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The role of believing fake news on compliance of anti-COVID-19 measures in Mexico

La creencia en fake news *y su rol en el acatamiento de medidas contra COVID-19 en México*

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Abstract
During the COVID-19 pandemic, fake news proliferated along with the concern that they would affect behavior regarding the disease. With a semi-representative survey in Mexico (N = 1211), this study analyzes a mediational process to determine the impact of the use of traditional and social media on compliance with contagion prevention measures, through the perception of veracity of fake news about COVID-19. As anticipated, results indicate that believing fake news leads to less compliance of preventive measures. Likewise, the analysis indicates that, consistent with our hypothesis, using social media leads to more belief in fake news, but contrary to our expectations, consuming traditional media also leads to a greater belief in fake news. In particular, the study explored the mediating role of belief in fake news on the effect that using traditional and social media has on compliance with preventive measures. We found evidence for this indirect effect: use of traditional and social media is a predictor of believing fake news about COVID-19, which then results in lower compliance with measures. In contrast, the direct effect of using traditional and social media on compliance with measures has a positive direction. Thus, this work evinces that fake news can hinder the resolution of the health crisis, by discouraging compliance with preventive strategies.

Keywords
Media use, COVID-19, disinformation, social media, fake news, México.

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Resumen
Durante la pandemia por la COVID-19, las *fake news* proliferaron y con ello la preocupación de que estas afecten el comportamiento ante la enfermedad. Mediante una encuesta semi-representativa en México (N = 1211), este estudio analiza un proceso mediacional para determinar el impacto del uso de medios tradicionales y sociales en el acatamiento de medidas de prevención de contagio, a través de la percepción de veracidad de *fake news* sobre COVID-19. Como se anticipaba, los resultados indican que creer en noticias falsas conduce a un menor cumplimiento de medidas preventivas. Asimismo, el análisis indica que, en congruencia con nuestra hipótesis, usar redes sociales lleva a creer más en *fake news*, pero contrario a lo esperado, consumir medios tradicionales también deriva en mayor creencia de noticias falsas. Particularmente, el estudio exploró el rol mediador de la creencia en *fake news* en el efecto del uso de medios tradicionales y sociales en el seguimiento de medidas preventivas. Se encontró evidencia de este efecto indirecto: el uso de medios tradicionales y sociales es un predictor de creer *fake news* sobre COVID-19, lo cual resulta en un menor acatamiento de medidas. En cambio, el efecto directo de usar medios tradicionales y sociales sobre el acatamiento de medidas tiene una dirección positiva. Así, este trabajo evidencia que las *fake news* pueden obstaculizar la resolución de la crisis sanitaria, desincentivando el cumplimiento de estrategias precautorias.

Palabras clave
Consumo de medios, desinformación, COVID-19, redes sociales, *fake news*, México.

Introduction

Although the pandemic due to the COVID-19 disease is not the first that humanity faces, a difference indicated by the World Health Organization (WHO) with respect to other similar contingencies, is that the present phenomenon is amplified by current practices and possibilities that human beings have to travel further and faster (Zarocostas, 2020). A similar problem has been identified with information about the disease, in such a way that multiple pieces of information, both true and false, have a wide reach thanks to the internet and social networks. During the coronavirus crisis, this dynamic has generated what the WHO called an infodemic, that is, the rapid dissemination of all kinds of information, which makes it difficult to solve the problem (WHO, 2020). According to Sylvie Brand, who is in charge of

the WHO strategy to counteract the infodemic, the challenge faced with this problem is to ensure that people receive correct information to act appropriately and mitigate the impact of the disease (Zarocostas, 2020).

Historically, the traditional information media have carried out this primordial role at critical moments, therefore the public understanding of the problem in question is configured from media messages (Picard & Yeo, 2011). Both in the present crisis and in previous ones —that of AH1N1, for example— the population has resorted to the media to lessen the uncertainty about the situation (Muñiz, 2011). However, in the current scenario, in which people are also informed through social networks, traditional media have lost their hegemony in the flow of information that impacts public opinion (Vos & Thomas, 2018). These conditions favor the circulation of misinformation about the disease, from the authenticity of its origin, government measures to control it, the forms of contagion, and possible cures. The main concern in the face of this abundance of falsehoods is that the truth, in these circumstances, is a matter of life and death (Pennycook et al., 2020), since believing in false news can lead to dismissal of COVID-19, self-medicate with remedies useless or dangerous and to disregard the instructions of the authority, putting at risk the health of the population and the ability of governments to be effective (Pulido et al., 2020).

