

THE ROLE OF SOCIAL MEDIA AS SOURCES OF INFORMATION ABOUT COVID-19 – AN INTEGRATIVE REVIEW

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Abstract: The internet emerged in Brazil in the early 90s, in states like Rio de Janeiro and São Paulo, primarily with access only for Universities and for research purposes and soon after with domestic access networks and mobile networks that went viral in all sectors and became an instrument of communication and information in all age groups, whether to meet and meet people, as well as for shopping, travel, research, among others. Along with the internet came the social media Orkut, Facebook, Whatsup, Twitter, Instagram, You Tube, Linkedin, used to look for a job, to shop, to study, to research and several other functions. On any subject, the internet offers an infinity of sites of everything you want to know just press and wait for the results. However, what has been observed in recent years has been an increase in access to sites aimed at information, as well as an increase in the number of people using this tool in order to learn a little more about various subjects. During the COVID-19 pandemic, social networks played an important role in passing on information about care and ways to prevent this condition. Therefore, this study aims to describe through a descriptive exploratory study, systematic review the role of social media as sources of information about COVID-19.

Keywords – Social media, Internet, COVID-19

INTRODUCTION

SARs COV-19 or COVID-19, which started in Wuan province in China in December 2019, is considered a serious respiratory disease transmitted by aerosols with high infectivity due to the presence of the spike protein present in the virus crown. This grievance has become one of the biggest public health problems of the 21st century so far, putting thousands of lives and the global health system at risk ¹.

In its occurrence, there was a need to implement measures to guarantee the

population that became extremely vulnerable to the virus, especially individuals in the risk group such as the elderly and people with chronic diseases. The occurrence of the pandemic brought with it, in addition to damage to health, also economic, social and cultural damage, in addition to problems related to the mental health of a large part of the world's population ^{1,2}.

Despite COVID-19 being a problem that can affect any age group, countries with populations with a greater number of elderly people and extreme poverty have felt the impact of the pandemic much more, especially with regard to morbidity and mortality ^{2,3}.

We can consider SARs COV19 a highly infective virus that mainly attacks more vulnerable individuals such as the elderly and people with chronic diseases, this fact overloads health systems since in more serious cases of the disease, hospitalization is necessary and most of the time in Intensive Care Units³.

Regarding mortality according to studies among elderly individuals tends to be nine times higher than in other age groups, due to the common presence of comorbidities in this population, which leads to greater complications with presentations of more severe forms of COVID-19, increasing lethality in this population segment ^{2,3}.

Therefore, in order to control the spread of the pandemic, the WHO suggested that all countries adopt social distancing measures to contain the spread of the virus and thus avoid the collapse of health systems as well as seek to reduce the number of victims of this disease. In this attempt to inform the entire population about care for the prevention and treatment of COVID-19, the internet through social media played a key role ^{4,5}.

In Brazil, the first initiatives to make the internet available to the general public began in the mid-1990s, with the Federal Government

(through the Ministry of Communication and the Ministry of Science and Technology) aiming to implement the necessary infrastructure and define parameters for the subsequent operation of private companies providing access to users. From then on, the internet in Brazil, the country experienced an astonishing growth, where it was found that in 2013, 7.2 million Brazilians accessed the internet through a tablet or cell phone, according to the IBGE, with computers still being responsible for the largest number of hits. ^(2, 4,5)

The current internet, or global information system that is formed by a worldwide network of interconnected computers, represents today the largest depository of information that is known in the world and is available to any individual who accesses the network anywhere in the world. The arrival of this technology brought countless facilities to people's daily lives, as well as contributed immensely to the advancement of science, sales, socialization, administrative processes, leisure, communication and knowledge ⁵.

With the advent of the internet, social media also came, in a breathtaking way, where the world connects through a click. Social networks can be of great help in longitudinal studies, as this is one of the main challenges for research with this type of design. Among the most used social media according to researchers for participation in studies, Facebook is the most used, as it is a valuable tool for locating and communicating between participants. Whats Up, Youtube, Twiter and Instagram also stand out as they facilitate contact with participants who, in some longitudinal studies, cannot be located by changing telephone, email or physical address ⁵.

