

Assessment of media and risk communication during COVID-19: The case of Algeria

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Abstract

During the COVID-19, mass media have played and continue to play a fundamental role in protecting individuals. However, the most important role of the media in a crisis is to involve people in this process in order to save their lives. Like in all corners of the world, mass media in Algeria have contributed and continue to contribute to give more information to prevent from COVID-19. This paper attempted to explore the role-played by the media during COVID-19 in giving sufficient details and convincing people about existing risks. The study tried to know people's perceptions about news related to situation pandemic in Algeria. The aim of this study was also to find out communication patterns during the pandemic period. The present research adopted a quantitative approach using an electronic survey. In order to collect data, an electronic questionnaire was conducted. A total of 329 respondents from the east of Algeria have participated in this study, 65% (215) were male and 35% (114) were female. The findings showed that the majority of respondents preferred social media to get information about the epidemiological situation.

Keywords

Media, risk communication, risk perception, coronavirus, COVID-19.

Introduction

During the spread of an outbreak or infectious disease, people need to be informed about different types of risk they confront, and what kinds of practice to

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do to protect themselves. To do this task, mass media are generally the powerful tools in disseminating different informative messages to general people. In fact, these tools of mass communication have played in the past and continue to play a crucial role in health communication by sharing and exchanging information, knowledge, attitudes and practices related to public health safety. For instance, the media such as print press, radio, TV and particularly the interactive platforms are the main sources to get news information in the United States in times of risk. (Chipidza et al., 2021).

On one hand, several researchers and scientists agree today that media can offer people guidelines and preventive measures to deal with different types of hazards in their lives such as diseases, viruses and different disasters. In the literature review of previous research, there are plenty of examples to confirm this idea. First, according to Reynolds & Seeger (2005), during the spread of West Nile virus, mass media have been widely used by public health institutions to increase the level of understanding, knowledge and attentiveness about a virus.

In the same way, Sandell et al. (2013) found in their research that the media have been a fundamental part to deal with the rapid proliferation of a novel influenza A (H1N1) in 2009. In addition, communicating risk through mass media comprises transmitting useful information like: describing current outbreak, talking and explaining the potential hazards, syndrome and forms of contamination, sharing preventive and protective measures, government efforts to stop the infection and how to react if contamination suspected, informing about the attainability of vaccine and where to get it (Sandell et al., 2013)

On the other hand, many researchers consider mass media as credible channels which may play an important role in raising the level of awareness about public health safety. For example, McCarthy et al. (2008) pointed out in their study that the media are charged to treat and interpret the results of scientific research and to write final report in easy language. In other words, media can play an intermediary entity between health agencies and the audience in the risk communication process. Journalists and communicators have to paraphrase scientific and technical information before conveying it to the public.

Since the emergence of an outbreak of coronavirus in China in 2019, the world is facing a global health crisis. It has spread to the majority of countries in the world in a few months. During the current crisis of coronavirus, effective risk communication is needed to stop the spread of an outbreak of coronavirus (COVID-19) and to save lives. For Karasneh et al. (2020), media

can perform multiple functions like: providing new information, enhancing the level of understanding and changing attitudes and habits of both healthcare professionals as well as public at large. In addition, media which represents confided and credible sources during times of risk and crisis related to public health, can help people to make the right decisions like how to protect their lives by following good preventive rules (Garfin, Silver & Holman, 2020).

In today's world, mass media allow the public to get accurate and timely information about particular risk based on transparent sources. Building confidence between all stakeholders of the risk communication process is necessary to fight the risk. In addition, success risk communication requires that public health agencies facilitate access of journalists to information sources; preparing spokesperson who should elaborate clearly and concisely the content of communication and being well-informed about the issue. (Lowbridge & Leask, 2011).

According to Boukhatem (2020), Algeria has detected its first case of a novel coronavirus on 25 February 2020. Later, the virus has remarkably spread in the whole country. The country has witnessed the third wave of the coronavirus pandemic in summer 2021. According to Algeria Press service, on 30 July, the number of confirmed cases in Algeria is 168.668, including 1,537 new cases during the last 24 hours. Also, the emergence and spread of an outbreak cause in Algeria death 4,189 deaths. (Algeria Press Service, 2021)

In this context, the media are working to provide people the evolution of coronavirus in the four corners of the country and to give them knowledge to protect themselves against an outbreak of COVID-19. In Algeria, the National Commission for Monitoring and Surveillance of coronavirus Epidemic, which includes several scientists and researchers, is the only authority to give data on the coronavirus pandemic. This decision has been taken by The National commission in order to stop the spread of misinformation and rumors among people especially through social media. The mass media has a crucial role to play in this crisis, especially in terms of increasing the level of awareness and preparedness to respond to coronavirus disease.

