threat to peoples' lives especially the women who are most vulnerable to the two most killer cancer diseases- cervical and breast cancers. Breast and cervical cancers have been among the killer cancers of this recent time. The major reason for their high mortality rates in the society is poor awareness and late treatment of these cancers. According to WHO (2017), cervical and breast cancers usually claim victory over human lives because of the fact that the victims hardly knew that they are taking some risk actions that can expose them to such severe and live claiming disease. This was captured more vividly in Okeke (2018) who argued that research has shown that African women, including Nigerians, have low knowledge of the risk factors of breast and cervical cancers.

This finding supported other studies such as Jedy-Agba et al. (2012); Azenha et al. (2011) which have revealed that although cancer has posed and is still posing a global health challenge to the lives of the people, it is more intense in developing countries such as Nigeria.

Studies have also shown that survival of cancer victims is usually low among women from developing countries because the disease is usually detected too late (Okeke, 2018). Based on this research findings, cancer can best be tackled through early detection and immediate treatment. Again, cancer kills more in developing countries owing to the poor health facilities and cost of the treatment which most times are unaffordable to the victims. This situation sometime forces some victims to give up once they discover that they cannot financially meet up with the challenges ahead of them.

Considering the damage of poor awareness of the possible causes of cancer coupled with the fact that routine check can help in early detection and encourage survival of the victims, the IARC in 2000 came up with an initiative aimed at creating global awareness for cancer among the people. The outcome of the initiative was the world cancer day usually celebrated yearly every 4th of February (UICC, 2022). The purpose of this initiation was to reduce both the economic cost and human lost usually accompanied with cancer related challenges globally.

Without media effort in making the world cancer day popular among the masses, the effort of the IARC could not get down to potential victims of cancer who the initiative was designed to benefit. It was against this background that this study examined newspapers coverage of the World Cancer Day in Nigeria.

Statement of problem

Cancer is a highly alarming and threatening situation that requires media attention towards creation of public attention. The debilitating nature of cancer in Nigeria has become a matter of global cancer because of the number of lives lost on an alarming rate. Lifestyle changes, poor medical attention and lack of adequate knowledge have been identified as some of the causes of cancer in Africa. In responding to the global need for reduction of cancer related deaths, Anambra state government included cervical and breast cancer topics in post-primary school curriculum. The target of this addendum in curriculum is to expose the school children to the likely causes and means of preventing the occurrences of breast and cervical cancers. This effort corroborated the global initiative to map out a day for the cancer awareness globally. Unfortunately, this is not enough to cushion the human resources and economic loss associated with this disease without effective media attention. This makes examination of media efforts in publicizing the government efforts very necessary. In another development, even

before the declaration of 4th February as the world cancer day, several studies have been conducted on cancer but little or nothing have been done in the area of newspaper coverage of the world cancer day which is expected to form the bases of media information at least within the period marking the global efforts to the fight against cancer. In keeping with the social responsibility duties of the Nigerian media to help disseminate information on the best way for the people to stay safe, exposing the people to the causes of cancer; the importance of early detection and routine check as well as reawakening the Nigerian government consciousness to its duty of providing sound health care facilities to take care of the health need of the people become very important. The problem there is how much information is available in the media for people to make informed decision about the global issue.

Objectives of the study

While the general objective of this study is to investigate how the media covered the events and activities of the world cancer day, the specific objectives are to: (1) Ascertain if the newspapers adequately covered the events marking the world cancer day and cancer related health issues in Nigeria? (2) Understand whether the selected newspapers gave prominence coverage to world cancer day and related health issues in Nigeria. (3) Determine the purpose of the story published on the world cancer day in the select newspapers. (4) Identify the dominant media theme used in the coverage of world cancer day and related health issues among select newspapers.

THEORETICAL FRAMEWORK

Social responsibility theory of mass communication

This theory places responsibility on the press to ensure that the people are well informed of the events and happenings around them (Nwabueze, 2012). The social responsibility originated from the inventive thinking and ideas of Political free thinkers, the proponents of libertarian ideas and those that introduced and nurtured a democratic leadership spirit like John Milton (1644) cited in Clay, (nd). Relying on the above fact, the social responsibility can be regarded as an evolution from the libertarian ideology (Nwabueze, 2014; Agbanu, 2013). Significantly, this theory was formally developed and brought into the academic setting by Siebert et al. in 1956 (Anaeto and Solo-Anaeto, 2010). This was seven years after the US commission on freedom of press has expressed dissatisfaction on the libertarian theory of the media (David, 2015; Kobiruzzaman, 2021). Significantly, the theory was propounded to advocate for total press freedom and with little or no censorship (Kobiruzzaman, 2021). Its main base is to improve on *objectivity* in reporting to achieve responsibility in *interpretation* of events and issues around the people in the society (Agudosy and Ikegbunam, 2020). It places the media on the side of humanitarianism while requesting public accountability from the government without acting in a way that incites the public against the government or a society against another. Reporting the world cancer day in the Nigerian media draws attention to humanitarian function of the press and at the same time holding the government on the responsibility and accountable over what is needed to be done to achieve a cancer free society.

Social responsibility theory according to Ekeli (2008:338) cited in Agudosy et al. (2018) originated from the moral philosophy that is directed at protecting the poor, the helpless and the underprivileged against any form of unknown and impending danger. Cancer attack is an impending health hazard that usually claims the lives of the less privileged ones who can hardly access medical attentions that could have set them free from being consumed by the disease. Understanding the fact that majority of cancer patients are those who are unaware of the risk factors places the media at the forefront of providing information and education about cancer in order to increase awareness and save lives of the people. The world cancer day is an ample opportunity for the media to carry out this identified function.

In this respect, the media are expected to explore the ample opportunity provided by the world cancer day to inform the people on the health risk behaviors that could expose them to cancer attack, available cancer prevention and diagnosis health facilities and the importance of early detection to the safety of victims. Reporting the events

of the world cancer day to the people in Nigeria is a social responsibility role that the media should not shy away from because of its humanitarian nature.

