



# RESEARCH REVIEW

A DIGEST OF NEW SCIENTIFIC RESEARCH  
CONCERNING RELIGION, BRAIN & BEHAVIOR

JULY, 2014

## INTRODUCTION

*IBCSR Research Review (IRR)* is published by the Institute for the Biocultural Study of Religion, a non-profit research institute dedicated to the scientific study of religion using biocultural techniques. *IRR* briefly annotates and furnishes online information about scientific research articles related to brain, behavior, culture, and religion published in English in leading journals. It also lists relevant books. Articles in press are listed without annotation. Annotations for articles aim to supply a preliminary understanding of the methods and results of a research study, or the argument of a paper. Annotations typically furnish more detail for articles in the scientific study of religion related to religion, brain, and behavior, than for articles in the area of spirituality and health, in accordance with IBCSR research priorities.

Articles for this issue were located by searching the following databases: H. W. Wilson Applied Science and Technology, ATLA Religion Database, H. W. Wilson General Science, PubMed, EBSCO Psychology and Behavioral Sciences Collection, PsycARTICLES, PsycINFO, ScienceDirect, and Web of Science. The search terms were altruism, god, goddess, meditat\*, prayer, relig\*, ritual, spiritu\*, and yoga, tailored to the database being searched. Books were located on Amazon.com. Articles not directly relevant to the scientific study of religion were excluded, as were correspondence and reviews. From a universe of 688 articles, 80 articles have been retained from 45 journals. There are 44 pre-publication citations from 33 journals.

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## PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

### 1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Amihai, Ido & Maria Kozhevnikov. 2014. Arousal vs. Relaxation: A Comparison of the Neurophysiological and Cognitive Correlates of Vajrayana and Theravada Meditative Practices. *PLoS One* 9(7). e102990.  
doi:10.1371/journal.pone.0102990.

*Based on evidence of parasympathetic activation, early studies defined meditation as a relaxation response. Later research attempted to categorize meditation as either involving focused or distributed attentional systems. Neither of these hypotheses received strong empirical support, and most of the studies investigated Theravada style meditative practices. In this study, researchers compared neurophysiological (EEG, EKG) and cognitive correlates of meditative practices that are thought to utilize either focused or distributed attention, from both Theravada and Vajrayana traditions. The results of Study 1 show that both focused (Shamatha) and distributed (Vipassana) attention meditations of the Theravada tradition produced enhanced parasympathetic activation indicative of a relaxation response. In contrast, both focused (Deity) and distributed (Rig-pa) meditations of the Vajrayana tradition produced sympathetic activation, indicative of arousal. Additionally, the results of Study 2 demonstrated an immediate dramatic increase in performance on cognitive tasks following only Vajrayana styles of meditation, indicating enhanced phasic alertness due to arousal. Furthermore, EEG results showed qualitatively different patterns of activation between Theravada and Vajrayana meditations, albeit highly similar activity between meditations within the same tradition. In conclusion, consistent with Tibetan scriptures that described Shamatha and Vipassana techniques as those that calm and relax the mind, and Vajrayana techniques as those that require “an awake quality” of the mind, these studies show that Theravada and Vajrayana meditations are based on different neurophysiological mechanisms, which give rise to either a relaxation or arousal response. Hence, it may be more appropriate to categorize meditations in terms of relaxation vs. arousal, whereas classification methods that rely on the focused vs. distributed attention dichotomy may need to be reexamined.*

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Marchand, William R. 2014. Neural mechanisms of mindfulness and meditation: Evidence from neuroimaging studies. *World Journal of Radiology* 6(7). 471–479.  
doi:10.4329/wjr.v6.i7.471.

*Mindfulness is the dispassionate, moment-by-moment awareness of sensations, emotions and thoughts. Mindfulness-based interventions are being increasingly used for stress, psychological well-being, coping with chronic illness, as well as adjunctive treatments for psychiatric disorders. However, the neural mechanisms associated with mindfulness have not been well characterized. Recent functional and structural neuroimaging studies are beginning to provide insights into neural processes associated with the practice of mindfulness. A review of this literature revealed compelling evidence that mindfulness impacts the function of the medial cortex and associated default mode network as well as insula and amygdala. Additionally, mindfulness practice appears to affect lateral frontal regions and basal ganglia, at least in some cases. Structural imaging studies are consistent with these findings and also indicate changes in the hippocampus. While many questions remain unanswered, the current literature provides evidence of brain regions and networks relevant for understanding neural processes associated with mindfulness.*

Watts, Fraser. 2014. Cognitive processes in religious discernment: a response to Nathaniel Barrett. *Religion, Brain & Behavior* 4(2). 169–171.  
doi:10.1080/2153599X.2013.816346.

*This article is a commentary on a target article in the journal. The author of the current piece suggests that the ecological approach to religious perception of value would benefit from connection to existing cognitive theories. In particular, those theories that pertain to the distinction between propositional and implicational meanings would be especially relevant. Further, the study of additional cultures and contexts would enrich the author's model. The Ignatian tradition would be a good candidate for a helpful subject area.*

## **1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION**

Aveyard, Mark E. 2014. A call to honesty: Extending religious priming of moral behavior to Middle Eastern Muslims. *PLoS One* 9(7). e99447.  
doi:10.1371/journal.pone.0099447.

*Two experiments with Middle Eastern participants explored the generalizability of prior research on religious priming and moral behavior to a novel cultural and religious context. Participants in Experiment 1 completed a sentence unscrambling task with religious or non-religious content (in Arabic) before taking an unsupervised math test on which cheating was possible and incentivized. No difference in honesty rates emerged between the two groups, failing to extend findings from previous research with similar stimuli. Experiment 2 tested the effects of the athan, the Islamic call to prayer, using the same design. This naturalistic religious prime produced higher rates of honesty (68%) compared to controls who did not hear the call to prayer (53%). These results raise the possibility that the psychological mechanisms used by religion to influence moral behavior might differ between religions and cultures, highlighting an avenue of exploration for future research. The experiments here also address two growing concerns in psychological science: first, that the absence of replications casts doubt on the reliability of original research findings; second, that the Westernized state of psychological science casts doubt on the generalizability of such work.*

Baele, Lieven, Moazzam Farooq & Steven Ongena. 2014. Of religion and redemption: Evidence from default on Islamic loans. *Journal of Banking & Finance* 44. 141–159.  
doi:10.1016/j.jbankfin.2014.03.005.

*Researchers compare default rates on conventional and Islamic loans using a comprehensive monthly dataset from Pakistan that follows more than 150,000 loans over the period April, 2006 to December, 2008. Robust evidence was found that the default rate of Islamic loans is less than half the default rate of conventional loans. Islamic loans are less likely to default during Ramadan and in big cities if the share of votes to religious-political parties increases, suggesting that religion—either through individual piousness or network effects—may play a role in determining loan default.*

Barrett, Nathaniel F. 2014. Perceptualization and the enjoyment of religious practice: A response to commentators. *Religion, Brain & Behavior* 4(2). 171–180.  
doi:10.1080/2153599X.2013.816349.

*The author of the target article in this journal issue responds to the commentaries.*

Barrett, Nathaniel F. 2014. The perception of religious meaning and value: an ecological approach. *Religion, Brain & Behavior* 4(2). 127–146.  
doi:10.1080/2153599X.2013.816339.

*The target article of the current issue of the journal. The author holds that the perception of value is one of the most important dimensions of religious experience, and yet the cognitive science of religion has so far had little to say about it. He posits that this neglect may be the result of a widespread assumption that value is constructed, that is, a special quality added to sensory input by the mind. However, such a view not only divorces value from meaning, but it also cannot register the ways in which value is discovered and enriched through skillful engagement. Accordingly, it is proposed that the experience of value is better understood in ecological terms, as the richness of meaningful interaction between a skilled perceiver and a suitably complex environment. An ecological approach opens up new opportunities for the investigation of the environmental conditions of value-rich religious experience. For example, it may be possible to determine how the experience of divine presence is supported by the structural features of music used in religious settings.*

Berg, Nathan & Jeong-Yoo Kim. 2014. Prohibition of Riba and Gharar: A signaling and screening explanation? *Journal of Economic Behavior & Organization* 103, Supplement. (Special Issue on Islamic Finance). S146–S159.  
doi:10.1016/j.jebo.2014.02.016.

*The emergence of Islamic Banks (IBs) with Sharia boards that restrict the set of permissible products, and enforce prohibition of riba and gharar, raises basic questions about how IB clients benefit when choosing from a restricted menu of possibly higher-cost cash flows. Norms that restrict choice sets, or impose otherwise harsh requirements, would seem to act as a barrier to religious identification by raising costs for IB clients. Contrary to this intuition, the present model demonstrates that premium costs associated with restrictions on the set of financing options considered to be Sharia-compliant provide a signaling and screening technology that benefits IB clients who are highly pious. By revealing what would otherwise remain private information about the intensity of religious piety, this signaling technology simultaneously provides a screening service that enables high-piety types to separate themselves and concentrate both social and commercial interactions with others who are similarly pious. Iannaccone has demonstrated a rationale for harsh norms as a mechanism for reducing free-riding in the supply of club goods. In contrast, this model shows that piety can be signaled by the act of choosing to become an IB client and bearing the costs of its restricted choice set and premium pricing for otherwise identical cash flows. Signaling and screening provide a new rationalization for prohibition of riba and gharar as a stable institution. Signaling piety is especially valuable in environments where piety is uncertain and otherwise difficult for others to observe. The model predicts that IBs' Sharia-compliance criteria will tend to be stricter and IB premiums larger in places where the proportion of highly pious Muslims is small.*

Favela, Luis H. & Anthony Chemero. 2014. The value of affordances. *Religion, Brain & Behavior* 4(2). 147–149.  
doi:10.1080/2153599X.2013.816343.