Social media are increasingly becoming a necessary tool for health research as well as a source of information for citizens, as it allows

information to reach remote areas. However, greater care is needed with the ethics of these relationships - social media/health information ^{6,7}.

However, with the pandemic and COVID-19, the other side of the network can be seen a great quantity of Fake News, flooding social networks, news and other information vehicles. Although there is no clear and accepted definition of Fake News, several authors consider it as a concept related to false information spread on the Internet or using other means of communication, mostly created to negatively influence the understanding of others about a particular topic. This way, this false information disseminated on digital and social networks becomes especially worrying ^{8,9}.

MAIN GOAL

Describe through a descriptive exploratory study of integrative review or role of social media as sources of information about COVID-19.

METHODOLOGY

In this study, an integrative literature review was carried out, which was formulated in six phases. The integrative literature review uses a methodological approach that seeks to provide scientific knowledge on a particular topic in a systematic, orderly and comprehensive manner. This type of study is presented in six phases that follow: identification of the theme, hypothesis or research question; identification of pre-established search criteria in the database; definition of the information that will be used from the selected studies, the categorization of the studies; critical evaluation of included studies; interpretation of results; and presentation of the review or synthesis of knowledge ^{10,11}.

To carry out this research, the following guiding question was elaborated "What is the

role of social media as a source of information about COVID-19?”. In order to answer this question, data collection took place from April to June 2022 conducted by Scientific Initiation researchers from Universidade Nove de Julho, IAMSPE and Universidade Federal do Vale de São Francisco.

In this study, the first phase focused on delimiting the topic addressed with the construction of the guiding question, in order to ensure that the review was carried out with rigor, seeking the inclusion and exclusion criteria that would be used in the study, as well as the reference available in the literature about the topic.

In the second phase, the definition of the theme allowed guiding the inclusion criteria, in the choice of included articles, with the survey in the chosen databases, the determination of the collected data that were within inclusion criteria related to the theme.

In phase three, we sought to use a search strategy for studies that were directed to the purpose of the study, which was done in electronic databases and manual searches in journals. When selecting the electronic databases, there was a need to consider which journals would be listed, as well as whether the publications were indexed and viable. It was decided at this stage to determine the databases for the collection of studies that could provide reliability articles, classifying and analyzing the information contained in each study.

In phase four, the authors sought to select the most relevant articles that were most related to the topic in question.

In phase five, articles in Portuguese, Spanish and English were chosen, with the exclusion criteria being texts, letters, theses, dissertations, articles not indexed in scientific journals and articles on informational sites.

In phase six, the inclusion, critical analysis

of the manuscripts found and selected and the synthesis of the literature review were carried out.

The search for articles was carried out in the Scielo, EBSCO, Medical Literature Analysis and Retrieval System Online (MEDLINE/PubMed), Scopus (Elsevier Science). The search on EBSCO included the CINAHL database, and the findings were presented as a total quantity of EBSCO, from April to June 2022. They were consulted by crossing the keywords “Media Information” and “COVID-19”, with the controlled descriptors “Influence”, “News” and “Benefit”, registered in Medical Subject Headings (MeSH), using MESH + All fields, using the Boolean AND operator.

A total of 1047 selection data were identified, 53 from Scielo, 176 from EBSCO, 37 from Lilacs, 9 from BDENF, 208 from Medline and 564 from PubMed. The first stage of the literature selection process included reading the titles and abstracts of the studies, with 340 titles being excluded for not meeting the object of the study and the inclusion criteria described. A total of 230 articles were found to be duplicates and were removed. Subsequently, 33 selected articles were read in full. After applying the exclusion criteria, a total of 10 articles was obtained as a final sample. During the steps, any disagreements in the selection of articles determined by the study advisors related to the research topic, which validated the choice of articles selected in the final sample.

A new full reading of the articles in the sample was carried out, based on a pre-structured form, which includes: authors, year, methodology, results and conclusion, of the articles with greater relevance to this study.

