

INTRODUCTION

IBCSR Research Review (IRR) is published by the Institute for the Bio-Cultural 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, medicine, 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 722 articles, 93 articles have been retained from 72 journals. There are 69 pre-publication citations from 49 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Fox, Glenn R., Jonas Kaplan, Hanna Damasio & Antonio Damasio. 2015. Neural correlates of gratitude. *Frontiers in Psychology* 6. 1491.
doi:10.3389/fpsyg.2015.01491.

Gratitude is an important aspect of human sociality, and is valued by religions and moral philosophies. It has been established that gratitude leads to benefits for both mental health and interpersonal relationships. It is thus important to elucidate the neurobiological correlates of gratitude, which are only now beginning to be investigated. To this end, researchers conducted an experiment during which gratitude was induced in participants while they underwent functional magnetic resonance imaging. The researchers hypothesized that gratitude ratings would correlate with activity in brain regions associated with moral cognition, value judgment and theory of mind. The stimuli used to elicit gratitude were drawn from stories of survivors of the Holocaust, as many survivors report being sheltered by strangers or receiving lifesaving food and clothing, and having strong feelings of gratitude for such gifts. The participants were asked to place themselves in the context of the Holocaust and imagine what their own experience would feel like if they received such gifts. For each gift, they rated how grateful they felt. The results revealed that ratings of gratitude correlated with brain activity in the anterior cingulate cortex and medial prefrontal cortex, in support of our hypotheses. The results provide a window into the brain circuitry for moral cognition and positive emotion that accompanies the experience of benefitting from the goodwill of others.

Garrison, Kathleen A., Thomas A. Zeffiro, Dustin Scheinost, R. Todd Constable & Judson A. Brewer. 2015. Meditation leads to reduced default mode network activity beyond an active task. *Cognitive, Affective & Behavioral Neuroscience* 15(3). 712–720.
doi:10.3758/s13415-015-0358-3.

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Meditation has been associated with relatively reduced activity in the default mode network, a brain network implicated in self-related thinking and mind wandering. However, previous imaging studies have typically compared meditation to rest, despite other studies having reported differences in brain activation patterns between meditators and controls at rest. Moreover, rest is associated with a range of brain activation patterns across individuals that has only recently begun to be better characterized. Therefore, in this study researchers compared meditation to another active cognitive task, both to replicate the findings that meditation is associated with relatively reduced default mode network activity and to extend these findings by testing whether default mode activity was reduced during meditation, beyond the typical reductions observed during effortful tasks. In addition, prior studies had used small groups, whereas in the present study we tested these hypotheses in a larger group. The results indicated that meditation is associated with reduced activations in the default mode network, relative to an active task, for meditators as compared to controls. Regions of the default mode network showing a Group \times Task interaction included the posterior cingulate/precuneus and anterior cingulate cortex. These findings replicate and extend prior work indicating that the suppression of default mode processing may represent a central neural process in long-term meditation, and they suggest that meditation leads to relatively reduced default mode processing beyond that observed during another active cognitive task.

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Hall, Deborah L., Adam B. Cohen, Kaitlin K. Meyer, Allison H. Varley & Gene A. Brewer. 2015. Costly Signaling Increases Trust, Even Across Religious Affiliations. *Psychological Science* 26(9). 1368–1376.
doi:10.1177/0956797615576473.

Trust is a critical aspect of social interaction. One might predict that individuals trust religious out-groups less than religious in-groups, and that costly signals performed by members of religious in-groups increase trust while costly signals performed by members of religious out-groups decrease trust. Researchers examined how Christian participants perceived the trustworthiness of Muslim and Christian individuals who did or did not engage in religious costly signaling. Religious costly signaling, operationalized as giving to religious charities (Experiments 1 and 2) or adhering to religious dietary restrictions (Experiment 3), increased self-reported trust, regardless of target religious affiliation. Furthermore, when estimating the likelihood that trustworthy versus untrustworthy targets engaged in costly signaling, participants made systematic judgments that showed that costly signaling is associated with trust for both Muslim and Christian targets (Experiment 4). These results are novel in their suggestion that costly signals of religious commitment can increase trust both within and, crucially, across religious-group lines.

Hughes, Jeffrey, Igor Grossmann & Adam B. Cohen. 2015. Tolerating the “doubting Thomas”: how centrality of religious beliefs vs. practices influences prejudice against atheists. *Frontiers in Psychology* 6. 1352.
doi:10.3389/fpsyg.2015.01352.

Past research has found a robust effect of prejudice against atheists in largely Christian-dominated (belief-oriented) samples. The present researchers propose that religious centrality of beliefs vs. practices influences attitudes toward atheists, such that religious groups emphasizing beliefs perceive non-believers more negatively than believers, while groups emphasizing practices perceive non-practicing individuals more negatively than practicing individuals. Studies 1-2, in surveys of 41 countries, found that Muslims and Protestants (belief-oriented) had more negative attitudes toward atheists than did Jews and Hindus (practice-oriented). Study 3 experimentally manipulated a target individual's beliefs and practices. Protestants had more negative attitudes toward a non-believer (vs. a believer), whereas Jews had more negative attitudes toward a non-practicing individual (vs. a practicing individual, particularly when they had a Jewish background). This research has implications for the psychology of religion, anti-atheist prejudice, and cross-cultural attitudes regarding where dissent in beliefs or practices may be tolerated or censured within religious groups.

Jiang, Yushi, Rachel Bachner-Melman, Soo Hong Chew & Richard P. Ebstein. 2015. Dopamine D4 receptor gene and religious affiliation correlate with dictator game altruism in males and not females: evidence for gender-sensitive gene \times culture interaction. *Frontiers in Neuroscience* 9. 338. doi:10.3389/fnins.2015.00338.

On a large sample of 2,288 Han Chinese undergraduates, researchers investigated how religion and DRD4 are related to human altruistic giving behavior as measured with the Andreoni-Miller Dictator Game. This game enables results that clearly differentiate between (non-)selfishness, efficiency, and fairness motives for sharing. Participants were further classified into religious categories (Christian, Buddhist-Tao, and No Religion) based on self-reports, and genotyped for the dopamine D4 receptor (DRD4) gene exon III VNTR. Data analysis revealed a significant interaction between religion and DRD4 correlated with giving behavior solely among males: Whereas no significant association between religion and sharing decisions was observed in the majority 4R/4R genotype group, a significant difference in giving behavior between Christian and non-Christian males was seen in the non-4R/4R group, with Christian men being overall more altruistic (less selfish and fairer) than non-Christian men. These results support the vantage sensitivity hypothesis regarding DRD4 that the non-4R/4R "susceptibility" genotype is more responsive to a positive environment provided by some religions.

Kossowska, Malgorzata & Maciej Sekerdej. 2015. Searching for certainty: Religious beliefs and intolerance toward value-violating groups. *Personality and Individual Differences* 83. 72–76. doi:10.1016/j.paid.2015.03.053.

Religiosity has been consistently linked to prejudice toward a variety of outgroups. This article proposes that this is the case only when religiosity reflects a specific aspect of seeking guidance and security in daily practices and complex sociocultural norms. Outgroups that challenge the epistemic certainty that belief in God provides are rejected in an effort to protect this certainty. The results from two studies found that uncertainty avoidance was related to belief in God and this belief mediated the relationship between uncertainty avoidance and intolerance within the context of general human rights (Study 1), and the derogation of value-violating groups (e.g., homosexuals or followers of other religions) but not of groups that pose no threat to religious values (old or poor people) (Study 2). The interpretative dimension of religiosity (i.e., the way in which people process religious content) is not connected to security seeking, as reflected in the lack of a correlation with uncertainty avoidance and with different prejudice measures. The results are discussed in relation to past research on religiosity and prejudice, and suggest that for people who avoid uncertainty, only those types of religious beliefs that provide a sense of certainty are linked with intolerance toward value-violating groups.

McGregor, Ian, Joseph Hayes & Mike Prentice. 2015. Motivation for aggressive religious radicalization: goal regulation theory and a personality \times threat \times affordance hypothesis. *Frontiers in Psychology* 6. 1325. doi:10.3389/fpsyg.2015.01325.

A new set of hypotheses is presented regarding the cause of aggressive religious radicalization (ARR). It is grounded in classic and contemporary theory of human motivation and goal regulation, together with recent empirical advances in personality, social, and neurophysiological psychology. Researchers specify personality traits, threats, and group affordances that combine to divert normal motivational processes toward ARR. Conducive personality traits are oppositional, anxiety-prone, and identity-weak (i.e., morally bewildered). Conducive threats are those that arise from seemingly insurmountable external forces and frustrate effective goal regulation. Conducive affordances include opportunity for immediate and concrete engagement in active groups that are powered by conspiracy narratives, infused with cosmic significance, encouraging of moral violence, and sealed with religious unfalsifiability. The authors propose that ARR is rewarding because it can spur approach motivated states that mask vulnerability for people whose dispositions and circumstances would otherwise leave them mired in anxious distress.

Siniver, Erez & Gideon Yaniv. 2015. Kissing the mezuzah and cognitive performance: Is there an observable benefit? *Journal of Economic Behavior & Organization* 117. 40–46.
doi:10.1016/j.jebo.2015.05.015.

A mezuzah is a small case affixed to the doorframe of each room in Jewish homes and workplaces which contains a tiny scroll of parchment inscribed with a prayer. It is customary for religious Jews to touch the mezuzah every time they pass through a door and kiss the fingers that touched it. However, kissing the mezuzah has also become customary for many secular Jews who think of the mezuzah as a good luck charm. In view of a recent revelation that kissing the mezuzah entails a health hazard, the present paper inquires whether it also has some observable benefit. In an experiment conducted among non-religious mezuzah-kissing economics and business students confronted with a logic-problem exam, some were allowed to kiss the mezuzah before taking the exam, whereas the others were asked not to do so or could not do so because it had been removed from the room doorframe. The experiment revealed that participants who did not kiss the mezuzah performed worse than those who kissed it, and that the stronger is one's belief in the mezuzah's luck-enhancing properties, the better he performs when he kisses it but the worse he performs when he does not.

Yilmaz, Onurcan & Hasan G. Bahçekapili. 2015. When Science Replaces Religion: Science as a Secular Authority Bolsters Moral Sensitivity. *PloS One* 10(9). e0137499.
doi:10.1371/journal.pone.0137499.

Scientific and religious thinking compete with each other on several levels. For example, activating one generally weakens the other. Since priming religion is known to increase moral behavior and moral sensitivity, priming science might be expected to have the opposite effect. However, it was recently demonstrated that, on the contrary, science priming increases moral sensitivity as well. The present set of studies sought to replicate this effect and test two explanations for it. Study 1 used a sentence unscrambling task for implicitly priming the concept of science but failed to replicate its effect on moral sensitivity, presumably due to a ceiling effect. Study 2 replicated the effect with a new measure of moral sensitivity. Study 3 tested whether science-related words create this effect by activating the idea of secular authority or by activating analytic thinking. It was demonstrated that words related to secular authority, but not words related to analytic thinking, produced a similar increase in moral sensitivity. Religiosity level of the participants did not influence this basic finding. The results are consistent with the hypothesis that science as a secular institution has overtaken some of the functions of religion in modern societies.

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Ataria, Yochai, Yair Dor-Ziderman & Aviva Berkovich-Ohana. 2015. How does it feel to lack a sense of boundaries? A case study of a long-term mindfulness meditator. *Consciousness and Cognition* 37. 133–147.
doi:10.1016/j.concog.2015.09.002.

This paper discusses the phenomenological nature of the sense of boundaries (SB), based on the case of S, who has practiced mindfulness in the Satipathana and Theravada Vipassana traditions for about 40 years and accumulated around 20,000h of meditative practice. S's unique abilities enable him to describe his inner lived experience with great precision and clarity. S was asked to shift between three different stages: (a) the default state, (b) the dissolving of the SB, and (c) the disappearance of the SB. Based on his descriptions, the present researchers identified seven categories (with some overlap) that alter during the shifts between these stages, including the senses of: (1) internal versus external, (2) time, (3) location, (4) self, (5) agency (control), (6) ownership, and (7) center (first-person-egocentric-bodily perspective). Two other categories, the touching/touched structure and one's bodily feelings, do not fade away completely even when the sense-of-boundaries disappears.

Bottan, Nicolas L. & Ricardo Perez-Truglia. 2015. Losing my religion: The effects of religious scandals on religious participation and charitable giving. *Journal of Public Economics* 129. 106–119.

doi:10.1016/j.jpubeo.2015.07.008.

Researchers study how the U.S. Catholic clergy abuse scandals affected religious participation, religious beliefs, and pro-social behavior. To estimate the causal effects of the scandals on various outcomes, the authors conduct an event-study analysis that exploits the fine distribution of the scandals over space and time. First, a scandal causes a significant and long-lasting decline in religious participation in the zip code where it occurs. Second, the decline in religious participation does not generate a statistically significant decline in religious beliefs, pro-social beliefs, and some commonly used measures of pro-social behavior. This evidence is consistent with the view that changes in religious participation during adulthood may have limited or no effect on deep beliefs and values. Third, the scandals cause a long-lasting decline in charitable contributions. Indeed, the decline in charitable giving is an order of magnitude larger than the direct costs of the scandals to the Catholic churches (e.g., lawsuits). If one assumes that the scandals affect charitable giving only through the decline in religious participation, these estimates would suggest that the strong cross-sectional correlation between religious participation and charitable giving has the presumed direction of causality.

Browne, Matthew, Patricia Thomson, Matthew Justus Rockloff & Gordon Pennycook. 2015. Going against the Herd: Psychological and Cultural Factors Underlying the “Vaccination Confidence Gap.” *PLoS One* 10(9). e0132562.
doi:10.1371/journal.pone.0132562.

By far the most common strategy used in the attempt to modify negative attitudes toward vaccination is to appeal to evidence-based reasoning. The authors argue, however, that focusing on science comprehension is inconsistent with one of the key facts of cognitive psychology: humans are biased information processors and often engage in motivated reasoning. On this basis, researchers hypothesized that negative attitudes can be explained primarily by factors unrelated to the empirical evidence for vaccination; including some shared attitudes that also attract people to complementary and alternative medicine (CAM). In particular, researchers tested psychosocial factors associated with CAM endorsement in past research; including aspects of spirituality, intuitive (vs analytic) thinking styles, and the personality trait of openness to experience. These relationships were tested in a cross-sectional, stratified CATI survey (n=1256; 624 females). Whilst educational level and thinking style did not predict vaccination rejection, psychosocial factors including: preferring CAM to conventional medicine, endorsement of spirituality as a source of knowledge, and openness, all predicted negative attitudes to vaccination. Furthermore, for 9 of the 12 CAMs surveyed, utilization in the last 12 months was associated with lower levels of vaccination endorsement. From this the authors suggest that vaccination skepticism appears to be the outcome of a particular cultural and psychological orientation leading to unwillingness to engage with the scientific evidence. Vaccination compliance might be increased either by building general confidence and understanding of evidence-based medicine, or by appealing to features usually associated with CAM, e.g. “strengthening your natural resistance to disease.”

Chui, Wing Hong & Kevin Kwok-yin Cheng. 2015. A Comparison of Attitudes Toward Prisoners of Religious and Non-Religious College Students in Hong Kong. *International Journal of Offender Therapy and Comparative Criminology* 59(10). 1066–1078.
doi:10.1177/0306624X14531035.

While there have been numerous studies on the religious, namely, Christians’, attitudes toward punishment, less attention has been devoted to the religious attitudes toward prisoners. This study aims to examine and compare religious affiliation and spirituality with respect to attitudes toward prisoners. Respondents were comprised of a sample of college students in Hong Kong divided into three groups: Buddhists, Christians, and those self-identified as non-religious. Both Christians and Buddhists displayed more positive attitudes toward prisoners with respect to perceived bad character and perception of negative interaction compared with the non-religious. Likewise, Christians and Buddhists exhibited more positive attitudes toward prisoners with respect to empathy and

perception that prisoners are normal compared with the non-religious. Spirituality, however, moderated these relationships as spirituality interacted with religious affiliation to produce more negative attitudes toward prisoners.

- Colzato, Lorenza S., Roberta Sellaro, Iliana Samara & Bernhard Hommel. 2015. Meditation-induced cognitive-control states regulate response-conflict adaptation: Evidence from trial-to-trial adjustments in the Simon task. *Consciousness and Cognition* 35. 110–114.
doi:10.1016/j.concog.2015.04.012.