*The authors question the target article's omission of the concept of affordances, which are opportunities for action that exist in the environment. Instead, he focuses instead on the directness of perception, the other main claim of ecological psychology. This omission constricts Barrett's ecological account of religious value, and thus the authors are not convinced by his particular attempt at an ecological account of religious meaning.*

Geertz, Armin W. 2014. Who or what is doing the flowing? On the apparent metaphysics of N.F. Barrett's ecological approach. *Religion, Brain & Behavior* 4(2). 149–152.  
doi:10.1080/2153599X.2013.816348.

*The author critiques Barrett's omission of brain function in his theory of the neurocognition of religious behavior. Further, the ecological approach as presented is metaphysical or religious in nature, having little to do with scientific methodology.*

Gingras, Bruno, Gerald Pohler & W. Tecumseh Fitch. 2014. Exploring shamanic journeying: Repetitive drumming with shamanic instructions induces specific subjective experiences but no larger cortisol decrease than instrumental meditation music. *PloS One* 9(7). e102103.  
doi:10.1371/journal.pone.0102103.

*Exposure to repetitive drumming combined with instructions for shamanic journeying has been associated with physiological and therapeutic effects, such as an increase in salivary immunoglobulin A. In order to assess whether the combination of repetitive drumming and shamanic instructions is specifically associated with these effects, researchers compared the effect of listening to either repetitive drumming or instrumental meditation music for 15 minutes on salivary cortisol concentration and on self-reported physiological and psychological states. For each musical style, two groups of participants were exposed to two conditions: instructions for shamanic journeying or relaxation instructions. A total of 39 participants (24 females) inexperienced in shamanic journeying completed the experiment. Salivary cortisol concentrations were measured before and after exposure to music. In addition, participants filled out a mood questionnaire before and after the experiment and completed a post-experiment questionnaire on their experiences. A significant decrease in the concentration in salivary cortisol was observed across all musical styles and instructions, indicating that exposure to 15 minutes of either repetitive drumming or instrumental meditation music, while lying down, was sufficient to induce a decrease in cortisol levels. However, no differences were observed across conditions. Significant differences in reported emotional states and subjective experiences were observed between the groups. Notably, participants exposed to repetitive drumming combined with shamanic instructions reported experiencing heaviness, decreased heart rate, and dreamlike experiences significantly more often than participants exposed to repetitive drumming combined with relaxation instructions. These findings suggest that the subjective effects specifically attributed to repetitive drumming and shamanic journeying may not be reflected in differential endocrine responses.*

Heft, Harry. 2014. Ecological psychology and religious meaning: strange bedfellows? *Religion, Brain & Behavior* 4(2). 152–154.  
doi:10.1080/2153599X.2013.816341.

*In this response, the author further articulates the place of radical empiricism, derived from William James, in the study of religious experience. Ecological psychology could be a useful resource for religious experience studies, and the author describes the way its description could be expanded.*

Ignatow, Gabe & Elizabeth Gabhart. 2014. Religion, environment and milieu. *Religion, Brain & Behavior* 4(2). 155–156.  
doi:10.1080/2153599X.2013.816340.

*The authors raise the issue of the social milieu of a religious practitioner, which is not discussed in Barrett's theory. However, they see the ecological approach to religious meaning as a step in the right direction and fully agree with Barrett's conclusions regarding the need for thick description and interpretative understanding of religious experience.*

Ingold, Tim. 2014. Religious perception and the education of attention. *Religion, Brain & Behavior* 4(2). 156–158.  
doi:10.1080/2153599X.2013.816345.

*Though the author is an advocate of the ecological approach to perception, he questions whether Gibson's work, utilized in the target article, is sufficient. Gibson assumes that while the perceiver is dynamically exploring his environment, the environment itself is static. On the contrary, the environment is dynamic, and it is the perceiver who attends to the world.*

Luhrmann, T.M. 2014. What an ecological approach can teach us. *Religion, Brain & Behavior* 4(2). 159–161.  
doi:10.1080/2153599X.2013.816347.

*The author is led by the target article to realize the importance of distinguishing between the "ecological" and "enrichment" approaches to studying religious experience. She describes further research in this area which evaluates the hypothesis that people with different ideas about their minds interact with that auditory environment differently, and that to some extent, they alter it.*

Neubauer, Raymond L. 2014. Prayer as an interpersonal relationship: A neuroimaging study. *Religion, Brain & Behavior* 4(2). 92–103.  
doi:10.1080/2153599X.2013.768288.

*This fMRI study describes neural correlates of prayer during periods in which people report in after-scan surveys that they felt the presence of God. Participants were part of a broad movement in modern Christianity that goes by various terms such as Pentecostal, charismatic, or spirit-filled. For them, the presence of God is a strong and immediate experience during improvised, personal prayer. Prayer was compared to imaginatively speaking to a loved one, a significant other in the person's life, and to a ground state of visualizing and naming a parade of animals. Results show an overlap between prayer and speaking to a loved one in brain areas associated with theory of mind, suggesting that the brain treats both as an interpersonal relationship. These brain areas are also associated with the default mode network, where the mind evaluates past and possible future experiences of the self. It is suggested that the high personal significance that participants attach to prayer experiences is due in part to their taking place in core areas of self-understanding.*

Panagopoulos, Costas. 2014. Watchful eyes: Implicit observability cues and voting. *Evolution and Human Behavior* 35(4). 279–284.  
doi:10.1016/j.evolhumbehav.2014.02.008.

*Explicit social pressure has been shown to be a powerful motivator of prosocial behavior like voting in elections. In this study, the author replicates and extends the findings of a randomized field experiment designed to study the impact of more subtle, implicit social pressure treatments on voting. The results of the original experiment, conducted in the October 2011 municipal elections in Key West, Florida, demonstrated that even subtle, implicit observability cues, like a pair of stylized eyes facing subjects, effectively mobilized citizens to vote, by about as much as explicit surveillance cues. The replication study, conducted in Lexington, KY, during the November 2011 gubernatorial election, corroborates these findings and suggests that the "eyes effect" on average does not likely depend on the gender of eyespots used. Taken together, the two field experiments provide strong support for the notion studies that humans are evolutionarily programmed to respond to certain stimuli and that exposure to images that implicitly signal observability is sufficient to stimulate prosocial behavior.*

Panchin, Alexander Y., Alexander I. Tuzhikov & Yuri V. Panchin. 2014. Midichlorians - the biomeme hypothesis: is there a microbial component to religious rituals? *Biology Direct* 9(1). 14. doi:10.1186/1745-6150-9-14.

*In this article, researchers hypothesize that certain aspects of religious behavior observed in the human society could be influenced by microbial host control and that the transmission of some religious rituals could be regarded as the simultaneous transmission of both ideas (memes) and parasitic organisms. The researchers predict that next-generation microbiome sequencing of samples obtained from gut or brain tissues of control subjects and subjects with a history of voluntary active participation in certain religious rituals that promote microbial transmission will lead to the discovery of microbes, whose presence has a consistent and positive association with religious behavior. The hypothesis also predicts a decline of participation in religious rituals in societies with improved sanitation. If proven true, the hypothesis may provide insights on the origin and pervasiveness of certain religious practices and provide an alternative explanation for recently published positive associations between parasite-stress and religiosity. The discovery of novel microorganisms that affect host behavior may improve understanding of neurobiology and neurochemistry, while the diversity of such organisms may be of interest to evolutionary biologists and religious scholars.*

Taves, Ann. 2014. Parsing meaning and value in relation to experience. *Religion, Brain & Behavior* 4(2). 161–167. doi:10.1080/2153599X.2013.816344.

*The author finds significant problems in the target article. These problems are related to a conflation of meaning and value. First, Barrett appropriates Neville's axiological philosophy simplistically, asserting its conclusions and attempting to find a psychology that fits them. Second, he appropriates ecological psychology uncritically with little or no attention to the debates that have swirled around it.*

Visala, Aku. 2014. Religious experience and the metaphysics of meaning and value. *Religion, Brain & Behavior* 4(2). 167–169. doi:10.1080/2153599X.2013.816342.

*The author makes three comments on the metaphysical aspects of naturalism that are implicit in the target article. He finds Barrett's model to be strongly naturalistic, not just in terms of methodology but also ontology.*

### **1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE**

French, Doran C., Sharon Christ, Ting Lu & Urip Purwono. 2014. Trajectories of Indonesian adolescents' religiosity, problem behavior, and friends' religiosity: covariation and sequences. *Child Development* 85(4). 1634–1646. doi:10.1111/cdev.12234.

*Changes in religiosity, problem behavior, and their friends' religiosity over a 2-year period were assessed in a sample of 559 15-year-old Indonesian Muslim adolescents. Adolescents self-reported their religiosity, problem behavior, and friendships; the religiosity of mutual friends came from friends' self-reports. A parallel process analysis of growth curves showed that adolescents' religiosity trajectories covaried with both problem behavior and friends' religiosity. Using a cross-lagged model in which prior levels were controlled, religiosity at 10th and 11th grades predicted friends' religiosity 1 year later, suggesting that adolescents select friends of similar religiosity. This study provides evidence that religion is intertwined with other aspects of adolescent development and illustrates the importance of contextualizing adolescent religiosity within an ecological framework.*

Gantman, Ana P. & Jay J. Van Bavel. 2014. The moral pop-out effect: Enhanced perceptual awareness of morally relevant stimuli. *Cognition* 132(1). 22–29. doi:10.1016/j.cognition.2014.02.007.

