Influence of mass media exposure on knowledge, attitude and practice of COVID-19 preventive strategies among Nigerian mass media users

*NGOZI JOY ONYECHI, PH.D.

Abstract
COVID-19 pandemic is a serious public health problem that has resulted in unprecedented human and material losses globally. Although the mass media play critical role by providing people with information for its infection prevention control (IPC), public media exposure during health emergencies can be a double-edged sword in influencing citizen's knowledge, attitude and practice (KAP) of preventive strategies. This study investigated influence of mass media on knowledge, attitude and practice of COVID-19 preventive strategies among Nigerian mass media users. The study adopted health belief model (HBM), cross-sectional online survey and snow-ball sampling technique in administering questionnaire to 432 respondents. Descriptive statistics were employed in analyzing the data while Spearman's rho was used to establish relationship between the variables. The overall KAP findings showed good knowledge(n=424;98.1%), positive attitude(n=428;99.1%) and good practice(n=245;56.7%) of preventive practices. Exposure to mass media information on COVID-19 did not have any significant influence on respondents' knowledge, attitude and practice of COVID-19 preventive strategies. The findings raise concerns about misinformation and fake news that trail COVID-19 pandemic and call for closer collaboration between media practitioners and stakeholders in the health sector in ensuring Nigerians are provided with accurate and persuasive information about the recommended practices for COVID-19 control and management.

Key Words: Mass Media, COVID-19 Pandemic, Nigeria, Attitude, Knowledge

Introduction

The world was alerted of the outbreak of a serious health problem, COVID-19 which was caused by the novel SARS-CoV-2, which rapidly threatened the very existence of people globally. As the world contended with understanding the seriousness of the virus, the devastating impact continued to spread across the globe in unprecedented and scary ways. Before COVID-19 was designated as such, the source of the virus was shrouded in controversies and mysteries. While epidemiological investigations had suggested that the outbreak of COVID-19, was associated with a seafood market in Wuhan, China (Wu et al., 2020,) initial queries regarding the contacts and speed of transmission were rife (Karasneh et al., 2020).

Although the virus was first reported in Wuhan, China in December, 2019(Zhu, Wei & Niu, 2020), at the end of January 2020, the World Health Organization (WHO) designated COVID-19 as a public health emergency of international concern and called for the global collaborative efforts to prevent the rapid spread of the virus (Alshareef, Yunusa & Al-Hanawi, 2021). COVID-19 was upgraded and declared a global pandemic in March, 2020 by WHO (Tang et al., 2020). This decision was prompted by the rapid rise in the number of COVID-19 cases within and outside China. As at April 21st 2020, the confirmed number of cases was 2,555,760 with about 75,254 new cases globally, and these numbers were increasing continuously around the world, with the USA emerging as the new COVID-19 hotspot (WHO cited by Karasneh et al., 2020). At this point the world was racing against time and needed to quickly mobilize to deal with further spread of the virus.

Communication is a key driver in the containment of any disease outbreak, especially for a disease that does not have any effective vaccine and/or cure. Consistent, accurate and effective communication during disease outbreaks is an important factor in containing them (Reynolds & Quinn, 2008). Researchers (such as Ufuophu-Biri & Bebenimibo, 2021) have variously alluded to the role that the mass media play in an attempt to achieve a desired health outcome, especially during disease outbreak. By

Author's Bio
*Ngozi Joy Onyechi, Ph.D., is a senior lecturer at the Department of Communication and Language Arts, University of Ibadan. Her research areas focus on developmental communication (health and political communication) and media studies.

disseminating health information, the mass media increase health awareness and education and ultimately help in the change of attitude and behaviour in the mass population for achieving better health outcome (Wakefield, Loken & Hornik, 2010, Sharma & Gupta, 2017, Karasneh et al., 2020). During disease outbreak, the media affect the public cognitively and emotionally and guide them toward particular responses (Zhang, Kong & Chang 2015). In essence, exposure to the mass media could engender knowledge gain and positive attitude towards the disease, which could ultimately result in the adoption of a desired preventive strategy by the populace.