The topic of fake news has gained interest in recent years (especially with regard to political disinformation) and relevant aspects have gradually become known around it, such as, for example, the role of media consumption habits in perceiving this information as true. This work aims to contribute to this literature, placing the study of misinformation in the Mexican context during the first months of the pandemic, with the goal of presenting evidence on how widespread the belief of false information about COVID-19 is in Mexico, as well as the relationship between the use of media (traditional and social), the perception of the veracity of misinformation about COVID-19 and compliance with preventive measures in the face of the pandemic.

COVID-19 in Mexico

In Mexico, the first case of COVID-19 was confirmed on February 27, 2020. By April 21, the country had entered phase 3, given the evidence of active outbreaks and spread throughout the country (Suárez et al., 2020). In Oc-

tober 2020, the figure reported by federal authorities was around 854 thousand cases and more than 86 thousand deaths (Government of Mexico, n.d.).

Parallel to the spread of the virus, fake news about the disease also impacted the Mexican population. A count carried out by the country's Public Broadcasting System identified that between March and July 2020, 1,294 fake news circulated (Zapata, 2020). In the first weeks of the epidemic, the vast majority of users of WhatsApp (90%), Instagram (91%), Twitter (89%), YouTube (83%), and Facebook (88%) detected a high circulation of fake news in such platforms (National Autonomous University of Mexico, 2020).

Health media coverage

Messages regarding health in the media are an important resource and have a notable influence on contemporary society (Seale, 2002). This media content can have an impact both on individual behavior and on ideas about public policies at the collective level (Bryant et al., 2013). These effects have been detected both for information published in traditional media and for information found on the internet, which, in recent decades, has facilitated the processes of collecting health information to make decisions (Soederberg-Miller & Bell, 2012). However, online health information has been questioned as there is evidence that a large proportion is false (Wang et al., 2019). The popularity of this false information can have pernicious consequences for public health and individual health decisions (Pulido et al., 2020). The most abundant health misinformation online is related to the issue of vaccines and infectious diseases that have been important in recent years such as Ebola and Zika (Wang et al., 2019). This trend seems to be replicated with the COVID-19 pandemic, during which, given the incipient knowledge about the disease and amidst uncertainty, rumors and narratives based on false information arose (Xaudiera & Cardenal, 2020).

What is fake news?

The use of unverified information for the purpose of manipulating public opinion is not new and can be traced even to ancient Greece (Garrett, 2011). However, the characteristics of the current media environment, in particular thanks to social networks, have favored the dissemination of false information

due to the attributes of these platforms, which facilitate the creation and sharing of content and connect users online (Al Rawi, 2019). Such characteristics imply fewer filters regarding the messages that are spread and a greater potential for these to go viral. In addition to these differences with respect to traditional media, which used to be the main mechanism for acquiring and making sense of information about the context, it is added that social networks have led to important changes in information consumption habits, becoming more and more one of the main sources through which citizens find news (Song et al., 2020). In Mexico, 22% of the population uses social networks to search for information (Federal Institute of Telecommunications, 2019). These conditions can exacerbate the effects of misleading messages (Garrett, 2019) because the public spends more and more time in an environment where misinformation is easily created and circulated (Bridgman et al., 2020).

In this way, the phenomenon of disinformation has acquired interest not only at an academic level but also in public discussion, particularly around the concept of fake news. This term is not new either and its use has evolved, from being previously used to refer to political satire, parody news, and propaganda (Tandoc Jr. et al., 2019) to the current use, especially after the election of Donald Trump to the presidency of the United States, which is considered as a genre of pseudo-journalistic stories manufactured to misinform (Jones-Jang et al., 2020). In one of the first studies on this topic in the context of the aforementioned US election, Allcott and Gentzkow (2017) define fake news as "intentionally and verifiably false news, which can mislead readers" (p. 213). Another important characteristic of these news formats is that they seek to resemble conventional journalistic pieces (Tandoc Jr., 2019).