*People perceive religious and moral iconography in ambiguous objects, ranging from grilled cheese to bird feces. In the current research, researchers examined whether moral concerns can shape awareness of perceptually ambiguous stimuli. In three experiments, the researchers presented masked moral and non-moral words around the threshold for conscious awareness as part of a lexical decision task. Participants correctly identified moral words more frequently than non-moral words—a phenomenon researchers term the moral pop-out effect. The moral pop-out effect was only evident when stimuli were presented at durations that made them perceptually ambiguous, but not when the stimuli were presented too quickly to perceive or slowly enough to easily perceive. The moral pop-out effect was not moderated by exposure to harm and cannot be explained by differences in arousal, valence, or extremity. Although most models of moral psychology assume the initial perception of moral stimuli, this research suggests that moral beliefs and values may shape perceptual awareness.*

- Jaspal, Rusi & Marco Cinnirella. 2014. Hyper-affiliation to the Religious In-group Among British Pakistani Muslim Gay Men. *Journal of Community & Applied Social Psychology* 24(4). 265–277.  
doi:10.1002/casp.2163.

*This article examines how British Muslim gay men may safeguard membership in their religious group, which can be threatened as a result of self-identifying as gay. Twenty British Pakistani Muslim gay men were interviewed. Data were analyzed using an interpretative phenomenological analysis through the heuristic lens of identity process theory. The following themes are discussed: (i) gay identity casting doubt upon one's "Muslim-ness"; (ii) Ramadan: a symbolic opportunity to be a "true Muslim"; and (iii) accepting "Muslim views" and religious authenticity. Data suggest that threatened Muslim identity can lead to hyper-affiliation to the religious in-group, which is achieved through a multitude of substrategies.*

- Kiessling, Florian & Josef Perner. 2014. God–mother–baby: What children think they know. *Child Development* 85(4). 1601–1616.  
doi:10.1111/cdev.12210.

*This study tested 3 to 6-year-old children (n=109) on a knowledge-ignorance task about knowledge in humans (mother, baby) and God. In their responses, participants not reliably grasping that seeing leads to knowing in humans (pre-representational) were significantly influenced by their own knowledge and marginally by question format. Moreover, knowledge was attributed significantly more often to mother than baby and explained by agent-based characteristics. Of participants mastering the task for humans (representational), God was largely conceived as an ignorant "man in the sky" by younger and increasingly as a "supernatural agent in the sky" by older children. Evidence for egocentrism and for anthropomorphizing God lends support to an anthropomorphism hypothesis. First-time evidence for an agent-based conception of others' knowledge in pre-representational children is presented.*

- Reese, Gerhard, Melanie C. Steffens & Kai J. Jonas. 2014. Religious Affiliation and Attitudes Towards Gay Men: On the Mediating Role of Masculinity Threat. *Journal of Community & Applied Social Psychology* 24(4). 340–355.  
doi:10.1002/casp.2169.

*Previous research suggests that people from some religious backgrounds hold more negative attitudes towards gay men than others do. The current research focuses on psychological variables as an alternative explanation to religious affiliation, testing whether masculinity beliefs regarding gay men and their perceived threat to one's masculinity can explain such between-group differences in negative attitudes. With a sample of 155 male heterosexual university students (Muslims and Christians in Germany), researchers found that Muslims held more negative attitudes towards gay men than Christians did. Yet, this relation was partially mediated by beliefs about the masculinity of gay men and the experience of masculinity threat imposed by gay men, substantially reducing the effect of religious affiliation on antigay attitudes. In sum, similar psychological processes explained antigay attitudes of both Muslims and Christians.*



Sandage, Steven J. & Jonathan Morgan. 2014. Hope and positive religious coping as predictors of social justice commitment. *Mental Health, Religion & Culture* 17(6). 557–567.

*The present study tested a theoretical model of dispositional hope and positive religious coping as unique predictors of social justice commitment over and above impression management in a sample of graduate students (n=214) in helping professions at an Evangelical Protestant university in the USA. This empirical study utilized a cultural psychology approach with a theoretical framework developed from (a) an earlier cultural psychology study of hope and social justice using the social philosophies of Martin Luther King, Jr., Cornel West, and Paulo Freire and (b) several liberation and Pietistic theologians. Results supported the discriminant validity hypothesis with dispositional hope and positive religious coping each predicting social justice commitment over and above a measure of spiritual impression management.*

Schwadel, Philip. 2014. Are white evangelical Protestants lower class? A partial test of church-sect theory. *Social Science Research* 46. 100–116.  
doi:10.1016/j.ssresearch.2014.02.010.

*Testing hypotheses derived from church-sect theory and contemporary research about changes in evangelical Protestants' social status, the author used repeated cross-sectional survey data spanning almost four decades to examine changes in the social-class hierarchy of American religious traditions. While there is little change in the social-class position of white evangelical Protestants from the early 1970s to 2010, there is considerable change across birth cohorts. Results from hierarchical age–period–cohort models show: (1) robust, across-cohort declines in social-class differences between white evangelical Protestants and liberal Protestants, affiliates of “other” religions, and the unaffiliated; (2) stability in social-class differences between white evangelical Protestants and moderate, Pentecostal, and nondenominational Protestants; (3) moderate across-cohort growth in social-class differences between white evangelical Protestants and Catholics; and (4) these patterns vary across indicators of social class. The findings in this article provide partial support for church-sect theory as well as other theories of social change that emphasize the pivotal role of generations.*

#### **1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY**

Brewster, Melanie E., Matthew A. Robinson, Riddhi Sandil, Jessica Esposito & Elizabeth Geiger. 2014. Arrantly absent: Atheism in psychological science from 2001 to 2012. *The Counseling Psychologist* 42(5). 628–663.

*This study provides a content analysis of the past 12 years (2001-2012) of academic scholarship about atheism and atheist individuals from a social scientific lens in the United States. The content analysis yielded 100 articles across disciplines including psychology, sociology, religious studies, and political science. Although the number of articles about atheism published since 2001 has increased steadily per year (n=0 in 2001 compared with n=20 in 2012), the topics discussed in the atheism literature were narrow in scope and involved (a) comparing religious/spiritual (R/S) belief systems to atheism, or (b) discussing bias against atheists. In addition, most of the articles (58%) were non-empirical. Content analysis data suggest that atheism is an understudied topic in psychological science (31% of the total articles were from psychology), and discourse on atheism is often presented from cognitive and social-psychology perspectives, rather than a counseling psychology lens. Only a handful of the total articles centered on topics related to mental health (e.g., psychological distress and well-being) or counseling and training; however, such studies suggested that atheists have comparable levels of mental health to R/S people, a conclusion that contradicts most prior research on R/S and psychological well-being. Findings from this content analysis suggest that atheist individuals are an underserved and understudied group that would benefit from advancements in counseling psychology scholarship specific to their experiences.*

Roover, Jakob De. 2014. Incurably Religious? Consensus Gentium and the Cultural Universality of Religion. *Numen* 61(1). 5–32.

doi:10.1163/15685276-12341301.

*For centuries, the question whether there were peoples without religion was the subject of heated debate among European thinkers. At the turn of the twentieth century, this concern vanished from the radar of Western scholarship: all known peoples and societies, it was concluded, had some form of religion. This essay examines the relevant debates from the sixteenth to the twentieth century: Why was this issue so important? How did European thinkers determine whether or not some people had religion? What allowed them to close this debate? This article shows that European descriptions of the “religions” of non-Western cultures counted as evidence for or against theoretical claims made within a particular framework, namely that of generic Christian theology. The issue of the universality of religion was settled not by scientific research but by making ad hoc modifications to this theological framework whenever it faced empirical anomalies. This is important today, because the debate concerning the cultural universality of religion has been reopened. On the one hand, evolutionary-biological explanations of religion claim that religion must be a cultural universal, since its origin lies in the evolution of the human species; on the other hand, authors suggest that religion is not a cultural universal, because many of the “religions” of humanity are fictitious entities created within an underlying theological framework.*

## PART 2: ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

### 2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Amin, Daniel James & Maureen Goodman. 2014. The effects of selected asanas in Iyengar yoga on flexibility: Pilot study. *Journal of Bodywork and Movement Therapies* 18(3). 399–404.  
doi:10.1016/j.jbmt.2013.11.008.

*The main objective of this research project was to evaluate the effects of a six week Iyengar yoga intervention on flexibility. Low to moderately active females (n=16) attended Iyengar yoga practice for a total of 6 weeks, consisting of one 90 min session per week. Lumbar and hamstring flexibility were assessed pre and post-intervention using a standard sit and reach test. The results show a significant increase in flexibility, indicating 6 weeks of single session yoga training may be effective in increasing erector spinae and hamstring flexibility.*

Baldacchino, Donia R., Lilian Bonello & Clifford J. Debattista. 2014. Spiritual coping of older people in Malta and Australia (part 1). *British Journal of Nursing (Mark Allen Publishing)* 23(14). 792–799.  
doi:10.12968/bjon.2014.23.14.792.

*This descriptive sequential explanatory study, which forms part of a larger study, investigated the use of spiritual coping strategies by three cohort groups of Maltese older residents in three phases. The theoretical model of causal pathway for mental health based on monotheistic religions (Christianity, Judaism, and Islam) guided the study. Participants were recruited from four private homes: two in Australia (n=30), two in Malta (n=43) and two state residences also in Malta (n=64). The residents (n=137) were all Roman Catholics, mobile and with a minimum residence of 6 months. Analysis of quantitative and qualitative data revealed significant differences in spiritual coping, whereby the cohort in Australia scored the highest scores in the total spiritual coping, religious coping, and existential coping. No significant differences were found in the total spiritual coping between subgroups of mobility and demographic characteristics except by gender whereby women scored higher than the men. Australian private homes reported the highest (significant) mean scores in total spiritual coping, religious coping and existential coping.*

Barber, Clifton E. 2014. Is religiosity a protective factor for Mexican-American filial caregivers? *Journal of Religion, Spirituality & Aging* 26(2-3). 245–258.

*Using interview data collected from 47 Mexican-American families, this study explored whether two measures of religiosity—prayer and/or meditation, and participation in religious services—predicted caregiving outcomes in filial caregivers. Use of prayer and/or meditation was predictive of the perception that caregiving resulted in perceived benefits, and participating in religious services/meetings/activities was predictive of lower levels of subjective burden.*

Black, David S., Gillian A. O'Reilly, Richard Olmstead, Elizabeth C. Breen & Michael R. Irwin. 2014. Mindfulness-based intervention for prodromal sleep disturbances in older adults: Design and methodology of a randomized controlled trial. *Contemporary Clinical Trials* 39(1). 22–27.  
doi:10.1016/j.cct.2014.06.013.

