

Research Article

# News consumption and COVID-19: Social perception

## Consumo de noticias y COVID-19: Percepción social

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**Abstract:** On 14 March 2020, the Spanish Government declared a state of alert for the first time since the reinstatement of democracy, confining millions of people to their homes in effort to combat the COVID-19 pandemic. Amid emergency situations such as this, people need to be informed (Seeger et al., 2003). In light of this demand for information, the media responded by heightening the attention afforded to the pandemic and its news coverage, a phenomenon which has occurred repeatedly in similar situations (Ducharme, 2020; Pieri, 2018). Based on a survey of over 2,000 Catalan citizens during the period of lockdown, the main aim of this article is to analyse how the pandemic changed their information habits, gauge their perception of the media's coverage and determine whether this coverage produced information overload. The results show an upsurge in media consumption as well as information overload among virtually half the population. This generates a paradox: despite the increased consumption of information, the media did not help to improve people's understanding of the pandemic, but instead resulted in information fatigue, thus hindering comprehension.

**Keywords:** media consumption; news coverage; information overload; Catalonia; COVID-19.

**Resumen:** El 14 de marzo de 2020, el Gobierno español decretó el estado de alarma por primera vez en democracia, que confinó en sus hogares a millones de personas para combatir la pandemia de la COVID-19. Ante situaciones de alarma de este tipo, los ciudadanos necesitan estar informados (Seeger et al., 2003). Los medios responden a esa exigencia de información con un incremento de la atención mediática sobre la pandemia y de su cobertura informativa, fenómeno que se repite como constante en situaciones análogas (Ducharme, 2020; Pieri, 2018). A partir de una encuesta a más de 2000 ciudadanos de Catalunya durante el confinamiento, el presente artículo tiene como objetivos principales analizar si la pandemia modificó sus hábitos informativos, como percibieron la cobertura realizada por los medios y si se produjo sobrecarga informativa. Los resultados muestran un incremento del consumo informativo, así como sobrecarga informativa en casi la mitad de los ciudadanos. Ello genera una paradoja, a pesar de incrementar el consumo informativo, los medios no contribuyeron a mejorar su comprensión de la pandemia sino a generar una fatiga informativa que dificultó esa comprensión.

**Palabras clave:** consumo informativo; cobertura informativa; sobrecarga informativa; Catalunya; COVID-19.

## 1. Consuming information behind closed doors

On 14 March 2020, the Spanish Government declared a state of alert for the first time since the reinstatement of democracy, confining millions of people to their homes in effort to combat the COVID-19 pandemic (Royal Decree 463/2020, of 14 March 2020) (Government of Spain, 2020). At that time, Spain had one of the highest death rates per capita in Europe (Johns Hopkins University, 2020). In a context of uncertainty and isolation, such as that formed at that time, people not only turn to the media for information, but also to social media, which represents an important complement due, for instance, to the first-person accounts it provides from people at the scene of the events (Vis, 2009; Muralidharan et al., 2011; Watson, 2015).

There is extensive literature about information in emergency contexts such as the current pandemic or natural disasters, terrorist actions or accidents resulting in numerous casualties. They are events that sow fear and uncertainty among the population, who demand and require up-to-date, immediate and accurate information about what is going on (Seeger et al., 2003). In such situations, confidence in the media increases (Ball-Rokeach & DeFleur, 1976). Particularly in health crises, traditional media outlets are the ones that frame public debate (Scones, 2010; Pieri, 2018) while there is also an increased need to consume news about the disease (Davis & French, 2008).

In this context, it is easier for both citizens and the media to give in to feelings of fear and emotional responses, particularly at the outbreak of a pandemic, when science has yet to provide the necessary answers (Covello, 2003). These feelings are further aggravated by the media's often sensationalist coverage, which may spark greater alarm (Mandeville et al., 2013; Vasterman & Ruigrok, 2013; Nerlich & Koteyko, 2012). This type of coverage distorts the facts, as it provides contradictory information and even counterproductive recommendations, placing emphasis on the risk and uncertainty. Such was the case in previous health crises, such as the Ebola (Boehlert, 2014; Kilgo et al., 2019), mad cow disease (Washer, 2006) and SARS (Lewinson, 2008) outbreaks.

Another characteristic of the media's coverage of this type of situation is information overload, which may lead to the discontinuation of information seeking (Swar et al., 2017), the use of information sources (Zhang et al., 2020) and, lastly, information avoidance (Hanif et al., 2021; Chae, 2016).

