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**THE EFFECTIVENESS OF COVID - 19 BROADCAST IN THE FIGHT AGAINST THE
PANDEMIC, A STUDY OF KUMASI RADIO STATIONS**

BY

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DEVELOPMENT STUDIES.**

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DECLARATION

I hereby declare that this submission is my own work towards the MA Development Communication. I hereby do attest that it carries no previously published contents by another person which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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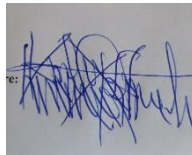
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Date

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Putting together this study has been a lonely and demanding task. I had to call for help from different sources at a point to enable me complete this aspect of my academic journey.

Dr. Stanley Marcus Semarco has been a strong source of support. He always made sure the right things are done but also encouraged me in my most troubled times. He is one of the main reasons this work has seen the light of day. To him, I say thank you.

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DEDICATION

I dedicate this work to my mother Mrs. Ernestina Anadem and my late father Major Teddy William Anadem (rtd), whose direct inspiration took me back to school for my MA. I am grateful.

ABSTRACT

Ghana is one of the countries in West Africa that recorded high COVID-19 incidents. This triggered efforts to push information out in order to help combat the pandemic and its associated problems.

This study set out to find out what role radio broadcasts have played in this fight against the dreaded COVID-19. It sought to do this by considering the informative as well as infomercial role of radio broadcasts so far, the effectiveness of radio in the fight against the pandemic and then the perception of radio broadcasts by Ghanaians as far as the COVID-19 fight is concerned.

This study was considered significant due to its ability to help assess and improve COVID-19-related mass engagement as well as communication on other important issues of public interest.

In this study, the COVID-19 pandemic is approached as a development problem which can be dealt with using effective communication and hence setting the work out on the development communication theory.

The study made use of both primary and secondary sources of data to obtain facts and also make the study more empirical. A combination of quantitative and qualitative helped enrich the research since both methods have different strengths and limitations.

Primary data was gathered using structured questionnaires and an interview guide while secondary data was obtained from previously published works.

The study used both probability and non-probability sampling methods. Specifically, purposive sampling techniques were used to select respondents to answer the interview questions.

The study established that radio broadcasts indeed have proven very effective and have played a very important role in the fight against the pandemic, delivering salient information in timely manner to all manner of audiences using various languages.

The informative role of radio broadcasts well pronounced while not much happened as far as infomercial role is concerned.

In order to make more impact it was recommended that more resources be channeled into radio broadcasts on COVID-19

Since politicians topped the list of those who were listened to on COVID-19 information, it was also recommended that they be trained and deployed on COVID-19 and any other similar campaigns to achieve effect.

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CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 Introduction

Since the first human cases of COVID-19 in Wuhan City, China, the disease, now a pandemic caused by the novel coronavirus (SARS-CoV-2) has caused untold challenges to the world (WHO, 2020).

Major cities have been hit with many of them becoming epicenters of the disease. In Africa for example, major cities including Lagos, Accra and Johannesburg recorded high cases; a situation that changed the daily socio-economic and political lives of the citizenry (Asante, 2020).

As at 30 March 2021, Ghana had a case count of 90,674 and a positivity rate of 9.0% between March 2020 and March 2021. 744 people had died as at that period with 12 in critical condition (GHS, 2021).

In spite of these alarming pieces of information on the pandemic, many in Ghana continue to ignore the COVID-19 preventive measures (Bonful *et al*, 2020).

The Kumasi Metropolis, with a total surface area of 254 sq Km (2010 census), is the most populous district in the Ashanti region with a population of 2,035,064 (2010 Census) with an annual growth rate of 4.8% (GSS, 2014).

With the alarming trend of the COVID-19 spread and death toll, it is important to ensure that all or most of the population of the country, and in the case of this work, the Kumasi Metropolis are aware of the existence of the pandemic, preventive measures, first response in case of suspected infection, vaccination and other medical interventions.

Such awareness cannot be attained without an ongoing, culturally and socially relevant communication among various stakeholders. There has to be knowledge sharing with the aim of reaching a consensus for action considering the interests, needs and capacities of all concerned. This work studies the effectiveness of radio broadcasts in communicating about the pandemic and consequently, fighting it.

1.2 Statement of the problem

Community Development, according to Anyanwu (1999), relies heavily on effective communication. This effective communication is able to help in community development because it helps in sharing of ideas and opinions while irrelevant ideas are discarded. Effective communication enhances participation of community members towards the achievement of the goals of a community. Creating awareness on COVID-19-related issues is a development issue. As far as COVID-19 is concerned, many people continue to act as though they are oblivious of the disease and its dreadful repercussions. Many ignore the COVID-19 preventive measures while other sources of misleading information compound the situation (PAHO, 2020).

Radio is a popular medium of mass communication in Ghana. There are forty legally operating Radio stations in Kumasi as at the end of 2018 (yen.com, 2018). These radio stations did a lot of broadcasts to help inform residents about the pandemic. They provided new information about the novel coronavirus as scientists discovered them, emphasized the prevention protocols, announced and educated residents on vaccines, their arrival and their importance in the fight against the pandemic. Many residents however act irresponsibly as far as the COVID-19 prevention protocols are concerned.

This study therefore seeks to find out if the broadcasts by these radio stations are proving effective in the fight against the pandemic.

1.3 Objectives of the study

The study has the following objectives:

1. To identify the informative role of radio broadcasts in the COVID-19 awareness creation in the Kumasi Metropolis
2. To identify the infomercial role of radio broadcasts in the COVID-19 awareness creation in the Kumasi Metropolis
3. To establish the effectiveness of radio broadcasts to the COVID-19 awareness creation in the Kumasi metropolis
4. To determine the perception of respondents about the use of radio as a COVID-19 awareness tool.

1.4 Research Questions

1. What informative role did radio broadcasts play in COVID-19 awareness creation in the Kumasi metropolis?
2. What infomercial role did radio broadcasts play in COVID-19 awareness creation in the Kumasi Metropolis?
3. How effective were radio broadcasts in the fight against the COVID – 19 pandemic?
4. How do people perceive radio broadcasts as a tool in the fight against the COVID-19 Pandemic?

1.5 Research hypotheses

H1: Radio will play a significant informative role in the COVID-19 awareness creation in the Kumasi Metropolis.

H2: Radio will play a significant infomercial role in the COVID-19 awareness creation in the Kumasi Metropolis.

H3: The radio broadcasts is significantly effective in COVID-19 awareness creation in the Kumasi metropolis.

1.6 Significance of study

Communication goes beyond the mere transfer of information. It involves advocacy, social mobilization and behaviour change. Mefalopulos, (2008) stated that it is about generating new knowledge and consensus to engender change.

Ghana has a liberal media landscape comprising 575 authorized FM stations in the country as at the second quarter of 2020 (NCA, 2020), 136 authorized television stations (NCA, 2021), 136 newspapers and many other online media platforms.

Radio stations are therefore the major mass media outlet in Ghana in terms of numbers. Of the 575 authorized FM stations in the country, 428 were in operation while 147 were not. 33 of these FM stations were publicly owned, 5 of them were foreign media houses, 81 were community radio stations, 21 campus stations and 437 were authorized as commercial radio stations. In the Ashanti region, there were found to be 83 radio stations (NCA, 2020).

FM stations also have a better distribution or reach across the various regions of the country. The programming of radio stations are also more flexible and can adjust at short notice to make room

for changes. The situation is different with other forms of mass media including Television and Newspapers which are more cumbersome to produce and is not as flexible and easily adaptable to change. Considering the availability of community radio stations and campus radio stations as the most popular, most accessible and targeting specific demographics, its role in dealing with the COVID-19 pandemic should be accessed and wherever possible, made more effective as a tool in dealing with future pandemics and mass problems.

This study is significant as it will help assess and improve COVID-19-related mass engagement as well as communication on other important issues of public interest.

1.7 Justification

The rate of infection and mortality of the COVID-19 pandemic has become a major cause of concern for many leaders around the world. The situation is not different in Ghana. Ghana is working hard to build a formidable public health system. The government continues to raise expenditure in the area of public health. This has had a lot of positive effects on the health of Ghanaians. It has contributed to the decrease in mortality, improvements in health outcomes and an improvement in the structure of Ghana's healthcare system and hence strengthening healthcare provision (Schieber, 2012).

In spite of the increasing expenditure however, financing of the country's healthcare system is still not adequate (MOH, 2015). Ghana for instance could not honor the Abuja pledge where governments promised to allocate 15% of their GDP to health (WHO,2013) and obviously, the insufficient budgetary health investment could not meet Ghana's rising healthcare needs (Schieber, 2012). The MoH also reported that budgetary allocation on healthcare rose from GH¢771 million

(US\$191.078 million) in 2011 to GH¢1750 million (US\$433.705 million) in 2012. Nonetheless, this increment was inadequate and has not made a significant impact (GHS, 2013).

As if these were not enough, Ghana's National Health Insurance Scheme (NHIS) has been affected by incessant financial losses which have affected the smooth running of the scheme (NHIS, 2010).

All these coupled with financial mismanagement in the public health sector have weakened the health structure's ability to solely face any serious public health crisis (Pillinger, 2011).

Communication is however a very important way to partner the Public health Department to ensure the country is able to deal with crisis. Radio stations cannot be sidelined in the country's quest to deploy adequate health communication to the masses.

This study, will utilize a combination of qualitative and quantitative techniques to explore how radio broadcasts helped in dealing with the COVID-19 pandemic, how effective radio broadcasts were during the pandemic and the strengths and challenges of radio as a tool for fighting COVID-19.

This study is important as it will help engender rapid and effective communication in times of pandemics and other crisis.

1.8 Scope

There are various types of radio stations such as commercial, community as well as campus radio stations in Ghana. This study, which focuses on COVID-19 related information dissemination, will pay particular attention to radio broadcasting related to COVID-19. For the purposes of this study, the Kumasi Metropolis will be used as a case study. Primary information will be sourced from Broadcast journalists as well as members of the public.

1.9 Limitation

The choice of radio is a limitation as other forms of mass communication played important roles in creating COVID-19 awareness creation and eradication efforts.

1.10 Organization of the study

This study was divided into five chapters. Chapter One introduced the research topic, its scope and the statement of the problem. It also shed light on the significance, justification and Objectives of the research.

Chapter Two outlined facts about the COVID-19 pandemic and its effect on various facets of the country's development. It discusses radio broadcasting in Ghana and shared thoughts and the work of researchers on the topic.

Chapter Three described the methodology used. It basically presented the research framework that was developed base on literature to answer the research questions.

