



RESEARCH REVIEW

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

JUNE, 2016

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, 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 1,017 articles, 185 articles have been retained from 91 journals. There are 63 pre-publication citations from 48 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Fox, Kieran C. R., Matthew L. Dixon, Savannah Nijeboer, Manesh Girn, James L. Floman, Michael Lifshitz, Melissa Ellamil, Peter Sedlmeier & Kalina Christoff. 2016. Functional neuroanatomy of meditation: A review and meta-analysis of 78 functional neuroimaging investigations. *Neuroscience and Biobehavioral Reviews* 65. 208–228.

doi:10.1016/j.neubiorev.2016.03.021.

Meditation is a family of mental practices that encompasses a wide array of techniques employing distinctive mental strategies. Researchers systematically reviewed 78 functional neuroimaging (fMRI and PET) studies of meditation, and used activation likelihood estimation to meta-analyze 257 peak foci from 31 experiments involving 527 participants. They found reliably dissociable patterns of brain activation and deactivation for four common styles of meditation (focused attention, mantra recitation, open monitoring, and compassion/loving-kindness), and suggestive differences for three others (visualization, sense-withdrawal, and non-dual awareness practices). Overall, dissociable activation patterns are congruent with the psychological and behavioral aims of each practice. Some brain areas are recruited consistently across multiple techniques-including insula, pre/supplementary motor cortices, dorsal anterior cingulate cortex, and frontopolar cortex-but convergence is the exception rather than the rule. A preliminary effect-size meta-analysis found medium effects for both activations and deactivations, suggesting potential practical significance. These meta-analysis supports the neurophysiological dissociability of meditation practices, but also raises many methodological concerns and suggests avenues for future research.

Hölzel, Britta K., Vincent Brunsch, Tim Gard, Douglas N. Greve, Kathrin Koch, Christian Sorg, Sara W. Lazar & Mohammed R. Milad. 2016. Mindfulness-Based Stress Reduction, Fear Conditioning, and The Uncinate Fasciculus: A Pilot Study. *Frontiers in Behavioral Neuroscience* 10. 124.

doi:10.3389/fnbeh.2016.00124.

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Mindfulness has been suggested to impact emotional learning, but research on these processes is scarce. The classical fear conditioning/ extinction/ extinction retention paradigm is a well-known method for assessing emotional learning. The present study tested the impact of mindfulness training on fear conditioning and extinction memory and further investigated whether changes in white matter fiber tracts might support such changes. The uncinate fasciculus (UNC) was of particular interest in the context of emotional learning. In this pilot study, 46 healthy participants were quasi-randomized to a Mindfulness-Based Stress Reduction (MBSR, n=23) or waitlist control (n=23) group and underwent a two-day fear conditioning, extinction learning, and extinction memory protocol before and after the course or control period. Skin conductance response (SCR) data served to measure the physiological response during conditioning and extinction memory phases. Diffusion tensor imaging (DTI) data were analyzed with probabilistic tractography and analyzed for changes of fractional anisotropy in the UNC. During conditioning, participants were able to maintain a differential response to conditioned vs. not conditioned stimuli following the MBSR course (i.e., higher sensitivity to the conditioned stimuli), while controls dropped the response. Extinction memory results were not interpretable due to baseline differences. MBSR participants showed a significant increase in fractional anisotropy in the UNC, while controls did not (group by time interaction missed significance). Pre-post changes in UNC were correlated with changes in the response to the conditioned stimuli. The findings suggest effects of mindfulness practice on the maintenance of sensitivity of emotional responses and suggest underlying neural plasticity.

Kobayashi, S. & K. Koitabashi. 2016. Effects of progressive muscle relaxation on cerebral activity: An fMRI investigation. *Complementary Therapies in Medicine* 26. 33–39.
doi:10.1016/j.ctim.2016.02.010.

Progressive muscle relaxation (PMR) is one of the self-management relaxation techniques that can be used in the general population and patients with specific issues. However, no study to date has revealed the brain activity associated with PMR. Therefore, researchers assessed the changes in brain activity induced by PMR using functional magnetic resonance imaging (fMRI). The authors conducted an intervention study with PMR and control sessions. The subjects were twelve healthy adult men who had no prior experience of PMR. Subjects performed a control session in which muscles were repeatedly simply tensed and relaxed. Subsequently, a PMR session took place, during which muscle tension was reduced through a systematic procedure of tensing and relaxing of muscle groups combined with structured breathing. The researchers identified and visualized brain activity based on individual and group-level analysis of fMRI data. Eleven subjects' data were analyzed. In the control session, brain activity broadly changed, while the change was limited to specific parts of the cerebral cortex and limbic system in the PMR session. PMR gradually decreased activity in the superior frontal gyrus (SFG), inferior frontal gyrus (IFG), and posterior cingulate cortex (PCC). In a region of interest (ROI) analysis, interactions between sessions were observed in the putamen, anterior cingulate cortex (ACC), postcentral gyrus (PCG), and insula. The authors conclude that PMR led to few areas showing changed activity suggests that the technique may suppress brain activity. Even novices may be able to induce such a focused mental state.

