

## Disinformation influencers in the spanish flu and covid-19 pandemics: a documentary study

*Influenciadores da desinformação nas pandemias de gripe espanhola e covid-19: um estudo documental*

Eluana Borges Leitão de Figueiredo<sup>1</sup>  [eluanaoft@yahoo.com.br](mailto:eluanaoft@yahoo.com.br)  
Roberta Mariana da Costa Rodrigues<sup>1</sup>  [robertamcrodrigues@gmail.com](mailto:robertamcrodrigues@gmail.com)  
Karina Castro Teixeira Pontes<sup>1</sup>  [kakzinha\\_2006@hotmail.com](mailto:kakzinha_2006@hotmail.com)  
Marcela Teixeira de Oliveira<sup>1</sup>  [teixeira.marcelarj@gmail.com](mailto:teixeira.marcelarj@gmail.com)  
Juliana Taveira Oliveira<sup>1</sup>  [juliana.taveira@outlook.com](mailto:juliana.taveira@outlook.com)  
Lilian de Souza<sup>1</sup>  [liliansline@hotmail.com](mailto:liliansline@hotmail.com)

### ABSTRACT

**Introduction:** As fast and destructive as the pandemic disease is the spread of untruths in pandemic scenarios, which led to many deaths. Therefore, counter-infodemic interventions are currently one of the biggest challenges for the health sector.

**Objective:** To understand the convergence of disinformation on the Spanish Flu and COVID-19 and how fake news influencers act in the Brazilian health field.

**Method:** this is a documentary study with a qualitative approach, carried out through the triangulation of data from different sources and in the periods of the Spanish Influenza (1918 to 1920) and COVID-19 (2020 to 2021).

**Result:** It was observed that the pandemics were and continue to be fertile scenarios for the production and dissemination of disinformation influencers and that it is necessary to problematize the challenges of worker training in times of liquid modernity and in contexts of infodemics, since the professional discourses have been weakened by disinformation.

**Conclusion:** the study allowed us to understand the convergence of disinformation between the Spanish Flu and COVID-19 and the role of health education when facing the mass dissemination of fake news in the Brazilian health field.

**Keywords:** Continuing education; COVID-19; Pandemic Influenza, 1918-1920; Pandemics; News.

### RESUMO

**Introdução:** Tão rápidas e destrutivas quanto a doença pandêmica a propagação de inverdades em cenários de pandemias têm levado a muitas mortes. Para tanto, intervenções contra-infodêmicas são hoje um dos maiores desafios para o setor saúde.

**Objetivo:** Compreender as confluências da desinformação na Gripe Espanhola e na COVID-19 e como atuam os influenciadores de notícias falsas no campo da saúde brasileira.

**Método:** trata-se de estudo documental com abordagem qualitativa feita por meio da triangulação de dados em diferentes fontes e nos períodos da Gripe Espanhola (1918 a 1920) e da COVID-19 (2020 a 2021).

**Resultado:** Observou-se que as pandemias foram e continuam cenários férteis para a produção e propagação dos influenciadores da desinformação e que se faz necessário problematizar os desafios da formação do trabalhador em tempos de modernidade líquida e em contextos de infodemias, já que os discursos profissionais têm sido fragilizados diante da desinformação.

**Conclusão:** o estudo possibilitou compreender as confluências da desinformação entre a Gripe Espanhola e a COVID-19 e o papel da formação em saúde no enfrentamento da disseminação em massa de notícias falsas na saúde brasileira.

**Palavras-chave:** Educação continuada; COVID-19; Influenza Pandêmica, 1918-1920; Pandemias; Notícias.

<sup>1</sup>Centro Universitário Augusto Motta, Rio de Janeiro, Rio de Janeiro, Brazil.

Chief Editor: Rosiane Viana Zuza Diniz.

Associate editor: Fernando Antonio de Almeida.

Received on 02/14/22; Accepted on 04/21/22.

Evaluated by double blind review process.

## INTRODUCTION

When delving into the past, one can see that pandemics remain fertile scenarios for the spread of untruths. All one needs is to recall the Spanish Flu pandemic that arrived in Brazil in 1918 and one will realize that history is alive and reverberates into the future.

And the future is here! After 100 years, we are facing the COVID-19 pandemic and, with it, the reappearance of old disinformation problems, such as: rumors, miraculous recipes, medication that lack scientific proof, conspiracy theories, among others<sup>1</sup>. Therefore, it can be observed that the false contents generated by disinformation influencers in Brazil have long been determinants of life or death.