Here researchers consider the possibility that meditation has an immediate impact on information processing. Moreover, they were interested to see whether this impact affects attentional input control, as previous observations suggest, or the handling of response conflict. Healthy adults underwent a brief single session of either focused attention meditation (FAM), which is assumed to increase top-down control, or open monitoring meditation (OMM), which is assumed to weaken top-down control, before performing a Simon task—which assesses conflict-resolution efficiency. While the size of the Simon effect (reflecting the efficiency of handling response conflict) was unaffected by type of meditation, the amount of dynamic behavioral adjustments (i.e., trial-to-trial variability of the Simon effect: the Gratton effect) was considerably smaller after OMM than after FAM. These findings suggest that engaging in meditation instantly creates a cognitive-control state that has a specific impact on conflict-driven control adaptations.

- Creighton, Mathew J. & Amaney Jamal. 2015. Does Islam play a role in anti-immigrant sentiment? An experimental approach. *Social Science Research* 53. 89–103.
doi:10.1016/j.ssresearch.2015.04.001.

Are Muslim immigrants subjected to targeted opposition (i.e., Islamophobia) on their pathway to US citizenship? Using a list experiment and a representative sample of the US population, researchers compare explicit and implicit opposition to Muslim and Christian immigrants. It is found that Muslim immigrants, relative to Christian immigrants, experience greater explicit resistance. However, when social desirability bias is taken into account via the list experiment, researchers find that opposition to Christian and Muslim immigrants is the same. The explanation is that respondents conceal a significant amount of opposition to Christian immigrants. Muslim immigrants, on the other hand, are afforded no such protection. The authors thus find that religiosity or denomination do not play a significant role in determining implicit or explicit opposition and conclude that Islamophobia, which is only explicitly expressed, is best understood as reflective of social desirability bias from which Muslim immigrants do not benefit.

- Crone, Travis S. 2015. The Influence of Affective Priming on One's Perceived Relationship to God. *Journal of Psychology & Theology* 43(3). 204–211.

It seems that when individuals are asked to assess their perceived relationship to God, they are often given a negative affective prime prior to the assessment. The purpose of the current series of studies was to explore how this negative affective priming would influence participants' thoughts about their perceived relationship to God. Study 1 showed that the classic priming effect can be seen when the affective priming is nonreligious. However, going against predictions, there was a contrast effect when there was a religious focus with the positive priming having the most negative influence. Study 2 replicated and expanded this finding by showing that positive affective priming was linked to participants reporting that they experienced God's love less frequently. The current study highlights how the way that individuals think about or approach their relationship to God can have serious effects on how they experience this relationship.

- Crown, Patricia L., Jiyan Gu, W. Jeffrey Hurst, Timothy J. Ward, Ardith D. Bravenec, Syed Ali, Laura Kebert, et al. 2015. Ritual drinks in the pre-Hispanic US Southwest and Mexican Northwest. *Proceedings of the National Academy of Sciences* 112(37). 11436–11442.
doi:10.1073/pnas.1511799112.

Chemical analyses of organic residues in fragments of pottery from 18 sites in the US Southwest and Mexican Northwest reveal combinations of methylxanthines (caffeine, theobromine, and theophylline) indicative of stimulant drinks, probably concocted using either cacao or holly leaves and twigs. The results cover a time period from around A.D. 750-1400, and a spatial distribution from southern Colorado to northern Chihuahua. As with populations located throughout much of North and South America, groups in the US Southwest and Mexican Northwest likely consumed stimulant drinks in communal, ritual gatherings. The results have implications for economic and social relations among North American populations.

Dahl, Cortland J., Antoine Lutz & Richard J. Davidson. 2015. Reconstructing and deconstructing the self: Cognitive mechanisms in meditation practice. *Trends in Cognitive Sciences* 19(9). 515–523. doi:10.1016/j.tics.2015.07.001.

Scientific research highlights the central role of specific psychological processes, in particular those related to the self, in various forms of human suffering and flourishing. This view is shared by Buddhism and other contemplative and humanistic traditions, which have developed meditation practices to regulate these processes. Building on a previous paper in this journal, researchers propose a novel classification system that categorizes specific styles of meditation into attentional, constructive, and deconstructive families based on their primary cognitive mechanisms. The authors suggest that meta-awareness, perspective taking and cognitive reappraisal, and self-inquiry may be important mechanisms in specific families of meditation and that alterations in these processes may be used to target states of experiential fusion, maladaptive self-schema, and cognitive reification.

Finley, Anna J., David Tang & Brandon J. Schmeichel. 2015. Revisiting the Relationship between Individual Differences in Analytic Thinking and Religious Belief: Evidence That Measurement Order Moderates Their Inverse Correlation. *PLoS One* 10(9). e0138922. doi:10.1371/journal.pone.0138922.

Prior research has found that persons who favor more analytic modes of thought are less religious. Researchers propose that individual differences in analytic thought are associated with reduced religious beliefs particularly when analytic thought is measured (hence, primed) first. The current study provides a direct replication of prior evidence that individual differences in analytic thinking are negatively related to religious beliefs when analytic thought is measured before religious beliefs. When religious belief is measured before analytic thinking, however, the negative relationship is reduced to non-significance, suggesting that the link between analytic thought and religious belief is more tenuous than previously reported. The current study suggests that whereas inducing analytic processing may reduce religious belief, more analytic thinkers are not necessarily less religious. The potential for measurement order to inflate the inverse correlation between analytic thinking and religious beliefs deserves additional consideration.

Gervais, Will M. 2015. Override the controversy: Analytic thinking predicts endorsement of evolution. *Cognition* 142. 312–321. doi:10.1016/j.cognition.2015.05.011.

Despite overwhelming scientific consensus, popular opinions regarding evolution are starkly divided. In the USA, for example, nearly one in three adults espouse a literal and recent divine creation account of human origins. Plausibly, resistance to scientific conclusions regarding the origins of species—like much resistance to other scientific conclusions—gains support from reliably developing intuitions. Intuitions about essentialism, teleology, agency, and order may combine to make creationism potentially more cognitively attractive than evolutionary concepts. However, dual process approaches to cognition recognize that people can often analytically override their intuitions. Two large studies (total n=1324) found consistent evidence that a tendency to engage analytic thinking predicted endorsement of evolution, even controlling for relevant demographic, attitudinal, and religious variables. Meanwhile, exposure to religion predicted reduced endorsement of evolution. Cognitive style is one factor among many affecting opinions on the origin of species.

Gu, Mingyue (Michelle). 2015. A complex interplay between religion, gender and marginalization: Pakistani schoolgirls in Hong Kong. *Ethnic and Racial Studies* 38(11). 1934–1951. doi:10.1080/01419870.2014.941895.

This article investigates the complex interplay between religion, gender and marginalization among a group of Pakistani schoolgirls in Hong Kong. It is found that the participants experience multiple marginalization and develop various strategies against disadvantageous positions. It is also found that, while the Pakistani girls attempt to extricate themselves from the gendered practices in their heritage culture and its customs that marginalize and confine women, they simultaneously seek to establish an Islamic or Muslim identity that differentiates them from local girls. It argues that, while mainstream culture has, to a certain extent, released Pakistani girls from the oppression and pressure of religion and customs, they have not been provided sufficient guidance to realize their dreams, making the release temporary and uncertain. The implications of the findings and directions for future research are discussed.

Howard, Simon & Samuel R. Sommers. 2015. Exploring the enigmatic link between religion and anti-black attitudes. *Social and Personality Psychology Compass* 9(9). 495–510. doi:10.1111/spc3.12195.

This review explores social psychological perspectives on the complex relationship between religion and anti-Black prejudice in the United States. Researchers examine the different ways in which religiosity has been conceptualized by behavioral scientists. They consider the methodological limitations of previous research, as well as how the advent of priming research introduces new empirical questions regarding religiosity and anti-Black prejudice, such as whether activation of different religious conceptions (e.g., God versus religion) or priming via different types of stimuli (e.g., words versus images) produces different outcomes. Finally, the authors discuss the lack of diverse samples in the present literature and highlight the need for additional research with Black American respondents. Conclusions consider the real world implications of links between religion and anti-Blackness for both White individuals (e.g., intergroup relations) and Black individuals (e.g., psychological functioning).

Kanagaretnam, Kiridaran, Gerald J. Lobo, Chong Wang & Dennis J. Whalen. 2015. Religiosity and risk-taking in international banking. *Journal of Behavioral and Experimental Finance* 7. 42–59. doi:10.1016/j.jbef.2015.07.004.

Researchers examine the relationship between religiosity and risk-taking in the international banking sector. Previous research indicates that individuals who are more religious have greater risk aversion. Additionally, prior literature documents a positive relation between religiosity and both financial accounting transparency and timely recognition of bad news. Given timely recognition of future loan losses, religiosity could constrain excessive risk-taking through enhanced internal and external monitoring. The authors hypothesize and find that banks located in more religious countries exhibit lower levels of risk in their decision-making. The authors also demonstrate that banks in more religious countries were less likely to encounter financial difficulty or fail during the 2007–2009 financial crisis.

Mavhandu-Mudzusi, Azwihangwisi Helen & Peter Thomas Sandy. 2015. Religion-related stigma and discrimination experienced by lesbian, gay, bisexual and transgender students at a South African rural-based university. *Culture, Health & Sexuality* 17(8). 1049–1056.

This paper reports on the stigma and discrimination experienced by lesbian, gay, bisexual and transgender students at a rural university in South Africa. Twenty lesbian, gay, bisexual and transgender students recruited through snowball sampling participated in this study. Interpretative Phenomenological Analysis was used as a framework for data analysis. Findings indicate that religion-related stigma and discrimination are common at a rural-based university in South Africa. Lesbian, gay, bisexual and transgender students are typically ascribed a range of labels, including ‘sinners’, ‘devils’ and ‘demon possessed’. They are also exposed to a number of

discriminatory acts, such as the denial of financial and healthcare services and threats of and/or actual rape. Study participants reported attempts to convert lesbian, gay, bisexual and transgender students' sexual orientation which involved the use of intervention in the form of prayers. Derogatory labelling and associated discriminatory acts, for example the threat of rape, led many students to conceal their sexual identity, not attend specific classes, terminate their studies and even attempt suicide. Universities should develop policies to promote greater social inclusion and the acceptance of lesbian, gay, bisexual and transgender students. Policies should also specify the steps or approaches to be taken in addressing discriminatory practices.

- Miles, Andrew & Stephen Vaisey. 2015. Morality and politics: Comparing alternate theories. *Social Science Research* 53. 252–269.
doi:10.1016/j.ssresearch.2015.06.002.

Debates about the American “culture wars” have led scholars to develop several theories relating morality to political attitudes and behaviors. However, researchers have not adequately compared these theories, nor have they examined the overall contribution of morality to explaining political variation. This study uses nationally representative data to compare the utility of 19 moral constructs from four research traditions for predicting political orientation (liberalism/conservatism). Results indicate that morality explains a third of the variation in political orientation, more than basic demographic and religious predictors, but that no one theory provides a fully adequate explanation of this phenomenon. Instead, political orientation is best predicted by selected moral constructs that are unique to each of the four traditions, and by two moral constructs that crosscut them.

- Minton, Elizabeth A., Lynn R. Kahle & Chung-Hyun Kim. 2015. Religion and motives for sustainable behaviors: A cross-cultural comparison and contrast. *Journal of Business Research* 68(9). 1937–1944.
doi:10.1016/j.jbusres.2015.01.003.

Many previous studies investigate altruism's influence on sustainable behaviors, yet few studies examine the more foundational relation between religion and sustainable consumption-related behaviors. Therefore, this paper builds on values research, self-determination theory, and inoculation theory to examine the link between religion and sustainable behaviors from a sample of both South Korean and US consumers (n=388; average age = 33). Results show a moderating effect of religiosity with consumers who are more religious being more likely to participate in sustainable behaviors (e.g., purchasing green cleaning supplies, recycling, purchasing organic foods). In contrast to Christians and Atheists, highly religious Buddhists more likely participate in sustainable behaviors, with little difference between locations. Interestingly, differences exist with minority religions (e.g., Buddhists in the US) that change agents must note to maximize the effectiveness of campaigns encouraging sustainable behaviors.

- Pereira, José M. C., Duarte Oom, Paula Pereira, Antónia A. Turkman & K. Feridun Turkman. 2015. Religious Affiliation Modulates Weekly Cycles of Cropland Burning in Sub-Saharan Africa. *PloS One* 10(9). e0139189.
doi:10.1371/journal.pone.0139189.

Vegetation burning is a common land management practice in Africa, where fire is used for hunting, livestock husbandry, pest control, food gathering, cropland fertilization, and wildfire prevention. Given such strong anthropogenic control of fire, researchers tested the hypotheses that fire activity displays weekly cycles, and that the week day with the fewest fires depends on regionally predominant religious affiliation. The researchers also analyzed the effect of land use (anthrome) on weekly fire cycle significance. Fire density (fire counts.km⁻²) observed per week day in each region was modeled using a negative binomial regression model, with fire counts as response variable, region area as offset and a structured random effect to account for spatial dependence. Anthrome (settled, cropland, natural, rangeland), religion (Christian, Muslim, mixed) week day, and their 2-way and 3-way interactions were used as independent variables. Models were also built separately for each anthrome, relating regional fire density with week day and religious affiliation. Analysis revealed a significant interaction between

religion and week day, i.e. regions with different religious affiliation (Christian, Muslim) display distinct weekly cycles of burning. However, the religion vs. week day interaction only is significant for croplands, i.e. fire activity in African croplands is significantly lower on Sunday in Christian regions and on Friday in Muslim regions. Magnitude of fire activity does not differ significantly among week days in rangelands and in natural areas, where fire use is under less strict control than in croplands. These findings can contribute towards improved specification of ignition patterns in regional/global vegetation fire models, and may lead to more accurate meteorological and chemical weather forecasting.

Roof, Richard A. 2015. The association of individual spirituality on employee engagement: The spirit at work. *Journal of Business Ethics* 130(3). 585–599.
doi:10.1007/s10551-014-2246-0.

Employee engagement and spirituality have both been the focus of increasing interest by researchers and practitioners, and both are still early stage theories with ill-defined constructs and definitions. Emergent empirical work related to engagement and spirituality has supported the promise of improving both organizational performance and employee conditions. Responding to the call by theorists to examine engagement antecedents and specifically, the relationship between spirituality and employee engagement, a cross-sectional study was performed to examine self-reported individual spirituality as measured by the DSES and employee engagement measured using the UWES-9 including the dimensions of vigor, dedication, and absorption. 124 usable surveys were collected from a snowballing convenience sample and after confirming demographic representativeness and identifying the individual's organizational role as a potential influential variable, analyses of the relationships between individual spirituality, overall engagement, and three individual engagement dimensions were performed using multiple regression controlling for organizational role. Empirical support was found for relationships between individual spirituality and engagement, vigor, and dedication but not for the engagement dimension of absorption. The findings should encourage further future exploration of the relationship between spirituality and engagement and inquiry into why results differ across engagement's dimensions; specifically, why the relationship was not supported for absorption. The empirical support for spirituality as a predictor of engagement informs practical decisions for addressing workplace spirituality and concerns with the potential to assist in countering the declining engagement trend.

Santo, Diana Espírito. 2015. Turning outside in: Infolded selves in Cuban Creole espiritismo. *Ethos* 43(3). 267–285.
doi:10.1111/etho.12085.

Practitioners of Cuban Creole espiritismo conceive of the spirits they work with as parts of their extended Selves: paradoxically both present from birth, manifest as aptitudes and personality traits and as needing to be “made” through their development as mediums. In continuity with other practices of the Afro-Cuban religious environment in which it is immersed, espiritismo sustains a spiritual cosmos that is porous and capable of absorbing and transforming its potentially dangerous Other, such as “foreign” spirits or those sent by witchcraft. This is accomplished through processes associated with the development and expansion of the Self. However, through the expression of these spirits (both innate and foreign) in, and through, bodies, things, and actions, they are integrated into the Selves of their mediums (“infolding”) as they are simultaneously personified and differentiated from them (“outfolding”). The author argues that this process of “outfolding” affords a largely unique model of Self-making in this context, one that can be better understood through a look at how aspects deemed to be potentials of the Self's internal constitution are carefully worked into becoming instantiated, lived components of it, outside of it.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

Asprem, Egil. 2015. Dis/unity of Knowledge: Models for the Study of Modern Esotericism and Science. *Numen* 62(5-6). 538–567.

doi:10.1163/15685276-12341391.