Taking these circumstances into account, this article looks to shed further light on the relationship between Catalan citizens and information in such an extraordinary context. Unlike previous health crises, the COVID-19 pandemic entailed not only coping with an unknown and lethal disease, but also doing so amid such exceptional and unprecedented circumstances as the lockdown.

## 2. A disease named infodemic

Prior to declaring the pandemic, in February 2020, the World Health Organisation (WHO) flagged concerns about the dangers of the so-called "infodemic" (WHO, 2020). Such was the term chosen to denote the over-abundance of information, albeit rigorous and true or false and confusing, which makes it difficult to discern reliable sources. The events proved it right shortly thereafter. The WHO was well aware that information overload could pose a barrier to understanding the pandemic and compromise people's ability to combat it. The term "information overload" was first used by the futurist author Alvin Toffler, in his work *Future Shock* (1970), to describe the connection between excessive information and cognitive and sensory overload. In the field of psychology, "overload" is defined as the state in which the input of information exceeds the capacity to process it (Eppler & Mengis, 2004). In this regard, people have limited cognitive resources for processing information (Lang, 2000). Information overload denotes the ineffective processing of information and leads to confusion and mental stress. According to Schmitt, Debbelt and Schneider (2018), information overload is not simply the

exposure of an individual to an excessive amount of information in any context, but also implies that the individual suffers certain adverse effects as a consequence.

To Eppler (2015), information overload gives rise to two problems. On the one hand, it tests people's capacity to correctly process information while, on the other, making it difficult for them to pay attention to the correct and necessary information on which they must rely to make decisions and further their knowledge. In light of this situation, shortcuts are taken to purge information of excessive complexity, one of which is to filter out facts that run counter to one's own views. According to this author, other shortcuts include directing attention towards attractive rather than influential information, or giving greater consideration to the latest bits of information consumed, as opposed to all the information processed beforehand.

Schneider (1987) added another important element. Overload is not only dependent on the amount of information about a particular issue, but on the nature of the information itself (i.e. on its level of uncertainty, ambiguity, complexity and intensity). Factors noted in the information concerning the COVID-19 disease, particularly in the early stages, when our knowledge of how the virus acted, how it spread and how it could be effectively controlled was largely non-existent. Information overload generates a paradox: although, from a normative and democratic perspective, information is a desirable and sought-after asset, overexposure to news may lead citizens to feel psychologically overwhelmed. This sense of being saturated by news has been observed in other crises. Such was the case during the SARS pandemic of 2003 (Abraham, 2005). Other investigations on the news coverage of AIDS have revealed another type of fatigue, that on the part of the media organisations themselves (Brodie et al., 2004).

York (2013) analysed the influence of the overall level of exposure to news and concluded that those individuals who use media more intensely have a greater chance of experiencing information overload than those who use media less intensely. Moreover, that accumulated exposure to information through different sources, such as print media, television, radio and the Internet, heightens the probability of experiencing overload. People who are confronted with the diversity of online information experience greater stress when seriously seeking information with which to interact with others, albeit it in an argument or other everyday situations. They are therefore more prone to becoming cognitively overloaded by information (Eppler & Mengis, 2004). Excessive information may have counterproductive effects. In this regard, certain studies have found that greater media exposure leads to an increased sense of anxiety among citizens. This was observed in the United States during the Ebola crisis of 2014, despite the low prevalence of the disease in that country (Thompson et al., 2017), and is now starting to be seen with the coronavirus (Garfin et al., 2020). In their study on news consumption and risk perception concerning COVID-19, Mora-Rodríguez and Melero-López (2021) observed a greater perception of risk among individuals, with a higher exposure to news about the pandemic.

According to Hong and Kim (2020), when people surpass their capacity to process information, they may experience adverse effects such as information avoidance, confusion when making decisions and non-compliance with recommendations from authorities. The authors in their study found that, due to fatigue resulting from information on the COVID-19 virus, many people had grown tired of engaging in preventive behaviours and had become insensitive to recommendations related to the pandemic. They believe that, to reduce information overload, communicators and health professionals must make efforts to present concise content and not overly repeat information.

Information overload is obviously contingent on two factors. On the one hand, a significant increase in information in a certain context and, on the other, increased news consumption in response to a need generated by an emergency situation. Two conditions that existed during the period analysed.

