PERCEPTION ON THE EFFECTIVENESS OF COMMUNICATION STRATEGIES EMPLOYED IN MANAGING COVID-19 PANDEMIC IN THE GREATER ACCRA REGION, GHANA

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ABSTRACT

Communication is critical in managing health crises. Where there is poor communication, crisis management in the health sector becomes a challenge. This research examined the views of Ghanaians on the effectiveness of communication strategies government adopted for managing COVID-19 using Greater Accra Region as a case. A total of 422 respondents completed a questionnaire on communication strategies. Frequencies, percentages, means, standard deviation and Kruskal-Wallis were used for analyzing the data obtained. The study revealed that diverse communication strategies including awareness creation, public education, advocacy communication, entertainment-education and behavior change communication were used for managing the pandemic. However, unlike awareness creation and public education which were perceived as effective strategies, advocacy

communication, entertainment-education and behavior change communication were regarded as generally ineffective in managing the pandemic. There were no significant differences in the views of respondents on the effectiveness of communication strategies adopted for managing the pandemic despite differences in their educational backgrounds. Respondents believed that illiteracy, language barrier, cultural and religious beliefs, and unclear compliance procedures were challenges to effective communication of the pandemic. Researchers recommend that the Ministries of Information, Health, Local Government and Rural Development, and Gender and Social Protection collaborate with the media and the National Commission for Civic Education to design tailor-made advocacy, behavior change communication and entertainment-education campaigns to alter long-held beliefs and practices which could impede government's efforts in managing health crises including COVID-19 pandemic.

1. INTRODUCTION

Promoting sustainable development within nations requires the provision of quality healthcare to the people (Jahrami et al., 2021; Ji et al., 2020). However, achieving quality healthcare for sustainable development has become a major challenge in recent times largely due to the COVID-19 pandemic. Indeed, the pandemic constitutes a major threat to healthcare and overall development of nations, putting human lives in danger (Aduhene & Osei-Assibey, 2021). Being diagnosed on 1st December 2019 at Wuhan City in China, the World Health Organization (WHO) affirmed the COVID-19 as a global Public Health Emergency of international concern. The world is overwhelmed by the deadly pandemic (Osei-Brobby et al., 2022).

The European countries had their share of COVID-19 with Italy, France, Spain, and the United Kingdom being the most affected (Aduhene & Osei-Assibey, 2021). The United State of America (USA) was estimated to have recorded over 5.7 million cases as at August 2020. In less than a month, the country added one million new infections to the existing cases. Indeed, around this period, the case counts in the USA were almost a quarter of the world's total infections (British Broadcasting Cooperation [BBC] News 2020). As of June 1, 2021, the global confirmed cases of COVID-19 stood at 170,426,245, with a total of 3,548,628 deaths (WHO, 2021). The effect of the

pandemic across the different sectors of society has been enormous (Osei-Brobby et al., 2022). For example, on the economic front the COVID-19 pandemic constitutes the heaviest crisis the world has witnessed especially in recent history (World Bank, 2020). The damage on the economic fortunes of nations led to a 5.2% fall in global Gross Domestic Product (GDP) in the year 2020 (World Bank, 2020; Zhou, 2021).

Sub-Saharan Africa has also been receiving its fair share of the COVID-19 infections, with the region recording 3,512,562 confirmed cases as of June 1, 2021. Apart from South Africa which has the largest number of confirmed cases in Africa (confirmed cases=1,665,617) and death (56,506), other countries including Botswana, Nigeria, Cameroon, and Ghana have all been hit heavily by the pandemic in several ways. Particularly, Ghana has recorded increased cases of infections which is a source of concern to stakeholders (WHO, 2021). On 12th March 2020, Ghana confirmed its first case of COVID-19 from two travelers who were coming from Turkey and Norway (Agyeman-Manu, 2020; Ghana Health Service [GHS], 2020). Just by March 17, 2020, a total of 143 suspected cases of infections had been confirmed by the Kumasi Centre for Collaborative Research (KCCR) and Noguchi Memorial Institute for Medical Research (NMIMR). Out of this figure, seven persons were found to have tested positive (GHS, 2020; Ministry of Health, 2020). Since then, there have been several reported cases of infections in Ghana. As of June 1, 2021, Ghana has 93,898 confirmed cases with 785 deaths (WHO, 2021).

