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REFLECTION ARTICLE

Misinformation and health literacy in Portugal: a critical reflection on the role of the nurse specializing in community and public health nursing

Desinformación y alfabetización en salud en Portugal: reflexión crítica sobre el papel del enfermero especialista en enfermería de salud comunitaria y de salud pública

Desinformação e literacia em saúde em Portugal: reflexão crítica sobre o papel do enfermeiro especialista em enfermagem de saúde comunitária e de saúde pública

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Abstract

This article aims to critically reflect on the relationship between misinformation and health literacy, and to analyze the potential contribution of the Specialist Nurse in Community Nursing, within the fields of Community Health and Public Health Nursing, to the prevention and mitigation of the infodemic. It is a theoretical-reflective paper based on an interpretive analysis of scientific literature and institutional documents consulted between March and early May 2026. The reflection distinguishes between incorrect information, misinformation, and the infodemic, acknowledging that vulnerability to misleading content depends not only on individual skills but also on sociocultural, emotional, and organizational factors. Portuguese studies on health literacy present varying estimates, the comparison of which requires methodological caution. The literature identifies potential areas for nursing intervention, such as communication, health education, and community engagement, though it cannot be assumed that all proposed strategies are equally effective. It is concluded that addressing misinformation requires interprofessional action, accessible communication, institutional accountability, and rigorous evaluation of interventions.

Descriptors: Health Literacy; Disinformation; Infodemic; Community Health Nursing; Health Communication.

Resumén

El presente artículo tiene como objetivo reflexionar críticamente sobre la relación entre la desinformación y la alfabetización en salud, y analizar la contribución potencial del enfermero especialista en Enfermería Comunitaria, en el ámbito de la Enfermería de Salud Comunitaria y la Salud Pública, a la prevención y mitigación de la infodemia. Se trata de un artículo teórico-reflexivo, basado en el análisis interpretativo de literatura científica y documentos institucionales consultados entre marzo y principios de mayo de 2026. La reflexión distingue entre información incorrecta, desinformación e infodemia, reconociendo que la vulnerabilidad ante contenidos engañosos depende no solo de competencias individuales, sino también de factores socioculturales, emocionales y organizativos. Los estudios portugueses sobre alfabetización en salud presentan estimaciones diversas, cuya comparación requiere prudencia metodológica. La literatura identifica posibilidades de actuación para los enfermeros en los ámbitos de la comunicación, la educación para la salud y la articulación comunitaria; sin embargo, no permite asumir la eficacia de todas las estrategias propuestas. Se concluye que la respuesta a la desinformación exige acciones interprofesionales, una comunicación accesible, responsabilidad institucional y una evaluación rigurosa de las intervenciones.

Descriptores: Alfabetización en Salud; Desinformación; Infodemia; Enfermería en Salud Comunitaria; Comunicación en Salud.

Resumo

O presente artigo tem como objetivo refletir criticamente sobre a relação entre desinformação e literacia em saúde e analisar o contributo potencial do Enfermeiro Especialista em Enfermagem Comunitária, na área de Enfermagem de Saúde Comunitária e de Saúde Pública, para a prevenção e mitigação da infodemia. Trata-se de um artigo teórico-reflexivo, sustentado na análise interpretativa de literatura científica e documentos institucionais consultados entre março e o início de maio de 2026. A reflexão distingue informação incorreta, desinformação e infodemia, reconhecendo que a vulnerabilidade a conteúdos enganosos depende não apenas de competências individuais, mas também de fatores socioculturais, emocionais e organizacionais. Os estudos portugueses sobre literacia em saúde apresentam estimativas diferentes, cuja comparação exige prudência metodológica. A literatura identifica possibilidades de atuação dos enfermeiros na comunicação, educação para a saúde e articulação comunitária, mas não permite presumir a eficácia de todas as estratégias propostas. Conclui-se que a resposta à desinformação exige ações interprofissionais, comunicação acessível, responsabilidade institucional e avaliação rigorosa das intervenções.

Descritores: Literacia para a Saúde; Desinformação; Infodemia; Enfermagem em Saúde Comunitária; Comunicação em Saúde.

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Introduction

The circulation of misleading medical information on digital platforms represents a significant public health challenge[1]. It is important to distinguish misinformation, which may be shared without the intention to cause harm, from disinformation, understood as false or misleading information deliberately disseminated to deceive. Although they differ in terms of intent, both can hinder access to reliable information and influence health decisions.

The World Health Organization recognizes the infodemic as a phenomenon characterized by the excessive circulation of information, including false or misleading content, in digital and physical environments, particularly during public health emergencies[2]. This phenomenon can make it difficult to identify reliable guidance, undermine trust in institutions, and influence the adoption of preventive behaviors and adherence to health recommendations[2,3]. Health literacy is particularly relevant in this context, as it involves the skills required to access, understand, appraise, and use information to make informed decisions. However, vulnerability to disinformation does not depend exclusively on these skills, but is also influenced by emotional and sociocultural factors, trust relationships, and the characteristics of information environments[4].

