

RESUMO - INTELIGÊNCIA ARTIFICIAL E SAÚDE

AT THE INTERSECTION OF ARTIFICIAL INTELLIGENCE, BIOETHICS, AND SPIRITUAL CARE IN MEDICINE: A BIBLIOMETRIC ANALYSIS OF GLOBAL RESEARCH TRENDS (2015–2025)

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INTRODUCTION: The advent of artificial intelligence (AI) in medicine has significantly transformed healthcare, reshaping the physician-patient relationship and introducing new technological mediation. Although promising, these advances raise critical bioethical concerns regarding algorithmic decision-making, while challenging inherently human dimensions like spirituality. Despite exponential growth in studies on AI, bioethics, and spiritual care, their integrated interface remains insufficiently explored. **OBJECTIVE:** To analyze global scientific production and research trends on artificial intelligence, bioethics, and

spiritual care in medicine between 2015 and 2025. **METHODS:** A descriptive, cross-sectional bibliometric study analyzed global literature (2015–2025). A Boolean search in Dimensions.ai yielded 6,084 initial records. After screening against predefined eligibility criteria, 4,813 off-topic or duplicate records were excluded, resulting in a final sample of 1,271 publications. Elicit and Consensus served as supplementary tools for descriptor refinement. Data analysis included standard bibliometric indicators (annual output, countries, journals, authors, institutions) and thematic keyword mapping using VOSviewer. **RESULTS:** Publications (n=1,271) surged non-linearly, shifting from theoretical “machine ethics” (2015–2018) to an LLM-driven peak (2022–2025). Research is heavily dominated by the USA and China, followed by the UK, Canada, and Germany. Networks reveal strong Northern Hemisphere partnerships, highlighting a stark underrepresentation of Latin America and Africa. Literature concentrates in journals like the American Journal of Bioethics and Journal of Religion and Health, driven by elite institutions (e.g., Harvard, Mayo Clinic). The field is theoretically anchored by foundational authors like Puchalski and Sulmasy in palliative care, and Floridi in information ethics. VOSviewer mapping reveals four core clusters: Clinical Governance and Bias, Challenges in Palliative Care and Mental Health, Autonomy and Dignity, and AI-driven Support and Digital Tools. **CONCLUSION:** Scientific production intersecting AI, bioethics, and spiritual care shifted from theoretical ethics to applied clinical tools. Current trends prioritize balancing digital support with robust clinical governance to safeguard patient autonomy and dignity. Given the geographic concentration of research, ensuring scientific impartiality is vital to prevent cultural bias in algorithmic training. Integrating strict bioethical guidelines is imperative to ensure technological advances preserve the humanistic and spiritual dimensions of the physician-patient relationship.

Palavras-chave: artificial intelligence; bioethics; spiritual care; bibliometric analysis; algorithmic fairness.