RESULTS PRESENTATION

43 articles related to the descriptors social

media and COVID 19 were found in the Scielo database, there were 9 repeated articles, and 24 were unrelated to the topic, leaving only 10 for analysis. Most of the articles found after 2020 were related to vaccination against

COVID-19, which were discarded because they did not fit the proposed topic. A total of 10 articles were selected to compose the integrative review, according to the PRISMA flowchart below:

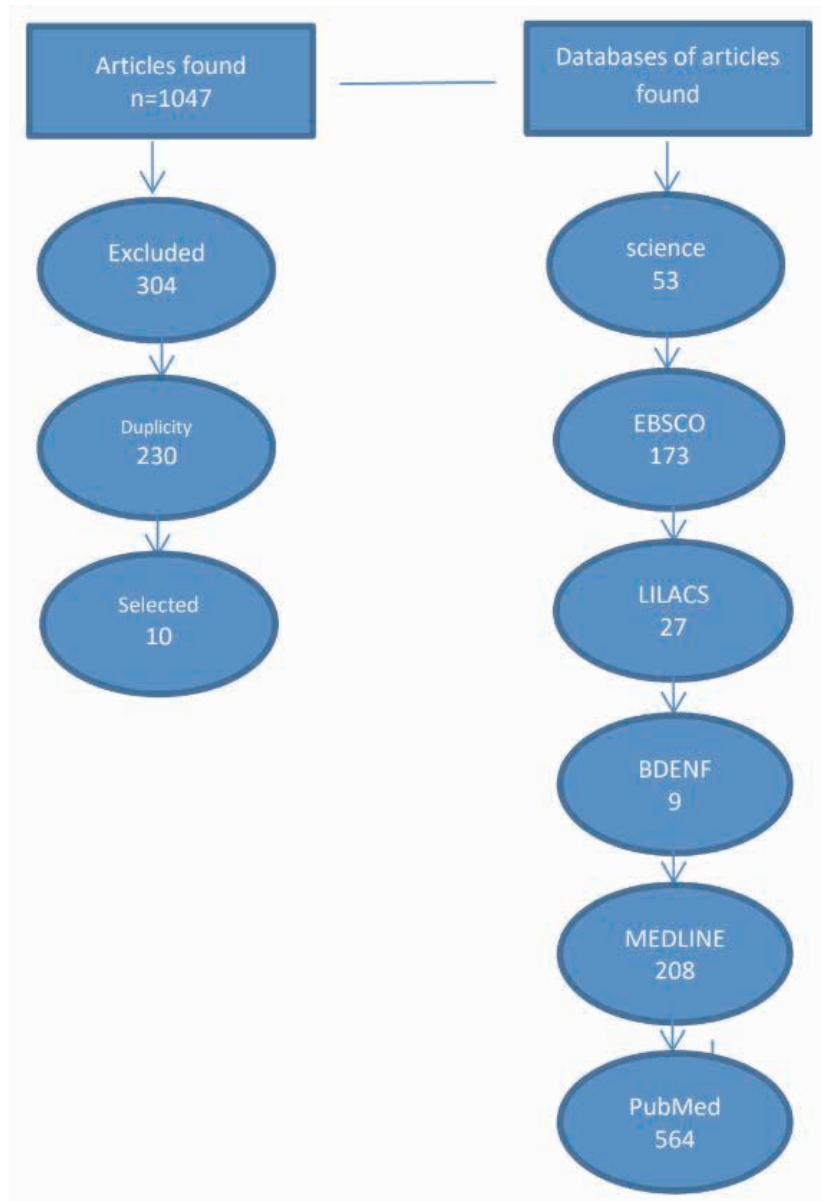


Figure 1- Flowchart of the articles found in the search on the theme Social Media and COVID-19. São Paulo, SP, Brazil - 2022.