In Portugal, the promotion of health literacy is among the strategic public health priorities, particularly through the National Health Literacy and Behavioral Sciences Plan 2023–2030[5]. This policy direction reinforces the importance of developing responses that combine individual empowerment with institutional responsibility for providing accessible, understandable, and scientifically grounded information. Within this framework, the Specialist Nurse in Community Health Nursing, in the field of Community Health Nursing and Public Health, may contribute to identifying information needs, promoting health literacy, and empowering communities, in collaboration with other professionals and institutions[6,7]. Nevertheless, the possibilities and limitations of this intervention must be critically examined, avoiding assumptions about the effectiveness of specific strategies in the absence of supporting evidence.

Thus, this article aims to critically reflect on the relationship between disinformation and health literacy, analyzing the complexity of the infodemic and the potential contribution of specialist nurses to its prevention and mitigation in the Portuguese context.

Methodology

This is a theoretical-reflective article based on a critical analysis of scientific literature and institutional documents addressing disinformation, health literacy, the infodemic, and community nursing. The literature search was conducted between March and early May 2026, in Portuguese and English, using the PubMed, Scopus, and Web of Science databases, supplemented by Google Scholar and consultation of documents from the World Health Organization, the Organisation for Economic Co-operation and Development, UNESCO, the European Centre for Disease Prevention and Control, and the Directorate-General of Health. Publications from 2020 to 2026 were primarily considered, while earlier documents relevant to the conceptual, national, or regulatory framework were retained. Review articles, empirical studies, and regulatory documents relevant to the topic were prioritized. Selection was based on thematic relevance, diversity of perspectives, and contribution to the discussion. The analysis was interpretative, integrating empirical data, institutional recommendations, and professional reflection, without applying a systematic review protocol. Accordingly, the aim was neither to achieve exhaustiveness nor to draw causal inferences from the selected literature. In response to the editorial reviewers' comments, the discussion was supplemented in October 2026 with relevant publications from 2024 to 2026, without conducting a new systematic search. The selection was not exhaustive and may reflect source-selection bias; therefore, the transferability of conclusions across countries and contexts should be approached with caution.

Results and Discussion

The circulation of incorrect or deliberately misleading information can influence health-related perceptions, decisions, and behaviors[1,2,8]. The COVID-19 pandemic made the challenges associated with public communication and trust in information sources particularly evident[1,9]. However, dissemination dynamics are not uniform and depend on the context and the indicators considered. Therefore, it is inappropriate to claim that false content invariably spreads faster or reaches a wider audience than scientific information. Information integrity also depends on platform characteristics, dissemination contexts, and institutional responses[9].

Health literacy is an important dimension of the ability to access, understand, appraise, and use information relevant to health decisions[3]. However, susceptibility to disinformation cannot be attributed solely to individual knowledge deficits, since emotional and sociocultural factors, trust relationships, and the characteristics of digital environments also play a role[4].

In Portugal, studies on health literacy have identified varying proportions of individuals with problematic or inadequate levels. The report by Espanha, Ávila, and Mendes identified approximately 49% of participants in these categories[10], while Pedro, Amaral, and Escoval reported a proportion of 61%[11]. Subsequently, the national results of the HLS19 survey indicated that 22% of participants had problematic health literacy and 7.5% had inadequate health literacy, corresponding to a total of 29.5%[13].

Although these results demonstrate differences in health literacy estimates, their interpretation requires consideration of sample characteristics, assessment instruments, and classification criteria. In particular, the use of the HLS19-Q12 instrument limits direct comparison with previous studies that used more extensive versions. Thus, it is not possible to conclude, based exclusively on these indicators, that health literacy among the Portuguese population has improved over time[10-12]. Regardless of these

methodological differences, the studies reinforce the importance of health literacy as a public health priority, justifying the development of strategies that combine individual empowerment, information accessibility, and the responsibility of healthcare organizations[3,5,9]. Health education and clear communication are relevant approaches; however, their effectiveness in reducing adherence to false content should be assessed in specific contexts and populations rather than assumed on the basis of general recommendations[14,20].

The interpretation and sharing of health information may be influenced by emotions, prior beliefs, and social affiliations, even when individuals possess adequate literacy skills[1,4]. Therefore, responding to the infodemic requires multidimensional approaches that combine reliable information, listening, dialogue, and measures targeting information environments and organizations[9,2].

Recent evidence reinforces the need to select communication strategies according to the context, target audiences, and mechanisms underlying information acceptance. A systematic review of interventions targeting marginalized groups highlights the importance of cultural appropriateness, trust, and community participation, without supporting the generalization of the effectiveness of a single approach[8]. A systematic review of narrative corrections identified inconsistent results: only four of the 16 studies comparing narratives with non-narrative corrections found statistically significant superiority of the former, and potential counterproductive effects were also reported[15].

Similarly, a realist systematic review of interventions addressing COVID-19-related disinformation concluded that no single strategy is sufficient across all contexts and recommended combining approaches tailored to target populations[16]. These findings support the need to assess community nursing interventions in terms of acceptability, equity, outcomes, and potential unintended effects, rather than presuming their effectiveness. A 2024 integrative review on identifying reliable digital information reinforces the relevance of digital literacy interventions, emphasizing the need to adapt educational approaches to their intended audiences[17].