Since the nation recorded its first COVID-19 case in March 2020, the Government of Ghana (GoG) put in place various measures to reduce the spread of the virus, including contact tracing mechanisms to identify and test individuals who had come into contact with infected persons (Ataguba, 2020; GHS, 2020). A critical part of the measures adopted included the use of communication in managing the pandemic. Ghana employed communication in its various forms to help in the management of the COVID-19 pandemic (Antwi-Boasiako & Nyarkoh, 2020). For example, the government agencies and other stakeholders relied on information dissemination and public education using both traditional and new media to help in fighting the disease. On a regular basis, the GHS provided update on the spread of the virus on its website coupled with multiple executive directives issued by the president in the interest of public safety. The Ministry of Information also periodically provided information related to the pandemic (GoG, 2020). According to Antwi-Boasiako and Nyarkoh (2020), various communication strategies such as awareness creation, public education and advocacy were employed in managing the pandemic in Ghana. Effective communication helps in promoting behavior change (Ontario Hospital Association 2021; Radwan & Mousa, 2020; Ratzan et al., 2020) through increasing preparedness and responsiveness to COVID-19 (Reddy & Gupta, 2020). Effective communication is a non-pharmaceutical intervention which can help improve patient adherence to certain behaviors that protect others from the virus (Ataguba & Ataguba, 2020; Coninck et al., 2021).

1.2 Problem Statement and Study Rationale

To efficiently manage health crises requires proper communication. Effective and coordinated communications promote behavior change, public health compliance and healthy living (Jallow et al., 2020; Radwan & Mousa, 2020; World Health Organization [WHO], 2023). Effective communication strategies, techniques and skills help to create and disseminate information, messages, and announcements on health conditions to enhance behavior change for improved healthcare (Ataguba & Ataguba, 2020; Jallow et al., 2020). In view of this, stakeholders including

governments are called upon to use communication effectively in health crisis management. Consequently, the government of Ghana employed communication, in its diverse forms, to manage the COVID-19 pandemic in the country. However, it is not clear whether communication strategies the government adopted were effective. Antwi-Boasiako and Nyarkoh (2020), Quakyi et al. (2021), and Odoom et al. (2021) raised concerns about the nature of communication employed in managing the pandemic in Ghana. The fear of these scholars seems to be based on the fact that communication on the pandemic by Ghana Government was done mainly in the official language. English Language appears to have dominated most of the discussions around COVID-19 pandemic in the media and on other communication channels and platforms. This means that Ghanaians would need a considerably high level of proficiency in English Language to meaningfully participate in and appreciate the discussions on the pandemic for improved compliance. Clearly, this situation could disadvantage many Ghanaians who cannot comprehend and express themselves in non-native language (Antwi-Boasiako & Nyarkoh, 2020; Odoom et al., 2021).

Furthermore, concerns including misconceptions, insufficient information and misinformation around the disease (Coninck et al., 2021; Odoom et al., 2021; Quakyi et al., 2021) could present a challenge to the effective use of communication in the management of the pandemic. However, since the outbreak of the disease in Ghana, no empirical research has been conducted to properly interrogate the level of effectiveness of the communication strategies Ghana adopted in managing the pandemic. In other words, there is knowledge dearth in terms of the extent to which the Ghanaian public perceived the effectiveness of communication strategies employed during the pandemic. The rationale of this study finds expression in the fact that effective communication is at the heart of sustainable management of health crises and COVID-19 pandemic is no exception. Where there is ineffective communication, managing public health crises including pandemics becomes very difficult (Rimal & Lapinski, 2009; WHO, 2023). It is, therefore, critical for researchers to examine public perception on the effectiveness of communication strategies used for managing the COVID-19 pandemic in Ghana in order to proffer suggestions to enhance the management of not only the COVID-19 pandemic but also future outbreak of pandemics. The study focused on the Greater Accra region. The selection of Greater Accra is based on the fact that the region was the worst hit region in terms of the number of infected cases in the country.

2. REVIEW OF RELATED LITERATURE

Communication is what defines who we really are as human beings. Communication involves an exchange of messages and information. It also refers to the symbolic exchange of shared meaning between and among people (Rimal & Lapinski, 2009). Carey, as cited in Rajiv and Rimal (2009), identifies two main functions of communication. These are the transmission and ritual functions. The transmission function of communication focuses on information exchange. This view of communication looks at the channels through which messages are disseminated, features of the messages sent, the type of audience receiving the messages, and the reactions of the audience. However, the ritual view of communication considers target audiences as members of social networks who constantly interact with each other, engage in social events, and obtain meanings from the creation of habitual behaviors (Carey, 1989; Rimal & Lapinski, 2009).