However, media exposure during public disease outbreak could be a double-edged sword that might have both positive and negative consequences. Although in the event of a public health emergency like COVID-19, or a disaster, information sources, especially mass media, help people make sense of the situation, learn precautionary measures, and reduce anxiety caused by the uncertain situation, they can also create new problems (Chao, Xue, Liu, Yang & Hall, 2020) such as misinformation (Karasneh et al. 2020, Mian & Khan, 2020, Ekezie & Bosah, 2021, WHO cited in Alshareef et al., 2021). Alluding to the dangers of misinformation, especially during this pandemic, Laato, Islam, Islam and Whelan (2020a) stated that the content available from these sources may amplify the risk perceptions and fear, especially when individuals cannot discern between real and fake news, adversely affecting the mental health and well-being of the masses.

Since the outbreak of the COVID-19 pandemic, generally, mass media use, especially social media, among the populace has increased exponentially and is unprecedented. Social media usage may have significantly increased during the COVID-19 global crisis because of its capacity to engage audiences in multi-way conversations and interactions (Ekezie & Bosah, 2021). Governments employed mass media and the internet to mobilize the community, convey precautionary measures to the people, and inform them about the supportive measures and channels (Soroya et al., 2021).

Nigeria reported its index case of COVID-19 on the 27 February, 2019 in Lagos when an Italian worker returned to the country from Milan (Smith, Smith & Ajayi, 2020); thereafter the cases slowly but steadily began to increase. The Federal Government of Nigeria, through the National Centre for Disease Control (NCDC) and other relevant agencies, started holding daily media press briefings to provide current updates and information on the pandemic to the public as well as report on government's efforts at addressing the outbreak in the country. Both public and private media organizations in the country engaged in aggressive campaigns against COVID-19 pandemic. These efforts are made towards providing the citizenry with requisite knowledge of COVID-19, assisting them develop good/positive attitude and adopting the recommend preventive strategy to contain the pandemic. However, information and lessons from the world outbreak recommend that knowledge and attitudes towards contagious diseases are linked with level of sentiment among the population, which can further confuse efforts to arrest the spread of the disease (Tao cited in Tasnim, Hossain & Mazumder, 2020). This realization may have prompted Oyeyemi et al. (2020) to caution that despite the efforts put in place by the Nigerian Government to mitigate the impact of COVID-19, poor public knowledge, attitude and practices of people relative to COVID-19 control can foil even the best national public health control response. Consequently, understanding the correlation between media exposure and public's knowledge, attitude and practice of COVID-19 preventive strategies is critical in the management and containment of the disease in the country. Considering the novelty of this disease, this researcher does not know of any research work that has investigated the variables of interest of this present study. This research, therefore, investigated the influence of mass media exposure on the knowledge, attitude and practice of COVID-19 preventive strategies among the Nigerian mass media users.

Health Belief Model

The health of members of any given population constitutes an important index of the development of that society. Health behaviour of individuals, therefore, comprises a key variable in the understanding of the health of that larger society. Researchers have, therefore, come up with models that would help explain health behaviours of individuals in the society. One of such models is the Health Belief Model (HBM) developed by researchers directly working with health behaviours (Norman & Conner, 2017). Rosenstock cited by Abraham and Sheeran (2015) attributed the first HBM research to Hochbaum's 1958 studies on the uptake of tuberculosis x-ray screening, followed by other research works such as Kegeles (1963), Haefner and Kirscht (1970). The HBM is used by researchers to try and predict health behaviours and this is done by focusing on

the attitudes and beliefs of individuals. It was one of the first models to adapt theory from the behavioural sciences to health problems, and it remains one of the most widely recognized conceptual frameworks of health behaviour (Glanz, 2001).

The HBM has four key constructs for assessing people's behaviour towards their health. These focus on a person's perceived susceptibility to a health problem (one's opinion of chances of getting a condition); perceived severity (one's opinion of how serious a condition is and its consequences); perceived benefits (one's belief in the efficacy of the advised action to reduce risk or seriousness of impact) and perceived barriers to dealing with the health problem (one's opinion of the tangible and psychological costs of the advised action) (Abraham & Sheeran, 2015). In the HBM, people's beliefs, such as the perceived benefits of health behaviours, obstacles to practice, and self-efficacy, influence their commitment to health-promoting behaviours (Kim & Kim, 2020). Based on this model, Laranjo (2016) argues that people are most likely to take preventative action if they perceive the threat of a health risk to be serious, if they feel they are personally susceptible and if there are fewer costs than benefits to engaging in it.