The following research questions were formulated for this study:

RQ 1: What are the sources to get news information about coronavirus in the east of Algeria?

RQ 2: Does the information provided by the Algerian media about coronavirus is sufficient?

RQ 3: Does the language used by the Algerian media about coronavirus pandemic is easy to understand?

RQ 4: What aspects are the most covered by the Algerian media upon when dealing with coronavirus?

RQ 5: How evaluate people the information provided by the Algerian media on the issue of coronavirus?

RQ 6: What are preventive and protective measures adopted after being exposed to media?

This research paper attempts to explore the role played by the media during COVID-19 in providing sufficient information and convincing people to take protective procedures against potential and existing risk. Also, the study tries to know people's perceptions about news presented by local media related to pandemic in Algeria. Thus, this research aims to find out people's perceptions about the communication patterns adopted by the local media during coronavirus pandemic.

Literature review

Risk communication

There is consensus among researchers that risk communication in public health is an integral part of risk management. In fact, many previous studies have significantly concerned with the subject of risk communication. For Qiu et al. (2016), risk communication is new topic which appeared in 1970/1980. According to the National Academy of Sciences, risk communication can be defined as:

'...an interactive process of exchange of information and opinion among individuals, groups, and institutions. It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concerns, opinions, or reactions to risk messages or to legal and institutional arrangements for risk management' (National Research Council, 1989). Also, Cavello et al. (1987) have defined risk communication as: 'any purposeful exchange of scientific information between interested parties regarding health or environmental risks' (Kar & Cochran, Jr, 2019)

There is convergence between scholars and scientists that risk communication is 'two-way process between the communicator(s) and the recipients of messages'. (Sheppard, Ben, Janoske, & Brooke, 2012). In other words, Bourrier & Beider (2018) view risk communication as conversation in order 'to create mutual understanding'.

Regarding the ultimate aim of risk communication, Renn (1992) indicate that the main objectives of risk communication process are:

'1) - to make sure that all receivers of the message are able and capable of understanding and decoding the meaning of the messages sent to them;

2) - to persuade the receivers of the message to change their attitudes or their behavior with respect to a specific cause or class of risk;

3) - to provide the conditions for a rational discourse on risk issues so that all affected parties can take part in an effective and democratic conflict-resolution process' (Renn, 1992).

In other words, increasing the level of understanding of risk, helping people how to react and to behave correctly against the hazard, and involving the public in a dialogue process to be able to respond perfectly to risk are the principal objectives of successful risk communication (Heath & O'Hair, 2009).

The content of risk communication is the principal component in the process. According to Bourrier & Beider (2018), there is always a wall between experts and people in terms of knowledge about risk because the risk communication topic has been marginalized for long time. For this reason, Morgan et al. (2002) insist that communicators of risk should write the content of the message in a good way because understanding the content of message is an important part of risk management. For Ng & Lean (2012), communicators should paraphrasing informative messages from experts to general public and make sure that the content is understood. On the other hand, Bourrier & Bieder (2018) consider risk communication represents a vital medium enables the specialist and non specialist to have the same level of knowledge based on the dialogue process.

Successful risk communication enables the public to follow the right practice towards different risks and it helps agencies' health to know public's anxieties and necessities in terms of more information and guidelines.(WHO, 2017). In his paper entitled 'Risk Communication for Public Health Emergencies', Glik (2007) predict that risk communication will play critical role in future in informing people how to respond in times of catastrophes.

Media & risk communication in times of uncertainty

Broadly consider risk communication as any other communication process which includes: 'sources, receivers, messages, channels, and contexts' (Rowan, 1991). There is no doubt that the media is the principal component in the risk communication process and risk communication plays a vital role in risk management. Many researchers in communication field pay more attention to the media's role in risk communication. They define the role of media in risk communication as: keeping people well-informed about existing or potential risk; raising the level of understanding and awareness; and involving people in decision-making and preventive measures taken (Bakir, 2010).

