

Role of Mass Media in Raising Awareness During COVID-19 Pandemic: Key Informant Interviews Approach.

Fatima Elshikh Mohammed Elhadi¹, Afrah Kamal AbdelazimYassin^{1,2}

¹*Department of Public Health, College of Health Sciences, Saudi Electronic University, Riyadh 13323, Saudi Arabia.*

²*Department of Food Hygiene and Safety, Faculty of Public and Environmental Health, University of Khartoum, P.O. Box 205, 11111, Sudan. Department of Public Health, College of Health Sciences, Saudi Electronic University, Riyadh 13323, Saudi Arabia*

Abstracts: This study aims to identify the role of mass media in raising awareness during the COVID-19 pandemic in Riyadh, KSA. In this study, we use the qualitative key informant techniques in December 2021 to determine the role of mass media in raising awareness during the COVID-19 pandemic. Sixteen key informants (academic leaders (n=10) directors, (n =3), and healthcare providers (n=3) were selected by convenience sampling method. Virtual Zoom interviews ranged from 15 to 25 minutes and were recorded and coded for thematic content analysis. Most key informants concurred that social media and media press releases from the Ministry of Health (MOH), World Health Organization (WHO), and Center for Disease Control and Prevention (CDC) had a high-level impact on raising awareness during the pandemic; in contrast, YouTube, newspapers, and scientific publications had the least impact. Most key informants stated that social factors, the type of message, the delivery methods to the audience, and the unavailability of information about COVID-19 have the most significant influence on raising awareness during the pandemic. Most key informants noticed differences in the information about COVID-19 on social media and other media, especially the type of mask people should wear, how it spreads, and the signs and symptoms. In conclusion according to key informants, mass media significantly contributed to the increased public awareness of COVID-19 with different degrees of impact, as there are many factors, like social factors, affecting the role of mass media during the pandemic. Misinformation is also closely related to social media. Therefore, health authorities should enhance the influence of mass media, particularly social media, to ensure the accuracy and currency of disease-related information.

Keywords: Coronavirus Disease (COVID-19), Mass Media, Awareness, Pandemic, Key Informant.

1. INTRODUCTION

Coronavirus (COVID-19) is an infectious disease caused by a newly discovered coronavirus. It is an ongoing global health emergency (1). The new coronavirus information was mostly spread through the media, which also made a substantial contribution to the knowledge of COVID-19 (2). During a disease outbreak, like the A/H1N1 influenza and COVID-19 pandemics, news reports keep people updated on the disease, its spread, and how many people are affected. Scientists have shown that mass media coverage – including television, radio, newspapers, billboards and booklets, and the internet- can affect people's behaviors and practices (i.e., handwashing, social distancing) that will reduce the probability of contracting the disease (3).

Global efforts are focused concurrently on lessening the spread and impact of coronavirus disease 2019 (COVID-19) on populations. The mass media coverage is essential in creating awareness and limiting the spread of COVID-19. The researchers in China and Canada found that news coverage in the mass media could have a significant impact on people's behaviors, reducing the number of new cases of a disease (4). Because a newly discovered coronavirus caused COVID-19, the best method to prevent and reduce transmission is for populations to be well informed on the COVID-19 virus, the causes of the disease, and how it is transmitted.

To stop the spread of COVID-19, Saudi Arabia's Ministry of Health, MOH is reaching out to the press and the public through all possible outlets, especially on social media. The country has also produced 'Your Ultimate Guide to COVID-19' to give citizens and residents access to COVID-19 facts and precautionary messages in 12 languages. Actions to engage the public in prevention and control activities and to combat rumors and false information about the disease have been significantly scaled up (5).

Mass media technologies are one of the best ways to disseminate disease information nowadays. This study will provide data on the role of mass media in raising awareness of COVID-19, as well as the impact of mass media on the public's adherence to preventive measures. This study may help public health officials and decision-makers in designing interventions and understanding the effects of mass media coverage during a pandemic. It can also support the development of public health policy during a pandemic; therefore, this study aims to identify the role of mass media in raising awareness during the COVID-19 pandemic in Riyadh.

