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Vaccination in fake news times: a look at literature

Vacunación en falsas noticias: una mirada a la literatura

Vacinação em tempos de fake news: um olhar sobre a literatura

ABSTRACT

Objective: to understand the theoretical and conceptual aspects related to vaccination and the implications of Fake news. **Method:** It is a narrative review of the literature, searches were carried out at the bases Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature on Health Sciences (Lilacs) and Google Scholar, with 11 articles selected for analysis. The search took place in April and May 2020. **Results:** Adherence to vaccination is seen as an important strategy that seeks to expand vaccination coverage. Nowadays, it is possible to affirm that social media are the main means of spreading Fake News about vaccination, and from this it can interfere in the reduction of vaccination coverage. **Conclusion:** The study points to the need for resignification of vaccination practices by professionals and users, with a view to disseminating truthful information and consolidating vaccination as a preventive measure for diseases.

DESCRIPTORS: Vaccination; Access to information; Immunization programs.

RESUMEN

Objetivo: comprender los aspectos teóricos y conceptuales relacionados con la vacunación y las implicaciones de las Fake News. **Método:** Es una revisión narrativa de la literatura, las búsquedas se realizaron en bases Biblioteca Electrónica Científica en Línea (SciELO), Literatura Latinoamericana y del Caribe en Ciencias de la Salud (Lilacs) y Google Scholar, con 11 artículos seleccionados para análisis. La búsqueda se llevó a cabo en abril y mayo de 2020. **Resultados:** La adherencia a la vacunación se considera una estrategia importante que busca ampliar la cobertura de vacunación. Hoy en día es posible afirmar que las redes sociales son el principal medio de difusión de Fake News sobre vacunación, y de ahí que pueda interferir en la reducción de la cobertura de vacunación. **Conclusión:** El estudio apunta a la necesidad de resignificación de las prácticas de vacunación por parte de profesionales y usuarios, con miras a difundir información veraz y consolidar la vacunación como medida preventiva de enfermedades.

DESCRIPTORES: Vacunación; Acceso a la información; Programas de vacunación.

RESUMO

Objetivo: compreender os aspectos teórico-conceituais relacionados à vacinação e as implicações das Fake news. **Método:** Trata-se de uma revisão narrativa da literatura, realizou-se as buscas nas bases Scientific Electronic Library Online (SciELO), Literatura Latino-americana e do Caribe em Ciências da Saúde (Lilacs) e Google Scholar, sendo selecionados 11 artigos para análise. A busca se deu nos meses abril e maio de 2020. **Resultados:** A adesão à vacinação é observada como uma importante estratégia que busca ampliar a cobertura vacinal. Na atualidade, é possível afirmar que as mídias sociais são os principais meios de propagação das Fake News sobre vacinação, e a partir disto pode interferir na diminuição da cobertura vacinal. **Conclusão:** O estudo acena para a necessidade da resignificação das práticas de vacinação por parte dos profissionais e usuários, com vistas a disseminar informações verídicas e consolidar a vacinação como medida preventiva de doenças.

DESCRIPTORES: Vacinação; Acesso à informação; Programas de imunização.

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INTRODUCTION

Immunization corresponds to the use of a specific immunobiological, in order to stimulate the immune system to create defenses against specific pathogens that can be harmful to the body. In health services, immunization is carried out through the practice of vaccination.¹

In the Brazilian Unified Health System (Sistema Único de Saúde - SUS), established by the Federal Constitution, vaccination is presented as one of the main strategies to protect the population against vaccine-preventable diseases. It is recognized as a priority and mandatory action, being carried out mainly by the Family Health Strategy.²

The vaccination process offered free of charge by the Unified Health System within the scope of the Family Health Strategy has generated great results in the public health sphere, as both its effectiveness and the cost issue have shown positive results in the national scenario. In other words, it has favored improvements in the quality of life of the population, in terms of coping with illnesses hitherto unknown, but which nowadays are effective methods of controlling and preventing these diseases.³