Chapter four also presented the empirical data gathered via interview, questionnaires, observations, documentation review and some elicitations and their analysis based on some theoretical framework.

Chapter Five finalized and concluded the research by describing the most notable conclusions, suggestions and areas to be researched on in the future on how communication can ensure a project's sustainability.

CHAPTER TWO

LITERATURE REVIEW

This section covers issues such as communication, communication theories, development communication, electronic media, radio and its role in health campaigning as well as the advantages and disadvantages of radio as a health campaign tool.

2.1 Concept of communication

Different definitions exist for Communication. Mefalopulos (2008) considered communication to mean the transmission of information. Warnock (2007) also defined communication as the ability to give information, to make one's voice heard and to participate in discussion and debate. Keyton (2011) saw communication as a means of transmitting information and common understanding from one person to another.

Though there are more varied and complex definitions of communication, the above ones will suffice for the purpose of this study as they fit the purpose of radio broadcasts and their role in the dissemination of information, in this case on COVID-19.

2.2 Communication Theories

There are many different mass communication theories. These include structural and functional, cognitive and behavioral, interactionist, interpretive, critical theories amongst others. Kalyani, 2003 explains that the structural and functional theories consider social structures as real and function in ways that can be objectively observed. The cognitive and behavioral theories also focus on the psychology of individuals while interactionist theories see social life as a process of interaction. Interpretive theories explain how people understand their own experience. Critical

theories also concern themselves with the conflict of interests in society and the way communication perpetuates domination of one group over another.

There are other theories such as the Two Step Flow Theory, Uses and Gratification Theory, Diffusion of innovations theory and Development Communication Theory

Some core assumptions of the two step flow theory are that information from the media moves in two distinct stages, the first being that individuals who in this case are opinion leaders receive the information by paying close attention to the mass media. They then pass on their own interpretations together with the actual message. This theory shows that Opinion leaders are quite influential in getting people to change their attitudes and behaviors and are quite similar to those they influence. The two-step flow theory has improved our understanding of how the mass media influence decision making and has helped refine the ability to predict how media messages may impact audience behavior as well as an understanding of why some media campaigns failed to alter audience attitudes.

The Diffusion of Innovation Theory was first discussed by the French sociologist Gabriel Tarde (Toews, 2003) who plotted the original S-shaped diffusion curve, followed by Ryan and Gross who introduced the adopter categories that were later used in the current theory popularized by Everett Rogers. It stresses the importance of communication and peer networking within the adoption process.

As people adopt a new idea, product, practice, philosophy, and so on, an initial few are open to the new idea and adopt its use. As these early innovators 'spread the word' more and more people become open to it which leads to the development of a critical mass. Over time, the innovative idea or product becomes diffused amongst the population until a saturation point is achieved.

Rogers distinguished five categories of adopters of an innovation: innovators, early adopters, early majority, late majority, and laggards. Sometimes, a sixth group is added: non-adopters.

The Uses and Gratification theory originated from the functionalist perspective on mass media communication (Luo, 2002) and it might be characterized by an inductive method for developing classifications of different motivations and functions of media use (Ruggiero, 2000; Weiser, 2001). A basic assumption of this theory is that people are actively involved in media usage and interact highly with the communication media by building profile groupings of related uses and theoretically associated gratifications (Luo, 2002). The theory describes why consumers use a particular medium and what functions the medium serves for them (Katerattanakul, 2002).

Ruggiero (2000) claimed that the Uses and Gratification theory has provided “a cutting edge approach in the initial stages of each new communication medium: newspaper, radio, television, and now the Internet”.

A new theory of communication was later introduced; development communication theory, which essentially holds that “there is no development without communication” (Mefalopulos, 2003).

Quebral (1972) defined it as the art and science of human communication linked to a society's planned transformation from a state of poverty to one dynamic socio-economic growth that makes for greater equality and the larger unfolding of individual potential.

This theory is unique in that it propels development on many different levels. It has been built on by many scholars and forms the basis of this study.

Although many works link this theory to physical development of societies, it is also applicable in the case of pandemics such as COVID-19.

2.3 Development communication

Development communication involves the "integration of strategic communication in development projects" based on a clear understanding of indigenous realities (Manyozo, 2006). The onset of the COVID-19 pandemic was a period of inadequate information regarding the pandemic during which Ghana was at the precipice of panic and confusion. Communication had to be strategic and peculiar to various indigenous realities. There was need for communicators who for instance understand the local languages, beliefs of the people among other factors to enable effective communication.

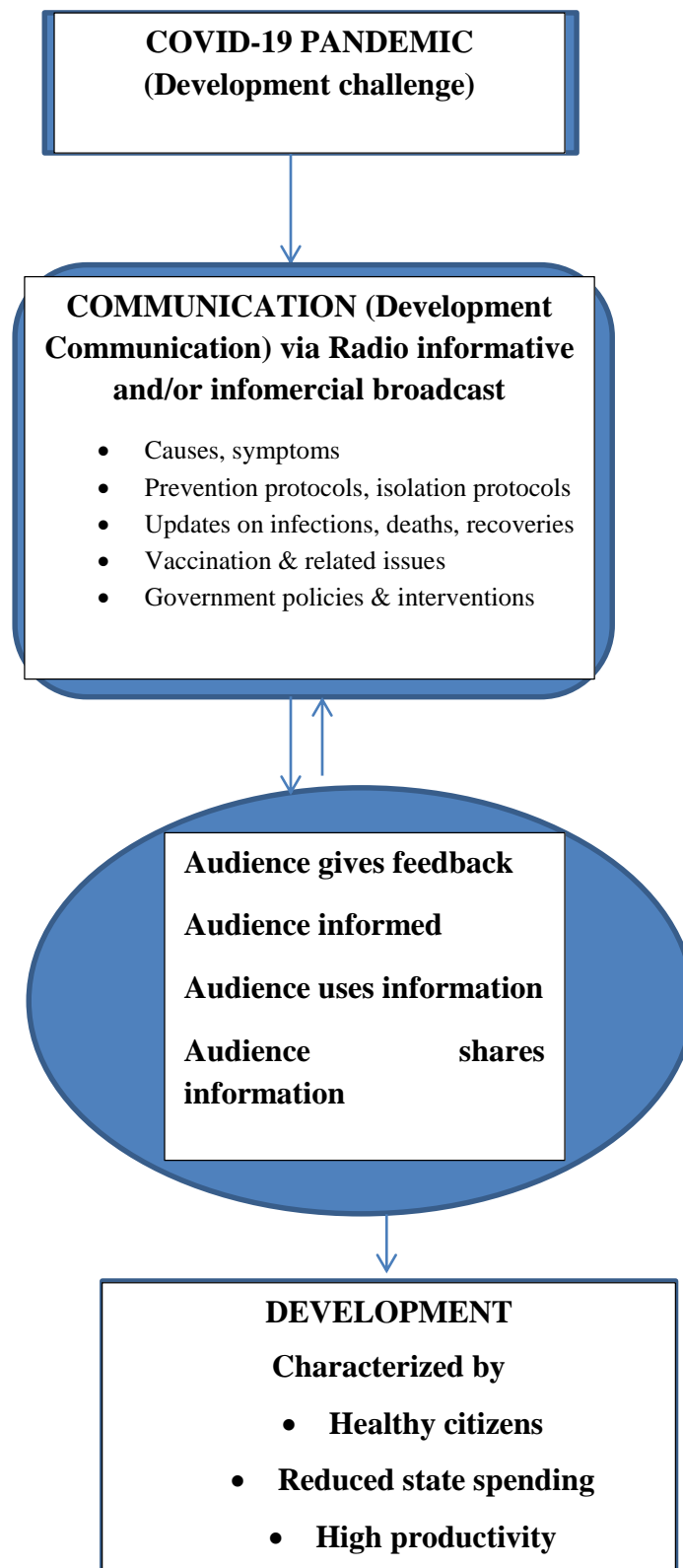
Development communication focuses on the use of media for development of people in a nation or to help the target population. It seeks to help people without manipulation while encouraging genuine response (Bajracharya, 2018). The pandemic was a matter of development as the world in general and Ghana specifically risked losing a significant chunk of her human resource base at a time that health resources proved woefully inadequate.

This study therefore will seek to refine existing views that relate development Communication to physical projects. It will also reveal how development communication deployed by communicators using the tool of radio helped in effective management of COVID-19.

2.4 Conceptual Framework

The conceptual framework of the research brings together the various issues of concern in the research. For this research, we consider such issues as COVID-19 pandemic, communication using the medium of radio as illustrated below:

Figure 2.1: Conceptual framework: The effectiveness of COVID-19 broadcast in the fight against the pandemic



The COVID-19 pandemic poses a serious development problem, which threatens to wipe out the human resource base of the country. Information and the appropriate and effective communication of such information using the choicest medium (radio) helps to connect scientists and health workers and hence makes authentic information available. Radio also allows for feedback which when used, enhances clarity of the subject. Once there is clarity on the problem and what needs to be done, people share the information and ensure that the right things are done. Once the disease incident comes down to acceptable levels (reduced threat), resources are diverted away from fighting disease to developing other sectors of the economy.

Radio broadcast informative role and COVID-19 awareness creation

Radio is a medium that has been known to adapt easily to crisis situations and has throughout history played important roles in times of natural disasters and health emergencies (Rodero, 2020). This flexible and adaptable nature of radio was observed in Ghana during the outbreak of the COVID-19 pandemic.

Programme syndication, a rise in the number of radio stations as well as augmentation with online media has placed radio and radio broadcasters in a better position to receive sound information and transmit same in a far reaching manner than ever thought possible.

There exists a lot of research on the informative aspects of radio broadcasting. There could however be further research on the capacity of broadcast journalists in their fields and also in the fields they seek to provide information on. The sources and quality of information they transmit can also be further investigated to assess the effectiveness of the medium for such important uses as mass health campaigns.

This informative role was highly pronounced as various programmes including entertainment programmes, sports programmes and other non-health programmes inculcated COVID-19 updates in their broadcasts. These updates came in the form of news on new infections, recoveries, and deaths. They also educated the public on COVID-19 safety protocols, testing centres, isolation processes for migrants

Radio broadcast infomercial role and COVID-19 awareness creation

An infomercial, according to the Longman Dictionary of Contemporary English is a long television advertisement that provides a lot of information and seems like a normal programme. Infomercials, during the pandemic were not as pronounced as regular informative programming. No work has been done on infomercials as they relate to health; a situation that creates the opportunity for researchers to study the popularity and effectiveness of infomercials for health campaigning and their potential in times of pandemics.