The two motivations that are usually associated with this type of false content are: financial interests, since the traffic generated by these pieces can be monetized through the sale of ads; and ideological or political interest, in order to discredit certain public figures or push a certain ideological agenda (Allcott & Gentzkow, 2017).

Previous studies on fake news

Fake news has become a source of concern for public actors and civil organizations (Wasserman & Madrid-Morales, 2019) an object of study by academics due to the possible impact on public opinion, leading individuals to make

decisions based on incorrect information (Tandoc, Jr. et al., 2019). Researchers on this topic have been interested in understanding various aspects related to the phenomenon, from what is its scope (Allcott & Gentzkow, 2017); who creates and shares this content (Allcot & Gentzkow, 2017; Bridgman et al., 2020; Garrett, 2019; Calvillo et al., 2020; Guess et al., 2019; Jamieson & Albarracín, 2020); the cognitive processes involved in believing or not believing false information (Bago et al., 2020); definitions of the concept by journalists (Tandoc Jr. et al., 2019) and the public (Wagner & Boczkowski, 2019; Nielsen & Graves, 2017); and to a lesser extent, the consequences on citizen attitudes regarding aspects such as trust in the media (Van Duyn & Collier, 2019; Wasserman & Madrid-Morales, 2019) and political cynicism (Jones-Jang et al., 2020).

A variable that has been found to be a determining factor in terms of who believes and shares fake news is age, although the conclusions have been contradictory. Allcott and Gentzkow (2017) establish that older people believe less in fake news while Guess et al. (2019) find that people over 65 share this type of content more. Political ideology has also been identified as an important variable: conservative people are more likely to share false information (Guess et al., 2019) and have difficulty distinguishing between fake and real news (Calvillo et al., 2020). Finally, another factor to consider is the educational level, since people with more education tend not to believe in fake news and to have correct notions about the news (Bârgăoanu & Radu, 2018; Nyhan & Reifler, 2012).

Additionally, some important differences have been found regarding who believes in fake news according to their media consumption habits. Allcott and Gentzkow (2017) point out that those who consume more information are less likely to believe fake news. Garrett (2019), for his part, indicates that, during the US presidential election in 2012, social media users tended to believe more in fake news about President Barack Obama, but that, in 2016, Facebook users were less likely to believe in false information. These differences are particularly relevant in a context in which, as mentioned before, more and more people are informing themselves through social networks.

Disinformation and COVID-19

In view of the challenge posed by the presence of misinformation for the effective communication necessary around the COVID-19 disease, the academy has focused its attention on investigating the phenomenon in the

context of the pandemic, which has been called the worst wave of disinformation (Valera, 2020). Some of these studies detected the high presence of false information in social networks (Bridgman et al., 2020; Moscadelli et al., 2020; Pulido et al., 2020; Xaudiera & Cardenal, 2020). For example, a content analysis by Bridgman et al. (2020) in messages published on Twitter and news articles in Canadian media found that disinformation was more present in the social network than in the other analyzed media. In another study focused on Twitter, Pulido et al. (2020) found that false information was tweeted twice as often as evidence-based information, although the latter obtained more retweets. Moscadelli et al. (2020) reported that up to 23% of links shared on the internet in Italy contained fake news.

On the other hand, more recent works on disinformation during the coronavirus crisis have sought to elucidate which are the predictors of perceiving this content as true. Calvillo et al. (2020) established that being of a conservative ideology is a predictor for having a lower capacity to correctly discern between fake and real news about the disease, in addition to feeling personally less vulnerable to the virus. Other research has focused on the role of social media use and the public's perception of the veracity of false information about COVID-19. The findings of Jamieson and Albarracín (2020) point out that those who report getting information on social media platforms, among the US population, are more misinformed about the coronavirus and create more false information. Similarly in the Canadian context, Bridgman et al. (2020) point out that those who consume more news information in traditional media have fewer erroneous notions about the condition, contrary to those who inform themselves via social networks, who believe more in misinformation about the COVID-19 disease. In addition, these authors found that, in turn, believing false information about COVID-19 is linked to lower compliance with social distancing measures.

