Covid-19 Pandemic: Combating Social Media Misinformation in Nigeria

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ABSTRACT

Misinformation spreads largely via Social media sites and as a result, understanding what can be done to discourage the sharing of and belief in false or misleading stories online is a question of great concern. The study therefore sought to assess ways of combating social media misinformation in Nigeria. Expost-facto survey design was adopted for the study. The population of the study consisted of medical doctors, librarians, and journalist in Nigeria. Simple random sampling technique was used to select 36 respondents which constituted the sample size. The instrument used for data collection was an interview schedule titled "COVID-19 PANDEMIC: COMBATING SOCIAL MEDIA MISINFORMATION IN NIGERIA QUESTIONNAIRE" (CPCSMMNQ). The instrument so developed was made to pass through face and content validation by experts. Instrument reliability was tested using Cronbach reliability test at 0.86 coefficient. The data obtained was analyzed using the descriptive statistics. The result tested for significance at 0.05 alpha level. The study concluded that social media is the leading platform for misinformation on COVID-19. It also concluded that there is significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation on social media. One of the recommendations made was that source of information and the source's source should be considered before consuming or sharing information to ensure accuracy and avoid raising panic.

KEYWORDS: Combating, Covid-19, Pandemic, Misinformation, Social media, Nigeria.

Introduction

Admittedly, the novel Covid-19 pandemic emerges at an era which sifting facts from fiction is increasingly becoming difficult. According to Simon, Howard and Nielsen (2020), the World Health Organization (WHO) reported that the new Covid-19 pandemic is accompanied by an "infodemic" of misinformation. In another development, the United Nations Educational, scientific and Cultural Organization (UNESCO) states that unreliable and false information is spreading around the world to such an extent that some commentators are now referring to the

new avalanche of misinformation that accompanies the COVID-19 Pandemic as a "disinfodemic", and fake news putting lives at risk. Currently, a wave of misinformation and disinformation in Nigeria have spread with the virus, provoking fear and exploiting vulnerabilities. It is disheartening that many Nigerians have refused to believe the existence of the disease because of misinformation. In light of this, Hassan (2020) decries that false information in Nigeria is undermining medical advice, proferring fake cures, inciting panic and being used for political point scoring.

Wu, Morstatter and Carley (2018), define misinformation as false or inaccurate information that is deliberately created and is intentionally or unintentionally propagated. Misinformation appears in different shades such as disinformation: intentional propagation of inaccurate information; fake news: false information in form of news; rumors: unverified information which could be true or false and spam: irrelevant information sent to large number of users. All these shades of misinformation aim at causing distress and various kinds of destructive effect through the social media. Hassan (2020), maintains that health misinformation is nothing new in Nigeria. The author reports that at the height of the Ebola epidemic in 2014, a similar thing occurred as false news swirled around the country one of which was bathing in and ingesting salt water to stop contracting the disease. A similar trend has occurred during the COVID-19 outbreak. According to Hassan (2020), Lagos health officials reported that three people have been hospitalized after over-dozing on chloroquine as a result of health misinformation. Amidst, this pandemic, WHO and other well-meaning bodies have stressed that misinformation about the pandemic presents a serious risk to public health and public action.

The proliferation of social media in recent times increases the intensity for the spread of unverified information about the COVID-19 pandemic. Merriam-Webster's online Dictionary defines social media as a means of interaction among people in which users create, share, and/or exchange information, ideas, personal messages and other content in virtual communities and networks. Social media tools and platforms include blogs, Facebook, twitter, YouTube, flicker, Instagram, snapchat, linked-In group, WhatsApp etc. WhatsApp and Facebook as the most common conduit allows streaming of audio, video, texts and links of fake news.

