

## Spirituality: Central Articles

### Neuroscience of spirituality, religion, and mental health: A systematic review and synthesis (Rosmarin et al., 2022)

Through an integrated literature review and discussion of 18 studies that concurrently examined spirituality/religion(S/R), mental health, and neurobiology, this paper elucidates the neurobiological correlates of S/R pertaining to depression, anxiety, alcohol/substance misuse, and psychosis. Reviewed studies highlight the potentially protective role of religion against the development of depression, with evidence indicating that religion is associated with a lower risk of depression – especially among those with familial risk – and that religiosity is associated with several neurobiological correlates, including greater cortical thickness, decreased DMN, increased posterior EEG alpha at baseline, and slower ERP responsiveness.

Rosmarin, D. H., Kaufman, C. C., Ford, S. F., Keshava, P., Drury, M., Minns, S., Marmarosh, C., Chowdhury, A., & Sacchet, M. D. (2022). The neuroscience of spirituality, religion, and mental health: A systematic review and synthesis. *Journal of psychiatric research*, 156, 100–113. <https://doi.org/10.1016/j.jpsychires.2022.10.003>

### Spirituality in Serious Illness and Health (Balboni et al., 2022)

This systematic review assessed and analyzed scientific articles published from January 2000 to April 2022 with the highest-quality evidence concerning spirituality in serious illness and health. Multidisciplinary Delphi panels identified several key implications of the reviewed evidence, including the value of incorporating spiritual care into the treatment of patients with serious illness, and the need for health professionals to understand the scientifically protective health associations of spiritual community and apply the compelling scientific evidence of this to their treatment approaches.

Balboni, T. A., VanderWeele, T. J., Doan-Soares, S. D., Long, K. N. G., Ferrell, B. R., Fitchett, G., Koenig, H. G., Bain, P. A., Puchalski, C., Steinhauser, K. E., Sulmasy, D. P., & Koh, H. K. (2022). Spirituality in Serious Illness and Health. *JAMA*, 328(2), 184–197. <https://doi.org/10.1001/jama.2022.11086>

### The Decoding of the Human Spirit: A Synergy of Spirituality and Character Strengths Toward Wholeness (Niemi et al., 2020)

This paper explicates how character strengths and spirituality converge in the context of the psycho-spiritual journey toward wholeness - a way of being in the world that involves a life-affirming view of oneself and the world, a capacity to see and approach life with breadth and depth and the ability to organize the life journey into a cohesive whole. It discusses six levels and two complementary pathways by which spirituality can be integrated within the VIA Classification, and examines how the robust synergy of the twin sciences of character strengths and spirituality can be applied and advanced through research-based practices.

Niemiec, R. M., Russo-Netzer, P., & Pargament, K. I. (2020). The decoding of the human spirit: A synergy of spirituality and character strengths toward wholeness. *Frontiers in Psychology, 11*, 2040. <https://doi.org/10.3389/fpsyg.2020.02040>

**A vision for the farther reaches of spirituality: A phenomenologically based model of spiritual development and growth (Mayseless & Russo-Netzer, 2017)**

This article proposes a phenomenologically based model of spiritual development and growth consisting of three “spatial” facets that are described as related and yet distinct realms of spiritual development—(a) deep within, (b) up and beyond, and (c) sideways and interconnected. The model is presented as a framework for understanding the development of inner personal wholeness (i.e., a sense of inner peace, integrity, and harmony; closeness to one’s authentic self; a sense of “being held”; gratitude; a compassionate and caring stance; and a sense of meaning and purpose in life), which in turn can lead to outer wholeness through three facilitating aspects: (a) values of respect, caring, and service; (b) a less exclusive circle of care; and (c) humility and pluralistic spirituality.

Mayseless, O., & Russo-Netzer, P. (2017). A vision for the farther reaches of spirituality: A phenomenologically based model of spiritual development and growth. *Spirituality in Clinical Practice, 4*(3), 176–192. <https://doi.org/10.1037/scp0000147>

**The Varieties of Self-Transcendent Experience (Yaden et al., 2017)**

This integrative review and proposed organizational framework defines and discusses self-transcendent experiences (STEs)—transient mental states marked by decreased self-salience and increased feelings of connectedness. Common psychological constructs that contain a self-transcendent aspect (e.g., mindfulness, flow, peak experiences, mystical-type experiences, and certain positive emotions) are identified, psychological and neurobiological mechanisms that may mediate the effects of STEs are proposed, and future directions for further empirical research on these experiences are outlined.

