INFLUENCE OF RADIO AWARENESS MESSAGES ON KNOWLEDGE AND REACTIONS TO COVID-19 AMONG RESIDENTS OF MAKURDI METROPOLIS

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ABSTRACT
This study assessed the influence of radio awareness messages on knowledge and reactions to covid-19 among residents of Makurdi metropolis. The study seeks to identify radio messages on COVID-19 available to residents of Makurdi metropolis, assess influence/knowledge of Makurdi residents on Covid-19 radio messages and ascertain the reactions of the residents to radio messages on Covid 19 in Makurdi metropolis. The study was anchored on cultivation theory as it is concerned with the audience influence on radio messages. It used survey research method and questionnaire was administered to 384 respondents who are residents of Makurdi metropolis. The Stratified sampling technique was used. The study found out that residents of Makurdi metropolis were influenced by radio messages on COVID-19 pandemic. This has enabled them to react positively to COVID-19 protocols in terms of behaviour change which is capable of stopping the spread of the virus in Makurdi metropolis. It concluded that residents of Makurdi were knowledgeable about the COVID-19 pandemic as a result of the radio health messages broadcast to them by radio stations in Makurdi metropolis. This has helped in creating the right awareness which has reduced the spread of the virus in the metropolis. The study therefore recommended among other things that other states should aggressively use radio messages on COVID-19 to help them reduce the spread of the virus. Those responsible for handling health issues in other states of the federation should adequately embrace radio to disseminate the messages in view of its advantages over other media of communication and the need to use local languages often to accommodate those who are less educated in English Language.

Keywords: COVID-19; Influence; Reactions; Radio; Health Awareness Messages; Residents
INTRODUCTION
Information is one of the most important things in our modern society. When we get informed about something, we get knowledge. This knowledge protects us from making a mistake. Information has become a potent tool in creating awareness to the people in fighting the dreaded pandemic of Covid-19 ravaging the whole world in recent time. Uninformed society stands a chance of being deformed. Proper and timely information creates awareness that can trigger social change when passed through appropriate communication channels. Basically, information brings about social process that produces changes in the knowledge, attitudes and behaviours of individuals, and groups, by providing factual and technical information, through motivational or persuasive messages, and facilitating the learning process and social environment. These results might then lead to increase in the adoption of crucial attitudes by the individuals that are capable of reducing the spread of Covid-19 in the society. Other possible consequences of information include enhancement in self-esteem and well-being through participation in community and social life, increasing the individual’s perceived efficacy in dealing with other people, reinforcing mutual respect and enhancing confidence among social groups and building trust within communities, (Hudson, 2001). Effective information must utilize a credible channel that will pass message to the audience to bring about desired change in the society. A channel like radio is handy in passing sensitive information to the people on vital issue due to the medium reach to all categories of people in the society. Hubley (1993) opines that radio as a medium is a very powerful instrument in spreading health related messages to the sub-literates population because it reaches a huge audience quickly and allows the people to interact with one another more easily than television viewers or newspaper readers.

Radio has remained the most powerful and credible information and entertainment medium in most developing countries like Nigeria. Because it is affordable and accessible, radio is the most popular medium in Nigeria especially with the recent upsurge in the use of FM radio stations. Portable battery-operated radio sets are frequently brought to farms and other rural locations, even in the remotest parts of Nigeria. This availability gives radio the capacity of being heard by a large, diverse audience. Messages on Covid-19 packaged in jingles prepared in indigenous languages, drama, poetry recitals, proverbs, and music promoted on the radio will appeal to all categories of audiences and potentially influence them to adopt responsible, healthy
behaviors that can stop the spread of the pandemic in the society, (Hubley 1993). Collaborating Hubley views, Sharecast (2018), states that radio has become the most popular and effective medium for information dissemination to a larger audience. Use of radio by several humanitarian agencies in Nigeria for general and behavioural change messaging substantiates the aforementioned statement. Undoubtedly people in urban areas prefer television and social media to the radio, but a large chunk of Nigeria’s population (around two-third of the total population) still live in rural parts of the country and radio is the most accessible and reliable source of information for them (Sharecast, 2018).