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Brown Vega, Margaret. 2016. Ritual practices and wrapped objects: Unpacking prehispanic Andean sacred bundles. *Journal of Material Culture* 21(2). 223–251.
doi:10.1177/1359183515610135.

Collections of objects wrapped in containers, called bundles, are known throughout the Americas. Drawing upon ethnographic literature, especially descriptions of bundle use in the Andes, this article unravels the social context and practices involved in the creation and deposition of an archaeological bundle. The author presents an analysis of a bundle offering excavated from within the prehispanic fortification of Acaray, located on the Central Coast of Perú in the Huaura Valley. Careful attention to the configuration of the bundle offering, the contents, and their qualities permits a sophisticated interpretation of the offering's broader meaning. The assemblage and deposition of the bundles solidified social bonds among people and powerful spirits. Through the bundling of people and place (Acaray), the

building of physical defenses, and the calling of animated selves for spiritual defense through bundle ceremonies, new identities were made, and the dangers of war could be unmade, in the Huaura Valley.

- Burdett, Emily R. R. & Justin L. Barrett. 2016. The circle of life: A cross-cultural comparison of children's attribution of life-cycle traits. *The British Journal of Developmental Psychology* 34(2). 276–290. doi:10.1111/bjdp.12131.

Do children attribute mortality and other life-cycle traits to all minded beings? The present study examined whether culture influences young children's ability to conceptualize and differentiate human beings from supernatural beings (such as God) in terms of life-cycle traits. Three-to-5-year-old Israeli and British children were questioned whether their mother, a friend, and God would be subject to various life-cycle processes: Birth, death, ageing, existence/longevity, and parentage. Children did not anthropomorphize but differentiated among human and supernatural beings, attributing life-cycle traits to humans, but not to God. Although 3-year-olds differentiated significantly among agents, 5-year-olds attributed correct life-cycle traits more consistently than younger children. The results also indicated some cross-cultural variation in these attributions. Implications for biological conceptual development are discussed.

- Butzer, Bethany, Khalique Ahmed & Sat Bir S. Khalsa. 2016. Yoga Enhances Positive Psychological States in Young Adult Musicians. *Applied Psychophysiology and Biofeedback* 41(2). 191–202. doi:10.1007/s10484-015-9321-x.

Although yoga has been shown to be a viable technique for improving the performance of the mind and body, little attention has been directed to studying the relationship between yoga and the psychological states of flow and mindfulness. Musicians enrolled in a 2-month fellowship program in 2005, 2006 and 2007 were invited to participate in a yoga and meditation program. Fellows not participating in the yoga program were recruited separately as controls. All participants completed baseline and end-program questionnaires evaluating dispositional flow, mindfulness, confusion, and music performance anxiety. Compared to controls, yoga participants reported significant decreases in confusion and increases in dispositional flow. Yoga participants in the 2006 sample also reported significant increases in the mindfulness subscale of awareness. Correlational analyses revealed that increases in participants' dispositional flow and mindfulness were associated with decreases in confusion and music performance anxiety. This study demonstrates the commonalities between positive psychology and yoga, both of which are focused on enhancing human performance and promoting beneficial psychological states. The results suggest that yoga and meditation may enhance the states of flow and mindful awareness, and reduce confusion.

- Choma, Becky L., Reeshma Haji, Gordon Hodson & Mark Hoffarth. 2016. Avoiding cultural contamination: Intergroup disgust sensitivity and religious identification as predictors of interfaith threat, faith-based policies, and islamophobia. *Personality and Individual Differences* 95. 50–55. doi:10.1016/j.paid.2016.02.013.

In three samples of Christian undergraduate students (n=43, n=115, n=73), researchers investigated the relative influence of Christian religious identification and intergroup disgust sensitivity (ITG-DS; an affect-laden individual difference variable reflecting reactivity to disgust and revulsion reactions toward outgroups) on several religious variables: Perceived threat of religious outgroups, attitudes toward faith-based schooling, intercultural child adoption, banning of religious symbols, and Islamophobia. Results revealed that religious identification and ITG-DS are both relevant to interfaith prejudices, but in different ways. With respect to unique predictive effects, ITG-DS emerged as the stronger and more consistent predictor. Meta-analytic integration confirmed that ITG-DS, but not religious identification, robustly predicts Islamophobia. Implications for understanding correlates of religious outgroup prejudices are considered.

- Hauge, Karen Evelyn. 2016. Generosity and guilt: The role of beliefs and moral standards of others. *Journal of Economic Psychology* 54. 35–43.

doi:10.1016/j.joep.2016.03.001.