Research on relations between esotericism and science exhibits a fundamental asymmetry. While historians of science have been eager to uncover esoteric contexts for early modern sciences, scholars of modern esoteric movements look almost solely at esotericism in the context of scientific progress. This asymmetry is largely due to a division of intellectual labor following lines of specialization in the humanities. The early modern period has been of supreme interest for historians of science, who have applied their expertise to uncovering important connections. In contrast, late modern esoteric thought has almost exclusively fallen under the purview of religious studies scholars, who lack the tools (and often the interest) to dissect the workings of the sciences. The result has been that, for relations of science and esotericism in the late modern period, the prevailing picture has been one of a unidirectional influence from “proper” science to a culturally parasitic esoteric discourse. The present article aims to remedy this asymmetry. A systematization and evaluation of existing approaches to esotericism/science leads to an argument that new methodology and conceptual tools are needed for a sufficient analysis of esotericism/science relations in the modern world to develop. These tools are found in the interdisciplinary field of science and technology studies.

Castro, John M. de. 2015. Meditation has stronger relationships with mindfulness, kundalini, and mystical experiences than yoga or prayer. *Consciousness and Cognition* 35. 115–127.
doi:10.1016/j.concog.2015.04.022.

Contemplative practices can have profound effects on mindfulness and on physical and sensory and mystical experiences. Individuals who self-reported meditation, yoga, contemplative prayer, or a combination of practices and their patterns of practice were compared for mindfulness, kundalini effects, and mystical experiences. The results suggest that the amount of practice but not the pattern and social conditions of practice influences mindfulness and possibly mystical experiences. Meditation, yoga, contemplative prayer, or a combination of practices all were found to be associated with enhancements of mindfulness, kundalini effects, and mystical experiences, but meditation had particularly strong associations and may be the basis of the associations of yoga and prayer with these outcomes. The results further suggest that the primary association of contemplative practices is with the real time awareness and appreciation of sensory and perceptual experiences which may be the intermediary between disparate practices and mindfulness, kundalini effects, and mystical experiences.

Elk, Michiel van, Dora Matzke, Quentin F. Gronau, Maime Guan, Joachim Vandekerckhove & Eric-Jan Wagenmakers. 2015. Meta-analyses are no substitute for registered replications: a skeptical perspective on religious priming. *Frontiers in Psychology* 6. 1365.
doi:10.3389/fpsyg.2015.01365.

According to a recent meta-analysis, religious priming has a positive effect on prosocial behavior. Researchers first argue that this meta-analysis suffers from a number of methodological shortcomings that limit the conclusions that can be drawn about the potential benefits of religious priming. Next they present a re-analysis of the religious priming data using two different meta-analytic techniques. A Precision-Effect Testing-Precision-Effect-Estimate with Standard Error (PET-PEESE) meta-analysis suggests that the effect of religious priming is driven solely by publication bias. In contrast, an analysis using Bayesian bias correction suggests the presence of a religious priming effect, even after controlling for publication bias. These contradictory statistical results demonstrate that meta-analytic techniques alone may not be sufficiently robust to firmly establish the presence or absence of an effect. The authors argue that a conclusive resolution of the debate about the effect of religious priming on prosocial behavior, and about theoretically disputed effects more generally, requires a large-scale, preregistered replication project, which they consider to be the sole remedy for the adverse effects of experimenter bias and publication bias.

Sommer, Bettina & Morten Warmind. 2015. Óðinn from Lejre — or? *Numen* 62(5-6). 627–638.
doi:10.1163/15685276-12341396.

A small statuette of a seated person was discovered in Denmark in 2009. According to the accepted interpretation, this is a representation of the Norse god Óðinn, but the authors of the present article propose that it may instead represent a pre-Christian prophetess, a völva. Regarding the methodology of the identification of divine images, the authors argue that a particular god is not identified by an attribute, but rather created by the said attribute, as only the presence of a particular attribute can define the god. Caution should be taken when attempting to identify any image or icon with a particular god or goddess, especially in the field of Norse archaeology, as clearly identifying attributes are usually missing.

VanSlyke, James A. 2015. Understanding the Moral Dimension of Spirituality: Insights From Virtue Ethics and Moral Exemplars. *Journal of Psychology & Christianity* 34(3). 205–215.

Virtue ethics and moral exemplars provide excellent resources for understanding the different facets of the moral life, which is an essential element of spirituality. Virtue ethics emphasizes the formation of habits that contribute to character development and create dispositions towards moral action. Moral exemplars demonstrate that much of moral behavior is not a result of conscious choice, but rather moral schemas heighten the moral salience of the other and constrain the type of moral actions possible based on the current context.

A CALL FOR HILBERT QUESTIONS IN THE STUDY OF RELIGION

What are the Hilbert Questions?

RBB takes its inspiration for this endeavor from the eminent mathematician David Hilbert (1862-1943). At the 1900 International Congress of Mathematicians in Paris, Hilbert listed 10 discipline-defining questions. His goal was to focus the attention of mathematicians on clearly stated questions central to the discipline of mathematics. These questions were never intended to remain static; in fact, the revision of Big Questions and previous intellectual positions in a discipline is a marker of its health. In this spirit, we similarly hope to accumulate a list of clearly formulated, fundamental Big Questions in order to focus a community of inquirers on the most pressing puzzles in the biological, evolutionary, and cognitive sciences of religion.

Requirements for submission:

- 1) The question must be stated clearly.
- 2) The question must really be fundamental and its theoretical implications capable of reconfiguring how scholars understand religion.
- 3) The question must be relevant to actual religion, rather than abstractions of religion. To sharpen one's questions, it might behoove one to talk to those who have not embraced the bio-cultural study of religion—these can be fruitful conversations.
- 4) The question must include some proposed method to answer it. Collaborative efforts are anticipated. Please detail how collaboration on the question would have to work.
- 5) The question must be stated in one thousand words or fewer.
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PART 2: ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Athan, Aurelie, Sara Chung & Jeanette Sawyer Cohen. 2015. Spiritual beliefs of mothers with potentially distressing pregnancies. *Spirituality in Clinical Practice* 2(3). 216–232.
doi:10.1037/scp0000069.

This study examines the religious/spiritual (r/s) beliefs of mothers who have experienced difficulties in the formation of their families and their association with maternal–infant attachment and maternal mental health in the pre- and postnatal periods. Groups of women with disclosed differences in their pregnancy intention (e.g., wanted, planned) and reproductive histories (e.g., infertility, perinatal loss, high-risk) were profiled on their image of God/spirituality based on their endorsement of 21 characteristics. Women with planned yet unwanted pregnancies fared worse off in maternal well-being and attachment to their child. Women without complicated reproductive histories yet risky pregnancies fared similarly. Women who held attributions of God as loving and knowable and residing within the self, as opposed to a supreme being who was judging, had better scores on anxiety, depression, perceived stress and social support. Women with the most complex reproductive profiles viewed God as a teacher with karmic implications. Findings from this study suggest that r/s beliefs are significant indicators of whether a nonideal pregnancy will result in distress for the mother and her child. Clinicians are recommended to explore and encourage positive r/s cognitions to assist women as they become mothers.

Best, Alicia L., Kassandra I. Alcaraz, Amy McQueen, Dexter L. Cooper, Rueben C. Warren & Kevin Stein. 2015. Examining the mediating role of cancer-related problems on spirituality and self-rated health among African American cancer survivors: A report from the American Cancer Society’s Studies of Cancer Survivors-II. *Psycho-Oncology* 24(9). 1051–1059.
doi:10.1002/pon.3720.

African American (AA) cancer survivors report poorer self-rated health (SRH) compared to other racial/ethnic groups. Spirituality is often linked to positive health outcomes, with AAs reporting greater levels of spirituality. This study examined the potential mediating role of cancer-related problems in the relationship between spirituality and SRH among AA cancer survivors compared to non-African American (non-AA) survivors. Researchers analyzed data on 9006 adult cancer survivors from the American Cancer Society’s Study of Cancer Survivors-II. Preliminary analyses compared characteristics of AAs and non-AAs and identified significant covariates of SRH. The researchers tested a path model using multi-group structural equation modeling (SEM), and then examined race as a moderator. Of the three domains of spirituality assessed, AAs had higher levels of peace and faith, but not meaning, compared to non-AAs; and of four domains of cancer-related problems assessed, AAs had greater physical distress, emotional distress, and employment/finance problems, but not fear of recurrence. In SEM analyses adjusting for number of comorbidities and income, race moderated the impact of spirituality and cancer-related problems on SRH. Specifically, spirituality had significantly stronger associations with cancer-related problems among AAs than non-AAs. Spirituality was positively associated with all four domains of cancer-related problems, but only physical distress was associated with SRH among AAs.

Birdee, Gurjeet S., Russell L. Rothman, Stephanie J. Sohl, Dolphi Wertenbaker, Amy Wheeler, Chase Bossart, Oluwaseyi Balasire & T. Alp Ikizler. 2015. Feasibility and Safety of Intradialysis Yoga and Education in Maintenance Hemodialysis Patients. *Journal of Renal Nutrition* 25(5). 445–453.
doi:10.1053/j.jrn.2015.02.004.

Patients with end-stage renal disease on maintenance hemodialysis are much more sedentary than healthy individuals. The purpose of this study was to assess the feasibility and safety of a 12-week intradialysis yoga

intervention versus a kidney education intervention on the promotion of physical activity. Researchers randomized participants by dialysis shift to either 12-week intradialysis yoga or an educational intervention. Intradialysis yoga was provided by yoga teachers to participants while receiving hemodialysis. Participants receiving the 12-week educational intervention received a modification of a previously developed comprehensive educational program for patients with kidney disease (Kidney School). The primary outcome for this study was feasibility based on recruitment and adherence to the interventions and safety of intradialysis yoga. Secondary outcomes were to determine the feasibility of administering questionnaires at baseline and 12 weeks including the Kidney Disease-Related Quality of Life-36. Among 56 eligible patients who approached for the study, 31 (55%) were interested and consented to participation, with 18 assigned to intradialysis yoga and 13 to the educational program. A total of 5 participants withdrew from the pilot study, all from the intradialysis yoga group. Two of these participants reported no further interest in participation. Three withdrawn participants switched dialysis times and therefore could no longer receive intradialysis yoga. As a result, 13 of 18 (72%) and 13 of 13 (100%) participants completed 12-week intradialysis yoga and educational programs, respectively. There were no adverse events related to intradialysis yoga. Intervention participants practiced yoga for a median of 21 sessions (70% participation frequency), with 60% of participants practicing at least 2 times a week. Participants in the educational program completed a median of 30 sessions (83% participation frequency). Of participants who completed the study (n=26), baseline and 12-week questionnaires were obtained from 85%.

- Collen, Mark. 2015. Operationalizing Pain Treatment in the Biopsychosocial Model: Take a Daily “SWEM”-Socialize, Work, Exercise, Meditate. *Journal of Pain & Palliative Care Pharmacotherapy* 29(3). 290–299.
doi:10.3109/15360288.2015.1063563.

In the United States, chronic pain is often poorly treated at an exceedingly high cost. The use of the biomedical model to manage pain is frequently ineffective, and evidence suggests that the biopsychosocial (BPS) model is a better choice. A problem with the BPS model is that it has not been operationalized in terms of patient behavior. This commentary addresses that issue by suggesting that people with chronic pain and illness participate daily in four self-management health behaviors: socialize, work, exercise, and meditation, and discusses evidence that supports these recommendations. These self-management behaviors may decrease pain and thus reduce the need for pain medications and other medical interventions. Additional topics include patient adherence and health coaching.

- Delva, Jorge, Yoonsun Han, Ninive Sanchez, Fernando H. Andrade, Guillermo Sanhueza & Amy Krentzman. 2015. Spirituality and Alcohol Consumption among Adolescents in Chile: Results of Propensity Score Stratification Analyses. *Social Work Research* 39(3). 147–157.
doi:10.1093/swr/svv019.

This article presents the results of a study conducted to prospectively assess the relationship between spirituality and number of alcoholic drinks among Chilean adolescents while controlling for extraneous factors. A convenience sample of 661 adolescent-parent pairs from Santiago, Chile, completed an interviewer-administered questionnaire between 2007 and 2010, when adolescents were 12 to 17 years old, and between 2008 and 2011, when they were 14 to 19 years old. Participants were asked about alcohol-using behaviors, behavioral problems, religious involvement, spirituality, parenting, and demographics. Propensity score stratification analysis using negative binomial regression identified a heterogeneous and inverse association between spirituality and number of alcoholic drinks consumed in the past 30 days. However, under the heterogeneity assumption, spirituality was significantly and inversely associated with the number of alcoholic drinks only for adolescents with the highest and next-highest propensity to be spiritual. The findings provide greater understanding of spirituality’s potential and its limitations as a protective factor and can inform social work prevention efforts for at-risk youths and, more specifically, for youths who may be less responsive to the protective dimensions of spirituality.

DuBroff, Robert, Vasant Lad & Cristina Murray-Krezan. 2015. A Prospective Trial of Ayurveda for Coronary Heart Disease: A Pilot Study. *Alternative Therapies in Health and Medicine* 21(5). 52–62.

The study intended to examine the feasibility and effectiveness of comprehensive ayurvedic therapy-incorporating diet, meditation, breathing exercises, yoga, and herbs-for patients with established coronary heart disease. Participants were adults with a history of a prior heart attack, coronary bypass surgery, or a coronary intervention (ie, a coronary angioplasty and/or stent). All enrolled patients were evaluated by a single ayurvedic physician with >40 y of experience, and each received therapy consisting of a calorically unrestricted ayurvedic diet; instruction in yoga, meditation, and breathing; and use of ayurvedic herbs. Twenty-two patients were enrolled in the study, and 19 patients completed it. Following intervention, the research team observed significant improvements in arterial pulse wave velocity, and favorable reductions in BMI, total cholesterol, LDL cholesterol, and triglycerides. HDL cholesterol did not change significantly. A majority of hypertensive patients were able to reduce or eliminate their antihypertensive medications.

Freitas, Thiago H., Thomas N. Hyphantis, Elias Andreoulakis, João Quevedo, Hesley L. Miranda, Gilberto S. Alves, Marcellus H. Souza, et al. 2015. Religious coping and its influence on psychological distress, medication adherence, and quality of life in inflammatory bowel disease. *Revista Brasileira De Psiquiatria (São Paulo, Brazil: 1999)* 37(3). 219–227.
doi:10.1590/1516-4446-2014-1507.

Inflammatory bowel disease (IBD) is associated with elevated levels of anxiety and depression and a reduction in health-related quality of life (HRQoL). Nonadherence to treatment is also frequent in IBD and compromises outcomes. Religious coping plays a role in the adaptation to several chronic diseases. However, the influence of religious coping on IBD-related psychological distress, HRQoL, and treatment adherence remains unknown. This cross-sectional study recruited 147 consecutive patients with either Crohn's disease or ulcerative colitis. Sociodemographic data, disease-related variables, psychological distress (Hospital Anxiety and Depression Scale), religious coping (Brief RCOPE Scale), HRQoL (WHOQOL-Bref), and adherence (8-item Morisky Medication Adherence Scale) were assessed. Hierarchical multiple regression models were used to evaluate the effects of religious coping on IBD-related psychological distress, treatment adherence, and HRQoL. Positive RCOPE was negatively associated with anxiety as well as with overall, physical, and mental health HRQoL. Religious struggle was significantly associated with depression and self-reported adherence. Finally, anxiety symptoms fully mediated the effect of positive religious coping on overall HRQoL.

Gothé, Neha P. & Edward McAuley. 2015. Yoga and cognition: A meta-analysis of chronic and acute effects. *Psychosomatic Medicine* 77(7). 784–797.
doi:10.1097/PSY.0000000000000218.

Through electronic databases, researchers identified acute studies and randomized controlled trials (RCTs) of yoga that reported cognitive outcomes. Fifteen RCTs and 7 acute exposure studies examined the effects of yoga on cognition. A moderate effect of yoga on cognition was observed for RCTs, with the strongest effect for attention and processing speed, followed by executive function and memory. Acute studies showed a stronger overall effect of yoga on cognition. The effect was strongest for memory, followed by attention and processing speed measures and executive functions. The authors conclude that yoga practice seems to be associated with moderate improvements in cognitive function. Although the studies are limited by sample size, heterogeneous population characteristics, varied doses of yoga interventions, and a myriad of cognitive tests, these findings warrant rigorous systematic RCTs and well-designed counterbalanced acute studies to comprehensively explore yoga as a means to improve or sustain cognitive abilities across the life span.