A deluge of information in the digital space creates fertile ground for fake information. The social media being the purveyors of fake news have succeeded in inciting panic, proferring fake cures, undermining medical advice and promoting hate speech about the corona virus disease (Hassan, 2020). This misinformation is propagated by social media activists, influencers, political ideologues and self-styled warriors to proliferate their conspiracy theories and promote the denial of COVID-19. The political class exploit the pandemic to influence public opinion along political divide. For instance, it was tweeted the President Muhammadu Buhari was sick with a prolonged cough and that a make shift ICU had been setup to treat him. Another instance was fake photos and videos of the People's Democratic Party's 2019 Presidential Candidate's son who contracted the virus dancing in clubs, ignoring government's isolation advice. The vulnerability of Nigerians to the challenge of consuming false information is greatly attributed to their low level of information literacy, which entails their ignorance of the right sources of genuine information and inability to access and evaluate information (Allcott, Gentzkow and Yu; 2019).

Research Objectives

1) To find out the extent of menace caused by COVID 19 pandemic on human health in Nigeria.
2) To identify cases of COVID-19 pandemic misinformation in the social media.
3) To find out ways of combating COVID-19 pandemic misinformation in the social media.
4) To outline the real symptoms/health effects of COVID-19 pandemic and preventive measures as against the misinformed.

Research Questions

1. What is the extent of menace caused by COVID 19 pandemic on human health in Nigeria?
2. What are the cases of COVID-19 pandemic misinformation in the social media?
3. What are the ways of combating COVID-19 pandemic misinformation in the social media?
4. What are the real symptoms/health effects of COVID-19 pandemic and preventive measures against as against the misinformed?

Hypothesis

1. There is no significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media.

Literature Review

Covid-19 Pandemic

The World Health Organization (2020), describes a pandemic as an infectious disease where a significant and ongoing person-to-person spread in multiples countries around the world at the same time. The WHO maintains that pandemic are more likely, if a virus is brand new, is able to infect people easily and can spread from person-to-person in an efficient and sustained way.

Covid-19 stands for Coronavirus disease which first outbreak occurred in Wuhan, China in December, 2019. Covid-19 according to the World Health Organization is caused by severe acute respiratory syndrome corona virus. The WHO recognized the virus outbreak as a pandemic in January, 2020 and therefore declared it to be a public health emergency of international concern. The Nigerian Centre for Disease Control (NCDC), reports that the virus is mainly spread among people having close contact often through small droplets produced during coughing, sneezing or talking. While these droplets are produced when breathing out, they usually fall on the ground or onto surface rather than being infectious over large distances. People may also become infected by touching a contaminated surface and then their face. According to NCDC (2020), the virus can survive on surface up to 72 hours. Covid-19 is most contagious during the first two days after onset of symptoms, although spread maybe possible before symptoms appear and in the later stages of the diseases (WHO; 2020).

Common symptoms of Covid-19 according to WHO include fever, cough, and shortness of breath. Complications may include pneumonia and acute respiratory distress syndrome. The time from exposure to onset of symptoms is typically around five days, but may range from two to

fourteen days. There is no known vaccine or specific antiviral treatment (WHO; 2020). The WHO recommended some preventive measures which include; regular washing of hands with soap in a running water, covering one's mouth with face mask when coughing or coughing and sneezing in the elbow, maintaining physical and social distance from other people, monitoring and self-isolation for people who suspect they are infected. Authorities world wide have responded by implementing travel restrictions, quarantines, curfews, stay-at-home orders, workplace hazard controls and facility closures.

Covid-19 misinformation and Social Media

A substantial number of Nigerians are exposed to fake news regarding the novel Covid-19 pandemic and a quick survey according to Allcott, Gentzkow and Yu (2019), suggests that many people who are exposed to these misinformation and disinformation believe them to be true. According to Gottfried and Shearer (2016), the emergence of social media as a key source of information has created a new ecosystem for the spreading of misinformation.

