

Original article

Fake news: challenges faced by nursing in COVID-19 immunization during the pandemic*

Fake news desafios enfrentados pela enfermagem na imunização contra Covid-19 em tempos de pandemia

Noticias falsas: desafíos que enfrenta la enfermería en la inmunización contra la COVID-19 durante la pandemia

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Abstract

Objective: to analyze the influence of fake news on immunization and the challenges faced by nursing staff during the COVID-19 pandemic. **Method:** a qualitative, exploratory study conducted in public healthcare services that offer vaccination in June 2024, using structured interviews and data analyzed according to deductive qualitative analysis. **Results:** thirteen nursing professionals - seven nurses and six nursing technicians - participated in the study. Five thematic categories emerged from the analysis: Active case finding; Continuing education; Reasons for fear; Approach to users who did not believe in the vaccine's effectiveness; and The importance of nurses. **Conclusion:** fake news is directly related to vaccine hesitancy among users and to the challenges faced by nursing staff in COVID-19 immunization. It is necessary to combat misinformation, support healthcare professionals, and invest in public policies to improve the response to health crises.

Descriptors: Disinformation; COVID-19; Vaccination Hesitancy; Nursing; COVID-19 Vaccines

Resumo

Objetivo: analisar a influência das fake news na imunização e os desafios enfrentados pela equipe de enfermagem na pandemia de Covid-19. **Método:** estudo qualitativo, exploratório, realizado em serviços de saúde públicos que ofertam vacinação, em junho de 2024, por meio de entrevista estruturada e os dados tratados segundo a análise qualitativa dedutiva. **Resultados:** participaram do estudo 13 profissionais de enfermagem, 7 enfermeiros(as) e 6 técnicas de enfermagem. A partir da análise, emergiram cinco categorias temáticas, sobre busca ativa, educação permanente, motivo do medo, abordagem ao usuário que não acreditava na eficácia da vacina e importância do enfermeiro. **Conclusão:** as fake news estão diretamente relacionadas a hesitação vacinal dos usuários e aos

desafios surgidos e enfrentados pela enfermagem, na imunização contra Covid-19. É necessário combater a desinformação, apoiar os profissionais de saúde e investir em políticas públicas para melhorar a resposta a crises de saúde.

Descritores: Desinformação; COVID-19; Hesitação Vacinal; Enfermagem; Vacinas contra COVID-19

Resumen

Objetivo: analizar la influencia de las noticias falsas en la inmunización y los desafíos que enfrentó el equipo de enfermería durante la pandemia de COVID-19. **Método:** estudio exploratorio cualitativo realizado en servicios de salud pública que ofrecían vacunación en junio de 2024, mediante entrevistas estructuradas y análisis cualitativo deductivo. **Resultados:** trece profesionales de enfermería participaron en el estudio: siete enfermeras y seis técnicas de enfermería. Del análisis surgieron cinco categorías temáticas: Búsqueda activa de casos; Formación continua; Motivos de temor; Atención a usuarios que desconfiaban de la eficacia de la vacuna; y La importancia de las enfermeras. **Conclusión:** las fake news están directamente relacionadas con la reticencia a las vacunas entre los usuarios y con los desafíos que enfrenta el personal de enfermería en la inmunización contra la COVID-19. Es necesario combatir la desinformación, apoyar a los profesionales sanitarios e invertir en políticas públicas para mejorar la respuesta a las crisis sanitarias.

Descriptor: Desinformación; COVID-19; Vacilación a la Vacunación; Enfermería; Vacunas contra la COVID-19

Introduction

Fake news about COVID-19, a contagious disease caused by the SARS-CoV-2 virus, its treatment methods, and the vaccine circulated widely on social media and other media outlets during the pandemic.¹ The dissemination of this news was a major challenge for public health, especially in the pandemic context.²

The COVID-19 vaccine arrived in Brazil in 2021, amidst a scenario of political tension and misinformation, which impacted the population's adherence to immunization. Despite this, the Ministry of Health recommended initiating vaccination throughout the national territory through targeted efforts. In the first phase of the Brazilian National Plan for Operationalizing COVID-19 Vaccination, priority was given to healthcare workers, people aged 60 and over, institutionalized individuals, institutionalized people with disabilities, and indigenous peoples living on indigenous lands.³