Communication is essential in every aspect of human life including health. It is at the heart of public health compliance and behavior change. Effective communication by stakeholders is extremely important in health management (Radwan & Mousa, 2020). The handling of crises

requires strategic communication. Effective communication strategies and methods are needed when creating and disseminating danger messages, announcements, alerts, information on health conditions, and other such messages (Ataguba & Ataguba, 2020; Jallow et al., 2020; Radwan & Mousa, 2020). As a major stakeholder of public health, government is obliged to use effective methods of communication to satisfy all the stakeholders in health crises (Ataguba & Ataguba, 2020). If government fails to explain its plans, the whole process will fall apart. It is expected that during a crisis, the government will strengthen its communication plan to help the people who may be in distress and are experiencing various challenges. Government communications are created to increase the effectiveness, compassion, and understanding of people to tackle the challenge of communicating through government channels regarding issues like COVID-19 pandemic (Ataguba & Ataguba, 2020; Radwan & Mousa, 2020). Many people believe that public institutions are effective because they can handle crisis situations. In general, government communication is useful in the management of the pandemic since it helps to provide information, clarify government goals, choices, and actions. Its aim is to get various messages through, such as informing the public about its choices, goals, and actions, as well as preparing them for any emergencies (Radwan & Mousa, 2020).

Apart from government communication, risk communication is vital during health crises. Risk communication is a technique for helping people learn how to react in the event of an infectious disease outbreak. It is a sort of communication which is participatory and raises awareness during potential hazards and calamities (Ataguba & Ataguba, 2020; Radwan & Mousa, 2020). The ability to accurately identify risk-taking situations and quickly analyze risk information, together with the creation of successful communication methods, will allow authorities to create an efficient communication strategy (Ataguba & Ataguba, 2020; Radwan & Mousa, 2020). In cases of dangers and emergencies, citizens need timely, complete, credible, and straightforward information from their elected leaders. Using credible sources of information help individuals stay away from false statements, rumors, and alternative facts. This keeps people feeling secure, even when they are exposed to potential misinformation (Bratu, 2020; Radwan & Mousa, 2020).

As a crisis, the COVID-19 pandemic has brought forth new issues for public sector crisis communication and management efforts. It is useful for government workers to think about the several approaches public sector groups have taken in response to COVID-19 (Radwan & Mousa, 2020). There have been many discussions on the harmful impact of muddled messages in the media especially at a time when concise, understandable, and transparent communication is necessary. Effective communication is a non-pharmaceutical intervention (NPI) that, when paired with COVID-19, can help improve patient adherence to behaviors that protect others from the virus (Ataguba & Ataguba, 2020). In most countries, programs were enacted to help decrease COVID-19 infection rates and transmission, as well as its treatment. These strategies operate on several levels; they are mostly in the domain of the non-health sector because they involve things like avoiding social activities and staying home, using face masks, and travel restrictions (Ataguba & Ataguba, 2020).

The pandemic has placed various demands on public officials and health communication groups. The frantic news cycle has created an environment of paranoia and mixed messages as the epidemic continues to worsen. To deal with the many social, cultural, and economic difficulties that arise due to the pandemic, a flexible communication plan with a proactive approach is necessary (Radwan & Mousa, 2020; Ratzan et al., 2020). There are countless ways to communicate risk, with hundreds of standards, concepts, and regulations to follow. A vital part of the ways

focuses on communicating, measuring risk, implementing communication tools, and assessing the decision-making process (Radwan & Mousa, 2020). A risk communication strategy's success is required to intimately link persons' understanding of the risk, attitudes, and behavioral change associated with the pandemic.

Also, improved media sector and communication technology promotes effective health communication and management (Radwan & Mousa, 2020). In their article, Mason et al. (2019) emphasized the importance of using digital media during a catastrophe to broadcast warnings, provide information on recovery efforts, and communicate operational messages. In particular, social media platforms and other digital services are useful in communicating, sharing, and working on the COVID-19 crisis (Jallow et al., 2020). Government communication in times of emergencies and massive public health risks should be transparent and open to all citizens. This communication should interact and coordinate with all individuals and organizations to raise their awareness and involvement in response efforts by sharing all necessary information and guidance. Communication should share recent information about infected individuals and the distribution of notifications regarding what decisions and actions are being taken (Ataguba & Ataguba, 2020; Radwan & Mousa, 2020).

Various studies have been conducted on the COVID-19 pandemic, with various results. For example, Jahangiry et al. (2020) examined risk perception related to COVID-19 among the Iranian general population. The study used the extended parallel process model. A cross sectional research design was used. The study sampled a total of 1933 respondents. The participant for the study were selected using WhatsApp, Telegram, and Instagram. EPPM designed questionnaire was used for the data collection. The variables that were examined under the study were risk perception (efficacy, defensive responses, perceived treat) related to the COVID-19. The analysis was conducted using descriptive statistics, chi-square, t-test, and analysis of variance (ANOVA). The study found that significant differences in efficacy, defensive responses, and perceived treat among different population groups.

