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Journal of
**Media and Communication
Studies**

October-December 2022
ISSN: 2141-2545
DOI: 10.5897/JMCS
www.academicjournals.org



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Full Length Research Paper

Analysis of newspaper coverage of world cancer day: A study of select newspapers in Nigeria

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Received 4 October, 2022; Accepted 16 November, 2022

The rate at which cancer claims the lives of people around the world has been a matter of global concerns. In keeping with the desire to fight cancer and save the world, the United Nations and Union for International Cancer Control (UICC) established world cancer day aimed to unite the global community on the fight against cancer. As a global fight and awareness creation for preventive measures, this study aims to investigate the coverage of world cancer day in Nigerian newspapers. Using content analysis research method, the study analysed This-day, The Nation, Guardian and Vanguard newspapers between 2012 and 2021. Relying on the social responsibility and agenda setting theories, the study found that although, the media gave adequate coverage to the world cancer day; stories on the event are buried inside pages. It was also found that awareness and persuasive purpose dominated the purpose of coverage while episodic and thematic frames dominated the framing of cancer in the newspapers. The study concluded that the newspapers did not give enough coverage of the cancer day. It was recommended that the media should intensify efforts to provide adequate and prominent coverage of the event and as well endeavor to engage in reports that can draw government attention to the need for sound health facilities to enhance early cancer detection and control.

Key words: World cancer day, cancer, newspaper, coverage.

INTRODUCTION

Cancer is a disease which occurs when 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 19.3

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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 life 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 (Agudoso 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 Agudoso 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 (Agudoso 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 Agudoso 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 life-challenging 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's the public the duty to acquire useful information that can encourage safety-health 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 one 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 *This-Day*, *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 Agudoso 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

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

Years	<i>This-Day</i>	<i>The Nation</i>	<i>Guardian</i>	<i>Vanguard</i>	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.

Newspaper	Total average pages per day	Average number of main stories per page	Total average main stories per day	Total main stories in a month	Total main stories in six months	Number on world cancer day stories	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	<i>This-Day</i>	<i>The Nation</i>	<i>Guardian</i>	<i>Vanguard</i>	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.

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 media.

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.

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.

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Full Length Research Paper

Interventions and messaging in behaviour change communication response to COVID-19: A qualitative analysis of covid campaign in Kenya coastal counties

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Received 13 October, 2022; Accepted 5 December, 2022

Effectiveness and compliance to intervention measures that mitigate the spread of COVID-19 has heavily relied on awareness and willingness of the public to adhere to directives. In this study, Behaviour Change Communication (BCC) interventions in response to COVID-19 are analyzed with the aim of identifying opportunities and gaps that can inform on going and future efforts. The study focuses on a BCC campaign rolled out between June and October 2020 in select coastal counties of Kenya by the Ministry of Health. The aim is to establish the communication activities undertaken in the campaign as well as analyse the messaging. The study employs a qualitative approach whereby the campaign materials and related documents are subjected to content analysis. Data gathered shows that several key activities were undertaken before, during and after the campaign. Further, the campaign messaging created awareness instructed and persuaded. The analysis concludes that the dissemination of the IEC materials was largely successful. However, within the scope of this study, the impact of the campaign in improving adherence to COVID-19 protection measures and ultimately reduced positive cases cannot be ascertained.

Key words: Behaviour change communication, campaign, case study, content analysis, Covid-19 infection, ministry of health.

INTRODUCTION

The corona virus disease 2019 (COVID-19) began in December 2019 in Wuhan, China. Corona viruses are a large family of virus that cause illness ranging from the common cold to more severe diseases. The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales.

The World Health Organization (WHO) declared COVID-19 a global pandemic on 11 March 2020. This is due to the rapid spread of the virus across the globe causing adverse impact on the economic, social and psychological aspects of human life including death. According to W.H.O, globally there have been over 196 million confirmed cases of COVID-19 including over 4.2

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million estimated deaths, as at 30 July 2021 (WHO, 2021).

The signs and symptoms of COVID-19 range from mild to severe. Common signs of infection include fever, sore throat, tiredness, cough, shortness of breath and breathing difficulties. In more severe cases, the infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death (CDC, 2020).