Authors/Article title/year	Methodology	Results	Conclusions
Ginosar T et al. "Cross-platform spread: vaccine-related content, sources, and conspiracy theories in YouTube videos shared in early Twitter COVID-19 conversations." <i>Human vaccines & immunotherapeutics</i> vol. 18.1 (2022): 1-13. doi:10.1080/21645515.2021.2003647 ¹² .	Descriptive analytical study, carried out through observed data from videos through the YouTube platform, and the social media Twitter.	The study explores the content of COVID-19 and its dissemination on social media Twitter and YouTube, including real news and conspiracy theories.	In this study, it was concluded that these platforms still present misinformation, opposition to the vaccine and conspiracy theories, for this reason it proposes interventions that prevent the spread of content that has no scientific basis.
Bazán PR, Azevedo Neto RM, Dias JA, Salvatierra VG, Sanches LG, Lacerda SS, et al. Exposure to information about COVID-19 in digital media and its implications for healthcare workers: results of an online survey. <i>Einstein (Sao Paulo)</i> . 2020;18:eAO6127. http://dx.doi.org/10.31744/Einstein_Journal/2020_AO6127 ¹³ .	This is an online cross-sectional study with the participation of 2,646 respondents about the knowledge of hospital employees, about information about COVID-19 in digital social media and its implications for employees in the health sector. Study carried out in Brazil in the State of São Paulo.	It is noticeable that the majority of the sample participating in this study obtained information from social media, such as WhatsApp (73.0%), word of mouth (57.0%), email (54.4%), Workplace (47.7%), Facebook (47.2%), Instagram (40.4%), YouTube (22.1%), others (10.8%) and Twitter (7.0%). In addition, participants who accessed it reported that, during the pandemic, access to social networks increased, in search of information.	Descriptors of individuals consuming information related to COVID 19 were presented in the research, and the fact that the exposure of excessive information and Fake News imposed a high psychological suffering reported by employees, thus affecting their mental health.
Gonzales CMV; Rodrigues BG. Informative management of the infodemia in digital media: experience of news agencies. <i>Panamerican Journal of Public Health</i> , v. 45, p. e25, 2021 ¹⁴ .	FA documentary bibliographical review of articles and scientific documents from international organizations on infodemics, infodemiology and management of journalistic information in cases of disasters and emergencies was carried out, as well as the analysis of health sections and verification on Internet sites and networks.	It was observed in this study the need to use the means of communication and to enhance the information the use of data presented in other means of communication, in the dissemination of information. However, in another way, these media also disseminate false information (Fake News). Therefore, this study proposes a plan of 10 actions (grouped in three stages: information collection, selection of journalistic information and presentation of information) that can guide the digital media in combating misinformation on health issues.	Journalism must become a key player in tackling the avalanche of inaccurate, misleading and false health information, in particular the COVID-19 pandemic. However, care with truthful information must be a priority, especially when it comes to a problem like COVID-19.
Mesquita, AC et al. Social networks in nursing work processes: an integrative literature review. <i>Journal of the USP School of Nursing</i> , v. 51, 2017 ¹⁵ .	An integrative literature review carried out between 2011 and 2016, data were collected from the PubMed, CINAHL, EMBASE and LILACS databases, using the descriptors social media, social networking, nursing, nursing, social networks, social media beyond the word nursing practice key, publication date restriction was not used. For the study, 27 international articles were used.	The social networks most used in this study by nursing professionals were, respectively, Facebook (66.5%), Twitter (30%) and WhatsApp (3.5%)	In their work processes, nurses frequently use the social networks Facebook, Twitter and WhatsApp to research, teach and assist. The articles show several benefits about the use of such tools for the nursing professional. However, the authors make it clear that special care must be given to ethical considerations regarding the use of social networks that deserve further discussion.