The media coverage of the coronavirus has been completely different to that afforded to any other disease. Consider this: in January 2020, the number of articles published on the coronavirus was 23 times higher than the number of articles published on Ebola in August 2018, the first

month of the Ebola outbreak in Africa (Ducharme, 2020). In Spain, as of 10 April 2020, 432,058 news articles about the pandemic had been published (Lázaro-Rodríguez & Herrera-Viedma, 2020). Nevertheless, not only was there an upsurge in the amount of information produced, but also in the importance the media ascribed to it. Cantero-de Julián et al. (2020) analysed 630 front pages from seven general Spanish newspapers (El País, El Mundo, La Razón, La Vanguardia, El Periódico and El Correo) during the first quarter of 2020, which spanned the period between the detection of numerous cases of the coronavirus in Wuhan and the disease's initial foray into Europe through Italy to the appearance of the first cases in Spain. The study demonstrates a progressive increase in the presence of the subject on the front pages as the threat to health became greater. In March, the pandemic changed the make-up of the front pages, with upwards of 10 articles on the front pages of both El Mundo and El País. On 22 March, the newspaper El Mundo ran as many as 20 news stories on the subject. In just one week (the fifth week of the lockdown), the number of press readers swelled by one million people (Asociación de la Prensa de Madrid [APM], 2020), although the initial signs of information saturation could already be seen.

Alongside this increase in media coverage and the production of information, various studies also confirm an increase in people's media consumption. In Catalonia, in April 2020, the amount of television watched reached record levels, with people logging an average of 4 hours and 28 minutes, one hour and one minute more than before the lockdown. This represents an increase of 39% over February of the same year. The news programmes from the regional channel TV3 were the most watched in the month of April, with an average of 700,000 viewers and a share of 27.5%. Following the record figures of the first weeks of the lockdown, all news programmes lost viewers during the month of April, although the number of people watching the news remained much higher than prior to the state of alert (Consell de L'Audiovisual de Catalunya [CAC], 2002).

Based on the observations made in previous studies, this article pursued three research objectives:

- O1: To determine whether the coronavirus health crisis and subsequent lockdown affected the rate of media consumption of Catalan citizens.
- O2: To find out whether Catalan citizens perceived excessive coverage of the pandemic on the part of the media and whether this hindered their understanding of the disease.
- O3: To gauge people's opinion about the coverage provided by the media.

Unlike other similar investigations, most of which have focused primarily on analysing the content of the media coverage, this study shifts its attention to people's perception. The authors of this study were forced to conduct the research under strict lockdown conditions.

### 3. Methodology

To achieve the above-mentioned objectives, a descriptive exploratory study was performed using anonymous self-administered online surveys and a sampling method similar to that known as snowball sampling. The fieldwork was conducted between 3 and 10 April 2020, i.e. during the period of lockdown imposed and subsequently extended by the Spanish Government. The sampling method used has certain limitations, such as the lack of control over how the sample group is constituted and sampling bias. To minimise these drawbacks, individuals were selected at random after ensuring that all subgroups (age, sex) were represented in the initial network of contacts. To minimise the under-representation of low online consumption groups, the survey was initially distributed via WhatsApp, the most popular instant messaging app in Spain (Newman et al., 2019). Ultimately, a valid sample group of 2,062 individuals was created.

To conduct the research, we drew up a questionnaire comprised of 23 questions grouped into 5 main categories: socio-demographic data, news consumption during lockdown, use of

social media during lockdown, confidence in the media and misinformation and fake news. Most questions were single response and multiple choice (19), with only one multiple response question (1). Questions in which participants were asked to provide their opinion of the media coverage and their relationship with the information (2) were based on the Likert scale (1-5).

#### 4. Results

In line with earlier investigations, which showed that, in the face of highly disruptive events, citizens tend to consume more information, the data acquired confirm that, following the declaration of the state of alert and the ensuing lockdown, 70.5% of citizens consumed information more frequently than before the pandemic (Table 1). More specifically, 44.2% did so somewhat more, while 26.3% did so much more. In terms of gender, women were found to consume more information than men. Such is the case both among respondents who declared that they consumed “somewhat more” information (45% to 43.1%) and those who consumed “much more” information (29% to 22.5%). Nonetheless, the differences between the genders are not statistically significant.