2. METHODOLOGY

2.1 Study Design

The study used qualitative, a classical key informant interview approach in December 2021 in Riyadh, KSA

2.2 Method of Data Collection

The interviewers conducted interviews with 16 key informants (Academic leaders(n=10), Directors (n =3), and Healthcare providers (n=3) utilizing an interview guide. A non-random convenience sampling method was used, and the study did not involve any hypothesis testing.

The Guided questions include the role of mass media during the COVID-19 crisis, factors affecting the role of mass media in increasing awareness of coronavirus, the impact of different media technologies on expanding the public's adherence to safety measures and suggestions to improve the role of mass media technologies during the coronavirus crisis.

During the discussion, the interviewers formulated the questions and recorded the key informant responses. A form with open-ended questions as well as scale questions was used in this technique and classified into high, medium, and low impact.

The interviewer started the interview by thanking the respondent, stressing the importance of the meeting and how the community would benefit from this information. The interview was carried out virtually through a Zoom meeting, and the session duration ranged from 15 to 25 minutes.

2.3 Data Analysis

Qualitative analysis was conducted manually, where the data was categorized into separate sections according to the topics discussed during the interview. These sections were recorded coded, transcribed, and combined into themes using thematic content analysis and presented coherently. A statistical analysis was applied for scale questions to calculate frequencies and proportions.

2.4 Ethical Considerations

The research team took written permission from all participants via email, and the ethical committee of the Saudi Electronic University approved the research proposal.

3. RESULTS AND DISCUSSIONS

Sixteen key informants (thirteen male and three female) were purposively recruited from Sixteen key informants (thirteen male and three female) were purposively recruited from colleges and clinical services at Saudi Electronic University. Sixteen key informants (three directors, ten faculty members, and three healthcare workers) The response rate for the respondents was 50% (16 respondents). This decline in participation in the study was due to availability constraints.

The first question in this study asked key informants, "What mass media do you follow to get news and information about COVID-19?". All key informants followed mass media daily, especially social media, and most of them followed the news on television, Facebook, and Twitter.

The second question was, "Do you think the mass media disseminates valuable information?" Most key informants reported that all major mass media disseminate valuable information about COVID-19 prevention and control. Most agreed and said that sharing useful information about COVID-19 during a pandemic depends on the source of information. They decided that only official sources can disseminate correct information about COVID-19.

Only one faculty member said that (television is the only medium disseminating accurate information about the pandemic). Two key informants (one healthcare worker (nurse) and one faculty member) stated:"(at the start of the pandemic, the mass media disseminated scary information about COVID-19, particularly on Twitter, in addition to the news of deaths and cases broadcast on television. ")

The third question was, "Have you found any discrepancy in COVID-19 prevention measures information between social media and other media (such as TV, newspapers, and radio)?"

Most key informants said they had seen differences in the information about COVID-19 on social media and other media, especially the type of mask people should wear, how it spreads, and the signs and symptoms.

One director and one faculty member stated that "(at the beginning of the pandemic, there was no significant difference between social media information and other media, but there was little difference in statistics regarding the number of cases. ")

In contrast, one healthcare worker who got COVID-19 said, "(there is a big difference between Twitter and TV in terms of symptoms and signs.)"

The fourth question "Do you think the mass media have a role in warning people about the dangers of the COVID-19 disease? "

Most key informants indicated that there was a significant role for the media in warning people about the dangers of the disease. They reported that this role depends on the press; some media, like social media, disseminate false and misleading information about the virus.

One director said, "(Yes, there was a big role, especially after people saw many scary pictures.)"One faculty member said, "(I think TV has a significant role at the beginning of a pandemic, but in the middle of a pandemic the role is reduced or no role due to the emerging of new problems.)"

The fifth question is, "What factors influence the role of the mass media in increasing awareness about COVID-19 prevention measures during a pandemic?" Most of the time, key informants talked about the type of message and how to send a message to the audience. Furthermore, social factors like scientific literacy can influence the delivery of information.