In the wake of COVID-19 crisis where social and physical distancing is vital, radio enables Nigeria Centre for Disease Control, (NCDC), Ministry of health and other organizations to reach a wide audience with critical information that can be lifesaving, inform change in behaviour and provide a platform for discussion on a range of topics. At present, number of confirmed Covid 19 cases in Nigeria hit 165,199 as of the time of the research, and the deaths rates amounting to 2,063, (NCDC, 2021) across the country. Some states of the federation like Lagos, FCT and Plateau are having the highest number of confirmed cases in the country. Interestingly, Benue state that had her case recorded earlier than Plateau still maintained low number of cases as compared to many other states. The sustained radio messages on BSU, FM, Harvest FM and Radio Benue, Makurdi have inadvertently helped the Makurdi residents to take the precautionary measures prescribed by NCDC, hence the low rate of cases in the state as compared to other states like, Lagos, Plateau, Kaduna, Oyo, Rivers and the rest. This study is delimited specifically to investigating Radio Benue, BSU FM and Harvest FM awareness messages on COVID-19 to residents of Makurdi Metropolis. Geographically, the researchers studied respondents across council wards that make up Makurdi Metropolis. This study seeks to ascertain whether the residents of Makurdi metropolis were influenced by radio messages on Covid-19 in the state.

Objectives of the Study
The broad objective of this research is to ascertain the influence of radio awareness messages on knowledge and reactions to covid-19 among the residents of Makurdi metropolis. Specifically, the study seeks to:
i. Identify radio messages on COVID-19 available to residents of Makurdi metropolis.

ii. Assess influence/knowledge of Makurdi residents on COVID-19 radio messages.

iii. Ascertained the reactions of residents to radio messages on Covid-19 in Makurdi metropolis.

LITERATURE REVIEW

Coronaviruses belong to the Coronaviridae family in the Nidovirales order. Corona represents crown-like spikes on the outer surface of the virus; thus, it was named as a coronavirus. Coronaviruses are minute in size (65-125nm in diameter) and contain a single-stranded RNA as a nucleic material, size ranging from 26 to 32kbs in length (Shereen, Khan, Kazmi, Bashir and Siddique, 2020). The subgroups of coronaviruses family are alpha (α), beta (β), gamma (γ) and delta (δ) coronavirus. The severe acute respiratory syndrome coronavirus (SARS-CoV), H5N1 influenza A, H1N1 2009 and Middle East respiratory syndrome coronavirus (MERS-CoV) cause acute lung injury (ALI) and acute respiratory distress syndrome (ARDS) which leads to pulmonary failure and result in fatality. These viruses were thought to infect only animals until the world witnessed a severe acute respiratory syndrome (SARS) outbreak caused by SARS-CoV, 2002 in Guangdong, China (1). Only a decade later, another pathogenic coronavirus, known as Middle East respiratory syndrome coronavirus (MERS-CoV) caused an endemic in Middle Eastern countries (Wang, Shi, Jiang, Zhang, Wang and Tong, 2013). Recently towards the end of 2019, Wuhan, an emerging business hub of China experienced an outbreak of a novel coronavirus that killed more than eighteen hundred and infected over seventy thousand individuals within the first fifty days of the epidemic. This virus was reported to be a member of the β group of coronaviruses. The novel virus was named as Wuhan coronavirus or 2019 novel coronavirus (2019-nCov) by the Chinese researchers. The International Committee on Taxonomy of Viruses (ICTV) named the virus as SARS-CoV-2 and the disease as COVID-19 (World Health Organization, 2020). In the history, SARS-CoV (2003) infected 8098 individuals with mortality rate of 9%, across 26 countries in the world, on the other hand, novel corona virus (2019) has infected over 100 million individuals and has killed over three million individuals, till date of this writing. It shows that the transmission rate of SARS-CoV-2 is higher than SARS-CoV and the reason could be genetic
recombination event at S protein in the RBD region of SARS-CoV-2 which may have enhanced its transmission ability.