To prevent the spread of COVID-19, standard recommendations have included regular hand washing, covering mouth and nose when coughing and sneezing, use of facemasks especially in public and crowded places as well as avoiding close contact with anyone showing symptoms of respiratory illness such as coughing and sneezing (WHO, 2020a).

The spread COVID-19 has varied greatly in different countries and continents. While there is scant evidence as to why this is the case, there has been hypothesis that continents such as Africa could be experiencing lower COVID-19 numbers as compared to other regions because of demographic features and climate considerations, that is, COVID-19 is less prevalent in countries closer to the equator, where heat and humidity tend to be higher (Chen et al., 2021).

In Africa, the first confirmed case of COVID-19 was reported on 14 February 2020 in Egypt and this was followed by Nigeria. Owing to its weakened health systems and inadequate resources to effectively respond to COVID-19, the region was expected to experience a beyond heavy toll of COVID-19. However, with the favourable demographic structure and climate, many countries have had a good standing in the face of the pandemic in comparison to other countries in the world. Additionally, Africa has had experience in recent years having dealt with different epidemics such as ebola, polio and cholera where African governments have drawn lessons on response, strategies and preparedness to deal with COVID-19.

While initially, Africa seem to be affected only moderately by COVID-19, the spread of COVID-19 has been sporadic. In June 2020, the continent only had 156,000 confirmed cases, numbers that have surged up to the height of 6 million as at July 2021. The surge is driven by public fatigue on key health measures, increased variants and overstretched health systems that lack adequate critical care capacity to manage mass testing as well as care for confirmed cases.

In Kenya, the first case of COVID-19 was confirmed on 12 March 2020 in Nairobi by the Ministry of Health. The Government responded swiftly by rolling out several contingency measures. These included tracing all possible individuals who had contact with the patient and activation of a national response plan. The government has also been carrying out vigorous sensitization and behaviour change communication (BCC) campaigns. Since the first case, the number of confirmed cases has rapidly increased as well as deaths from COVID-19

related complications. Data from the WHO - COVID-19 dashboard records 201,009 confirmed cases of COVID-19, with 3,910 deaths in Kenya, as at 30 July 2021 (WHO, 2021).

Communication and behaviour change in COVID-19 response

During outbreaks of infectious diseases such as COVID-19, many interventions rely heavily on public participation, community engagement and ownership, for effective prevention and control efforts to work. The world is experiencing COVID-19 for the first time while for some it is after a long time. Literature suggests that like in past pandemics, effective communication, risk communications and behaviour change communication among other interventions are central in the response against COVID-19 (WHO, 2020b; Schmälzle et al., 2017; Verroen et al., 2013; Park et al., 2020).

The novelty of COVID-19 means that governments and actors are both learning and swiftly responding to the virus on the go. It is unknown how long this outbreak will last and as such the first hope of any government is community engagement to promote and institutionalize non-pharmaceutical interventions (Moghadas et al., 2021; Iezadi et al., 2020).

At such a time of COVID-19 pandemic, which is considered a public health emergency, people need information about the health risks they face and the actions they can take to protect themselves. Risk communication therefore becomes an integral part of any public health emergency response. A 2009 WHO report on *'why health communication is important in public health'* argues that many of the threats to global public health (through diseases and environmental calamities) are rooted in human behaviour (WHO, 2009).

In the context of COVID-19, this has been evident where the effectiveness of preventive and mitigative measures has relied on behavior change and adherence of the public to health measures such as social distancing, wearing of masks and hand-washing hygiene (Rimal and Lapinski, 2009).

BCC is an interactive process with communities (as integrated with an overall programme) to develop tailored messages and approaches using a variety of communication channels to develop positive behaviours; promote and sustain individual, community and societal behaviour change; and maintain appropriate behaviours. It is an effective communication approach grounded in theory and is evidence-based to help to promote changes in knowledge, attitudes, norms, beliefs and behaviours (FHI and USAID, 2002; Michie and West, 2021; Michie et al., 2020).