Relating this theory to the current study, it is pertinent to note that it is the duty of the media especially the newspapers to secure the attention of the government to the health need of the public. As partners in social development and progress, they are expected to inform and educate the people on what they need to know about killer diseases and the possible health safety measures. Reporting issues concerning the world cancer day in Nigeria makes the media an institution for the achievement of health security and checks and balances by holding the government accountable to the people. Against this backdrop, social responsibility theory was considered relevant to the study.

The agenda setting theory

Propounded by Maxwell McCombs and Donald Shaw in the year 1972, the agenda setting theory argues that the media help the public in assigning relative importance to various public issues (Miller, 2002). As a noble means of helping the people to gain knowledge of issues and events around them, the media, through presenting issues and events that they consider important to the society, influence public thoughts by giving more space and time to some issues where others are left unreported (University of Twente, 2017). While citing Miller (2002) Nnaemeka and Ezeabalisi (2020) argue that once the media highlight an issue, the issue appear in public domain and generate public attention. Being in the public domain, such issue is most likely to be seen as important which in turn, became an agenda of public discourse.

Again, it is the views of the proponent of this theory that when the media decide to ignore an event or issue, no matter how crucial it is to the development of the society, the event is most likely to fall short of public debate and review (McCombs, 2004) cited in (Agudosy et al., 2018). In this same manner, if the media kept silent on the world cancer day, the event would not attract public attention that will lead to attitude change. The choice of this theory for this study was informed by the basic elements of agenda setting theory as provided by Folarin (2005) cited in Agudosy et al. (2018) where the author stated that agenda setting involves quality of frequency of reporting of the event understudy, the prominence given to the reports through headlines, pictures, display etc. The degree of conflict generated in the reports and the cumulative media-specific effects of such reports over time.

World cancer day: A historical review

The World Cancer Day is the collaborative effort of the United Nations (UN), World Health Organizations (WHO), government and other major health organizations to unite the world and devise strategies to effectively engage in the fight against cancer. The efforts include disseminating factual information about cancer, its possible treatments and preventive measures to the public. This World Cancer Day event is a vital initiative held under the guidance of the leading cancer fighting organization known as the Union for International Cancer Control (UICC) (UICC, 2022). The establishment of this day was endorsed by more than 400 member organisations across 120 countries of the world (Health care and health care news, 2022). The main objectives of the initiative were to significantly reduce illness and deaths related to cancer in the world; to save millions of cancer victims and educate the public about the cancer symptoms, preventive measures and risk of the epidemic disease. Raising awareness about healthy diet, physical activity and environmental carcinogens is also a major part of the World Cancer Day event. To spread the messages health organizations and non-governmental organizations of their own accord take initiative by organizing camps, programmes and rallies. The threat that led to the formation of the world cancer day may not be divorced from the fact that each year 7 million die of cancer from 12.7 million people who undergo cancer diagnosis globally. This is what led to the establishment of the world cancer day in 2000 also served as a means of examination of already existing policies, adoption and implementation of new or old policies aimed at controlling cancer and promoting a universal response to the fight against cancer.

The media and health communication in Nigeria

The roles of the mass media in public health emergency management have been acknowledged among different media scholars at different times. While citing Alexander (2005); Thorson (2006), Ciboh (2010) admitted that the mass media play a central role in informing and educating the masses about health and medical issues of the time. The scholar further stated that the media perform these functions of providing the public with crucial information that empowers audience and at the same time pushes them into taking positive actions that could present an opportunity for a better health condition in the society.

Significantly, studies have shown that the Mass media have a lot of contribution to make in promoting health safety practices among the public. According to Zarcadoolas et al. (2009) the mass media present both complex and overtly simplistic health messages and in so doing promote health literacy and reduce health risk behaviors among the audience. The author further argued that the media can educate individuals about health behavior through establishing powerful role models against harmful attitudes domiciled in the audience. This shows that the media is important in health safety of the people at all time talk more of a time of health emergency. Studies have shown that at the rise of any disease, the media rise in defence of the people through provision of information about the disease.

Through such interventions, they present the people with an update on the health situation on ground. In all, considering the roles that the media have played in recent time, it has been on record that the media inform, educate, and frame health related issues and at the same time lead the people in making important life changing health decision that can positively improve the health state of the society. Relying on this ground, helping the people to make sense of the true state of cancer is a social responsibility function of the media which should be carried out judiciously in the interest of humanity. Considering the fact that people have been fed with different misconception on cancer and all its related problems, world cancer day is an opportunity for the media to tell the truth in the interest of getting a cancer free society. In this regard, the duty of interpreting health related issues to the public is a very important one in the health growth and development of the society.

Considering the importance of health safety information to the public, constant education and informing the people through media reports on different health challenges is not only important but necessary. Relying on the need for constant health information dissemination among the media audience, Aruchelvan (2016) argues that there should be an increase in media coverage of health stories to provide the needed education, interpretation and information that could make the people adopt the available health safety measures. Significantly, the author further argues that the media coverage health related issues hardly reflect the health issues that are most prominent in society (Aruchelvan, 2016). Through its interpretative roles and setting public agenda in line with the provision of the social responsibility duty of the press, the newspaper when dedicated to a particular issue can promote the adoption of health safety measures among members of the public. In covering health related issues or events, the mass media contents are expected to be appealing to the change of behavior for the accepted health attitude.

Achieving this objective may not be possible if the media did not engage in frequent publications on lifechallenging health issues that confront the people. It is therefore, within the theoretical proscription of agenda setting and social responsibility to spot out a ravaging health challenge and bring it to the public and then watch the people to take action. A look at the themes of the world cancer day revealed that they are all calling on the masses to adopt a change of attitude, take action and cause others to take action for a cancer free society. To take action, the people must be presented with the possible outcome of remaining silent against cancer diseases. Unfortunately, if lack of knowledge and awareness of the possible risk behaviors have been confirmed as the major cause of cancer related death, there is need for effective and efficient publicity to counter ignorance among the people and get them equipped with vibrant information that can help the society. In the words of Seale

(2012:2), getting the masses informed requires that the media will be frequent in telling the people that possible risk of the attitude that they share and admire.