Beyond the four constructs, more adaptations have been added to the concepts such as "cue to action," (a stimulus to undertake behaviour), self-efficacy (confidence in one's ability to perform an action), as well as demographic variables (age, ethnicity, socio-economic and personality factors) (Glanz,2001). Empirical studies based on HBM have shown people adopting recommended health behaviours. For instance, Thompson et al. (2012) applied this model to tanning and gave the following insight: the HBM suggests that individuals will engage in sun protection (e.g., wear sunscreen) if they perceive themselves to be vulnerable (due to family cancer history and skin type) to a severe health threat (skin cancer), and believe that the benefits associated with engaging in the protective behavior (diminishing risk for skin cancer) outweigh the costs (money spent on sunscreen).

This study consequently employed the health belief model as theoretical framework to explain adoption of preventive strategies in response to COVID-19 pandemic. It is hypothesized that people would adopt preventive behaviours (such as wearing of face masks, regular washing of hands or using hand sanitizers, observing social distancing) if they perceive the threat of COVID-19 to be a serious health issue, if they perceive themselves to be susceptible to COVID-19, and if they believe in the severity of the infection caused by the virus. It is noted here that not all the constructs of the theory were applied in this study.

Study design

This study employed cross-sectional online survey. This design was considered most appropriate because the pandemic period was characterized by partial or total luck down adopted by the Federal Government as part of the various preventive strategies to contain the spread of the virus.

The main inclusion criterion for participation is a social media user who is 18 years and above. This study adopted the rule of engagement by major social media networks that limit the age of users to 18years and above. All citizens who are below the age of 18years were, therefore, excluded as well as all Nigerians in the diaspora. Expectedly, Nigerians who do not have social media account were automatically excluded since the questionnaire was hosted on the social media platform**.** Participation was voluntary, as such no form of compulsion was put on the respondents. Their right of withdrawal was not impinged upon during the course of the study.

Convenient and snow ball sampling procedures were used in the selection of the respondents. The study respondents were recruited online using the researcher's social media contacts. In using the snow ball sampling approach, the researcher appealed to her contacts to also send out to their own contacts to respond to the questionnaire. This was to ensure a wider circulation of the questionnaire. However, in order to discourage multiple entries, single access to the questionnaire was only allowed. Once a respondent submitted the questionnaire, further access was denied. A total of 460 respondents filled the online questionnaire, out of which 432 were found usable.

Since the study employed cross-sectional online survey, the online questionnaire was sent to the researcher's social media contacts. Data collection lasted for two (2) weeks. Despite the massive circulation of the instrument, responses were initially very slow. This researcher believes that public's general apathy towards research, among other reasons, may have contributed to this observed attitude. In some cases, the researcher called and/or sent a reminder to some of the respondents. Descriptive statistics expressed in percentages, frequency counts were adopted in analyzing the data. Spearman's rho was employed in order to establish relationship between the variables.

Measures

The online knowledge, attitude and practice (KAP) questionnaire was developed using information adopted and adapted from the World Health Organization (WHO) COVID-19 dashboard myth busters. The questionnaire has five (5) sections with a total of thirty (30) questions.

In the first section, there are a total of seven (7) questions. These questions were asked in order to determine respondents' exposure patterns to mass media information on COVID-19 pandemic. The responses to the questions required selection of single or multiple options.

The second section has a total of six (6) questions and addressed respondents' knowledge of COVID-19. Assessment of respondents' knowledge had questions that focused on causes, means of transmission, predisposing factors, symptoms and prevention. The options 'true', 'false' and 'don't know' were used in assessing respondents' knowledge of COVID-19 and they were categorized into good knowledge and poor knowledge based on their responses

In the third section, five (5) questions asked focused on their attitude towards COVID-19. The attitude questions focused on severity of the disease, vulnerability to the disease and reality of COVID-19. A 5-point Likert Scale was used to determine their responses to the statements, where 1= strongly agree and 5= strongly disagree. Based on their responses, they were categorized as having positive and negative attitudes. Beyond asking questions that probed into their attitude towards COVID-19, respondents' opinions on their susceptibility and severity of the virus were sought. These questions focused on examining two constructs of the HBM that served as the theoretical underpinning for the study.