While the Government of Kenya has intensively employed BCC in its response to COVID-19, the rising numbers of COVID-19 cases in the country are evidence

that people are not effectively adhering to the mitigative directives provided. 2020 Knowledge, Attitudes, Perception and Practice (KAPP) survey on COVID-19 among the Kenyan population confirms this. In the KAPP assessment, respondents reported not to observe COVID-19 control measures all the time despite having access to facemasks, and water and soap or hand sanitizers (Kenya Ministry of Health, Kenya Medical Research Institute, and African Institute for Development Policy, 2020).

Counties in Kenya have recorded disproportionate COVID-19 numbers. Nairobi has been and remains the epicentre of COVID-19 in Kenya as at the time of the study. According to Statista, a German company specializing in market and consumer data, the capital (as of July 29, 2021) registered most of the confirmed COVID-19 cases in the country. The amount, 84,852 corresponded to about 42% of the total cases in Kenya (Statista, 2021).

Other counties that have recorded very high numbers to the extent of being put under lockdown measures include Mombasa, Kisumu and counties within the Nairobi Metropolitan Region such as Kiambu, Kajiado and Machakos.

Against this backdrop, the Government has rolled out sensitization and behavioural change campaigns at national level and local levels, and some targeting hotspot areas.

The Ministry of Health (MoH) and Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases (ASCEND) behaviour change communication for COVID-19 response campaign

Due to increased community transmission of COVID-19 in the coastal region of Kenya and need for BCC to address practices that contribute to the transmission of the disease, the Ministry of Health (MoH) rolled out a communication campaign to promote precautionary action against COVID-19 between June and October 2020. The BCC campaign was rolled out in the select coastal counties - Mombasa, Kilifi, Kwale, Lamu, Tana River and Taita Taveta.

The campaign was supported by the Accelerating Sustainable Control and Elimination of Neglected Tropical Diseases (ASCEND) and implemented by the University of Nairobi Enterprises and Services (UNES).

The overall objective of the MoH/ASCEND Behaviour Change Communication for COVID-19 response Campaign was to raise awareness about COVID-19 and promote positive behaviour among residents of the coastal counties to curb the spread of the virus.

The objective of this study is therefore to analyse the campaign with the aim of establishing the communication activities undertaken, and examine the communication messages employed to identify

opportunities and gaps that can inform ongoing and future efforts combating COVID-19 and any outbreak that might arise.

Research questions

RQ 1: What communication activities were undertaken in the MoH/ASCEND COVID-19 BCC Campaign?

RQ 2: Which messaging and message types were used in the campaign and how were they used?

MATERIALS AND METHODS

Study design

This study was approached qualitatively to allow a rich understanding of the context and phenomenon (COVID-19) and associated behaviors among the public, through examination of actions, activities and records. This research approach tends to be more flexible and inductive hence allowed the researcher to take experiences and perceptions into consideration and adapt the research process in accordance with the emergent results (Creswell, 2017). Case study was employed as a tool and research method to understand influences.

Sampling

The study employed purposive sampling given the pre-conceived ideas about the required characteristics of the sample. Materials sampled – four (4) TV video commercials, two (2) Kiswahili audio spots for radio, five (5) print media (poster and stickers) and 10 documents, were arrived at using the saturation sample selection criteria. They were sourced from the campaign actors, the Kenya MoH, and the funder/partner ASCEND. The sample was considered sufficient when similarity in data occurred. As purposive sampling involves selection of a sample with a precise purpose in mind (analyse the MoH/ASCEND COVID-19 BCC Campaign), it was deemed most suitable for the study in selecting the content to be analysed.

Data collection

The study utilized secondary data sources, and content analysis was the primary method of data collection. Data collection was guided by a data collection guide (Additional file 1) to ensure focused data collection which was in line with the set objectives of the study. The content analyzed provided the study with data and in-depth details about how the MoH/ASCEND COVID-19 BCC Campaign was undertaken, the strategies employed, and the messaging.

FINDINGS

Data collected through the content analysis of documents, print and broadcast IEC materials used in the MoH/ASCEND COVID-19 BCC Campaign yielded several findings discussed below.

Theme one: Communication activities

Data revealed that key activities were undertaken before, during and after, to realise the objectives set out for the MoH/ASCEND Behaviour Change Communication for COVID-19 Response Campaign.