Why are people generous? One reason may be to avoid feeling guilt, in terms of failing to meet others' expectations or in terms of failing to meet others' moral standards. The present article reports an experiment using the "dictator game" while manipulating the dictators' beliefs about the receivers' expectations and moral standards. The results indicate that generosity is indeed driven by guilt-aversion: dictators are more generous when the receiver expects more, and also when the receiver considers that dictators should, morally speaking, give more. If dictators were motivated by pure altruism or equity concerns, the receiver's expectations or moral beliefs should not matter.

Heinskou, Marie Bruvik & Lasse Suonerä Liebst. 2016. On the elementary neural forms of micro-interactional rituals: Integrating autonomic nervous system functioning into interaction ritual theory. *Sociological Forum* 31(2). 354–376.

doi:10.1111/socf.12248.

Randall Collins's interaction ritual (IR) theory suggests social solidarity as hardwired in the human neurological capacity for rhythmic entrainment. Yet, this article suggests that IR theory may benefit from being tied more firmly to recent neurobiological research, specifically Stephen W. Porges's polyvagal theory that proposes autonomic nervous system functioning as a basis for emotions and social behavior. In this perspective, IR theory does not sufficiently acknowledge the human nervous system as a system involving a phylogenetically ordered response hierarchy, of which only one subsystem supports prosocial behavior. The ritual ingredients of mutual attention and shared mood may, moreover, be specified as part of a social engagement system, neurally regulating attention and emotional arousal via a face–heart connection. The article suggests that this social engagement system provides part of the neural basis for rhythmic entrainment. The polyvagal theory furthermore challenges IR theory to reconsider the importance of individual biological differences—ritual success may not merely be ascribed to interactional effects, but also to reciprocal causality between situations and neurobiological properties of ritual participants.

Lang, Martin, Panagiotis Mitkidis, Radek Kundt, Aaron Nichols, Lenka Krajčíková & Dimitris Xygalatas. 2016. Music As a Sacred Cue? Effects of Religious Music on Moral Behavior. *Frontiers in Psychology* 7. 814.

doi:10.3389/fpsyg.2016.00814.

Religion can have an important influence in moral decision-making, and religious reminders may deter people from unethical behavior. Previous research indicated that religious contexts may increase prosocial behavior and reduce cheating. However, the perceptual-behavioral link between religious contexts and decision-making lacks thorough scientific understanding. This study adds to the current literature by testing the effects of purely audial religious symbols (instrumental music) on moral behavior across three different sites: Mauritius, the Czech Republic, and the USA. Participants were exposed to one of three kinds of auditory stimuli (religious, secular, or white noise), and subsequently were given a chance to dishonestly report on solved mathematical equations in order to increase their monetary reward. The results showed cross-cultural differences in the effects of religious music on moral behavior, as well as a significant interaction between condition and religiosity across all sites, suggesting that religious participants were more influenced by the auditory religious stimuli than non-religious participants. The authors propose that religious music can function as a subtle cue associated with moral standards via cultural socialization and ritual participation. Such associative learning can charge music with specific meanings and create sacred cues that influence normative behavior. The findings provide preliminary support for this view.

Marsh, Abigail A. 2016. Understanding amygdala responsiveness to fearful expressions through the lens of psychopathy and altruism. *Journal of Neuroscience Research* 94(6). 513–525.

doi:10.1002/jnr.23668.

Because the face is the central focus of human social interactions, emotional facial expressions provide a unique window into the emotional lives of others. They play a particularly important role in fostering empathy, which entails

understanding and responding to others' emotions, especially distress-related emotions such as fear. This review considers how fearful facial as well as vocal and postural expressions are interpreted, with an emphasis on the role of the amygdala. The amygdala may be best known for its role in the acquisition and expression of conditioned fear, but it also supports the perception and recognition of others' fear. Various explanations have been supplied for the amygdala's role in interpreting and responding to fearful expressions. They include theories that amygdala responses to fearful expressions 1) reflect heightened vigilance in response to uncertain danger, 2) promote heightened attention to the eye region of faces, 3) represent a response to an unconditioned aversive stimulus, or 4) reflect the generation of an empathic fear response. Among these, only empathic fear explains why amygdala lesions would impair fear recognition across modalities. Supporting the possibility of a link between fundamental empathic processes and amygdala responses to fear is evidence that impaired fear recognition in psychopathic individuals results from amygdala dysfunction, whereas enhanced fear recognition in altruistic individuals results from enhanced amygdala function. Empathic concern and caring behaviors may be fostered by sensitivity to signs of acute distress in others, which relies on intact functioning of the amygdala.

Montgomery, Robert L. 2016. Special persons and the spread of religions. *Pastoral Psychology* 65(3). 369–393.

doi:10.1007/s11089-015-0686-9.