However, the fact that the vaccine was developed quickly made many people distrust its effectiveness,¹ causing hesitancy among users. Vaccine hesitancy is characterized by indecision and uncertainty regarding vaccination before a decision is made to be vaccinated or not.⁴

Distrust regarding the COVID-19 vaccine has increased due to the spread of fake news, which is false information disseminated on the internet or through other media, influencing the beliefs and decisions of a segment of the population. Due to the need to obtain information about the vaccine, many people trusted any news they found on social media without verifying its accuracy.⁵⁻⁶

Despite the Brazilian Health System (In Portuguese, *Sistema Único de Saúde - SUS*) providing vaccines through the Brazilian National Immunization Program, which is widely recognized internationally for the success of its actions throughout the country,⁷ resistance to vaccination and misinformation present obstacles to the success of campaigns. Primary Health Care (PHC), although playing an essential role with its nurse-managed vaccination rooms,⁸ has faced considerable challenges in dealing with misinformation.

Nurses in the vaccination room are responsible for the technical and administrative aspects of the procedures performed. They must be attentive to the proper and safe storage and administration of immunobiological agents, the room maintenance, the completion of vaccination cards, and provide assistance and guidance to individuals, families, and the community.⁹ Furthermore, healthcare professionals, as care managers, need to be aware that their role in the vaccination room has a significant social impact, requiring them to overcome any difficulties that may arise and compromise those involved in the process.¹⁰

During the COVID-19 vaccination process, public healthcare professionals working to promote vaccination operated in a challenging environment.¹¹ Due to hesitant individuals contributing to the spread of fake news, contributing to the propagation of negative narratives during the COVID-19 pandemic, this resulted in a drop in the percentage of vaccination coverage in Brazil.¹² Nurses and other public healthcare professionals had to adapt to dispel misinformation and promote vaccination adherence, ensuring the effectiveness of campaigns and the society's well-being.¹⁰

This research was guided by the need to better understand the impact of fake news on initial immunization campaigns and to understand why it resonates in the post-pandemic period. Given that nursing is on the front lines of immunization efforts and

direct dialogue with the population, understanding the impacts of fake news also means recognizing the challenges faced by these professionals in promoting vaccine adherence. Although studies on the influence of fake news on COVID-19 immunization already exist, there is still little research addressing the specific effects of fake news on vaccine hesitancy and nurses' work.

Therefore, the present study aimed to analyze the influence of fake news on immunization and the challenges faced by nursing staff during the COVID-19 pandemic.

Method

This is an exploratory qualitative study conducted in the municipality of Recife, Pernambuco, PE, which is divided into eight regions consisting of health districts. Healthcare services included in the city hall's list of vaccination sites for the first and second COVID-19 vaccination campaigns were selected for convenience. All these services belong to Health District IV, as it is a field of practice for the *Universidade Federal de Pernambuco* and is considered the most populous district in the city. The study included one polyclinic, two Family Health Units, two health centers, and one Traditional Basic Health Unit.

The study sample consisted of nursing professionals working in primary care and secondary care units, specifically the polyclinic, including nurses and nursing technicians with practical experience in vaccination rooms, selected by convenience sampling. The inclusion criterion was being a healthcare professional working in a vaccination room, excluding professionals who were absent for any administrative reasons (vacation, leave of absence, maternity leave, etc.).

Data collection was concluded when a certain number of nursing professionals began to present repeated information and a lack of new elements relevant to the study's objective. Thus, the inclusion of 13 participants was considered sufficient to ensure the consistency and depth of qualitative analyses.

Nursing professionals were invited through individual requests and formal acceptance, with clarification regarding the proposed research questions. The interview questions were asked in person and audio-recorded by the researcher, a nursing undergraduate, representing her first experience with field research. The interview took

place at the health unit, at the scheduled time, in a private room for greater privacy, lasting approximately 5 to 20 minutes.