*This article details the design and methodology of a 6-week parallel-group RCT calibrated to test the treatment effect of the Mindful Awareness Practices (MAPs) program versus sleep hygiene education for improving sleep quality, as the main outcome, in older adults with prodromal sleep disturbances. Older adults with current sleep disturbances will be recruited from the urban Los Angeles community. Participants will be randomized into two standardized treatment conditions, MAPs and sleep hygiene education. Each condition will consist of weekly 2-hour group-based classes over the course of the 6-week intervention. The primary objective of this study is to*

*determine if mindfulness meditation practice as engaged through the MAPs program leads to improved sleep quality relative to sleep hygiene education in older adults with prodromal sleep disturbances.*

- Bock, Beth C., Rochelle K. Rosen, Joseph L. Fava, Ronnesia B. Gaskins, Ernestine Jennings, Herpreet Thind, James Carmody, et al. 2014. Testing the efficacy of yoga as a complementary therapy for smoking cessation: Design and methods of the BreathEasy trial. *Contemporary Clinical Trials* 38(2). 321–332.  
doi:10.1016/j.cct.2014.06.003.

*This article describes the “BreathEasy” trial. The BreathEasy study is a rigorous, randomized controlled clinical trial examining the efficacy of Iyengar yoga as a complementary therapy to cognitive–behavioral therapy for smoking cessation. All participants are given an 8-week program of smoking cessation classes, and are randomized to either twice weekly yoga (Yoga) or twice-weekly health and wellness classes which serve as a control for contact and participant burden (CTL). This study will provide a stringent test of the relative efficacy of yoga compared to a condition that controls for contact time and attention. The use of mixed methodology also provides the opportunity to validate existing knowledge about yoga and helps to explore new themes for future mindfulness and yoga research.*

- Chan, Ka Po. 2014. Prenatal meditation influences infant behaviors. *Infant Behavior & Development* 37(4). 556–561.  
doi:10.1016/j.infbeh.2014.06.011.

*Meditation is important in facilitating health. Pregnancy health has been shown to have significant consequences for infant behaviors. In view of limited studies on meditation and infant temperament, this study aims to explore the effects of prenatal meditation on these aspects. The conceptual framework was based on the postulation of positive relationships between prenatal meditation and infant health. A randomized control quantitative study was carried out at Obstetric Unit, Queen Elizabeth Hospital in Hong Kong. Pregnant Chinese women (n=64) were recruited for intervention, and 59 were recruited for control. Cord blood cortisol level of babies was higher in the intervention group indicates positive health status of the newborns verifies that prenatal meditation can influence fetal health. Carey Infant Temperament Questionnaire showed that the infants of intervention group have better temperament at fifth month reflects the importance of prenatal meditation in relation to child health. The present study identifies positive effects of prenatal meditation on infant behaviors and recommends that pregnancy care providers provide prenatal meditation to pregnant women.*

- Daly, Louise & Elizabeth Fahey-McCarthy. 2014. Attending to the spiritual in dementia care nursing. *British Journal of Nursing* 23(14). 787–791.  
doi:10.12968/bjon.2014.23.14.787.

*Spirituality is a complex and subjective concept. However, spiritual wellness is an important component in a person’s overall well-being and the spiritual support of patients is central to nursing care. People with dementia may not be well-supported in this aspect of care; this may lead to spiritual distress. Spiritual needs may be identified by taking the person’s spiritual history or, in the case of advanced dementia, by asking a person’s significant others about the important spiritual aspects of the person’s life. Spiritual care for people with dementia involves reflective practice and meaningful engagement with the person with dementia, so as to facilitate shared understanding. Furthermore, the support of the spiritual and religious beliefs of the person need to be facilitated within an individualized or person-centered approach to care and delivered within a multi-disciplinary collaborative context.*

- Doufesh, Hazem, Fatimah Ibrahim, Noor Azina Ismail & Wan Azman Wan Ahmad. 2014. Effect of Muslim prayer (Salat) on  $\alpha$  electroencephalography and its relationship with autonomic nervous system activity. *Journal of Alternative and Complementary Medicine (New York, N.Y.)* 20(7). 558–562.

doi:10.1089/acm.2013.0426.

*This study investigated the effect of Muslim prayer (salat) on the a relative power (RPa) of electroencephalography (EEG) and autonomic nervous activity and the relationship between them by using spectral analysis of EEG and heart rate variability (HRV). Thirty healthy Muslim men participated in the study. Their electrocardiograms and EEGs were continuously recorded before, during, and after salat practice. Researchers found that , during salat, parasympathetic activity increased and sympathetic activity decreased.*

- Faigin, Carol Ann, Kenneth I. Pargament & Hisham Abu-Raiya. 2014. Spiritual Struggles as a Possible Risk Factor for Addictive Behaviors: An Initial Empirical Investigation. *International Journal for the Psychology of Religion* 24(3). 201–214.  
doi:10.1080/10508619.2013.837661.

*The current longitudinal study examined spiritual struggles as a predictor in the development of addictive behaviors among a sample of 90 freshmen college students. Findings indicate that higher scores on spiritual struggles were tied to higher levels of 11 out of 14 domains of addiction, including caffeine, exercise, food starving, gambling, prescription drugs, recreational drugs, sex, shopping, tobacco, and work. This is the first study to demonstrate spiritual struggles as a possible risk factor in the development of a wide range of potentially destructive behaviors for first-year college students.*

- Ha, Wei, Peter Salama, Stanley Gwavuya & Chifundo Kanjala. 2014. Is religion the forgotten variable in maternal and child health? Evidence from Zimbabwe. *Social Science & Medicine* (1982) 118C. 80–88.  
doi:10.1016/j.socscimed.2014.07.066.

*This paper examines the effects of the Apostolic faith, a rapidly growing and increasingly influential force in Zimbabwe, on the usage of maternal health and child immunization services. It is based on a nationally representative sample from the 2009 Multi-Indicator Monitoring Survey and employs the established Andersen model on access to health services. Well controlled multivariate logit regression models derived from these data show that an affiliation with the Apostolic faith is a substantial and significant risk factor in reducing the utilization of both maternal and child health services. Moreover, even when the services were least costly and readily available and when gaps along other social and economic factors were limited, as in the case of Bacillus Calmette-Guérin vaccination and one visit to antenatal care, women and children from Apostolic faith families still fared significantly worse than others in accessing them.*

- Hayatbakhsh, Reza, Alexandra Clavarino, Gail M. Williams & Jake M. Najman. 2014. Maternal and personal religious engagement as predictors of early onset and frequent substance use. *The American Journal on Addictions / American Academy of Psychiatrists in Alcoholism and Addictions* 23(4). 363–370.  
doi:10.1111/j.1521-0391.2014.12113.x.

*This study examined whether maternal and offspring's religiosity independently predict age of onset and frequency of substance use in offspring, and whether gender differentiates these associations. Participants were a cohort of 3,537 persons who were born during 1981-83 and were followed-up to 21 years. Results indicate that both maternal and offspring's religious practice were associated with later onset and less frequent substance use. After adjustment for potential confounding and maternal religious background, offspring who were not attending church were more likely to report early onset of tobacco smoking, alcohol drinking, and cannabis use.*

- Hooker, Stephanie A., Kevin S. Masters & Kate B. Carey. 2014. Multidimensional Assessment of Religiousness/Spirituality and Health Behaviors in College Students. *International Journal for the Psychology of Religion* 24(3). 228–240.  
doi:10.1080/10508619.2013.808870.

*Research has demonstrated a positive relation between particular religious/spiritual variables and health behaviors and outcomes. However, recent conceptualizations of religiousness/spirituality (R/S) and health acknowledge the multidimensionality of both constructs. Consequently, it is important to study these constructs in ways that allow for simultaneous consideration of their multiple dimensions and then determine relations between the latent higher order constructs formed by these analyses. The primary purpose of this study was to determine the relations between multidimensional constructions, based on multivariate analysis, of both R/S and health behaviors in first- and second-year college students, individuals who are at a time of transition. To achieve this aim, the authors used canonical correlation to determine if one or more latent R/S variables might be identified and associated with one or more latent health behavior variables. Participants were 266 first- and second-year undergraduates who completed measures of R/S and health behaviors. Results indicated one significant canonical correlation relating the latent variable named Relational Personal Spirituality positively with the second latent variable, Healthy College Behavior. These findings suggest the need for multidimensional assessment and multivariate analysis of both R/S and health behaviors and support further exploration of the role of personal spirituality in promoting healthier behaviors among college students.*

Infante, Jose R., Fernando Peran, Juan I. Rayo, Justo Serrano, Maria L. Domínguez, Lucia Garcia, Carmen Duran & Ana Roldan. 2014. Levels of immune cells in transcendental meditation practitioners. *International Journal of Yoga* 7(2). 147–151.  
doi:10.4103/0973-6131.133899.

*The aim of the following study is to evaluate the immune system in practitioners of Transcendental meditation (TM), by determining leukocytes and lymphocytes subsets. The TM group consisted of 19 subjects who regularly practice either TM or the more advanced Sidhi-TM technique. A control group consisted of 16 healthy subjects who had not previously used any relaxation technique. Samples were taken from each subject at 0900 h after an overnight fast. Results indicate that the technique of meditation studied seems to have a significant effect on immune cells, manifesting in the different circulating levels of lymphocyte subsets analyzed. The significant effect of TM on the neuroendocrine axis and its relationship with the immune system may partly explain the results.*

Lee, Kyoung Hag & Myung Jin Hwang. 2014. Private Religious Practice, Spiritual Coping, Social Support, and Health Status among Older Korean Adult Immigrants. *Social Work in Public Health* 29(5). 428–443.  
doi:10.1080/19371918.2013.858234.

