RESUMO - SAÚDE E ESPIRITUALIDADE

THE ARCHITECTURE OF FAITH: AN AI-DRIVEN BIBLIOMETRIC MAPPING OF NEUROLOGICAL STUDIES ON SPIRITUAL EXPERIENCES AND BRAIN PLASTICITY (2000–2025)

Bruna De Souza Ferreira (ferreirabruna@discente.ufg.br)

Bianca De Souza Ferreira (biancasf3007@gmail.com)

Giovana Gregorio Borges Da Silva (giovanagregorio.bs@gmail.com)

Chrysttian Bhryan Da Cunha Oliveira (chrysttianbhryan@discente.ufg.br)

Gabriela Paiva Pinheiro (gabrielapaivaorg@gmail.com)

Isabella Guzmán Núñez Del Prado (delprado.isabella@outlook.com)

INTRODUCTION: The integration of spirituality (defined as cognitive states and practices involving transcendent meaning, such as meditation or prayer) and neurology has grown as an emerging interdisciplinary research area. Mapping this evolution is essential to understand its academic trajectory related to its current clinical application. OBJECTIVE: To quantitatively analyze the evolution of neurological research on spirituality and brain plasticity (2000-2025) through a descriptive and cross-sectional bibliometric study, evaluating the intersection between theoretical publications and practical clinical applicability. METHODS:

An AI-assisted cross-sectional descriptive bibliometric study was conducted using the Dimensions.ai database, selected for its broad coverage and reliable citation indexing. The search query utilized predefined keywords (combined with Boolean operators): ("Neuroimaging" OR "fMRI" OR "Brain Mapping" OR "Neuroplasticity" OR "Neurotheology") AND ("Spirituality" OR "Religion" OR "Prayer" OR "Meditation"). Inclusion criteria focused on peer-reviewed publications intersecting spirituality and neurological contexts from 2000 to 2025. Exclusion criteria eliminated gray literature lacking persistent identifiers and removed duplicates via automated metadata matching. Results were classified into publications, clinical trials, patents, policy documents, datasets, and grants. Analysis utilized descriptive statistics, a custom Translational Impact Ratio (sum of patents, clinical trials, and policy documents to estimate applied scientific output), linear regression, and a Research-to-Trial Ratio (proportion of theoretical research to clinical trials). RESULTS: The search retrieved 151,390 publications (2000-2025), with an upward linear trend ($R^2=0.69$, $p<0.001$). Despite this vast theoretical volume, practical indicators were disproportionately lower: 198 clinical trials, 2,307 patents, 408 policy documents, and 37 datasets. The 2,307 patents primarily reflect neuroimaging and biofeedback technologies, not validated clinical guidelines. The database identified 129 research grants supporting this field over the study period. The Research to Trial Ratio was 765:1, indicating a high proportion of theoretical publications relative to human clinical trials. CONCLUSION: The increase in publications reflects a growing academic interest in studying the neurobiological mechanisms of spirituality, rather than the current institutionalization of its clinical application. The low number of grants and the high proportion of theoretical articles compared to clinical trials reveal a persistent gap between theoretical exploration and healthcare implementation. Advancing the field will require increased funding and a greater number of translational clinical trials to support clinical applicability.

Palavras-chave: bibliometrics; spirituality; neuronal plasticity; neuroimaging.