Radio
According to Stone (2014), radio stations can be linked in radio networks to broadcast a common radio format, either in broadcast syndication or simulcast or both. Radio also can be done via cable radio, local radio networks, satellite radio, and internet radio via streaming media on the Internet. According to Sambe (2008) radio is the fastest medium through which news is delivered. For instance, when an event of tremendous national or global significance occurs, such as presidential assassination, or a great natural disaster, news of it is delivered faster through the radio than other media. Sambe (2008) posited that many mass communication scholars have carried out studies on the effectiveness of radio and its contributions to education of the audience. Virtually all researchers indicate that radio plays a key role in information, entertainment, news, weather information, cultural transmission and religious propagation.

Ugwuche (1991) says radio emphasizes certain kinds of programming (wide scale programming). Today, hardly any station tries to offer something for everyone, but everyone can find something on the radio to like. There is a format for everyone. Radio broadcasts can provide real-time information, broadcast 24 hours a day to provide the most recent updates to listeners. Stations have the ability to reach across borders and become a source of information where reliable news is scarce. When access to the internet is blocked and phone lines are cut, people can still search the airwaves for trustworthy sources. Even electricity is not a necessity for battery operated and hand-cranked radios.

Onabanjo (2002) observed that, in Africa, possibly the most useful mass medium, next to simplified forms of point and poster is radio. Radio is portable, accessible, relatively economical (though not easy to produce) and almost universally available. Large percentage of all strata of the society accesses radio as a matter of course on a regular basis for information, entertainment, news, weather information, cultural programming and religious services.
Health Awareness Messages
Public health message is the art and science of educating people about health (McKenzie, Neiger and Thackeray 1996 as cited in Bundy and Guya, 2009). Areas within public health education encompass environmental health, physical health, social health, emotional health, intellectual health, and spiritual health (Donatelle, 1996 as cited in Bundy and Guya, 2009). McKenzie, Neiger and Thackeray (2009) observed that education for public health begins with people. It hopes to motivate them with whatever interests they may have in improving their living conditions. Its aim is to develop in them a sense of responsibility for health conditions for themselves as individuals, as members of families, and as communities. In communicable disease control, public health education commonly includes an appraisal of what is known by a population about a disease, an assessment of habits and attitudes of the people as they relate to spread and frequency of the disease, and the presentation of specific means to remedy observed deficiencies (Bundy and Guya, 2009). Kann, Brener and Allensworth (2001) posited that public health education is also an effective tool that helps improve health in developing nations. It does not only teach prevention and basic health knowledge but also conditions ideas that re-shape everyday habits of people with unhealthy lifestyles in developing countries.

Body of Literature
Mass media campaigns can be used to provide information on current and effective vaccination, drug therapy and social distancing measures (Collinson, Khan and Heffeman, 2015). Public health education campaigns that include informative literature (i.e., pamphlets), posters, newspaper articles and advertisements, radio and television messages, and social media outlets (i.e., twitter, facebook) are used daily to inform the public on current pandemic. Mass media outlets can aid in dissemination of this information. Studies of mass media campaigns and healthy behaviour have reported that mass media campaigns can elicit positive behaviour change and even prevent negative behavior change in individuals (Hornik, 2002). It is therefore concluded that mass media campaigns should be used to inform the public so that behaviour change can result (Jung, Lin and Viswanath, 2013). It is believed that the media coverage of SARS and 2009 H1N1 epidemics had an effect on the total spread of these pathogens (Funk, Knight and Jansen, 2014). More recently, MERS-CoV, Ebola, and H7N9 and the COVID-19 have been the subject of many media reports. There is an abundance of literature summarizing the
effectiveness of using traditional media such as radio for public health interventions and communications. In general, reviews have found that radio campaigns in public health can be effective (Glik, 2007) with some exceptions noting inconsistent findings (Cline, 2001). Many studies are of the view that radio is more effective when supplemented by some form of environmental or community support (Rimer, 2005).