*This study explored the role of spiritual factors and social support on the health status of 246 older Korean adult immigrants age 65 years or older. Ordinary least squares regression results revealed that private religious practice, spiritual coping, and social support were significantly associated with improved health status. However, stressors such as the lack of English proficiency and transportation, longer residency in the United States, and financial problems were significantly associated with lower health status.*

Levin, Adam B., Emily J. Hadgkiss, Tracey J. Weiland & George A. Jelinek. 2014. Meditation as an adjunct to the management of multiple sclerosis. *Neurology Research International* 2014. 704691.  
doi:10.1155/2014/704691.

*This review aims to critically analyze the current literature regarding meditation and multiple sclerosis (MS). Four major databases were used to search for English language papers published before March 2014 with the terms MS, multiple sclerosis, meditation, and mindfulness. Twelve pieces of primary literature fitting the selection criteria were selected: two were randomized controlled studies, four were cohort studies, and six were surveys. The current literature varies in quality; however common positive effects of meditation include improved quality of life and improved coping skills.*

- McDermott, Kelly A., Mohan Raghavendra Rao, Raghuram Nagarathna, Elizabeth J. Murphy, Adam Burke, Ramarao Hongasandra Nagendra & Frederick M. Hecht. 2014. A yoga intervention for type 2 diabetes risk reduction: a pilot randomized controlled trial. *BMC Complementary and Alternative Medicine* 14. 212.  
doi:10.1186/1472-6882-14-212.

*This was a parallel, randomized controlled pilot study to collect feasibility and preliminary efficacy data on yoga for diabetes risk factors among people at high risk of diabetes. Primary outcomes included: changes in BMI, waist circumference, fasting blood glucose, postprandial blood glucose, insulin, insulin resistance, blood pressure, and cholesterol. Researchers also looked at measures of psychological well-being including changes in depression, anxiety, positive and negative affect and perceived stress. Forty-one participants with elevated fasting blood glucose in Bangalore, India were randomized to either yoga (n=21) or a walking control (n=20). Participants were asked to either attend yoga classes or complete monitored walking 3-6 days per week for eight weeks. The study was feasible in terms of recruitment, retention and adherence. In addition, yoga participants had significantly greater reductions in weight, waist circumference and BMI versus control. There were no between group differences in fasting blood glucose, postprandial blood glucose, insulin resistance or any other factors related to diabetes risk or psychological well-being. There were significant reductions in systolic and diastolic blood pressure, total cholesterol, anxiety, depression, negative affect and perceived stress in both the yoga intervention and walking control over the course of the study.*

- Parhami, Iman, Margarit Davtian, Michael Collard, Jean Lopez & Timothy W. Fong. 2014. A preliminary 6-month prospective study examining self-reported religious preference, religiosity/spirituality, and retention at a Jewish residential treatment center for substance-related disorders. *The Journal of Behavioral Health Services & Research* 41(3). 390–401.  
doi:10.1007/s11414-012-9279-x.

*Although there is a substantial amount of research suggesting that higher levels of religiosity/spirituality (R/S) are associated with better treatment outcomes of substance-related disorders, no studies have explored this relationship at a faith-based residential treatment center. The objective of this prospective study is to explore the relationship between R/S, self-reported religious preference, and retention at a Jewish residential treatment center for substance-related disorders. Using the Daily Spiritual Experience Scale, R/S levels were assessed for 33 subjects at baseline, 1 month, 3 months, and 6 months. Results demonstrated a significant relationship between baseline R/S level and retention at 6 months, while R/S levels were unchanged during the course of treatment. Notably, no relationship was found between self-reported religious affiliation and retention. This study demonstrates that patients' R/S level, rather than religious affiliation, is a possible predictor for better outcome at faith-based residential centers for substance-related disorders.*

- Park, Jeanie, Robert H. Lyles & Susan Bauer-Wu. 2014. Mindfulness meditation lowers muscle sympathetic nerve activity and blood pressure in African-American males with chronic kidney disease. *American Journal of Physiology. Regulatory, Integrative and Comparative Physiology* 307(1). R93–R101.  
doi:10.1152/ajpregu.00558.2013.

*Mindfulness meditation (MM) is a stress-reduction technique that may have real biological effects on hemodynamics but has never previously been tested in chronic kidney disease (CKD) patients. In addition, the mechanisms underlying the potential blood pressure (BP)-lowering effects of MM are unknown. Researchers sought to determine whether MM acutely lowers BP in CKD patients, and whether these hemodynamic changes are mediated by a reduction in sympathetic nerve activity. In 15 hypertensive African-American (AA) males with CKD, the researchers conducted a randomized, crossover study in which participants underwent 14 min of MM or 14 min of BP education (control intervention) during two separate random-order study visits. Muscle*

*sympathetic nerve activity (MSNA), beat-to-beat arterial BP, heart rate (HR), and respiratory rate (RR) were continuously measured at baseline and during each intervention. A subset had a third study visit to undergo controlled breathing (CB) to determine whether a reduction in RR alone was sufficient in exacting hemodynamic changes. Researchers observed a significantly greater reduction in systolic BP, diastolic BP, mean arterial pressure, and HR, as well as a significantly greater reduction in MSNA, during MM compared with the control intervention. Participants had a significantly lower RR during MM; however, in contrast to MM, CB alone did not reduce BP, HR, or MSNA. MM acutely lowers BP and HR in AA males with hypertensive CKD, and these hemodynamic effects may be mediated by a reduction in sympathetic nerve activity. RR is significantly lower during MM, but CB alone without concomitant meditation does not acutely alter hemodynamics or sympathetic activity in CKD.*

## **2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH**

Campanella, Fabio, Cristiano Crescentini, Cosimo Urgesi & Franco Fabbro. 2014. Mindfulness-oriented meditation improves self-related character scales in healthy individuals. *Comprehensive Psychiatry* 55(5). 1269–1278.  
doi:10.1016/j.comppsy.2014.03.009.

*Previous studies have shown that mindfulness meditation may improve well-being in healthy individuals and be effective in the treatment of mental and neurological disorders. Here, researchers investigated the effects of an 8-week mindfulness-meditation program on the personality profiles of three groups of healthy individuals with no previous experience with meditation as compared to a control group not enrolled in any training. In the experimental groups, significant increments after the training were obtained in all the three character scales describing the levels of self maturity at the intrapersonal (Self-Directedness), interpersonal (Cooperativeness), and transpersonal (Self-Transcendence) levels. No changes were found in the control group. Strikingly, these effects were significant only in those groups who were engaged in consistent daily meditation practice but not in the group who attended the meditation training but were less consistent in home practice. Since higher scores in the character scales are associated to a lower risk of personality disorder, the authors propose that the increase of self maturity after the training may be an important mechanism for the effectiveness of mindfulness-oriented meditation in psychotherapeutic contexts.*

Carroll, Stephen Thomas, Joseph A. Stewart-Sicking & Barbara Thompson. 2014. Sanctification of work: Assessing the role of spirituality in employment attitudes. *Mental Health, Religion & Culture* 17(6). 545–556.

*Recent research has sought to develop measures that empirically substantiate spirituality as a unique construct independent of established personality constructs. One such measure is Sanctification, a psychological process through which people perceive aspects of life to possess spiritual character and significance. This study empirically examines the relationship between Sanctification of Work and work-related outcomes in a national sample (n=827) of individuals employed in religiously affiliated institutions. The results indicated that the Sanctification of Work was a significant predictor of Job Satisfaction, Turnover Intention, and Organizational Commitment after controlling for Personality, Spirituality, Religiosity, Psychological Safety, and Demographic variables.*

Davis, Amelia A. & Mathew Nguyen. 2014. A case study of anorexia nervosa driven by religious sacrifice. *Case Reports in Psychiatry* 2014. 512764.  
doi:10.1155/2014/512764.

*Anorexia nervosa (AN) is considered a relatively “modern” disorder; however, a number of scholarly works have cited examples of voluntary self-starvation dating back to several centuries. In particular, there are many examples of female starvation for religious reasons during the medieval period, with many being elevated to sainthood. Researchers present a case of an elderly woman with AN who began restricting her diet when she was 13-years old*



*while studying to be a nun at a Catholic convent. She reports that, during the development of her disease, she had no mirrors and, rather than restricting her diet to be thin or attractive, she restricted her diet to be closer to God in hopes of becoming a Saint. This unique case presents an opportunity to deepen the understanding of AN and the cultural context that affects its development.*

Fergus, Thomas A. 2014. Mental contamination and scrupulosity: Evidence of unique associations among Catholics and Protestants. *Journal of Obsessive-Compulsive and Related Disorders* 3(3). 236–242. doi:10.1016/j.jocrd.2014.05.004.

*Mental contamination refers to an internal sense of dirtiness and research supports its relevance to obsessive-compulsive disorder (OCD). Scrupulosity is a moral/religious subtype of OCD and yet no known published study has examined an association between mental contamination and scrupulosity. The present study sought to fill this gap in the literature using a sample of self-identifying Roman Catholic (n=102) and Protestant (n=128) community adults. Mental contamination shared a strong association with scrupulosity in the present study and this association was unaccounted for by overestimation of threat, responsibility, importance/control of thoughts, perfection/certainty, thought-action fusion, contact contamination, religiosity, or negative affect. In fact, mental contamination was the only targeted variable that shared a unique association with scrupulosity across all analyses. A nearly identical pattern of results emerged among Catholic and Protestant respondents.*

Iyassu, Robel, Suzanne Jolley, Paul Bebbington, Graham Dunn, Richard Emsley, Daniel Freeman, David Fowler, et al. 2014. Psychological characteristics of religious delusions. *Social Psychiatry & Psychiatric Epidemiology* 49(7). 1051–1061. doi:10.1007/s00127-013-0811-y.