Hassan (2020), points out that, although health process generally has a long history of misinformation and popular misconceptions, misinformation on social media has caused wide spread alarm in recent times. Social media is becoming a major channel for the diffusion of news and information. They are also increasingly attractive and targeted for abuse and manipulation. Social media is increasingly becoming a dumping ground for all kinds of junks due to its openness and timeliness. These junks are posted in form of rumors, spam and fake news. The difficult part of it is that, how to detect this misinformation on social media has become an important problem.

Misinformation on social media about Covid-19 pandemic increases high fears, and uncertainties of the virus is putting lives at risk, prompting some people with symptoms to try unproven remedies with the hope of curing themselves. When misinformation is amplifying especially by influential people, the grave danger is that information which is based on fact ends up having only marginal impact. WHO (2020), observes that there seems to be barely an area untouched by misinformation in relation to the Covid-19 crisis; varying from origin through unproven prevention and cures, and encompassing responses by government, companies, celebrities and individuals. The false information spread even negate the significance of a body of true facts. WHO (2020), states that people capitalize on the pandemic to spread false information for the purpose of advancing their own agenda.

Accordingly, the motives for spreading misinformation are many which include; political aims, self-promotion, and attracting attention as part of a business model. Those who do so play on emotions, fears, prejudices and ignorance and claim to bring meaning and certainty to a reality that is complex, challenging and fast-changing (WHO,2020).

Several shades of misinformation emerge with the outbreak of corona virus disease. The World Health Organization has declared an "infodemic" of incorrect information about the virus, which poses risks to global health. The commonly spread misinformation (myth) about Covid-19, disseminated in the social media are highlighted as follows:

- Covid-19 disease is a biological weapon with a patented vaccine.
- Africans are to be used as guinea pigs to test a new corona virus vaccine.

- Covid-19 is a population control scheme or the result of spy operation.
- Black skin is resistant to corona virus disease.
- High temperature does not allow the spread of Covid-19.
- Intake of chloroquine cures corona virus disease.
- A cup of black tea cures corona virus disease.
- Drinking lemon with water can be used to prevent Covid-19 because it increases vitamin-C level.
- Gargling salt water, drinking hot liquids like tea and avoiding ice cream can stop the transmission of Covid-19.
- Holding one's breath for 20 second is an effective self-test for coronavirus disease.
- Preparation of hand sanitizer for prevention of Covid-19 at home by mixing rum, bleach and fabric softener.
- Alleged reportage of confirmed cases and death tolls of Covid-19 victims.
- Associating installation of his mobile networks to spread of coronavirus disease.
- Covid-19 is a disease for the rich people.

WHO (2020), warns that sharing and believing these falsehood has deadly potentials and advise adherence to precautionary measures and maintaining of good respiratory hygiene to contain the spread of the virus while trusting that medical and health professionals would come up with vaccine and cure for the virus.

Combating Covid-19 Misinformation.

As the novel coronavirus disease is spreading, misinformation about the pandemic also spreads. People are constantly bombarded with diverse information in the social media via forwarded messages, cartoon as well as audio and video clips. Little wonder, Readfearn (2020) states that misinformation about Covid-19 spreads more rapidly than the virus. Most people are misguided to take uninformed decision in a bid to combating the virus because of wrong information. Hassan (2020), opines that there is an urgent need in Nigeria to counter the scourge of fake news around Covid-19 and emphasizes that, the need for accurate and factual information is critical. The mind-blowing questions are; how does one decipher genuine information from fake ones? What are the considerations before one decides to share or forward unverified information on the social media? The above questions are answered in the following paragraphs which will go a long way to help in combating Covid-19 misinformation in the social media.

Readfearn (2020), advises that the source of information and the source's source should be considered before consuming or sharing information. Since not all information consumers are health and medical professionals, it is expedient to verify the source of the information before consumption. Misinformation often sound like a rumor, which the finding organization make profit from the fake news they are sharing. Readfearn (2020), further advises that every information about the virus should be fact-checked. The author recommends websites such as https://Covid-19.Ncdc.gov.ng, https://www.undp.org>content>undp, https://www.who.org etc. as reliable sources for Covid-19 pandemic information.