Developing information, education and communication materials

Data generated from campaign reports and related documentation shows that COVID-19 related information targeting the public was packaged in various forms of Information, Education and Communication (IEC) materials that included TV commercials (4), audio spots for radio (5) as well as posters and stickers. Aspects in the IEC materials including the messages, colour and themes were developed, pre-tested and approved for use by six working groups within the MoH- Department of Health Promotion (DHP).

Translation of IEC materials

The selection of the COVID-19 IEC materials was followed by a translation exercise. The researcher identified five languages as target dialects that the IEC materials were translated into. The languages included Kiswahili, Taita, Orma, Pokomo and Digo. Within the translation exercise, five translators were recruited each to translate the materials from English to the respective local languages. The recruitment was based on their education level, ability to communicate effectively and their knowledge of the local language. Data gathered shows that a total 28 COVID-19 IEC materials were translated, ready for dissemination.

Dissemination channels

The analysis found that the campaign utilised broadcast, print and online media to reach target audiences. Specifically, the campaign used TV, radio, posters and stickers, as well as social media.

The specific TV and radio stations engaged were selected based on reach, the target audience, the languages used, the popularity and familiarity of the broadcasting shows and presenters driving the show (with audience), the airing during high listenership time, and cost of airing the messages. Based on this consideration, five broadcast stations were selected as follows:

(1) Kaya Radio FM: Selected for its popularity in the Coastal region. Broadcasts in Nduruma, Digo and Mijikenda languages, which transmits all over the coastal region.

(2) Kwale Ranet: Also based on popularity in the region. It is a Kiswahili station, most popular in Mombasa and Kwale towns.

(3) Tana River Broadcasting Station (TBS): The station is the most popular in Tana River County and also reaches Kilifi. It broadcasts in Orma, Pokomo and Kiswahili.

(4) Mwanedu FM: Selected because of its popularity in Taita Taveta County where it covers, and further parts of Tanzania borders. It broadcasts in Kitaita and Kiswahili.

(5) Tandao TV - This is a Kiswahili broadcasting television which is popular in Mombasa and its environs.

Posters and stickers were developed to be used for outdoor advertisement (markets, vehicles, health facilities or walls) for the printed versions and soft copy version of the same for social media.

Four social platforms were utilised for online engagement, which include Twitter, Facebook, Instagram and WhatsApp. Social media influencers as well media personalities from the region were brought on board to enhance impact on social platforms because of their many followers and listenership respectively, and ability to influence.

Campaign messaging

Types of messaging

The analysis found out that the campaign had messages of awareness. Messages of awareness in public campaigns or advertisements should define the topic; inform the target audience on what to do and how to perform the action.

Awareness creation was achieved in the campaign with messages focusing on what COVID-19 is and how it is spread. The public was also advised and encouraged to take precautionary action and how to go about it.

The campaign had messages of instruction. The IEC materials such as posters not only provided what to do and how but went on to demonstrate. At least all IEC provided one or more instructions for audiences on the precautionary action (s) needed to protect oneself and others from COVID-19. Atkin (2001) describes messages to be instructive when they define how to perform the action, when to perform it and where it should be performed.

The campaign had messages of persuasion. Beyond awareness and education, the campaign also presented messages that highlighted why the audience should take up precautionary action against COVID-19. This was the incentive strategy where both the negative and positive appeals of following or not following the guidelines were presented.

The campaign also attempted to persuade audiences by use of radio stations and presenters that were known and popular hence deemed credible to the audience. The campaign used engaging styles and techniques to help

attract attention. These included the use of music in the radio audio spots; highly graphical short videos; and poster messages presented in a visual, comprehensive and comprehensible manner to contribute to recipient processing.

Message content

The analysis found that messaging in the MoH/ASCENDS COVID-19 BCC campaign had uniformity and consistency. This was mainly due to the nature of COVID-19 emergency response in the country whereby all COVID-19 IEC materials were developed centrally by the MOH-DHP to prevent any misinformation.

