Research Article

Impact of Media and Protocol on SARS-CoV-2: Statistical Analysis

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Abstract

The current global pandemic of SARS-CoV-2 is a great challenge to the man, the virus has affected over 7 million people globally as of 12th June 2020. Also Nowadays, Media has become an essential part of human life. This research entails finding out how these two are going that is how media is affecting the current pandemic and also to find the role media plays in controlling the situation or helping the public to overcome the current situations. Reliability analysis was used to measure how reliable the questions carried in the research are, descriptive statistics were used to find out which among the subgroups of media is inflicting fear in the mind of public and correlation analysis was used to find how the variables are related using the collected data obtained through research questionnaire. The results obtained shows that public media (Television, Radio and Newspaper) are doing their best in making people less afraid by broadcasting positive news, whereas, social media (Facebook, Twitter and Instagram) platforms are contributing in making people very afraid due to the habit of a share as you received.

Keywords: Media; Protocol; SARS-CoV-2; Reliability Analysis; Cronbach's Alpha; Correlation Analysis; ANOVA

Introduction

Media are means/medium/tools of storing and communicating information. Nowadays, mass media plays a major role in our lives, public trust solely rely on media information. Covid-19 pandemic has caused global mass hysteria and the mass media was the major contributing factor in increasing the fear or otherwise. Some questions need to be attended such as Are media conveying the message as it or not, do media provide false information or provide Solace grounds, how do media convey protective information measures and how often, positive or negative which kind of information media prefer to publish most about Covid-19. The entire world has been in a serious tragedy in the past few months since the outbreak of the coronavirus pandemic which put the lives of people in the entire world in a hot soup. All activities had stopped, the economy continues to shrink, the number of infected individuals keeps on increasing almost exponentially every day even with the enforcement of lockdown rule. The global war against the Covid-19 pandemic seems unprogressive due to many factors af-

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fecting the plan to curb its spread in a negative manner. Among all media (Radio, Television, Newspapers, Twitter, WhatsApp, Facebook etc.) and other online public platforms across the world are among these factors which affect the fight against the pandemic through sharing unprecedented, misinformation and fake news. Sharing fake news and misinformation has the largest increase in the hysteria to Covid-19 and had made the global war against the Covid-19 even tougher. In 2014 a study was conducted by [1] titled "Ebola and the rhetoric of US newspapers: assessing quality risk communication in public health emergencies" the main objective of the research was to accessed the risk of how the presented information about Ebola to the public is. A systematic content analysis was used to analyze 75 news articles using Dudo., *et al*. framework. The research shows that news coverage can disrupt the public and caused fear depending on the way they are presented.

In a Natural disaster period, Media especially public media can be used as a tool in protecting the community from both physical and psychosocial wellbeing, by publishing non-misleading and good quality health-related information and advice on how to take care of individual and the community. Also, media can be used to do the opposite by providing misinformation and exaggerating the effect of the disaster, which may lead to panic in the community. In other to stop this from happening He recommended that all communication professionals should be well trained according to their respective fields on how to respond to the community during a pandemic [2]. "Fear can be more harmful than the severe acute respiratory syndrome coronavirus 2 in controlling the coronavirus disease 2019 epidemic" is a research study conducted by [3] described effort made by the Chinese government and the global community in order to curb the spread of the pandemic but fear and panic caused by misinformation globally don't allow the effort to be seen.

Impact of media in the world during SARS-CoV-2

The most difficult aspect to manage in this Covid-19 outbreak is media and their will of gaining intentions or being famous by trying to shift the blame or hold government or one body responsible for the pandemic, this lead to many actions which politicizes the situations globally. For example, at the beginning of this pandemic rumors having gone around saying United States government created the virus in other to destroy China or cripple its economy, but about three months later when the virus infiltrates the United States and their cases exceed that of any country affected including China, then the rumors reverse saying Chinese government released the virus, some people on social media saying the Chinese government release the virus intentionally in their country in order to avoid any suspicion that may link them with the act, also they even had the vaccine and some countries alleged that Chinese government had sold fake testing kits to them. Such rumors have been circulating on the social media platforms holding China responsible for this virus [4].