A pilot test consisting of two interviews was conducted to validate the questionnaire. After application, it was found that no modifications to the questions were necessary. Data were collected in June 2024. The interview addressed five central topics: Active case finding; Continuing education; The immunization work process; User approach; and The relevance of nurses' role. The interview script was developed based on action plans in place during the COVID-19 pandemic.³

After data collection by the researcher, the audio recordings were analyzed, transcribed into a Word[®] document, and the narratives were consolidated and grouped into topics according to the discourses produced. For data exploration, deductive qualitative analysis was performed, which is part of a pre-established set of well-defined categories or topics.¹³ In the present study, the questions defined the thematic categories.

The research complied with the ethical precepts of the Research Ethics Committee (REC) of the *Hospital das Clínicas, Universidade Federal de Pernambuco*, in accordance with Resolutions 466/2012 and 510/2016, under Opinion 6,805,925 and Certificate of Presentation for Ethical Consideration 78955124.7.0000.8807. The interviewees signed the Informed Consent Form. To maintain anonymity, abbreviations of the main functions were used, followed by the interview order number (e.g., N1, N2, N3, T1, T2, T3...). These procedures were only initiated after approval by the REC.

Results

Thirteen nursing professionals participated in the study, including seven registered nurses and six nursing technicians. Of the seven registered nurses, two were male and eleven were female, with ages ranging from 27 to 61 years. Four of the seven registered nurses had a specialization in family health, one in another area of health, and the other two had no specialization. The results were grouped into four thematic categories.

Active search for COVID-19 vaccine vaccination

As this campaign took place in different services within the healthcare network, some institutions conduct active outreach while others do not routinely do so, due to the nature of the campaign.

Nurses mentioned the mandatory nature of the campaign, which, at the time, was the determining factor for these individuals' attendance.

[...] we depend on users coming to the service to get vaccinated [...], sometimes it's a genuine need to get immunized, and in other situations they don't want to get vaccinated for personal reasons, but their job requires it or they needed to go to a public office. [...]. (N2)

[...] unfortunately, some people didn't want to get vaccinated, others only got one dose, and then there were those who worked in a specific job that required the vaccine, so they got vaccinated for that reason. (N3)

Furthermore, these professionals were deployed to take advantage of user opportunities in the healthcare sector.

[...] both in actions within the territory and in actions outside the unit, in daycare centers together with the health district, we participated in these actions to carry out this active search, to bring this population into the unit or take the vaccine closer to the population so that we could assess their vaccination records, administer these vaccinations, and provide the correct information so that this public could get vaccinated [...]. (N5)

[...] we sometimes do that active search within the unit itself [...] and we provide guidance here, like the nursing consultations where I do preventive care, I work in the women's health clinic, we used to explain the importance of vaccines, here within the unit we also always gave guidance to patients, those who came to the vaccination room to get other vaccines, we also gave guidance [...]. (N7)

Nursing staff reported administering COVID-19 vaccinations at home and offering the vaccine during individual and group appointments. However, the strategy was not always successful due to fake news and misconceptions about the vaccine.

[...] initially, we were administering all the vaccines at home, and it was refused there, and there was really no agreement. You couldn't change the user's mind, even after explaining [...]. I don't remember any case where we managed to reverse what the user thought; there was one who refused to take the "astra" vaccine, and then we had to administer another vaccine. (N1)

We administered the vaccine to bedridden individuals, except for those whose families did not allow it. For older adults participating in chronic disease groups, we offered the vaccine during consultations and group sessions. Some did not accept it for various reasons [...]. (N3)

[...] one very big obstacle I encountered there was that they said the older adult got sick after the first dose, and they wouldn't accept me giving the second dose. [...] (T6)

Fear stemming from fake news that does not match the immunobiological product: reasons and misinformation

Misinformation linked to fake news shared on social media by people who are not experts on the subject has been cited as a reason for vaccine hesitancy.