Hence, although many years have passed since the Spanish Flu pandemic, it is observed that the strategy for the circulation of disinformation in health has not changed much, with the verisimilitude, i.e., the communication of a lie whose appearance is of a truth, being one of the biggest challenges when confronting it<sup>2</sup>. Added to this, we have the social networks that have been vehicles of fast and accessible information, but also scenarios conducive to decontextualized and misinformative content<sup>3</sup>.

Thus, we have seen many changes that have occurred in communication patterns regarding matters of health interest<sup>4</sup>. Bauman named these changes “liquid modernity” and points to a new way to inform based on the speed of the electronic signal<sup>5</sup>. The COVID-19 pandemic arrived precisely at the generation of instantaneity and the circulation of a new power to inform and/or misinform by the so-called digital influencers.

In this train of thought, the study points to the urgent need for the health sector to understand the phenomenon of disinformation in the past in order to understand in the present which concrete educational intervention measures should be taken, since such information disorders generate a problem of mistrust, that is, generate confusion for the population, who do not know what to believe and who they should believe<sup>6</sup>. All this poses an analysis of the existing training process, since workers need to act on a new reality that is rapidly changing. Therefore, we have the following research problem: how have the disinformation influencers affected the field of health and challenged the training of workers in times of pandemics?

In view of this, this article aims to understand the convergence of disinformation in the Spanish Flu and COVID-19 pandemics and how fake news influencers act in the Brazilian health field.

## METHOD

This is a documentary study with a qualitative approach, carried out by triangulating data from two different periods of pandemics and from different sources.

The documentary search was based on materials contained in the issues of the historical collections of the newspapers *Jornal do Estado de São Paulo* (Estadão) and *Jornal Correio da Manhã*. These newspapers were chosen because they were important means of informing the population at the time of the Spanish Flu and have data available for research. The inclusion criteria comprised: Time delimitation from September 1918 to December 1920 and news containing the terms ‘Spanish Flu’ and ‘Pandemic Influenza’. The exclusion criteria included repeated news that addressed the flu without associating it to the pandemic.

As for the period comprising the COVID-19 pandemic, the data sources were publications in fact-checking services, such as: *Fatoou Fake*; *Farsas.com* and *Boatos.org* and on the portals of the World Health Organization and the Brazilian Ministry of Health. The sources were chosen because they present a current compilation of the fake news scenario in the period that comprises the COVID-19 pandemic. The inclusion criteria comprised: temporal delimitation from March 2020 to April 2021 and news containing the terms ‘COVID-19’ and ‘Coronavirus’. The exclusion criteria included repeated news that were not related to the health field.

Data collection took place from April to September 2021. For this purpose, a data collection instrument was created using Microsoft Word with the following items: news source, date or issue number, page and news summary, following the Standards for Reporting Qualitative Research (SRQR) guidelines. It is noteworthy that in the news collections, it was not possible to use the feature of finding words, and so, it was necessary to search in each issue.

After collecting the data, they were organized into thematic categories that were later substantiated by the scientific literature. The study corroboration involved reading and interpreting texts in the light of publications related to the topic of disinformation in the two studied periods, anchoring the analyses in Bauman’s critical thinking,<sup>5</sup> who developed the concepts about liquid modernity. The process of analysis and interpretation was an interactive one, as the authors gradually established an explanation of the phenomenon, performing an assessment of the interrelationships between disinformation at the time of the Spanish Flu and the COVID-19<sup>7</sup> pandemics.

## RESULTS

When searching for news records in the issues of *Correio da Manhã*, 43 occurrences were extracted. After applying the inclusion and exclusion criteria, 30 records were obtained, with 7 news items being excluded because they were repeated and 12 because they did not show a direct or clear relationship with the Spanish Flu. In the *Estado de São Paulo* newspaper, 129

reports related to the Spanish Flu were identified. Twelve news items were excluded because they did not deal directly with the pandemic and 101 because they were repeated news. There were no news about the Spanish flu from May to December 1920.