Three religions—Buddhism, Christianity, and Islam—have spread much more widely than other religions. Scholars of religion generally have not tried to explain this difference. A possible reason for this neglect is that scholars have not sufficiently examined how Buddha, Jesus, and Muhammad are recognized by their followers as special persons beyond all other persons. The drawing power of charismatic leaders and heroes has been studied but not why these three persons had special drawing powers without which the religions they founded would not have spread so widely. Expanding a theory of the drawing power of special persons, this article shows through controlled historical comparisons that the three founders were able to draw large numbers of followers because people recognized the relationship of the founders to the Divine, the transcendent, and other eternal spiritual realities and also that such a relationship was offered to their followers accompanied by compassion. This recognition made the three founders along with the messages about them by their followers the central reason the three religions they founded spread across numerous social and cultural borders to a greater extent than any other religions. Conducive social factors, though important, were not as essential as the personal influence of the three founders.

Protzko, John, Brett Ouimette & Jonathan Schooler. 2016. Believing there is no free will corrupts intuitive cooperation. *Cognition* 151. 6–9.

doi:10.1016/j.cognition.2016.02.014.

Regardless of whether free will exists, believing that it does affects one's behavior. When an individual's belief in free will is challenged, one can become more likely to act in an uncooperative manner. The mechanism behind the relationship between one's belief in free will and behavior is still debated. The current study uses an economic contribution game under varying time constraints to elucidate whether reducing belief in free will allows one to justify negative behavior or if the effects occur at a more intuitive level of processing. Here researchers show that although people are intuitively cooperative, challenging their belief in free will corrupts this behavior, leading to impulsive selfishness. If given time to think, however, people are able to override the initial inclination toward self-interest induced by discouraging a belief in free will.

Pyne, Stephen J. 2016. Fire in the mind: Changing understandings of fire in Western civilization. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 371(1696).

doi:10.1098/rstb.2015.0166.

For most of human history, fire has been a pervasive presence in human life, and so also in human thought. This essay examines the ways in which fire has functioned intellectually in Western civilization as mythology, as religion, as natural philosophy and as modern science. The great phase change occurred with the development of industrial

combustion; fire faded from quotidian life, which also removed it from the world of informing ideas. Beginning with the discovery of oxygen, fire as an organizing concept fragmented into various sub-disciplines of natural science and forestry. The Anthropocene, however, may revive the intellectual role of fire as an informing idea or at least a narrative conceit. This article is part of the themed issue “The interaction of fire and mankind.”

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Adhikari, Binay Kumar & Anup Agrawal. 2016. Does local religiosity matter for bank risk-taking? *Journal of Corporate Finance* 38. 272–293.
doi:10.1016/j.jcorpfin.2016.01.009.

Researchers investigate whether local religiosity matters for risk-taking by banks. Banks headquartered in more religious areas exhibit lower stock return volatility, lower tail risk, and lower idiosyncratic risk. They also tend to be farther away from default as measured by their z-scores. But these banks command lower market valuations during normal times. These results stand up to several robustness checks, tests for mitigating endogeneity concerns, and are supported by an analysis of bank CEOs’ religiosity. Moreover, banks in more religious areas remain less vulnerable to crises. To reduce risk, these banks grow their assets more slowly, hold safer assets, rely less on non-traditional banking, and provide less incentives to their executives to increase risks. Local religiosity has a more pronounced influence on risk-taking by banks for which local investors and managers are more important. Overall, this paper contributes to the literature by uncovering an important and previously unidentified determinant of risk-taking by banks, namely, religion-induced risk aversion.

Baker, Joseph O. & Andrew L. Whitehead. 2016. Gendering (Non)Religion: Politics, Education, and Gender Gaps in Secularity in the United States. *Social Forces* 94(4). 1623–1645.
doi:10.1093/sf/sov119.

Gender gaps in religiosity among Western populations, such that women are more religious than men, are well documented. Previous explanations for these differences range from biological predispositions of risk aversion to patriarchal gender socialization, but all largely overlook the intersection of social statuses. Drawing on theories of intersectionality, researchers contribute to the cultural and empirical analysis of gender gaps in religiosity by documenting an interactive effect between gender, education, and political views for predicting religious non-affiliation and infrequent attendance at religious services among Americans. For highly educated political liberals, gender gaps effectively disappear, such that men and women are almost equally likely to be secular (or religious). The results have implications for the long-standing disputes about the gendered “nature” of religiosity and highlight the importance of multiple intersecting statuses and modalities in shaping aggregate patterns of religiosity and secularity.

Berns, Steph. 2016. Considering the glass case: Material encounters between museums, visitors and religious objects. *Journal of Material Culture* 21(2). 153–168.
doi:10.1177/1359183515615896.