Another way of combating Covid-19 misinformation on social media is to match ones' source with other sources. Carvin and Brookie (2020), submit that it is advisable to cross-match information with other sources to deduce facts. Cross-matching information encourages

information evaluation which helps in checking biases. According to Hassan (2020), "if you watch NTA all day, try a few minutes of CNN and not totally sorting information on social media".

Moreover, in a bid to combat misinformation on social media, WHO (2020) advises social media users to "slow down" before any information on Covid-19 is shared or forwarded. They should consider if the information shared or forwarded is constructive or will make the situation worse. In Carkin and Brookie's (2020) words, "before you share a facebook status or a tweet, picture yourself standing at your school P.T.A, church or community meeting. Is what you're about to share constructive for those folks, or will it make the situation worse?"

Furthermore, it is advisable that anxiety should be controlled when passing a piece of information across before the information disseminated becomes fake news (Carkin and Brookie 2020). According to the authors, anxiety is not only natural but viral. When anxiety is spread by social contagion, it leads to panic which is more problematic. While navigating the online space, the tone of communication matters. A harsh tone into the space could breach information that was intended to be passed across. Be patient, kind, deliberate and fact-based.

However, Nigerian government has a key role to play in providing the civil society with accurate information. Accordingly, to rapidly and effectively counter disinformation and misinformation, the government must engage in a sustained two-way communication with her citizens (Hassan, 2020). The government must consistently and transparently provide information that respond to people's concerns. Nigeria Center for Disease Control, National Orientation Agency and other relevant agencies, should be more proactive and transparent in disclosing data in line with Right to information laws and policies. Through this, rumors would be countered urgently from wide spread. Nevertheless, this is not a substitute for information professionals such as librarians. The news media and librarians should see themselves as ally in the fight against misinformation. This is possible because media disseminate information publicly while the librarians supply the public with reliable database, portals and websites where facts are published. In Nigeria for instance, factual updates on Covid-19 are available at www.ncdc.gov.ng or https://who/en/covid-19 pandemic or https:/www.bbc.co.uk/new/world-africa. To this end, UNESCO (2020) warns government not to impose restrictions on freedom of expression that can harm the essential rote of an independent press, but to recognize journalism as a power against misinformation even when it publicizes verified information and informed opinions that annoy those in power.

It is the civic responsibility of all individuals to guide against rumors and conspiracy theories that are rampant in the social media concerning coronavirus disease. In as much as health experts and journalist are doing their part, it is the places of every Nigerian to stop spreading false-hoods that could make public health response harder for the citizens.

Considering the menace caused by misinformation on covid-19 it is deemed necessary to a step in the right direction to be taken in order to avert this menace. Hence, the necessity of the following details on the real symptoms/health effects and preventive measures against covid-19:

a. REAL SYMPTOMS/EFFECTS OF COVID-19

According to Zhang (2020), presentations of COVID-19 have ranged from asymptomatic/mild symptoms to severe illness and mortality. Symptoms may develop 2 days to 2 weeks following

exposure to the virus, depending on an individuals' immune system. A pooled analysis of 181 confirmed cases of COVID-19 outside Wuhan, China, found the mean incubation period to be 5.1 days and that 97.5% of individuals who developed symptoms did so within 11.5 days of infection.

Wu and Mc Googan (2020) reported that, among 72,314 COVID-19 cases reported to the Chinese Center for disease Control and Prevention (CCDC), 81% were mild (absent or mild pneumonia), 14% were severe (hypoxia, dyspnea, >50% lung involvement within 24-48 hours), 5% were critical (shock, respiratory failure, multi organ dysfunction), and 2.3% were fatal. Common symptoms/effects have included the following:

- Fever
- Cough
- Myalgia
- Fatigue

Uncommon symptoms/effects have included the following:

- Headache
- Sputum production
- Diarrhea
- Malaise
- Shortness of breath/dyspnea
- Respiratory distress

The most common serious manifestation of COVID-19 appears to be pneumonia. A complete or partial loss of the sense of smell (anosmia) has been reported as a potential history finding in patients eventually diagnosed with COVID-19, but this has not been a distinguishing feature in published studies, so its clinical importance is questionable.