As for news related to the prevention and/or cure of the Spanish Flu, the newspapers *Estado de São Paulo* and *Correio da Manhã* published 34 news items, all advertising the use of unproven medications, such as:

*Spanish influenza. It is safely avoided by using a tablet with the meals: Maleitosan Preventivo (O ESTADO DE S. PAULO: pages of the edition of October 18, 1918 - p. 10).*

*The safest antidote or the best weapon to fight the terrible scourge, the "Spanish Flu" is Queiroz purgative water (O ESTADO DE S. PAULO: pages of the edition of October 18, 1918 - p. 10).*

*The Spanish Flu has already visited us and now the best way to prevent yourself from getting infected is strict hygiene and constant disinfection with creolisol (O ESTADO DE S. PAULO: pages of the edition of October 19, 1918 - p. 6).*

*"Grippina": The remedy for the "Spanish Flu" – Preservative and curative, formula by Dr. Alberto Seabra (O ESTADO DE S. PAULO: pages of the edition of October 19, 1918 - p. 8)*

*How to prevent and cure the "Spanish influenza"? Prevent it and cure yourself with Peitoraes drops, because these delicious candies, due to their antiseptic action, make your mouth, throat and airways safe from pathogenic microbes (O ESTADO DE S. PAULO: pages of the edition of November 3, 1918 - p. 8).*

*The triumphant homeopathy in the cure of the Spanish flu, the extraordinary success of the homeopathic medicine, Albapenitum. Healing in 24 hours (CORREIO DA MANHÃ, 1918, p.3).*

Regarding the news that minimized the impact and severity of the pandemic or that produced untrue and sensationalist information, the following stand out:

*"This disease itself is not in the least serious, as long as one keeps as rested as possible [...]" (O ESTADO DE S. PAULO: pages of the edition of November 19, 1918 - p. 7).*

*[...] Mr. President of the Republic is convinced that the reigning epidemic tends to decline [...]. There is, therefore, no reason to continue the panic that has been establishing itself amidst the population, all the more so as the mortality caused by the disease, which everyone sincerely deplors among us, considering the extent that it has had, is much lower than that of almost all countries..." (CORREIO DA MANHÃ, 1918, p.1).*

*The dangers of the imported microbe. The very fair considerations by the illustrious clinician Dr. Maximo Gomes sent to the press about the dangers that threaten us due to the possible contagion of the Spanish disease through toys from Japan, should deserve the greatest attention from everyone [...] (CORREIO DA MANHÃ, 1919, p.1).*

*Will the flu come back? The general director of public health insists that there is no reason to be alarmed (CORREIO DA MANHÃ, 1919, p.1).*

It is important to emphasize that the news had as influencers an association between the press, pharmacies, doctors and the government that, even without proof, disseminated such information to the population. The use of medical references, for instance, aimed to give greater credibility and legitimacy to the news, as shown below:

*The best defense against this disease is the daily use of two Luiz Carlos Sudorific Pills. Recommended by all doctors (O ESTADO DE S. PAULO: pages of the edition of October 19, 1918 - p. 6)*

*Spanish Flu. All doctors recommend the 'spirits of O', with lemon, better known as a 'batida' (drink) [...] to avoid being infected by this terrible influenza (O ESTADO DE S. PAULO: pages of the edition of October 19, 1918 - p. 6)*

*Prevent the disease and cure yourself with the use of Salkinol number 1. Approved by the Public Health Directorate of Rio de Janeiro (O ESTADO DE S. PAULO: pages of the edition of October 19, 1918 - p. 8).*

*Hepatolaxin and the Spanish Grippe. Says the illustrious Director of Public Health: "Having one's digestive system regulated is one of the conditions against this disease." (CORREIO DA MANHÃ, 1918, p.3).*

*Here is the medicine prescribed by Dr. Brown and already effectively tested by Drs. Laubert Waldeck and Paul Deschanel: Chloroform water; Water; magnesia; Salol; Bertol. Antifebrine. Orange blossom water syrup [...] (CORREIO DA MANHÃ, 1918, p.1).*

*Do you want to get strong and robust in a few days? Use Vanadiol, the restorative that is preferred by doctors [...] (CORREIO DA MANHÃ, 1919, p.6).*

*Pulmoserum Bailly [...] Health reappears. Employed in hospitals, appreciated by the majority of the French medical body. Tried by more than 20,000 foreign doctors (CORREIO DA MANHÃ, 1919, p.10).*

Regarding the search for news items in the course of the COVID-19 pandemic in fact-checking services, such as *Fato ou Fake*; *Farsas.com* and *Boatos.org* and on the portals of the World Health Organization and the Ministry of Health, 130 occurrences of fake news were found, of which 12 were repeated and 12 were not directly related to COVID-19, and therefore were excluded. A total of 107 occurrences were analyzed.