Few of them reported that commercial advertising channels can affect the strength of the message and information about the disease. One faculty member said, "(The biggest challenge is the information not widely available. For example, the type of prevention methods was different at the beginning of a pandemic; some media focus on sanitizing surfaces, while other media, like social media, focus on wearing masks and social distancing.)"

Table 1: Perception of key informants about the level of impact of the different mass media in increasing public awareness/adherence to the preventive measures for COVID-19.

	High	Medium	low	total
Social media (Facebook- Twitter- Snapchat etc)	14(87,5%)	1(6.3%)	1(6.3%)	16
TV	6(37.5)	10(62.5%)		16
Radio and Internet Podcasts	1(6.25)	10(62.5%)	5(31.3%)	16
Medical and Scientific Journals	3(18.8%)	3 (18.8%)	10(62.5%)	16
Newspapers and Magazines	2(12.5%)	1(16.3%)	13(81.3%)	16
YouTube	5(31.3)	4(25%)	7(43.8%)	16
Media Press Statements by WHO, CDC,	15(93,8%)	1(6.3%)		16
MOH	16(100%)			

Most key informants stated the impact of social media (Facebook, Twitter, Snapchat, etc.) and media press statements by WHO and CDC were high. The medium impact is for TV, radio, and internet podcasts, while most stated that the effects of newspapers, magazines, and medical and scientific journals are low.

Most key informants said that YouTube has a low impact on making people more aware of diseases, while almost half said it had a high impact, and the rest said it had a medium effect. All key informants agreed that the media press statements by the Ministry of Health have a high impact on increasing the public's awareness/adherence to the preventive measures for COVID-19.

Lastly, the suggestions of key informants about the role of the mass media in preventing and reducing the spread of COVID-19 were written down in many interesting points, such as the following.

- Increase the number of conferences and scientific workshops about COVID-19 virus prevention through mass media to improve the prevention methods.
- Only information that pertains to MOH, WHO, or CDC guidelines should be allowed to be posted on social groups or aired on television to avoid spreading misinformation.
- Consult with experts in infectious disease prevention and control before disseminating any information.
- The people in charge of health should keep an eye on the media, especially TV and social media, to make sure that information about the disease is correct and up to date.

4.DISCUSSION

The coronavirus disease 2019 (COVID-19) outbreak caused a global health crisis that significantly impacted the daily lives of people; within this context, we conducted our qualitative research and invited 16 key informants to help us understand the role that the mass media played during the COVID-19 Pandemic in raising awareness of the disease.

4.1 Uses of Mass Media to Get News and Information about COVID-19.

Our study revealed that every key informant regularly used the internet to follow mass media, particularly social media, media press statements by WHO, CDC, and MOH, and television news. The availability of mobile devices and the simple and inexpensive connectivity to the internet were mentioned by key informants as reasons for their daily use of media.

According to key informants in this study, their uses of TV and internet/social media increased during the pandemic, while their use of newspapers, radio, and magazines decreased significantly, as compared with research conducted in India; this finding is in line with the finding that showed the usage of internet/social media to obtain information about covid-19 was highest before and after the lockdown, followed by TV news. (6)

4.2 Role of Mass Media in Disseminating Valuable Information.

As per the literature review, the media played an important role during the COVID-19 pandemic in informing the public and advising them on preventing the disease. These messages included information about the pandemic progress and severity and prevention methods. Many respondents in this study indicated that all major mass media disseminated valuable information about COVID-19 during the pandemic; this indicates that mass media serve as a primary source of information during pandemics and play a crucial role in educating people.

Disseminating valuable and accurate information about COVID-19 during a pandemic depends on the source of information. Participants in the study agreed only official sources can disseminate accurate information about COVID-19, and they added when untrusted sources spread information like social media without proper verification, not only can it be harmful, but it can have unintended consequences.

A healthcare worker in this study who experienced COVID-19 said, "I was terrified when I was getting news and information about COVID-19 from untrusted sources, especially Twitter, but after I had COVID-19, I found all the information about signs and symptoms were fake and exaggerated", she adds. I recommend my friends to follow official sources like TV news.