Five (5) questions in the fourth section focused on respondents' practices to prevent the spread of COVID-19. There are three (3) responses to the questions – 'always', 'sometime' and 'never'. However, 'always' was coded as one (1) while sometimes and never were coded as 0. Based on their practices, they were categorized as involving in good and poor adherence to COVID-19 preventive measures.

The fifth (5) section of the instrument sought information on respondents' demographic data. There are a total of seven (7) questions in this section. Participants were asked to respond to their sex, age, marital status, educational level, geographical zone of residence, employment status and religious affiliation.

Socio-demographic information of the respondents

Table 1 which focuses on the socio-demographic information of the respondents reveals that majority (n=158; 36.6%) of the respondents were in the 18-24 age bracket, (*n*=234; 54.2%) are males, *(n*=293; 67.8%) were single, (*n*=209; 48.4%) had BSc/BA qualification, (*n*=296; 68.5%) resided in the southwest geo-political zone of the country, (*n*=381; 88.2%) and (n=128; 29.6%) were students.

Table 1: Socio-demographic data of the respondents

	Demography characteristics	**Frequency**	**Percent (%)**
Age	18-24 years	158	36.6
	25-34 years	150	34.7
	35-44 years	75	17.4
	45-54 years	33	7.6
	55-64 years	13	3.0
	65-74 years	3	.7
	Total	432	100.0
Sex	Male	234	54.2
	Female	198	45.8
	Total	432	100.0
Marital status	Single	293	67.8
	Married	129	29.9
	Widowed	3	.7
	Divorced	2	.5
	Separated	5	1.2
	Total	432	100.0
Highest Education Level	WASCE	49	11.3
	OND/HND	30	6.9

	BSC/BA	209	48.4
	MSC/MA	110	25.5
	PHD	21	4.9
	Others	13	3.0
	Total	432	100.0
Zone of residence	North central	30	6.9
	North east	14	3.2
	North west	9	2.1
	South west	296	68.5
	South east	66	15.3
	South south	17	3.9
	Total	432	100.0
Religious affiliation	Christianity	381	88.2
	Muslim	42	9.7
	Others	9	2.1
	Total	432	100.0
Employment status	Government employed	87	20.1
	Private employed	43	10.0
	Self employed	65	15.0
	Seeking employment	68	15.7
	Retired	5	1.2
	Students	128	29.6
	Others	36	8.3
	Total	432	100.0

Exposure patterns to mass media information on COVID-19

Respondents were asked which medium they prefer to obtain information on COVID-19. Result shows that majority of the respondents (n=180;41.7%) indicated Internet while others (n=93;21.5%) and (n=88;20.4%) indicated television and Twitter respectively. Probing further, respondents were asked how closely they have been following the mass media news and information about COVID-19. It is very interesting to note that majority(n=243;56.3%) answered not very closely.

Beyond the issue of respondents' media behaviour with respect to which media platform they obtained information on COVID-19 and how they monitored COVID-19 news and information on mass media, they were asked to indicate how many hours in a typical day they spent tracking COVID-19 news and information. The issue of health-care information seeking behaviour at this point is critical considering the deadly nature of this virus and the fact that at the time of conducting this study (2020), a lot were still not known about the virus globally. Result shows that a great majority (n=310;71.8% and n=94;21.8%) spent between 1hour and 2-3hours respectively daily to access news and information on COVID-19 from the mass media (see Table 2).

Table 2: Respondents' exposure patterns to mass media information on COVID-19

Patterns of exposure	Frequency	Percent
Less than 1 hour	310	71.8
2-3 hours	94	21.8
4-5hours	23	5.3
6 hours and above	5	1.2
Total	432	100.0

Knowledge of COVID-19

Knowledge of the virus is key to its containment. Majority of the respondents' answered correctly questions that focused on cause of COVID-19, those who are more susceptible to the virus, means of transmission and spread and symptoms of the virus. Almost all the respondents (97.7%) said symptoms of COVID-19 include difficult breathing, tiredness, dry cough and fever; 97.9%

believe that COVID-19 affects both young and old persons while 96.5% said that coronavirus is spread through infected droplets from sneezing or coughing. Furthermore, 90.5% correctly identified viruses not bacteria as the cause of COVID-19 while 93.3% stated that older people and those with existing health conditions have a more severe disease. In order to ascertain respondents' level of knowledge of COVID-19, they were categorized based on their responses. Finding shows that almost all the respondents (98.1%) of the respondents have good knowledge about COVID-19.