To understand and appreciate fear and control during a pandemic period, Quick et al. (2018) sampled 435 college students from the Midwestern university. Behavioral dimensions that relate to health threat were examined. The study examined efficacy appraisal, threat appraisal, fear, freedom threat, attitude, psychological reactance, message minimization, and negative cognition. Quick et al. (2018) found that fear positively and significantly influence favorable attitude and freedom threat. Efficacy on the contrary negatively and significantly influence freedom threat. Freedom threat act as a mediator between fear and reactance, while reactance mediates the relationship between freedom threat and message minimization (Quick et al., 2018). Cheng (2020) on his part focused on social-mediated crisis communication by revisiting dialogue between organizations and publics in crises of China. The study adopted a content analysis technique on 61 selected journals on the subject matter of crisis communication that were published from 2006 to 2018. The study used the qualitative research design to understand the phenomenon. Contextual factors such as face and favor, relationship (Guanxi) and sentiment (Renqing), and the centralized political system that may facilitate/inhibit dialogue in crises of China were identified in this study.

Ataguba and Ataguba (2020) explored the role of communication in the COVID-19 pandemic in developing countries. The study used the exploratory research design framework to provide information on the measures adopted by most countries within developing economies to contain and control COVID 19. Measures identified in the study included good hygiene, social distancing,

cancelling of social and sports events, avoiding large gatherings, schools, and restaurants closure, using personal protective equipment, and country lockdown. The study also identified risk communication as key in the fight against COVID 19. Effective communication was identified to be crucial social determinant of health for COVID 19. The study again, identified that countries in their effort to guide the communication during the pandemic must adapt and modify the WHO COVID-19 Global Risk Communication and Community Engagement Strategy (RCCE).

As part of managing COVID-19 pandemic, many applications were created by governments across the globe, which enabled individuals to get information about the situation, monitor their health, and find out what to do (Ataguba & Ataguba, 2020; Radwan & Mousa, 2020). It is believed that to acquire information on diseases and enhance illness preventive methods requires access to trustworthy information channels and sources. In developing countries like Ghana, the communication from government in the management of the COVID-19 pandemic has been done primarily in formal language with translations occasionally done in local languages. Those who do not understand the official language of Ghana are faced with the challenge of fully understanding what is communicated in the official language. The only option available to those who cannot understand the official language is to rely on others for understanding. Clearly, this is not an effective way of generating public and enhancing understanding and knowledge about the disease. What is more, the National Commission for Civic Education (NCCE) and the Information Service Department which are charged with the responsibility of providing public information and education around issues such as health are facing diverse constraints including inadequate resource. These agencies are, therefore, constrained to effectively provide relevant information, messages and education on the pandemic in local languages across the country (NCCE, 2020; Thompson et al., 2020). Indeed, this situation constitutes a challenge to the level of effectiveness of communication strategies adopted for managing the disease in the country.

Measures to change behaviors and promote health compliance for healthy living amidst the COVID-19 pandemic are mainly communicative. The channels, sources, receiver and messages which characterized interventions for managing the pandemic are communicative. Messages about social distancing are equally communicative (Rimal & Lapinski, 2009). Nevertheless, even though studies have been done on the pandemic, not much attention has been paid to public perception on communication strategies adopted for managing the disease especially in Ghana. This creates a knowledge gap as far as the management of the pandemic is concerned in Ghana.

3. METHODOLOGY
The research was purely quantitative, with respondents drawn mainly from the various sectors of the economy such as education, health, agriculture, the media, and the entertainment in the Greater Accra Region in Ghana. A convenience sampling method was used to select 422 employees in the various sectors in the Region. Convenience sampling method enabled the researchers to select respondents based on their accessibility and availability within a given location. Its usage depended on the motivation of the respondents to provide data for the study (Stratton, 2021). Participants completed a questionnaire, which was made up of closed-ended questions. The questionnaire was distributed via Google Forms which was sent to various social media platforms including WhatsApp and Telegram. Apart from background information on respondents, the questionnaire sought to identify the specific communication strategies adopted five-point Likert scale (1=Strongly Disagree [SD]; 2=Disagree [D]; 3=Not Sure [NS]; 4=Agree [A]; 5=Strongly Agree [SA]) format.

The questionnaire also solicited the views of respondents on the level of effectiveness of communication strategies employed for the management of the pandemic. A six-point Likert scale was used, with 6 representing very highly effective (VHE), 5 representing highly effective (HE), 4 representing moderately effective (ME), 3 representing lowly effective (LE), 2 representing very lowly effective (VLE), and 1 representing undecided (U). The last section of the questionnaire looked at the perceived challenges in communication during the management of COVID-19 in the Region using a five-point Likert scale: 1=very lowly agree; 2=lowly agree; 3=moderately agree; 4=highly agree; 5=very highly agree. The use of Google Forms was informed by the need to ensure social distance in the face of COVID-19 infections. The approach enabled the researchers to follow the government's social distance safety protocols. The questionnaire was administered over a period of one month, between May and June 2021. After collecting the data, Cronbach alpha was calculated for the study to determine the internal consistency of the instrument. An alpha of 0.965 obtained suggests that the study had a high internal consistency (George & Mallery, 2003). Frequencies, percentage, means and standard deviation were used to present descriptive findings. Kruskal-Wallis was relied upon to examine the differences in marital status of respondents and their perception on the challenges in communication of COVID-19 pandemic. Similarly, Kruskal-Wallis was used to determine the difference between educational level of respondents and their views on the effectiveness of communication strategies adopted for managing the pandemic. To address ethical issues in this study, the researchers obtained the consent of the respondents. Again, respondents were informed that their participation was voluntary. Finally, respondents were assured of confidentiality of the information they would provide.