4.3 Discrepancy in COVID-19 Prevention Measures Information Between Social Media and Other Media.

All key informants in our study said there is a significant difference between social media and other media in the information provided about prevention measures; they noticed these differences in the educational messages about the proper mask to wear, how the disease spreads, and its symptoms. A study conducted in Iraq on the impact of social media on human behaviors showed that free social media has a significant effect on mental health and psychological well-being (7)

According to WHO, there will be a tsunami of information on social media. Further, misinformation related to the global health crisis, like COVID-19 pandemic, generates a severe risk to public health (8)

One key informant (faculty member) said, "The difference in information between social media and other technology platforms is a big issue because these differences exacerbate our stress during the pandemic; however, social media and other digital platforms have the benefit of making information more accessible."

4.4 Factors That Influence the Role of the Mass Media in Increasing Awareness About COVID-19 Prevention Measures During a Pandemic.

Most key informants agreed that the social factors, type of message, and methods of delivery are the factors that can impact the role of mass media, while the availability of information and commercial advertising are the least important factors mentioned by key informants

Key informants agreed the target audience's social factors, like scientific literacy and socioeconomic difference, should be considered when choosing the type of educational message and delivering the information. On the other hand, a study conducted in Poland and Jordan found people in Jordan preferred conversational messages over other types of messages; in contrast, people in Poland would like a more scientific descriptive appeal; this finding supports the idea that the kind of message can impact the role of mass media in delivering the information. (9)

4.5 Perception of Key Informants About the Level of Impact of the Different Mass Media in Increasing Public Awareness/Adherence to The Preventive Measures for COVID-19

Key informants in this study believe that social media and information delivered by MOH, WHO, and CDC significantly impact increasing awareness during the pandemic. Additionally, key informants claimed that the more significant impact of social media was caused by most people using social media to obtain information about the disease at the beginning of the pandemic. Most of them also added that during the middle of the pandemic, people focused on the information from the Ministry of Health, WHO, and CDC.

Regarding the level of impact of the Ministry of Health in KSA MOH, one faculty member commended that the influence of the MOH was more significant than any other source because the MOH provides up-to-date data and information on precautions in the local language and in an understandable manner. Due to the significant influence of the Saudi Ministry of Health's daily media coverage, all key informant participants reported that "they considered themselves and other people capable of taking preventive measures as the result of the high impact of daily media press of the Saudi Ministry of Health."

Another Jordanian study also revealed that all mass media channels utilized by public authorities in Jordan have played a significant role in increasing public awareness about Coronavirus (COVID-19) during the pandemic. (10)

Most key informants reported that TV, radio, and internet podcasts had a medium impact on increasing awareness. In contrast, another study indicated the Internet is the most common source of health information about COVID-19 for the entire sample, while the least expected source was radio. (11)

A study conducted in India about the role of mass media during the pandemic showed most of the respondent uses social media for collecting information; at the same time, many people don't feel positive about the news delivered on television. (12)

Many key informants stated that the influence of YouTube, newspapers, magazines, and medical and scientific journals had little to no effect on raising awareness. They attributed this to the fact that only people with higher education levels used and understood medical and scientific journals, and fewer people followed newspapers.

5. STUDY LIMITATION

This study did not involve all the target numbers of key informants as some significant decision-makers in the field of health and media were not involved in the study.

There are few comparable qualitative studies in the mass media and COVID-19 field.

The data collection has taken a long time because of availability constraints.

CONCLUSIONS

This study adds new evidence confirming that all mass media have a great impact on increasing awareness during the pandemic, especially social media and media press statements by MOH, WHO, and CDC. In contrast, the effect of YouTube channels, newspapers, and scientific papers was the least. Furthermore, most key informants said the impact of TV, radio, and internet podcasts was moderate.

The most critical factors affecting the dissemination of information through mass media, according to key informants, are the type of message, the method of reaching the audience, and societal factors.

Participants in this study noticed substantial disparities between social media and conventional media in the type of instructional messages provided regarding prevention strategies.