<p>Santos, MOS dos et al. Communication strategies adopted by the management of the Unified Health System during the Covid-19 pandemic in Brazil. <i>Interface-Communication, Health, Education</i>, v. 25, 2021 16.</p>	<p>In this study, a qualitative, descriptive and cross-sectional approach was chosen, which mapped the communication strategies developed during the pandemic by the three levels of SUS management, considering the autonomy of the studied levels. Institutional websites, official social media - Twitter, YouTube, Instagram and Facebook, as well as press conferences, applications and epidemiological bulletins were surveyed.</p>	<p>The authors observed in this study that although communication is one of the important axes in response to the pandemic, however, according to the authors, most of the information did not adequately address the themes of surveillance, assistance, promotion and health education. Still according to the authors, there was a predominance of the utilitarian, centralizing and functional model of communication that focused on the transmission of information, with the State being responsible for promoting a community and emancipatory communication, considering the diversity of subjects, the local context and the development of communicative networks, respecting human and social rights, respecting the precepts that govern the SUS.</p>	<p>The authors conclude that although communication is one of the fundamental axes adopted by health institutions in facing the Covid-19 pandemic, this has intensified through digital media during the pandemic.</p>
<p>Venegas-Vera A., Colbert, GB, & Lerma, EV. Positive and negative impact of social media in the COVID-19 era. <i>Reviews in cardiovascular medicine</i>, 2020, 21(4), 561-564 17.</p>	<p>This is a descriptive study that addressed the positive and negative impacts of social media on the COVID-19 Pandemic.</p>	<p>According to the authors, social media serve to improve knowledge, but also to spread false information that can confuse and distract the reader. Through communication on social media, the scientific community can provide evidence-based information quickly and thus pass the information to the public. Therefore, in times of crisis, it is important to have greater control of the information passed on by social media to guide information and bring correct knowledge about certain problems, thus having to use social media as an ally, but in the case of Fake News a potential threat.</p>	<p>It can be concluded from this study that social media are quick and easy ways of disseminating true or false information. Thus, scientists and health professionals need to have greater knowledge of virtual communities and seek to use them as allied tools for health communication.</p>

<p>Kitamura ES et al. Covid-19 infodemic in elderly people with access to digital media: factors associated with psychopathological changes. <i>Brazilian Journal of Geriatrics and Gerontology</i>, v. 25, 2021¹⁸.</p>	<p>The authors of the study opted for a cross-sectional web-based survey with a sample of individuals over 60 years of age, who use digital media. of COVID-19. Data were analyzed using the Mann-Whitney, Kruskal-Wallis and Spearman correlation coefficient tests.</p>	<p>This study had the participation of 470 elderly people, aged between 60 and 69 years, with a predominance of females, 61.3% of the participants. According to the interviewees, 89.4% received information about COVID-19 through television, 71.3% reported information through social networks, where this form of dissemination of information had a greater impact on the sample's confrontation of the impacts of COVID -19.</p>	<p>This study concluded that Infodemia is associated with psychopathological changes in the elderly participants of the study, with television being the most cited source of information, but social media having the greatest impact on understanding COVID-19. The authors reinforce the importance of digital inclusion, as well as digital literacy for the elderly population, for a better understanding of the COVID-19 infodemic.</p>
<p>Barbosa B, Carvalho C. TWEET AND RETWEET JOURNALISM DURING THE PANDEMIC: dissemination of and engagement with news on Twitter. <i>Brazilian Journalism Research</i>, vol. 17, p. 736-763, 2022¹⁹.</p>	<p>This study opted for a quantitative content analysis, where the guiding question was related to the popularity of news related to COVID-19 and its impact on Public Health. The authors used the Twitter published in ``Estadão`` newspaper. The research analyzed 1,944 tweets published in the newspaper at random, using topics such as City, Culture, Economy, Education, Sport, Gastronomy, Environment, World, Police, Politics, Health, Technology, and Coronavirus. The number of comments, likes, and retweets for each news post was counted and the analysis was done manually Twitter profile page. Data collection took place on the 11th, 12th, January 13th, 14th, 15th, 16th and 17th, February, March, April, May and June 2020</p>		<p>In this study, one can understand the behavior of sharing news on Twitter, as well as the consumption behavior of newspaper readers on social networks and the most discussed news during the pandemic.</p>
<p>González-Padilha, DA.; Tortorelo BL. Social media influence in the COVID-19 Pandemic. <i>International braz jurol</i>, v. 46, p. 120-124, 202020.</p>	<p>This is a descriptive study that addressed the advantages and disadvantages of Social Media in times of the COVID-19 Pandemic.</p>	<p>For the authors of this study, the responsible use of digital media can help quickly disseminate important information, relevant scientific discoveries, as well as share diagnostic, treatment and follow-up protocols, as well as compare different approaches globally, removing geographic boundaries, reaching people from different areas of the globe.</p>	<p>It was concluded in this study that it is advisable to use social media responsibly when disseminating information about COVID-19, because despite being a powerful way to distribute truthful information, it can also spread Fake News at the same speed, which can lead to depression and anxiety. to the reader.</p>