In times of risks and crisis, the media should take critical part in providing knowledge which is the key factor to prevent against disease, (Mejia et al., 2020) and health agencies should rely on media to convey health messages to all categories of public (Thompson, 2019). Risk communication is a process of cooperation and coordination between health agencies and media. In addition, the media should transmit accredited and verified information while reporting health information to the public. (Park, Sohn, 2013).

In his research paper about the importance of the media in risk communication, Mebane (2005) said that 82% of the U.S population viewing mass media as an integral component of health communication in improving the level of safety in their life. Sandell et al. (2013), who used a quantitative content analysis on the H1N1 coverage in the Australian and Swedish print media, emphasis the importance of the media in forming people's awareness about H1N1 pandemic. These authors highlighted 81 articles: 45 from Australian newspapers and 36 from Swedish newspapers. They conclude that media have a huge impact in shaping people's perception of hazard and action toward risk. They also ask authorities to involve the mass media in the risk communication process related to infectious diseases.

In their research, Gever & Ezeah (2020), who content-analyzed 537 stories from six media in Nigeria two TV stations, two newspapers and two radio stations, found out that the coverage of the media has tripled after the spread of coronavirus. On the other hand, these authors estimate that the information provided by the Nigerian media is insufficient, able to promote health care and capable to implement useful programs vis-à-vis coronavirus pandemic. A survey of 486 pharmacists conducted by Karasneh et al. (2020) have found that the media may raise pharmacist's understanding and awareness regarding coronavirus.

In times of crisis and risk, people rely on classical media to get new and accurate information. In other words, according to several studies TV represents the main media to diffuse knowledge about coronavirus disease (Wormer, 2020). For the Lancet (2020), the verification of the information about coronavirus pandemic is the most important preventive measure to stop the fear's infection. In their research, Finest et al. (2020) indicated that building trust and confidence is the key factor to fight coronavirus pandemic and save lives. Under these conditions, it is important to provide accurate and verified information to the public (Finset et al., 2020). On the other hand, Adebsi et al. (2021) conducted a research about 'Risk communication and community engagement strategies for COVID-19 in 13 African countries'. They reported Data from several sources such as articles

in peer-reviewed and other documents in 13 African countries including: Ethiopia, Ghana, Kenya, Algeria, Cote d'Ivoire, The Democratic Public of the Congo, Mauritius, Nigeria, South Africa, Tanzania, Uganda and Zambia. The results of this study revealed that Risk communication and community engagement strategies in the 13 African countries give priority to train people, to consolidate risk communication process, to strengthen coordination between all actors, to involve community, to communicate to public at large, to deal with uncertainty and to manage 'misperceptions' and 'misinformation'. These processes have encountered many barriers such as: 'distrust in government, cultural, social, and religious resistance, and inertia among others' (Adebsi et al., 2021).

Methodology

In order to carry out this study, a quantitative approach was adopted. In fact, the questionnaire was the appropriate method for this research because respondents' perceptions and opinions were the crucial tool of data gathering. In his book entitled 'Introducing Communication Research', Donald Treadwell defined surveys or questionnaires as 'A survey is a series of formatted questions delivered to a defined sample of people with the expectation that their responses will be returned somewhere between immediately and in a few days' (Treadwell, 2017). A questionnaire was prepared based on previous studies.