Significantly, it is unethical to bring in sentiment of any kind while covering health related issues because trivializing the reality may expose many to risk. This means that the practitioners should at all-time spare themselves the sentiment introduced in media coverage by political affiliation, media ownership and ethnicity. According to Lewis and Lewis (2015:1), determining which aspect of the events that will be covered, the voices to be heard and slants of the stories to be published in the media is in the hands of some who have greater access to power and the media and in using these powers, influence media agenda which in turn influence public agenda. Briggs and Hallin (2016) requested that media scholars should carry out studies in the area of health news coverage. This study has come to provide this request by examining the newspaper coverage of world cancer day considering the threat that cancer pose to the global society.

The mass media and coverage of health-related issues

By responsibility, the media owe \square s the public the duty to acquire useful information that can encourage safetyhealth attitude and spread them to the people through objective interpretation of observable health risk factors and attitudes. This is a special kind of reporting known as health or medical journalism (Uzuegbunam et al., 2016). In health or medical journalism, efforts are made by the reporters to disseminate core and real facts about the health issue under report.

This is why Araujo and Lopes (2016) see health journalism as an aspect of journalism that gathers and disseminate "accurate, balanced and complete" reports on health-related issues. The reason is that dishing any incorrect data to the public is both dangerous and unethical. Like medicine itself, News gathering and dissemination is a humanitarian service that journalist owes the public living in the society where they operate. One of the attributes that makes journalism a profession is that it is a service to humanity. According to Omego and Ochonogor (2012) journalism as a social activity that engages people who are involved in the business of writing and preparing messages meant for dissemination to the public. To Hinnant (2009) health journalism is a means of communicating health related issues to the public through objective interpretation of the substances of the health issue.

Drawing from the above scholarly views, it is imperative to understand that the media is the main source of information for the people in health emergencies (Obiakor and Ikegbunam, 2021). The view held in Obiakor and Ikegbunam above corroborated earlier position of Briggs and Hallin (2016) who assert that media are veritable tool for the creation of public awareness and education of individuals about matters arising in the area of health. Creating public awareness on the events of the world cancer day by the Nigerian newspapers must form priority among the newspapers if the fight against cancer will yield positive results in Nigeria. According to Turner and Orange (2013) journalists are expected to operate under the guide of their social responsibilities in the discharge of their duties, considering the fact that the impact of their actions on the lives of individuals and society at large is enormous at all time. While considering the impact of the media in health communication. Ciboh (2010) argue that Health-related stories should have the interest of the larger society as its main focus. Unfortunately, fear of being economically punished through denial of advertisement contracts force the media to shy away from exposing the weak points of the government that brings about the failure of the health sector in Nigeria (Nwanmuo and Nwachukwu, 2021).

EMPIRICAL REVIEW OF LITERATURE

Nwafor et al. (2021) evaluated Nigerian press coverage of High Blood Pressure (HBP) to ascertain whether the print media gave adequate coverage to HBP in Nigeria. The study sampled Guardian, Vanguard and This Day newspapers from May 2020 -May 2021. The study which used the agenda setting and Media Framing theories as well as content analysis and Focus group discussion as research methods examined 1,002 editions of the three

newspapers randomly selected the 13 months. The major findings revealed that high blood pressure issues were not given adequate and prominent coverage in the selected newspapers. Significantly, the FGD result demonstrated that the audience sources of information about HBP is "hospital" and other health care delivery sources. The study recommended that that media organizations should have a specialized and functional health beat to enhance coverage of HBP related issues. The findings of this study trigger the desire of the current researcher to examine how the media cover events of the world cancer day to know if it is enough to generate public awareness creation on cancer related issues in the country.

Moorhead et al. (2021) in a cross-sectional exploratory study examined the coverage of cancer in newspapers paying attention to how the coverage varied by cancer type, disease incidence and mortality rates. From a total of 11436 research articles (published in 2016) on cancer funded by the US government, the type of cancer that dominated the coverage in the area was cancer of the lung. Findings also revealed that there is a general discrepancy between cancers prominent in news sources and those with the highest mortality rate. Findings demonstrated a continued misalignment between prevalent cancers and cancers mentioned in online news media. The study recommended a need for further studies on the role of journalists in research dissemination. This study is different from the current one given that it looked at newspaper coverage of cancer in comparison to its mortality rate. Significantly, this current study is outstanding considering its target on the world cancer day which is a universal subject matter in cancer studies. Apuke and Omar (2020) examined media coverage of COVID-19 in Nigeria paying specific attention to the frequency, depth, story format, news sources, media tone and themes of coverage. Like the current study, the paper selected Daily Sun, Vanguard, Daily Trust and Leadership newspapers between February 2020 and April 2020. The findings show that although the newspapers performed well in reporting the pandemic which boasted awareness creation among the people, their coverage lacks in-depth reports as majority of the stories were predominantly straight and as a result very short to give better details. Majority of the stories were alarming and panic inducing with less on contents on sensitization and education of the public on health safety measures. The study recommended that the media should focus more on sensitizing and educating the public on the necessary steps to take in curbing the virus and avoid over usage of alarming and panic tone in presenting the stories on health emergencies. While this study considers coverage covid-19, this current considers coverage of global effort to manage cancer.

In another study, Nwakpu et al. (2020 evaluated how Nigerian media depicted the Coronavirus pandemic and how the depictions shaped people's perception and response to the pandemic. The study which adopted the mixed method approach in analyzing daily Sun, the Vanguard, the Guardian and The Punch and their impact on audience perception of the virus spanned from January 2020 to March 2020. Of the total of 1070 newspaper items identified and analyzed on coronavirus, finding revealed that the framing pattern adopted in the coverage helped Nigerians to take precautionary measures. The study concludes that continuous reportage of COVID-19 has proved effective in creating awareness about safety and preventive measures. The study recommended that newspapers should avoid creating fear/panic in reporting health issues. Again, this study is related to the current one in the sense that it looks at Nigerian newspaper coverage of health-related issues. While this current study is after an effort to combat cancer the previous one is an effort to contain a pandemic.