**Table 1.** Rate of media consumption before and during the pandemic.

<b>Following the declaration of the state of alert due to the coronavirus pandemic, do you consume information more frequently than before?</b>	<b>%</b>	<b>Men (%)</b>	<b>Women (%)</b>
Yes, much more	26.27	22.53	29.00
Yes, somewhat more	44.21	43.10	45.01
No, less	9.60	9.89	9.39
The same	19.87	24.48	16.51
DK/NO	0.5	0.00	0.08
	100	100	100

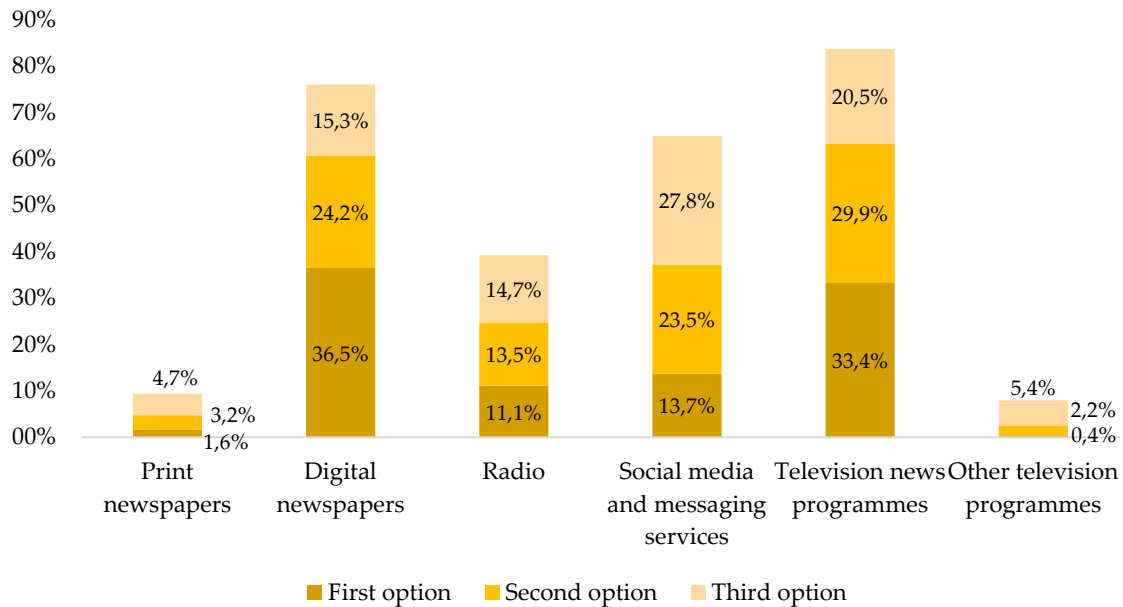
Source: Compiled by authors.

The increased interest in information translates into a higher rate of information consumption. If, prior to lockdown, 28% of citizens consumed information 3 or more times a day, following the lockdown, this percentage rose to 52%. Furthermore, the rate of information consumption during lockdown increased more among women than among men ( $\chi^2(1, N = 1557) = 10.16, p < 0.01$ ). This confirms the trend observed in previous health crises, in which citizens turn to the media in hopes that it might assuage their concerns through up-to-date and accurate information.

Digital media outlets stand as the first option for information (35.5%), followed by television news programmes (33.4%) and social media and instant messaging apps (13.1%). However, if we take into account the first three options, television news programmes top the ranking as the preferred means of information (Figure 1). The results show that the state of alert did not alter people’s preferences. Television continues to be the most popular medium for information, both in normal contexts and in that experienced during lockdown (Newman et al., 2020), even though digital media sources are the first option. This is likely due to digital media’s capacity to remain

constantly up-to-date and the fact that it may be consumed in a non-linear fashion, unlike television.

**Figure 1.** Preferred means of information during lockdown.



Source: Compiled by authors.

As regards the study's second objective, to find out whether the citizens perceived excessive information, this investigation confirmed the trend identified in earlier crises. The questionnaire included a series of statements in which respondents were asked to gauge their degree of agreement or disagreement based on a Likert scale, with 1 being strongly disagree, 2 disagree, 3 neither agree nor disagree, 4 agree and 5 strongly agree. Based on the responses, both the averages and rate of 4+5 responses to 1+2 responses were analysed (Table 2).

While it is clear that citizens have a need for information, a certain amount of fatigue can also be observed. Such was the opinion of almost half the population (48.2%). Fatigue is associated with the frequency with which information is consumed. Thus, users who consume information on a daily basis express greater fatigue with regard to the amount of information provided by the media on the pandemic than those who consume information less frequently ( $\chi^2(2, N = 1543) = 19.1158, p < 0.01$ ).