Although these findings are valuable to better understand this phenomenon, Wasserman and Madrid-Morales (2019) emphasize that, despite being a problem that is detected at a worldwide scale, most of the current literature has focused on the Global North. In this way, this study aims to join the line of research undertaken internationally but which is still incipient in Mexico, in order to contribute to the understanding of the impact of disinformation in this country. Taking into consideration the antecedents and empirical evidence described, in this article the following hypotheses and research question are proposed:

H1. Perception of the veracity of fake news will be negatively related to compliance with contagion prevention measures.

H2. Using social media to learn out about COVID-19 will be a predictor of believing fake news about COVID-19.

H3. Using traditional media to find out about COVID-19 will be a predictor of not believing fake news about COVID-19.

PI 1. Will the use of social networks (traditional media) negatively (positively) impact compliance with contagion prevention measures through the level of perception of the veracity of fake news?

Method

In order to evaluate the hypotheses and questions, a national online survey was conducted, administered by the company QuestionPro, using a multi-stage probability sampling that takes the Nielsen areas of Mexico as a reference. The survey was applied between September 1 and 8, 2020, to 1,211 persons of legal age.

The sample is composed as follows. Regarding sex, 50.9% identified themselves as female and 49.1% as male. The ages ranged from 18 to 79 years (M = 39; SD = 13.83). In terms of educational level, 9% reported having secondary school studies or less, 32% had high school studies, 52.4% had university studies, and 6.6% had postgraduate studies. 19% of the respondents were in the two highest economic levels according to the Nielsen classification (ABC +), 34% were in the intermediate levels (C / C-) and 47% were in the two lowest levels (D / D +).

The applied questionnaire contained questions to evaluate the following variables of interest for this study:

Use of social networks. Respondents were asked to answer on a scale of 1 to 5 (1 = Never, 5 = Every day), how often they were informed about the pandemic through Facebook, Twitter, WhatsApp, and YouTube. The responses to these four questions were averaged to generate a composite index (M = 3.12; SD = 1.01; α =.76).

Use of traditional media. Respondents reported on a scale of 1 to 5 (1 = Never, 5 = Every day) how often they learned about the pandemic through news or information in print newspapers, on radio, on television, and in digital newspapers. The responses to these four items were averaged (M = 3.33; SD =.90; α =.72).

Perception of the veracity of fake news about COVID-19. Participants were asked to rate their level of agreement and disagreement (1 = Not at all, 5 = Strongly agree) with seven statements that made reference to rumors or false information that circulated regarding COVID-19, such as "The origin of the coronavirus does not it is natural, but this was created by scientists in a laboratory "and" The disease COVID-19 does not exist. The responses were averaged to generate the scale (M = 2.08; SD =.87; α =.82).

Compliance with contagion prevention measures. Participants reported on a scale of 1 to 5 (1 = Never, 5 = Very often) how well they have complied with a series of measures to prevent getting the disease. Among the 18 questions, they were asked, for example, about the use of face masks to cover the nose and mouth, avoiding public places with a lot of people, working from home, canceling or delaying trips by plane, train, or bus, and hand washing. The responses were averaged (M = 4.19; SD =.66; α =.92).

Likewise, sociodemographic variables such as sex (man = 1, woman = 0), age, socioeconomic level (ABC + = 1, Others = 0), educational level (With university studies = 1, Without university studies = 0), political ideology —measured on a scale of 1 to 10 (1 = left, 10 = right) - and political party preference (Identifying with a party = 1, Nonpartisan = 0).