Relying on the dearth of health facilities in the rural areas of Nigeria, Lawal et al. (2019) investigated the roles played in the coverage of health issues and related aspects by national dailies. Again, this study adopted the mixed method approach of content analysis and Focus Group Discussion (FGD) as means of data collection. Findings revealed that although the newspapers cover stories on health issues, those rural dwellers still lack adequate information on health issues because of poor circulation of newspapers in the rural areas. This study recommended that efforts should be made to ensure that newspapers circulate also in rural areas. This study is different from the current on in terms of target.

Considering the prevalence of different health problems in Nigeria, Bello (2015) examined the coverage of health issues by Nigerian newspapers with interest on the degree of attention given to HIV/AIDS, malaria, polio in the northern region. The study which adopted the priming and framing theories and mixed methodological approach of content analysis and in-depth interviews, found moderate coverage of HIV/AIDS, malaria, polio in Nigerian newspapers. The study shows that Nigerian newspapers did not give prominent coverage to health issues in their leads, editorials and other important pages. It was concluded that Nigerian newspapers give prominent attention to other issues like politics, religion, industry etc with little attention to health issues. This study therefore, concludes that Nigerian newspapers failed in directing the attention of the Nigerian government towards making health a top priority agenda and recommended that more efforts should be invested in their coverage of health issues as that will recall the attention of the government on the need for sound health facilities in the country. In another study, Dodd et al. (2016) examined how frequently the link between Human Papilloma Virus (HPV) and oral cancer has been reported in the UK news press. The study was conducted using content analysis design between 2002-2014. Among the themes examined include actor Michael Douglas' claim that his throat cancer was caused by HPV, the riskiness of oral sex, health information (including HPV as a cause of oral cancer) and the need to vaccinate boys against HPV. Findings revealed that the peak of the reports was in 2013 when Michael Douglas discussed his cancer (June 2013). Results also show that some facts about HPV were revealed and references to research were provided in some articles. The study concluded that although the link between HPV and oral cancer and the transmission of HPV via oral sex was regularly reported in the media, the reports lacked detailed health information. The study recommended that the media should strive to provide detailed reports of the link between HPV and oral cancer and the transmission of HPV. This study is related to this current study in the sense that they both look at press coverage of cancer. However, the studies differ in terms of area of concentration and subject matter. While the previous study is premised in UK, the current one is premised in Nigeria with focus on the world cancer day. This means that the current study is here to provide a gap in literature on media and the world cancer day.

Relying on the roles of the newspaper in the society, Miyawakia et al. (2017) conducted a content analysis of cancer-related articles in Japanese newspapers published in 2011. In this study 5,314 articles published in the area by the newspapers were identified and analyzed paying attention to the type of cancer mostly researched the cancer continuum, and topic of articles mentioning cancer. Findings show that the most mentioned type of cancer in the articles published is lung, leukemia, and breast cancers as cancer treatment was the most frequently mentioned cancer management options with prevention and screening rarely researched in the articles. Finally, the findings suggest the regularity of cancer-related articles throughout the year is an indication that the newspapers in the area newspapers in

Japan are the peoples' sources of cancer information.

The study recommended that since the newspapers have been found to exert influence on the people, providing more effective and accurate information to the public would be helpful for cancer prevention. Again, this study is related to the current one in examining newspaper coverage. It however, differs in location and target. While the current study is conducted in Japan, there is the need for a Nigerian counterpart to understand if the Nigerian newspaper also serves as a source of information on cancer to the public.

Conclusively, it is visible from the available literature reviewed in this study that although there are studies on newspaper coverage of health-related issues and different diseases, little is known about the world cancer day from the perspective of newspaper coverage. This very fact makes this current very apt and necessary for academia.

METHODOLOGY

Considering the nature of this study, the researcher adopted Content analysis research design to achieve the set objectives. The essence of using content analysis method is to analyze the manifest content of the daily newspapers selected for study with a view to finding whether they gave adequate and prominent coverage to the world cancer day. The adoption of this method also helps the researcher to identify the dominant theme used in coverage of world cancer day and the frame used in the coverage among the four newspapers covered in the study. The area covered in this study is the Nigerian newspapers. The environment of this study is four newspapers from Nigeria which are *This-Day, The Nation, Vanguard* and *The Guardian* newspapers of which were specifically selected for the study. The concentration of this study on newspaper was informed by the fact that the newspapers, provide better details that would allow viewers to follow up and obtain more information than the broadcast media on the causes and prevention of cancer in the society (Niederdeppe et al., 2010; Niederdeppe et al., 2014; Jensen et al., 2011. Jensen et al., 2017; Lee et al., 2014). The selection of Nigeria as the area of study was because being the giant of Africa, Nigeria has the largest population and economy in the continent and is therefore, expected to take the lead in the fight against cancer in the African region. Since this is an exploratory study on the coverage of world cancer day in Nigeria, the researcher selected the above newspapers to ensure that all the main regions in the country were covered in the study.

Population of the study

The population of this study is all the registered newspapers published and circulated in Nigeria. Considering the fact that the whole newspapers in Nigeria cannot be studied in a particular study, this researcher selected four national dailies including *ThisDay, The Nation*, the *Vanguard, and The Guardian newspapers*. The choice of these newspapers was based on their reach, circulation, readership, accessibility, and convenience. The study covered newspapers published from 2012 to 2021. The month covered is only February of each year. The reason for the choice of the month was informed by the fact that it is the month in which the World Cancer Day is marked. The researchers selected the month relying on the fact that the month has more media attention on the world cancer day. With this month as the target population, the researcher has a total of 283 days to study for the four newspapers making 1132 editions in all.

Sample and sampling technique

Relying on the fact that all the 1132 editions of four newspapers will be too much for a study, the researchers resorted to the use of composite week sampling technique to systematically select the days of the week to be studied. From a total of 283 days in the 10 years covered in the study. Using the composite week sampling technique, the researcher selected a total of 70 days for each of the newspaper making a total of 280 editions in all. The advantage of this sampling technique was captured in Riffe et al. (1993) cited in Wimmer and Dominic (2010:166) where the author argued that composite sampling technique was superior to both random sampling and consecutive sampling technique when dealing with newspaper contents.