Greyson, Bruce, Donna K. Broshek, Lori L. Derr & Nathan B. Fountain. 2015. Mystical experiences associated with seizures. *Religion, Brain & Behavior* 5(3). 182–196.
doi:10.1080/2153599X.2014.895775.

Alterations of consciousness are critical factors in the diagnosis of epilepsy and seizure disorders. With this alteration in consciousness, some persons report unusual experiences that have been thought to resemble spontaneous mystical experiences. This study was designed to identify and characterize the mystical experiences associated with seizure activity, through the use of a quantitative instrument with well-documented reliability and validity for assessing the content and quality of mystical states of consciousness. Ninety-eight patients with epilepsy completed a modified version of the Mysticism Scale, of whom 86 had EEGs recorded. Fifty-five per cent of the patients in this study recalled some subjective experience in association with their seizures. However, none of the patients' descriptions met the criteria for mystical experience. Although some features of mystical experience were reported in this study, particularly those suggestive of introvertive mysticism, they were not associated with any particular lobe of the brain nor were they lateralized to either the right or left side. Mysticism Scale scores were not significantly associated with demographics, medical history including seizure risk factors and precipitants, or seizure characteristics including localization and type of seizure.

Herteliu, Claudiu, Bogdan Vasile Ileanu, Marcel Ausloos & Giulia Rotundo. 2015. Effect of religious rules on time of conception in Romania from 1905 to 2001. *Human Reproduction* (Oxford, England) 30(9). 2202–2214.

doi:10.1093/humrep/dev129.

Does the interdiction of sexual intercourse during Nativity and Lent fasting periods have any effect on when babies are conceived in Romania in the 20th century? Researchers analyzed data consisting of registered daily birth records for a long time series (35,429 points = 365 (days/year) × 97 years + 24 leap years), with 24,947,061 births in Romania over the period 1905-2001. The data were obtained from the 1992 and 2002 censuses. Based on the reported birth date of each person, the estimated date of conception is computed using a standard gestation period of 280 days. The population was grouped into two categories (Orthodox (ORTHD) and Non-Orthodox (NORTHD)) based on religious affiliation. Data analysis is performed in the same manner for both groups. Preliminary data analyses regarding seasonal variations in conception are considered first. Econometric models are applied and tested. The dependent variable in these models is the calculated date of conception, while the independent variables are: (i) religious affiliation; (ii) dates of Nativity and Lent fasts (the latter varies slightly from year to year); (iii) rural versus urban residence; (iv) length of day-light; (v) non-working days and (vi) trend. The models are tested for validity using analysis of variance while the regression coefficients are tested by the Student t-test. The conclusion is that religious affiliation is an important factor in date of conception. Lent had a greater effect than the Nativity fast on conception within the Eastern Orthodox population.

Leeson, Laura A., Ashley M. Nelson, Paul J. Rathouz, Mark B. Juckett, Christopher L. Coe, Elizabeth W. Caes & Erin S. Costanzo. 2015. Spirituality and the recovery of quality of life following hematopoietic stem cell transplantation. *Health Psychology* 34(9). 920–928.

doi:10.1037/hea0000196.

Spirituality has been linked to improved adjustment and functioning in individuals with cancer; however, its effect on quality of life following hematopoietic stem cell transplantation (HSCT) has not been well-studied. This study investigated changes in spirituality in hematologic cancer patients recovering from HSCT and relationships between spirituality and dimensions of quality of life following HSCT. Participants (n=220) completed measures of two dimensions of spirituality (meaning/peace and religious faith), depression, anxiety, fatigue, pain, and physical and functional well-being prior to transplant and at 1-, 3-, 6-, and 12-months posttransplant. Meaning/peace declined at 1-month posttransplant and returned to pretransplant levels by 6-months posttransplant, and faith increased from pretransplant to 6-months posttransplant. Mixed-effects linear regression models indicated that greater pretransplant meaning/peace, but not religious faith, predicted less depression, anxiety, and fatigue, and better physical and functional well-being during the 12-months following transplant. The authors conclude that the capacity to find meaning and peace may facilitate recovery following HSCT. Results

suggest that spirituality may be a resilience factor that could be targeted to improve quality of life for HSCT recipients.

- Lim, Sung-Ah & Kwang-Jo Cheong. 2015. Regular Yoga Practice Improves Antioxidant Status, Immune Function, and Stress Hormone Releases in Young Healthy People: A Randomized, Double-Blind, Controlled Pilot Study. *Journal of Alternative and Complementary Medicine (New York, N.Y.)* 21(9). 530–538.
doi:10.1089/acm.2014.0044.

The aim of the present study is to highlight the beneficial effects of yoga practice on bio-parameters, such as oxidative stress, antioxidant components, immune functions, and secretion of stress hormones, in healthy young people. This study was conducted on healthy volunteers recruited from among university students, who were divided into two groups: a control (no yoga intervention, n=13) group and a yoga (n=12) group. Yoga practice was with an instructor for 90 minutes once a week spread over 12 weeks, with recommendations to practice daily at home for 40 minutes with the help of a DVD. The yoga program consisted of yoga body poses (asanas), exercises involving awareness, voluntary regulation of breath (pranayama), and meditational practices. Whole blood samples were collected when the volunteers had fasted for 8 hours at 0 and 12 weeks. The oxidative stress/antioxidant components, immune-related cytokines, and stress hormones were evaluated in serum or plasma. Following intervention, serum levels of nitric oxide, F2-isoprostane, and lipid peroxide were significantly decreased by yoga practice, whereas serum total glutathione (GSH) contents, activities of GSH-peroxidase, and GSH-s-transferase were remarkably increased after yoga practice compared with the control group. Yoga practice also significantly increased immune-related cytokines, such as interleukin-12, and interferon- γ , in serum. Yoga practice significantly reduced the plasma levels of adrenalin and increased plasma levels of serotonin compared with the control group. The authors conclude that regular yoga practice remarkably attenuated oxidative stress and improved antioxidant levels of the body. Moreover, yoga beneficially affected stress hormone releases as well as partially improved immune function.

- Milbury, Kathrin, Smitha Mallaiah, Gabriel Lopez, Zhongxing Liao, Chunyi Yang, Cindy Carmack, Alejandro Chaoul, Amy Spelman & Lorenzo Cohen. 2015. Vivekananda Yoga Program for Patients With Advanced Lung Cancer and Their Family Caregivers. *Integrative Cancer Therapies* 14(5). 446–451.
doi:10.1177/1534735415583554.

*The primary purpose of this study was to establish the feasibility of a couple-based Vivekananda Yoga (VKC) intervention in lung cancer patients and caregivers. Secondly, the researchers examined preliminary efficacy regarding quality of life (QOL) outcomes. In this single-arm feasibility trial, patients with lung cancer undergoing radiotherapy and their caregivers participated in a 15-session VKC program that focused on the interconnectedness of the dyad. Pre-and post-intervention levels of fatigue, sleep disturbances, psychological distress, overall QOL, spirituality, and relational closeness were measured. The researchers tracked feasibility data, and participants completed program evaluations. Researchers approached 28 eligible dyads of which 15 (53%) consented and 9 (60%) completed the intervention. Patients (mean age = 73 years, 63% female, all stage III) and caregivers (mean age = 62 years, 38% female, 63% spouses) completed a mean of 10 sessions and 95.5% of them rated the program as very useful. Paired *t* tests revealed a significant increase in patients' mental health and a significant decrease in caregivers' sleep disturbances. Although not statistically significant, for patients, effect sizes for change scores were medium for benefit finding and small for distress. For caregivers, medium effects were found for improvement in physical functioning.*

- Posadzki, Paul, Adrian Kuzdzal, Myeong Soo Lee & Edzard Ernst. 2015. Yoga for Heart Rate Variability: A Systematic Review and Meta-analysis of Randomized Clinical Trials. *Applied Psychophysiology and Biofeedback* 40(3). 239–249.

doi:10.1007/s10484-015-9291-z.

The objective of this systematic review is to summarize and critically assess the effects of yoga on heart rate variability (HRV). Nine databases were searched from their inception to June 2014. Researchers included randomized clinical trials (RCTs) comparing yoga against any type of control intervention in healthy individuals or patients with any medical condition. Risk of bias was assessed using the Cochrane criteria. Two reviewers performed the selection of studies, data extraction, and quality assessments independent of one another. Fourteen trials met the inclusion criteria. Only two of them were of acceptable methodological quality. Ten RCTs reported favourable effects of yoga on various domains of HRV, whereas nine of them failed to do so. One RCT did not report between-group comparisons. The meta-analysis (MA) of two trials did not show favourable effects of yoga compared to usual care. The MA also failed to show statistically significant differences between the groups. The data from the remaining RCTs were too heterogeneous for pooling. These results provide no convincing evidence for the effectiveness of yoga in modulating HRV in patients or healthy subjects.

Wusu, Onipede. 2015. Religious influence on non-use of modern contraceptives among women in Nigeria: Comparative analysis of 1990 and 2008 NDHS. *Journal of Biosocial Science* 47(5). 593–612. doi:10.1017/S0021932014000352.

The role of religion in contraceptive use is an issue of significant debate. This study employed the 1990 and 2008 Nigeria Demographic and Health Survey data to examine differences and similarities in the influence of religious affiliation on non-use of modern contraceptives in Nigeria over the last two decades. The results suggest that a significant increase has occurred in the level of awareness of modern contraceptives in Nigeria over the last two decades, but that non-use remains very high. Religion could not independently predict non-use of modern contraceptives in 1990. Women of Islam and Traditional religions were more likely to have never used or not to be using modern contraceptives compared with Catholics and Protestants in 2008. This can be explained by their poorer socioeconomic status relative to Catholics and Protestants. Therefore, improving women's socioeconomic status is an imperative in the promotion of modern contraception in Nigeria. Education and employment are critical in this regard and adherents of Islam and Traditional religions require special attention.

Wu, Wei-Wei, Enid Kwong, Xiu-Yan Lan & Xiao-Ying Jiang. 2015. The Effect of a Meditative Movement Intervention on Quality of Sleep in the Elderly: A Systematic Review and Meta-Analysis. *Journal of Alternative and Complementary Medicine (New York, N.Y.)* 21(9). 509–519. doi:10.1089/acm.2014.0251.

Sleep disorders are one of the most common difficulties facing older people. Meditative movement interventions (MMIs), a new category of exercise integrating physical activity and meditation (e.g., t'ai chi, yoga, and qigong), may benefit older people with sleep problems. This systematic review synthesized the evidence on the effect of MMIs on older people's quality of sleep. Meta-analysis of studies included 14 of 1,049 located studies, involving 1,225 participants. Interventions included t'ai chi, yoga, qigong, and multicomponent MMI and lasted 12-24 weeks. Ten studies had a low risk of bias. The interventions resulted in significantly better sleep quality scores than either active therapy or usual care/wait-list controls. Subgroup analyses revealed that the effect of MMI on sleep quality was not influenced by the type or duration of the intervention. However, pooled results of studies with intervention frequency of fewer than 3 times per week did not show a positive effect on sleep quality. Lower-quality studies had larger effect sizes than high-quality studies. The authors conclude that the current review demonstrated that MMI had a moderate effect on improving the quality of sleep for older people with sleep complaints. However, the evidence is inconclusive because of the varying study quality and MMI modalities. This study highlights the need for higher-quality randomized, controlled trials and more sufficient fidelity of intervention implementation to confirm the results. It also highlights the need for comparing the effectiveness of MMI on different subgroups of the elderly population.

Younge, John O., Maarten J. G. Leening, Henning Tiemeier, Oscar H. Franco, Jessica Kiefte-de Jong, Albert Hofman, Jolien W. Roos-Hesselink & M. G. Myriam Hunink. 2015. Association between Mind-Body Practice and Cardiometabolic Risk Factors: The Rotterdam Study. *Psychosomatic Medicine* 77(7). 775–783.
doi:10.1097/psy.0000000000000213.

Researchers determined the cross-sectional association between mind-body practices and cardiometabolic risk factors using data from 2,579 participants free of cardiovascular disease from the Rotterdam Study (2009-2013). A structured home-based interview was used to evaluate engagement in mind-body practices including meditation, yoga, self-prayer, breathing exercises, or other forms of mind-body practice. The researchers regressed engagement in mind-body practices on cardiometabolic risk factors (body mass index, blood pressure, and fasting blood levels of cholesterol, triglycerides, and glucose) and presence of metabolic syndrome. All analyses were adjusted for age, sex, educational level, smoking, alcohol consumption, (in)activities in daily living, grief, and depressive symptoms. Results indicated that 15% of the participants engaged in a form of mind-body practice. Those who did mind-body practices had significantly lower body mass index, log-transformed triglyceride levels, and log-transformed fasting glucose levels. Metabolic syndrome was less common among individuals who engaged in mind-body practices. The authors conclude that individuals who do mind-body practices have a favorable cardiometabolic risk profile compared with those who do not. However, the cross-sectional design of this study does not allow for causal inference and prospective, and intervention studies are needed to elucidate the association between mind-body practices and cardiometabolic processes.

2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Akbarzadeh, Marzieh, Tahereh Mokhtaryan, Sedigheh Amooee, Zeinab Moshfeghy & Najaf Zare. 2015. Investigation of the effect of religious doctrines on religious knowledge and attitude and postpartum blues in primiparous women. *Iranian Journal of Nursing and Midwifery Research* 20(5). 570–576.
doi:10.4103/1735-9066.164586.

Postpartum blues is a transient change of moods occurring in the first few days after delivery. The present study aimed to investigate the effect of religious doctrines on postpartum blues in primiparous women. In this randomized controlled trial, 84 primiparous women who had average or weak religious attitude were randomly divided into intervention and control groups. In the intervention group, religious doctrines were instructed from 20(th) to 28(th) weeks of gestation through 6 weekly sessions of 60-90 min each. The control group, however, just received the routine care. Spielberger's anxiety scale and the questionnaires assessing religious knowledge and attitude were completed by both groups before, immediately after, and 1-2 months after the intervention. Also, postpartum blues were evaluated by Edinburgh Postnatal Depression Scale (EPDS) 10 days after delivery. Then, the data were analyzed using Chi-square, paired t-test, independent t-test, analysis of variance (ANOVA), and Pearson correlation coefficient. The results showed postpartum blues in 59.5% of the study participants. Besides, the results of independent t-test revealed a statistically significant difference between the two groups regarding the mean score of postpartum blues. Although the intervention group's knowledge and attitude scores were higher than those of the control group, no significant difference was found between the two groups regarding the correlation coefficient between postpartum blues and religious knowledge and religious attitude.

Breland-Noble, Alfi M., Michele J. Wong, Trenita Childers, Sidney Hankerson & Jason Sotomayor. 2015. Spirituality and religious coping in African American youth with depressive illness. *Mental Health, Religion & Culture* 18(5). 330–341.
doi:10.1080/13674676.2015.1056120.

The research team completed a secondary data analysis of primary data from a 2 phase depression treatment engagement behavioral trial to assess African American adolescents reported experiences of spiritual and religious coping when dealing with depression. The team utilized data collected from twenty-eight youth who participated in focus groups or individual interviews. Qualitative data were analyzed using thematic techniques for transcript-based analysis to identify the key patterns and elements of the study participants' accounts and to extract 6 primary themes. The main themes are reported in this manuscript and include; "Religion as Treatment Incentive", "Prayer & Agency", "Mixed Emotions", "Doesn't Hurt, Might Help", "Finding Support in the Church", and "Prayer and Church: Barriers to Treatment?" Overall, the data suggested that religion and spirituality play a key role in African American adolescents' experiences of depression. As well, it is surmised that these factors may be important for improving treatment seeking behaviors and reducing racial mental health disparities in this population of youth.

- Culver, Kathryn A., Kathryn Whetten, David L. Boyd & Karen O'Donnell. 2015. Yoga to Reduce Trauma-Related Distress and Emotional and Behavioral Difficulties Among Children Living in Orphanages in Haiti: A Pilot Study. *Journal of Alternative and Complementary Medicine* (New York, N.Y.) 21(9). 539–545.
doi:10.1089/acm.2015.0017.