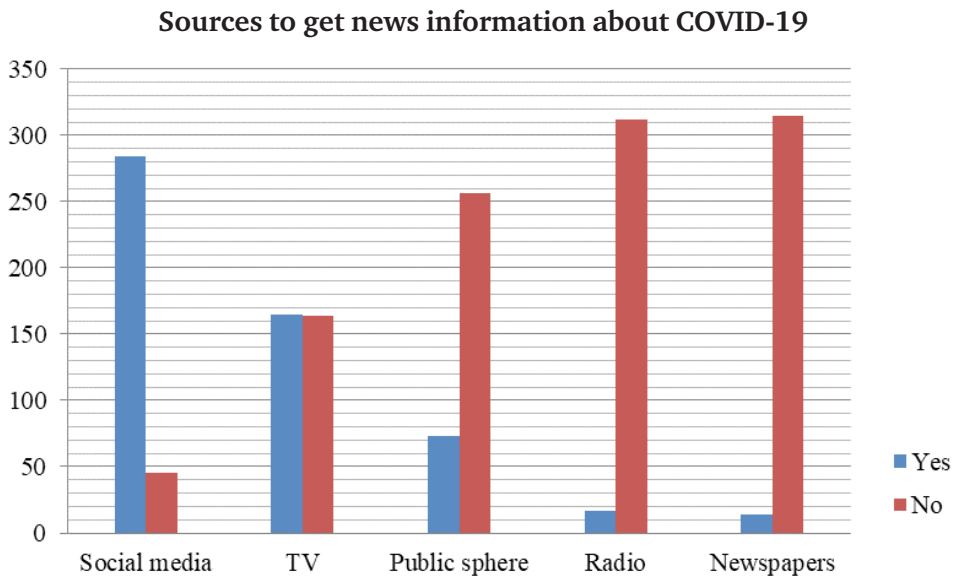
An electronic questionnaire was utilized and due to the COVID-19, Convenience sample was used. Convenience sampling, which is considered as an accidental sample, enables researchers to choose easily the sample of the study (Etikan, Musa, & Alkassim, 2016). According to these authors, this type of non-random sampling is accessible and available at any time. Regarding educational level, 90% of participants have university level and 10% of them have only high school level. The survey was conducted in the east of Algeria. Therefore, a total of 400 questionnaires were sent to the population during May to June 2021. Regarding the population of our research, the sample consisted of 329 people. Among the participants, 65% (215) were male and 35% (114) were female. Regarding the age of participants, 31% are aged between 18 and 30 years old, 39.1% are between the ages of 31 and 40 years old, 20.7% are between 41 and 50 years old, 9.2% are between 51 and 60 years old. More than 80 % of participants were from urban areas and the proportion 19, 5% were from rural areas.

Results

Research Question 1: What are the main sources to get news information related to coronavirus pandemic?

As can be seen, *Figure 1* contains data regarding the sources used by participants to get credible and accurate information about coronavirus disease. In fact, the majority (86%) said that they follow Social media in order to obtain news information concerning the COVID-19. On the other hand, TV is considered as the second main media to provide the evolution about coronavirus pandemic. The proportion of half (50%) of respondents uses TV to get information regarding this disease. The public sphere comes in third position. Thus, 22% of participants in this study indicated that they prefer public sphere to know about the COVID-19. According to this figure1, Newspapers (4%) and Radio (5%) are less used to get news information about coronavirus.

Figure 1

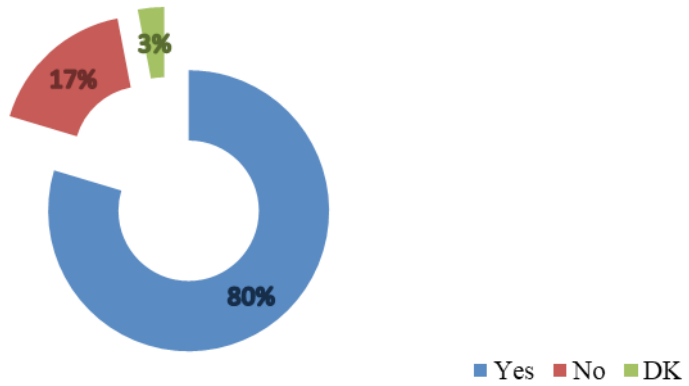


Research Question 2: Do you think that the information provided by the Algerian media about coronavirus is sufficient?

The result in *Figure 2* demonstrates that the majority (80%) of respondents indicated that the information given by the Algerian mass media regarding the COVID-19 is sufficient. On the other hand, the percentage of (17%) of the participants said that the information provided by the Algerian mass media is insufficient. Finally, the proportion of (3%) of participants chooses the option 'I don't know'.

Figure 2

Sufficiency of information provided by media

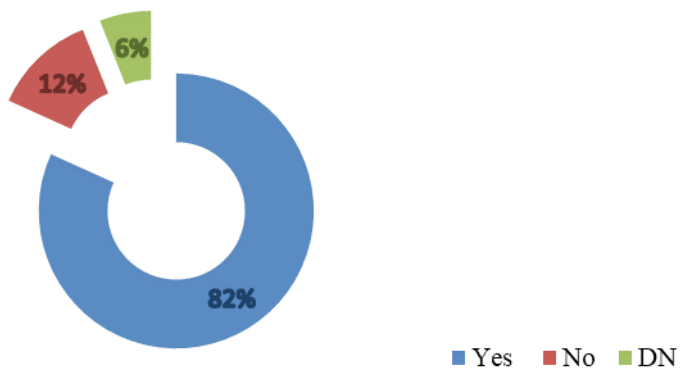


Research Question 3: Do you think that the language used by the media about coronavirus pandemic is easy to understand?