4. RESULTS AND DISCUSSION

This section looks at the results and discussion of the study in two ways. It mainly considers the demographic features of the respondents and the results based on the research aim. On demographic features, Table 1 shows that 45 percent of the respondents were males whilst 55 percent of them were females. This shows that the majority (55%) of Ghanaians who took part in this study were females. Again, 31.3 percent of the respondents were in the age of 30-34 years whereas most (92.9%) of them had educational qualification up to the tertiary level. Also, on marital status of respondents, Table 1 shows that the majority (54.5%) of them were single.

Table4. 1: Demographic features of respondents

Sex	Frequency	Percentage (%)
Male	192	45
Female	230	55
Age (years)		
Below 25	36	8.5
25-29	72	17.1
30-34	132	31.3
35-39	116	27.5
40 and above	66	15.6
Educational Level		
Basic education	2	0.5
Secondary education	28	6.6
Tertiary education	392	92.9
Marital Status		
Single	230	54.5
Married	184	43.6
Divorced	4	0.9

Widow	4	0.9

Source**:** Field Survey (2021)

Communication strategies employed in the management of the pandemic
On the issue of communication strategies used for managing COVID-19 in Ghana a number of revelations were made (Table 2). The majority (86%) of the respondents generally agreed that COVID-19 one communication strategy adopted by the country was awareness creation. Respondents believed that awareness creation has been one of the communication strategies adopted by the government of Ghana in managing the disease. As part of the awareness creation strategy, sign language was used to reach those who were deaf and dumb, and the messages to create awareness about the pandemic were delivered using caravans in various districts across the country. This study affirms the report by Duti (2021) that awareness creation is a communication strategy employed for the management of COVID-19. Duti (2021) further asserted that various religious leaders, for example, used their platforms to help in creating awareness about the existence of the virus. The result further agrees with earlier studies (Odoom et al., 2021; Quakyi et al., 2021) which showed that Ghana, through various media platforms, used awareness creation to communicate vital issues about the pandemic to the citizens.

Table 4.2: Communication strategies employed in the management of COVID-19

Strategy	SA f(%)	A f(%)	U f(%)	D f(%)	SD f(%)
Awareness creation	121(28.7)	242(57.3)	24(5.7)	25(5.9)	10(2.4)
Public education	121(28.7)	246(59.3)	20(4.7)	20(4.7)	15(3.6)
Advocacy communication	101(23.9)	260(61.6)	26(6.2)	5(1.2)	30(7.1)
Entertainment education	21(5.0)	342(81.0)	14(3.3)	35(8.3)	10(2.4)
Behavior change communication	120(28.4)	238(56.4)	24(5.7)	35(8.3)	5(1.2)
The use of ICTs for communication	118(28)	132(31.3)	32(7.6)	72(17.1)	68(16.1)
Regular bi-weekly press briefing	56(13.3)	106(25.1)	126(29.9)	90(21.3)	44(10.4)
There is stakeholder engagement	84(19.9)	136(32.2)	30(7.1)	48(11.4)	124(29.4)
The use of mainstream media platforms for communicating issues on COVID-19	110(26.1)	146(34.6)	84(19.9)	44(10.4)	38(9.0)

Source**:** Field Survey (2021)

In addition to awareness creation, public education was widely recognized as communication strategy adopted by the government (88%). Health and public officials educate the public on the need to wash their hands with soap under running water. They also educated the public on the use of face mask, and hand sanitizers. The public education efforts were strongly championed by various stakeholders including the government sectors, religious bodies and the media. The finding on public education corroborates Odoom et al. (2021) who found that public education was a critical communication strategy Ghana used during the COVID-19 pandemic. The authors contend that public education on how citizens could protect themselves and other people from contracting the disease has been a common strategy used by stakeholders in the country. Health and public officials provided education and regular updates on the pandemic which helped to create awareness about the spread of the virus. This helped to empower ordinary Ghanaians to adopt suitable measures to protect themselves and other people from the disease.

Further, 85.5 percent of the respondents affirmed that advocacy communication is a communication strategy used in communicating information and messages on COVID-19. This result validates the position held by Servaes (2000) and Mefalopulos (2005) that advocacy

communication is a communication strategy used in pursuing a certain cause of action. Advocacy communication uses communication techniques and methods to influence targeted audiences to support a given cause. It involves all efforts aimed at influencing decisions, public perceptions, policies and the political climate. Advocacy communication also helps in generating public support and commitment towards intended changes (Mefalopulos, 2005; Odoom, 2020; Servaes, 2000).