In Brazil, the National Immunization Program is responsible for the supervision, standardization and implementation of actions and policies that

concretize the use of immunobiologicals. The World Health Organization (WHO) establishes the parameters to be followed and the National Immunization Program (Programa Nacional de Imunização - PNI) makes these parameters goals to be implemented in order to make vaccines accessible throughout the national territory.⁴

The Family Health Strategy, as the main place for carrying out vaccination, is configured in this scenario as the gateway to the health system, with the nursing team being responsible for carrying out this procedure, with a view to consolidating the benefits in the scope of Primary Health Care. Thus, the exercise of work in Primary Health Care requires from these professionals knowledge appropriate to this practice and a planning of actions that seek to understand the social conditions of users, the geographic issue for access, the guidelines and information regarding vaccination, among other measures to favor the professional-user bond.⁵

However, in the contemporary world, the widespread use of social networks has increasingly favored the expansion of false information, the Fake News, and this context has contributed negatively to vaccination practices. Due to the popularization of the internet and the consequent increase in the traffic of information in the most common media, a means was created for

the creation and dissemination of often false data on extremely important subjects such as vaccination.⁶

Stress, by involving itself within the scope of adherence to preventive health practices, Fake News can also favor the gradual increase in the number of unvaccinated people in the country, contributing to the reappearance of vaccine-preventable diseases and compromising the health of the population. In this way, an educational process and the promotion of health awareness must be carried out by health professionals.⁷

This article aims to understand through a narrative review of the literature the theoretical and conceptual aspects related to vaccination and the implications of Fake news. It is justified by the need to investigate, through scientific literature, the relationship between vaccination and Fake News. It becomes relevant due to the fact that a wave of anti-vaccine movements is currently being experienced, resulting from the dissemination of untrue information about immunobiologicals.

METHOD

This is a review of the literature, of a narrative type. Narrative reviews enable the description and discussion of an object of study considering the theoretical field of knowledge production. In this way, an analysis of the scientific literatu-

re is carried out, converging on an interpretation and personal critical analysis of the author.⁸

The following guiding questions were outlined: What are the theoretical-conceptual aspects related to vaccination and Fake news? What are the implications of Fake News for the vaccination process? The textual material used was selected by means of parameterized searches, choosing free access databases such as Scientific Electronic Library Online (SciELO), Latin American and Caribbean Literature in Health Sciences (Lilacs) and Google Scholar. The data collection period took place between April and May 2020.

The health sciences (DeCS) descriptors

“Vaccination”, “Access to information” and “immunization programs” were applied using “AND” as a Boolean operator. The material’s eligibility was based on the inclusion criteria: full articles-type texts, with no time frame and Portuguese, English and Spanish language; and exclusion criteria: review studies and studies that did not address the theme. The selection was made with the application of the eligibility criteria and, sequentially, reading of titles, abstracts and, when eligible, full reading of the articles. The analysis and interpretation of the selected articles took place by summarizing the findings and using the thematic categorization technique, enabling the presentation of results.

RESULTS

The electronic search resulted in the initial identification of 72 articles which, after screening, resulted in a total of 11 articles selected for this review. Among these, there was a greater concentration regarding the thematic production between the years 2018 and 2019, which reaffirms the contemporaneity of this theme.

The table below shows the distribution of the productions identified by identifying the year, title and publication period.

The analytical-interpretative process of the findings of this review allowed the delineation of two thematic categories that will be presented below, they were:

1. Vaccination: conceptual aspects and execution in Primary Health Care; and
2. Fake news and its implications for vaccination.