This article considers the often overlooked, or looked through, museum display case. Glass cases provide physical barriers between museum exhibits and visitors. Their efficacy is what keeps them hidden. But when the case obstructs a visitor–object interaction, their presence becomes strikingly obvious. The usually discerning cases are blamed for disrupting, distancing and inhibiting museum experiences. Yet, cases can facilitate many encounters that aid visitors’ abilities to connect devotionally with exhibits. To explore the active role that glass cases play, this article employs an actor–network approach to examine interactions at an exhibition on medieval Christian relics, where the cases acted as channels and barriers within the process of veneration, as well as the means to erase traces of religious practices. Situated in debates about materiality and lived religion, this article considers the role of mundane material objects in visitor–object encounters and the mediated nature of religious experiences in non-devotional spaces.

Cerasa, Antonio, Giuditta Lombardo, Doriana Tripodi, Elisabetta Stillitano, Alessia Sarica, Vera Gramigna, Iolanda Martino, et al. 2016. Five-factor personality traits in priests. *Personality and Individual Differences* 95. 89–94.

doi:10.1016/j.paid.2016.02.040.

Several studies have demonstrated that religiosity is associated with specific personality traits, such as high Agreeableness/Conscientiousness or low Psychoticism. However, this evidence emerged by investigating active churchgoers with high religious practice or clerical individuals using Eysenck's taxonomy. This study explores, for the first time, personality profiles in Priests ordained by the Roman Catholic Church (n=200) using the Five-Factor Model of personality in an Italian population. Priests were compared with demographically matched non-clerical with high religious practices (HRP, n=301) and non-religious men (NR, n=213). Analysis of variance demonstrated that both Priests and HRP men shared similar personality traits, such as higher Agreeableness, lower Extraversion–excitement seeking and Openness, with respect to NR. However, Priests have distinct traits, such as the highest values of Agreeableness and the lowest Neuroticism sub-facets of angry hostility and impulsiveness, in comparison with other groups. Finally, although high Conscientiousness characterized both the Priest and HRP groups, surprisingly, researchers found that this psychological trait was only more evident in the latter group. Differences in religious order would seem to influence this trait. This study demonstrates that Priests' personality differs from those of HRP men, although some important personality (sub-) facets are similar.

Ciftci, Sabri, Muhammad Asif Nawaz & Tareq Sydiq. 2016. Globalization, contact, and religious identity: A cross-national analysis of interreligious favorability. *Social Science Quarterly* 97(2). 271–292.

doi:10.1111/ssqu.12221.

This article examines cross-national variation in interreligious favorability across the globe. Researchers develop and test several hypotheses linking globalization to attitudes toward the religious other through mechanisms of religious belonging and contact. Utilizing cross-national data in 20 countries from the Pew Global Attitudes Surveys (2011), researchers run a series of multilevel and logistic regression estimations to test our hypotheses about global contact, religious identity, and interreligious favorability. It is found that global contact has a positive effect on interreligious favorability, whereas holding religious identity increases negative sentiments toward religious outgroups. Researchers also find that increased levels of globalization inhibit the negative impact of religious belonging and threat perceptions on favorable views of the religious other. Although globalization increases the salience of religion as an exclusive identity category at the expense of decreased interreligious favorability, individuals become more conducive to interreligious tolerance thanks to frequent social contact at higher levels of globalization.

Cort, Malcolm A., Octavio Ramirez & Samson Chama. 2016. Predicting sexual abstinence among Seventh-day Adventist emerging adults. *The Social Science Journal* 53(2). 199–208.

doi:10.1016/j.soscij.2016.02.010.

This study proposes to strengthen the nascent scholarship investigating sexual behavior among Seventh-day Adventist (SDA) emerging adults. A sample of 592 unmarried, 18- to 25-year-old university students, who are baptized or SDA religious adherents, responded to a questionnaire which investigated their socio-psychological motivations for abstinence. The analysis is guided by the Theory of Planned Behavior. Regression analysis reveals that it is not religiousness, but attitude toward abstinence, the support of friends for the concept of abstinence, and high self-efficacy, that motivates their decision to remain abstinent. These factors remain significant net of other significant co-variables such as authoritarian parenting, coming from a two-parent family, age, and race/ethnicity. Discussion centered on the value of promoting these key constructs rather than religiousness alone, to achieve abstinence among SDA emerging adults.

Dahan, Charles & James E. Monogan III. 2016. The consequences of religious strictness for political participation. *The Social Science Journal* 53(2). 190–198.

doi:10.1016/j.soscij.2015.11.004.

Contemporary media portray highly religious Americans as active political conservatives. This article examines how church strictness influences political participation by churchgoers. researchers argue that church strictness influences aspects of a person's life that are known to influence political participation, so assessing the effect of religion on participation requires considering intermediate factors. To evaluate this theory, researchers analyze the 2006 Portraits of American Life Study, which focused on the role of religion in society. They develop a recursive model of political participation. The results indicate that indirect effects of strictness—through civic involvement, income, and religious participation—mitigate the assumed direct effect of strictness upon political participation. The authors conclude that, although religious groups show political activism in some specific arenas, strict churches are not strong political mobilizers in general, as many media portrayals may lead one to believe.