As for news related to the prevention and/or cure of COVID-19, 41 news items were found, all indicating unproven drugs, such as:

*Clinical trials confirm that hydroxychloroquine prevents illness or death from COVID-19 (WORLD HEALTH ORGANIZATION, 2021).*

*1.2 - Vitamin and mineral supplements can cure COVID-19 (WORLD HEALTH ORGANIZATION, 2021).*

*Spraying and introducing bleach or another disinfectant into your body protects against COVID-19 (WORLD HEALTH ORGANIZATION, 2021).*

*Eating garlic prevents COVID-19 (MINISTRY OF HEALTH, 2021).*

*Hot bicarbonate and lemon tea cures coronavirus (MINISTRY OF HEALTH, 2021).*

*Consecrated oil can cure coronavirus (MINISTRY OF HEALTH, 2021).*

*Nasal spray has a potential effect against COVID-19 (FATO OU FAKE, 2021).*

*Chapecó emptied its ICU beds with early treatment (Farsas.com, 2021).*

*Study in Nature journal proves that ivermectin cures COVID-19 and we don't need vaccines (BOATOS.ORG, 2021).*

Regarding the news items that produced untrue and sensationalist information, the following stand out:

*The COVID-19 virus can be transmitted through mosquito bites (WORLD HEALTH ORGANIZATION, 2021).*

*1.2 - The probability that shoes spread COVID-19 is very high (WORLD HEALTH ORGANIZATION, 2021).*

*The prolonged use of medical masks, when adequately worn, causes CO<sub>2</sub> poisoning and oxygen deficiency (WORLD HEALTH ORGANIZATION, 2021).*

*5G mobile networks spread COVID-19 (WORLD HEALTH ORGANIZATION, 2021).*

*Masks donated by China are contaminated with coronavirus (MINISTRY OF HEALTH, 2021).*

*Masks and cotton swabs from China come with worms, parasites and Morgellons disease (FATO OU FAKE, 2021).*

The use of medical, scientific and important organizations' references in the health area was used to give greater credibility and legitimacy to the news, as shown below:

Research published by Chinese scientists says that coronavirus will make most male patients infertile (MINISTRY OF HEALTH, 2021).

Thai doctors cure coronavirus in 48 hours (Ministry of Health, 2021).

*The President of Anvisa has said that the population is at risk when receiving experimental vaccines (FATO OU FAKE, 2021).*

*Brazilian scientists found that proxalutamide cures COVID-19 (FARSAS.COM, 2021).*

*A study by the CDC [Centers for Disease Control and Prevention] has demonstrated the ineffectiveness of masks in the COVID-19 pandemic (FARSAS.COM, 2021).*

*USP [University of São Paulo] has proved that people in isolation are more vulnerable to COVID (FATO OU FAKE, 2021).*

*Study in Nature journal proves that ivermectin cures COVID-19 and we don't need vaccines (BOATOS.ORG, 2021).*

*The American and Japanese Red Cross do not accept blood donations from people vaccinated against COVID-19 (BOATOS.ORG, 2021).*

Regarding vaccines against COVID-19, the produced disinformation was aimed at causing fear and discouraging people from getting the vaccine, as shown by the following news items:

*The President of Anvisa said that the population is at risk when receiving experimental vaccines (FATO OU FAKE, 2021).*

*Doria's [Governor of São Paulo] positive test for COVID-19 indicates ineffectiveness of Coronavac vaccine (FATO OU FAKE, 2021)*

*Vaccines approved for COVID-19 contain graphene oxide and can make a person to become magnetized (FATO OU FAKE, 2021)*

*Those immunized with mRNA vaccines will not be able to travel by plane due to the risk of blood clots (FATO OU FAKE, 2021).*

*The spike protein contained in vaccines is toxic and pathogenic (FATO OU FAKE, 2021).*

*Nobel laureate Luc Montagnier has said all vaccinated people will die within two years (FARSAS.COM, 2021).*

*The new coronavirus vaccine is made of aborted human fetuses (FARSAS.COM, 2021).*

*The Japanese discovered that vaccine mRNA nanoparticles stay in people's bodies and can cause infertility (BOATOS.ORG, 2021).*

## DISCUSSION

Two thematic categories emerged from the materials identified during the research: influencers and disinformation in the context of the Spanish Flu pandemic (1918 to 1920) and influencers and disinformation during the COVID-19 pandemic in Brazil (2020-2021).