The languages used in the campaign identified with the target audience who are the residents of coastal counties; Mombasa, Kilifi, Kwale, Lamu, Tana River and Taita Taveta. Swahili was largely used in the campaign and on the IEC materials because most of the coastal counties use it and is close to the local dialects. Other language used were Taita, Digo, Pokomo and Ormo which are the dialects used by the different communities at the coast.

The campaign used media personalities and social media influencers from the community as messengers, well known and even popular with the audience. This was to ensure the audience resonated with the messenger and to an extent the message. The campaign also featured public officials from MoH who participated for a one-hour live interview on radio. The session had a segment where radio listeners interacted with the MoH officials on air and could pose questions or concerns for the MoH officials to respond to.

All campaign IEC materials had a theme line and utilised symbols that represented the main idea which was COVID-19. The theme and tagline of the campaign, reflected in all its IEC materials was '*komesha corona okoa Maisha.*' This was a simple and direct tagline that quickly gave audiences an idea of what the campaign was about. All the IEC materials incorporated the MoH and the National Emergency Response Committee (NERC) logos, communicating that this was a government driven project. Other sets of IEC materials (posters and stickers) used the UKaid-ASCEND logo in addition to the MoH and NERC logos.

Campaign dissemination

Broadcast media

Once broadcast platforms (radio and TV stations) were selected, UNES negotiated with the stations for the best time and cost for airing the COVID-19 messages. Parties settled on using an activation package system (Additional file 2) that allowed for different and various messages to

be included in one.

Social media

The campaign utilised four social media platforms namely Twitter, Facebook, Instagram and WhatsApp. Three influencers, and several media personalities (from the broadcast stations engaged) from coastal areas were engaged to promote and drive the campaign online. On each social platform, messages were posted daily by the influencers and presenters on their personal accounts. The team not only shared the soft copy version of IEC materials including posters and stickers but also engaged online audiences. The online campaign also leveraged on question formats to provoke audiences into action. Documents reviewed provided examples of such questions. For instance, audience were asked about their opinion on COVID-19 protections and this question was accompanied by posters and stickers.

The key messages shared through social media focused on sensitizing the public on self-care and protection at market places and inside *matatus*. They included messages encouraging limited travel during the COVID-19 pandemic thus minimizing exposure to COVID-19, hand washing, social distancing, and use of facemasks as well as avoiding to touch one's face (especially nose, mouth and eyes).

Printed IEC materials

The study found that 955 posters and 1650 stickers (Additional file 3) were printed and distributed in the six coastal counties. The materials were distributed to public places. The stickers were used to brand *matatus*, *tuktuks*, *bodaboda*, buses and trucks, while the posters were pasted in GoK health facilities, chief offices, police posts, shops, *matatu* and *bodaboda* stages, markets, bus booking offices as well as terminus.

DISCUSSION

The study established that the campaign carried out a number of key activities that contributed to the successful implementation of the campaign. These include but are not limited to developing IEC materials, translating the materials to Kiswahili and local dialects, pre-testing, dissemination and monitoring. These interventions and activities contributed to enhancing the successful roll-out of the campaign.

The campaign messages included messages of awareness, instruction and persuasion. Specifically, the messages highlighted COVID-19, its spread, status of virus spread in the country, effects of COVID-19, promoted measures that should be adopted, reinforced

the need to adhere to the directives provided and provided care guidelines for COVID-19 patients. Atkin (2001) posits that if PSAs contain the messages of awareness, instruction and persuasion, then individuals are more motivated to make a behaviour change. It can therefore be concluded that the application of the message types in the campaign influenced the target public to take up the desired behaviour to a great extent.

The study found that as part of the BCC interventions, IEC materials were developed and packaged as TV infomercials, audio spots for radio, posters, stickers and social media posts. The campaign employed TV, radio, print and social media platforms to strategically disseminate the materials and reach the target audience. As much as the dissemination channels were different, a unified theme and consistent display of the MoH and NERC logos contributed to the cohesiveness of the campaign. With the use of the same campaign theme and logos across all IEC materials, it can be concluded that campaign had consistency and the materials were easily recognizable.