*Religious delusions are common and are considered to be particularly difficult to treat. In this study researchers investigated what psychological processes may underlie the reported treatment resistance. In particular, they focused on the perceptual, cognitive, affective and behavioral mechanisms held to maintain delusions in cognitive models of psychosis, as these form the key treatment targets in cognitive behavioral therapy. Religious delusions were compared to delusions with other content. Comprehensive measures of symptoms and psychological processes were completed by 383 adult participants with delusions and a schizophrenia spectrum diagnosis, drawn from two large studies of cognitive behavioral therapy for psychosis. Levels of positive symptoms, particularly anomalous experiences and grandiosity, were high, and may contribute to symptom persistence. However, contrary to previous reports, no evidence was found that people with religious delusions would be less likely to engage in any form of help. Higher levels of flexibility may make them particularly amenable to cognitive behavioral approaches, but particular care should be taken to preserve self-esteem and valued aspects of beliefs and experiences.*

Krause, Neal & R. David Hayward. 2014. Religious involvement, helping others, and psychological well-being. *Mental Health, Religion & Culture* 17(6). 629–640.

*This study has two goals. The first goal is to see if involvement in religion is associated with providing tangible support to family members and strangers. The second goal is to see if providing tangible support to family members and strangers is associated with well-being. A conceptual model, which was developed to address these issues, contains the following core relationships: (1) individuals who go to church more often will receive more spiritual support from coreligionists; (2) those who receive more spiritual support will provide more tangible assistance to family members and strangers; and (3) people who help family members and strangers will report greater life satisfaction and higher self-esteem. Findings from a nationwide survey support all but one of these relationships. More specifically, the results suggest that providing tangible support to family members is associated with greater well-being, but providing tangible support to strangers is not associated with well-being.*

- Ter Kuile, Hagar & Thomas Ehring. 2014. Predictors of changes in religiosity after trauma: Trauma, religiosity, and posttraumatic stress disorder. *Psychological Trauma: Theory, Research, Practice, and Policy* 6(4). 353–360.  
doi:10.1037/a0034880.

*After a traumatic experience, increases as well as decreases in religious beliefs and activities have been observed. The current study investigated how the direction of the changes can be predicted and whether these changes are related to posttraumatic stress disorder. Trauma survivors (n=293) filled in questionnaires related to traumatic experiences and religiosity. Nearly half of the sample reported changes in religious beliefs and activities as a consequence of the trauma. As hypothesized, shattered assumptions and prior religiosity interacted to predict a decrease in religious beliefs and activities. Increases in religiosity were related to the use of religion as a coping mechanism and to currently living in a religious environment. In addition, a decrease in religious beliefs was related to higher levels of posttraumatic stress disorder. The findings suggest that religiosity may play an important role in post-trauma adaptation.*

- Lechner, Clemens M., Martin J. Tomasik, Rainer K. Silbereisen & Jacek Wasilewski. 2014. Religiosity Reduces Family-Related Uncertainties but Exacerbates Their Association with Distress. *International Journal for the Psychology of Religion* 24(3). 185–200.  
doi:10.1080/10508619.2013.847700.

*The present study investigated the role of religiosity in dealing with family-related uncertainties (e.g., uncertainty concerning fertility decisions or the stability of family relationships) that arise from current social change in industrialized nations. Researchers hypothesized that religiosity, because it is a central source of family values and norms, reduces individuals' perceived load of family-related uncertainties. At the same time, because perceiving family-related uncertainties may conflict with religious values and norms concerning the family, the authors expected that religiosity exacerbates the association of these uncertainties with psychological distress. Structural equation modeling with latent interactions in a sample of 2,571 Polish adolescents and adults 20 to 46 years of age supported these predictions. Although modest in magnitude, associations held after controlling for potential sociodemographic confounders. The study reveals the complex role of religiosity in dealing with family-related uncertainties and underscores the importance of attending to potential downsides of this otherwise beneficial resource.*

- Ouwehand, Eva, Kwok Wong, Hennie Boeije & Arjan Braam. 2014. Revelation, delusion or disillusion: Subjective interpretation of religious and spiritual experiences in bipolar disorder. *Mental Health, Religion & Culture* 17(6). 615–628.

*The objective of this study is to explore the interpretation of religious and spiritual experiences during mania, depression and recovery, from the perspective of bipolar clients and to inquire into their expectations of treatment in relation to these experiences. For this purpose, a qualitative pilot study is designed, which includes interviews with 10 outpatients of Altrecht, a Dutch mental health institution. The meaning of religious and spiritual experiences and the question of their authenticity proved to be an important theme for the participants. The support of spirituality for illness management was brought to the fore, as well as the temporary lack of this support during depression by some participants. Participants considered it desirable that more attention be paid to the topic during treatment, and to establish better cooperation between spiritual counsellors of the institution and other professionals. Thus, a more existential or hermeneutical approach towards religious experiences in relation to bipolar disorder would be a desirable contribution to standard treatment.*

- Roxburgh, Elizabeth C. & Chris A. Roe. 2014. Reframing voices and visions using a spiritual model. An interpretative phenomenological analysis of anomalous experiences in mediumship. *Mental Health, Religion & Culture* 17(6). 641–653.

*Throughout different civilizations and historical epochs, anthropological and religious texts have been replete with accounts of persons who have reported anomalous experiences in the form of visions or voices. In these contexts, such experiences are considered to be a “gift” that can be spiritually enriching or life enhancing. One such group of individuals are mediums who claim to receive information from spirits of the deceased in the form of auditory or visual perceptions. This study explores how mediums come to interpret their experiences as mediumistic and how they describe their relationship with spirit voices. In-depth interviews were conducted with 10 Spiritualist mediums using interpretative phenomenological analysis. Three themes were identified: “Childhood anomalous experiences”, “A search for meaning: Normalisation of mediumship”, and “relationship with spirit”. These themes illuminated aspects of the mediumistic experience that have therapeutic implications for individuals who have similar experiences but become distressed by them.*

Rutledge, Thomas, Sanford Nidich, Robert H. Schneider, Paul J. Mills, John Salerno, Pia Heppner, Mayra A. Gomez, Carolyn Gaylord-King & Maxwell Rainforth. 2014. Design and rationale of a comparative effectiveness trial evaluating transcendental meditation against established therapies for PTSD. *Contemporary Clinical Trials* 39(1). 50–56.  
doi:10.1016/j.cct.2014.07.005.

*This paper describes the rationale and design of an in progress randomized controlled trial comparing Transcendental Meditation (TM) to an established cognitive behavioral treatment. This study uses a comparative effectiveness design to assess the relative benefits of TM to those obtained from a gold-standard cognitive behavioral therapy for posttraumatic stress disorder (PTSD) in a Veteran population. The projected results will help to establish the overall efficacy of TM for PTSD among Veterans, identify bio-behavioral mechanisms through which TM and Prolonged Exposure may improve PTSD symptoms, and will permit conclusions regarding the relative value of TM against currently established therapies for PTSD.*

Snider, Anne-Marie & Samara McPhedran. 2014. Religiosity, spirituality, mental health, and mental health treatment outcomes in Australia: A systematic literature review. *Mental Health, Religion & Culture* 17(6). 568–581.

*The relationship between religiosity and mental health is a relatively well-researched field within North America, covering numerous domains of religiosity, including religion, spirituality, prayer, church attendance, church affiliation and belief in God or a higher power. Considering the Australian literature, there are few papers that explore these dimensions of religiosity and their relationship with health, and, in particular, very little research into the field of religiosity and mental health. Using systematic literature review methods, this study explores the Australian research into relationships between religiosity, mental health, and treatment outcomes for psychiatric illness and suicidal behavior.*

Sturz, Dominick Louis & Kara Nicole Zografos. 2014. Religious coping and working past retirement age: A review of the literature. *Journal of Religion, Spirituality & Aging* 26(2-3). 231–244.

*This article examines the published literature on religion, age, and health, and how these variables relate to job satisfaction and working into advanced ages. Ninety-two articles employing a variety of methods were reviewed in detail. If plausible links between religious coping methods and working past age 67 can be posited, then a future study of potential predictive capabilities may be warranted.*

Superville, Devon J., Kenneth I. Pargament & Jerry W. Lee. 2014. Sabbath Keeping and Its Relationships to Health and Well-Being: A Mediation Analysis. *International Journal for the Psychology of Religion* 24(3). 241–256.  
doi:10.1080/10508619.2013.837655.

*The present study sought to clarify the ties between religion and health through a finer grained analysis of one specific aspect of religiousness (Sabbath keeping) and four possible mediators (religious coping, religious support,*

*diet, and exercise) through which it might affect health. Researchers examined data from a sample of Seventh-day Adventists in North America (n=5,411), and bootstrapping analysis revealed that the association between Sabbath keeping and physical and mental health was partially mediated by all four mediators.*

Tabak, Naomi T. & Amy Weisman de Mamani. 2014. Religion's Effect on Mental Health in Schizophrenia. *Clinical Schizophrenia & Related Psychoses* 8(2). 91–100.  
doi:10.3371/csrp.tuwe.021513.

*While a growing body of research suggests that religion offers mental health benefits for individuals with schizophrenia, few studies have examined the mechanisms underlying this effect. The present study investigated two potential mediators (seeking social support and meaning-making coping) that may elucidate the nature of this relationship. The sample included 112 individuals with schizophrenia or schizoaffective disorder. Structural equation modeling was used to test whether religion was related to symptom severity and quality of life (QoL), and whether seeking social support and meaning-making coping mediated these effects. As expected, meaning-making coping significantly mediated the effect of intrinsic religion (use of religion as a framework to understand life) on QoL. While extrinsic religion (use of religion as a social convention) was associated with seeking social support, it did not relate to either outcome variable. Findings offer insight into the ways in which religion may improve the mental health of patients with schizophrenia. Results suggest that the adaptive elements of intrinsic religion seen in prior research may be explained by the meaning that religion offers. Clinical interventions that encourage patients to find meaning amidst adversity may improve QoL in this population.*

Yeung, Jerf W. K. & Yuk-Chung Chan. 2014. Parents' religious involvement, family socialization and development of their children in a Chinese sample of Hong Kong. *Social Indicators Research* 117(3). 987–1010.