[...] with social media and many laypeople who had never studied anything about vaccines, false information began to spread, and rumors started to emerge [...] people chose to believe those who lacked credibility to speak on the subject more than the people who could actually speak about the true efficacy and safety, which would be the healthcare professionals. (N2)

It was really the dissemination of a lot of fake news [...] the country's management at the time also greatly encouraged the population to turn against COVID vaccination, and people got the idea that the vaccine is a long process [...] this mass dissemination led some people to have adverse reactions, and sometimes it wasn't even associated with the vaccine [...]. (T2)

I think it was really knowledge that spread among the population, especially the poorest, because their access to information is mostly through word of mouth. So, it's very easy to just say, "Oh, this pen is pink, this pen is blue", you know? It's very easy. This fake news emerged a lot in the beginning. We heard a lot of jokes from people, some ironic things like, "Oh, I'm going to turn into an alligator, I'm going to turn into an animal" [...]. (T4)

Furthermore, there was the battle against fake news, along with fatigue and the consequent automation of work.

[...] it's possible the failure occurred when many professionals automated their processes and failed to provide, forgot to provide, or simply didn't have the opportunity to provide the information. The Family Health Strategy, Primary Care, is the main strategy for this to happen. But at that time everything was at a standstill [...]. So, it was either the internet, Facebook, Instagram, or the vaccination centers, which is where the information was being disseminated. (N5)

Approach to users who did not believe in the vaccine's effectiveness

Evidence-based health education was used as a way to address users who did not believe in the vaccine's effectiveness.

I only had the opportunity to approach the user when he came to the vaccination room, then he would get vaccinated but didn't want to give it to his children [...] there was tremendous resistance and I can't force or coerce anyone to get vaccinated [...] the entire health staff should approach these parents, these

people who are/were showing this resistance. (T1)

We always showed through the package inserts and technical notes that the vaccine was safe and effective. In fact, we showed that when vaccination began, the number of severe cases and deaths decreased [...] trying to do this very calmly and quietly because there were people who would immediately bring up the political aspect of the vaccine, and that's where we faced difficulties [...]. (N2)

[...] we often encountered many people who didn't believe us and said we were forcing people to get vaccinated. We tried to explain that it wasn't an obligation, but an emergency, and that everyone needed to get immunized and acquire herd immunity. We would then see the positive effect of this mass vaccination, with COVID numbers decreasing and deaths decreasing in the long term [...]. (T2)

However, there were also nurses and nursing technicians who did not insist on vaccination adherence.

Speaking for myself, I accepted that no one is obligated, in fact no one is obligated, but I didn't insist. I explained what was right and wrong, the adverse events and what the vaccine was preventing, but then it was up to the user. (T4)

[...] if the person didn't want to, I wouldn't insist. (N6)

[...] there wasn't that awareness-raising conversation, like, "Guys, the vaccine is like this, and so on"? The government didn't help with that awareness either; it spread even more lies. I think there wasn't time for the professional in the vaccination room to talk to each patient, to explain, "Mom, Dad, this is going to happen, there's a reaction like this, do this and that" [...] before, a line would form outside, how are you going to guide each one? You don't close the unit [...]. (T3)

The importance of nurses' role in vaccine adherence

Nurses and nursing technicians explain their role in answering questions and raising awareness among the population using Primary Care services.

In my opinion, a nurse's role is to welcome the patient and provide the necessary clarifications, addressing the patient's doubts. Often, patients come with preconceived notions against vaccines, and we must acknowledge their needs, guiding them in the best way possible without creating conflict, always respecting boundaries and trying to counter misinformation with scientifically based information [...]. (T2)

It's important because it has to have an educational aspect; even today many diseases are on the rise again because people are neglecting vaccination, and nurses, because they have direct contact with patients, [...] nurses are also educators. They have to try to use language that is more at the patient's level to try to convince them that what they're doing is right, [...]. (N4)

Furthermore, nurses within PHC have the opportunity to engage with users at various points of care.

[...] the patient wasn't coming to the vaccination room, but to the well-child visit; the nurse in the well-child visit can address this. The nurse could also discuss the importance of vaccines with the mother or pregnant woman during prenatal care; the first vaccine is breastfeeding, and even in relation to that, the nurse could talk. The nurse is essential even when performing a Pap smear, which is a preventive exam. They can address this woman, the grandmother, the aunt about vaccines, and they could also do so in group meetings [...]. (T1)

The moment a patient arrives at the vaccination room they already show interest in getting a vaccine. Sometimes they come interested in, for instance, the flu vaccine, and we take advantage of the opportunity—because that's what vaccines are all about: opportunity—and offer them the COVID vaccine. At that moment, they'll raise questions [...]. (N2)

The different thematic categories revealed nursing professionals' experiences in the context of COVID-19 vaccination. The reports highlight both the difficulties encountered due to misinformation and low adherence, as well as professionals' commitment to guiding the population and reinforcing the importance of immunization. The impact of fake news on care practices and the strategies adopted to regain confidence in vaccination were also evident, reflecting the complexity of the scenario experienced by professionals during the pandemic.