Moreover, most (86.0%) of the respondents admitted that entertainment education was a strategy used in managing the pandemic. Messages were provided by various public and private organizations in the form of entertainment-education programs to help reduce the spread of the virus. As a communication strategy, entertainment-education involves the use of a well-tailored pieces of entertainment to bring to light social problems and how to address them. As a very useful communication strategy, entertainment-education employs the universal charm of entertainment to display to people how they can live happier, safer and healthier (Singhal & Rogers, 1999). Entertainment-education is characterized by clearly defined strategies, approaches, techniques and procedures aimed at communicating social and behavioral changes through various media platforms. In this era of COVID-19 where there is so much social distancing, leveraging on entertainment-education promises to be one powerful strategy governments can communicate measures to curb and control the spread of the virus to the people. Furthermore, the study revealed that behavior change communication (84.8%) and ICTs (59.3%) were part of the strategies used for COVID-19 communication in Ghana. Adopting behavioral change communication in managing situations such as COVID-19 has become very necessary because it has the tendency to shape people's attitude, norms, and beliefs about COVID-19.

In addressing COVID-19, government relied on stakeholder engagement (52.1%), though a significant number (47.9%) of the respondents did not see it as being employed. The result on the use of stakeholder engagement is in agreement with previous studies (Duti, 2021; Serwornoo & Abrokwah, 2020). COVID-19 is a worrying issue both at the local and national levels. The involvement of stakeholders in the communication process and strategies is the surest means to ensure effective management it. The regular and/or period Presidential addresses on COVID-19 further consolidates the interaction with the public, and rightly consolidated by efforts by state institutions such as NCCE, GHS, and the Ministry of Health.

More so, the study confirmed the use of various media platforms in communicating messages around the pandemic to the citizens. This finding is not different from previous studies (Odoom et al., 2021; Quakyi et al., 2021; Serwornoo & Abrokwah, 2020) which suggested that in communicating issues on COVID-19 in Ghana, various media platforms were used. During the most critical periods of the pandemic, stakeholders including the media provided various forums where experts could communicate measures citizens could adopt to deal with the pandemic. Various communication channels and platforms were offered to some experts such as medical doctors, virologists, economists, and researchers in academia to discuss various issues regarding the pandemic (Serwornoo & Abrokwah, 2020).

Views of respondents on the effectiveness of communication strategies employed for managing COVID-19
Views of respondents on the effectiveness of communication strategies employed in managing COVID-19 pandemic in Ghana were also explored as evinced in Table 3. In addressing this

objective, researchers relied on a six likert-scale which focused on key communication strategies. A mean range of 6 and 1 was used, with 6.00 representing Very Highly Effective, 5.00 representing Highly Effective, 4.00 representing Moderately Effective, 3.00 representing Lowly Effective, 2.00 representing Very Lowly Effective, and 1.00 representing Undecided [Table 3]. Mean scores obtained were all reported in approximations. The respondents perceived awareness creation (M=4.96), public education (M=5.01), the use of ICTs (M=5.12), press briefing (M=5.47) and the use of various mainstream media platforms (M=4.96) as highly effective communication strategies.

Table 4.3: Views of respondents on the effectiveness of communication strategies employed in the management of COVID-19

Strategy	Mean	SD
Awareness creation	4.96	0.12
Public education	5.01	1.65
Advocacy communication	3.41	0.22
Entertainment-education	3.03	0.54
Behavior change communication	2.44	0.98
The use of ICTs for communication	5.12	0.88
Regular bi-weekly press briefing	5.47	0.36
There is stakeholder engagement	3.45	1.33
The use of various mainstream media platforms for communicating issues on COVID-19	4.96	0.22
Overall	4.20	0.59

Source**:** Field Survey (2021)

Though advocacy communication (M=3.41), entertainment-education (M=3.03), stakeholder engagement (M=3.45) and behavior change communication (M=2.44) were used in managing the pandemic, they were perceived to be generally lowly effective. This implies that advocacy communication, entertainment-education, behavior change communication and stakeholder engagement throughout the crisis period were not very effective in the Region. This revelation is very problematic because the Greater Accra Region was the badly hit region in Ghana as far as the spread of the virus is concerned. Effective communication during a public health crisis goes beyond provision of messages. It hinges on interactive process of exchange of relevant information and views of individuals, groups and organizations (Hyland-Wood et al., 2021).