In our society that relies on effective and efficient communication, radio plays a major role in informing multiple aspects of individuals’ lives, including their access to health information. Traditionally, public health organizations have used radio medium and social marketing frameworks to disseminate important health messages to the public. In the past few decades, electronic media particularly radio have stepped to the forefront of communication, and public health. According to Avery and Lariscy (2010) as cited in Bruce (2011), in health information gathering, radio provides an outlet for the broadcast of health information to consumers, while allowing consumers to respond and contribute to advice that was traditionally only issued by providers with the help of social media.

**Theoretical Framework: Cultivation Theory**

George Gerbner, Larry Gross, Michael Morgan, and Nancy Signorielli have developed cultivation theory, which analyzes the contributions made by television in an effort to understand the conceptions viewers have concerning social reality (Gerbner & Gross, 1973; Gerbner, Gross, Morgan, & Signorielli, 1984). This stems from Gerbner’s position that the industrial revolution of technology creates symbolic environments that reflect the institutions – the function and structure of the decision-making pressures, organizational forms, and power relations that disseminate particular messages (Gerbner, 1973). Gerbner further posits that the mass production of messages and the rapid distribution thereof likewise contribute to the collective consciousness (shared meaning) that is formed and imposed on social relationships (Gerbner, 1998). Shared meaning refers to a unanimously-held conception individuals have about reality that is based on the amount of television a person views (West & Turner, 2007). Thus a person who views 6 or more hours of television is considered a high viewer, and as a result, frames their outlook on reality around the messages conveyed to them by television, whereas a low viewer is someone who does not let television messages influence their outlook on reality (Griffin, 2006; Morgan & Shanahan, 2010; West & Turner, 2007).
Thus, the paradigm of cultivation theory is centered on the premise that individuals who spend a majority of their time viewing television are at a greater risk of perceiving reality through a lens of fictional programming that conveys common and recurrent messages (Gerbner, 1999). Hence, the most familiar understanding of cultivation theory posits knowledge acquired about a particular topic that shapes reality for viewers is derived from viewing messages observed on television in large doses (Morgan & Shanahan, 2010). It is these frequent messages that serve as the infrastructure for symbolic environments that aligns with cultivation theory that is the expressive voice for culture and society (Gerbner, 1998; 1999; Morgan & Shanahan, 2010). Thus, it is the sharing of the institutional and social dynamics that construct symbolic environments through message dissemination, which is the outcome of the cultivation process (Morgan & Shanahan, 2010). The theory is relevance to the study in that it explains how persistent exposure to radio messages by residents of Makurdi Metropolis on how to observe Covid-19 protocols has help them cultivate positive attitude to Covid-19. Some of the measures like washing of hands regularly with soap and under running water, wearing of face masks and maintaining social and physical distancing and a host of others are alien to them, but continuously listening to radio messages, the residents adopted the habits. They reacted positively by observing all NCDC protocols which invariably has kept the rate of infection low in the state as compared to other states.

**METHODOLOGY**

The research method used for this study is the survey method and questionnaire was employed as tool for data collection. The population of this study is the entire people living in Makurdi metropolis which is 348,990 (National Population Commission, 2019). The sample size for the study is statistically determined using the formula:

\[
 n = \frac{Z^2 \times P \times q}{d^2}
\]

According to Araoye (2004, p.118) in Kusugh (2007, p.49) this formula can be used where the population size is greater than 10,000 (>10,000)

Where,

- \( n \) = Desired sample size (where population is > 10,000)
- \( z \) = the standard deviation usually set at 1.96 since a significant level of 95% is desired.
P = the proportion in the target population estimated to have particular characteristics under study.

q = Iop (that is the proportion of the population that does not share the characteristics under study).

d = degree of accuracy desired.