Content categories and unites of analysis

The units of analysis are the yardsticks for analyzing the manifest content of the selected newspapers. Among the contents the researchers are interested in are Adequate coverage measured by the classification of stories from 1-250 words as inadequate, 251 to 499 words as moderate and 500 words and above as adequate.

Placement where the position of the stories as to the Front-Page Stories (FPS) are seen as *Very Important* or *Very Prominent;* Inside Page Stories (IPS) are seen as LEAST in the order of prominence and Back Page Stories (BPS) regarded as next in the order of prominence.

The purpose of the story categorised as Education/Awareness purpose, Castigating and bringing government to disrepute; Persuasion of government and victims to adopt safety measures, Humanitarian and Others.

Media themes and frames adopted in coverage herein measured as Hopelessness theme, Optimism, Blame of either government or victims frame and others such as Media frames. This study adopted the media frames as

classified on media reporting of health-related issues formulated in Dan and Rauppb (2018) where Thematic, Medical, Attribution to responsibility, Human interests, Economic consequence, Actions, Benefit and loss themes were classified as useful in analyzing newspaper reportage of health issues.

Instrument

The coding system was used in data collection for this study where the coding guide and the coding sheet were designed and used in assigning codes to variables. According to Nwabueze et al. (2014), the coding guide helps in developing the coding sheet and the number of content categories used in the study. Inter-coder reliability was measured using Holsti's method where 0.76 reliability coefficients were obtained to show that the instrument is reliable.

RESULTS

Table 1 shows the yearly distribution of the news stories on the world cancer day among the four select newspapers. The data revealed that the Vanguard newspaper was on the lead in the coverage followed by the Nation newspaper.

Table 2 shows the general news items published by the four select newspapers in the period understudy. According to the table, out of 135,320 published, only 275 accounting for 0.6% were on world cancer day. The implication of this table is that the world Cancer Day does not command media attention among Nigerian media.

According Table 3, majority of the news stories covered have more than 250 words meaning that the coverage is adequate considering the classification of the unit of analysis. The implication of this is that the media provided adequate coverage of the event.

Considering the placement of the stories on the world cancer day on the newspaper, Table 4 has shown that majority of the stories covered in the selected newspapers are buried inside the Newspapers. The implication of this is that, the newspapers do not consider the event very important to the people of Nigeria.

On the purposes of the media contents observed as published within the period understudy, while persuasion and information purposes were given the highest coverage in the media with 85 and 80 stories, only 18 items were dedicated to the examination of the efforts of the government (Table 5). The implication of this is that the media are not paying the much-needed attention to the decay in the health sector caused by negligence of the sector by the successive government in Nigeria.

Seven identifiable frames including the thematic frame, medical frame, Attribution to responsibility frame, Episodic frame, Economic frame, consequence frame, Actions frame and Benefit and loss frames were identified. Among them, the episodic frame dominated the media coverage of the world cancer day with a total of 96 items accounting for 34.9% of the total publication. The implication of this is that the media framed cancer disease as a health problem caused by individual lifestyle of the affected person and advocate for change of such attitudes. The media did well by paying attention to the actions that the people are meant to take to stay away from cancer (Table 6).

DISCUSSION

On the first research objective set to ascertain whether the World Cancer Day was given adequate coverage in the media, data in Tables 2 and 3 demonstrated that although majority of the stories crossed the 250 words count to be classified as adequate, the coverage of the world cancer day in the select newspapers were silent because it has less than 1% of the total items published within the period of study. This means that despite the fact the month is dedicated for the world cancer day, the media still gave more attention to other issues such as politics, business, technology, economy, entertainment, culture, advertising, industrial etc (Table, 2 for more). The reasons for this kind of coverage may not be divorced from the fact that no one sponsors the publications of world cancer day stories.

The table also revealed that none of the newspapers gave up to 1% of its total publication to the world cancer day. In this data, Vanguard newspaper took the lead by publishing a total of 77 stories. Unfortunately, the 77 stories published from a total of 47040 was only 0.16 percent. The Nation came second on the table with 73 items published from a total of 49280 items published within the period under study. This is the least newspaper that covered the world cancer day in Nigeria given only 0.14% to the event. This-Day and Guardian newspaper published a total of 40320 and 38640 accounting for 0.15% of the stories dedicated to the world cancer day.

Generally, the four newspapers published a total of 135,320 stories within the 10 months covered in the study with only 275 items dedicated to the world cancer day accounting for 0.6%. This is against the social responsibility theory of the press which places the media on the duty of getting the people to know about the events in their area. The publication above is not capable of providing the cancer awareness that is needed to stay free from cancer in Nigeria as contained in the objective of the UICC when establishing the world cancer day.

While examining whether the media gave prominent coverage to the world cancer day, research data from Table 4 demonstrated that the 90.5% of the stories carried by the newspapers are published inside the pages leaving only 5.8 and 3.6% of the stories in the back and front pages respectively and this fall short of the expectations of the media.

Importantly, the reasons for this finding may need another research attention to understand why journalists ignored prominent coverage of the world cancer day despite the rate at which cancer claim the lives of people in the country.

The above finding is an erosion of the agenda setting theory which shows that the media make salient selected issues by placing them in the focal points of the newspapers (Nwabueze, 2011 cited In Agudosy et al., 2018).