WHO and public health authorities around the world are acting to contain the COVID-19 outbreak. However, this virus is generating health issues throughout the population, both physically and psychologically Antonio (2005). Physically, COVID-19 main symptoms include Fever, Cough, Dyspnea, and Headache, Sore throat, Sputum production, Hemoptysis, Diarrhea, Lymphopenia, and even death. The possibility of COVID-19 should be considered primarily in patients with new onset fever and/or respiratory tract symptoms (e.g., cough, dyspnea). The period from the onset of COVID-19 symptoms to death ranges from 6 to 41 days with a median of 14 days. This period is dependent on the age of the patient and status of the patient's immune system, the likelihood of COVID-19 is increased if the patient: (1) resides in or has travelled within the prior 14 days to a location where there is community transmission of SARS-CoV-2; (2) has had close contact with a confirmed or suspected case of COVID-19 in the prior 14 days, including through work in health care settings. Close contact includes being within approximately six feet (about two meters) of a patient for a prolonged period of time while not wearing personal protective equipment or having direct contact with infectious secretions while not wearing personal protective equipment. COVID-19 affects people psychologically by changing their perception and believe about the virus, causing anxiety and fear. Even after recovery of an infected person, some family members still refuse to associate or interact with the person with the fear of being infected (Wu et al, 2020).

b. REAL PREVENTIVE MEASURES AGAINST COVID-19

Based on the available evidence, the COVID-19 virus is transmitted between people through close contact and droplets, not by airborne transmission. The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients. Preventive and mitigation measures are key in both healthcare and community settings. The most effective preventive measures in the community according to Nigeria Centre for Disease Control (NCDC) 2020 includes:

- Using PPE Appropriately; this involves selecting the proper PPE and being trained in how to put on, remove and dispose of it.
- Performing hand hygiene frequently with an alcohol-based hand rub if your hands are not visibly dirty or with soap and water if hands are dirty;
- Avoiding touching your eyes, nose and mouth;
- Practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue;
- Wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask;
- Maintaining social distance (a minimum of 1m) from individuals with respiratory symptoms.

Additional precautions are required by healthcare workers to protect themselves and prevent transmission in the healthcare setting. Knowledge such as regular hand washing, using hand sanitizers wearing face masks, respiratory etiquettes, social distancing and self-isolation when sick are vital to reducing widespread infection (Leppin & Aro, 2009).

Methodology

The survey design used for this study was an Expost-facto. The population of the study comprised of medical doctors, librarians, and journalist in Nigeria. Simple random sampling technique was used to select 36 respondents which constituted the sample size. In order to select sample, 12 respondents were selected from each 3 categories (medical doctors, librarians, and journalist), giving a total of 36. The instrument used for data collection was an interview schedule titled "COVID-19 PANDEMIC: COMBATING SOCIAL MEDIA MISINFORMATION IN NIGERIA QUESTIONNAIRE" (CPCSMMNQ). Because of restricted movement in the state, the respondents were called and interviewed over the phone. The contacts of the respondents were made available by the Nigerian Medical Association, Chief Librarian in University of Uyo, and the Chairman, Nigerian Union of Journalists (NUJ). The instrument so developed was made to pass through face and content validation by experts. Instrument reliability was tested using Cronbach reliability test at 0.86 coefficient. The data obtained was analyzed using the descriptive statistics. The result tested for significance at 0.05 alpha level.

Results and Discussion

Research Question 1

The research question sought to find out the extent of menace caused by COVID 19 pandemic on human health in Nigeria. To answer the research percentage analysis was performed on the data, (see table 1).