To measure trauma-related distress and evaluate the feasibility, acceptability, and preliminary efficacy of an 8-week yoga intervention (YI) in reducing trauma-related symptoms and emotional and behavioral difficulties (EBD) among children living in orphanages in Haiti. The experimental design was a case comparison with random assignment to YI or aerobic dance control (DC) plus a nonrandomized wait-list control (WLC) group, in two orphanages for children (n=76, ages 7 to 17) in Haiti. The YI included yoga postures, breathing exercises, and meditation. The DC group learned a series of dance routines. The WLC group received services as usual in the institutional setting. After completion of data collection, the WLC group received both yoga and dance classes for 8 weeks. Following intervention, analyses of variance revealed a significant effect of the YI on the trauma-related symptom scores. Regression analyses showed that participation in either 8 weeks of yoga or dance classes suggested a reduction in trauma-related symptoms and EBD, although this finding was not statistically significant. Respondents reported satisfaction with the yoga program and improved well-being.

- Doria, S., A. de Vuono, R. Sanlorenzo, F. Irtelli & C. Mencacci. 2015. Anti-anxiety efficacy of Sudarshan Kriya Yoga in general anxiety disorder: A multicomponent, yoga based, breath intervention program for patients suffering from generalized anxiety disorder with or without comorbidities. *Journal of Affective Disorders* 184. 310–317.
doi:10.1016/j.jad.2015.06.011.

Surdashan Kriya Yoga (SKY) is a procedure that in various studies, has shown evidences of efficacy in alleviating Depression and Anxiety disorders, but in Europe and USA it has not been studied yet on a Caucasian population as an adjunct therapy for psychiatric Disorders. The study involved a sample of consenting women and men (n=69) who received SKY therapy for a six-month time period. They were assessed at recruitment, after two weeks, after three months and after six months using Hamilton Rating Scale for Anxiety (HRSA), Hamilton Rating Scale for Depression (HRSD), Zung Self-Rating Anxiety Scale (ZSAS), Zung Self-Rating Depression Scale (ZSDS) and Symptom Checklist-90 (SCL-90). All the analyses have shown that SKY therapy significantly reduces the scores of Anxiety and Depression. This is plain, especially after the initial SKY treatment, which is followed by a long plateau phase that seems to verge on no Anxiety/Depression scores. It was found that SKY effects lead to a significant convergence between the self-assessment (Zung Self-Rating Scale) and hetero-assessment (Hamilton Rating Scale). Limitations: The study should be replicated on a larger clinical sample in a controlled trial to learn more about the effectiveness of SKY Protocol.

Hofmann, Stefan G., Joshua Curtiss, Sat Bir S. Khalsa, Elizabeth Hoge, David Rosenfield, Eric Bui, Aparna Keshaviah & Naomi Simon. 2015. Yoga for generalized anxiety disorder: Design of a randomized controlled clinical trial. *Contemporary Clinical Trials* 44. 70–76.
doi:10.1016/j.cct.2015.08.003.

Generalized anxiety disorder (GAD) is a common disorder associated with significant distress and interference. Although cognitive behavioral therapy (CBT) has been shown to be the most effective form of psychotherapy, few patients receive or have access to this intervention. Yoga therapy offers another promising, yet under-researched, intervention that is gaining increasing popularity in the general public, as an anxiety reduction intervention. The purpose of this innovative clinical trial protocol is to investigate the efficacy of a Kundalini Yoga intervention, relative to CBT and a control condition. Kundalini yoga and CBT are compared with each other in a noninferiority test and both treatments are compared to stress education training, an attention control intervention, in superiority tests. The sample will consist of 230 individuals with a primary DSM-5 diagnosis of GAD. This randomized controlled trial will compare yoga (n=95) to both CBT for GAD (n=95) and stress education (n=40), a commonly used control condition. All three treatments will be administered by two instructors in a group format over 12 weekly sessions with four to six patients per group. Groups will be randomized using permuted block randomization, which will be stratified by site. Treatment outcome will be evaluated bi-weekly and at 6 month follow-up. Furthermore, potential mediators of treatment outcome will be investigated. Given the individual and economic burden associated with GAD, identifying accessible alternative behavioral treatments will have substantive public health implications.

Kopacz, Marek S., Joseph M. Currier, Kent D. Drescher & Wilfred R. Pigeon. 2015. Suicidal behavior and spiritual functioning in a sample of Veterans diagnosed with PTSD. *Journal of Injury & Violence Research* 8(1).
doi:10.5249/jivr.v8i1.728.

Spiritual well-being has been lauded to exert a protective effect against suicidal behavior. This study examines the characteristics of spiritual functioning and their association with a self-reported history of suicidal thoughts and behavior in a sample of Veterans being treated for post-traumatic stress disorder (PTSD). The sample includes 472 Veterans admitted to a PTSD Residential Rehabilitation Program. Measures included the Brief Multidimensional Measure of Religiousness and Spirituality, PTSD Checklist - Military Version, Combat Experiences Scale, and individual items pertaining to history of suicidal thoughts and at-tempts, spiritual practices, and select demographics. Researchers found that problems with forgiveness and negative religious coping were uniquely associated with suicide risk, above and beyond age, gender, or ethnicity, combat exposure, and severity of PTSD symptomatology. Organizational religiousness was associated with decreased risk for thinking about suicide in the presence of these covariates. Daily spiritual experiences were inversely associated with suicidal thoughts. Differences in spirituality factors did not distinguish Veterans with both suicidal ideation and prior attempts from those who had ideations absent any prior attempts.

Lea, Troy, P. Scott Richards, Peter W. Sanders, Jason A. McBride & G. E. Kawika Allen. 2015. Spiritual pathways to healing and recovery: An intensive single-N study of an eating disorder patient. *Spirituality in Clinical Practice* 2(3). (Practice-Based Clinical Investigation). 191–201.
doi:10.1037/scp0000085.

This article presents an in-depth single case study of 8 sessions of spiritually integrated psychotherapy with a 20-year-old woman recovering from an Eating Disorder. The inclusion and utility of session-to-session outcome data as well as systematic follow up data in conjunction with in-depth qualitative interviews are shown. Dr. H and client's perspectives are highlighted over the course of treatment. Clinical areas of focus were extracted from the the qualitative interviews and the therapeutic process is described. Single-case study statistical analyses were conducted to highlight clinical gains and maintenance.

- Lucchetti, Alessandra L. Granero, Mario F. Prieto Peres, Homero P. Vallada & Giancarlo Lucchetti. 2015. Spiritual Treatment for Depression in Brazil: An Experience from Spiritism. *EXPLORE: The Journal of Science and Healing* 11(5). 377–386. doi:10.1016/j.explore.2015.07.002.

Spiritism has been strongly connected with mental health in Brazil. However, there is a lack of descriptions of spiritual treatment provided by thousands of Brazilian Spiritist centers. The present study aims to describe the spiritual care for depression provided by one large Spiritist center in São Paulo, Brazil. This is a descriptive study carried out in 2012 at “São Paulo Spiritist Federation.” Authors visited the “spiritual intervention sections,” observed the therapies provided, listened to the “spirits’ communication,” and interviewed two patients. The assistance consists on a 90-min “Spiritual healing” session which includes educational lectures, “disobsession” (spirit release therapy), “passe” (laying on of hands) and person advice. Both patients had remitted depression when they were interviewed. Further studies would be necessary to report other religious/spiritual treatments in order to improve our understanding of the available practices used by patients and optimize the integration of conventional care with spiritual treatments.

- Menezes, Carolina Baptista & Lisiane Bizarro. 2015. Effects of focused meditation on difficulties in emotion regulation and trait anxiety. *Psychology & Neuroscience* 8(3). 350–365. doi:10.1037/pne0000015.

Meditation has been increasingly studied and applied as a form of mental training that seeks to foster healthier emotion regulation. This study investigated whether 6 weeks of training focused meditation (FM; n=35) improves emotion regulation processes (i.e., general emotion dysregulation and difficulties in regulatory strategies) and emotion regulation outcomes (i.e., state and trait anxiety) in healthy college students compared with progressive relaxation (PR; n=37) and a wait-list control (WLC) group (n=27). Based on an intention-to-treat (ITT) analysis, only the FM group exhibited improvements in total emotion dysregulation, particularly 2 strategies (i.e., limited access to effective emotion regulation strategies and nonacceptance of emotional responses), and trait anxiety. The weekly frequency of practice correlated with lower limited access to effective emotion regulation strategies, impulse control difficulties, and lack of emotional clarity only among meditators. Additionally, reductions of emotion dysregulation correlated with reductions of trait anxiety. Conceptual considerations regarding the relationship between the type of meditation and emotion regulation processes are discussed. The present study provides evidence of the potential therapeutic efficacy of meditation.

- Pascoe, Michaela C. & Isabelle E. Bauer. 2015. A systematic review of randomised control trials on the effects of yoga on stress measures and mood. *Journal of Psychiatric Research* 68. 270–282. doi:10.1016/j.jpsychires.2015.07.013.

Stress related disorders such as depression and anxiety are leading sources of disability worldwide, and current treatment methods such as conventional antidepressant medications are not beneficial for all individuals. There is evidence that yoga has mood-enhancing properties possibly related to its inhibitory effects on physiological stress and inflammation, which are frequently associated with affective disorders. However the biological mechanisms via which yoga exerts its therapeutic mood-modulating effects are largely unknown. This systematic review investigates the effects of yoga on sympathetic nervous system and hypothalamic-pituitary-adrenal axis regulation measures. It focuses on studies collecting physiological parameters such as blood pressure, heart rate, cortisol, peripheral cytokine expression and/or structural and functional brain measures in regions involved in stress and mood regulation. Overall the 25 randomized control studies discussed provide preliminary evidence to suggest that yoga practice leads to better regulation of the sympathetic nervous system and hypothalamic-pituitary-adrenal system, as well as a decrease in depressive and anxious symptoms in a range of populations. Further research is warranted to confirm these preliminary findings and facilitate implementation in clinical settings.

Pearce, Michelle J., Harold G. Koenig, Clive J. Robins, Noha Daher, Sally F. Shaw, Bruce Nelson, Lee S. Berk, Denise Bellinger, Harvey Jay Cohen & Michael B. King. 2015. Effects of religious versus conventional cognitive-behavioral therapy on generosity in major depression and chronic medical illness: A randomized clinical trial. *Spirituality in Clinical Practice* 2(3). 202–215. doi:10.1037/scp0000076.

Generosity can be an effective coping strategy for dealing with mental and physical health problems. This study examined whether religiously-integrated cognitive behavioral therapy (RCBT) was more effective than conventional CBT (CCBT) on increasing generosity among religious persons with major depressive disorder (MDD) and chronic medical illness (CMI). Participants (n=132) with MDD and CMI were randomized to receive 10 sessions of RCBT or CCBT. Assessment measures administered at baseline, 12 weeks, and 24 weeks included the Interpersonal Generosity Scale, a 29-item scale for religious involvement, and depression diagnosis and severity. Effects of treatment group on generosity were examined from baseline through 24 weeks. Mixed effect regression models were used to compare trajectories of change in generosity. Also examined were the effect of baseline religiosity on generosity trajectory and the effect of baseline generosity on depressive symptom trajectory. Generosity increased significantly over time; however, no significant difference was found between RCBT and CCBT in their effects on generosity. Client religiosity did not moderate these effects. However, higher baseline religiosity predicted increases in generosity over time independent of treatment group. Although greater baseline generosity did not predict a faster decline in depressive symptoms over time, an increase in generosity during treatment was associated with a decline in depressive symptoms. In conclusion, both RCBT and CCBT led to an increase in generosity. Higher baseline religiosity predicted an increase in generosity over time regardless of treatment group, and an increase in generosity during treatment was associated with a decline in depressive symptoms over time.

Rentala, Sreevani, Ted C. T. Fong, Prasanthi Nattala, Cecilia L. W. Chan & Reddemma Konduru. 2015. Effectiveness of body-mind-spirit intervention on well-being, functional impairment and quality of life among depressive patients - a randomized controlled trial. *Journal of Advanced Nursing* 71(9). 2153–2163. doi:10.1111/jan.12677.

The aim of the study was to examine the efficacy of body-mind-spirit Intervention in improving the outcomes (well-being, quality of life and functional impairment) among depressive patients. Depressive disorders lead to significant dysfunction, disability and poor quality of life among sufferers. Body-mind-spirit intervention has been associated with improvements in the outcomes; however, few studies have examined this among depressive patients. True experimental pre-post equivalent groups design was adopted with longitudinal measurement of outcomes. Participants were 120 adult depressive patients visiting the psychiatric outpatient department in a District Hospital in India. The participants were randomly assigned to either the body-mind-spirit group or the treatment-as-usual group between July 2011 and January 2013. The treatment-as-usual group (n=64) received only routine treatment (antidepressants and structured psycho-education) in the hospital. The body-mind-spirit group (n=56) received four weekly body-mind-spirit group sessions in addition to the routine treatment. Outcome measures on depression, well-being, functional impairment and quality of life were evaluated for both groups at baseline and at four follow-up assessments in the 1st, 2nd, 3rd and 6th month. Treatment effects of the body-mind-spirit intervention were analyzed by repeated-measures analysis of covariance. Compared with the treatment-as-usual group, the body-mind-spirit group showed significant reduction in depression and functional impairment, and significant improvement in the well-being and quality of life scores over the 6-month study period. The authors conclude that the present findings provide evidence for the effectiveness of integrating a complementary therapy such as the body-mind-spirit intervention with conventional treatment in improving prospective outcomes among the depressive patients.

Rod, Kim. 2015. Observing the Effects of Mindfulness-Based Meditation on Anxiety and Depression in Chronic Pain Patients. *Psychiatria Danubina* 27 Suppl 1. 209–211.

People whose chronic pain limits their independence are especially likely to become anxious and depressed. Mindfulness training has shown promise for stress-related disorders. Chronic pain patients (n=47) who complained of anxiety and depression and who scored higher than moderate in Hamilton Depression Rating Scale (HDRS) and Hospital Anxiety and Depression Scale (HADS) as well as moderate in Quality of Life Scale (QOLS) were observed for eight weeks, three days a week for an hour of Mindfulness Meditation training with an hour daily home Mindfulness Meditation practice. Pain was evaluated on study entry and completion, and patients were given the Patients' Global Impression of Change (PGIC) to score at the end of the training program. Over the year-long observation, patients demonstrated noticeable improvement in depression, anxiety, pain, and global impression of change.

Toussaint, Loren, Colwick M. Wilson, Leon C. Wilson & David R. Williams. 2015. Religiousness and suicide in a nationally representative sample of Trinidad and Tobago adolescents and young adults. *Social Psychiatry and Psychiatric Epidemiology* 50(9). 1441–1450.
doi:10.1007/s00127-015-1045-y.

The present study examines religiousness and its connection to suicidal thoughts, plans, and attempts among Trinidad and Tobago adolescents and young adults. Data are from Trend Research Empowering National Development on adolescents and young adults in Trinidad and Tobago (n=4,448). Religious affiliation, self-perceived religiousness, attendance at religious services, prayer frequency, socio-demographic variables, and suicidal thoughts, plans, and attempts were assessed. Compared to nonreligious, Catholics and Seventh-day Adventists were less likely to think about suicide, and Hindus and other affiliates were more likely to be treated for suicide. Higher self-rated religiosity was related to lower likelihood of thinking about suicide and lower likelihood of planning suicide. Attendance at religious services was related to lower likelihood of thinking about suicide and fewer suicide attempts. More frequent prayer was related to lower likelihood of thinking about suicide and lower likelihood of planning suicide.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Blaber, Michael, June Jone & Derek Willis. 2015. Spiritual care: which is the best assessment tool for palliative settings? *International Journal of Palliative Nursing* 21(9). 430–438.
doi:10.12968/ijpn.2015.21.9.430.

Although it is widely acknowledged that spiritual care is an important component of good palliative care, there remains a lack of confidence about it among healthcare providers. This paper analyses the benefits and drawbacks of using spiritual history-taking tools to address the problem, considering four of the most widely used tools: FICA, FAITH, SPIRITual and HOPE. The authors conducted a literature review to establish the main themes identified as important to spirituality at the end of life. They then applied these findings to the spiritual history-taking tools to determine the extent to which they may be of assistance in identifying the spiritual needs of patients receiving palliative care. The authors conclude that spiritual history-taking tools do have an important role in identifying the spiritual needs of patients at the end of life, with the 'HOPE' tool most comprehensively addressing the spirituality themes identified as important within the healthcare literature.

Eltaiba, Nada & Maria Harries. 2015. Reflections on recovery in mental health: Perspectives from a Muslim culture. *Social Work in Health Care* 54(8). 725–737.
doi:10.1080/00981389.2015.1046574.