Alternative medicine practitioners usually utilized infomercials to sell products that claimed to boost immune systems against COVID-19 infection during the outbreak of the pandemic.

Most Radio stations saw the fight against the COVID-19 pandemic as a Corporate Social Responsibility and provided enormous amounts of free airtime to educate people on the pandemic and its associated issues. This made infomercial broadcasting less necessary in the pandemic era as airtime was readily made available and at no cost for COVID-19 related broadcasts (Siameh, 2021).

Effective radio broadcasts and COVID-19 awareness creation

Radio has become the most popular and effective medium for information dissemination to a larger audience in Nepal (Sharecast, 2018). Although television, newspapers and the internet all had their

role, radio seems to be the most vibrant, reliable and most consumed medium. The effectiveness of radio broadcasts in the COVID-19 fight stems from a variety of factors. One of such factors is that Radio, a medium asserted as the dominant communications technology that lends itself to use by poor people (UNAIDS, 1999). Radio is a technology with low production costs, with low infrastructure costs and with marginal costs of distribution close to zero.

As an aural medium, it does not exclude those who are unable to read or write and it is ideally suited for transmitting information in vernacular languages. For these reasons it comes as no surprise that radio has become an intimate and pervasive medium throughout the developed world and, at the same time, has penetrated into the remotest areas of the poorest countries.

Radio for health purposes at all levels including International, national and community based interventions have been expanded significantly in recent years (Dagron 2001) partly as a result of the deregulation of the airwaves in many developing countries following the realization that radio is cheap and effective as a means of mass communication of issues relating to policy, health, and health service delivery.

2.5 Radio in health campaigns

Health professionals have attested to the benefits of using radio as a means to broadcast health messages and have subsequently used radio to educate listeners about heart disease (Alcalay, Alvarado, Balcazar, Newman, & Ortiz, 1999; Long, Tauben-heim, Wayman, Temple, & Ruoff, 2008; Marx et al., 2009). In a similar vein, Fox, Averett, Hansen, & Neuberger (2006) have made use of radio in public education on West Nile Virus while Bauman *et al* (1991) have also utilized radio to wage a war on smoking and to encourage tobacco cessation. Other important matters of health including safer sex practices (Bradner, Ku, & Lindberg, 2000; Oh *et al.*, 2002), healthy

eating and physical activity (Beaudoin, Fernandez, Wall, & Farley, 2007) have been campaigned on using the media platform of radio.

The variety of radio programmes exposes individuals to important health messages which in many cases serve as the primary source of health information for many people (Dutta-Bergman, 2004, p. 279).

Recent studies has established how people come across health information and how they would like to receive such information (Cowan & Hoskins, 2007; Kelly, Sturm, Kemp, Holland, & Ferketich, 2009; Nguyen & Bellamy, 2006; Oetzel, DeVargas, Ginossar, & Sanchez, 2007). Radio broadcasts and public service announcements have stood tall as being effective mass health communication platforms (Freimuth & Quinn, 2004; Miranda, Vercellesi, Pozzi, & Bruno, 2009; Office of Disease Prevention and Human Promotion, 2000; Parrott, 2004; Rimal & Lapinski, 2009).

It is important to note that health information is sensitive and must be communicated effectively to create the needed awareness, knowledge, skills and social change (Nguyen & Bellamy, 2006; U.S. Department of Health and Human Services, 2004, p. 3).

The effectiveness of radio in public health campaigns has further been established by Hall (1978) in a Health practices Survey done in Tanzania.

2.6 Role of radio in COVID-19 fight

The importance of radio broadcasts in the wake of the COVID-19 crisis is explained in detail by the United Nations Educational, Scientific and Cultural Organization (UNESCO). In their publication; “Fostering access to health information on COVID 19 through community radio”, UNESCO stated the importance of radio in the fight against the pandemic. The publication

explains that the suitability of radio as the media of choice is due to the fact that it is the type of media that is nearest to the community and can reach and educate communities in local languages. The journalists who communicate on these radio platforms usually live in and know the communities better. Based on this advantage, a radio station is described as a lifeline for knowledge and connectivity to communities in which they are situated.

For radio however to justify its role in fighting a crisis such as the COVID-19 pandemic, it is important that the capacities of journalists and volunteers in the stations be beefed up with current knowledge on COVID-19 and skills for effective communication. UNESCO therefore has been training many journalists and volunteers in this regard (UNESCO, 2020). Training of journalists cover issues such as radio reporting during crisis, ethics, safety of journalists and debunking disinformation and fighting conspiracy theories.

According to Folarin (as cited in Okwu, Kuku & Aba, 2007), radio has always been a preferred medium of mass communication because it is easily understood by both laymen and intellectuals. Radio also serves as an effective tool of instruction because it is able to overcome the barrier of distance and reach a large audience quickly.

When the COVID-19 pandemic broke out initially, radio broadcasts played an important role in informing the Ghanaian public about the pandemic, infection mode, casualties, preventive measures, government activities and policies relative to the disease amongst many others.

People who wanted to remain updated on the pandemic consistently had to rely on radio broadcasts as they could listen from their phones, their cars, their offices or anywhere they found themselves.

2.7 Advantages and Disadvantages of radio in COVID-19 fight

There are both advantages and disadvantages of using radio as the medium of choice during crisis situations.

Arbitron (2008) highlighted some key advantages of radio that it is a low-cost, passive form of communication that holds the capability to reach listeners in different languages at home, at work, in stores, gyms, or in personal vehicles. The portable and accessible nature of radio devices are also advantages of radio.

Over 92% of individuals over twelve (12) years listen to some form of radio programming every week (Arbitron, 2008). Approximately 12% of the population listens to public radio at one or more times each week (Arbitron, 2009b). Arbitron (2008) has stated from his work that listening to radio is high across all age groups and “consumers tune in to one or more radio stations more than 2.6 hours a day to 18.5 hours a week.” These figures are evidence of the popularity of radio in any given population and hence attests to how many people love to listen to radio as the educational media of choice.

Another advantage of radio according to Folarin (as cited in Okwu, Kuku & Aba, 2007), is the fact that it has remained the preferred medium of mass communication and hence creates a platform with broad listenership.

Furthermore, it is easily understood by both laymen and intellectuals. Radio also serves as an effective tool of instruction because it is able to overcome the barrier of distance and reach a large audience quickly.

Radio is fast as it does not rely on photos or footages for broadcast and residents of a locality have high level of confidence for radio broadcasts as they may know and relate well to radio broadcasters within the community.

Radio broadcasts however have its shortcomings prominent among them being that there is usually no record of the broadcast for the audience. Neither is there any opportunity for the audience to refer to the publication for further understanding.

Radio can also be misused. A health message may be put out without adequate investigation; a situation that when discovered can lead to a loss of confidence in the broadcasts (Chitanda, 1990).

2.8 COVID-19 Radio Broadcast and misinformation

While radio has played a central role in the fight against COVID-19, a significant challenge broadcasters have faced and also posed at the same time is misinformation. Information is a fundamental resource for citizens in our society. Providing quality information to citizens helps them to form their own opinions and participate in activities of the society (Kovach; Rosenstiel, 2007). How people obtain information about relevant current events is important because it can have democratic consequences (Feenstra *et al.*, 2016). This may create divisions between informed and misinformed citizens, causing inequalities and imbalances that affect the principle of intrinsic equality, which is a premise for democracy (Dahl, 2006).

However, not all media stimulate information opportunities, political interest and knowledge, and participation in civic life in the same way. In recent decades, with the emergence and consolidation of digital technologies, the media system has experienced numerous transformations (Casero-Ripollés, 2018). A complex system characterized by the proliferation of channels and platforms, the multiplication of information providers, the abundance of communication, and the increase in

competition among the media has therefore been formed. As a result, a saturated news ecosystem has emerged where being informed is not an easy task. Increased disinformation (Bennett; Livingston, 2018), mistrust towards legacy media, political polarisation, fragmentation, and the configuration of a high-choice media environment (Van-Aelst et al., 2017) make it difficult for citizens to obtain valuable information on public affairs.

Around the world and in Ghana, fake news regarding the coronavirus has affected information flow about the pandemic. The World Health Organization (WHO) warned of a so-called infodemic of online misinformation (WHO, 2020). Public health officials raised the alarm that their messages were competing with a tide of misinformation and disinformation online during the onset of the pandemic (Zadrozny, 2020). The uncertainty surrounding the coronavirus, paired with intense global demand for information, created a perfect storm of speculation, conspiracy, and sharing of false or even harmful information. Complicating the situation, prominent public figures—including celebrities and politicians—were among the primary drivers of engagement around COVID-19 misinformation in early 2020 (Ricard & Medeiros, 2020).

Radio broadcast journalists in some instances either pick information from the wrong sources for onward transmission or allow themselves to believe wrong information which they come to own and transmit with conviction.

To some extent, Ministries of Health and some international organizations including UNESCO put together workshops to help build the capacities of journalists to help do away with misinformation and fake news.

2.9 Radio as an Electronic Media

Electronic media has facilitated the biggest changes in the history of man and continues to do so and at a rapid pace (Darren, 2007).

Xie (2015) defines Electronic media as media that can be shared on any electronic device for audiences use. Strauss (2016) also defines it as the use of electronic media and applications for planning and executing the distribution and pricing and to create transactions that fulfill invidious and company goals Electronic media include television, radio, World Wide Web (internet).

Electronic media has become a very important component of human life. According to Rettie (2002), electronic media is very important as a way of increasing consumer response. Hamid (2008) states that electronic media has great potential for companies and customers.

Radio comes under the umbrella of electronic media.

There are different types of radio subsector; Community, National/Public, Commercial and International.

2.9.1 Community radio

These are radio stations located within the community, which serve the community and have mostly community members as staff. Community radios usually have a strong commitment to local participation, social inclusion and social or community development (AMARC 2000).

2.9.2 National/Public radio

These involves radio that serves the public interest and which may be state owned and run, or state funded and independent (i.e. GBC). With this type of radio, broadcasts are done both at the national and local levels. Local public broadcasts reflect important local issues.

2.9.3 Commercial radio

Commercial stations are purely run for profit purposes and usually carry advertising. Although they are purely for profit, there are public service burdens placed on them either morally or as a matter of licensing requirement.

2.9.4 International radio services

These types of radio services broadcast in multiple languages and perform a mix of functions including the provision of news and entertainment services. They are inclined to be overtly propagandist and often reflect the foreign policy concerns of the countries from which they are broadcast.

2.9.5 Radio and the poor

UNESCO World Culture Report (2000) shows that radio represents a critical information lifeline for poor men, women and children. Comparative analysis of the density of radio and television ownership shows that in extremely poor countries such as Rwanda, for every television set owned there are 101 radio sets.