*The present study investigates the effects of parents' religious involvement on their psychological health, family functioning and development of their children from a Chinese sample of parent-child pairs in Hong Kong. Results support the beneficial effects of religious involvement on effective parenting and favorable outcomes of their children, which have been well reported in western studies. Besides, this investigation finds that (1) parental psychological health is a mediator between their religious involvement and positive family processes; (2) family processes is an important family socialization factor with spill-over effects into the function of parenting; (3) different family socialization factors have different effects on child outcomes; (4) parental positive religious coping is a function of their intrinsic religiosity; and (5) both parental religious coping and their intrinsic religiosity have a protective effect on parental psychological difficulties, with the former having robust direct effects on positive family processes and effective parenting, and (6) both intrinsic religiosity and positive religious coping in parents show significant total indirect effects on respective child outcomes through parental psychological and family socialization factors.*

### **2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY**

Cornish, Marilyn A., Nathaniel G. Wade, Jeritt R. Tucker & Brian C. Post. 2014. When religion enters the counseling group: Multiculturalism, group processes, and social justice. *The Counseling Psychologist* 42(5). 578–600.

*Religion is a diversity factor that comprises a significant component of identity for many clients. However, little attention has been paid to religion in the context of group counseling, especially process-oriented, nonthemed groups with heterogeneous membership. Using multicultural, process-oriented, and social justice theories of groups, researchers demonstrate the myriad ways in which religion is relevant to and influential in group counseling work. Together, these theories provide a solid justification for the need to ethically and effectively attend to religion in group work. Furthermore, they provide a strong foundation for developing counseling expertise in this area by highlighting typical conflicts, group dynamics, and needs that arise when religion is addressed in groups.*

Hull, Amanda, Matthew Reinhard, Kelly McCarron, Nathaniel Allen, M. Cory Jecmen, Jeanette Akhter, Alaine Duncan & Karen Soltes. 2014. Acupuncture and meditation for military veterans: first steps of quality management and future program development. *Global Advances in Health and Medicine: Improving Healthcare Outcomes Worldwide* 3(4). 27–31.  
doi:10.7453/gahmj.2013.050.

*Veterans of all war eras have a high rate of chronic disease, mental health disorders, and chronic multi-symptom illnesses (CMI). Many veterans report symptoms that affect multiple biological systems as opposed to isolated disease states. Standard medical treatments often target isolated disease states such as headaches, insomnia, or back pain and at times may miss the more complex, multisystem dysfunction that has been documented in the veteran population. Research has shown that veterans have complex symptomatology involving physical, cognitive, psychological, and behavioral disturbances, such as difficult to diagnose pain patterns, irritable bowel syndrome, chronic fatigue, anxiety, depression, sleep disturbance, or neurocognitive dysfunction. Meditation and acupuncture are each broad-spectrum treatments designed to target multiple biological systems simultaneously, and thus, may be well suited for these complex chronic illnesses. The emerging literature indicates that complementary and integrative medicine (CAM) approaches augment standard medical treatments to enhance positive outcomes for those with chronic disease, mental health disorders, and CMI.*

Kellogg Spadt, Susan, Talli Y. Rosenbaum, Alyssa Dweck, Leah Millheiser, Sabitha Pillai-Friedman & Michael Krychman. 2014. Sexual health and religion: a primer for the sexual health clinician (CME). *The Journal of Sexual Medicine* 11(7). 1607–1618; quiz 1619.  
doi:10.1111/jsm.12593.

*The aim of this study is to summarize the integration of sexuality and religion through a review of published literature and religious texts. Researchers report that the extent to which an individual incorporates their religious doctrine into their sexual life is a personal and individualized choice. The sexual medicine health professional will likely encounter a diverse patient population of distinct religious backgrounds, and a primer on religion and sexuality is a much needed adjunctive tool for the clinician.*

Keshet, Yael & Dalit Simchai. 2014. The “gender puzzle” of alternative medicine and holistic spirituality: A literature review. *Social Science & Medicine* (1982) 113. 77–86.  
doi:10.1016/j.socscimed.2014.05.001.

*Both as producers and consumers women are more likely than men to engage with complementary and alternative medicine (CAM) and “New Age” holistic spiritualities. Researchers conducted a literature review of sociological and anthropological articles, with the aim of studying why women in particular use and practice these alternatives, and whether using them presents an opportunity to challenge the conventional gender order and unequal power relations. A systematic search of nine databases, complemented by an informal search resulted in the identification of 114 articles, of which 27 were included in the review. The search period was limited to 2000–2013. Thematic analysis of the literature indicated three major trends: women draw on traditional female resources and perceived “feminine” characteristics; the realm of CAM and holistic spirituality challenges power relations and gender inequalities in healthcare, wellbeing, and employment, and may serve as an emancipating, empowering alternative; however, factors such as lack of political support, legitimacy, and a solid institutional base for the field of CAM and holistic spirituality, and its use by predominantly white middle- and upper-class women, work against significant change in the realm of healthcare and limit gendered social change. Researchers suggest that the empowerment women experience is a form of feminine strength and personal empowerment that stems from power-from-within, which is not directed toward resistance. The literature review reveals some lacunae in the literature that call for future gendered research: the lack of quantitative studies, of data concerning the financial success of CAM practitioners, of studies linking CAM with a feminist-oriented analysis of the medical world, of*

*understanding gender perceptions in the holistic milieu and CAM, and of studies conducted from an intersectionality perspective.*

- Mamani, Amy Weisman de, Marc J. Weintraub, Carolina C. Tauler, Kayla Gurak, Jessica Maura, Michael G. Mejia & Stephen Sapp. 2014. Religion and free will perceptions as coping mechanisms in caregivers of individuals with dementia: A review of the literature. *Journal of Religion, Spirituality & Aging* 26(2-3). 201–214.

*Looking after a person with a mental illness takes a profound toll on the caregiver. Pinpointing beliefs and practices that can ameliorate this distress is critical. Inferring from related literatures, researchers propose that individuals who are more religious and endorse greater perceptions of free will may adapt more effectively to the stresses associated with caregiving. Implications from this review suggest that promoting adaptive religious beliefs and fostering the notion of free will may serve as beneficial strategies for caregivers of individuals with dementia.*

- Mantzios, Michail & Kyriaki Giannou. 2014. Group vs. Single Mindfulness Meditation: Exploring Avoidance, Impulsivity, and Weight Management in Two Separate Mindfulness Meditation Settings. *Applied Psychology. Health and Well-Being* 6(2). 173–191.  
doi:10.1111/aphw.12023.

*The present research investigated mindfulness meditation in group and individual settings, and explored the potential impact on weight loss and other factors (i.e. mindfulness, impulsivity, and avoidance) that may assist or hinder weight loss. Specifically, the hypotheses tested were that the group setting assisted dieters more than the individual setting by reducing weight, cognitive-behavioral avoidance, and impulsivity, and by increasing mindfulness. Participants (n=170) who were trying to lose weight were randomly assigned to practice meditation for 6 weeks within a group or independently. Measurements in mindfulness, cognitive-behavioral avoidance, impulsivity, and weight occurred twice (pre- and post-intervention). Results indicated that participants in the group setting lost weight and lowered their levels of cognitive-behavioral avoidance, while impulsivity and mindfulness remained stable. On the other hand, participants in the individual condition lost less weight, while there was an increase in cognitive-behavioral avoidance and mindfulness scores, but a decrease in impulsivity. Seeing that benefits and limitations observed in group settings are not replicated when people meditate alone, this study concluded that mindfulness meditation in individual settings needs to be used with caution, although there are some potential benefits that could aid future weight loss research.*

- Oxhandler, Holly K. & Kenneth I. Pargament. 2014. Social work practitioners' integration of clients' religion and spirituality in practice: a literature review. *Social Work* 59(3). 271–279.

*Emerging research on religion, spirituality, health, and mental health has begun to catch the attention of helping professionals. Some clients are expressing a desire for their health and mental health practitioners to initiate discussion of their religious or spiritual beliefs as they relate to their case. Social workers are the most represented group among personnel providing mental health services, so it is important to understand their attitudes, views, and behaviors regarding integrating clients' religion and spirituality (RS) into practice. Few studies have assessed such an integration; those that are available focus primarily on practitioner characteristics and use of specific helping activities to integrate clients' RS in treatment. This article discusses how RS has been integrated into social work practice and education and reviews instruments used to assess such practices. In addition, the findings from previous studies examining social workers' integration of clients' RS are compared with those of other helping professions.*

- Phillips, Russell E., Clara M. Cheng & Carmen Oemig-Dworsky. 2014. Initial Evidence for a Brief Measure of Buddhist Coping in the United States. *International Journal for the Psychology of Religion* 24(3). 215–227.  
doi:10.1080/10508619.2013.808867.

*Although the field of spiritual coping has greatly expanded in recent years, there is no short scale of Buddhist coping as there is for the Abrahamic religions. The goal of the present study is to create the Brief BCOPE, a 15-item scale of Buddhist coping based on a study of 860 Buddhist participants across the United States. Exploratory and confirmatory factor analyses provide preliminary evidence of the construct validity of the Brief BCOPE, and data are presented suggesting potential convergent, discriminant, criterion, and incremental validity for the scale. Although there are limitations to the study, the present research suggests that the Brief BCOPE might provide an efficient means of assessing Buddhist coping in applied and research settings.*

Reimer-Kirkham, Sheryl. 2014. Nursing research on religion and spirituality through a social justice lens. *ANS. Advances in nursing science* 37(3). 249–257.  
doi:10.1097/ANS.000000000000036.