Media, in general, have played a major role in spreading both positive and negative information in this period of the pandemic, there are some outlets who broadcasted that a vaccine was developed in the United States which turn out to be misinformation, also there was one rumor saying that WHO has offered a bribe to the government of Madagascar in order to sabotage the said developed vaccine by Madagascar. The main concern is that rumors or misinformation spreads faster on social media than the true news and also negative information that may cause fear spreads faster rather than positive ones. There was a rumor regarding the infection, prevention, and cure of the disease on various social media platforms, this leads to a bad response from the public like avoiding the rule of social distancing, not washing hands as described by the Health workers, this result in the increase of the spread of the virus [5].

Impact of media in India during SARS-CoV-2

The entire world has been in a serious tragedy in the past few months since the outbreak of the coronavirus pandemic which put the lives of people in the entire world in a hot soup. All activities had stopped, the economy continues to shrink, the number of infected individuals keeps on increasing almost exponentially every day even with the enforcement of lockdown rule. The global war against the Covid-19 pandemic seems unprogressive due to many factors affecting the plan to curb its spread in a negative manner. Among all media (Radio, Television, Newspapers, Twitter, WhatsApp, Facebook, etc.) and other online public platforms across the world are among these factors which affect the fight against the pandemic through sharing unprecedented, misinformation and fake news. Sharing fake news and misinformation has the largest increase in the hysteria to Covid-19 and had made the global war against the Covid-19 even tougher. India the second largest populous country in the world is of no exception to this impact of media [6].

The evolving of social media platforms during the mid-1990s to the digital information has increased the spread of fake news and misinformation among individual because most people more especially those believe that everything they receive through social media is through more especially if such information comes from a known individual who happens to be a friend or a family member. When such information is sent and receive after reading and agreed, many individuals are in the habit of forwarding the same message to other individuals without verifying it. This habit of receiving and forwarding information on social media without verification has caused more panic in the current crisis of Covid-19 in India [7]. India is facing several challenges in the fight against the Covid-19 pandemic, in spite of the government effort in curbing the spread of the disease through series of lockdowns and improving the quality of its healthcare systems throughout the nation. Social media is playing a contrasting role by sharing fake news (inaccurate and unverified information) which increases more fear among individuals. The cheap access to data in India who is second to China in terms of internet users has given the Indians a chance of easy access to fake and unverified news on media like YouTube, WhatsApp, Tik Tok and so on.

Indian has been threatened by Covid-19 through the spread of fake and unverified news in the media. Few among the recent incidence are A video on Tik Tok with a duration of 30 seconds showing a man encouraging the gargling of salt and vinegar mixed in a hot water as a cure for Covid-19. A twitter message indicating that India had invented a medicine for the coronavirus. A YouTube video indicating that India had recommended the drinking of cow urine as a solution to wipe off the virus. A lot of misinformation had come from the government which could also contribute to fear among the peoples. One of the recent happenings is mentioning some traditional drugs as a cure to the coronavirus by one of the ministries in India which later revealed by some health experts that the drugs were untested. The Indian government under the leadership of prime minister Narendra Modi is at its best in tackling the spread of the coronavirus. The prime minister has been seen in different discussions with the media teams and appears in the different program on Radio and television urging people to distance themselves from the habit of spreading the fake and unverified news through any media. In its effort to curb the spread of fake and unverified news on the coronavirus. The Indian government had created a platform called "myGovCoronaHelpdesk" under the WhatsApp platform with the purpose of receiving and responding

to queues as well as providing assistance. Different platforms had been created to provide advice to people which include Facebook, YouTube, Tiktok, Snapchat, and Twitter which clear any doubt about Covid-19 [8].

Apart from the government effort in curbing the spread of the virus through urging media platforms. Prime minister Modi has also initiated a traditional media (Television, Radio, and Press) to spread the good news on coronavirus to the public. He also salutes the traditional media on its effort to spread the right message to millions of people who cannot access the internet. It is therefore of immense needful attention to the government to provide legal provisions and order so as to regulate social media with a good plan to eradicate the habit of spreading fake news and misinformation on social media during and a similar epidemic of Covid-19.