In a similar vein, in Nepal there are 7.1 radios owned per television set, in Sierra Leone and Ethiopia this figure stands at 20.8 and 43.9 radios per television respectively.

The UN ICT task force (2002) further endorses this assessment while observing that of the 816

million people living in Africa in 2001, 1 in 4 have a radio (205 million people), 1 in 13 own a television (62 million people), 1 in 40 have a terrestrial telephone line (20 million people) and 1 in 160 use the Internet (5 million people). They assert Radio as the dominant mass medium in Africa by far with the ownership of radio sets being far higher than any other electronic device.

The report also reveals that over 60 percent of the population of the sub-continent are reached by existing radio transmitter networks while national television coverage is largely confined to major towns (UN ICT Task Force 2002: 5).

Evidence like these buttresses the importance of radio to the poor and how powerful it could be as a tool for public health education.

Although radio is relatively cheaper and more evenly distributed amongst the poor, the extremely poor people find it difficult to afford radio devices and dry cells needed to operationalize them.

Nonetheless, ownership statistics usually overlook the fact that in some instances, people listen to radio in groups (social radio listening) and discuss or debate issues afterward.

2.10 COVID-19

The first human cases of COVID-19 were recorded in Wuhan City, China. The disease, now a pandemic caused by the novel coronavirus (SARS-CoV-2) has caused untold challenges to the world (WHO, 2020).

Major cities have been hit with many of them becoming epicenters of the disease. In Africa for example, major cities including Lagos, Accra and Johannesburg recorded high cases; a situation that changed the daily socio-economic and political lives of the citizenry (Asante, 2020).

As at 30 March 2021, Ghana had a case count of 90,674 and a positivity rate of 9.0% between March 2020 and March 2021. 744 people had died as at that period with 12 in critical condition (GHS, 2021).

In spite of these alarming pieces of information on the pandemic, many in Ghana continue to ignore the COVID-19 preventive measures (Bonful *et al*, 2020).

2.11 Kumasi Metropolis

Kumasi is the second largest city in Ghana and the capital city of the Ashanti region. The Kumasi Metropolis, with a total surface area of 254 sq Km (2010 census), is the most populous district in the Ashanti region with a population of 5,432,485 (2021 Census) accounting for 17.6% of Ghana's population (GSS, 2021).

Kumasi has over 41 radio stations (yen, 2019) and a number of television stations as well.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter explains the methodology for the study.

It details the procedures used and the reasons for using those procedures. It explains the processes involved in the collection, analysis, and presentation of data for this study.

The aims and objectives of the research determined the choices of the processes deployed.

This chapter discusses the research design, data type and source, sampling technique, unit of analysis, selection of study areas, determination of the sample size, data collection instruments and processing tools, analysis and presentation of data, and the research process.

3.2 Research Type

Research must follow a systematic method for its results to be valid (Bender et al, 2002).

The methodological approach chosen for any piece of research is designed to provide proper data to answer the research questions and to attain the research objectives. The research is an exploratory type.

Exploratory research is usually undertaken when the research subject is not well understood. When the area of investigation is new or unclear, or if the research variables cannot be clearly defined, an exploratory design is used. It provides the opportunity to learn new things about the subject.

The study deploys a case study approach. Case study can be defined as an empirical research method used to investigate a contemporary phenomenon, focusing on the dynamics of the case, within its real life context. Case study is an ideal method, when

1. The aim of research is to find answers to “why” and “how” types of questions
2. It is not possible to control the behavioral events Contemporary events are studied (Roth, 1999, Yin, 2003).

This research focuses on COVID-19 and the role of radio Broadcasts in helping fight the pandemic. The Kumasi Metropolis was chosen as a case to find out how radio stations there helped or otherwise in the fight against the pandemic.

Kumasi has a lot of people as well as many radio stations.

3.3 Data Type and Source

The study made use of both primary and secondary sources of data to obtain facts and also make the study more empirical. A combination of quantitative and qualitative will help make improve the research since both methods have different strengths and limitations.

Tashakkori and Teddlie (2006) support the argument that this type of approach produces better outcomes in terms of quality and scope.

3.3.1 Primary Source

Primary data was gathered using structured questionnaires and an interview guide.

The questionnaires were issued to individuals from the Kumasi Metropolis to measure their uptake of COVID-19 related information. It was administered to residents who may need help understanding the questions or answering them in writing.

The interview schedule is administered to Programmes Managers of selected radio stations.

This approach provided more in-depth discussions with the respondents.

3.3.2 Secondary Data

Secondary data, according to Saunders et al. (2009) is commonly used in management research such as case study and survey type research.

A desk study was conducted as a means of obtaining data from both local and foreign sources that were relevant to the role of radio broadcasts in the COVID-19 fight. Systematic review of relevant literature of textbooks, academic journals, conference and seminar papers, institutional publications and workshop resource materials were considered. A regular search on the internet was considered to identify relevant secondary data for the study.

3.4 Sampling Technique

The study used both probability and non-probability sampling methods. Specifically, purposive sampling techniques were used to select respondents to answer the questionnaire. Respondents had to respond positively to the question of whether or not they were ardent radio listeners. A negative answer precluded them from participating in the study as the study in particularly with radio

broadcasts. A consideration however is that people who consume radio may consume media content from other sources as well including television, online and newspapers.

Interviewees also had to be programme managers of selected radio stations. Programme managers are in charge of programming and assignment of broadcasting staff to programmes. They were therefore the best placed people within the radio stations to answer questions regarding COVID-19 programming.

3.5 Selection of Study Areas

In reference to Naku (2012), it is important to select areas with interesting issues that fully address the subject under study.

Preliminary interview with the selected radio broadcast journalists revealed that there were communities (audiences) for various radio stations for various reasons including language, religion, programming patterns, level of social responsibility to the community, community participation, social class, partisan leaning amongst others.

Based on this information, the study focused on such audience groups and such radio stations. The table below shows the selected radio stations and their audiences:

Table 3.1: Selected radio stations in the Ashanti Region and their characteristic audiences

No	Radio station	Characteristics of audience
1	Zuriah FM	Muslims, Hausa speakers
2	Focus FM	KNUST community, young music lovers, English speakers
3	Wontumi FM	Akan speakers
4	Spirit FM	Christians, mostly English speakers

3.6 Determination of the Sample Size

The 2021 population and housing census conducted by the Ghana Statistical Service (GSS) provided the bases for the calculation of the sample size to be used in the survey as regards the use of the questionnaire.

According to the census, the Ashanti region is the second most populous region in Ghana with a population of 5,432,485 (GSS, 2021).

Slovin's formula was used in determining the sample size. With regard to the level of accuracy, a confidence level of 90%, this means that there are 90 chances in 100 (or .90 in 1) that the sample results represent the true condition of the population within a specified precision range against 10 chances in 100 (or .10 in 1) that it does not.

$$n = N / (1 + Ne^2)$$

Where:

- n = Number of samples,
- N = Total population and
- e = Error tolerance (level).

Therefore, for this study, the sample size (n) is calculated as follows:

$$n = 5,432,485 / [1 + (5,432,485) (0.01)^2]$$

$$n = 100$$

3.7 Data Analysis and Presentation

Analysis of the data gathered was done using both quantitative and qualitative approaches. The data gathered using questionnaires were displayed to enable a diagrammatical and pictorial

representation for clarity and also to show what the data signify. Data obtained through the structured questionnaires were analyzed with the aid of SPSS and presented in tables of frequencies and cross tabulations.

Data obtained through interviews were also analysed qualitatively.

3.8 Training of Research Assistants and Pre-Testing of Questionnaire

Eight research assistants were trained to help in the collection of the field data using the questionnaire. These were people who were in the university, understand the local language and had some basic understanding of research. The nature of the study including the objectives was explained to them. They were trained on how to identify and speak to respondents.

They were closely supervised to ensure that the work was done accurately.

The questionnaire was pre-tested as a result of which some questions were rephrased and others taken off.

3.9 Profile of the Ashanti region

3.9.1 Location

The Ashanti Region is centrally located in the middle belt of Ghana. It lies between longitudes 0.15W and 2.25W, and latitudes 5.50N and 7.46N. It shares boundaries with Bono East Region to the North, Western Region to the West, Eastern Region to the East and Central Region to the South.

3.9.2 Population characteristics

Kumasi is the second largest city in Ghana and the capital city of the Ashanti region. The Kumasi Metropolis, with a total surface area of 254 sq Km (2010 census), is the most populous district in

the Ashanti region with a population of 5,432,485 (2021 Census) accounting for 17.6% of Ghana's population (GSS, 2021).

The population of the region is concentrated in a few districts. The Kumasi metropolis alone accounts for nearly one-third of the region's population. Slightly over half, 51.5 per cent, of the population of the region is in four districts. While more than half of the population in the region resides in urban areas, in 15 of the 18 districts, over half the population live in rural areas. The high level of urbanization in the region is due mainly to the high concentration of the population in the Kumasi metropolis (which has almost about a third of the region's population).

The age structure of the population in the districts is skewed towards the youth.

3.9.3 Social characteristics

Information on the levels of educational attainment and literacy show that between 40.0 and 50.0 per cent of the population in the districts, particularly, females either have no formal education or have only pre-school education. The proportions of the population with basic education vary from 67.7 per cent in the Kumasi metropolis to 86.9 per cent in the Amansie West District. Between 51.3 per cent (Kumasi metropolis) and 73.0 per cent (Amansie West) of the population currently in school are in the primary school. The proportions in JSS are low, ranging from 16.1 per cent to 22.4 percent, tapering down further to lower proportions at higher levels of education.

Illiteracy levels are high in the districts and higher for females than the males; the level is also higher in rural areas than in urban areas. Illiteracy rates vary from 26.0 per cent in Kumasi metropolis to 64.7 per cent in the Ejura Sekyedumase District. Only three Districts, Kumasi metropolis, Adansi West and Ejisu-Juaben, have illiteracy levels lower than the regional average of 40.4 percent (modernghana.com).



Figure 3.1: District map of Ashanti Region, Ghana (Ghana Statistical Service 2015)

Source: GSS, 2015

CHAPTER FOUR

ANALYSIS OF FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter presents the analysis of findings and discussions based on the data collected from the field on the role radio broadcasts played in the fight against the COVID-19 pandemic.

The socio economic and demographic characteristics of household are discussed here. Also, people's knowledge of the COVID-19 pandemic and associated issues are considered. Perceptions on how radio broadcasts impacted knowledge of the pandemic are assessed as well.