Table 1: Percentage analysis of extent of menace caused by COVID 19 pandemic on human health in Nigeria.

EXTENTS	FREQUENCY	PERCENTAGE
VERY HIGH EXTENT	21	46.67**
HIGH EXTENT	14	31.11
LOW EXTENT	6	13.33
VERY LOW EXTENT	4	8.89*
TOTAL	**45**	**100%**

**** The highest percentage frequency**

*** The least percentage frequency**

SOURCE: Field survey

The above table 1 presents percentage analysis of extent of menace caused by COVID 19 pandemic on human health in Nigeria. From the result of the data analysis, it was observed that the highest percentage (46.67%) of the respondents affirmed that the extent of menace caused by COVID 19 pandemic on human health in Nigeria is very high extent. This was seconded by those who affirmed that the extent is high (31.11%). The third group of the respondents (13.33%) affirmed that low extent while the least percentage (4.89%) of the respondents stated that the extent of menace caused by COVID 19 pandemic on human health in Nigeria is very low.

Research Question 2

The research question sought to find out the cases of COVID-19 pandemic misinformation in the social media. To answer the research percentage analysis was performed on the data, (see table 2).

Table 2: Percentage analysis of the cases of COVID-19 pandemic misinformation in the social media.

CASES	FREQUENCY	PERCENTAGE
Covid-19 disease is a biological weapon with a patented vaccine.	1	2.22*
Africans are to be used as guinea pigs to test a new corona virus vaccine.	3	6.67
Covid-19 a population control scheme or the result of spy operation.	4	8.89

Black skin is resistant to corona virus disease.	3	6.67
High temperature does not allow the spread of Covid-19.	5	11.11
Intake of chloroquine cures corona virus disease.	6	13.33
A cup of black tea cures corona virus disease	7	15.56**
Drinking lemon with water can be used to prevent Covid-19 because it increases vitamin-c level.	4	8.89
Gargling salt water, drinking hot liquids like tea and avoiding ice cream can stop the transmission of Covid-19	4	8.89
Holding one's breath for 20 second is an effective self-test for coronavirus disease.	1	2.22*
Preparation of hand sanitizer for prevention of Covid-19 at home by mixing ruin, bleach and fabric softener	2	4.44
Alleged reportage of confirmed cases and death tolls of Covid-19 victims.	2	4.44
Associating installation of his mobile networks to spread of coronavirus disease.	2	4.44
Covid-19 is a disease for the rich people	1	2.22*
TOTAL	**45**	**100%**

****the highest percentage frequency**
***the highest percentage frequency**

SOURCE: Field survey

The above table 2 presents percentage analysis of the cases of COVID-19 pandemic misinformation in the social media. From the result of the data analysis, it was observed that most respondents affirmed "a cup of black tea cures corona virus disease" 7(15.56%) while the least number of respondents stated that "Covid-19 disease is a biological weapon with a patented vaccine; Covid-19 is holding one's breath for 20 second is an effective self-test for coronavirus disease and finally, Covid-19 is a disease for the rich people" 1(2.22%) rate the least percentage of the cases of COVID-19 pandemic misinformation in the social media.

Research Question 3

The research question sought to find out ways of combating COVID-19 pandemic misinformation in the social media. To answer the research percentage analysis was performed on the data, (see table 3).

Table 3: Percentage analysis of ways of combating COVID-19 pandemic misinformation in the social media.