Davis, William E. & Joshua A. Hicks. 2016. Judgments of Meaning in Life, Religious Beliefs, and the Experience of Cognitive (Dis)Fluency. *Journal of Personality* 84(3). 291–305.
doi:10.1111/jopy.12159.

The primary aim of the current studies was to test whether religiousness interacted with self-reported levels of meaning in life (MIL) to predict the ease or difficulty in judging one's MIL, the search for meaning itself, and religious doubt. Undergraduate students in Study 1 (n=111) and adult participants recruited online in Study 2 (n=206) completed measures of religious beliefs, MIL, cognitive fluency related to MIL, and related variables. Study 3 merged these data sets. In Study 4 (n=255), online participants completed measures of religious beliefs, cognitive fluency related to religious beliefs, and MIL. Studies 1 and 2 showed that highly religious people with lower MIL reported greater difficulty making their MIL judgments than other people. Study 3 showed that they were also more likely to search for MIL and that disfluency mediated this effect. Study 4 demonstrated that they also reported more difficult judgments of religious beliefs and more religious doubts than their religious peers with high MIL. The current studies demonstrate that the experience of ease or difficulty associated with MIL judgments represents an important yet largely unexamined aspect of MIL. These findings have implications for understanding the cognitive mechanisms underlying responses to meaning threats.

Dowd, Robert A. 2016. Religious diversity and religious tolerance: Lessons from Nigeria. *Journal of Conflict Resolution* 60(4). 617–644.
doi:10.1177/0022002714550085.

This article seeks to understand the impact of religious diversity on religious tolerance in developing countries and draws lessons from the case of Nigeria. Religious diversity has appeared to prompt religious intolerance in Nigeria when the country is viewed from a distance. However, this article reveals important subnational variation. Using original survey data collected in 2006, the author compares the impact of religious observance on respect for religious freedom across four settings within Nigeria and find religious observance was having, at the time of the survey, a more positive impact on respect for religious freedom in the most religiously diverse and integrated of the four settings. In-depth interviews indicate that Christian and Muslim religious leaders more openly encouraged religious tolerance in religiously diverse and integrated settings than in religiously homogenous settings. Substantively, this study suggests that religious segregation rather than religious diversity has inhibited religious tolerance in Nigeria and provides a baseline for assessing how changes in religious diversity and sociopolitical conditions across time affect the likelihood that Christianity and Islam are applied in ways that promote or impede tolerance. Methodologically, it reveals the importance of examining individual-level data and subnational variation when attempting to understand the political impact of religion in any country.

Dueck, Al & Austin Johnson. 2016. Cultural psychology of religion: Spiritual transformation. *Pastoral Psychology* 65(3). 299–328.
doi:10.1007/s11089-016-0690-8.

Cultural psychology as a field has emerged over the past 30 years, but little effort has been expended in extrapolating its findings to transformative religious experiences. This essay posits a model of cultural psychology of religion and then uses it to assess Rambo and Farhadian's (2014) Oxford Handbook of Religious Conversion. The collection of essays in this handbook provides extensive and diverse perspectives on significant life changes labeled as such by the individuals involved and/or their communities. Instances of alignment with and departure from a cultural psychology of religion perspective are discussed, with careful attention given to the implications of indigenous views of selfhood, community, and religion for the phenomenon of religious transformation. The authors present cultural psychology of religion as a mutually constellating network of cultural, psychological, and religious phenomena. Spiritual change, then, is a movement, be it subtle or extreme, from one cultural/psychological world to another. In expounding this view, the authors will refer for support to three exemplars of spiritual change (one each from the Muslim, Protestant, and Jewish traditions), the literature from the handbook, and other studies on the cultural psychology of religion.

- Golubickis, Marius, Lucy B.G. Tan, Johanna K. Falben & C. Neil Macrae. 2016. The observing self: Diminishing egocentrism through brief mindfulness meditation. *European Journal of Social Psychology* 46(4). 521–527.
doi:10.1002/ejsp.2186.

Reflecting the egocentrism that permeates contemporary society, people often believe they stand out in the eyes of others (i.e., the spotlight effect), a conviction that is entirely misplaced. Although considerable efforts have focused on elucidating the consequences of the spotlight effect, much less is known about factors that may attenuate this illusory perception. Accordingly, the current study explored the possibility that, via shifts in perspectives on the self (i.e., first person vs. third person), brief mindfulness-based meditation may reduce a future-oriented variant of this bias. The results revealed that, compared with responses in the control conditions (i.e., control meditation or no mediation), brief mindfulness-based meditation fostered the adoption of a third-person vantage point during mental imagery and diminished perceptions of personal salience.

- Hawley, Jamie D. & Staycie L. Flint. 2016. “It looks like a demon”: Black masculinity and spirituality in the age of Ferguson. *The Journal of Men's Studies* 24(2). 208–212.
doi:10.1177/1060826516641107.