4.2 Socio-Economic and Demographic Characteristics of Respondents

The socio-economic and demographic characteristics are important in research as it throws light on the kind of respondents who participated in the survey. The respondents; residents within the Kumasi metropolis provided some basic and personal information about themselves which proved useful in analyzing the impact of radio broadcasts on the COVID-19 fight.

4.2.1 Sex, Age and Marital Status of Respondents

A total of one hundred (100) people comprising residents of the Kumasi Metropolis answered the questionnaires.

There were more male respondents i.e. 53% than female respondents i.e. 47% as shown in figure 4.1 below. Culturally, men have been more interested in radio current affairs programmes over the years. This may explain why more men welcomed the survey than women. It is important to get

women more interested in news and current affairs programmes on radio in Ghana considering their importance in shaping the family unit as well as society.

Table 4.1 below explains the age range of the respondents, indicating the lowest age as 18 and the highest as 67. The Mean age of the respondents was 33.71 signifying a youthful population.

Table 4.1: Distribution of age of respondents

Variable	Maximum	Minimum	Mean	Std. deviation	t-value
Age (years)	67	18	33.71	11.43	29.50***
Number of years education	18	2	10.49	3.91	26.85***

*** denotes 1% significance level of Age and Education variables

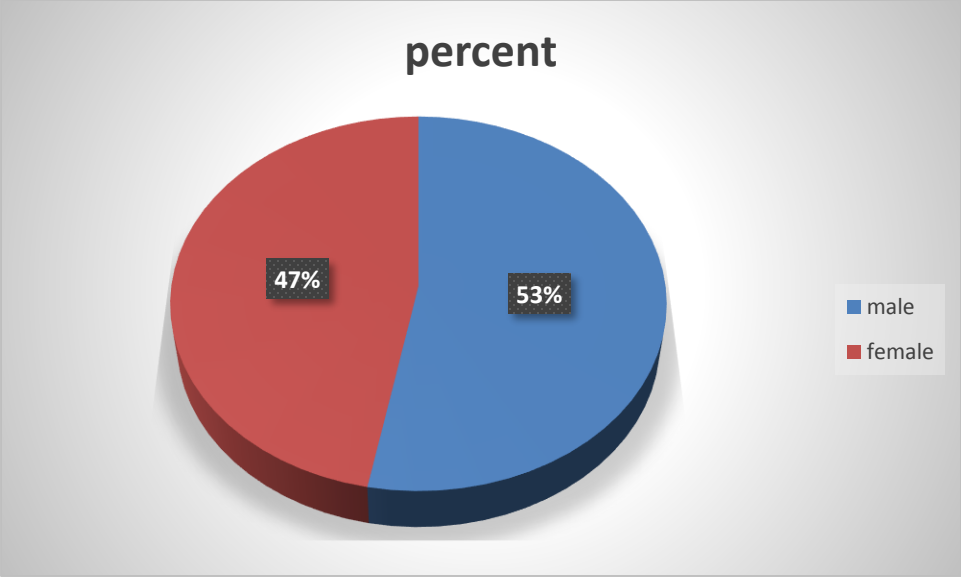


Figure 4.1: Distribution of respondents by sex

Regarding the marital status of respondents, majority of respondents (49%) were single while 42% were married with 7% divorced and 2% widowed as shown in figure 4.2 below:

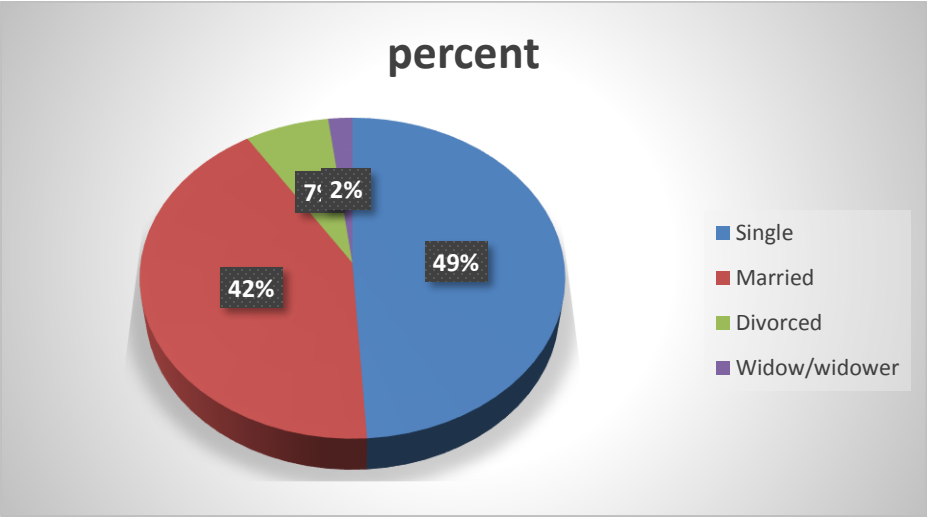


Figure 4.2: Distribution of respondents by marital status

The ethnic groups of respondents were also taken into consideration during the survey. The distribution of respondents by ethnic group is shown in figure 4.3 below:

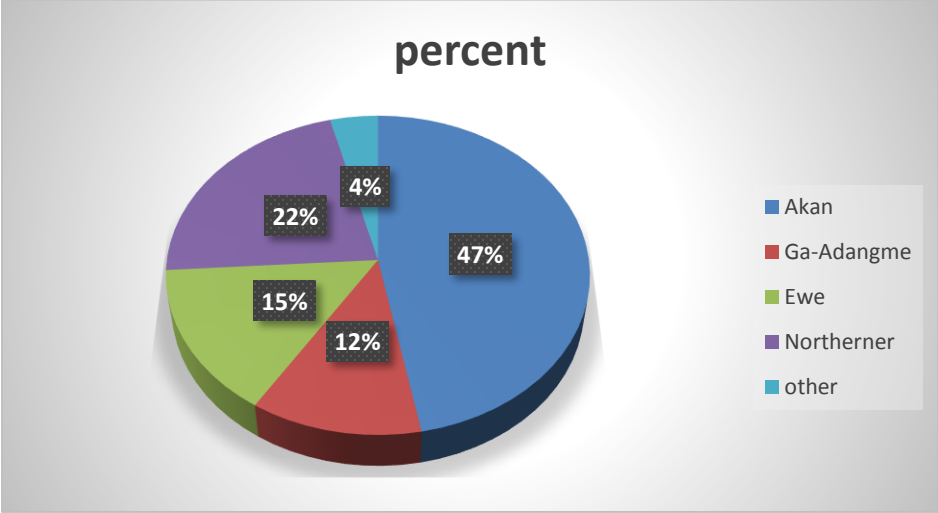


Figure 4.3: Distribution of respondents by ethnic background

The Kumasi Metropolis although cosmopolitan due to business activities, is predominantly an Akan area. In tandem with that, we found that 47% of respondents, constituting the majority, were Akan while 22% were of Northern extraction. 15% were Ewes, 12% Ga-Adangme and 4% constituted people from other ethnic origins outside those stated.

Figure 4.4 details the religious affiliation of respondents. As seen in the chart, majority; 65% of respondents to the survey were Christians while 25% of them were Muslims. 10% of the respondents identified with the African Traditional Religion.

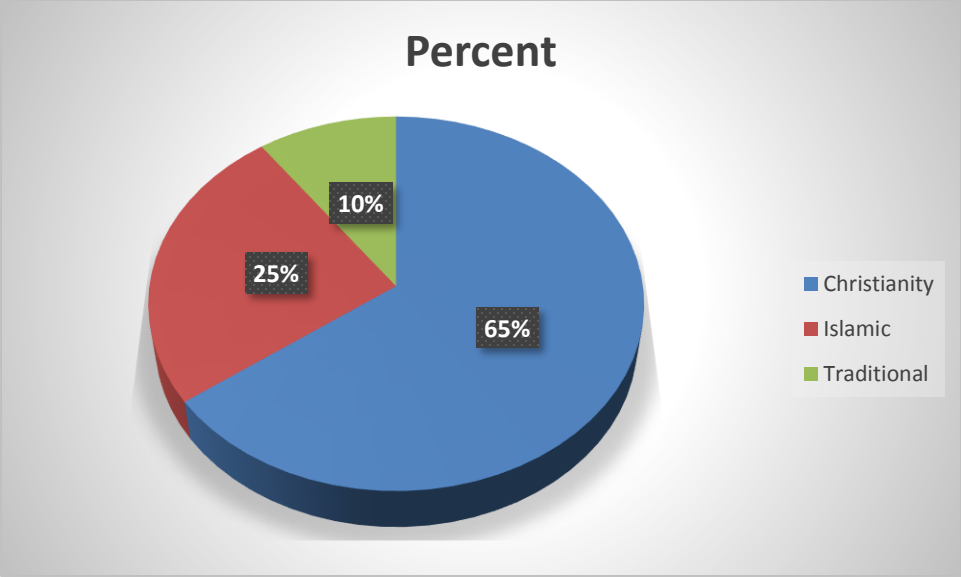


Figure 4.4: Distribution of respondents by religion

4.3 Sources, Channels and Types of COVID Information

4.3.1 Sources of Covid-19 Information

Politicians constituted the highest source of COVID-19 information source for the respondents. Generally, one would expect such important health-related information to come from health personnel. That however was not the case. Health personnel came second to politicians as the chart below portrays:

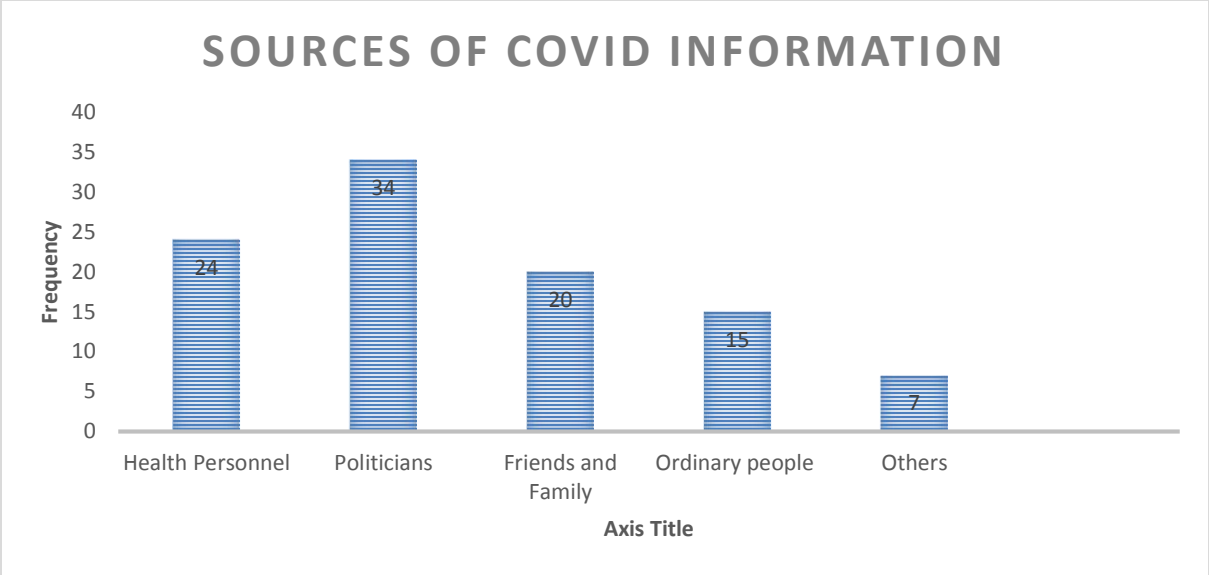


Figure 4.5: Sources of COVID-19 information

This gives an indication of the influence wielded by politicians in Ghana and suggests also that politicians are important stakeholders that cannot be side-stepped in important health campaigns.