Discussion

Discussions of results indicated that fake news was a factor in causing vaccine hesitancy among users. This study pointed out that this news interferes with vaccine acceptance at the health unit and during active outreach; network users validated statements from non-experts on the subject; and nursing plays a crucial role in combating fake news and promoting vaccine adherence among PHC users.

One of the actions taken by professionals was proactive outreach as a way to reach users, since bedridden individuals were unable to go to health units to be vaccinated. However, those interviewed highlighted that there was hesitancy and refusal to be vaccinated among these people, as they believed in fake news. This reflects the need to debunk this misinformation and make individuals understand that their decision will reflect on preservation of life.¹⁴

During the pandemic, fake news undermined trust in science and healthcare institutions, and hindered adherence to preventive measures.¹⁵ Therefore, some forms of support for vaccination were created by local authorities, such as the “green pass”, a term referring to the requirement of vaccination to access places or carry out services involving public and private entities.¹⁶ These measures were essential to achieving herd immunity through vaccination,¹⁷ in a situation where people were resistant to the idea of being vaccinated or were not being vaccinated because of fake news circulating online or by word of mouth.

The difficulty in vaccinating older adults is evident. Even after healthcare professionals explained the importance of the vaccine, there was resistance from users, and nurses were unable to vaccinate these individuals. This reflects the lack of campaigns by the Recife municipal administration that would draw attention to older adults, especially those who are bedridden, regarding the importance of the vaccine and trusting the information provided by healthcare professionals at their health unit. A study explains, based on the health belief model, that the adoption of COVID-19 prevention and control measures depends on how an individual understands the degree of severity and susceptibility of their organism to the disease.¹⁸

The proactive role of nurses in changing the landscape of vaccine rejection is also highlighted in the first topic. They carried out outreach activities, actions in daycare centers, and active outreach within the unit itself. In other words, they took advantage of patients' presence at the health unit for other purposes, such as well-child visits, women's health appointments, prenatal care, and other types of care, to provide guidance on updating vaccination records and the need to be vaccinated against COVID-19. Similarly, the study identifies that outreach actions are essential to reduce social inequalities and increase community confidence.¹⁹

In the regional context, research conducted in Jaboatão dos Guararapes, a municipality in Pernambuco, reports that for childhood vaccination, they organized the health unit with playful objects in an attempt to make the environment as calm as possible. However, they faced difficulties in the process due to a lack of commitment from caregivers to bring the child and refusal due to fear stemming from negative news. This highlights the difficulties faced by nurses and nursing technicians.²⁰

Furthermore, in nursing practice, this indicates the need for health education strategies for users, a welcoming approach, and follow-up with unvaccinated children. For public policies, the study points to the importance of training nursing staff to gain and transmit confidence to caregivers and children, implementing intersectoral actions that promote greater vaccination coverage and reduce inequalities in access.²⁰

As mentioned, fake news has hindered vaccine uptake, especially for the COVID-19 vaccine, due to the idea that the vaccine was not well-studied because of its rapid development. This is one of the reasons why some people hesitate to be vaccinated and to have their children vaccinated.^{1,21} The bombardment of information released on social media and in the media, even in the speeches of a national political leader at the time, was biased towards spreading misinformation related to the origins of the coronavirus, the spread of the virus, and forms of treatment.²² Verifying the source of information seems to be an insurmountable challenge for a portion of the population. This is clarified in the study as a reason for vaccine refusal and the failure that occurred in this lack of information control.