Regarding the content presented by the Algerian media about coronavirus disease, *Figure 3* shows that (82%) of participants answered that they found the language used by the media is easy to understand. In contrast, the proportion (12%) of respondents said that the content of media is not easy to understand. Lastly, 6% of respondents choose the option 'I don't know'.

Figure 3

Language of messages used by the media



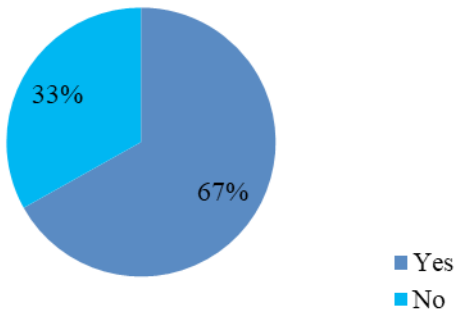
Research Question 4: Could you please mention the aspects covered by the media upon when dealing with the coronavirus?

Participants were asked to mention the aspects covered by the media concerning COVID-19. Regarding the coverage of the Algerian media, data in *Figure 4* below shows that 85% of participants indicated that the mass media cover mostly information about both statistics and preventive and protective procedures of coronavirus. Additionally, about two thirds (66%) of respondents view the measures taken by government to stop the spread of coronavirus as topic most covered by the mass media in Algeria. Finally, according to respondents, Algerian media don't talk about research and scientific studies related to COVID-19.

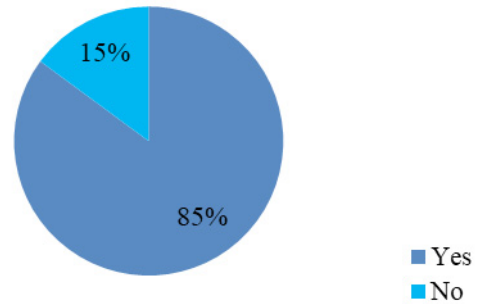
Figure 4

Aspects covered by the media upon when dealing with the coronavirus

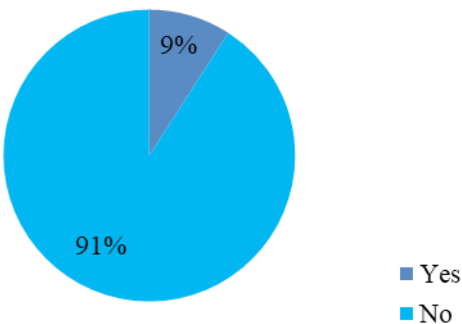
(a) Do the media cover measures taken by government to stop the spread of coronavirus?



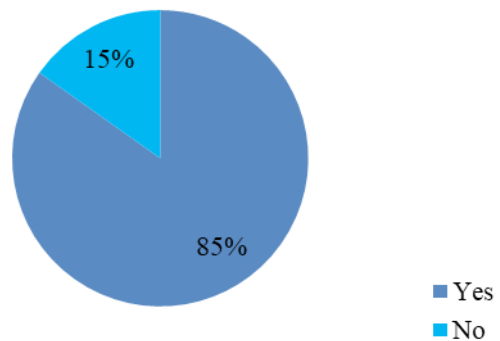
(b) Do the media diffuse information about precaution and prevention of COVID-19?



(c) Do the media present new research and studies about COVID-19?



(d) Do the media give daily statistics about coronavirus?

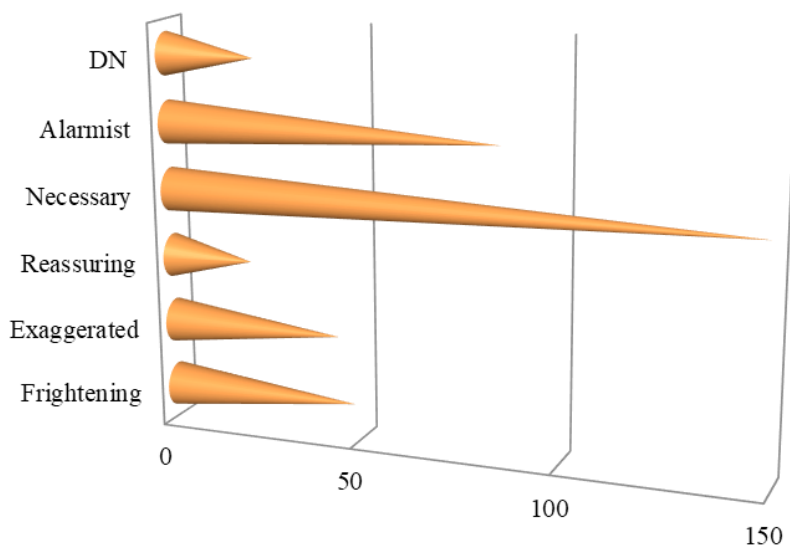


Research Question 5: How to assess the information provided by the Algerian media on the issue of coronavirus?