The figure above also indicates that people take information from their relatives and friends very seriously even when such relatives are not necessarily experts in the field under discussion.

4.4 Types of COVID-19 Information

The questionnaire sought to find out which information about COVID-19 people heard and understood the most. As shown in figure 4.6 below, people paid closer attention to the COVID-19 preventive measures than any other type of information regarding the virus. The next thing people followed closely was the infection and Death rates. This is not surprising as interviews with programmes managers of the various radio stations indicated that these categories of information were emphasized and repeated over and over. This reveals that packaging important aspects of information off a whole and repeating it over and over will cause the message to be assimilated quickly and by many people.

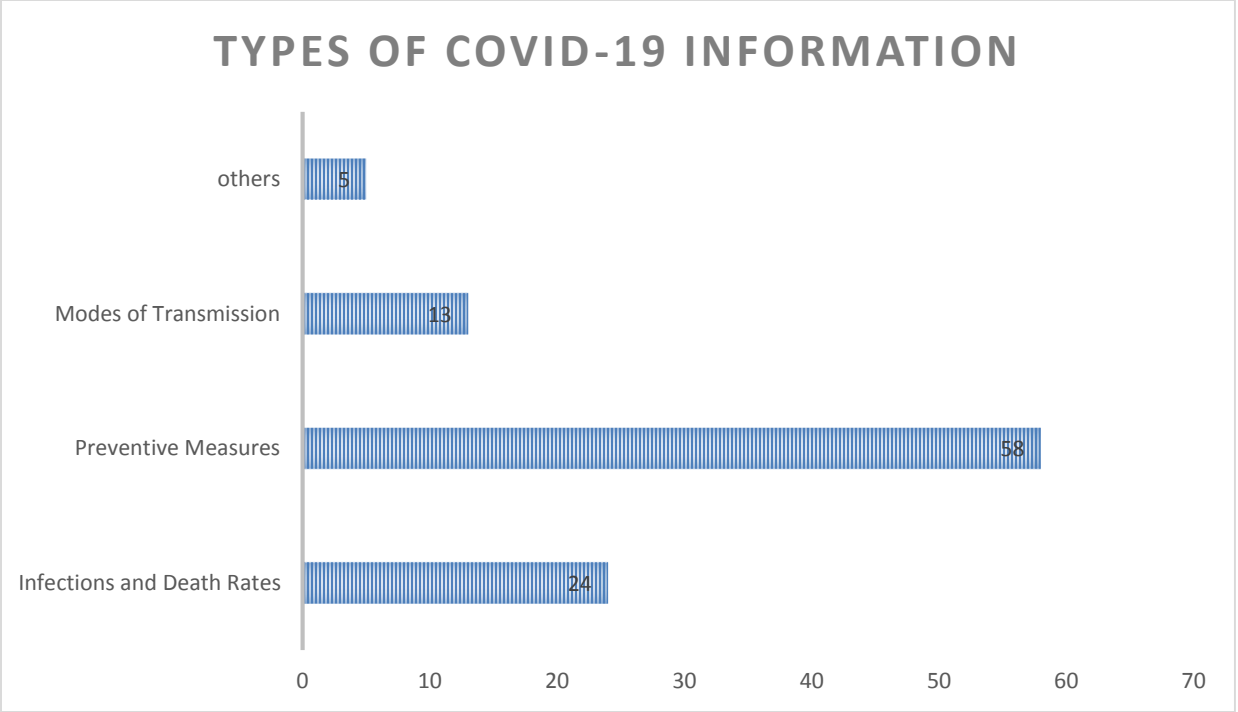


Figure 4.6: Types of COVID-19 information

4.5 Channels of COVID-19 Broadcast

Although the study had to do with radio, it was important to assess the other major information channels in order to establish the influence of the chosen medium of study. As evident in figure 4.7, radio was the most important source of information as far as the COVID-19 pandemic is concerned.

Radio was followed closely by television as the next information channel of choice with newspaper being the least monitored by the respondents in the Kumasi Metropolis for information related to COVID-19.

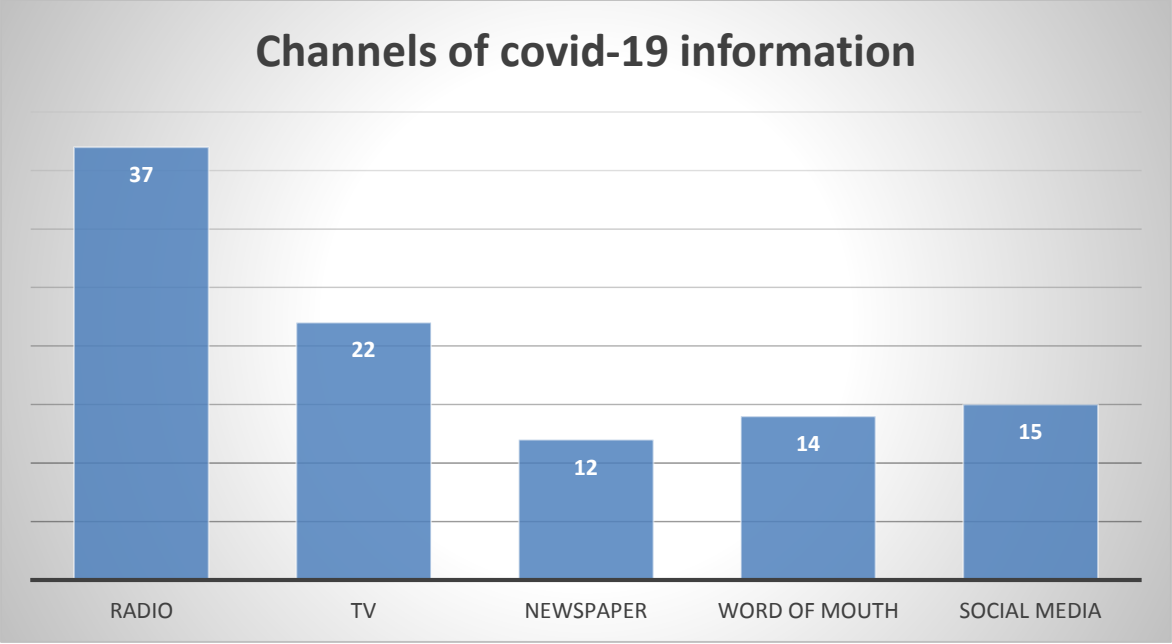


Figure 4.7: Channels of COVID-19 information dissemination

4.6 Impact of Broadcast channels on COVID-19 awareness creation

Table 4.2: Impact of Radio on COVID-19 Awareness creation

Covid-19 Awareness	Radio			Pearson-chi ²	P-value
	No	Yes	Total		
No	35	4	39	19.617	0.000
Yes	28	33	61		
Total	63	37	100		

Table 4.3: Impact of TV on COVID-19 Awareness creation

Covid-19 Awareness	TV			Pearson-chi ²	P-value
	No	Yes	Total		
No	27	12	39	2.865	0.091
Yes	51	10	61		
Total	78	22	100		

Table 4.4: Impact of Newspaper on COVID-19 Awareness creation

Covid-19 Awareness	News paper			Pearson-chi ²	P-value
	No	Yes	Total		
No	32	7	39	2.143	0.143
Yes	56	5	61		
Total	88	12	100		

Table 4.5: Impact of Social Media on COVID-19 Awareness creation

Covid-19 Awareness	Social medi			Pearson-chi ²	P-value
	No	Yes	Total		
No	33	6	39	0.0074	0.931
Yes	52	9	61		
Total	85	15	100		

Table 4.6: Impact of Word of Mouth on COVID-19 Awareness creation

Covid-19 Awareness	Word of mouth			Pearson-chi ²	P-value
	No	Yes	sum		
No	36	3	39	2.113	0.146
Yes	50	11	61		
Total	86	14	100		

From the tables above, radio contributed significantly to COVID-19 awareness creation. This is evident in the low p-value of 0.000 indicating a strong correlation between radio use and the dependent variable (COVID-19 awareness). The strong agreement between the two variables is also evident in the percentage (37%) of respondents who get their COVID-19 information from radio broadcasts.

The use of TV also shows a significant relationship with COVID-19 awareness creation however the effect is weak, since the variable is significant at 10%. This also means that the confidence level of this variable is 90 percent which is comparatively lower than that of radio (99%). Respondents must therefore listen more to radio than TV since results show radio broadcast is more effective at creating awareness about the deadly COVID-19 disease which is easily transmissible and has no known cure.

From the results above, it can be concluded that the use of newspapers, social media platforms such as facebook, twitter, whatsapp and Instagram and words from individuals do not impact COVID-19 awareness creation as much as radio. In fact, their impact is nowhere close to that of radio. This is indicated by the high p-values of 0.143, 0.931 and 0.146 respectively.