Impact of media in Nigeria during SARS-CoV-2

Nigeria the most populous African country with a population of over 200 million people, had joined the list of 213 countries and territories around the world battling the global pandemic of Covid-19. Of the 7773789 confirmed cases of the coronavirus (Covid-19) that originated from Wuhan, China, and a death toll of 428926 deaths as of 12th June 2020. Nigeria had 15181 (0.02%) confirmed cases with 399 (0.09%) deaths. Since 27th February 2020 when the federal government announces its first reported confirmed case of Covid-19 which is traced through an Italian citizen who is the first person to have diagnosed and tested positive to the disease. The case of the coronavirus has spread to almost every part of the country and the number of confirmed cases keeps increasing every day. One of the greatest factor responsible for the spread of the virus in Nigeria is lack of proper channel of communication by media in educating the citizen about the primary measures to be taken in curbing the spread of the disease and the spread of fake and misinformation about the disease among many Nigerians in the social media [9].

Misinformation, fake news and scams increase every day during this period of Covid-19. The number of conspiracy theorists has taken advantage of the current ongoing crisis of Covid-19 by using social media to gain recognition or profit their selves by creating a lot of fake news to achieve their targeted goal. The global pandemic of the coronavirus had created opportunities for criminals in a different part of the world. In Nigeria, an alleged group of scammers case was reported trying to make money through social

media platforms by making rumors about the scarcity of the face-mask and trying to sell a face mask online to people. Their secret was revealed when it was discovered that they don't actually have the mask. At this crucial time of the global pandemic, people are in a desperate condition and eager to receive news regarding the ongoing situations. However, people fail to distinguish between fake and true information. This has threatened the life of people and some people who are in need of money or special recognition from people sat and write fake news and spread it to other people. In 2014, during the Ebola crisis in Nigeria, misinformation which spread through social media had broadcast and declared that bathing with or drinking salt and hot water mixtures can serve as a cure to Ebola disease which as a result killed a lot of people and several others were hospitalized due to excessive taking of salt. Similar incidence had happened with the case of coronavirus was misinformation through social media had prescribed different things as medicine to coronavirus among all the taking of too much chloroquine by people after receiving information that it can cure Covid-19 which result in a much severe situation to most people as some were hospitalized due to excessive taking of the chloroquine. Sometimes false information can come from the government source too.

In 2014, during the Ebola crisis in Nigeria, the Nigerian government through the information minister come out in the media and reveals that they had gotten the vaccine against Ebola which later found not true. A similar incidence had happened with regard to the present pandemic of the coronavirus in Nigeria where the government made mention of some medicine order from Madagascar as a cure to the coronavirus. Misinformation can at times lead to panic and sometimes do more harm than panic. The Negligence Act of Nigerians with regard to the issue of Covid-19 is linked with the information spread on social media and internet-based sites. Many responsible people of high rank among politicians, government parastatals, Religious leaders, Traditional rulers do not even agree that coronavirus is in existence and some beliefs that even if it exists cannot do any harm to the black people due to their strong immune system, some are seeing the issue of Covid-19 in Nigeria as a mere politics. In addition, some people are thinking that the national center for disease control (NCDC) is just adding figures every day to increase the number of active cases in the country. This misinformation has done more damages than real coronavirus. Politics should have some boundaries, the war against Co-

vid-19 should be considered as a national challenge not party, religious, tribal, or individual challenges. The government should stop making promises that it cannot be fulfilled. A lot of promises and misinformation from the government site has done more dangers to the issue of Covid-19 in Nigeria. Recently the government comes out in the media to tell the people that it has sourced more funds to NCDC with the regard to fight the pandemic which NCDC later reveals that nothing has been given to them. The recent promise made by the Federal government to donate assistant to any state with Covid-19 cases has made some governors create false cases in their state with the hope of getting such donations from the federal government [10].

Impact of media on WHO during SARS-CoV-2

On 31st December 2020, WHO announced the outbreak of Covid-19, since that period the virus has spread to every continent all over the world, with millions of infections and several thousands of deaths. The media has played a major role in spreading the news and all aspects regarding this pandemic since the emerges of this outbreak in late 2019, media have been digging, circulating and reporting information regarding the various aspects of the pandemic right from the existence of the virus, how to contact the virus, the number of confirmed cases and deaths toll, the measures precaution on how to safeguard individuals and the community and the rest. In an effort to curved, the spread of the pandemic so many sectors has been shut in each country this put fear of the virus in the heart of people. Examples like travel restrictions, the economic stock market is going down, people are not attending their daily job, cancellation of various sport and religious activities, etc. So, Media seized this opportunity to turned it into a business story, and this lead to the spreading of misinformation on SARS-CoV-2 just for their personal gain. Also, the spread of misinformation has led to the allegations that the virus was lab-engineered as a bioweapon or that it was caused by the 5G mobile network.