### Influencers and disinformation in the Spanish Flu pandemic scenario in Brazil (1918 to 1920)

The Spanish Flu was considered the biggest epidemic in the world between 1918 and 1920 due to severe respiratory infections that caused more than twenty million deaths, affecting about 90% of the planet<sup>8</sup>.

In Brazil, the Spanish flu arrived around September 1918. At first, the population did not show much concern about its arrival, not believing that it could spread in Brazil due to the country's distance from the European territory<sup>9</sup>. However, when it arrived here, it was seen as an unnecessary commotion for what would be a simple "get-rid-of-elderly-people" disease, as the then director of the General Directorate of Public Health, Carlos Seidl, thought<sup>10,11</sup>.

According to the results, the disinformation influencers were those whose discourses had greater legitimacy with the Brazilian population. They were: the press (daily and weekly newspapers), government officials, doctors, pharmacists and even those responsible for public health services. It is noteworthy that the news used the corroboration of medical discourse to sell miraculous products for the prevention, cure and rehabilitation of the Spanish flu.

In this scenario of disinformation, the denial of the disease lethality caused the Brazilian authorities to delay adopting precautionary measures against the disease, such as social distancing, which greatly contributed to the population becoming ill.

There is no doubt that this was a scenario of precarious information and the health workers' knowledge was not enough to face the pandemic, as they did not understand the causative agent. However, it was clear from the records that a large epidemic of disinformation was installed in the country, through those who held the power of communication and gave Advice to the People<sup>12,13</sup>.

Hence, the collected news records showed that the health field was a territory of pharmaceutical dispute for the treatment of the Spanish Flu. These agents advertised medications, purgative waters, disinfectants, alcoholic beverages, fortifiers, oils and even chocolates that, according to

them, were efficient in curing this flu<sup>14</sup>. It should be noted that in 1918, there were no surgical masks or alcohol gel, so people raced to the pharmacies in search of these miraculous products, and this was encouraged by advertisements in newspapers and magazines at the time.

When we look at the news published during the Spanish flu, the question that arises is whether these ads were not the beginning of what we now call fake news, since there was no guarantee of cure for the flu that these advertisements promoted. Thus, even though there was no proof of therapeutic value, the newspapers of the time insistently publicized miraculous formulas, often coming from the Health Service itself, which were thus passed on by word of mouth<sup>12</sup>.

The disinformation influencers at the time were successful, as the general population was in a condition of spectator news events, without resources to verify the veracity of these news. Therefore, disinformation generated economic gains for a minority and indelible losses for a large part of society, as Orsi<sup>15</sup> states "[...] every time a useless therapy is promoted in the news, a charlatan gets rich and a citizen is affected".

### Influencers and disinformation in the COVID-19 pandemic in Brazil (2019-2021)

The COVID-19 pandemic was decreed by the World Health Organization (WHO) on March 11, 2020, and in Brazil, the first record of the disease took place on February 26, 2020<sup>16</sup>. It is a severe respiratory disease caused by SARS-CoV-2<sup>17</sup>. By February 2022, approximately 388 million cases and more than 5 million deaths have been recorded worldwide.

Along with the pandemic severity, came a range of disinformation and fake news, which could be considered an infodemic<sup>18</sup>. Therefore, we have seen a legion of fake news influencers who minimized the pandemic by reducing it to a *little flu*, encouraging the population to abandon measures recommended by the health sector.

Disinformation influencers in times of COVID-19 have shown themselves as an association between agents and platforms. The agents have been the government, politicians, companies, journalists, Youtubers, bloggers, social boats, conservative religious groups, artists, scientists and even health workers. The platforms distributing the disinformation included Amazon, Apple, Google, Facebook, blogs, Pinterest, YouTube, WhatsApp, Twitter, Instagram, Telegram and Tumblr, not to mention conventional vehicles such as television, radio and part of the press<sup>4</sup>.

In this context, it is worth considering that among the aforementioned influencing agents, it is not uncommon in the COVID-19 pandemic to find doctors, nurses and other health professionals. As an example, there is a group called 'Doctors

for Life' that circulates on social media with a manifesto defending the early treatment of COVID-19, by using drugs such as hydroxychloroquine, ivermectin, bromhexine, azithromycin, zinc, vitamin D, anticoagulants, among others proven to be ineffective<sup>19</sup>. This has greatly confused the population, which sees these actors in lab coats as a source of information credibility.