Table 4.7: Combined effect of various channels on COVID-19 Awareness creation

Covid-19 Awareness	Radio	TV	Social media	News paper	Word of mouth	Total	Peason chi ²	P-value
No	12	9	9	5	4	39	4.161	0.061
Yes	25	13	6	7	10	61		
Total	37	20	15	12	14	100		

Overall, the combined effect of the various information channels had a significant impact on COVID-19 awareness creation though the p-value (0.061) indicates a weak relationship between the dependent and the explanatory variables. This means that, as a result of the various channels

such as radio, social media, TV, newspaper and individuals talking about the pandemic, people became aware of the disease in terms of the cause, the mode of transmission and how it can be prevented

4.7 Effectiveness of Radio Broadcast (Information)

From the 37 respondents who get COVID-19 information from radio broadcast, 70 percent (26 respondents) of them consider the information from regular talk program, live presenter mentions and news as effective whilst 11 respondents representing 30 percent consider radio broadcast ineffective at delivering COVID-19 transmission and prevention news. This is seen visually from figure 4.8 below:

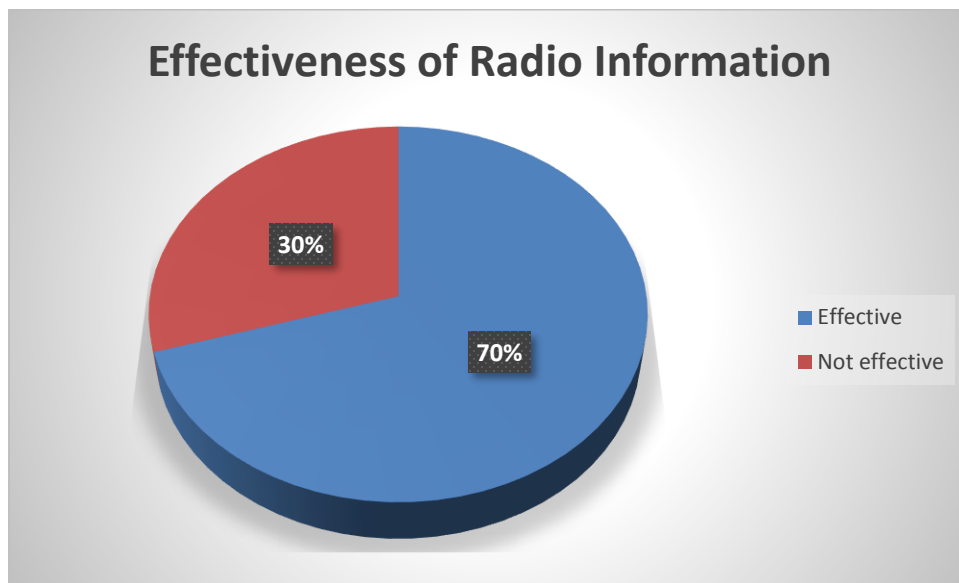


Figure 4.8: Effectiveness of Radio COVID-19 information

4.8 Challenges encountered during Radio Broadcast

From the figure below, 16 (of 37), representing about 44% of respondents who receive their covid-19 awareness information from radio said they encounter challenges with covid-19 broadcasts on radio. Some of the challenges reported include technical problems that has to do with difficulty tuning into some of these stations, others complained of the unfavorable time covid-19 news were broadcasted. Some have to do with personnel who give information on such a sensitive health related topic. For instance, most of the covid-19 related information was relayed and sometimes discussed by politicians rather than credible health officers.

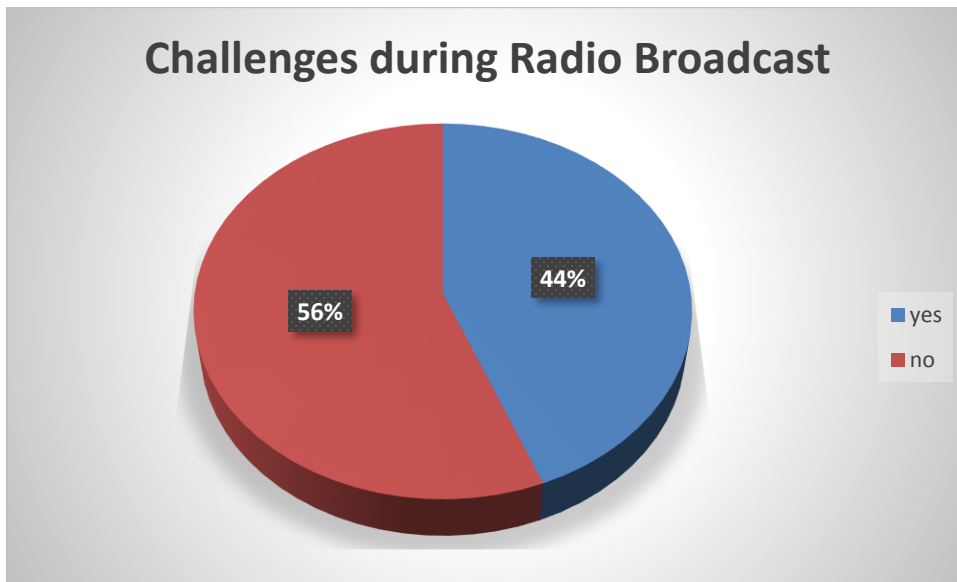


Figure 4.9: Challenges of COVID-19 Radio broadcasts

4.9 Perception Analysis of Covid-19 awareness

This section presents farmers' perceptions towards protein-based bait adoption. The respondents were asked to indicate the extent of their agreement on each indicator using a Likert-type five continuum scale of strongly agree, agree, neutral, disagree and strongly disagree with assigning a

$$W.M = \frac{[(fSA*5)+(fA*4)+(fN*3)+(fDA*2)+(fSD*1)]}{n}$$

weight of 5, 4, 3, 2, and 1 for positive statements respectively and vice versa for negative statements. For each indicator a weighted mean was obtained as follows:

Where; WM is the weighted mean, f = frequency, n = total sample size, the numbers 5, 4, 3, 2 and 1 are weights attached. SA, A, N, DA, and SD are perceptions of strongly agree, agree, neutral, disagree and strongly disagree respectively. The overall perception Index is estimated by totaling estimated weighted means (W.M) and dividing by number of perception statements (N) as below;

Table 4.8. Perception Analysis on Covid-19 Awareness

Perception Statements	Mean score	Standard deviation	Categorical Rank
Knowledge on symptoms			
Fever	3.52	1.218	6
Fatigue and weakness	3.89	1.171	1
diarrhoea	3.57	0.820	5
Stomach pain	3.11	0.931	9
Shortness of breath	3.85	1.077	2
Sore throat	3.84	1.293	3
Headache	3.46	4.281	7
Cough	3.31	1.169	8
sneezing	3.61	1.004	4
Perception Index	3.57	-	-
Knowledge on means of transmission			
Contact with contaminated surfaces	3.91	0.889	3
Contaminated foods and drinks	3.19	1.293	5
Pets can transmit covid-19	3.68	1.221	4
Handshakes and kissing	4.27	1.090	1
It is airborne	3.95	1.149	2
Perception Index	3.80	-	-
Knowledge on precautionary measures			

Hand washing with soap and water	3.87	0.928	3
Hand washing with alcohol and sanitizer	4.34	0.807	1
Wearing face mask	3.84	1.245	4
Wearing hand gloves	3.32	1.180	5
Observing social distancing	3.97	0.822	2
Perception Index	3.87	-	-

Knowledge on treatment options			
No treatment available	3.92	1.161	1
Antibiotics	2.40	0.985	4
Hot liquids	1.59	0.753	6
Taking alcohol	1.48	0.822	7
Herbal medicine	1.62	0.919	5
Vitamin supplements	3.36	1.389	2
Vaccines	3.12	1.578	3
Perception index	2.49		

Knowledge on susceptible people to covid			
Everybody is equally susceptible	2.81	1.061	1
People with underlying medical conditions are more susceptible	3.62	1.509	2
Adults are less susceptible	3.33	1.334	4
Children are more susceptible	3.20	1.484	5
Males are more susceptible	3.20	1.406	5
Females are less susceptible	3.37	0.906	3
Perception Index	3.26	-	-

Perceptions on radio broadcasts on covid-19			
Radio stations provide adequate information on covid-19	4.21	1.192	1
Broadcast times were optimal	3.57	1.130	2
Panelists on radio station programs on covid-19 were credible	3.21	1.325	3
Perception Index	3.66	-	-
Overall mean scores	99.17	-	-
Overall Perception index	2.83	-	-

Source: field survey, (2021).Scale: 4.5-5- Strongly Agree; 3.50- 4.49- Agree; 2.50- 3.49-Undecided; 1.50- 2.49-

Disagree; 1-1.49-Strongly Disagree

With perception index of 3.57, indicating agreement, respondents believe that the symptoms stated are observed in persons who have contracted the deadly covid-19 virus. Respondents rank symptoms such as fatigue and weakness, shortness of breath and sore throat as symptoms more pronounce among covid-19 patients. This is evident in the mean scores obtained as 3.89, 3.85 and 3.84 respectively. They were however undecided on whether stomach pain is also a symptom of the disease.

On knowledge of means of covid-19 transmission, there was agreement that the statements as indicated in table () are the various ways by which the disease can be transmitted. However, the agreement is not strong. Hand shaking and kissing ranked as the main means by which covid-19 disease can be transmitted. With a mean score of 3.95, they believe the disease is airborne. Perhaps this is the reason mask wearing as a precautionary measure is common among Ghanaians, particularly in the Kumasi metropolis.

In terms of the precautionary measures to take in the fight against this foe, respondents scored a high perception index of 3.87, which shows that, they believe the above stated measures are enough to protect them against the 2019 pandemic. Emphasizing the importance of regular hand washing with alcohol and use of sanitizer, social distancing, and regular hand washing with soap and water and the wearing of face mask, respondent scored high mean values of 4.34, 3.97, 3.87 and 3.84 respectively.

In terms of the treatment options perception statements, and with a perception index of 2.49, respondents were in disagreement with the treatment options and were of the view that there are no treatment options (mean of 3.92). They believe if these treatment options were effective, millions of human beings would not have died through the deadly virus. In addition, some are of

the view that, viral diseases do not have a cure since the causative agent is non-living and can become active in a living host.

In terms of the various groups of individuals who are more susceptible, respondents were undecided (neutral), showing that they are unaware of who is more susceptible to the disease. There is therefore the need for more education on the disease to help respondents, particularly in the Kumasi metropolis to better understand 'who' can be infected. However, they are aware of the danger the disease can pose to people with underlying conditions, evidenced by the mean score of 3.62.

In terms of the statements on perception on radio broadcasts on covid-19, respondents were in agreement with an index of 3.66, however, they were undecided on the credibility of panelists. This corroborates the result on sources of covid-19 information, where 34% of information came from politicians and a lower percentage (24%) coming from health personnel who should be at the fore-front fighting against the pandemic.