Attitude towards COVID-19

Attitude towards COVID-19 is another key variable examined in this study. A significant number of the respondents (81.5%) disagreed that COVID-19 is a curse from God while a higher number (92.8%) disagreed that death is the ultimate fate of anyone who contracts COVID-19. However, it is worrisome to note that a good number of the respondents displayed discriminatory and nonchalant attitude as shown by their responses. For instance, 23.7% said that they will not relate with anyone who has tested positive for the coronavirus, 31.7% believe that they cannot contract COVID-19, while 25.2% are not worried about contracting COVID-19. In order to determine respondents' attitude towards COVID-19, they were also categorized based on their responses. Result shows that majority (99.1%) of the respondents have positive attitude towards COVID-19.

Practice to prevent spread of COVID-19

The level of practice to prevent spread of COVID-19 as revealed by the finding was not very encouraging. Just a quarter (25%) said they sometimes wear a face mask when leaving the house, 27.1% sometimes wash hands with soap and water for at least 20seconds or clean them with alcohol-based hand sanitizer, and 29.9% sometimes observe social and physical distancing. Respondents were then categorized based on their practices to prevent the spread of COVID-19. Result reveals that although majority (56.7%) of the respondents observed good adherence to practices to prevent spread of COVID-19, a good number (43.3%) of the respondents displayed poor adherence to practices to prevent spread of COVID-19.

Only two of the HBM constructs were tested in this study- perception of the respondents on the severity of and their susceptibility to COVID-19. It was hypothesized that respondents who perceive COVID-19 to be severe and believe that they are susceptible to the virus, would observe good adherence to practices to prevent spread of COVID-19. First of all, results of the testing of the two constructs are presented. In order to test the severity construct, respondents were asked "how serious is COVID-19?" Majority (84.5%) of the respondents perceived the virus to be severe. In order to test respondents' opinion on their susceptibility to COVID-19, they were asked, "do you think you can contract COVID-19?" A little above half of the respondents (52.1%) stated that they are not susceptible to the virus. Using their opinions on the severity and their susceptibility to COVID-19, respondents were categorized into good adherence and poor adherence to the practices to prevent spread of COVID-19. A total of 56.8% respondents showed good adherence to the practices put in place to prevent spread of the virus.

Relationship between exposure patterns to mass media information on COVID-19 and knowledge, attitude and practice of COVID-19 preventive strategies among the respondents

In order to establish a correlation between respondents' exposure patterns to mass media information on COVID-19 and their knowledge, attitude and practice of COVID-19 preventive strategies, Spearman's rho was employed to analyze the data collected. The finding (see Table 3) shows that there is a correlation between the respondents' exposure patterns to mass media information on COVID-19 and their knowledge, attitude and practice of COVID-19 preventive strategies. However, this is low and not statistically significant. For instance, the correlation between exposure and the knowledge is positive and low (0.007) and also not statistically significant at 5% level of significance (0.882). Similarly, the correlation between their exposure and practices is positive but low (6.4%) and it is also not statistically significant at 5% level of significance (0.184). In the same vein, the relationship between exposure and attitude is positive but low (7.4) and it is not statistically significant at 5% level of significance (0.125). The implication of these findings is that exposure to mass media information on COVID-19 does not have any significant influence on respondents' knowledge, attitude and practice of COVID-19 preventive strategies.

Table 3: Correlation between mass media exposure and knowledge, attitude and practice of COVID-19 preventive strategies among the respondents

			exposure pattern
Spearman's rho	**exposure pattern**	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
	knowledge	Correlation Coefficient	.007
		Sig. (2-tailed)	.882
	practices	Correlation Coefficient	.064
		Sig. (2-tailed)	184
	Attitude new	Correlation Coefficient	074
		Sig. (2-tailed)	.125