According to a study, the disinformation produced by influencers feeds on two audiences: those who know about the falsification and do not care for ideological reasons and those who naively identify with the news<sup>4</sup>. This information distortion is potentiated when these influencers, in addition to calling themselves doctors, also use references from important institutions, such as *Fundação Oswaldo Cruz* (FIOCRUZ), *Universidade de São Paulo* (USP), Red Cross, Naturejournal and others, giving the population the feeling that they are scientific and truthful.

All this is added to the deliberate omission of information and politicization of the Ministry of Health, which favors the dissemination of fake news and predisposes to confusing messages in Brazil<sup>20,21</sup>. As an example, in January 2022, technical note number 2/2022-SCTIE/MH of the Science, Technology, Innovation and Strategic Inputs in Health Secretariat suggested the efficiency of hydroxychloroquine against COVID-19 and discredited vaccines, opposing itself to the scientific recommendations by the World Health Organization (WHO) and the Brazilian National Health Surveillance Agency (ANVISA, *Agência Nacional de Vigilância Sanitária*).

Therefore, the population has been confused, since the information given by the authorities in the course of the pandemic was not and has not been clear, thus favoring the action of disinformation influencers, leading many people to death. In this direction, the article published in *The Lancet* in 2021 says that more people would have been spared the infection if they had been better informed<sup>22</sup>.

All this investment in the logic of disinformation has weakened the health sector. The results showed that, with the advent of the vaccine against COVID-19, new epidemics of disinformation emerged<sup>23</sup>. Health researchers and authorities have highlighted that attacks on vaccines compromise, to some extent, the efforts to immunize the population and contain the advance of the pandemic. Therefore, hesitation combined with the intentional disinformation about the vaccine pose substantial obstacles to achieving immunity in the Brazilian population, resulting in new variants and new peaks of the disease, as was the case with the Delta and Omicron variants.

By observing the news facts in the course of the COVID-19 pandemic, one can say that this is a problem that the health area needs to take care of, as disinformation reduces

trust in the professionals, institutions and science. Another point that needs to be considered is that, if the disinformation is greater and more substantial than the true information as stated by Hezrom<sup>2</sup>, health workers and institutions are somehow failing and this is a problem for professional training in the sense of modernizing it to meet the new demands of the media ecosystem.

However, in view of the results, one can observe that the health field is an excellent culture medium for fake news influencers and this demonstrates the need to strengthen the educational processes<sup>24</sup>.

Hence, training should be seen as a central pillar of foundation for health education actions and as a response to the contemporary information crisis, since it puts the problem under analysis and helps workers to take a stand against disinformation in health.

## FINAL CONSIDERATIONS

When we reconstruct the history of disinformation at the time of the Spanish flu and compared it to what we are experiencing with the COVID-19 pandemic, we observe many similarities regarding the *modus operandi* of influencers, which can be objects of analysis and reflection regarding the training of workers and, among them, untrue information that appears to be the truth; the broadcasting of headlines considered to be volatile and conspiratorial; promises of miraculous procedures and obtaining advantages at the expense of other people's harm.

When analyzing the phenomenon of health disinformation during the Spanish Flu pandemic, it was possible to perceive that the influencers were those who held the power of communication at the time, especially the daily and weekly newspapers, doctors and pharmacists, the government, Health Service representatives and the population that passed the rumors by word of mouth.

The analysis of the infodemic in the course of the COVID-19 pandemic showed that the disinformation influencers comprised the government, politicians, companies, journalists, Youtubers, bloggers, social boats, conservative religious groups, artists, scientists, and health workers.

All this has greatly impacted the health sector and weakened professional discourses legitimized by science. Faced with this problem, the study believes in health education to help workers understand the phenomenon and act as influencers of information based on scientific evidence.

## AUTHORS' CONTRIBUTION

Eluana Borges Leitão De Figueiredo: Study conception and design, collection of data, analysis and interpretation of data and writing of the manuscript. Roberta Mariana Da Costa

Rodrigues: Collection of data, analysis and interpretation of data and writing of the manuscript. Karina Castro Teixeira Pontes: Collection of data, analysis and interpretation of data and writing of the manuscript. Marcela Teixeira de Oliveira: Collection of data, analysis and interpretation of data and writing of the manuscript. Juliana Taveira Oliveira: Collection of data, analysis and interpretation of data and writing of the manuscript. Lilian de Souza: Collection of data, analysis and interpretation of data and writing of the manuscript.

## CONFLICTS OF INTEREST

The authors declare no conflicts of interest related to this study.

## SOURCES OF FUNDING

The authors declare no sources of funding related to this study.

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