Overall, with perception index of 2.83, respondents were undecided on their knowledge on covid-19. Emphasis should be placed on educating respondents on the various groups of people who are more susceptible and also creating more awareness on the various treatment options available so as to enable people get attended to should infection occur. Awareness creation should be centered on both radio and Television since these channels were found to have more impact on covid-19 awareness creation in the study area. A particular attention should be paid to radio broadcast since most respondents have access to it coupled with the fact that there are a lot of radio stations in the metropolis. Furthermore this channel of broadcast was found to have the greatest impact on covid-awareness creation in the Kumasi metropolis as evidenced by its low p-value.

CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

The findings obtained from the field data on the role of radio broadcasts in the fight against the COVID-19 Pandemic was presented and analysed in the previous chapter (Chapter Four). This chapter, which happens to be the final chapter of the study, provides a summary of the major findings from the study. This is done in relation to the concepts identified from literature reviewed in Chapter Two, as it provided an understanding of the role of radio broadcasts in the fight against the COVID-19 Pandemic

Recommendations and possible areas for further research are also outlined in this chapter.

5.2 Summary of Findings

The purpose of this research was to explore the role of radio broadcasts in the fight against the COVID-19 Pandemic using the Kumasi metropolis as a case study.

Qualitative and quantitative research methods, including document reviews, semi-structured

Interviews and questionnaires were used to collect data pertaining to the specific research objectives:

1. identify the informative role of radio broadcasts in the COVID-19 awareness creation in the Kumasi Metropolis
2. To identify the infomercial role of radio broadcasts in the COVID-19 awareness creation in the Kumasi Metropolis
3. To establish the effectiveness of radio broadcasts to the COVID-19 awareness creation in the Kumasi metropolis

4. To determine the perception of respondents about the use of radio as a COVID-19 awareness tool.

The findings are therefore summarized in fulfillment of the objectives.

5.2.1 The informative role of radio broadcasts in the COVID-19 awareness creation

To determine the informative role of radio broadcasts in the COVID-19 awareness creation efforts, interviews were conducted with Programmes Managers of the selected radio station. The Programmes Managers control the programmes that are aired, the contents of those programmes and the presenters of such programmes. It came to light in those interviews that the focus of all these stations was to push out information to the listening masses as they had it from their reliable sources which included the Ghana Health Service and publications from the World Health Organization (WHO). All activities that were done were conducted with the aim of making information readily available. None of these stations charged money purposely for COVID-19 broadcasts as they considered such broadcasts a Corporate Social Responsibility (CSR).

Also 70% of those who responded to the questionnaire indicated that the information they received from radio was effective in helping them against the pandemic.

It can therefore be safely concluded that radio has played a primary and highly important informative role as far as the COVID-19 fight is concerned.

5.2.2 The infomercial role of radio broadcasts in the COVID-19 awareness creation

From the questionnaire, no one chose infomercial as their source of COVID-19 information. Many including media practitioners did not understand what an infomercial is. Again radio programme Managers interviewed indicated that no infomercials were done for COVID-19 awareness. A few

companies who however had infomercials, like any other programme took the opportunity to briefly say something about COVID-19 to the extent that it helped them sell their products. This however did not work for the respondents as none of them described or named any infomercial as their source.

5.2.3 The effectiveness of radio broadcasts to the COVID-19 awareness creation

70% of respondents stated that radio was effective as far as delivering vital information on the pandemic was concerned. The study establishes also that radio as a channel was effective; in-fact, the most effective. This coupled with well packaged information from makes radio a very formidable media for COVID-19 campaigning.

5.2.4 The perception of respondents about the use of radio as a COVID-19 awareness tool.

The perception analysis done in the previous chapter reveals that there is a strong positive perception of radio as a tool for COVID-19 fight and perhaps as a tool for other health campaigns.

5.2.5 Challenges of using radio in the COVID-19 fight

In spite of all the good things respondents revealed about radio broadcasts as a tool in the fight against the pandemic, a few of the respondents indicated some challenges. One of the major challenges were the source of the information. Inasmuch as radio is an effective medium, channeling information from incredible sources may pose a problem to gains in the fight against COVID-19.

Other users of radio indicated that they had challenges with frequency stability when they had to listen to the COVID-19 broadcast programme of their choice.

5.3 Recommendations

Considering the outcome of the survey, a number of recommendations are hereby made to enrich and make COVID-19 campaigns more impactful:

As stated earlier in the literature review, radio is fast, widely listened to and can be very personal with many listeners. This study has further established the dominance of radio as far as COVID-19 campaigns are concerned. Other media especially newspaper proved very ineffective in putting out COVID-19 information.

In order to make more impact therefore, it will be prudent to channel more resources into radio broadcasts on COVID-19 and cutback on the other channels such as newspaper and social media.

Secondly, it is obvious from this study that the credibility of the sources of COVID-19 information is not the best. Since politicians topped the list of those who were listened to on COVID-19 information, it establishes their level of influence. They should be trained and deployed on COVID-19 and any other similar campaigns to achieve effect.

Thirdly, more attention should be paid to the informative role of radio broadcasts as compared to infomercial role in such pandemic situations.

5.4 Conclusion

This work sought to amongst other things find out how effective or otherwise radio broadcasts have been in the fight against the COVID-19 pandemic.

It has been established that radio broadcasts indeed have proven very effective and have played a very important role in the fight against the pandemic, delivering salient information in timely manner to all manner of audiences using various languages.

The informative role of radio broadcasts was however well pronounced while not much happened as far as infomercial role is concerned.

Challenges with radio broadcasts according to this work have been stated which when overcome, would make radio broadcasts even more formidable in various pandemic situations.

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APPENDICES

APPENDIX 1: QUESTIONNAIRE

QUESTIONNAIRE

I am Julius Caesar Anadem, a Master of Science candidate of Ghana Institute of Journalism,	
Name of interviewer:.....	Date of interview:.....
Name of respondent:.....	Community:.....
Respondent's contact:.....	Questionnaire number:.....
Please write on the spaces provided, and tick [√] in the box where applicable.	

A: General Information

B: Personal Information

1. Age:.....years	2. Sex: <input type="checkbox"/> Male <input type="checkbox"/> Female
3. Level of education: <input type="checkbox"/> No formal education <input type="checkbox"/> Primary <input type="checkbox"/> JHS <input type="checkbox"/> SHS <input type="checkbox"/> Tertiary	
4. Number of years of formal education.....	
5. Marital status: <input type="checkbox"/> Single <input type="checkbox"/> Married <input type="checkbox"/> Divorced/Separated <input type="checkbox"/> Widow/Widower	
6. Ethnic group: <input type="checkbox"/> Akan <input type="checkbox"/> Ga-Adangbe <input type="checkbox"/> Ewe <input type="checkbox"/> Northerner <input type="checkbox"/> Other (specify):.....	
7. Religion: <input type="checkbox"/> Christianity <input type="checkbox"/> Islam <input type="checkbox"/> Traditional <input type="checkbox"/> Other (specify):	

C: Sources and channels of information on Covid-19

10. What is your main source of information on Covid-19? Doctors and other health professionals Politicians Ordinary people you know personally Ordinary people you do not know personally Other (specify):.....

11. What is your main channel of receiving information on Covid-19? Radio TV Social media Newspaper (online/print) Word of mouth Other (specify).....

12. Which radio station do you listen to the most for your covid-19 information?.....

13. What types of Covid-19 related information do you receive from radio stations?
 Updates on infections and death tally Information on preventive measures Information on modes of transmission Others (specify).....

D: Knowledge on Covid-19 (Please choose one option)

Knowledge on Covid-19	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Knowledge on symptoms of Covid-19 infection					
Fever					
Fatigue and weakness					
Diarrhoea					
Stomach pain					
Shortness of breath					
Sore throat					
Headache					
Cough					
Sneezing					
Knowledge on means of transmission of Covid-19					

Contact with contaminated surfaces					
Contaminated foods and drinks					
Pets					
Handshaking and kissing					
Airborne					
Knowledge on precautionary measures					
Hand washing with soap and water					
Hand washing with alcohol and hand sanitizer					
Wearing face mask					
Wearing hand gloves					
Observing social distancing and avoiding crowded areas					
Knowledge on treatment options for Covid-19					
No treatment available					
Antibiotics					
Hot liquids					
Taking alcohol					
Herbal medicine					
Vitamin supplements					
Vaccines					
Knowledge on susceptible people to Covid-19 infection					
Everybody is equally susceptible					

People with underlying medical conditions					
Adults					
Children					
Males					
Females					
Perceptions on radio broadcasts on Covid-19					
Would you say radio stations provided you with adequate information on Covid-19?					
Were the broadcast times optimal for you?					
Were the panellists on radio station programmes on Covid-19 credible?					
Did you encounter any challenges with Covid-19 broadcasts on radio?					
What was the nature of the programmes on which you mostly took your covid-19 updates? [tick the appropriate box(es)]	a. Regular talk programme <input type="checkbox"/>		e.		f.
	b. Live Presenter Mentions <input type="checkbox"/>				

	c. Infomercial <input type="checkbox"/> d. News <input type="checkbox"/>		
If you ticked a, b, or d above, how effective were the information to you? [tick the appropriate box(es)]	a. Effective <input type="checkbox"/> b. Not effective <input type="checkbox"/>	c.	d.
If you ticked c above, how effective was the information you obtained on the infomercial to you? [tick the appropriate box(es)]	a. Effective <input type="checkbox"/> b. Not effective <input type="checkbox"/>	c.	d.
Do you have any expectations of the radio broadcasts that were not met? Please state them.			

Appendix II: Interview Guide for Programme Managers of selected Radio stations

GHANA INSTITUTE OF JOURNALISM (GIJ)

STUDENT'S NAME: JULIUS CAESAR ANADEM

STUDENT'S ID NO: MADC 20050

INTERVIEW GUIDE

**THE EFFECTIVENESS OF COVID - 19 BROADCAST IN THE FIGHT AGAINST THE
PANDEMIC, A STUDY OF KUMASI RADIO STATIONS**

1. What is the name of your radio station?
2. How did the COVID-19 affect your station's activities?
3. Did you change your programming during the onset of the pandemic? Why?
4. How did your station contribute to the discourse on COVID-19?
5. Who did you target with your COVID-19 broadcasts?
6. Did you do infomercials?
7. Did you receive money from any organizations or outfits for COVID-19 programme?
8. Did you do COVID-19 related programmes free of charge?
9. Did you do interviews on COVID-19? How did you select your resource persons?
10. What were your sources of COVID-19 information?
11. How did you know your sources of COVID-19 information was credible?
12. What kind of feedback did you receive regarding your COVID-19 broadcast?
13. How would you assess the effectiveness of COVID-19 broadcast from your station in bringing down COVID infections and deaths?

Thank you.