Yaden, D. B., Haidt, J., Hood Jr, R. W., Vago, D. R., & Newberg, A. B. (2017). The varieties of self-transcendent experience. *Review of general psychology, 21*(2), 143-160. <https://doi.org/10.1037/gpr0000102>

**Neuroanatomical correlates of religiosity and spirituality: a study in adults at high and low familial risk for depression (Miller et al., 2014)**

This longitudinal, cohort study provides compelling evidence that when associated with a high importance of R/S, a thicker cortex may confer resilience to the development of depressive illness in individuals at high familial risk for major depression. Brain imaging findings from the study indicate that a high importance of R/S in one’s life was associated with thicker cortices (in the left and right parietal and occipital regions, the mesial frontal lobe of the right hemisphere, and the cuneus and precuneus in the left hemisphere) independent of familial risk, and additionally, the effects of importance on cortical thickness were significantly stronger in the high-risk group.

Miller, L., Bansal, R., Wickramaratne, P., Hao, X., Tenke, C. E., Weissman, M. M., & Peterson, B. S. (2014). Neuroanatomical correlates of religiosity and spirituality: a study in adults at high and low familial risk for depression. *JAMA psychiatry*, *71*(2), 128–135. <https://doi.org/10.1001/jamapsychiatry.2013.3067>

**Religion, Spirituality, and Health: The Research and Clinical Implications (Koenig, 2012)**

Based on a systematic review of original data-based quantitative research published in peer-reviewed journals between 1872 and 2012, this paper provides a comprehensive review of research on (R/S) and mental as well as physical health, and underscores the need to integrate spirituality into patient care. The findings reviewed indicate that people with higher levels of R/S have better mental health and adapt more quickly to health problems, which in turn confers salutary physiological consequences that impact physical health, affect the risk of disease, and influence response to treatment.

Koenig H. G. (2012). Religion, spirituality, and health: the research and clinical implications. *ISRN psychiatry*, 2012, 278730. <https://doi.org/10.5402/2012/278730>

**Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. (Hill & Pargament, 2008)**

This paper highlights areas for growth within the scientific conceptualization and measurement of religion and spirituality. It also discusses various ways that psychologists have been discovering more about the distinctive contributions of religiousness and spirituality to health and well-being, through the use of religion and spirituality measures that are more conceptually related to physical and mental health (e.g., closeness to God, religious orientation and motivation, religious support, religious struggle).

Hill, P. C., & Pargament, K. I. (2008). Advances in the conceptualization and measurement of religion and spirituality: Implications for physical and mental health research. *Psychology of Religion and Spirituality*, *5* (1), 3–17. <https://doi.org/10.1037/1941-1022.S.1.3>

**Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance (Griffiths et al., 2006)**

Using a sample of hallucinogen-naïve adults that reported regular participation in religious or spiritual activities, this double-blind study evaluated the acute and longer-term psychological effects of a high dose of psilocybin. Findings suggest that Psilocybin occasioned experiences with substantial personal meaning and spiritual significance – similar to spontaneously occurring mystical experiences – and also engendered positive changes in attitudes and behavior two months later, which were corroborated by ratings from community observers.

Griffiths, R. R., Richards, W. A., McCann, U., & Jesse, R. (2006). Psilocybin can occasion mystical-type experiences having substantial and sustained personal meaning and spiritual significance. *Psychopharmacology*, *187*, 268-283. <https://doi.org/10.1007/s00213-006-0457-5>

**Religion and spirituality: Linkages to physical health (Powell et al., 2003)**

This study examined the link between religion/spirituality (R/S) and mortality, morbidity, disability, or recovery from illness, and provides evidence that healthy individuals who frequently attend church or other spiritual/religious services exhibit a strong, consistent, prospective, and often graded reduction in risk of mortality. Results also show that among participants, R/S protects against cardiovascular disease, largely mediated by the healthy lifestyle it encourages.

Powell, L. H., Shahabi, L., & Thoresen, C. E. (2003). Religion and spirituality: Linkages to physical health. *American Psychologist*, 58(1), 36–52. <https://doi.org/10.1037/0003-066X.58.1.36>