In this commentary, researchers contribute to the broader men's studies research and thought with particular focus on the Black male experience locating Black masculinity and Black spiritual identity as the potential site of trauma and soul murder through the saga of Ferguson, Missouri and the Mike Brown murder of 2014.

- Hirsch-Hoefler, Sivan, Daphna Canetti & Ehud Eiran. 2016. Radicalizing religion? Religious identity and settlers' behavior. *Studies in Conflict & Terrorism* 39(6). 500–518.
doi:10.1080/1057610X.2015.1127111.

Does religious identity prompt radical action? This article presents a model of individual-level radical action. Drawing mostly on collective action theory the article posits that organizational membership drives the effect of religious identity on individual-level radical action. Using survey data, the article assesses the behavior of Jewish settlers in the West Bank in the face of the 2005 Gaza withdrawal. The article finds that contra the prevailing view, which holds that religious identity alone is sufficient to trigger violence, evidence suggests that organizational membership is a mechanism bridging religious identity and radical action. Longstanding arguments tying radical actions solely to religion may require substantial revision.

- Jones, Rachel K., Lori F. Frohwirth & Nakeisha M. Blades. 2016. “If I know I am on the pill and I get pregnant, it's an act of God”: Women's views on fatalism, agency and pregnancy. *Contraception* 93(6). 551–555.
doi:10.1016/j.contraception.2016.02.005.

Fatalism is the idea that outside forces have control over events. Pregnancy and pregnancy prevention play a prominent role in many women's lives, and researchers sought to understand if and how fatalism informed their thinking about these issues. Researchers conducted in-depth interviews with 52 unmarried women between the ages of 18 and 30. The current analysis focuses on the ways that women discussed fatalism and pregnancy both in response to a direct question and as it came up spontaneously. The majority of respondents expressed a mix of fatalistic and non-fatalistic views about pregnancy. Many related that "fate," "destiny" and/or God play a role in pregnancy, but most also asserted that pregnancy risk could be substantially reduced, most commonly by using contraception. Fatalism sometimes served a positive function, for example as a mechanism to deal with an unintended pregnancy. Having a fatalistic outlook did not preclude contraceptive use. Rather, some women using highly effective methods related that if they were to become pregnant, they would interpret it as a sign that the pregnancy was "meant to happen." Finally, some women related that there was no guarantee a woman could get pregnant when she wanted to, suggesting that some degree of fatalism may be inevitable when it comes to pregnancy.

Jones, Rhys D. & Jesse Heley. 2016. Post-pastoral? Rethinking religion and the reconstruction of rural space. *Journal of Rural Studies* 45. 15–23.
doi:10.1016/j.jrurstud.2016.02.008.

The emergence of an extensive literature exploring the post-secularism in recent years has revived interest in the role of religion in society. However, such studies are overwhelmingly focused on the urban experience, while the relationship between rurality and post-secularism remains largely unconsidered. Set against the back-drop of challenges to rural religious organization, such as redundant buildings, merged parishes, and lack of incumbents, this paper examines the endogenous actions of lay-people in sustaining religious services. Examining the examples of Church in Wales and Muslim worshippers in rural Wales, researchers argue that these actions constitute a "post-pastoral" experience, which although maintaining religious identities, challenge the traditional community leadership roles associated with professional clerics. As a consequence, distinctions between urban and rural experiences of post-secular activities are revealed, suggesting that the potential for the countryside to experience similar involvement of faith-based organizations in benevolent action as the city is limited. This highlights the need for more attention on training and support for lay-people by religious organizations by both academics and policy formulators.

Kobza, Matthew & Nicholas P. Salter. 2016. Young adults' expectations about the values of religious and spiritual people. *Psi Chi Journal of Psychological Research* 21(2). 70–79.

Previous research has extensively studied the concepts of religion and spirituality. However, less research has been conducted that looks at how the general public characterizes the core values of religion and spirituality. The current study examined 225 participants enrolled in an undergraduate psychology class. Participants filled out 1 of 2 surveys. One asked what they believed were the values of spiritual people, and the other asked what they believed were the values of religious people. The findings showed that, compared to spiritual people, religious people were characterized as placing more importance on attending church services, more importance on prayer, and more importance on a connection to God. However, both groups were seen as placing importance on doctrine and beliefs. The results reinforced the notion that the values of religious and spiritual people are seen as similar in some ways, but different in others.

May, Matthew & David Smilde. 2016. Minority Participation and Well-Being in Majority Catholic Nations: What Does It Mean to be a Religious Minority? *Journal of Religion and Health* 55(3). 874–894.
doi:10.1007/s10943-015-0099-1.