CASES	FREQUENCY	PERCENTAGE
Verify the source of the information before		

consumption	4	8.89
Every information about the virus should be fact-checked.	1	2.22*
Match ones' source with other sources if you watch NTA all day, try a few minutes of CNN and not totally sorting information on social media	4	8.89
As advised by WHO social media users to ensure that before any information on Covid-19 is shared or forwarded they should consider if the information shared or forwarded is constructive or will make the situation worse	3	6.67
Before you share a facebook status or a tweet, picture yourself standing at you school P.T.A, church or community meeting and ask yourself if what you're about to share will be constructive for those folks, or will it make the situation worse	2	4.44
Anxiety should be controlled when passing a piece of information across before the information disseminated becomes fake news	2	4.44
Considering that when anxiety is spread by social contagion, it leads to panic which is more problematic	2	4.44
Before passing information be patient, kind, deliberate and fact-based	3	6.67
Need for government to engage in a sustained two-way communication with her citizens	2	4.44
The government must consistently and transparently provide information that respond to people's concerns	6	13.33
Nigeria center for Disease control, National Orientation Agency and other relevant agencies, should be more proactive and transparent in disclosing data in line with Right to information laws and policies	5	11.11
The news media and librarians should see themselves as ally in the fight against misinformation	2	4.44*
Recognize journalism as a power against misinformation even when it publics verified information and informed opinions that annoying those in power	2	4.44*
Everyone should see it as it is the place of every Nigerian to stop spreading false-hoods that could make public	7	15.56**
TOTAL	**45**	**100%**

****** **The highest percentage frequency**

***** **The least percentage frequency**

SOURCE: Field survey

The above table 3 presents the percentage analysis of the ways of combating COVID-19 pandemic misinformation in the social media. From the result of the data analysis, it was observed that the strategy tagged "Everyone should see it as it is the place of every Nigerian to stop spreading false-hoods that could make public" 7(15.56%) rated the highest percentage of the ways of combating COVID-19 pandemic misinformation in the social media. While that tagged "Every information about the virus should be fact-checked" 1(2.22%) rated the least percentage of the ways of combating COVID-19 pandemic misinformation in the social media.

Research Question 4

The research question sought to find out the real symptoms/health effects of COVID-19 pandemic and preventive measures as against the misinformed. To answer the research question, percentage analysis was performed on the data, (see table 4a).

Table 4a: Percentage analysis of the real symptoms/health effects of COVID-19 pandemic as against the misinformed.

SYMPTOMS	FREQUENCY	PERCENTAGE
Fever	4	8.89
Cough	4	8.89
Myalgia	7	15.56
Fatigue	8	17.78**
Headache	5	11.11
Diarrhea	5	11.11
Malaise	2	4.44*
Shortness of breath/dyspnea	6	13.33
Respiratory distress	4	8.89
TOTAL	**45**	**100%**

****** **The highest percentage frequency**

***** **The least percentage frequency**

SOURCE: Field survey

The above table 4a presents the percentage analysis of the real symptoms/health effects of COVID-19 pandemic as against the misinformed. From the result of the data analysis, it was observed that fatigue 8(17.78%) rated the highest percentage of the real symptoms/health effects of COVID-19 pandemic as against the misinformed. This was seconded by myalgia 7(15.56%). Shortness of breath/dyspnea 6(13.33%) rated the third percentage in the group. Fourth in the group was headache and diarrhea 5(11.11%). This was followed by fever, cough and respiratory distress 4(8.89%). While malaise 2(4.44%) rate the least percentage of the real symptoms/health effects of COVID-19 pandemic as against the misinformed.

It was also necessary to find out the preventive measures of COVID-19 pandemic as against the misinformed. (see table 4b).

Table 4b: Percentage analysis of the preventive measures of COVID-19 pandemic as against the misinformed.