Information fatigue has two consequences. One group, which, though not the majority, represents 40.4% of those included in the sample, claims to prefer not to follow the news in order to avoid the stress this places on them, as opposed to the 38.3% who do not agree. Between both groups, 21.35% express an equidistant position. The average value is 3.01 ( $\bar{X}=3.01 \sigma=1.19$ ), while women are more inclined than men to share this perspective ( $\chi^2(2, N = 1621) = 16.5925, p < 0.01$ ).

On the other hand, the sheer amount of information provided made it difficult to adequately follow the pandemic according to 38.42% of citizens, with an average value of 3.04 ( $\bar{X}=3.04 \sigma=1.06$ ). In this regard, there were no statistically significant differences between the sexes.

**Table 2.** Perception on the relationship of citizens with information.

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	$\bar{X}$	Standard deviation
I am tired of the coronavirus being the main topic in the media	5.68%	21.35%	24.79%	30.86%	17.32%	3.33	1.16
Men	5.75%	20.14%	26.58%	28.08%	19.45%	3.35	1.17
Women	5.62%	22.23%	23.49%	32.89%	15.77%	3.31	1.15
I prefer not to follow news on this topic to keep from becoming stressed/anxious	10.77%	27.51%	21.35%	30.37%	10.00%	3.01	1.19
Men	13.69%	28.19%	23.48%	26.93%	7.71%	2.87	1.18
Women	8.64%	27.01%	19.80%	32.89%	11.66%	3.12	1.18
The excessive information on the coronavirus makes it difficult to follow the pandemic	6.65%	27.85%	27.07%	31.68%	6.74%	3.04	1.06
Men	6.79%	27.50%	25.89%	31.76%	8.06%	3.07	1.09
Women	6.54%	28.10%	27.94%	31.63%	5.79%	3.02	1.04

Source: Compiled by authors.

The third objective entailed analysing the coverage afforded by the media during the initial weeks of lockdown. In this regard, the perception of citizens is, on the whole, negative. People remain sceptical of the information the media provides. Although there is a virtual tie between those who approve and those who disapprove of the quality of the information received ( $\bar{X}=2.99$   $\sigma=0.06$ ), when it comes to other indicators, the perception is much more critical (Table 3). Most believe that the media provides too much information ( $\bar{X}=3.44$   $\sigma=1.11$ ). 54.5% agree (4+5) with this assessment, while 22.5% (1+2) disagree. The excess information is one of the factors that contribute to the “infodemic” reported by the WHO, one of the dangers of crisis situations.

Similar to what was detected in previous health crises, citizens believe that the manner in which the media reports the news is influenced by their ideology and penchant for spectacularisation. The influence of ideology on the news coverage of health crises generates uncertainty among the population (Cornia et al., 2015) and compounds this sense of “infodemic”,

as citizens get the feeling that, instead of reporting accurately, media outlets report in accordance with their agendas or political sympathies. In Spain, people have been particularly critical of the influence of editorial slants on coverage. When asked whether ideology had an impact on the way the media handled the coronavirus pandemic, on a scale of 1 to 5, the average response was above 4 ( $\bar{X}=4.06$   $\sigma=0.91$ ). 79.3% agree with this statement, as opposed to the 6.9% who disagree (1+2). Men have a greater tendency than women to associate ideology and coverage ( $\chi^2(1, N = 1775) = 11.42, p < 0.01$ ).

Most respondents also condemned the propensity for spectacularisation in the coverage of the pandemic, with the danger this poses to creating social alarm ( $\bar{X}=3.25$   $\sigma=1.10$ ) 31.28% share this opinion, compared to the 18.98% who disagree with this perception. Men are also more critical than women of the coverage provided ( $\chi^2(4, N = 1429) = 11042, p < 0.01$ ).