Results

Table 1 shows the partial correlations of the variables that were included in the study. This analysis makes it possible to identify whether there is collinearity between the variables of interest, controlling for the effects of the sociodemographic variables. The highest correlation in this table was between the use of traditional media and the use of social networks, partial r (1203) =.503, p <.001, consequently collinearity problems are ruled out, as there are no higher correlations than r =.90. Additionally, this analysis shows significant relationships between the variables under study. The perception of the veracity of fake news is positively related to the use of traditional media, rpartial (1203) =.179, p <.001, and with the use of social media, rpartial (1203) =.244, p <.001. Likewise, compliance with contagion prevention measures is positively related to the use of traditional media rpartial (1203) =.327, p <.001 and with the use of social media, rpartial (1203) =.265, p <. 001. On the other hand, the perception of the veracity of fake news is negatively related to compliance with contagion measures, partial r (1203) = -.111, p <.001.

To evaluate the hypotheses and research question, mediational analyzes were performed using the macro PROCESS (Hayes, 2013) executed in the SPSS data processing software. According to the hypothesized relationships, model 4 was selected, with a bootstrapping of 5000 samples and a confidence level of 95%, to evaluate the role of believing in fake news about COVID-19 in the impact of the use of social media and traditional news sources on complying with contagion prevention measures.

Regarding the first analysis, in which the use of social networks was considered as an independent variable, the perception of the veracity of fake news as a mediator, and compliance with prevention measures as a dependent, the results are explained below. The model shows that the use of social networks significantly predicts the proposed mediator variable, the perception of truthfulness of fake news about COVID-19, $F (7, 1203) = 16.589$, $p <.001$, $r2 =.088$, and the variable dependent, compliance with contagion prevention measures, $F (8, 1202) = 26.619$, $p <.001$, $r2 =.150$. The analysis also shows a significant indirect effect between $a*b = -.029$, $SD =.006$, since the confidence limits do not cross zero IC [-.042, -.018]. Figure 1 shows the evaluated model. In this sense, an indirect effect of the use of social networks on compliance with prevention measures is observed through the perception of the veracity of fake news, with those who use social networks being the most likely to believe in the veracity of fake news ($\beta =.211$, $p <.001$), which resulted in lower compliance with prevention measures ($\beta = -.139$, $p <.001$).

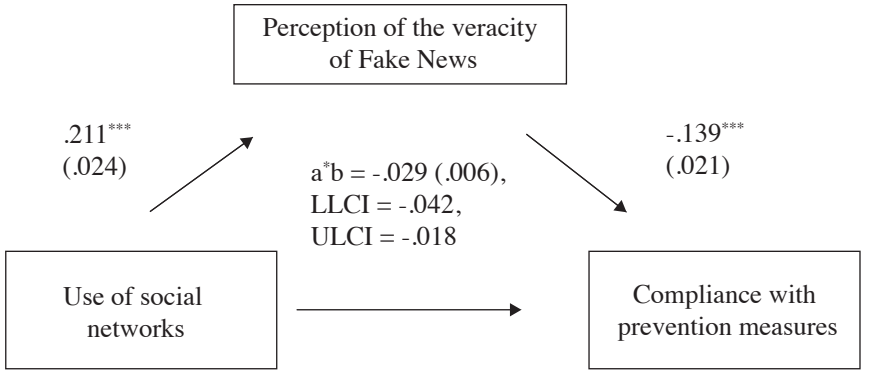
The results of the second mediational analysis, in which the independent variable was the use of traditional media, indicate that this variable significantly predicts the proposed mediating variable, believing in fake news about COVID-19, $F (7, 1203) = 11.283$, $p <. 001$, $r2 =.061$, and the dependent variable, compliance with contagion prevention measures, $F (8, 1202) = 33.621$, $p <.001$, $r2 =.182$. Likewise, a significant indirect effect was found $a*b = -.022$, $SD =.005$, since the confidence limits intervals do not cross zero IC [-.033, -.013]. Figure 2 represents these results. In this sense, an indirect effect of the use of traditional media on compliance with prevention measures is observed through the perception of the veracity of fake news ($\beta =.173$, $p <.001$), being those who use traditional media to find out about the pandemic the most the ones that had the greatest perception of the veracity of fake news, which resulted in lower compliance with prevention measures ($\beta = -.131$, $p <.001$).