Thus;

\[ z = 1.96 \]

level of significance = 50%

\[ p = 50\% = 0.50 \]

\[ q = (1-P) = 0.5 \]

\[ d = (0.05)^2 \]

\[ n = \frac{z^2 \cdot p \cdot q}{d^2} \]

\[ = (1.96)^2 \cdot 0.50 \cdot 0.5 \]

\[ = 3.8416 \cdot 0.50 \cdot 0.5 \]

\[ = 0.9604 \]

\[ 0.0025 \]

\[ n = 384 \]

Therefore, the sample size for the study was statistically determined to be three hundred and Eight Four (384).

To determine the sample for this study, three stages were employed to select respondents for this study. Firstly, Makurdi was divided into major settlement areas of High-Level; North Bank; Akpehe; New G.R.A; Old G.R.A; Gboko Road; Kanshio; Wadata; Ankpa Ward; Modern Market; Wurukum; and Nyiman. Osuala (2007) notes that this involves dividing the population into separate strata on a sample technique assumed to be closely associated with the variables under study. Secondly, random sampling was used in selecting streets in the major settlement areas. Two streets were selected from each settlement areas identified above. The third stage was the selection of households. Here simple random sampling technique was used to select compounds from each of the selected streets. A total of eight (8) houses were selected on each street, bringing the total number of houses selected to one hundred and ninety-two (192) households. Two respondents were randomly selected in each house bringing the total number of respondents to three hundred and eight four (384); this selection was based on those who listen to radio messages without interpretation.
Data Presentation
Data collected were analyzed using descriptive statistics - simple percentages and tables of summary in order to ease comprehension. Out of the 384 questionnaire administered, 340 were retrieved (representing 89% response rate) and found usable. Below is the presentation of the data in tables.

Table 1: Radio messages on COVID-19 available to residents of Makurdi metropolis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes</td>
<td>225</td>
<td>66</td>
</tr>
<tr>
<td>Social distancing will help stop community spread of the virus</td>
<td>45</td>
<td>13</td>
</tr>
<tr>
<td>Regular hand washing with soap or regular use of alcohol based hand sanitizer will stop the spread of the virus</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Preventing social gathering such as weddings, clubs, drinking joints, markets, churches, mosques can help stop the virus from spreading</td>
<td>40</td>
<td>11</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>340</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Field Survey 2021*

Data in Table 1 sought to know radio messages on COVID-19 Radio Benue, BSU FM and Harvest FM Residents of Makurdi Metropolis listened to. The result indicates that 225 (66%) of Makurdi residents listened to the message that said a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. 45 (13%) of Makurdi residents admitted listening to a message that said social distancing will help stop community spread of the virus, 30 (8%) of the respondents stated that they listened to a message which said regular hand washing with soap or regular use of alcohol based hand sanitizer will stop the spread of the virus, while 40 (11%) of respondents agreed that they have listened to the message that said preventing social gathering such as weddings, clubs, drinking joints, markets, churches, mosques can help stop the virus from spreading. The implication of the data above is that all the sampled respondents have listened to radio messages on the COVID-19 and are knowledgeable about the disease.
Table 2: Influence/knowledge of the radio messages on Covid-19 on the residents of Makurdi

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I wash my hands regularly with hand sanitizers under running water</td>
<td>98</td>
<td>29</td>
</tr>
<tr>
<td>to prevent me from contracting the virus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I wear face mask while in the public places</td>
<td>83</td>
<td>24</td>
</tr>
<tr>
<td>I no longer mingle with people in churches, mosques, markets, joints, and clubs</td>
<td>92</td>
<td>27</td>
</tr>
<tr>
<td>I sneeze in my flex elbow</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>340</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey 2021

Data in Table 2 sought to assess influence of Makurdi residents on Covid-19 radio messages. The result indicates that 98 (29%) of Makurdi residents said they regularly wash their hands with hand sanitizers under running water, 83 (24%) of the residents correctly agreed that they wear face masks while in public places, 92 (27%) of the respondents agreed that they no longer mingle with people in churches, mosques, markets, joints, and clubs while, 67 (20%) of the residents stated that they sneeze in flex elbow when they want to do so in a gathering. The implication of this result is that the radio messages actually influenced residents of Makurdi metropolis by giving them correct information about COVID-19 and as such they cultivated positive attitudes towards preventing the spread of Covid-19.