This article describes the outcomes of research into how individuals with mental health problems at the National Centre of Mental Health in Jordan perceived the causes of their mental health problems, the coping strategies they employed, how they sought help, and how they experienced what is termed the process of recovery. Semi-structured interviews were conducted with 10 male and 10 female patients diagnosed with a range of mental health problems. The research suggests that each person perceived recovery uniquely and that, for some, religion was viewed as being

central to recovery. The research also suggests that social workers and other mental health professionals working with Muslim patients can better contribute to their recovery if they understand and respect the central role of these patients' religious beliefs and "faith journeys."

- Garschagen, Alexander, Monique A. H. Steegers, Alfonsus H. M. M. van Bergen, Johannes A. M. Jochijms, Titus L. M. Skrabanja, Hubertus J. M. Vrijhoef, Rob J. E. M. Smeets & Kris C. P. Vissers. 2015. Is There a Need for Including Spiritual Care in Interdisciplinary Rehabilitation of Chronic Pain Patients? Investigating an Innovative Strategy. *Pain Practice: The Official Journal of World Institute of Pain* 15(7). 671–687.
doi:10.1111/papr.12234.

Chronic noncancer pain influences patient's quality of life and their ability to cope. Pain relieving medication and other specific treatments commonly integrated in biopsychosocial rehabilitation demonstrate modest benefits in pain relief and improved functioning of individuals. Spiritual care, covering the fourth dimension provides insight, inspires hope and purpose, and is thought to mediate mental and physical health for patients. This study explores the need for its inclusion in interdisciplinary pain rehabilitation and describes the requirements and test environment for evaluation. Outcomes of spiritual care and interdisciplinary pain rehabilitation in follow-up studies of randomized controlled trials contained in systematic reviews were summarized. Pubmed, Cochran, and PycINFO were searched, citation tracking was applied, and articles of follow-up studies therein were located. Literature was searched for insights pertaining to requirements for an assessment of including this fourth dimension. No systematic reviews for spiritual care were identified. Five systematic reviews of biopsychosocial rehabilitation containing 14 studies describing long-term outcomes were retrieved. The importance of coping in maintaining long-term outcomes was empirically illustrated. The required test environment is provided by a structured multidimensional care pathway separating spirituality from well-being and mental health, with measures of treatment outcome installed enabling a comparison with benchmarks.

- Goodrich, Elena, Helané Wahbeh, Aimee Mooney, Meghan Miller & Barry S. Oken. 2015. Teaching mindfulness meditation to adults with severe speech and physical impairments: An exploratory study. *Neuropsychological Rehabilitation* 25(5). 708–732.
doi:10.1080/09602011.2014.970201.

People with severe speech and physical impairments may benefit from mindfulness meditation training because it has the potential to enhance their ability to cope with anxiety, depression and pain and improve their attentional capacity to use brain-computer interface systems. Seven adults with severe speech and physical impairments (SSPI)—defined as speech that is understood less than 25% of the time and/or severely reduced hand function for writing/typing—participated in this exploratory, uncontrolled intervention study. The objectives were to describe the development and implementation of a six-week mindfulness meditation intervention and to identify feasible outcome measures in this population. The weekly intervention was delivered by an instructor in the participant's home, and participants were encouraged to practice daily using audio recordings. The objective adherence to home practice was 10.2 minutes per day. Exploratory outcome measures were an n-back working memory task, the Attention Process Training-II Attention Questionnaire, the Pittsburgh Sleep Quality Index, the Perceived Stress Scale, the Positive and Negative Affect Schedule, and a qualitative feedback survey. There were no statistically significant pre-post results in this small sample, yet administration of the measures proved feasible, and qualitative reports were overall positive. Obstacles to teaching mindfulness meditation to persons with SSPI are reported, and solutions are proposed.

- Hankir, Ahmed, Frederick R. Carrick & Rashid Zaman. 2015. Islam, mental health and being a Muslim in the West. *Psychiatria Danubina* 27 Suppl 1. 53–59.

The allegation that "Being Muslim means that you cannot be British" is often made. In view of this, researchers conducted a small survey (n=75) utilizing purposive sampling on Muslims residing in the United Kingdom.

Participants were recruited in a King's College London Islamic Society event in November 2014 in Guy's Hospital, London. Of 75 participants recruited, 75 (100%) responded. When asked whether being Muslim meant that a person could not also be British, 69/75 (94%) of respondents either disagreed or strongly disagreed. This paper broadly seeks to answer two related questions. Firstly, "What is the relationship between Islam and the West?" and secondly, "What is the relationship between Islam and mental health?" In relation to the former, the rise of radicalization over recent years and the Islamophobia that has ensued have brought Islam and Muslims under intense scrutiny. Hence the authors feel it is both timely and important to offer a brief background of Islam and its relevance to the Western world. In relation to the latter, for many people religion and mental health are deeply and intimately intertwined. For example, religion can enable a person to develop mental health resilience and Islam has been reported to be a protective factor against suicidal behavior. The authors conclude by illustrating how the two questions are interrelated. They do so by offering an autobiographical narrative from a Muslim healthcare professional residing in the UK who developed a mental health problem precipitated by war in the country of his origin. His narrative includes descriptions of the role Islam that played in his recovery as well as his attempts to reconcile seemingly disparate aspects of his identity.

Kira, Ibrahim Aref & Pratyusha Tummala-Narra. 2015. Psychotherapy with Refugees: Emerging Paradigm. *Journal of Loss and Trauma* 20(5). 449–467.
doi:10.1080/15325024.2014.949145.

Much clinical and trauma work has focused on interventions with individuals experiencing interpersonal violence and past traumas. Refugees' experiences include past and present and chronic intergroup and interpersonal traumas with cumulative linear and nonlinear dynamics. Refugees face unique social and political traumatogenic ecologies that can play at least an equivalent or even more significant role in traumatic stress compared with that of survivors of interpersonal trauma who do not experience atrocities such as exile, political and religious persecution, and torture. Evolving paradigms of intervention need to be developed to integrate individual and ecological models of recovery that focus on the whole person within her or his social and political ecology and on past as well as present traumatogenic experiences; in addition, these paradigms need to mobilize refugees' resilience.

Llewellyn, Henry, Louise Jones, Paula Kelly, Jeanette Barnes, Bernadette O'Gorman, Finella Craig & Myra Bluebond-Langner. 2015. Experiences of healthcare professionals in the community dealing with the spiritual needs of children and young people with life-threatening and life-limiting conditions and their families: report of a workshop. *BMJ supportive & palliative care* 5(3). 232–239.
doi:10.1136/bmjspcare-2012-000437.

Researchers sought to understand how healthcare professionals (HCP) conceptualize spirituality among seriously ill children and young people (CYP) and their families, and their experiences in dealing with spiritual issues that emerge in practice. The researchers thus analyzed thematically presentations and small group discussions with HCP that took place as part of a day-long workshop exploring the place of spirituality in pediatric healthcare. The results were as follows: (1) HCP conceptualized spirituality as highly individualized searches for meaning, hope and connectedness to self, others and the world. They saw spirituality within a developmental context. (2) HCP described spiritual concerns that were tied to their own conceptualizations of spirituality, centering on ideas of loss, including loss of hope or meaning. (3) HCP approached spiritual concerns of CYP and families by 'being there' and supporting spiritual enquiry. (4) Challenges to their work included managing hopes of CYP and families in the face of poor prognoses, discussions about miracles and issues with their own faith. Spiritual care was seen as different to other areas of care which HCP felt had a greater prescription in delivery. The findings underscore the complexity of spirituality in times of illness and the challenges faced in its management. HCP should be alerted to the myriad ways spirituality emerges in serious illness and opportunities for developing confidence in attending to spiritual issues with CYP and families through training. Research should explore with

patients, families and HCP how tensions among CYP, autonomy, the maintenance of hope and miracle beliefs are best approached within care.

- Marich, Jamie & Terra Howell. 2015. Dancing Mindfulness: A Phenomenological Investigation of the Emerging Practice. *EXPLORE: The Journal of Science and Healing* 11(5). 346–356.
doi:10.1016/j.explore.2015.07.001.

An extensive review of both quantitative and qualitative literature reveals numerous connections between mindfulness practice and psychological well-being. Dancing Mindfulness, as a holistic wellness practice, is a creative approach to mindfulness meditation that draws on dance as the vehicle for engaging in the ancient practice characterized by non-judgment, loving kindness, and present-centered awareness. Of the first participants who learned the Dancing Mindfulness practice in a community-based setting, 10 shared their lived experience with the practice, and these experiences were analyzed using A.P. Giorgi's descriptive phenomenological psychological method. As a collective sample, the women described positive experiences with the Dancing Mindfulness practice. Specific themes indicated improvements in emotional and spiritual well-being, increased acceptance, positive changes to the self, and increased application of mindfulness techniques and strategies to real-world living. Another thematic area suggested that dancing and music are the two major components of action within Dancing Mindfulness leading to these benefits.

- Marston, Joan M. 2015. The Spirit of “Ubuntu” in Children’s Palliative Care. *Journal of Pain and Symptom Management* 50(3). 424–427.
doi:10.1016/j.jpainsymman.2015.05.011.

The concept of “ubuntu,” a Nguni word, is found in many southern African cultures and means that a person is part of all humanity and each person is who he or she is through his or her interconnectedness with others. Children with life-limiting conditions often become isolated and take on a new identity in the eyes of others, linked to their illness and treatment. Terms that are used can dehumanize the child. The concept of ubuntu can help the child, the family, and the community to ensure the child remains connected to society. Programs providing palliative care for children often say they feel isolated; ubuntu principles are relevant to effective network development.

- Miller, Gavin. 2015. Winifred Rushforth and the Davidson Clinic for Medical Psychotherapy: a case study in the overlap of psychotherapy, Christianity and New Age spirituality. *History of Psychiatry* 26(3). 303–317.
doi:10.1177/0957154X14554374.

The activities of both Winifred Rushforth (1885-1983), and the Edinburgh-based Davidson Clinic for Medical Psychotherapy (1941-73) which she directed, exemplify and elaborate the overlap in Scotland of religious discourses and practices with psychoanalytic psychotherapy. Even as post-war secularization began to affect Scottish culture and society, Rushforth and the Davidson Clinic attempted to renew the biographical discourses of Christianity using the idioms and practices of psychoanalytic psychotherapy. Furthermore, alongside these Christian-inflected activities, Rushforth promoted a psychoanalytically informed New Age spirituality. This parallel mode of belief and practice drew on Christian life-narrative patterns, preserving them within psychoanalytic forms grafted onto a vitalist worldview informed by the work of Pierre Teilhard de Chardin.

- Mooney, Dearbhla. 2015. Does the work role of Catholic clergy in Ireland contribute to the disenfranchisement of their grief? *The Journal of Pastoral Care & Counseling: JPCC* 69(3). 151–155.
doi:10.1177/1542305015602713.

While bereavement-related compassion fatigue and burnout have been studied in many helping professions, this researcher has found no peer-reviewed articles based specifically on bereavement experiences of Roman Catholic (RC) clergy in Ireland and only a handful on experiences of other religious ministers worldwide. There is a clear gap in research with regard to clergy experiences of personal or professional grief, the possible effects this may have

on them, or the supports they use to help them cope. Peer support, some form of mentoring/supervision, and debriefing may help clergy to recognize their own grief, have it acknowledged by others, and recognize their personal strengths and limitations. While prevention of burnout is important to individual clergy, it is also vital for the health of the wider Church and formal support structures may be necessary as part of the Church's duty of care towards its clergy.

- Mustain, Joshua R. & Daniel A. Helminiak. 2015. Understanding spirituality in recovery from addiction: Reintegrating the psyche to release the human spirit. *Addiction Research & Theory* 23(5). 364–371.
doi:10.3109/16066359.2015.1011623.

Researchers examine the psychodynamic processes at play in recovery from addiction and give particular attention to Bernard Lonergan's tripartite model of human beings, which differentiates within the mind two distinct dimensions—psyche and spirit. Our goal is to show that the changes that occur during recovery are a direct result of psychic restructuring and are not necessarily, vice versa, due to spiritual growth via relationship with some Higher Power, which some popular recovery programs emphasize as a requisite for recovery. To exemplify this claim, the authors examine in detail three key aspects of psychic restructuring that may result in subsequent spiritual integration: the reestablishment of a sense of self; the development of a sense of connectedness to others; and the ability to regulate emotions. In this article the authors do not intend to aggrandize or disparage popular recovery programs, but to elucidate the process of psychic reintegration and to clarify the genuine spiritual foundation of recovery, and to advocate a mature, self-responsible spirituality.

- Myers, Neely, Sara Lewis & Mary Ann Dutton. 2015. Open Mind, Open Heart: An Anthropological Study of the Therapeutics of Meditation Practice in the US. *Culture, Medicine and Psychiatry* 39(3). 487–504.
doi:10.1007/s11013-014-9424-5.

Based on ethnographic fieldwork and interviews collected with meditation teachers and students in the United States, this article will argue that active training in meditation-based practices occasions the opportunity for people with traumatic stress to develop a stronger mind-body connection through heightened somatic awareness and a focus on the present moment that they find to be therapeutic. Three important themes related to healing through meditation for trauma emerged from the data and centered on the ways our interlocutors attempted to realign their sense of self, mind and body, after a traumatic experience. The themes helped explain why US women perceive meditation as therapeutic for trauma, namely that the practice of meditation enables one to focus on the lived present rather than traumatic memories, to accept pain and “open” one's heart, and to make use of silence instead of speech as a healing modality. As meditation practices increasingly enter global popular culture, promoted for postulated health benefits, the driving question of this research—how meditation may perpetuate human resilience for women who have experienced trauma based on their own perspectives of meditation practices—is a critical addition to the literature.

- Nuzum, Daniel, Sarah Meaney, Keelin O'Donoghue & Heather Morris. 2015. The Spiritual and Theological Issues Raised by Stillbirth for Healthcare Chaplains. *The Journal of Pastoral Care & Counseling: JPCC* 69(3). 163–170.
doi:10.1177/1542305015602714.

The death of a baby is one of the most challenging bereavements for parents and healthcare professionals. This study explores the spiritual and theological issues raised for healthcare chaplains as they minister with parents following perinatal bereavement. Chaplains from 85% of maternity units in the Republic of Ireland participated in this study. Suffering, doubt and presence were the main theological themes raised for chaplains following perinatal death. The process of theological reflection is recommended as a sustaining and necessary tool in perinatal healthcare ministry.

- Piccinelli, Claudia, Carlo Alfredo Clerici, Laura Veneroni, Andrea Ferrari & Tullio Proserpio. 2015. Hope in severe disease: A review of the literature on the construct and the tools for assessing hope in the psycho-oncologic setting. *Tumori* 101(5). 491–500. doi:10.5301/tj.5000349.

Research on the topic of hope began a long time ago but, more recently, interest in this construct has focused mainly on the development of psychometric tools for its assessment. The 2 steps of the present article are defining the construct of hope by completing a preliminary review of the literature and analyzing the tools used to assess hope in the setting of oncologic medicine, conducting a systematic review of the existing scientific literature. The study was conducted in two stages. The first stage involved a nonsystematic preliminary review of the literature, the second a systematic search in all the medical journals contained in the Medline database as of 2012. The literature identified at the first stage was divided according to several topical categories, i.e., theoretical, empirical, and clinical works on the construct of hope. In the second systematic search, researchers identified the main psychometric tools used to measure hope in the field of clinical oncology and assessed their validity. A total of 22 articles were identified. What emerged when the findings of the 2 lines of research were pooled was that, despite its broad theoretical definitions, the construct of hope can be broken down to a few constituent elements when hope is studied using currently available psychometric tools. In particular, these identified constituent elements were coping, spiritual well-being, quality of life, distress, and depression. The authors conclude that the factors contained in the construct of hope include temporality, future, expectancy, motivation, and interconnectedness. The review of the scientific literature does not reveal a clear definition of hope. Multidisciplinary studies are needed to communicate different perspectives (medical, psychological, spiritual, theological) among each other for better definition of the constituent elements of hope in order to support the hope with specific interventions.

- Piderman, Katherine M., Terin T. Sytsma, Marlene H. Frost, Paul J. Novotny, Sarah M. Rausch Osian, Lise Solberg Nes, Christi A. Patten, et al. 2015. Improving Spiritual Well-Being in Patients with Lung Cancers. *The Journal of Pastoral Care & Counseling: JPCC* 69(3). 156–162. doi:10.1177/1542305015602711.