In addition to fear and concern about being vaccinated, some community members arrived at the health unit with disrespectful comments about the immunizing agent, as reported by a nursing technician in the second scenario, who heard from a user that he would turn into an alligator. This situation may indicate the lack of seriousness with which people considered the COVID-19 vaccine at that time. Scientific journalism, based on evidence, is important because it provides accurate information to users to ensure vaccine acceptance.²³

Studies conducted in Spain and Nigeria show that social media was one of the main sources of information about COVID-19 and vaccines during the pandemic. This scenario contributed to the widespread dissemination of fake news and demonstrated how easy access to unverified content on digital platforms can harm public perception of vaccination.²⁴⁻²⁵

Therefore, there is an urgent need for stricter control over the sharing of this news and for strengthening healthcare professionals' credibility, especially nurses and nursing technicians. As described in the third topic, the interviewees explain how they approached users who did not believe in the vaccine's effectiveness. These professionals

used health education to affirm the vaccine's efficacy and benefits, and to debunk the rumors circulating in society, always citing scientific evidence.

There were also those who did not insist on vaccination among the health unit users. Research indicates that nursing professionals were mentally exhausted due to high demand, physical work, and a lack of volunteers, in addition to having to juggle other activities with the vaccination campaign, which may explain the reasons for not insisting on vaccination.²⁶

A cross-sectional, quantitative study with descriptive and analytical objectives, conducted with healthcare workers at a federal university hospital in Pernambuco, indicated that the likelihood of vaccine hesitancy was almost twice as high among those who reported fear of events supposedly attributable to vaccination, and three times higher when there was a history of something that made them doubt the vaccine's effectiveness.²⁷ It is noteworthy that even healthcare professionals are hesitant about vaccines. Furthermore, the lack of insistence on vaccination can be explained by the vaccine hesitancy of the professionals themselves.

Despite all the challenges faced by nursing in times of fake news, the fourth topic clarifies the fundamental role of nursing in vaccine adherence. Points such as patient support, addressing doubts, and health education were present in the narratives. Furthermore, nurses working in PHC have the opportunity to engage with users at various points of care. In an analysis of experiences with immunization in PHC, authors verified this type of approach in other regions of Brazil between 2017 and 2019.²⁸

Taking advantage of users' presence during appointments and in the vaccination room of the health unit to update their vaccination record are strategies to promote vaccination. However, they depend on communication between users and healthcare professionals and the relationship of trust established to convince them to receive the vaccine. For this purpose, professionals need to be constantly trained and informed through continuing education to provide specific and appropriate answers about vaccination to the unit's users.²⁹⁻³⁰

Among the limitations, the geographical issue stands out. The study was conducted in a single municipality, and due to its qualitative nature, it is not possible to generalize the results to other regions of Brazil. The potential bias of the professionals

interviewed should also be considered. Their perceptions may reflect specific personal or institutional issues, which may have influenced their responses. It is suggested that more research like this be developed in various locations across the country to better understand and consolidate the understanding of how fake news negatively affected adherence to the COVID-19 vaccine.

It is imperative to state that this investigation contributed to ensuring that fake news influenced vaccine hesitancy among SUS users and that nurses and nursing technicians were fundamental actors in ensuring that vaccination occurred even in a scenario of science denial. The research provides support for actions to be taken to minimize the effects of fake news currently and in the future.

Conclusion

This research showed how fake news impacted vaccine non-adherence among users in COVID-19 immunization campaigns, and its rapid and rampant sharing among people who could not distinguish between false and true news, causing fear among them and putting scientific advances to the test.

Furthermore, nursing professionals reported challenges faced due to misinformation, especially in providing health education to people with preconceived opinions, working with an exhausted mindset, and performing their duties even while denying science and, consequently, their survival.

Strategies such as actively seeking out patients inside and outside the health unit were important for increasing public adherence to immunization. It became evident that it is necessary to improve the control of the spread of false information and to provide more support to healthcare professionals, who faced challenges in overcoming situations of vaccine hesitancy.

Looking to the future, it is essential to invest in efficient public policies to improve the response to health crises. The significant role of nurses and nursing technicians in health education and promotion has been recognized as fundamental to effectively and confidently addressing future pandemics. This analysis highlights the collaboration between healthcare professionals, governments, and communities in building stronger health systems and protecting public health nationwide.

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