DISCUSSION

Vaccination: conceptual aspects and implementation in Primary Health Care

The vaccine is one of the greatest discoveries of mankind, becoming a reality through research by doctor Edward Jenner after 20 years of study, in 1776. The etiology of the word vaccine is derived from the terms vaccine and vaccination, which are derived from the term Latin *Vacca*, with which vaccination has an important relationship. It consists of a compound that in its formulation presents specific pathogens in an attenuated way. This product causes the vaccinated individual to produce body defenses that come into play when there is in fact contact with the pathogen.¹

Operationally, the vaccination process is fundamentally contained in the services offered by Primary Health Care, which is a model of internationally consolidated health care since 1978, in which the Alma-Ata declaration established Primary Health Care as a measure that guarantees the support of health services with the provision of services to the population in a

Chart 1 - Studies eligible through searches in SciELO, Lilacs and Google Scholar databases.

ANO	TÍTULO DO ARTIGO	PERIÓDICO
2015	A Internet como interface na relação médico-paciente: aliada ou inimiga?	Revista médica de Minas Gerais
2015	Fatores associados à adesão à vacinação anti-influenza em idosos não institucionalizados	Cadernos de Saúde Pública
2016	Educação para o trabalho em sala de vacina: percepção dos profissionais de enfermagem	Revista de Enfermagem do Centro Oeste Mineiro
2017	Análise da ocorrência de evento adverso pós-vacinação decorrente de erro de imunização.	Revista Brasileira de Enfermagem
2017	Avaliação da organização e funcionamento das salas de vacina na atenção primária à saúde	Revista Epidemiologia e Serviços de Saúde
2018	Pós-verdade e fontes de informação: um estudo sobre fake news	Revista Conhecimento em Ação
2018	Educação permanente em sala de vacina: qual a realidade?	Revista Brasileira de Enfermagem
2018	A dupla epidemia: febre amarela e desinformação	Revista Eletrônica de Comunicação Informação e Inovação em Saúde
2019	Saúde sem fake news: estudo e caracterização das informações falsas divulgadas no canal de informação e checagem de fake news do ministério da saúde.	Revista Mídia e Cotidiano
2019	A percepção da equipe de enfermagem sobre a segurança do paciente em sala de vacinação	Revista Cuidarte
2019	Imunização na atenção básica	Revista multidisciplinar de pesquisa

Source: Research data, 2020.

regional, integrated, continuous and systematic way. In the Brazilian context, it can be said that the consolidation of Primary Health Care took place with the creation and implementation, in 1994, of the Family Health Program, now called Family Health Strategy.⁹

The Family Health Strategy has activities developed by a multidisciplinary team, and one of its central and most relevant objectives is to reorganize the way these services are provided to users. Among these many services, vaccination finds fertile ground in this scenario, as it is a routine and continuous action that has marked great advances in health in recent decades, consequently it ends up having a great influence on the health conditions of the population.¹⁰

When it comes to adherence to the vaccination process and immunization as a result, it is essential and of great value to explain the advantages, privileges and the result of this choice. Adherence to vaccination is seen as an important strategy that seeks to expand more and more the vaccination coverage proposed in campaigns and routine services of primary care, contributing to establish protection for the population. In this context, it also involves the knowledge and information that the population receives on the subject.¹¹

Fake news and its implications for vaccination

The term Fake News is defined as a set of information that represents a situation or point of view regarding a certain event, but which contains false prepositions in its data body. Its content is developed with the purpose of deceiving readers who have access to its material, thereby generating the spread of untruths.¹²

Fake News became more popularly recognized after the end of the U.S. presidential campaign between Donald Trump and Hilary Clinton, where voters created and disseminated untruths about opposition candidates on social media. Nowadays, the use of the internet as a tool of the modern era, resulting from the evolution

of technology and the advances of humanity, is present in everyday life in numerous contexts of society, including in the health sector.^{13,6}

It is a fact that on social networks the creation and spread of false news strengthens groups that contest the usual practices in the field of health, such as anti-vaccine movements. However, it is noteworthy that measures must be taken to combat them. Spaces must be established for the dissemination of truthful and scientifically proven news and their consequent dissemination, helping to clarify issues and contributing effectively to the fight against untruths, which can bring harm to the whole society.¹⁴