Before WHO named the disease officially, it was called "Chinese virus" by the president Trump of the United States and also some outlets refer the virus as Wuhan virus and all this was broadcast on the media, these naming of the virus can cause stigmatization of individuals in which an infected person would try to hide his sickness or not request any form of healthcare as such this could lead to more infection in society or it can cause xenophobia to the people that are from that location. "This is the time for science, not ru-

mors, this is the time for solidarity, not stigma," said WHO director-general in several conferences. This statement made by DG WHO is telling us how the media is making their job more difficult by broadcasting misinformation and misleading the public [11-30].

Research Methodology and Hypothesis

This study was designed to find the impact of media and protocol on the current global pandemic due to SARS- COV-2 which has been threatening the life of humans. As an international student studying at Mewar University in India, we decided to use the views from colleagues who are from different parts of the world to assess the hypothesis of our study. A questionnaire with questions on the impact of media scaled under different levels of impact was developed and distributed to 100 individuals were 96 people filled and submitted their responses successfully. After gathering the information from the successfully submitted questionnaire, we performed some statistics in order to evaluate and justify our research objectives. Statistical software for social science (SPSS), was used to analyze the data obtained from our responses for easy computation. Some descriptive statistics were performed to give a summary of the descriptive nature of the responses. furthermore, we have performed a reliability study using the Cronbach's alpha to assess how reliable the research questions are while the analysis of variance (ANOVA) tells how significant are the mean responses. Using the stated hypothesis:

H_0=The mean responses are the same

H_1=Atleast one of the mean responses is different

That is the null hypothesis is telling us all the responses of the research questions are the same that is they make people afraid during this pandemic, whereas, the alternative hypothesis is telling us that at least one of the responses is not the same with the others.

Result and Discussion

Our Cronbach's alpha is 0.735 from table 1 happens to be reliable, this indicates that the research questions are reliable and have measure the internal inconsistency of this questions.

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.735	0.725	8

Table 1: Reliability statistics.

Looking at table 2 and the scaling 1 - 4 from very afraid to unafraid we can say that based on the responses gathered Television, Radio and Newspapers are making people less afraid, hence they provide people with a positive and reliable information on covid-19 while health workers do not make people afraid with their information regarding covid-19. However, information from Facebook, Twitter and Instagram/WhatsApp is making people afraid of covid-19 due to its unreliability and fake source.

	Mean	Std. Deviation	N
Television	2.41	0.842	93
Radio	2.34	0.879	93
Newspaper	2.44	0.796	93
Facebook	3.18	0.846	93
Twitter	3.27	0.782	93
Instagram	3.31	0.707	93
Health Workers	1.30	0.639	93
People	2.90	0.822	93

Table 2: Descriptive statistics of the data.

Table 3 gave the summary of the extent of relationship between the items considered as those contributing to the impact of Media on the current global pandemic of corona virus. We can see that there is a perfect relationship between each item with itself. It can be seen that a strong correlation exists between people and social media (Facebook, Twitter and Instagram/WhatsApp) which has been the ground where most people advertise any information that come their way by just sharing as received without verifying it. Most people depend largely on social media nowadays as their source of information this has been the reason why fake and misinformation is spreading within a blink of an eye. Furthermore, low correlation exists between people and the reliable source of information (Television, Radio and Newspapers) and there almost no correlation between people and the Heath workers. Hence people do not seek information from the health workers who really know the necessary advice to give in order to reduce the spread of the disease.