Table 3: Residents of Makurdi Metropolis’ Reactions to COVID-19 Radio Messages

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>I totally believe in the message</td>
<td>312</td>
<td>92</td>
</tr>
<tr>
<td>I am panicky, worry and express fear on messages of the COVID-19 Pandemic</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>I self-isolated myself</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>340</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey 2021

Data in Table 3 sought to know the reactions of residents of Makurdi metropolis to radio messages on COVID-19. The result shows that 312 (92%) of Makurdi residents said they totally believe in the radio message, 18 (5%) of the residents were panicky, worry and express fear on radio messages on the COVID-19 Pandemic, while 10 (3%) of the residents said they self-isolated
themselves. This result implies that the radio messages on COVID-19 were impactful as shown by the highest respondents of 312 (92%) who said they totally believe in the radio messages. This goes to show that the people belief in the messages led them to react positively to Covid-19 radio messages in terms of behavior change that kept the rate of infection low in the state as compared to Kano and other states of the federation.

**Discussion of Findings**

This study assessed the influence of radio awareness messages on knowledge and reactions to covid-19 among residents of Makurdi metropolis. Specifically, the study seeks to identify radio messages on COVID-19 available to residents of Makurdi metropolis, assess influence/knowledge of Makurdi residents on Covid-19 radio messages and ascertain the reactions of residents to radio messages on Covid-19 in Makurdi metropolis. Findings in the study established that there are radio messages dedicated to enlighten the residents of Makurdi metropolis on COVID-19 pandemic. The findings are affirmed by (66%) of Makurdi residents who said they listened to radio messages on COVID-19 such as a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes. At the same time, (13%) of Makurdi residents stated that they listened to radio message on how social distancing will help stop community spread of the virus, (8%) of Makurdi residents listened to the message that said regular hand washing with soap or regular use of alcohol based hand sanitizer will stop the spread of the virus, (11%) of the respondents listened to radio message on preventing social gathering such as weddings, clubs, drinking joints, markets, churches, mosques can help stop the virus from spreading.

This is supported by Bruce (2011) study which found that radio provides an outlet for the broadcast of health information to consumers, while allowing consumers to respond and contribute to advice that was traditionally only issued by providers with the help of social media. Radio attends to the needs of modern health consumers, who are highly engaged and desire to be more involved in their health than ever before, while providing the means for reach that was previously unimaginable, thanks to interactive radio. The study also found out that radio messages actually influenced residents of Makurdi metropolis by giving them correct information about Covid-19 and as such they cultivated positive attitudes towards preventing spread of the virus. The
residents of Makurdi metropolis are actually influenced/knowledgeable about the COVID-19 pandemic. This is attested to by (29%) of the residents who correctly agreed that they wash their hands regularly with hand sanitizers under running water to prevent them from contracting the virus being the highest respondents. (27%) of the respondents who agreed that they no longer mingle with people in churches, mosques, markets, joints, and clubs, (24%) of the residents said they wear face mask while in the public places, and (20%) of the residents pointed out that they sneeze in their flex elbow.