Result in *Figure 5* shows that the highest proportion, 45% of respondents consider the information regarding coronavirus provided by the mass media is necessary. In addition, more that 25% of participant indicated that the information presented by the media about coronavirus is alarmist. On the other hand, the percentage of 14% of participants answered that the information provided by the media is frightening and the proportion 13% of respondents view it as exaggerated.

Figure 5

Assesment of information diffused by the mass media



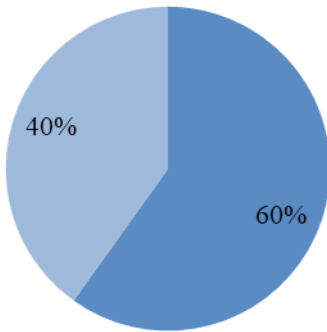
Research Question 6: What are preventive and protective measures that you and your family followed during the coronavirus period to prevent about it?

Regarding the preventive measures taken by respondents and their family to prevent against coronavirus, the highest proportion, 92% of participants said that they washed their hands frequently during the day. About 88 % of respondents indicated that they wear mask most the time and more than 82% of participants said that they avoid gatherings in public places. In addition, more than 77% of respondents answered by respecting the quarantine restrictions imposed by government and more than 75% answered by respecting social distancing when they are out of their house. Lastly, the proportion 60 % of respondents indicated that they ventilate indoor spaces.

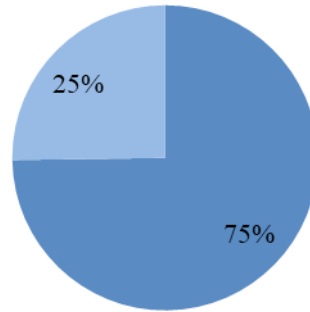
Figure 6

Preventive measures followed during coronavirus disease

(a) Do you ventilate when you are in closed places?



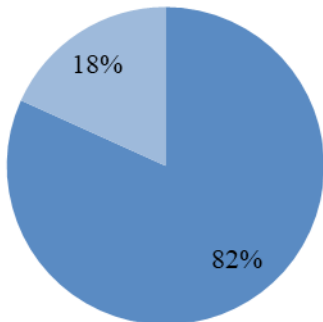
(b) Do you respect social distancing in public spheres?



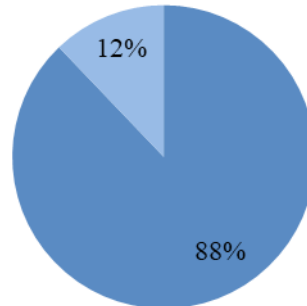
■ Yes
■ No

■ Yes
■ No

(c) Do you avoid gathering in public spaces?



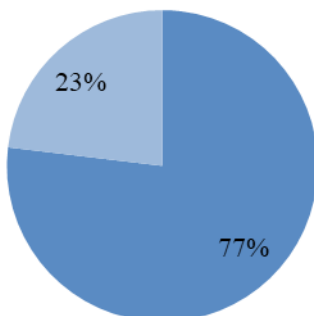
(d) Do you wear mask when you are out of your house?



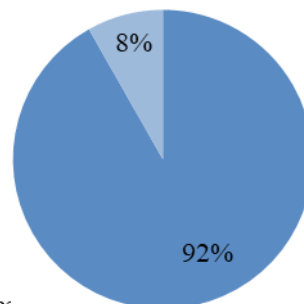
■ Yes
■ No

■ Yes
■ No

(e) Do you respect quarantine restrictions imposed by government?



(f) Do you wash regularly your hands?