On the purpose of the media contents published in the newspapers, the awareness creation purpose and persuasion for adoption of positive health safety measures were found to be dominant. While this is a welcome development in line with the fact that cancer can best be controlled through awareness creation and attitude, this finding casts significant question on the intermediary role of the mass media. Providing less significant information on government efforts and the decay in the health sector in Nigeria exonerates the government from the responsibility they owe to the public. The reason why more people die of cancer in Nigeria than in western world is lack of medical facilities. Doing more on what governments around the world have done for their people to survive which are equally needed in Nigeria for the safety of her people would made the government more accountable. In ensuring effective provision of medical facilities that could help the people access diagnosis and care for cancer in the country, the advocacy and education on the cancer related health risks could have an opportunity to yield more results. This is because while those who are free have adopted the change of attitude measures, what will those who need medical diagnosis do in the total absence of medical facilities? The question that will strike the mind here is, where will these people being persuaded to change attitude go if they adopt the idea of going to routine medical check for earlier cancer detection? Good, the media have done well in informing and educating the people, but it could have been better if this effort is crowned with issuing reports that should trigger the government at all levels to making efforts towards getting cancer diagnosis machines, vaccines and other kinds of cancer care and preventive measures to save the affected ones. This is a major target of the world cancer day. Precautionary measures are very important for the unaffected but the media paid less attention to humanitarian angel to the event with little done on efforts to guard the disease by the government. This erodes the provision of the social responsibility theory that calls for protection of the interest of the greatest number of people using the

On the research question four that sought to ascertain the dominant media frame adopted in the coverage of the world cancer day among the select newspaper, it was found that episodic frame was used more among the four newspapers.

This frame adopted presents the challenges of cancer as health problems that exist as a result of the peoples' lifestyle which are set to be changed if the disease will be controlled. Framing the world cancer events in this direction to a large extent shapes peoples understanding of cancer related problems. This finding is in tandem with the position of framing theory of the media. The bases of this theory is that the media focuses attention on certain events and then places them within a field of meaning (Okugo et al., 2015) in which light, they want the people to understand it. The data in Table 6 further pays attention to the thematic frame which is an indication that the cause of cancer among the people is a larger force like lack of access to medical facilities and services that can help the people combat the disease. It therefore, means that all hands must be on deck if it should be controlled. At this point in time the media can be adjudged to have played its social responsibility role of making the government accountable for the health needs of the people. The finding agrees with the media agenda setting drawing from the fact that the message have been presented to the government to take actions. In change of attitude communication, presenting the audience with the rewards and punishment of subscribing to the media message is another way of getting the audience to make an informed decision. This was observable in the media effort towards that actions frame and benefit and lose frame used in the coverage of the event.

With the benefit and lose frame, the media bring to the fore the implication of any decision of the audience as in the cost benefit analysis leaving to them decide what to do depending on what they thought of cancer. This was captured more clearly in Ikegbunam and Agudosy (2021) where they argued that people tend to accept or reject an attitude change call after examining the cost and benefit of the actions.

Table 1. Yearly distribution of stories on world cancer day among the select newspapers.

Years	This-Day	The Nation	Guardian	Vanguard	Frequency	Percent
2012	9	7	6	7	29	10.5
2013	4	8	8	8	28	10.1
2104	3	9	5	9	26	9.4
2015	6	6	6	7	25	9
2016	6	9	3	8	26	9.4
2017	8	8	5	7	28	10.1
2018	9	5	6	9	29	10.5
2019	8	6	8	8	30	10.9
2020	7	7	8	5	27	9.8
2021	4	8	6	9	27	9.8
Total	64	73	61	77	275	100

Source: Authors

Table 2. Average distribution of stories on world cancer among the newspapers.

Newspap er	Total average pages per day	main stories per page	Total average main stories per day		in a	Total main stories in six months	world cancer	Total % covered in 6 months
This-Day	48	3	144	4032		40320	64	0.15
The Nation	44	4	176	4928		49280	73	0.14
Guardian	46	3	138	3864		38640	61	0.15

Vanguard	42	4	168	4704	47040	77	0.16
Total	180	14	626	17,528	135,320	275	0.6

Source: Authors' Computation.

Table 3. Coverage of World Cancer Day by select newspapers.

Variable	This-Day	The Nation	Guardian	Vanguard	Frequency	Percent
1-250 words	28	15	21	18	82	29.8
251-499 words	16	41	24	42	123	44.7
500+ words	20	17	16	17	70	25.4
Total	64	73	61	77	275	100

Source: Authors' Computation.

Table 4. Prominence of World Cancer Day in relation to related health issues in Nigeria.

Variable	This-Day	The Nation	Guardian	Vanguard	Frequency	Percent
Front page	2	3	2	3	10	3.6
Inside page	58	68	54	69	249	90.5
Back page	4	2	5	5	16	5.8
Total	64	73	61	77	275	100

Source: Authors' Computation.

Table 5. The purpose of the story published on the world cancer day in the select newspapers.

Variable	This-Day	The Nation	Guardian	Vanguard	Frequency	Percent
Education/Awareness	18	22	17	23	80	29
Examine govt. efforts	3	7	5	3	18	6.5
Persuasion	20	19	18	28	85	30.9
Humanitarian	12	9	7	8	36	13
Provision of solution	11	16	14	15	56	20.3
Total	64	73	61	77	275	100

Source: Authors' Computation.

Table 6. The dominant media frame used in the coverage of the world cancer day in Nigeria newspapers.

Frame	This-Day	The Nation	Guardian	Vanguard	Frequency	Percent
Thematic	12	19	13	11	56	20.3
Medical	2	6	2	5	15	5.4
Attribution to resp.	7	5	6	5	23	8.3
Episodic	25	22	20	30	96	34.9
Economic conseque.	0	1	1	5	7	2.5
Actions	9	10	8	9	36	13
Benefit and loss	9	10	11	12	42	15.2
Total	64	73	61	77	275	100

Source: Authors' Computation.

Summary

Drawing from the findings of this study, its summary can best be that the selected media have failed in their expected duty to adequately and prominently report the events of the world cancer day to the people. Considering the number of newspaper editions and the average major stories published in the period understudy, against the number of stories devoted to World Cancer Day in the four national dailies shows that the press in Nigeria is not at their best in joining the global fight against cancer. The study revealed chronic erosion of the social responsibility and agenda setting functions of the media in the discharge of their duties concerning the World Cancer Day. This was visible in the media frames adopted and the purpose of the contents identified as reported. Despite the rate at which cancer kill people in Nigeria, the coverage was technically silent in the media.

Significantly, the most irritating aspect of the finding is that media framing of world cancer day was dominated by episodic, thematic and action frames with little on the efforts of government on provision of health facilities to help the people access cancer diagnosis and cure.