SYMPTOMS	FREQUENCY	PERCENTAGE
Using PPE Appropriately	12	26.67**
Performing hand hygiene frequently with an alcohol-based hand rub or with soap and water;	8	17.78
Avoiding touching your eyes, nose and mouth;	10	22.22
Practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue;	6	13.33
Wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask;	5	11.11
Maintaining social distance (a minimum of 1m) from individuals with respiratory symptoms.	4	8.89*
TOTAL	**45**	**100%**

****** **The highest percentage frequency**

***** **The least percentage frequency**

SOURCE: Field survey

The above table 4b presents the percentage analysis of preventive measures of COVID-19 pandemic as against the misinformed. From the result of the data analysis, it was observed that "Using PPE Appropriately" 12(26.67%) rated the highest percentage of the preventive measures of COVID-19 pandemic as against the misinformed. This was seconded by "avoiding touching your eyes, nose and mouth" 10(22.22%). "Performing hand hygiene frequently with an alcohol-based hand rub or with soap and water" 8(17.78%) rated the third percentage in the group. Fourth in the group was "practicing respiratory hygiene by coughing or sneezing into a bent elbow or tissue and then immediately disposing of the tissue" 6(13.33%). This was followed by "wearing a medical mask if you have respiratory symptoms and performing hand hygiene after disposing of the mask" 5(11.11%). While "maintaining social distance (a minimum of 1m) from individuals with respiratory symptoms" 4(8.89%) rated the least percentage of the preventive measures of COVID-19 pandemic as against the misinformed.

Hypothesis one

The null hypothesis states that there is no significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media. In order to test the hypothesis regression analysis was performed on the data, (see table 5).

TABLE 5: Simple Regression Analysis of the influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media

Model	R	R-Square	Adjusted R Square	Std. error of the Estimate	R Square Change
1	0.84a	0.71	0.70	2.94	0.71

***Significant at 0.05 level; df= 43; N= 45; critical R-value = 0.312**

The table shows that the calculated R-value 0.84 was greater than the critical R-value of 0.312 at 0.5 alpha level with 43 degree of freedom. The R-Square value of 0.71 predicts 71% of the influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media. This rate of percentage was highly positive and therefore means that there is significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media.

It was also deemed necessary to find out the extent of the variance of each class of independent variable as responded by each respondent (see table 6).

TABLE 6: Analysis of variance of the influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	905.44	1	905.44	104.79	.000b
Residual	371.54	43	8.64		
Total	1276.98	44			

a. Dependent Variable: Misinformation prevalence

b. Predictors: (Constant), Combating strategies

The above table presents the calculated F-value as (104.79) and the P-value as (000). Being that the P-value (000) is below the probability level of 0.05, the result therefore means that there is significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media.

Discussion of the Findings

The results of the data analyses in tables 5 and 6 were significant due to the fact that the calculated R-value 0.84 was greater than the critical R-value of 0.312 at 0.05 level with 43 degree of freedom. The result implies that there is significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation in social media. The result therefore is in agreement with the research findings of Hassan (2020) who opines that there is an urgent need in Nigeria to counter the scourge of fake news around Covid-19 and emphasizes that the need for accurate and factual information is critical. It was also in agreement with the finding of Readfearn (2020) who advised that the source of information and the source's source should be considered before consuming or sharing information, since not all information consumers are health and medical professionals, it is

expedient to verify the source of the information before consumption. The significance of the result caused the null hypotheses to be rejected while the alternative one was accepted.

Conclusion

Misinformation on social media about Covid-19 pandemic increases high fears, and uncertainties of the virus is putting lives at risk, prompting some people with symptoms to try unproven remedies with the hope of curing themselves. Social media in increasingly becoming a dumping ground for all kinds of junks due to its openness and timeliness. These junks are posted in form of rumors, spam and fake news. The difficult part of it is that, how to detect this misinformation on social media has become an important problem. The study therefore concluded that there is significant influence of strategies of combating COVID-19 pandemic misinformation on the extent of prevalence of the misinformation.

Recommendations

1. The source of information and the source's source should be considered before consuming or sharing information, it is expedient to verify the source of the information before consumption to avoid spreading rumors.
2. Cross-matching of information should be ensured to deduce facts, this encourages information evaluation which helps in checking biases.
3. The government must engage in a sustained two-way communication with her citizens, they must consistently and transparently provide information that respond to people's concerns. Through this, rumors would be countered urgently from wide spread.

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