■ Yes
■ No

■ Yes
■ No

Discussion

The purpose of this study is to explore the role played by the Algerian media during COVID-19 in providing enough information in order to convince people about existing risk. Regarding the first question related to the media most preferred to get sufficient information about the evolution of coronavirus in the country, the findings show that about 86% of respondents used Social media in order to obtain new information concerning the COVID-19. This finding can be explained that the majority of respondents were young and they use in their daily life social media applications on their mobile phone. According to Zaghلامي (2020), in Algeria the youth aged under 35 represent the highest proportion 65%, and more of 80 % of this category swim in the ocean of social media through cell phone. In Algeria, about 20 millions use social media and 50% of the population are present on platform Facebook (Zaghلامي, 2020). This result confirmed the opinion of Chatterjee et al. (2020) that 93% of participants utilize cell phone which is very easy to manipulate and to carry it anywhere. *Figure 1* shows also that TV used by 50% of participants in this current crisis and the traditional media like newspapers and radio were less used by respondents. In his work, Wormer (2020) reveals that in the current crisis of coronavirus the people are remarkably using and continue to use the TV to refresh their knowledge about coronavirus. An outbreak of coronavirus has changed people habits. In fact, many people spend more time watching TV during the quarantine. For example, the government in Algeria has imposed confinement many times. The newspapers and Radio are less used by people. But Wormer (2020) indicated that the use of classical media has remarkably risen in times of crisis.

Concerning the quantity and the quality of information about coronavirus issue, the majority of participants (80%) indicated that the media in Algeria provide sufficient information using easy language in coronavirus coverage. For Malecki et al. (2020), to perform risk communication process needs 'clear, simple and appropriate messages', because the key role of risk communicators is to help general people to understand correctly the content and to respond in right way. Glik (2007) estimate that professionals of risk communication may make technical language during crisis very easy to understand by general public.

According to *Figure 4*, the survey findings reveal that the main topics covered by Algerian media are: statistics about coronavirus (85%), precaution and prevention (85%), measures taken by government (67%), and research and studies (9%). The National Commission for Monitoring and Surveillance of the coronavirus Epidemic in Algeria announces every day the latest statistics

related to the coronavirus pandemic. In this study, we can notice that there is a strong link between the type of information provided by the media and different preventive measures followed by respondents. For example, the majority of participants reveal that the media diffuse the information about precaution and prevention and the same proportion obey several preventive measures.

We observe remarkable respect of protective measures provided by the media and recommended by the World Health Organization and health agencies. In fact, 92% of participants said that they washed their hands frequently during the day. In addition, 88 % of respondents indicated that they wear mask most the time and more than 82% of participants said that they avoid gatherings in public places. Thus, 77% of respondents revealed that they respect the quarantine restrictions imposed by government and more than 75% answered by respecting physical contact when they are out of their house. Lastly, the proportion 60 % of respondents indicated that they ventilate indoor spaces. In their work, Heydari et al. (2021) has found that there is link between risk communication on preventive and protective activities against COVID-19. Besides, Varghese et al. (2021), revealed that the respect of social contact is highly respected in Italy than in Portugal.

Conclusion

This study investigated the role-played by the Algerian media in times of coronavirus pandemic on one hand. On the other hand, it highlighted the quality and quantity of information communicated to the public in order to raise understanding and awareness regarding the COVID-19. The findings show that respondents used many sources to get news information related to COVID-19. Among these media, social media is the most important tool used by people to obtain information and knowledge in order to understand the existing or potential risks. According to findings, we can also notice that TV is becoming more important especially in times of confinement in Algeria. It is worth noting that this study has been taken place in the east of Algeria; so it could not apply to other regions. Digital divide could be one of the barriers which face people from the south of Algeria. On the other hand, social media represent preferred channel to canalise fake news in order to manipulate and deceive people. In this context, health services and mass media both should intensify collaboration to verify all data communicated to public at large concerning this pandemic.

We can easily observe that the media has a crucial role in the risk communication process. In times of uncertainty, people move from source to source to meet their information needs. Also, Alaszewski (2005) views receivers

during crisis as active individuals seeking news information related to hazard from several media in order to make the right decision. Even people seek voluntary or involuntary information in times of uncertainties, Zhang et al. (2020) suggested that communicators should keep receivers informed in real time in times of uncertainty to cope correctly with all kinds of risk. Good plan for such campaigns is of greater importance to improve the understanding of the community on how to behave toward the risk.

We conclude that the media are great player in the risk communication process during crisis and different kinds of risk. As a result, the government should implicate the media in risk communication situations in order to send communicative messages to the general public. As recommendation, media literacy represents today useful programmes to help people how to use media especially during the time of uncertainty. A serious reflection should be taken to integrate media literacy in all cycles of education.

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