Discussion

The deployment of various mass media tools by stakeholders during outbreak of disease (including covid-19 epidemic) in an attempt to mobilize the citizenry has been documented in literature (Karasneh et al., 2020; Collinson et al. cited by Smith et al., 2020; Soroya et al., 2021). It is not uncommon, therefore, that people turn to the mass media in trying to deal with an emerging health situation. The study finding showed that majority of the respondents accessed COVID-19 information through the Internet, television, Twitter and WhatsApp in that order. It is not surprising that the Internet took the lead. According to Reuben et al. (2020) right from the WHO declaration of COVID-19 as pandemic, several guidelines and information on COVID-19 have been uploaded online by WHO and NCDC which are easily accessible by internet users. Although this study limited the sources of COVID-19 information to the mass media, it is not unlikely that Nigerian citizenry may have resorted to other sources of information in their desperate search for information on COVID-19. For instance, Reuben et al. (2020) had alluded to the direct involvement of religious bodies and clerics by the Nigerian government in dealing with COVID-19 pandemic. This they believed would have immeasurably aided in spreading of factual information about COVID-19 among their followers. Again, it is not unlikely that people got information on COVID-19 from friends, family members, health personnel, etc.

Another study finding revealed that majority of the respondents spent between 1-3hours daily to access news and information on COVID-19 from the mass media. Similar patterns of mass media use during this COVID-19 global crisis have been observed in other studies (Anwar et al., 2020; Ekezie & Bosah, 2021). This observed mass media behaviour by citizens is not unexpected considering that people desperately need accurate information on how to prevent COVID-19 from spreading (Ekezie & Bosah, 2021). Correspondingly, studies (Obi-Ani, Anikwenze & Isani 2020; Gever & Ezeah, 2020; Smith et al., 2020; Nwakpu, Ezemu & Ogbodo, 2020) have shown that the mass media created significant awareness of the COVID-19 pandemic in the country through massive coverage of the issue. Information on positive public health practices such as social distancing, hand washing, respiratory hygiene and government policies in tackling outbreaks has often been disseminated via these media (Collinson et al. cited by Smith et al., 2020).

Previous studies (Oliamat et al., 2020, Berihun et al., 2021, Reuben et al., 2020, Abdu M, 2022) have found good knowledge (although at differing levels) of COVID-19 among their respondents. The finding of this study which revealed that majority of the respondents (98.1%) had good knowledge of COVID-19 corroborates the findings of these studies. The reasonable explanation for this high knowledge is their exposure to huge amount of information that characterized the onset/period of the pandemic. Furthermore, Bento et al. (2020) observed that since people were being health conscious amid the emerging uncertainty, they immediately started searching for COVID-19 information, such as its symptoms and precautionary measures. Again, their level of education (n=340; 78.8% had First,

Masters and Doctoral Degrees) may have influenced their level of knowledge of COVID-19. This aligns with previous studies (such as Adenubi et al.,2021) that investigated effect of educational status of the respondents on their knowledge level during epidemics/pandemics.

In a pandemic situation such as COVID-19, attitude of the citizenry is very critical in the achievement of the infection prevention and control (IPC) strategies adopted by any given country (including Nigeria). It is interesting to note that majority of the respondents(n=428;99.1%) in this study displayed positive attitude towards COVID-19. Although this study finding is consistent with findings of other studies (both local and foreign) which showed positive attitude towards COVID-19, the variations are worth noting. For instance, Nwagbara et al. (2021) reported 70.9% of the respondents had a positive attitude towards COVID- 19, Berihun et al. (2021) reported 62.4% had a positive attitude, Reuben et al., (2020) reported 62.4% had a positive attitude, Hasan et al. (2021) reported 72% of the respondents demonstrated moderate positive attitudes toward COVID-19. However, Adenubi et al.'s (2021) study reported that the 65.4% of the respondents generally displayed poor attitude towards COVID-19. The contributory factors to these variations may be differing contexts, timing, study population, among others.