Table 1
Correlations between the study variables

	1	2	3	4	5	6	7	8	9	10
(1) Use of traditional media	-	.503***	.179***	.327***	.019	.045	.056	.070*	.033	-.206***
(2) Use of Social Networks		-	.244***	.265***	-.059*	.062*	.045	.043	-.001	-.172***
(3) Perception of veracity of FN			-	-.111***	-.059*	.017	-.053	.030	.019	-.143***
(4) Compliance with prevention measures				-	.139***	-.142***	.104***	.006	.021	-.062*
(5) Age					-	.061*	.164***	-.081**	.060*	-.122***
(6) Men						-	.016	.176***	-.028	-.136***
(7) University studies							-	.146***	.043	-.029***
(8) Socioeconomic level								-	.033	-.085**
(9) Ideology									-	0.058*
(10) Nonpartisan										-

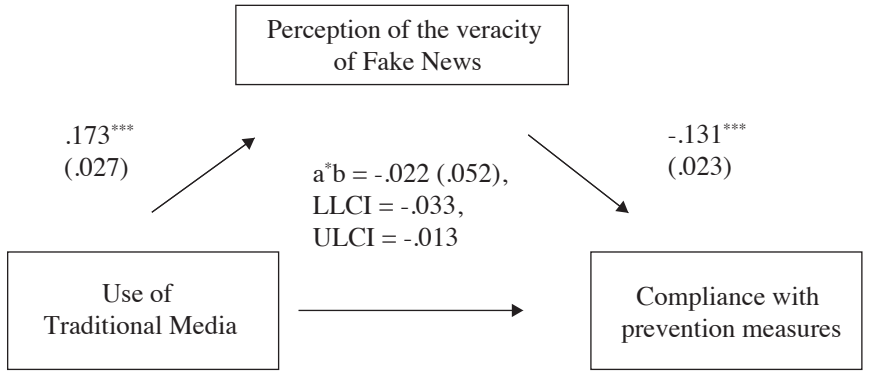
Note: N = 1211. *p <.05, **p <.01, *** p <.001; FN = *fake news*
Source: Own elaboration

Figure 1
Fake news perception mediation model in the effect of using social networks on compliance with prevention measures



Nota: * p < .05; ** p < .01; *** p < 001. (DE)
Source: Own elaboration

Figure 2
Fake news perception mediation model in the effect of using traditional media on compliance with prevention measures



Nota: * p < .05; ** p < .01; *** p < 001. (DE)
Source: Own elaboration

These findings lead to the following conclusions about the hypotheses. Hypothesis 1 is accepted, both models indicate a negative relationship between believing fake news about COVID-19 and complying with contagion prevention measures. Hypothesis 2 is also accepted as it is found that the use of social networks is a predictor that positively impacts the perception of believing in fake news. On the other hand, the results show a positive relationship between the use of traditional media and believing in fake news, so hypothesis 3 is rejected. Regarding the research question, both the model with social networks as an independent variable, as well as the one with traditional media as a predictor, a significant indirect effect was found, in which the impact of the use of these information channels on compliance of contagion prevention measures was mediated by the variable of perception of the veracity of fake news, in both cases, the monitoring of information channels contributed to reducing compliance with security measures through the belief in the veracity of fake news.

Discussion

This study sought to establish, in the context of the infodemic that occurred during the COVID-19 pandemic, how fake news affects people's behavior towards the disease. In particular, a mediational process was evaluated to determine the impact of the use of traditional and social media on the compliance with contagion prevention measures, through the perception of the veracity of fake news about COVID-19. The aim of this analysis is to know, in more detail, the dynamics by which, when learning about the disease through different channels in an environment in which false information is present, fake news can have harmful consequences in a health crisis situation.

The results of this work confirm one of the immediate concerns regarding the multiple rumors and fake news about the pandemic. Similar to that established by Bridgman and others (2020), this analysis indicates that believing in fake news about COVID-19 leads to less compliance with contagion prevention measures such as the use of face masks, avoiding being in crowded public places, and keeping distance from others. Although it stands out in a positive way that the belief in fake news was not very widespread among the surveyed sample, while the level of compliance was high, the relationship found between one variable and another is still disturbing given

the nature of the problem —a health crisis— and the characteristics of false information —by referring to false cures and even denying the existence of COVID-19. Under these conditions, the impact of disinformation, even in a small portion of the population, puts the health of these people at risk and hinders the containment of the epidemic.