Conclusion

This study concluded that selected national dailies failed to give prominence and robust coverage to the world cancer day considering the total percentage of the stories dedicated to world cancer day despite the fact that the month under study was dedicated to the event. While commending the media for effective use of the awareness and persuasive purposes in the coverage of the event, the researcher frowned at their exoneration of the government failures to provide the people with health facilities to boast cancer cure in the country. It was concluded that the coverage of the world cancer day in the select newspapers is highly incapacitated as to be able to the public agenda and get the change of attitude required for a cancer free society.

Recommendations

This study recommended that:

- 1. The media should intensify more efforts towards reporting the events of the world cancer day in order to achieve the required attitude change for a better society.
- 2. The media should as a matter of necessity strive to look at the governments' efforts towards improving the health facilities in the country to encourage early detection and cure for cancer.
- 3. While covering the world cancer day, efforts should be made by the media to present the stories at the focal points of the newspapers to generate public discourse in order to create the awareness that can help the people adopt health safety measures.

CONFLICT OF INTERESTS

There is no conflict of interest existing between the authors.

REFERENCES

Agbanu VN (2013). Mass communication: Introduction, Techniques, issues. Enugu: Rhyce Kerex Publishers.

- Agudosy FI, Ikegbunam PC (2020). Managing or Encouraging Discrimination in the Media: Examining Newspapers Reports on Fulani Herdsmen Activities in Select Newspapers. IOSR Journal of Humanities and Social Sciences 4(8):2156-2172.
- Agudosy FI, Ikegbunam PC, Obiakor CU (2018). Nigerian Newspapers' Coverage of President Buhari's ill Health. The Nigerian Journal of Communication (TNJC) 15(2):335-346.

Alexander K (2005). What's wrong with our cancer models? Nature reviews. Drug discovery 4(2):161-165.

- Anaeto SG, Solo-Anaeto M (2010). Development communication: Principles and practice. Ibadan: Stirling-Horden Publishers Limited.
- Apuke OD, Omar B (2020). How do Nigerian newspapers report COVID-19 pandemic? The implication for awareness and prevention. Health Education Research 35(5):471-480.
- Araujo R, Lopes F (2016). Health journalism in Portuguese newsrooms: an assessment of journalist perception. In Marinescu, V. and Mitu B. (Eds.). Health and the media.
- Aruchelvan S (2016). Health news coverage in print media: Is it healthy? In: Marinescu, V. & Mitu B. (Eds.). Health and the media: Essays on the effects of mass communication. North Carolina: McFarland and Company Incorporated Publishers.
- Azenha G, Bass LP, Caleffi M, Smith R, Pretorius L, Durstine A, Perez CP (2011). The role of breast cancer civil society in different resources settings. Retrieved on 26 April, 2011.
- Bello SM (2015). Newspaper Coverage of Health Issues in Nigeria: The frequency of reporting malaria, HIV/AIDS and polio and the effect of seeking health information on the health behaviours of newspaper readers. A Thesis Work.
- Briggs CL, Hallin DC (2016). Making public health public: How news coverage is remaking media, medicine, and contemporary life. New York: Routledge.
- Ciboh R (2010). Newspaper Coverage of Health Issues in Nigeria. The Nigerian Journal of Communication 8:1.
- Clay J. (nd). From Milton to media: information flow in a free society. https://www.medialit.org/reading-room/milton-media-information-flowfree-society
- Dan V, Rauppb J (2018). A systematic review of frames in news reporting of health risks: Characteristics, construct consistency vs. name diversity, and the relationship of frames to framing functions. Health, Risk and Society.
- David S (2015). Today in Media History: In 1947, the press reported on the Hutchins Commission report. https://www.poynter.org/reportingediting/2015/today-in-media-history-in-1947-the-press-reported-onthe-hutchins-commission-report/
- Dodd RH, Marlow LAV, Forster O, Waller JO (2016). Discussing a diagnosis of human papillomavirus oropharyngeal cancer with patients: An exploratory qualitative study of health professionals. Head and Neck 38(3):394-401.
- Ekeli EO (2008). Mass media ethics, peace building and reconciliation. In Media dialogue, peace building and reconciliation: Conference proceedings, pp. 336-344.
- Folarin B (2005). Theories of Mass Communication: An Introductory Text (3rd edition). Ibadan: Bakinfol Publications, in association with E-Watch Print Media.

- Health care and health care news (2022). Millions of cancer cases are preventable lifestyle factors key to saving lives. Health Care Services Publishing, Education and Recruitment. https://www.longwoods.com/newsdetail/1770
- Hinnant A (2009). Health Journalism. In Sterling, C. H (Ed.) Encyclopedia of journalism. California: Sage.
- Ikegbunam PC, Agudosy FI (2021). Cultivating Biafran agenda in Nigeria: Evaluation of the influence of radio Biafra's rhetoric of ethnic marginalization on rural dwellers in the South-east. Journal of Media and Communication Studies 13(1):23-37.
- International Agency for Research on Cancer (IARC) (2020). Cervix uteri. Retrieved from The Global Cancer Observatory: https://gco.iarc.fr/today/data/factsheets/cancers/23-Cervix-uteri-factsheet.Pdf
- Thorson E (2006). Print News and Health Psychology. Journal of Health Psychology 11(2):175-82.
- Jedy-Agba E, Curado MP, Ogunbiyi O, Oga E, Fabowale T, Igbinoba F, Osubor, G, Otu T, Kumai H, Koechlin A (2012). Cancer incidence in Nigeria: A report from population-based cancer registries. Cancer Epidemiology 36(5):e271-e278.
- Jensen JD, Carcioppolo N, King AJ, Bernat JK, Davis L (2011). Including limitations in news coverage of cancer research: Effects of news hedging on fatalism, medical skepticism, patient trust, and backlash. Journal of Health Communication 16:486-503.
- Jensen JD, Pokharel M, Scherr CL, King AJ, Brown N, Jones C (2017).
- Communicating uncertain science to the public: how amount and source of uncertainty impact fatalism, backlash, and overload. Risk Analysis 37:40-51.
- Kobiruzzaman MM (2021). Four Theories of the Press- Authoritarian, Libertarian, Social Responsibility & Communist Soviet. Newsmoor-
- Educational Website For Online Learning. https://newsmoor.com/four-theories-of-the-press-authoritarianlibertarian-social-responsibility-theory/
- Lawal BA, Gidado IB, Sada MA (2019). Dynamics of Coverage of Health Related News By Some Selected Nigerian Newspapers. International Journal of Innovative Information Systems and Technology Research 7(4):60-71.
- Lee CJ, Long M, Slater MD, Song W (2014). Comparing local TV news with national TV news in cancer coverage. Journal of health communication 19(12):1330-1342.
- Lewis B, Lewis J (2015). Health communication: A media and cultural studies approach. London: Palgrave.
- Mahesar RA, Pasha YN, Pathan M, Khan MI (2021). Coverage of Cancer news in Pakistani print media: A content analysis study of daily pahenjiakhbar A sindhi language newspaper. Nigerian Journal of Medicine 30:277-281.
- McCombs M (2004). Setting the Agenda: the mass media and public opinion, Cambridge: Polity.