*Critical theories such as postcolonial feminism and intersectionality can provide new and vital perspectives on the interplay between social justice, religion, spirituality, health, and nursing. Criticality prompts us to examine taken-for-granted assumptions, such as the neutrality and universality of spirituality, while analyzing social relations of power, including the racialization of religion and religious patriarchy, that may result in oppressive conditions and social exclusion. The argument is made that when refracted through critical, intersectional lenses, religious and spiritual traditions can be rich sources of theoretical foundations and practical services that could inform nursing's recent re/turn toward social justice.*

Simkin, Deborah R. & Nancy B. Black. 2014. Meditation and mindfulness in clinical practice. *Child and Adolescent Psychiatric Clinics of North America* 23(3). 487–534.  
doi:10.1016/j.chc.2014.03.002.

*This article describes the various forms of meditation and provides an overview of research using these techniques for children, adolescents, and their families. The most researched techniques in children and adolescents are mindfulness-based stress reduction, mindfulness-based cognitive therapy, yoga meditation, transcendental meditation, mind-body techniques (meditation, relaxation), and body-mind techniques (yoga poses, tai chi movements). Current data are suggestive of a possible value of meditation and mindfulness techniques for treating symptomatic anxiety, depression, and pain in youth.*

Slape, Jenny. 2014. Dementia and palliative care: The spiritual needs of family members. *Journal of Religion, Spirituality & Aging* 26(2-3). 215–230.

*Within aged care facilities, family members frequently experience significant spiritual and emotional needs during dementia and palliative care stages of their relatives. Spirituality can serve as a coping mechanism. However, in spite of societal expectations, staff are rarely equipped with the resources to effectively meet these needs. This qualitative research project aimed to examine this variance in care, through semi-structured interviews with recently bereaved family members. Broad thematic categories of needs were identified: connectedness; personal well-being of the family member; religious, spiritual, and end-of-life issues; and meaning and hope. Subcategories present a deeper analysis of each theme.*

Teut, Michael, Barbara Stöckigt, Christine Holmberg, Florian Besch, Claudia M. Witt & Florian Jeserich. 2014. Perceived outcomes of spiritual healing and explanations: A qualitative study on the perspectives of German healers and their clients. *BMC complementary and alternative medicine* 14(1). 240.  
doi:10.1186/1472-6882-14-240.

*The aim of this article is to report how German healers and their clients experienced and perceived the outcomes of spiritual healing and which explanations they use to describe the perceived effects. Semi-structured interviews and participatory observation was used to collect data from spiritual healers and their clients. Analyses were based on the methodological concept of directed qualitative content analysis. Data was analyzed using MAXQDA*

*software, and discussed and reviewed by a multidisciplinary research team consisting of medical anthropologists, medical doctors and a religious studies scholar. In total, 15 healers and 16 clients participated in this study, and 24 interviews with healers, 20 interviews with clients and 8 participatory observations were analyzed. Healers and clients reported outcomes as positively perceived body sensations, increased well-being, positive emotions and symptomatic relief of medical complaints. Clients often described changes in their self-concepts and adapted life values. Explanations for perceived effects included connecting with transcendent sources, construction of meaning, as a result of the client-healer relationship, and as empowerment to make changes. Because the interviewed clients were recruited by the healers, a selection bias towards positive healing experiences is possible.*

Thomas, John W. & Marc Cohen. 2014. A methodological review of meditation research. *Frontiers in Psychiatry* 5. 74.  
doi:10.3389/fpsy.2014.00074.

*Despite over 50 years of research into the states of consciousness induced by various meditation practices, no clear neurophysiological signatures of these states have been found. Much of this failure can be attributed to the narrow range of variables examined in most meditation studies, with the focus being restricted to a search for correlations between neurophysiological measures and particular practices, without documenting the content and context of these practices. Researchers contend that more meaningful results can be obtained by expanding the methodological paradigm to include multiple domains including the cultural setting (“the place”), the life situation of the meditator (“the person”), details of the particular meditation practice (“the practice”), and the state of consciousness of the meditator (“the phenomenology”). Inclusion of variables from all these domains will improve the ability to predict the psychophysiological variables (“the psychophysiology”) associated with specific meditation states and thus explore the mysteries of human consciousness.*

Vinchurkar, Suhas Ashok, Deepeshwar Singh & Naveen Kalkuni Visweswaraiiah. 2014. Self-reported measures of mindfulness in meditators and non-meditators: A cross-sectional study. *International Journal of Yoga* 7(2). 142–146.  
doi:10.4103/0973-6131.133898.

*Mindfulness forms an important component of meditation practice and has been increasingly popular around the world. There has been growing interest in studying the mindful component of various meditation techniques. One of the various forms of mindfulness is the practice of a unique technique called cyclic mediation (CM). Researchers aimed at ascertaining the level of mindfulness in experienced practitioners of CM using a Mindfulness Attention Awareness Scale (MAAS). MAAS was administered anonymously in a classroom setup and two of the project coordinators were present to supervise the administration and to assist the participants where necessary. Researchers executed a cross sectional design. One hundred and thirty-three (n=133) healthy male volunteers (66 meditators and 67 non-meditators) with ages ranging from 25 to 35 years participated in the study. Meditators had a minimum 3 years of experience of meditation. It was found that MAAS scores were significantly higher in meditators as compared with the non-meditators. Researchers found a positive correlation between the years of meditation practice and the levels of trait mindfulness.*

Wilmoth, Joe D., Carolyn E. Adams-Price, Joshua J. Turner, Abigail D. Blaney & Laura Downey. 2014. Examining social connections as a link between religious participation and well-being among older adults. *Journal of Religion, Spirituality & Aging* 26(2-3). 259–278.

*Social connections provided through religious participation are associated with subjective well-being in older populations. This study investigated how much of this association can be explained by other social connections, and whether these associations vary by age. A cross-sectional random-sample telephone survey was completed by 1,025 individuals over 55 years of age. The contribution of religious participation was examined using hierarchical multiple regression and ANCOVA analyses for the entire sample and for four age-specific groups: (1) 55–64;*

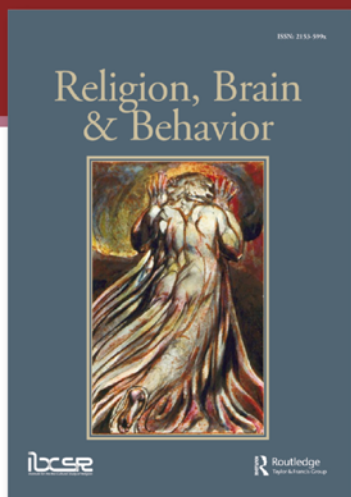


(2) 65–74; (3) 75–84; and (4) 85+. Religious participation was found to be a significant predictor of subjective well-being for the oldest and youngest groups.

Wright, Judy M., David J. Cottrell & Ghazala Mir. 2014. Searching for religion and mental health studies required health, social science, and grey literature databases. *Journal of Clinical Epidemiology* 67(7). 800–810.

doi:10.1016/j.jclinepi.2014.02.017.

*Researchers investigated the optimal databases to search for studies of faith-sensitive interventions for treating depression. Researchers examined 23 health, social science, religious, and grey literature databases searched for an evidence synthesis. Databases were prioritized by yield of (1) search results, (2) potentially relevant references identified during screening, (3) included references contained in the synthesis, and (4) included references that were available in the database. Researchers assessed the impact of databases beyond MEDLINE, EMBASE, and PsycINFO by their ability to supply studies identifying new themes and issues. Researchers identified pragmatic workload factors that influence database selection. PsycINFO was the best performing database within all priority lists. ArabPsyNet, CINAHL, Dissertations and Theses, EMBASE, Global Health, Health Management Information Consortium, MEDLINE, PsycINFO, and Sociological Abstracts were essential for our searches to retrieve the included references. Citation tracking activities and the personal library of one of the research teams made significant contributions of unique, relevant references. Religion studies databases (Am Theo Lib Assoc, FRANCIS) did not provide unique, relevant references.*



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## PART 3: BOOKS

### ***3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR***

Merkur, Daniel. 2014. *Psychoanalytic Approaches to Myth*. (Theorists of Myth). London: Routledge.

Thornhill, Randy & Corey L. Fincher. 2014. *The Parasite-Stress Theory of Values and Sociality: Infectious Disease, History and Human Values Worldwide*. New York: Springer.

Wilson, David Gordon. 2014. *Redefining Shamanisms: Spiritualist Mediums and Other Traditional Shamans as Apprenticeship Outcomes*. (Bloomsbury Advances in Religious Studies). Bloomsbury.

### ***3.2 SPIRITUALITY & HEALTH RESEARCH***

Fuller, Robert C. 2013. *The Body of Faith: A Biological History of Religion in America*. (Chicago History of American Religion). Chicago: University Of Chicago Press.

Haller, Jr., John S. 2014. *Shadow Medicine: The Placebo in Conventional and Alternative Therapies*. New York: Columbia University Press.

Munoz-Laboy, Miguel, Jonathan Garcia, Joyce Moon-Howard, Patrick A. Wilson & Richard Parker (eds.). 2014. *Religious Responses to HIV and AIDS*. Routledge.

## PART 4: ARTICLES IN PRESS

### 4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Axt, Jordan R., Charles R. Ebersole & Brian A. Nosek. 2014. The Rules of Implicit Evaluation by Race, Religion, and Age. *Psychological Science*.  
doi:10.1177/0956797614543801.
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doi:10.1111/cogs.12138.
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doi:10.3758/s13415-014-0304-9.
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### 4.2 SPIRITUALITY & HEALTH RESEARCH

- Bai, Mei, Mark Lazenby, Sangchoon Jeon, Jane Dixon & Ruth McCorkle. 2014. Exploring the relationship between spiritual well-being and quality of life among patients newly diagnosed with advanced cancer. *Palliative & Supportive Care*. 1–9.  
doi:10.1017/S1478951514000820.
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