Table 4 gave the statistics of the remaining items when one of them is removed, from column two we can see that the mean is almost the same for all the variables except that of when health workers was removed which is 20.52, likewise for the second column. These two statistics are further telling us how the Health workers

Sources	Television	Radio	Newspaper	Facebook	Twitter	Instagram	Health Workers	People
Television	1.000	.052	.686	.533	.169	.263	.185	.666
Radio	.052	1.000	.216	.129	.388	.270	.156	.028
Newspaper	.686	.216	1.000	.513	.123	.435	.061	.605
Facebook	.533	.129	.513	1.000	.467	.467	.103	.432
Twitter	.169	.388	.123	.467	1.000	.201	.055	.075
Instagram	.263	.270	.435	.467	.201	1.000	.031	.352
Health Workers	.185	.156	.061	.103	.055	.031	1.000	.056
People	.366	.028	.205	.732	.875	.852	.0 56	1.000

Table 3: Inter-item correlation matrix.

Sources	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Television	19.51	10.361	.556	.696	.681
Radio	19.68	11.656	.276	.408	.641
Newspaper	19.61	10.349	.606	.769	.671
Facebook	19.03	9.836	.665	.632	.655
Twitter	18.95	11.878	.296	.628	.633
Instagram	18.90	11.284	.484	.361	.699
Health Workers	20.52	13.557	.025	.178	.769
People	19.31	10.608	.523	.509	.688

Table 4: Item-total statistics of the data.

are not contributing in panicking public by spreading misinformation. Also from the last column Cronbach's alpha if item is deleted we can see that all the alpha values when its corresponding item was removed are less than our previous main Cronbach's alpha value which is 0.735 except that of when Health workers was removed which is a little bit bigger than initial Cronbach's alpha value. Thus, we can conclude that the health workers are not contributing in making people afraid of the disease, as such it can be removed from the research in the future.

Table 5 gave the summary of the ANOVA and from the result obtained we can see there is no enough evidence to accept the null hypothesis since our p-value is less than alpha value. Hence, at least one of the mean response is statistically different from the other.

Source of variation	Sum of Squares	Df	Mean Squares	F-ratio	Sig
Between Media	161.962	92	1.760	3.777	.000
Between scale	182.575	7	26.082	55.911	.000
Residual	300.425	644	.466		
Total	644.962	743	.868		

Table 5: Analysis of variance (ANOVA).

Recent advances and future prospective

Since December 2019 when the first case of coronavirus was reported in Wuhan the largest city of central China, the new family of the coronavirus known as SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2) outbreak has turned down the curve of the present world development into a backward and negative direction with cases increasing every day. As of 14th June 2020 more than 7,929,065 confirmed coronavirus cases have been reported with more than 433549 death records globally. The current pandemic of the Covid-19 has been the worst pandemic witness by a man in the 21st century and a lot of factors known and unknown have contributed to the spread of the pandemic. However, a lot of good news is also there to tell regarding the future perspective of the pandemic. Although the reported case of COVID-19 seems to be increasing every day, as reported by Worldometer it is good news to know that of the 7,929,065 confirmed cases reported only 433549 (10%) death while 4,074265 had recovered from the disease. The remaining 3,421,251 are those currently infected with the disease among which 3367193 (98%) have a mild condition and only 54,058 (2%) are in serious/critical condition. The number of cases closed had reached 4507814 among which 4074265 (90%) had recovered successfully from the disease and get discharged with only 433549 (10%) death from the virus.

Scientists are working day and night in search of the vaccine to the novel coronavirus since December 2019. A lot of good news is coming that some countries have gone far and will soon come up with the vaccine. A lot of countries have taken good measures against the pandemic and as a result of that have started to reap from the good work they did in curbing the spread of the disease. Countries like UK, Spain, Sweden, and Netherland who reported their first case on January 31st, 2020 had no active case as of 14th Jun 2020. China the country where the virus was originated had only 129 active cases as at January 14, 2020.

Conclusion

The present research is aim at studying the impact of media and its protocol with regard to the spread of the information on the current pandemic of SARS-COV-2. Based on the results from the analysis conducted, we can conclude that the social media is responsible in making people afraid during this pandemic due to habit of share as you received without any verification also the public media is making the public less afraid due to some reasons like editing before broadcasting and verifying the news, likewise people have the habit of misleading and spreading misinformation around their society. The present survey tells us that health workers are totally not making people afraid of the disease. Therefore, people should seek necessary information from a reliable source and stop the habit of sharing news without verifying it as this cause more fear and at times lead to endanger the life of people due to inappropriate actions.

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Declaration of Interest

The authors declare no conflict of interest.

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