Although a little above half of the respondents (n=245;56.7%) in this study maintained good adherence to COVID-19 preventive practices, equally a large number (n=187; 43.3%) of them showed poor adherence to COVID-19 preventive practices. This is very worrisome considering the deadly nature of the virus as well as the alarming rate of spread. At the time when data for this study were collected, the world was contending with developing a vaccine for the virus. Although COVID-19 vaccine has been developed, just like any other vaccine, it does not have 100 percent efficacy against the virus. Total adherence is very crucial since according to Li, Bai and Hashikawa cited by Oyeyemi et al. (2020) transmission control is an important intervention that can abate the spread of the disease in community and in health care setting. However, this study finding and similar study findings across the globe portray the picture of a coin with two sides – low number of respondents maintained a good COVID-19 preventive practice while high number maintained a poor COVID-19 preventive practice. A study that focused on students of Ethiopian Higher Education Institutions reported that 56.8% had a good COVID-19 prevention practices (Berihun, et al., 2021) while the study of preparatory school students in Southwest Ethiopia found that 53.0% of the participants had poor practice towards preventive measures of COVID-19(Abdu M et al., 2022). In another study, Angelo et al. (2021) found 42.8% of the respondents had good practice towards COVID-19.

As already explained, only two constructs of the HBM were tested in this study. Threat perception was construed as two key beliefs: respondents' perceived susceptibility to COVID-19, and their perceived severity of the disease. Finding revealed a total of 56.8% of respondents who expressed both the opinion that COVID-19 is a severe disease and that they are susceptible to it showed good adherence to the practices to prevent the spread of COVID-19. This finding, therefore, upheld the proposition of the HBM on health behaviour of individuals. In another related study by Yehualashet et al. (2021), their finding showed some predictors of adherence by communities for COVID-19 outbreak prevention measures, to include self-efficacy, perceived benefits, perceived barriers, and perceived susceptibility.

One significant role of the media during a disease outbreak is to influence the public's attitude, perception, and behaviour to adopt the right measure to prevent them from contracting the disease and preventing the disease's spread (Ufuophu-Biri & Bebenimibo, 2021). However, this study revealed that exposure to mass media information on COVID-19 did not have any significant influence on respondents' knowledge, attitude and practice of COVID-19 preventive strategies. Considering the level of misinformation, disinformation, fake news, conspiracy theories that trailed the onset of COVID-19 globally, it is not unlikely that Nigerian citizens may have turned to other sources of information in an attempt to deal with the emerging health issue. For instance, Reuben et al. (2020) averred that the direct involvement of religious bodies and clerics by the Nigerian government in the fight against COVID-19 would have immeasurably aided in the spreading of factual information about COVID-19 among their followers. But this study finding does not corroborate the finding of an Ethiopian study which revealed that television watching has a statistically significant association with COVID-19 prevention practice (Abdu M et al., 2022). In that study, respondents who watched television were more likely to practice COVID-19 prevention measures. The researchers observed that a lot of messages regarding COVID-19 were broadcast

through different television channels and it will serve as one way of creating awareness towards the outbreak. A similar study finding to that of Abdu M et al. (2022) showed that the pandemic has resulted in improved health knowledge among the population (Saah et al., 2021). This is consistent with the intensive public health education including preventive behavioural change messages being disseminated through various media (television, radio, print media, and social media) across Ghana (Adom cited by Saah, Amu, Seidu & Bain, 2021).

Conclusion

This study investigated influence of mass media exposure on knowledge, attitude and practice of COVID-19 preventive strategies among Nigerian mass media users. Findings suggest majority of the respondents have good knowledge and positive attitude towards COVID-19 while almost half of them displayed bad practice of COVID-19 preventive strategies. Efforts should go beyond impacting good knowledge and positive attitude towards the virus, but IPC efforts should encourage the adoption of practices that will stem the spread of the virus. Furthermore, no significant relationship exists between mass media use and knowledge, attitude and practice of COVID-19 preventive strategies. The findings raise concerns about the misinformation, disinformation and fake news that have trailed COVID-19 pandemic and calls for closer collaboration between media practitioners and stakeholders in the health sector (such as Federal and State Ministries of Health, NCDC) in ensuring that the Nigerian citizenry are provided with accurate and persuasive information about the recommended practices for COVID-19 control and management.

Limitation

Since Federal Government of Nigeria adopted a total lock down in an attempt to slow down the spread of the virus in the country, the selection of the respondents was restricted online using convenient and snowball sampling techniques. By administering the questionnaire through social media/internet platforms, the selection of the respondents was only based on the researcher's and other respondents' social contacts. Therefore, the sample for this study may not be a true representation of the Nigerian people. This selection could limit the generalizability of the research findings to the entire population of the country.

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