A 2024 review of credibility labels and other behavioral interventions describes promising approaches whose applicability should be interpreted considering the contexts and study designs involved[18]. A scoping review published in 2025 identified educational, corrective, algorithmic, and regulatory responses, demonstrating that the prevention of disinformation should not rely exclusively on individual empowerment[1].

Responding to health disinformation requires an approach that goes beyond simply transmitting scientifically accurate information and incorporates an understanding of social contexts, trust relationships, and community needs. A study conducted with community health workers in Brazil demonstrates the relevance of examining the influence of disinformation on the practices of professionals who work closely with populations[19]. Although these findings cannot be directly extrapolated to Portuguese community nursing, they contribute to understanding the relevance of territorial contexts in health communication. In nursing, strategies such as respectful communication, clarification of incorrect information, the use of reliable sources, and participation in community initiatives have been proposed[20]. A systematic review of nursing interventions for people with chronic diseases described strategies for promoting health literacy; however, transferring these findings to community disinformation requires specific evaluation[21]. A 2026 scoping review on the public role of nurses in mitigating disinformation identified needs related to training, institutional support, and empathetic communication[22]. Nevertheless, the methodological diversity of these publications requires caution when interpreting their contributions and does not allow the assumption that all proposed strategies have empirically demonstrated effectiveness. Literature on childhood vaccine hesitancy provides another example of nursing interventions discussed in this field, without allowing their results to be generalized to all forms of disinformation[23].

In the Portuguese context, the regulated competencies of the Specialist Nurse in Community Health Nursing, in the field of Community Health Nursing and Public Health, support the possibility of identifying community needs, planning interventions, and coordinating healthcare resources[6,7]. However, action addressing disinformation should be interprofessional and institutionally supported. 2026 scoping review highlights barriers related to nurses' training, communication, and institutional support[22]. These findings cannot automatically be generalized to the Portuguese context, but they justify attention to training, organizational support, and the evaluation of communication strategies[9].

Proposed actions to be developed and evaluated in the Portuguese context include: (1) assessing the community's information needs; (2) systematically listening to questions and rumors; (3) providing clear and culturally appropriate communication; (4) establishing partnerships with community leaders and institutions; and (5) evaluating the acceptability, equity, and outcomes of the implemented responses. These action areas constitute intervention hypotheses rather than strategies whose effectiveness has been demonstrated in this study.

The implementation of these proposals, however, depends on the availability of team time and resources, adequate training, inequalities in digital access, and privacy protection. Interventions should also avoid stigmatizing individuals or groups exposed to disinformation and should be supported by organizational responsibility rather than relying solely on individual competencies.

Furthermore, nurses' interventions addressing disinformation have an ethical and professional dimension related to defending the right to health, professional accountability, and participation in public communication processes[22]. This responsibility should be exercised in a non-paternalistic manner, respecting people's autonomy, recognizing inequalities in access to information, and avoiding the transfer of exclusive responsibility for the

circulation of misleading content to citizens. The reflection presented supports the relevance of these lines of action but does not empirically demonstrate their effectiveness. A systematic review and meta-analysis published in a Portuguese nursing journal analyzed digital health interventions aimed at promoting health literacy among adults and older people. Its relevance to community nursing lies in the integration of technologies, recipients' needs, and intervention assessment, although improvements in health literacy should not automatically be equated with reductions in disinformation[24]. A 2025 scoping review on diversity and inclusion in research addressing the correction of health disinformation further highlights the need to consider the representativeness of the populations studied and the transferability of findings[25].

Final Considerations

Health disinformation is a complex challenge that requires distinguishing between misinformation, intentional disinformation, and the infodemic. The literature analyzed suggests that health literacy is relevant to the critical appraisal of information, but it does not, on its own, explain vulnerability to misleading content. Emotional, sociocultural, relational, and organizational factors also influence the circulation and acceptance of information[3,4,9].

In the Portuguese context, the available health literacy indicators do not allow improvements over time to be inferred without considering differences in instruments, samples, and classification criteria[10-12]. The Specialist Nurse in Community Health Nursing, in the field of Community Health Nursing and Public Health, may contribute to community-based responses, health education, and community coordination, in accordance with their professional competencies[6,7]. However, the publications analyzed do not support the conclusion that all proposed communication and intervention strategies are empirically effective in reducing disinformation[20,22,23].

Consequently, combating disinformation requires shared responsibility among citizens, professionals, healthcare institutions, and public authorities, with investment in accessible communication, trust, digital literacy, and information integrity. As a theoretical-reflective article, this study is limited by the non-systematic selection of sources and the methodological heterogeneity of the included studies, which precludes establishing causal relationships or generalizing findings from other contexts to professional practice in Portugal.

The development and evaluation of contextualized community interventions are recommended to generate evidence on their feasibility, acceptability, and health outcomes. The literature was selected based on conceptual relevance and does not allow the comparative effectiveness of the strategies described to be estimated.

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