**Table 3.** Perception of the media coverage.

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)	$\bar{X}$	Standard deviation
In general, the media is reporting on the coronavirus pandemic correctly	6.11%	26.29%	32.49%	32.83%	2.28%	2.99	0.96
Men	6.67%	29.43%	31.84%	29.54%	2.53%	2.92	0.98
Women	5.70%	23.99%	32.97%	35.23%	2.10%	3.04	0.95
In general, media outlets are providing too much information about the coronavirus pandemic	4.80%	17.65%	23.08%	37.78%	16.68%	3.44	1.11
Men	5.52%	17.59%	20.80%	38.28%	17.82%	3.45	1.14
Women	4.28%	17.70%	24.75%	37.42%	15.86%	3.43	1.08
In general, the media's editorial slants (ideologies) impact how it reports on the coronavirus pandemic	1.41%	5.43%	13.88%	43.91%	35.37%	4.06	0.91
Men	1.27%	3.68%	10.01%	42.23%	42.81%	4.22	0.86
Women	1.51%	6.71%	16.69%	45.13%	29.95%	3.95	0.93
In general, the media is handling the pandemic in a sensationalist manner and creating unnecessary social alarm	2.52%	20.18%	30.66%	34.69%	11.94%	3.33	1.01
Men	2.30%	15.30%	30.84%	37.17%	14.38%	3.46	0.99
Women	2.68%	23.74%	30.54%	32.89%	10.15%	3.24	1.01

Source: Compiled by authors.



## 5. Discussion and conclusions

The findings show that, during the lockdown, most Catalan citizens (70.5%) consumed more information than they did previously under normal conditions. Furthermore, consumption proved more assiduous, with people checking the news repeatedly over the course of the day. As mentioned in the introduction, this behaviour matches that observed in previous health crises, confirming the need that citizens have for information in contexts of uncertainty. Despite not being one of the objectives of this research, one of the questions the results pose is whether this increased consumption contributed to a better understanding of the pandemic. A report by the Reuters Institute (Nielsen et al., 2020) sheds light on the matter. In this report, 56% of those interviewed asserted that the Spanish media helped them to understand the crisis, while 32% believed that the media blew the pandemic out of proportion. The percentage of people who believe that Government information helped them to understand the pandemic is 40%, the lowest among the six countries included in the study.

The second objective was to determine whether Catalan citizens experienced information overload, similar to that observed in previous studies. The results demonstrate that a by no means insignificant number of citizens, almost half, were subjected to excessive information, which resulted in information fatigue. It should be noted that a higher rate of information overload was reported among individuals who consumed media more frequently. The fact that it is precisely this segment of the population that grew more tired of news is something that should raise concerns and warrants further reflection with a view to identifying the causes. If we might venture a response, one possible cause may be linked to the quality of the information provided. The results, as can be observed, seem to indicate a lack of quality in the information, characterised by ideological bias and a certain propensity for sensationalism.

Lastly, as noted by Schmitt, Debbelt and Schneider (2018), information overload should not merely be understood in terms of exposure to an excessive amount of information, but also with regards to the adverse effects this overexposure may have. One such effect is stress or anxiety, which often causes citizens to avoid consuming news (roughly 40% of our participants). In this regard, it should also be noted that roughly half of survey participants agreed that the media coverage of the pandemic was excessive.

Information overload compromises people's information defences. Citizens, exhausted, evade information and apply filters that make the amount of content they consume more tolerable. This behaviour, which emerges as a means of self-defence, has, nevertheless, pernicious effects, such as insensitivity towards guidelines for preventing the spread of the virus (Hong & Kim, 2020) and increased vulnerability to misinformation.

Lastly, as regards the third objective, a certain degree of ambivalence has been noted towards the information supplied by the media. The perception of quality is part of an unstable balance, with those who believe that the media reported the news correctly holding a slight advantage; a position which nonetheless dwindles if we consider other indicators. Thus, an overwhelming number of respondents believe that the coverage provided by the media is influenced by the organisations' respective editorial slants. A characteristic typical of the Mediterranean model defined by Hallin and Mancini (2004), typified, among other things, by a high degree of media polarisation. Sensationalism is another characteristic of the media coverage, at least as far as the respondents are concerned.

The results of the study, despite the limitations indicated in the methodology, paint a picture in line with that observed in investigations performed in similar health emergency situations. Ironically, although media outlets now draw wider audiences than ever before, the amount of information provided, coupled with the poor quality of this information, ends up driving part of this audience away. Nonetheless, the media is by no means solely to blame for information overload and its consequences. Factors beyond the media's control also play a part in this expulsion or, shall we say, self-expulsion. One such factor is the impact of the lockdown on the population's mental health. The forced confinement and uncertainty surrounding the pandemic

have had adverse effects, including anxiety, fear, frustration, loneliness, etc. Faced with these circumstances, one means of self-defence is to distance oneself from the impulses –e.g. the bombardment of information, most of which is negative– that fuel these pernicious effects.

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