- Miller K (2002). Communication theories: Perspectives, Process and Contexts. Boston McGraw Hills.
- Miyawakia R, Shibatab A, Ishiia K, Okaa K (2017). News Coverage of Cancer in Japanese Newspapers: A Content Analysis. Health communication 32(4):420-426.
- Moorhead L, Krakow M, Maggio L (2021). What cancer research makes the news? A quantitative analysis of online news stories that mention cancer studies. PLoS ONE 16(3):e0247553.
- Niederdeppe J, Fowler EF, Goldstein K, Pribble J (2010). Does local television news coverage cultivate fatalistic beliefs about cancer prevention? Journal of Communication 60(2):230-253.
- Niederdeppe J, Lee T, Robbins R, Kim HK, Kresovich A (2014). Content and effects of news stories about uncertain cancer causes and preventive behaviors. Health Communication 29:332-346.
- Nnaemeka FO, Ezeabalisi CE (2020). Coverage of Gender-Based Violence in IDP Camps: A critical Analysis of select Nigerian Newspapers. IOSR Journal of Humanities and Social Science (IOSRJHSS) 20(7):01-13.
- Nwabueze C, Ugochukwu C, Egbra O (2014). Newspaper coverage of Nigeria Police activities: A content analysis. An International Journal of Language, Literature and Gender Studies, Ethiopia 3(1):92-113.
- Nwabueze CD (2012). Evaluating the applications of social responsibility theory in developing societies. In N. T. Ekeanyanwu, S. N. Ngoa, and I. A. Sobowole (eds). Critque and application of communication theories. Ota, Covenant University press. Nwabueze CD (2014). Introduction to mass communication: Media Ecology in Global Village. Owerri. Top-shelves publishers.
- Nwafor OA, Amatu CU, Onyejelem TE, Eze CC (2021). Evaluation of
- Nigerian Press Coverage of High Blood Pressure. International Journal of Innovative Social Sciences and Humanities Research 9(4):28-416.
- Nwakpu ES, Ezema VO, Ogbodo JN (2020). Nigeria media framing of coronavirus pandemic and audience response. Health Promotion Perspectives 10(3):192-199.
- Nwanmuo AN, Nwachukwu AO (2021). Social media use in information dissemination in covid-19 outbreak: A study of NCDC Telegram and Twitter Handles. ANSU Journal of Social Science.
- Obiakor UC, Ikegbunam PC (2021). Social media shared video-clips on covid-19 and undergraduates perception of health realities of the virus. ANSU Journal of Social Science.
- Okeke NE, (2018). Influence Of Mass Media Campaigns On Breast Cancer Knowledge Among Women In Enugu State. Global Journal of Arts, Humanities and Social Sciences 6(4):16-43.
- Okugo CU, Onwukwe DC, Ihechu IN, Okereke O (2015). Child trafficking as a Survival Mechanism in an Economy in Dire Straits: Implication for framing in the Nigerian media. Communication, society and the Nigerian child: Issues and emerging trends in the 21st century. ACCE Book chapter 22:265-276.
- Omego CU, Ochonogor CI (2012). Essentials of journalism: theories and practice. Port Harcourt: University of Port Harcourt Press.

- Riffe D, Aust CF, Lacy SR (1993). The effectiveness of random, consecutive day and constructed week sampling in newspaper content analysis. Journalism & Mass Communication Quarterly 70(1):133-139.
- Seale C (2012). Media and health. London: Sage publication.
- Turner B, Orange R (2013). Specialist journalism. New York: Routledge.
- UICC Global Cancer Control, (2022). Background on World Cancer Day and the global cancer context https://www.uicc.org/sites/main/files/atoms/files/Factsheet-WCD2022general.pdf
- University of Twente (2017). Communication Studies Theories. Retrieved January 7, 2020, From University of Twente: https://www.utwente.nl/.uc/f32b97e4401021a2d8f00d5e2e5030c0add 13d6eed6e400/Communication%20Theories%20University%20of%20Twente%20-%20UTwente%20-%20The%20Netherlands.pdf
- Uzuegbunam CE, Duru HC, Okafor GO, Ugbo GO (2016). Media coverage of the Ebola virus disease: A content analytical study of the guardian and daily trust newspapers. In The Power of the Media in Health Communication Routledge pp. 29-42.
- World Health Organisation (WHO) (2017). World Health Organisation Cancer Resolution: Cancer Prevention And Control In The Context Of An Integrated Approach.
- Wimmer RD, Dominick JR (2011). Mass media research: An introduction, international edition. United Kingdom: Wadsworth Cengage Learning.
- https://lms.su.edu.pk/download?filename=1588488326-mass-mediaresearch-an-introduction-9th-edition-wimmer-ampampdominickpdf.pdf&lesson=17471
- Zarcadoolas C, Pleasant A, Greer DS (2009). Advancing health literacy: A framework for understanding and action. San Francisco: JosseyBass.