In the virtual environment, the spread of false news on a global scale points to a worrying factor, the diminishing importance of the truth. Since the year 2016 that through social networks, the term Fake News has gained popularity and has gone viral in social interactions, targeting different sectors in people's lives, both in political terms and in public health. At this point, the vaccination field suffers several interferences and attacks with unfounded news publications and disseminations, generating uncertainty and insecurity in the population regarding adherence to this process.⁶

Nowadays, it is possible to affirm that social media are the main means of spreading Fake News about vaccination, and from this it can interfere in the reduction of the coverage of vaccination campaigns proposed by the National Immunization Program. It is inferred that through the irresponsible use of virtual platforms such as Facebook, Twitter, WhatsApp and internet browsers, the dissemination through videos, news or even communication portals created for these purposes, gain unimaginable proportions in the population and express information contrary to the real benefit of vaccines.¹⁵

In this way, one of the main targets of attack by Fake News is public health, more specifically vaccination campaigns, and its spread gains more strength due to the fact that the subjects they address are related

to aspects of daily life. In this way, these reports gain greater speculation when they are being disseminated during pandemics or serious illnesses, this junction between untruth and real events in society, together with a lesser understanding by most people about these matters favors and makes Fake News dangerous and harmful to the social well-being.^{7,14}

According to previous studies that conducted searches on virtual platforms, more than 400 Fake News related to vaccines were found, expressing issues such as: vaccines can cause autism; vaccines have side effects that are harmful to health, both in the short and long term; conjugated vaccines between polio, diphtheria, tetanus and whooping cough can cause sudden death in children; vaccines include mercury in its composition; administering more than one immunobiological product to a child can cause severe side effects harmful to the child; the vaccination process can even be fatal.^{9,12}

In the period between the years 2013 and 2015, more than a thousand cases of measles were reported in the states of Ceará and Pernambuco, and until 2019, 92 cases of the disease spread throughout the states of Amazonas, Roraima, Pará, São Paulo were reported in Brazil. , Santa Catarina, Rio de Janeiro and Minas Gerais. One of the probable reasons for these events is the formulation and spread of rumors and myths about vaccines, but not only this contributes, because the lack of immunobiologicals, the perception of people that the diseases have disappeared and that it is no longer necessary to use Vaccines, together with the lack of knowledge of the vaccination calendar, result in a decrease in population adherence in campaigns, thus reducing vaccine coverage to worrying levels.¹⁶

In view of this, it is noted the importance of implementing strategies that enable the formulation of the critical development of professionals and the population regarding issues related to health. For this to happen, it is necessary to emphasize the importance of health professionals, especially tho-

se who work in Primary Health Care, through the Family Health Strategy that work based on the analysis of the health conditions of the population for the provision of services aimed at guaranteeing the quality of life and preventing disease from users.^{17,18}

Therefore, it is essential that health professionals can maintain a continuous dialogue with the population in order to find out about health-related news and thus make them aware of the clarification of rumors and lies that are present in the community through social media. Thus, the practice of good practices by health professionals, more specifically those

working in PHC, in the dissemination of health information from safe sources and with scientific basis, are responsible for breaking taboos, stigmas, demystifying untruths and disseminating good information. This makes the user aware of the topic and allows him to choose in a safe, conscious and responsible way the decisions to be made and the news that should be shared or not.¹⁹

CONCLUSION

The present review contributed to a greater understanding of the theoretical-conceptual aspects related to vaccination

and the implications of Fake news in this process. It elucidated fundamental issues related to vaccination and its importance, listing how the dissemination of false information can negatively interfere with users' adherence.

The literature points to the need to redefine vaccination practices by professionals and users of the service, with a view to consolidating this strategy as a preventive measure for diseases. The need to investigate this topic in the practical field is also emphasized, with a view to better understanding this phenomenon and its occurrence in the social environment. ■

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