RECOMMENDATION

This study recommends the following to improve the role of mass media during a pandemic in the future.

Health authorities should control rumors and misinformation by promoting communication between media influencers and experts in infectious disease prevention before spreading any information through mass media.

Health authorities should enhance the influence of mass media, particularly television and social media, to ensure the accuracy and currency of disease-related information.

ACKNOWLEDGMENT

We want to thank Dr Hya Zaidan for editing the proposal for this study. I would like to thank faculty members and healthcare workers at Saudi Electronic University for participating in this study.

REFERENCES

- [1]. World Health organization, Coronavirus health topic ,April 2020 , Coronavirus health topic , accessed on May 2021, Geneva a.https://www.who.int/health-topics/coronavirus#tab=tab_1
- [2]. Anwar A, Malik M, Raees V, Anwar A. Role of mass media and public health communications in the COVID-19 pandemic. *Cureus*. 2020 Sep 14;12(9).
- [3]. *Jackson Kushner* , 2020/March 25 , role of social media during pandemic, American blog, Khoros , Industry trend , <https://khoros.com/blog/social-medias-role-during-covid-19>
- [4]. Lucy Goodchild van Hilten , 2016 January29, Should the media take responsible role during epidemics , Elsevier connect . accessed June 2021
a. <https://www.elsevier.com/connect/should-the-media-take-more-responsibility-in-epidemics>
- [5]. *Corsi M. Pakistan 2020: The PTI government amidst COVID-19 pandemic. Asia Maior. 2020;31.* <https://www.proquest.com/openview/466b533d22b8b3f22bbaeafd0b13a40e/1?pq-origsite=gscholar&cbl=5193676>
- [6]. Garg H, Chauhan A, Bhatia M, Sethi G, Chauhan G. Role of mass media and it's impact on general public during coronavirus disease 2019 pandemic in North India: An online assessment. *Indian Journal of Medical Sciences*. 2021 May 29;73(1):21.. https://doi.org/10.25259/IJMS_312_2020
- [7]. Ahmad AR, Murad HR. The impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: online questionnaire study. *Journal of medical Internet research*. 2020 May 19;22(5):e19556.
- [8]. Shaw R, Kim YK, Hua J. Governance, technology and citizen behavior in pandemic: Lessons from COVID-19 in East Asia. *Progress in disaster science*. 2020 Apr 1;6:100090.<https://doi.org/10.1016/j.pdisas.2020.100090>
- [9]. Abuhashesh MY, Al-Dmour H, Masa'deh RE, Salman A, Al-Dmour R, Boguszewicz-Kreft M et al. The role of social media in raising public health awareness during the pandemic COVID-19: an International Comparative Study. *Informatics* 2021 Nov 18 (Vol. 8, No. 4, p. 80). MDPI.. <https://doi.org/10.3390/informatics8040080>
- [10]. Al-Dmour H, Masa'deh RE, Salman A, Al-Dmour R, Abuhashesh M. The role of mass media interventions on promoting public health knowledge and behavioral social change against COVID-19 Pandemic in Jordan. *Sage Open*. 2022 Mar;12(1):21582440221082125.<https://doi.org/10.1177/21582440221082125>
- [11]. Le HT, Nguyen TT, Jacinto C, Nguyen CT, Vu LG, Nguyen HT, Vu MN, Le XT, Nguyen TT, Pham QT, Ta NT. Factors Associated with Community Awareness on COVID-19 in a Developing Country: Implications for Optimal Risk Communication. *Risk management and healthcare policy*. 2022 Mar 8:415-26.<https://doi.org/10.2147/RMHP.S356690>
- [12]. SHALVEE, SAURABH SAMBHAV. "ROLE OF MASS MEDIA AND COMMUNICATION DURING PANDEMIC", *International Journal of Creative Research Thoughts (IJCRT)*, ISSN:2320-2882, Vol.8, Issue 5, pp.3786-3790, May 2020, URL: <http://www.ijcrt.org/IJCRT2005502>

DOI: <https://doi.org/10.15379/ijmst.v10i1.3057>

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/3.0/>), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.