In line with other research on fake news, a particular interest of this study was to establish the impact of information consumption habits on the tendency to believe in misinformation, in this case about the pandemic. Previous works have explored the role of social networks, which have been identified as catalysts of the current disinformation environment (Al Rawi, 2019). The results indicate that the use of social networks to obtain information about COVID-19 has a positive impact on believing in fake news, in such a way that the greater the use of these platforms (YouTube, Facebook, Twitter, and WhatsApp) there is a greater perception of fake news about COVID-19 as real. This result coincides with previous works, which both for political information (Allcott & Gentzkow, 2017, Garrett, 2019), and for the specific case of COVID-19 (Bridgman et al., 2020; Jamieson & Albarracín, 2020), establish the negative effects of social networks on the ability to discern between true information and false information.

On the other hand, the results of this study regarding the role of the use of traditional media in believing in fake news were contrary to the previous literature that indicates that using this type of information channels leads to being better informed and believing less in misinformation (Allcott & Gentzkow, 2017; Garrett, 2019), including the one on COVID-19 (Bridgman et al., 2020; Jamieson & Albarracín, 2020). Instead, the present analysis found a significant relationship between using television, radio, and print and digital press to learn about the pandemic and perceiving fake news about COVID-19 as true. A possible explanation for this unexpected result is the saturation of information about COVID-19, through all kinds of channels, six months after the health crisis (while the aforementioned studies were carried out at the beginning of it), which could lead to an accumulation of contradictory information that caused confusion about the disease. Undoubtedly, disinformation about COVID-19 can have very particular implications, and potentially different from false content on other topics, due to the nature of the problem, which has dominated attention and altered the lives of all humanity. Likewise, it should be noted that the variable that was used to evaluate the use of the media referred only to exposure to the media,

without going in-depth regarding the attention to specific content, which can be very varied in terms of the quality of the information. These differences can have an impact on the degree of learning about a topic, which in turn could explain this unexpected result.

On the other hand, it is worth considering alternative explanations that have been outlined by other authors (Von Duyn & Collier, 2020) who argue that journalistic discourse on fake news leads to greater mistrust in the media and into believing in fake news. The results of this study do not allow conclusions to be drawn about this possibility, but as misinformation is consolidated as one of the most important problems of the 21st century, the treatment that traditional media give to this issue and this type of false content, as well as the effects of such coverage should be further explored in future research.

Now, the mediational analysis yields relevant results on the interaction between the three variables of interest, which allows us a better understanding of the detrimental influence of fake news in the process of acquiring information about COVID-19 and the resulting behavior when facing the disease. The analyzes of both models yielded a significant indirect effect between the use of traditional media and social networks to obtain information and following prevention measures, mediated by the belief in fake news. Thus, in the causal chain proposed in the model, the use of media and social networks has a positive impact on believing in fake news, and this effect, in turn, has a negative impact on behavior to avoid contagion. However, the direct effect between the independent variable (use of media or social networks) and compliance with measures indicates a positive relationship. In other words, this analysis shows that to the extent that the consumption of information through social networks and the media leads to believing in fake news, —that is, the indirect effect is present— the direction of the relationship between the predictor and dependent variable changes as well. Although the results indicate that the two types of media fulfill their function of positively influencing the public so that they observe the stipulated recommendations to avoid contagion (taking into account the direct effect), the doubts generated by the very use of traditional media and social networks regarding the veracity of the misinformation about the disease, end up impacting the effect on compliance in a negative way.

Thus, this work contributes to the literature about fake news in Mexico and misinformation about the COVID-19 pandemic worldwide. The results

provide evidence of the obstacle that fake news can represent in advancing in the resolution of the health crisis, discouraging compliance with prevention measures. Similarly, these conclusions raise questions to be explored in later studies of the subject.

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