Again, the finding on stakeholder engagement is at variance with the position held by Hyland-Wood et al. (2021). The authors contend that properly engaging stakeholders such as communities is critical in any effective communication strategy in crisis situations. It is believed that when effective communication strategies are employed by relevant agencies, they help engender public trust, confidence, and subsequently compliance with the required behavior change measures (Hyland-Wood et al., 2021). On the whole, Ghanaians perceived communication strategies adopted for managing the pandemic as moderately effective (M=4.20, SD=0.59). This means that more needs to be done in terms of communication strategies to help in the fight against the spread of the virus. Hyland-Wood et al. (2021) believe that more effective communication strategies need to be employed by stakeholders in order to successfully handle crisis situation such as the spread of diseases. The authors called for the use of emerging technologies and digital devices for communication and engagement as a way of tackling pandemics such as COVID-19.

A further analysis was conducted to determine the difference between educational level of respondents and their views on the effectiveness of communication strategies adopted in the management of COVID-19 (Table 4). The significance level (p= 0.920) is greater than the alpha value of 0.05. This shows that no significant differences existed between educational level of respondents and their overall views on the effectiveness of communication strategies adopted for tackling the pandemic. In short, respondents had the same views on the communication strategies adopted in managing the pandemic regardless of differences in their educational backgrounds.

Table 4. 4: A Kruskal-Wallis test analysis on educational level of respondents and their views on the effectiveness of communication strategies adopted in the management of COVID-19

Educational level	N	Mean Rank	X^2	Df	Sig. (2-tailed)
Basic education	2	219.00	0.166	2	.920
Secondary education	28	220.30			
Tertiary education	392	210.83			
Total	422				

(Statistic is significant at 0.05):   df = degree of freedom; X^2=chi-square
Source**:** Field Survey (2021)

Perceived challenges in communication of COVID-19 pandemic
The researchers also explored the perceived challenges associated with communication on COVID-19 pandemic in the city (Table 5). To address this objective, means were calculated based on a scale of 1 to 5, with 5 representing the highest mean and 1 representing the lowest mean. Respondents highly agreed that misconceptions on the pandemic (M=4.078) and false and unclear information on the nature of the virus (M=4.111) were challenges which hindered communication on the pandemic. The revelations on misconceptions and false information converge with previous studies (Coninck et al., 2021; Quakyi et al., 2021; Tabong & Segtub, 2021) which established that misinformation and misconceptions about the pandemic largely affected communication on the disease in Ghana. Misconceptions and false information tend to reduce trust in any other information on the pandemic which is communicated to the populace. Quakyi et al. (2021) added that a more effective communication strategy could reduce misinformation about the virus.

Table 4.5: Perceived challenges in communication of COVID-19 pandemic

Perceived challenge	Mean	SD
Misconception on the pandemic hinders communication.	4.078	0.110
False and unclear information on the nature of the virus	4.111	0.221
Too much stress hinders information processing.	3.701	0.107
Too much unpredictability around the virus hinders communication on the pandemic.	4.443	0.432
Long-held cultural beliefs hinder people's readiness to accept messages on the pandemic.	4.051	0.990
Fear and other unpleasant emotions causing a change in the perception of a threat hinders communication.	4.341	1.135
People's inclination to believe they are not vulnerable to contract COVID-19 hinders communication.	4.078	0.110
Long-held religious beliefs inhibit efforts to communicate COVID-19 messages.	4.801	0.106
Illiteracy among some citizens hampers communication on the pandemic.	4.050	0.760
Lack of clarity on compliance procedures hinders communication.	3.804	0.220
Political activities hindered adequate communication on the pandemic.	4.330	0.813
Language barrier.	3.031	0.460
Resistance to innovation hinders people's readiness to accept messages on the pandemic.	4.711	0.114

Source**:** Field Survey (2021)

Also, with a mean score of 3.701, respondents approximately highly agreed that too much stress hinders information processing, and it constituted a challenge to communication on the pandemic. The finding on how stress hinders information processing validates previous studies (Bless & Burger, 2017; Liberman & Trope, 2014). The authors opined that when people are stressed, they make decisions which are not well-informed. Stress affects mental abstraction which causes people to lose self-control and act inappropriately. Thus, the stress associated with the pandemic means that people are likely to reject messages communicated to them however well intended they are.

In addition, long-held cultural beliefs (M=4.051, SD=0.990) and people's inclination to believe they are invulnerable and would not contract COVID-19 (M=4.078, SD=O.110) also inhibited how they could understand and act on communications around the pandemic. The result on people's inclination that they are not vulnerable to the virus mirrors that of Halpern et al. (2020) who found that people's inclination to believe they are not vulnerable to the virus constituted a major blow to how they understand and act on communications around the virus. Moreover, many persons saw COVID-19 as a religious and spiritual issue and that dealing with it would require only religious measures such as prayers and fasting. They mostly reject the safety protocols, basing it on the fact that their religious beliefs could help them overcome any 'attack' of the virus. Religious fundamentalists raise false hope in other preventive measures whose efficacy cannot stand any scientific scrutiny (Barua et al., 2020; Coninck et al., 2021).