Patients with lung cancer report more disease burden and lower spiritual well-being (SWB) compared with other cancer patients. Understanding variables that lessen disease burden and improve SWB is essential. The aim of this study was to explore the relationship between motivational level for physical activity and SWB in patients with lung cancer. Linear regression showed increased SWB as stage of change for physical activity increased, even after adjusting for multiple demographic variables.

- Plante, Thomas G. 2015. Six principles to consider when working with Roman Catholic clients. *Spirituality in Clinical Practice* 2(3). 233–237. doi:10.1037/scp0000075.

Although the majority of Americans consider themselves to be Christian and affiliated with various Protestant denominations, a quarter of the American population identify themselves as Roman Catholics who are the largest single religious denomination in the country. Yet, surprisingly, fairly little research has been published in the professional psychology literature about working with this very large and diverse group. Psychologists have an ethical responsibility to be aware of and respectful to diversity including diversity based on religious background, affiliation, and perspectives. The purpose of this brief reflection is to offer 6 important principles to keep in mind for professional psychologists to consider when they work with Roman Catholic clients. These include attending to Catholic diversity and multiculturalism, attending to issues beyond sexual ethics and sexual victimization, being aware of theological diversity of beliefs and practices, and securing consultation with Catholic clerics. The authors conclude that practitioners must proactively keep abreast of these issues to best serve clients and the public.

- Puymbroeck, Marieke Van, Kristine K. Miller, Lori A. Dickes & Arlene A. Schmid. 2015. Perceptions of Yoga Therapy Embedded in Two Inpatient Rehabilitation Hospitals: Agency Perspectives. *Evidence-Based Complementary and Alternative Medicine* 2015. 1–7. doi:10.1155/2015/125969.

Inpatient medical rehabilitation has maintained a typical medical-model focus and structure for many years. However, as integrative therapies, such as yoga therapy, emerge as treatments which can enhance the physical and mental health of its participants, it is important to determine if they can be easily implemented into the traditional rehabilitation structure and milieu. Therefore, the purpose of this study was to examine the perceptions of key agency personnel on the feasibility and utility of yoga therapy implemented in inpatient rehabilitation. This study reports the results of focus groups and an individual interview with key stakeholders (administrators and rehabilitation therapists) from two rehabilitation hospitals following the implementation of yoga therapy. Results focused on several key themes: feasibility from the therapist and administrator perspectives, challenges to implementation, and utility and benefit. Overall, the implementation and integration of yoga therapy were positive; however, some programmatic and policy and organizational considerations remain.

- Ramakrishnan, Parameshwaran. 2015. “You are here”: locating “spirituality” on the map of the current medical world. *Current Opinion in Psychiatry* 28(5). 393–401. doi:10.1097/YCO.0000000000000180.

Clinical works at the intersection of “spirituality, religion, theology and medicine” are studied to identify various aspects of what constitutes spirituality, what contributes to spiritual health and how to provide spiritual-healers for our current health-care system. Spiritual care in the current medical world can be classed grossly into two departments: complementary and alternative medicine, considered as proxy variable for spirituality, and physician-initiated clinical Chaplaincy, informed by theology. The large body of research on “self” as a therapeutic tool, though, falls into subtle categories: phenomenological studies, empathy, embodied care, and mindfulness-based therapies. Development in the field of ‘spiritual medicine’ has focused on spirituality-related curricula. As mindfulness-based meditation programs help build deep listening skills needed to stay aware of the “self”, Clinical Pastoral Education trains the chaplain to transcend the “self” to provide embodied care. Clinical chaplaincy is the destination for health-care professionals as well as theological/religious scholars who have patients’ spiritual health as their primary focus. Medical education curricula that train students in chaplain’s model of transpersonal-mindfulness/empathy founded on neuro-physiological principles would help them gain skills in embodied care. Such education would seamlessly integrate evidence-based clinical practice and spiritual-theological concepts.

- Ranganathan, Shubha. 2015. Rethinking “Efficacy”: Ritual Healing and Trance in the Mahanubhav Shrines in India. *Culture, Medicine and Psychiatry* 39(3). 361–379. doi:10.1007/s11013-014-9421-8.

Ritual healing has been one of the core topics in anthropology and, to a lesser extent, in psychology as well. Much of the research on ritual healing has focused on how healing works, and what factors constitute the efficacy of healing. In answering this question, scholars have focused primarily on two main factors—the symbolic significance of rituals, and the relationship between the healer and the patient. This paper explores understandings about efficacy in a context where elaborate rituals do not occur, the role of the healer is minimal, and the sufferers do not have expectations of complete wellness. In the Mahanubhav temples in India, healing is not understood as the removal of symptoms. The healing process involves amplifying unpleasant and painful symptoms, thereby “drawing out” the illness from the body. Moreover, the temple narratives emphasize the transient nature of temple healing, where people rarely become completely well. They therefore frequently return to stay in the temple as and when their symptoms recur, thus forging long-term bond with the temple community and sect. These findings suggest that temple healing is powerful not so much for the practice of specific exorcist rituals, but for providing a refuge and a community for suffering individuals.

- Ratanasiripong, Paul, Janet F. Park, Nop Ratanasiripong & Duangrat Kathalae. 2015. Stress and Anxiety Management in Nursing Students: Biofeedback and Mindfulness Meditation. *The Journal of Nursing Education* 54(9). 520–524.
doi:10.3928/01484834-20150814-07.

The current study investigated the efficacy of two brief intervention programs—biofeedback and mindfulness meditation—on levels of state anxiety and perceived stress in second-year Thai nursing students as they began clinical training. Eighty-nine participants from a public nursing college in Thailand were randomly assigned to one of three groups: biofeedback group, mindfulness meditation group, or a control group. All participants were given pre- and postintervention surveys, which included demographic information; the State-Trait Anxiety Inventory (State Anxiety Scale); and the Perceived Stress Scale. Findings indicated that biofeedback significantly reduced anxiety and maintained stress levels in nursing students. Mindfulness meditation similarly decreased anxiety levels, while also significantly lowering stress levels. The biofeedback group exhibited significant reduction in anxiety levels among the three groups at post-intervention. Despite stressors and demands nursing students experience as they begin clinical practice, study findings support the use of biofeedback and mindfulness meditation interventions to assist nursing students in managing stress and anxiety.

- Rodin, Danielle, Michael Balboni, Christine Mitchell, Patrick T. Smith, Tyler J. VanderWeele & Tracy A. Balboni. 2015. Whose role? Oncology practitioners' perceptions of their role in providing spiritual care to advanced cancer patients. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer* 23(9). 2543–2550.
doi:10.1007/s00520-015-2611-2.

The purpose of this study is to determine how oncology nurses and physicians view their role in providing spiritual care (SC), factors influencing this perception, and how this belief affects SC provision. This is a survey-based, multisite study conducted from October 2008 to January 2009. All oncology physicians and nurses caring for advanced cancer patients at four Boston, MA cancer centers were invited to participate; 339 participated (response rate = 63 %). Results indicated that nurses were more likely than physicians to report that it is the role of medical practitioners to provide SC, including for doctors, nurses, and social workers. Among nurses, older age was the only variable that was predictive of this belief. For nurses, role perception was not related to actual SC provision to patients. In contrast, physicians' role perceptions were influenced by their intrinsic religiosity and spirituality. Furthermore, physicians who perceive themselves as having a role in SC provision reported greater SC provision to their last advanced cancer patients seen in clinic, 69 % compared to 31 %. The authors conclude that nurses are more likely than physicians to perceive medical practitioners as having a role in SC provision. Physicians' perceptions of their role in SC provision are influenced by their religious/spiritual characteristics and are predictive of actual SC provision to patients. Spiritual care training that includes improved understanding of clinicians' appropriate role in SC provision to severely ill patients may lead to increased SC provision.

- Schulman, Martin A. & Ricki S. Kaplan. 2015. Homosexuality as an issue in the psychoanalytic treatment of Lubavitch Chassidim. *International Forum of Psychoanalysis* 24(3). 153–161.
doi:10.1080/0803706X.2013.806821.

There is sparse literature on the psychoanalytic treatment of Chassidic Jews. The authors of this article, both secular nonobservant psychoanalysts, have spent over a decade working with Lubavitch Chassidim in the New York area. In the Lubavitch community, the sexes are separated at three years of age, leading to same-sex cohorts from then until marriage. As with all ultra-orthodox religious groups, homosexuality is viewed in Biblical terms as an abomination and yet, not surprisingly, it exists within this community. This article deals with the analysis of homosexual issues that appear in the treatment of both male and female Lubavitch Chassidim. Researchers discuss how homosexuality is manifested, how it is viewed, denied, and rationalized, and the functions it serves in

a subculture that is inherently homocentric. The need for parameters in classical technique is discussed as a necessity for successful psychoanalytic work with this population.

- Scourfield, J. & Q. Nasiruddin. 2015. Religious adaptation of a parenting programme: process evaluation of the Family Links Islamic Values course for Muslim fathers. *Child: Care, Health and Development* 41(5). 697–703.
doi:10.1111/cch.12228.

Amid concern about the reach and inclusivity of parenting interventions, attempts have been made to culturally adapt programs for specific ethnic or linguistic groups. This paper describes a novel approach of the religious adaptation of a parenting program, namely the Family Links Islamic Values course. A small-scale qualitative process evaluation was conducted on one Family Links Islamic Values course for Muslim fathers in the South of England in order to describe the intervention as implemented and its theory of change, as well as the acceptability of the programme to the participants. The data consisted of 13 semi-structured interviews (10 with parents and three with staff), 25 h of observation and reading of program manuals. A logic model is presented to describe the theoretical basis of the intervention. The program was highly acceptable to fathers who valued the integration of religious teachings and were generally very positive about their experience of attending the course. Post-course interviews with both fathers and mothers mentioned some positive changes in fathers as a result of their attendance.

- Stephenson, Pam Shockey & Devon M. Berry. 2015. Describing Spirituality at the End of Life. *Western Journal of Nursing Research* 37(9). 1229–1247.
doi:10.1177/0193945914535509.

Spirituality is salient to persons nearing the end of life (EOL). Unfortunately, researchers have not been able to agree on a universal definition of spirituality reducing the effectiveness of spiritual research. To advance spiritual knowledge and build an evidence base, researchers must develop creative ways to describe spirituality as it cannot be explicitly defined. A literature review was conducted to determine the common attributes that comprise the essence of spirituality, thereby creating a common ground on which to base spiritual research. Forty original research articles (2002 to 2012) focusing on EOL and including spiritual definitions/descriptions were reviewed. Analysis identified five attributes that most commonly described the essence of spirituality, including meaning, beliefs, connecting, self-transcendence, and value.

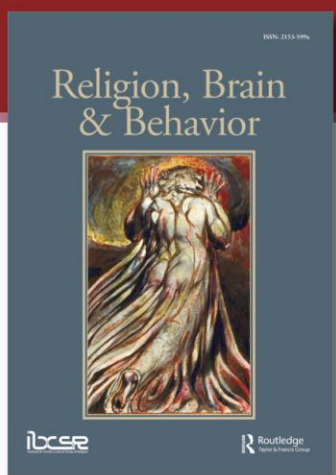
- Toivonen, Kristiina, Minna Stolt & Riitta Suhonen. 2015. Nursing Support of the Spiritual Needs of Older Adults Living With Dementia: A Narrative Literature Review. *Holistic Nursing Practice* 29(5). 303–312.
doi:10.1097/HNP.000000000000101.

Across this literature review (n=10), supporting spirituality in the nursing care of older adults with dementia is concerned with supporting religious activity, enabling connections, nurses' reflections on their own spirituality, and nonverbal communication. The benefits from the support of spirituality were seen to be reciprocal and to occur in everyday nursing.

- Williams, Hants, Leigh Ann Simmons & Paula Tanabe. 2015. Mindfulness-Based Stress Reduction in Advanced Nursing Practice: A Nonpharmacologic Approach to Health Promotion, Chronic Disease Management, and Symptom Control. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association* 33(3). 247–259.
doi:10.1177/0898010115569349.

The aim of this article is to discuss how advanced practice nurses (APNs) can incorporate mindfulness-based stress reduction (MBSR) as a nonpharmacologic clinical tool in their practice. Over the last 30 years, patients and providers have increasingly used complementary and holistic therapies for the nonpharmacologic management of acute and chronic diseases. Mindfulness-based interventions, specifically MBSR, have been tested and applied

within a variety of patient populations. There is strong evidence to support that the use of MBSR can improve a range of biological and psychological outcomes in a variety of medical illnesses, including acute and chronic pain, hypertension, and disease prevention. This article will review the many ways APNs can incorporate MBSR approaches for health promotion and disease/symptom management into their practice. Researchers conclude with a discussion of how nurses can obtain training and certification in MBSR. Given the significant and growing literature supporting the use of MBSR in the prevention and treatment of chronic disease, increased attention on how APNs can incorporate MBSR into clinical practice is necessary.



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PART 3: BOOKS

3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Kundt, Radek. 2015. *Contemporary evolutionary theories of culture and the study of religion*. (Scientific Studies of Religion: Inquiry and Explanation). Bloomsbury Academic.
- Plante, Thomas G. (ed.). 2015. *The psychology of compassion and cruelty: understanding the emotional, spiritual, and religious influences*. Santa Barbara: Praeger.
- Reno, R. R & Barbara McClay (eds.). 2015. *Religion and the social sciences: conversations with Robert Bellah and Christian Smith*. Cascade Books.
- Small, Jenny L. 2015. *Making meaning: embracing spirituality, faith, religion, and life purpose in student affairs*. Stylus Publishing.

3.2 SPIRITUALITY & HEALTH RESEARCH

- Brownell, Philip. 2014. *Spiritual competency in psychotherapy*. Springer Publishing Company, LLC.
- Chida, Yōichi. 2015. *Religion and Health: The Perspective of Happy Science Medicine*. (Health Psychology Research Focus). Hauppauge, New York: Nova Science Pub Inc.
- Free, Michael L. 2015. *CBT and christianity: strategies and resources for reconciling faith in therapy*. John Wiley & Sons.
- Munoz-Laboy, Miguel, Jonathan Garcia, Joyce Moon-Howard, Patrick A Wilson & Richard Parker (eds.). 2015. *Religious responses to HIV and AIDS*. Routledge.
- Swift, Christopher, Mark Cobb & Andrew Todd (eds.). 2015. *A Handbook of Chaplaincy Studies: Understanding Spiritual Care in Public Places*. (Ashgate Contemporary Ecclesiology). Ashgate.

PART 4: ARTICLES IN PRESS

4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Blau, Benjamin M. 2015. Religiosity and the volatility of stock prices: A cross-country analysis. *Journal of Business Ethics*.
doi:10.1007/s10551-015-2842-7.
- Campos, Daniel, Ausiàs Cebolla, Soledad Quero, Juana Bretón-López, Cristina Botella, Joaquim Soler, Javier García-Campayo, Marcelo Demarzo & Rosa María Baños. Meditation and happiness: Mindfulness and self-compassion may mediate the meditation–happiness relationship. *Personality and Individual Differences*.
doi:10.1016/j.paid.2015.08.040.
- Davis, Don E., Kenneth Rice, Daryl R. Van Tongeren, Joshua N. Hook, Cirleen DeBlaere, Everett L. Worthington & Elise Choe. 2015. The Moral Foundations Hypothesis Does Not Replicate Well in Black Samples. *Journal of Personality and Social Psychology*.
doi:10.1037/pspp0000056.
- Foner, Nancy. 2015. Is islam in western europe like race in the united states? *Sociological Forum*.
doi:10.1111/socf.12199.
- Genovese, Jeremy E. C. & Kathleen D. Little. 2015. Two Studies of Superbrain Yoga’s Potential Effect on Academic Performance Based on the Number Facility Test. *Psychology of Consciousness: Theory, Research, and Practice*.
doi:10.1037/cns0000061.
- Halgunseth, Linda C., Alexander C. Jensen, Kari-Lyn Sakuma & Susan M. McHale. 2015. The Role of Mothers’ and Fathers’ Religiosity in African American Adolescents’ Religious Beliefs and Practices. *Cultural Diversity & Ethnic Minority Psychology*.
doi:10.1037/cdp0000071.
- Hall, Todd W., Evonne Edwards & David C. Wang. 2015. The Spiritual Development of Emerging Adults Over the College Years: A 4-Year Longitudinal Investigation. *Psychology of Religion and Spirituality*.
doi:10.1037/rel0000051.
- Holbrook, Colin, Keise Izuma, Choi Deblieck, Daniel M. T. Fessler & Marco Iacoboni. 2015. Neuromodulation of group prejudice and religious belief. *Social Cognitive and Affective Neuroscience*.
doi:10.1093/scan/nsv107.
- Jorgensen, Bryce L., Jay A. Mancini, Jeremy Yorgason & Randal Day. 2015. Religious Beliefs, Practices, and Family Strengths: A Comparison of Husbands and Wives. *Psychology of Religion and Spirituality*.
doi:10.1037/rel0000052.
- Kappe, Roland. 2015. The effect of the religious environment on teenage birth rates in the united states. *Sexuality Research & Social Policy: A Journal of the NSRC*.
doi:10.1007/s13178-015-0206-9.