The campaign employed social media as one of the dissemination channels. Messages were pushed on Facebook, Twitter, WhatsApp and Instagram in form of posts, questions, digital stickers and posters. A study by Abrams, et al (2007) found that by integrating new media into health campaigns, the success of results was enhanced. Therefore, the use of new media in the MoH/ASCEND COVID-19 BCC Campaign can be assumed to have contributed to more widespread reach and results.

The analysis also established that the campaign had on-going monitoring and tracking during and after the campaign. Monitoring during the campaign involved feedback from both the senders and receivers, for instance the presenters and listeners in the case of radio activations. Feedback collated was used to inform adjustments (where needed) in subsequent messaging. Overall, monitoring showed that the campaign had been well received by the residents of the target counties.

Conclusion

The study concludes that the MoH/ASCEND COVID-19 BCC Campaign was successfully rolled out, particularly the dissemination of IEC materials. There was deliberate effort to package information in different formats for wider reach and messages met the criteria adopted from Atkin's guides for PSAs. The study cannot however make generalized conclusions about the impact, if any or to what extent the campaign had in influencing behaviour change because only a content analysis was performed. A better understanding of whether the campaign achieved the expected effects can be gained through an outcome evaluation of the campaign. Furthermore, a broader understanding of the effectiveness of campaign

messages and strategies can be achieved through the use of different methods such as surveys and focus groups to determine if the campaign influenced change in behaviour and improved adherence of COVID-19 protective measures in the target counties.

Recommendations

The study identified several gaps mainly based on the feedback collated from audiences especially through radio and social media as provided in the campaign reports prepared by the MoH/ASCEND. These included the sentiments of the public held about COVID-19 and why they found it hard to fully follow the precautionary directives. As at the time of the study, the author did not come across any impact level evaluations within the documents provided thus the aspect of ascertaining the extent to which the campaign influenced behaviour change was not available. The study therefore recommends the following.

Outcomes and measures

The study recommends an outcome/measure of effect for this campaign and other campaigns on BCC for COVID-19 response. This recommendation is against the backdrop of the goal of the MoH/ASCENDS COVID-19 BCC Campaign, which was to among others raise awareness about COVID-19 and encourage the residents of the target counties to take up precautionary measures against the virus. The campaign has effectively carried out front-end evaluations along the way; measuring efforts and direct outputs of the campaign. However, back-end evaluation had not been done as at the time of the study. It is important to determine if indeed there was any behaviour change outcome in the target populations because of the campaign. This will help stakeholders to understand the impact of such a project and inform the potentiality of programme replication as well as influence the course of future actions.

Bottom-top approach

The study recommends a bottom-top approach where the target population participates in the development and roll-out of BCC campaigns. This allows the target population to be actively involved rather than passive participants. A bottom-up approach will promote more ownership thus acceptance of the BCC initiative because the target population will feel they were involved in deliberations and decision-making. The MoH/ASCEND COVID-19 BCC Campaign has been developed, pre-tested and approved for use by six working groups within the MoH-DHP.

Consider environmental and economic factors

The study recommends that BCC campaigns specifically on COVID-19 account for environmental or economic factors that may hinder adherence to the recommended action. Among the feedback collated from the dissemination of the IEC materials were sentiments from some residents who felt that the printed materials were a waste of money. Further, some in the communities requested for sanitizers and facemasks instead of the posters. Generally, one key challenge that COVID-19 response has faced in the country has been the cost implication of adhering to the measures, which most Kenyans cannot meet. There are costs associated with buying masks, hand sanitizers, washing hands frequently (lack of water), or reducing travel (work or business gets affected). As such, it becomes economically and environmentally unsustainable to adhere to the measures even when one understands and appreciates the need.

Accessibility for all

Lastly, the study recommends ensuring the campaign materials are accessible to all in the community including persons with different disabilities. Each member of the community is susceptible to COVID-19 and as such, the MoH/ASCENDS COVID-19 BCC Campaign targeted everyone in the target counties. The study found no evidence to insinuate that the IEC materials factored persons with visual and hearing problems. There is need to address this in future campaigns by ensuring inclusive IEC materials by producing information in braille, simplified messaging such as pictograms and pictures or use of a sign language interpreter. The channels of dissemination can also be diversified to include dialogues, home visits or community awareness raising activities in addition to mainstream channels.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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