Besides, fear and other unpleasant emotions (M=4.341, SD=1.135) which led to increased change in perception of threats hampers communication on the pandemic and long-held religious beliefs (M=4.801, SD=0.106) were perceived as a challenge to effectively communicating COVID-19 issues to the masses. This revelation mirrors the views expressed by Bavel et al. (2020) which suggest that fear and other unpleasant emotions can cause a change in the perception of a threat. Once people become afraid and anxious, they become easily confused which affects the sort of messages communicated to them and how they receive and accept them. The study further discovered that language barrier (M=3.031, SD=0.460) and illiteracy among some citizens (M=4.050, SD=0.760) were challenges to effective communication on the pandemic. This results largely buttresses literature (Antwi-Boasiako & Nyarkoh, 2020) which suggested that language barrier hinders communication strategies employed to curtail the spread of the virus in Ghana. However, the finding on language barrier departs from the expectations of Ontario Hospital Association (2021) which indicate that using the right language is a vital tool for effectively managing communications related to crisis situations such as the COVID-19.

Finally, the researchers examined the differences between marital status of respondents and their overall perceived challenges in communication of COVID-19 pandemic (Table 6). It is clear from Table 6 that the significance level (P=0.241) is higher than the alpha value of 0.05. This implies that no statistically significant differences occurred between marital status of respondents and their overall perception on the challenges in communication on COVID-19 pandemic.

Table 4.6: A Kruskal-Wallis test on differences between marital status of respondents and the overall means on perceived challenges in communication of COVID-19 pandemic

Marital status	N	Mean Rank	X^2	Df	Sig. (2-tailed)
Single	230	215.99	4.200	3	.241
Married	184	208.73			
Divorced	4	197.88			

Widow	4	94.00			
Total	422				

(Statistic is significant at 0.05):   *df = degree of freedom;* X^2=chi-square
Source**:** Field Survey (2021)

5. CONCLUSION

As a country, Ghana employed various communication strategies such as awareness, public education, advocacy, entertainment-education and behavior change communication to manage the COVID-19 pandemic. These communication strategies generally helped to prevent further spread of the virus in the country. Especially during the initial stage of the virus, government relied heavily on flow of information to warn the public and also assuage anxieties about the disease. Additionally, respondents perceived communication strategies employed in managing the pandemic as not very effective. Particularly, advocacy communication, entertainment-education, and behavior change communication strategies adopted were generally seen as ineffective. Further, despite the differences in their levels of education, respondents had the same views on the need to use more effective communication strategies for managing crisis situations such as the COVID-19. Also, illiteracy, stress, misconception, language barrier, false and unclear information, long-held religious beliefs and lack of clarity on compliance procedures are common challenges to the effectiveness of communication strategies needed to manage the spread of the disease in Ghana. These challenges are very rampant in Ghana regardless of the differences in people's marital status. Although at the moment Ghana has released almost all the restrictions which were part of the preventive measures of the virus, communication on hand-washing and using Veronica Buckets with running water and soap in public spaces should continue. Generally, people are not accustomed to the washing of their hands in public, particularly at service stops. It will take time for people to develop the habit of often washing their hands. Education on the importance of practicing social distancing needs to be improved upon. Leveraging on private media houses to communicate government stance on COVID-19 will go a long way to consolidate efforts to reducing the spread and impacts of the pandemic on the country's economy. This approach is particularly important since there are numerous or large numbers of media houses within Accra.

5.1 Recommendations

In view of the conclusions of the study, the following recommendations have been provided:
1. Citizens in the Region are urged to continue to observe basic health practices including personal hygiene in order to stay healthy and contribute to the development of the country.
2. The Metropolitan, Municipal and District Assemblies (MMDAs) in the Region should liaise with relevant agencies including the various health directorates and media organizations to design clear behavior change campaigns, advocacy communication, and entertainment-education programs to deal with the disturbing impacts of health crises.
3. The MMDAs in the Region should team up with religious bodies, civil society organizations and traditional authorities to devise measures to demystify the lethal religious and cultural beliefs around COVID-19. This will help religious and cultural extremists to better appreciate the need to change their perception, attitude, and beliefs on the pandemic.
4. The Ministries of Health, and Local Government and Rural Development should team up and develop behavior change communication strategies to reach target audience and/or people within the Region who have very different characteristics.

5. The Ministries of Information, Gender and Social Protection, and Local Government and Rural Development should train their personnel on how to effectively roll out advocacy communication and entertainment-education campaigns aimed at managing health crises.
6. Government should effectively resource the NCCE and Information Service Department to enable them to properly perform their roles of educating the citizens on the appropriate behaviors during health crises.

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