- McCullough, Michael E., Paul Swartwout, John H. Shaver, Evan C. Carter & Richard Sosis. 2015. Christian Religious Badges Instill Trust in Christian and Non-Christian Perceivers. *Psychology of Religion and Spirituality*. doi:10.1037/rel0000045.
- Norenzayan, Ara. 2015. Theodiversity. *Annual Review of Psychology*. doi:10.1146/annurev-psych-122414-033426.
- Norona, Jerika C., Brianna E. Pollock, Deborah P. Welsh & Jennifer Bolden. 2015. Religiosity and intimacy with an extradyadic partner in emerging adulthood: A developmental perspective. *Journal of Adult Development*. doi:10.1007/s10804-015-9220-7.
- Paulson, Steve, David Albert, Jim Holt & Neil Turok. 2015. The origins of the universe: why is there something rather than nothing? *Annals of the New York Academy of Sciences*. doi:10.1111/nyas.12859.
- Routledge, Clay, Christina Roylance & Andrew A. Abeyta. 2015. Miraculous Meaning: Threatened Meaning Increases Belief in Miracles. *Journal of Religion and Health*. doi:10.1007/s10943-015-0124-4.
- Stell, Alexander J. & Tom Farsides. 2015. Brief loving-kindness meditation reduces racial bias, mediated by positive other-regarding emotions. *Motivation and Emotion*. doi:10.1007/s11031-015-9514-x.
- Yilmaz, Onurcan & Hasan G. Bahçekapili. Supernatural and secular monitors promote human cooperation only if they remind of punishment. *Evolution and Human Behavior*. doi:10.1016/j.evolhumbehav.2015.09.005.

4.2 SPIRITUALITY & HEALTH RESEARCH

- Anum, Jawaria & Rabia Dasti. 2015. Caregiver Burden, Spirituality, and Psychological Well-Being of Parents Having Children with Thalassaemia. *Journal of Religion and Health*. doi:10.1007/s10943-015-0127-1.
- Arousell, Jonna & Aje Carlbom. Culture and religious beliefs in relation to reproductive health. *Best Practice & Research Clinical Obstetrics & Gynaecology*. doi:10.1016/j.bpobgyn.2015.08.011.
- Büssing, Arndt, Eckhard Frick, Christoph Jacobs & Klaus Baumann. 2015. Health and life satisfaction of roman catholic pastoral workers: Private prayer has a greater impact than public prayer. *Pastoral Psychology*. doi:10.1007/s11089-015-0672-2.
- Canada, Andrea L., Patricia E. Murphy, George Fitchett & Kevin Stein. 2015. Re-examining the Contributions of Faith, Meaning, and Peace to Quality of Life: a Report from the American Cancer Society's Studies of Cancer Survivors-II (SCS-II). *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine*. doi:10.1007/s12160-015-9735-y.
- Carey, Lindsay B., Christine Hennequin, Lillian Krikheli, Annette O'Brien, Erin Sanchez & Candace R. Marsden. 2015. Rural Health and Spiritual Care Development: A Review of Programs across Rural Victoria, Australia. *Journal of Religion and Health*. doi:10.1007/s10943-015-0119-1.

- Charlemagne-Badal, Sherma J. & Jerry W. Lee. 2015. Religious Social Support and Hypertension Among Older North American Seventh-Day Adventists. *Journal of Religion and Health*. doi:10.1007/s10943-015-0104-8.
- Chen, Ping-Ho, Sheng-Miauh Huang, Chen-Jei Tai, Li-Yin Chien, Pei-Ju Lien & Yu-Hsien Chen. Meditative qigong relieved symptom severity and interference among patients with breast carcinoma receiving chemotherapy. *European Journal of Integrative Medicine*. doi:10.1016/j.eujim.2015.08.010.
- Cronjé, Frans J., Levenda S. Sommers, James K. Faulkner, W. a. J. Meintjes, Charles H. Van Wijk & Robert P. Turner. 2015. Effect of a Faith-Based Education Program on Self-Assessed Physical, Mental and Spiritual (Religious) Health Parameters. *Journal of Religion and Health*. doi:10.1007/s10943-015-0129-z.
- Currier, Joseph M., Phillip N. Smith & Shane Kuhlman. 2015. Assessing the Unique Role of Religious Coping in Suicidal Behavior Among U.S. Iraq and Afghanistan Veterans. *Psychology of Religion and Spirituality*. doi:10.1037/rel0000055.
- Davis III, Richard F. & Lisa Kiang. 2015. Religious Identity, Religious Participation, and Psychological Well-Being in Asian American Adolescents. *Journal of Youth and Adolescence*. doi:10.1007/s10964-015-0350-9.
- Ferreira-Vorkapic, C., J. M. Feitoza, M. Marchioro, J. Simões, E. Kozasa & S. Telles. 2015. Are There Benefits from Teaching Yoga at Schools? A Systematic Review of Randomized Control Trials of Yoga-Based Interventions. *Evidence-Based Complementary and Alternative Medicine* 2015. 1–17. doi:10.1155/2015/345835.
- Galiatsatos, Panagis, Maiju Lehmijoki-Gardner & W. Daniel Hale. 2015. A Brief Historical Review of Specific Religious Denominations: How History Influences Current Medical-Religious Partnerships. *Journal of Religion and Health*. doi:10.1007/s10943-015-0123-5.
- Gerbag, Patricia L., Vinita E. Jacob, Laurie Stevens, Brian P. Bosworth, Fatiha Chabouni, Ersilia M. DeFilippis, Ryan Warren, et al. 2015. The Effect of Breathing, Movement, and Meditation on Psychological and Physical Symptoms and Inflammatory Biomarkers in Inflammatory Bowel Disease: A Randomized Controlled Trial. *Inflammatory Bowel Diseases*. doi:10.1097/MIB.0000000000000568.
- Geros-Willfond, Kristin N., Steven S. Ivy, Kianna Montz, Sara E. Bohan & Alexia M. Torke. 2015. Religion and Spirituality in Surrogate Decision Making for Hospitalized Older Adults. *Journal of Religion and Health*. doi:10.1007/s10943-015-0111-9.
- Gruber, Deborah J. & Claire L. Poulson. 2015. Graduated guidance delivered by parents to teach yoga to children with developmental delays. *Journal of Applied Behavior Analysis*. doi:10.1002/jaba.260.
- Hanin Hamjah, Salasiah, Noor Shakirah Mat Akhir, Zainab Ismail, Adawiyah Ismail & Nadhirah Mohd Arib. 2015. The Application of Ibadah (Worship) in Counseling: Its Importance and Implications to Muslim Clients. *Journal of Religion and Health*. doi:10.1007/s10943-015-0122-6.

- Haron, Yafa & Pazit Azuri. 2015. Integrating Ultra-Orthodox Jewish Men in Academic Nursing Training. *Journal of Transcultural Nursing: Official Journal of the Transcultural Nursing Society / Transcultural Nursing Society*.
doi:10.1177/1043659615604026.
- Karimollahi, Mansoure, Heidarali Abedi & Alireza Yousefy. 2015. Self-Preservation in Both Sides: Pathology of Spiritual Care in Iran. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0116-4.
- Kim, Suk-Sun, Yeoun Soo Kim-Godwin & Harold G. Koenig. 2015. Family Spirituality and Family Health Among Korean-American Elderly Couples. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0107-5.
- Kinghorn, Warren A. 2015. American Christian Engagement With Mental Health and Mental Illness. *Psychiatric Services (Washington, D.C.)*. appips201400542.
doi:10.1176/appi.ps.201400542.
- LaBarbera, Robin & June Hetzel. 2015. Christian Educators' Use of Prayer to Cope with Stress. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0118-2.
- Lev, Gideon. 2015. The Question of Aims: Psychoanalysis and the Changing Formulations of the Life Worth Living. *Psychoanalytic Psychology*.
doi:10.1037/pap0000025.
- Lumpkins, Crystal Y., Priya Vanchy, Tamara A. Baker, Christine Daley, Florence Ndikum-Moffer & K. Allen Greiner. 2015. Marketing a Healthy Mind, Body, and Soul: An Analysis of How African American Men View the Church as a Social Marketer and Health Promoter of Colorectal Cancer Risk and Prevention. *Health Education & Behavior: The Official Publication of the Society for Public Health Education*.
doi:10.1177/1090198115604615.
- Luu, Kimberley & Peter A. Hall. 2015. Hatha Yoga and Executive Function: A Systematic Review. *Journal of Alternative and Complementary Medicine (New York, N.Y.)*.
doi:10.1089/acm.2014.0091.
- Mishra, Shri K., Elizabeth Togneri, Byomesh Tripathi & Bhavesh Trikamji. 2015. Spirituality and Religiosity and Its Role in Health and Diseases. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0100-z.
- Moorehead, Virgil D., Joseph P. Gone & Damia December. 2015. A Gathering of Native American Healers: Exploring the Interface of Indigenous Tradition and Professional Practice. *American Journal of Community Psychology*.
doi:10.1007/s10464-015-9747-6.
- Motavasselian, Malihe, Seyyd-Ahamd Saghebi, Mohammad-Reza Nademi & Mandana Tavakkoli-Kakhki. 2015. Depression and Dyspepsia: An Implication of Islamic Resources. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0115-5.
- Mthembu, Thuli Godfrey, Nicolette Vanessa Roman & Lisa Wegner. 2015. A Cross-Sectional Descriptive Study of Occupational Therapy Students' Perceptions and Attitudes Towards Spirituality and Spiritual Care in Occupational Therapy Education. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0125-3.

- Park, Crystal L., Carolyn M. Aldwin, Soyoung Choun, Login George, Damodhar P. Suresh & Deborah Bliss. 2015. Spiritual Peace Predicts 5-Year Mortality in Congestive Heart Failure Patients. *Health Psychology*.
doi:10.1037/hea0000271.
- Pichon, Latrice C., Terrinieka Williams Powell, Siri A. Ogg, Andrea L. Williams & Nicole Becton-Odum. 2015. Factors Influencing Black Churches' Readiness to Address HIV. *Journal of Religion and Health*.
doi:10.1007/s10943-015-0117-3.
- Plunkett, Robyn, Beverly Leipter & Joanne Olson. 2015. Exploring the Influence of Social Determinants, Social Capital, and Health Expertise on Health and the Rural Church. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association*.
doi:10.1177/0898010115605231.
- Porter, Kristen E., Mark Brennan-Ing, Jeffrey A. Burr, Elizabeth Dugan & Stephen E. Karpiak. 2015. Stigma and Psychological Well-being Among Older Adults With HIV: The Impact of Spirituality and Integrative Health Approaches. *The Gerontologist*.
doi:10.1093/geront/gnv128.
- Proyer, René T. & Nadine Laub. 2015. The german-language version of the expressions of spirituality inventory-revised: Adaptation and initial validation. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues*.
doi:10.1007/s12144-015-9379-x.
- Quinn, Katherine & Julia Dickson-Gomez. 2015. Homonegativity, Religiosity, and the Intersecting Identities of Young Black Men Who Have Sex with Men. *AIDS and behavior*.
doi:10.1007/s10461-015-1200-1.
- Rhodes, Alison M. Claiming Peaceful Embodiment Through Yoga in the Aftermath of Trauma. *Complementary Therapies in Clinical Practice*.
doi:10.1016/j.ctcp.2015.09.004.
- Sailus, Marianne C. 2015. The Role of the Chaplain in the Interdisciplinary Care of the Rehabilitation Patient. *Rehabilitation Nursing: The Official Journal of the Association of Rehabilitation Nurses*.
doi:10.1002/rnj.222.
- Schwartz, Gary E. 2015. God, Synchronicity, and Postmaterialist Psychology III: Additional Real-Life Evidence and the Higher Power Healing Hypothesis. *Spirituality in Clinical Practice*.
doi:10.1037/scp0000079.
- Shilo, Guy, Ifat Yossef & Riki Savaya. 2015. Religious Coping Strategies and Mental Health Among Religious Jewish Gay and Bisexual Men. *Archives of Sexual Behavior*.
doi:10.1007/s10508-015-0567-4.
- Sleeboom-Faulkner, Margaret. 2015. Translating "Asian" Modes of Healing and Biomedicine. *Medical Anthropology*.
doi:10.1080/01459740.2015.1092442.
- Smallwood, Stacy W., S. Melinda Spencer, Lucy Annang Ingram, Jim F. Thrasher & Melva V. Thompson-Robinson. 2015. Examining the Relationships Between Religiosity, Spirituality, Internalized Homonegativity, and Condom Use Among African American Men Who Have Sex With Men in the Deep South. *American Journal of Men's Health*.

doi:10.1177/1557988315590835.

Suhami, Norhasmilia, Mazanah Bt Muhamad & Steven Eric Krauss. 2015. Why Cancer Patients Seek Islamic Healing. *Journal of Religion and Health*.

doi:10.1007/s10943-015-0114-6.

Sun, Virginia, Jae Y. Kim, Terry L. Irish, Tami Borneman, Rupinder K. Sidhu, Linda Klein & Betty Ferrell. 2015. Palliative care and spiritual well-being in lung cancer patients and family caregivers. *Psycho-Oncology*.

doi:10.1002/pon.3987.

Tan, Joyce Y. S., Haikel A. Lim, Nicole M. Y. Kuek, Ee Heok Kua & Rathi Mahendran. 2015. Caring for the caregiver while caring for the patient: exploring the dyadic relationship between patient spirituality and caregiver quality of life. *Supportive Care in Cancer: Official Journal of the Multinational Association of Supportive Care in Cancer*.

doi:10.1007/s00520-015-2920-5.

Torskenaes, Kristina B., Mary H. Kalfoss & Berit Saeteren. 2015. Meaning given to spirituality, religiousness and personal beliefs: explored by a sample of a Norwegian population. *Journal of Clinical Nursing*.

doi:10.1111/jocn.12962.

Tzu, Gary, Brittany Bannerman & Karim McCallum. 2015. Novices' transition from separation into non-dual being: A transpersonal, existential, phenomenological analysis. *International Journal of Mental Health and Addiction*.

doi:10.1007/s11469-015-9595-5.

Uebelacker, Lisa A., Cynthia L. Battle, Kaeli A. Sutton, Susanna R. Magee & Ivan W. Miller. 2015. A pilot randomized controlled trial comparing prenatal yoga to perinatal health education for antenatal depression. *Archives of Women's Mental Health*.

doi:10.1007/s00737-015-0571-7.

Vera, Francisca M., Juan M. Manzanegue, Francisco M. Rodríguez, Rebecca Bendayan, Nieves Fernández & Antonio Alonso. 2015. Acute Effects on the Counts of Innate and Adaptive Immune Response Cells After 1 Month of Taoist Qigong Practice. *International Journal of Behavioral Medicine*.

doi:10.1007/s12529-015-9509-8.

Vermandere, Mieke, Franca Warmenhoven, Evie Van Severen, Jan De Lepeleire & Bert Aertgeerts. 2015. Spiritual history taking in palliative home care: A cluster randomized controlled trial. *Palliative Medicine*.

doi:10.1177/0269216315601953.

Wang, Yin-Chih & Chia-Chin Lin. 2015. Spiritual Well-being May Reduce the Negative Impacts of Cancer Symptoms on the Quality of Life and the Desire for Hastened Death in Terminally Ill Cancer Patients. *Cancer Nursing*.

doi:10.1097/NCC.000000000000298.

Zhang, Wenyi. 2015. Healing through States of Consciousness: Animal Sacrifice and Christian Prayer Among the Kachin in Southwest China. *Medical Anthropology*.

doi:10.1080/01459740.2015.1089240.