RESUMO - INTELIGÊNCIA ARTIFICIAL E SAÚDE

ARTIFICIAL INTELLIGENCE IN PATIENT EDUCATION AND CLINICAL COMMUNICATION: BENEFITS, LIMITATIONS, AND IMPLICATIONS FOR HUMAN-CENTERED CARE

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Introduction: Artificial intelligence (AI), particularly chatbots and large language models, has increasingly been applied to patient education and clinical communication. Although these tools may improve access to health information, their integration into healthcare raises important questions regarding quality, readability, reliability, and their role in human-centered care. Objective: To evaluate the benefits and limitations of artificial intelligence in patient education and clinical communication, with emphasis on its implications for human-centered care. Methods: This study is a systematic literature review focusing on the application of artificial intelligence in patient education and clinical communication. A structured search was conducted in the PubMed database using the MeSH terms ("Artificial Intelligence"[Mesh]) AND "Medicine"[Mesh]. The search was limited to studies published in the last year, involving human subjects and written in English. Inclusion criteria comprised systematic reviews and meta-analyses evaluating the use of AI, including chatbots and generative models, in patient education, communication, and clinical support. Exclusion

criteria included editorials, opinion articles, and studies not directly related to clinical or patient-centered applications. Study selection was performed through screening of titles and abstracts. Due to methodological heterogeneity among studies, a qualitative synthesis of the findings was conducted. Results: The analyzed studies demonstrated that AI tools provide largely accurate and appropriate responses for patient education, with one meta-analysis reporting a pooled adequacy rate of 89.1%. Chatbots also showed substantial agreement with published guidelines and, in some contexts, outperformed traditional search engines in patient education tasks. However, important limitations were identified, including advanced readability levels, variability in performance, hallucinations, and inconsistent results in complex clinical reasoning. These findings suggest that, although AI may improve access to information and support communication, it remains limited in addressing the broader relational and contextual dimensions of patient care. Conclusion: Artificial intelligence has significant potential to support patient education and clinical communication. Nevertheless, its limitations reinforce the need for careful supervision and integration into healthcare practice, so that technological advances complement rather than weaken human-centered care.

Palavras-chave: artificial intelligence; patient education; clinical communication; human-centered care; chatbots.