The implication of this result is that the radio messages were actually making impact by giving the correct information about COVID-19 and as such residents of Makurdi metropolis became knowledgeable about the virus and were greatly influenced by the messages broadcast on radio. This became a big deal as one of the weapons to stop the spread of the disease among residents of Makurdi metropolis. The above findings are supported by Collinson, Khan and Heffeman’s (2015) study which found that mass media campaigns can be used to provide information on current and effective vaccination, drug therapy and social distancing measures. Public health education campaigns that include informative literature (i.e., pamphlets), posters, newspaper articles and advertisements, radio and television messages as well as social media outlets (i.e., twitter, facebook) are used daily to inform the public and enable them gain knowledge on current health issues. Hornik’s (2002) study also found that mass media outlets can aid in dissemination of health information. The study found that mass media campaigns can elicit positive knowledge and bring about behaviour change as well as prevent negative attitudes in individuals. It further found out that reactions of residents of Makurdi metropolis to radio messages on Covid-19 show that they totally believe in the messages which led them to have a positive attitudes to the COVID-19 pandemic in terms of behavior change. The finding is attested by (92%) of the respondents who said they totally believe in the message.

This shows that the positive reactions of the people triggers imbibing of desired behaviours such as regular hand washing with alcohol based sanitizer with running water, wearing of face masks while in public, maintaining social/physical distancing and a host of others that are capable of stopping spread of the virus in the state. These findings are further supported by Kann, Brener and Allensworth’s (2001) that public health education is also an effective tool that helps improve health in developing nations. It not only
teaches prevention and basic health knowledge but also conditions ideas that re-shape everyday habits of people with unhealthy lifestyles in developing countries. This type of conditioning not only affects the immediate recipients of such education but also future generations will benefit from an improved and properly cultivated ideas about health that will eventually be ingrained with widely spread health education. Moreover, besides physical health prevention, public health education can also provide more aid and help people deal healthier with situations of extreme stress, anxiety, depression or other emotional disturbances to lessen the impact of these sorts of mental and emotional constituents, which can consequently lead to detrimental physical effects.

**CONCLUSION**

Following the findings available to the study through the analysis and interpretation of the research data, the study concludes that residents of Makurdi are knowledgeable about the COVID-19 pandemic as a result of the radio health messages broadcast to the residents by radio stations in Makurdi metropolis—Radio Benue, BSU FM and Harvest FM, Makurdi. This has helped in creating the right awareness and encouraged them to cultivate positive habits that stopped the spread of the virus in the metropolis. The radio health messages have equally exposed residents in Makurdi metropolis to react positively to the pandemic having being armed with the right information from the radio health messages. This is in consonance with the theory adopted in this study—the Cultivation theory. The theory presupposes that continued exposure of an individual to media messages will eventually influenced the individual behavior positively to the message. Such an individual will eventually cultivate right attitudes to the message by applying the watched or listened message to real life situation. This theory as used in the study emphasizes that radio messages on Covid-19 broadcast to residents of Makurdi metropolis is capable of changing the life style of the residents and their continued broadcast by radio stations in Makurdi will help in reducing the spread of the pandemic in the state. The theory which is based on imbibing new lifestyles by people, particularly those that want to control spread of the virus in their domain, shows that any society willing to stop the spread of Covid-19 must aggressively utilize radio messages to inform the people. Other states of the federation like Lagos, Plateau, Oyo, Kaduna Rivers and Kano must work out modalities to pass Covid-19 messages to the people in view of the fact that radio is very efficient and reaches all class of people in the
society. This therefore shows that the theory upon which this study was anchored on stand accepted.

RECOMMENDATIONS
In line with the findings of this study and conclusion thereof, the following recommendations are made:

i. Radio health messages about COVID-19 as used by radio stations in Makurdi should be replicated by other stations in other states. Other states and FCT should take a cue from Benue.

ii. Those responsible for handling health issues in other states of the federation should adequately embrace radio to disseminate the messages in view of its advantages over other media of communication.

iii. In order to enhance COVID-19 education through radio, there is need to use local languages often to accommodate those who are less educated in English Language.

REFERENCES


Influence of Radio Awareness Messages on Knowledge and Reactions to Covid-19 among Residents of Makurdi Metropolis