<p>LI, Mengyao et al. Psychological impact of health risk communication and social media on college students during the COVID-19 pandemic: cross-sectional study. <i>Journal of medical Internet research</i>, v. 22, no. 11, p. e20656, 2020.²¹.</p>	<p>The methodology used in this study was web-based and forwarded through the Wenjuanxing platform to Chinese university students from March 3 to 15, 2020. Demographic data and information on health risk communication and social media were collected, the Symptom Checklist 90 Phobia and Health scale was also used Anxiety Inventory to assess psychological symptoms among 1676 university students in China. Multivariate logistic regression was chosen to analyze these independent risk factors.</p>	<p>Regarding the results of the study, it was observed that the prevalence of panic and anxiety in relation to health was 17.2% (288/1676) and 24.3% (408/1676), respectively. Regarding risk communication, understanding the risk of COVID-19 (odds ratio [OR] 0.480, 95% CI 0.367-0.627) was a protective factor against panic. Knowledge of the prognosis (OR 0.708, CI 95% 0.551-0.910), preventive measures (OR 0.380, CI 95% 0.195-0.742) and use of face masks (OR 0.445, CI 95% 0.230-0.862) were shown to be protective factors in predicting health anxiety. Perceived lethality (OR 1860, 95% CI 1408-2459) were identified as significant risk factors associated with health anxiety. In terms of social media, trust in traditional media (OR 0.613, 95% CI 0.461-0.</p>	<p>This study observed that there were high prevalence of psychological symptoms among college students. Health risk communication and social media use were important in predicting psychological symptoms, especially health anxiety. Scientific and evidence-based information must be reported by social media platforms. Web-based consultation and intervention measures must be the focus of future studies.</p>
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Chart 1 – Summary of the characteristics of the studies included in the review according to the authors, article title, year of publication, social media used, main results and recommendations and conclusions – São Paulo, SP, Brazil, 2022.

DISCUSSION

According to this study, it can be seen that studies reveal that social media played an important role in the dissemination of information about COVID-19, however most of the studies found address the fine line that exists between the benefits of this information and the harm arising from Fake News.

Effective risk communication observed in the late 20th century can provide important scientific information about patient response to the risks posed by COVID-19 disease. When it comes to social media, it is observed that risk acceptability is shaped by two main components: danger and outrage²².

Social media offers an essential opportunity for healthcare professionals to quickly convey truthful information about the risks and dangers of exposure to COVID-19, but it also offers an opportunity to spread misinformation and exacerbate outrage and

harm to the mental health of the exposed population. to risk, since Fake News prevails over reality^{23,24}.

This way, the application of effective communication principles and structures, as well as the control of disinformation and Fake News are fundamental to improve patient care and the development of public messages in response to COVID-19^{25,26}.

CONCLUSION

It can be concluded from this study that social media plays an important role in the dissemination of information, especially when the subject puts human life at risk, in this case COVID-19, which quickly turned into a Pandemic, due to the high infectivity of the virus. Most articles report the power of the Internet, however, care and control are needed over the type of information generated and directed to the population, because depending

on the way this information is conveyed, it can lead to indignation, which shape the public perception of risk regarding this problem and lead to a situation of public calamity, which has been observed in several countries.

Therefore, more studies must be done in order to classify the benefits and risks that social media can lead to in times of a Pandemic.

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