This paper examines the effect of religious majority size on religious minority well-being. Religious minorities face a number of challenges ranging from deliberate discrimination to inadequate worship space and accommodations. Yet for many of the members of religious minority groups, religion remains an important part of community organizing and individual well-being. Given this paradox, it is important to consider the ways that minority status is

experienced in different contexts and by different groups. Using data on non-Catholics in majority Catholic nations, this paper demonstrates that the personal benefits of participation in a minority religion are dependent on the size of the Catholic majority. Although religious minorities generally experience health and wellness gains via their engagement with religious communities, the non-Catholic residents of some Catholic nations score higher on self-reports of mental and physical health when they are not actively engaged with their religious tradition. Explanations for this conditional relationship are considered in the discussion of the results.

Moxley, David P. & Olivia G. M. Washington. 2016. Souls in Extremis: Enacting Processes of Recovery from Homelessness Among Older African American Women. *Journal of Religion and Health* 55(3). 1038–1054.
doi:10.1007/s10943-015-0180-9.

In a midwestern city of the USA, the authors implemented the Leaving Homelessness Intervention Research Project and its eight subprojects to further understand homelessness as experienced by older minority women, develop intervention strategies to facilitate the movement of the participants out of homelessness, and illuminate the women's recovery process. After reviewing the social issue of homelessness among older African American women in the USA, and offering a framework on recovery and qualitative themes of recovery among participants involved in the Telling My Story subproject, the authors present a four-factor model of recovery-focused practice. The model reflects two recovery paradigms: one that is responsive to the negative consequences people experience as a result of their exposure to extreme situations, such as homelessness, and a proactive one in which assistance is designed to help people in recovery advance their own self-development and move forward their process of individuation.

Perry, Samuel L. 2016. From bad to worse? Pornography consumption, spousal religiosity, gender, and marital quality. *Sociological Forum* 31(2). 441–464.
doi:10.1111/socf.12252.

Pornography consumption is consistently associated with lower marital quality. Scholars have theorized that embeddedness within a religious community may exacerbate the negative association between pornography use and marital quality because of greater social or psychic costs to porn viewing. As a test and extension of this theory, the author examines how being married to a religiously devout spouse potentially moderates the link between respondents' reported pornography consumption and their marital satisfaction. Data are taken from the 2006 Portraits of American Life Study. In the main effects, porn consumption is negatively related to marital satisfaction, while spousal religiosity is positively related to marital satisfaction. Interaction effects reveal, however, that spousal religiosity intensifies the negative effect of porn viewing on marital satisfaction. These effects are robust whether marital satisfaction is operationalized as a scale or with individual measures and whether spousal religiosity is measured with respondents' evaluations their spouses' religiosity or spouses' self-reported religiosity measures. The effects are also similar for both husbands and wives. The author concludes that, for married Americans, having a religiously committed spouse increases the social and psychic costs of porn consumption such that marital satisfaction decreases more drastically as a result.

Perry, Samuel L. 2016. Spouse's religious commitment and marital quality: Clarifying the role of gender. *Social Science Quarterly* 97(2). 476–490.
doi:10.1111/ssqu.12224.

Research on religion and marriage consistently finds a positive association between spousal religious commitment and more positive marital outcomes. But findings regarding the moderating influence of gender on this relationship have been mixed. This article clarifies whether returns to marital quality from having a devout spouse are greater for married women or men. Drawing on data from the nationally representative 2006 Portraits of American Life Study, and utilizing 12 different measures of marital quality, the author estimates ordinary least squares (OLS) and logistic regression models to test my hypotheses. In analyses of the full sample, spouse's religious commitment generally predicts positive marital outcomes, net of controls for respondents' gender as well as their religious and

sociodemographic characteristics. However, when models are estimated for women and men separately, the returns to marital quality from having a religiously committed spouse are much stronger and more consistent for women than for men. The findings suggest that, ceteris paribus, having a spouse who is more religious predicts positive marriage outcomes, but women benefit from having a religiously committed spouse more than men do.

- Rasmussen, Kyler & Alex Bierman. 2016. How does religious attendance shape trajectories of pornography use across adolescence? *Journal of Adolescence* 49. 191–203.
doi:10.1016/j.adolescence.2016.03.017.

Research increasingly calls attention to the possibility of detrimental consequences of pornography use among adolescents. However, few studies examine adolescent pornography consumption longitudinally or consistently examine the role of religion in shaping pornography consumption, despite an established theoretical basis for the moderating effects of religious attendance on pornography consumption. Using a national longitudinal survey that follows respondents from adolescence into young adulthood, researchers show that pornography use increases sharply with age, especially among boys. Pornography consumption is weaker at higher levels of religious attendance, particularly among boys, and religious attendance also weakens age-based increases in pornography consumption for both boys and girls. Overall, pornography use increases across adolescence into young adulthood, but immersion in a religious community can help weaken these increases. Future research should follow respondents across adulthood, as well as examine additional aspects of religiosity (e.g., types of religious belief or the regular practice of prayer).

- Siani, Merav & Orit Ben-Zvi Assaraf. 2016. The Moral Reasoning of Genetic Dilemmas Amongst Jewish Israeli Undergraduate Students with Different Religious Affiliations and Scientific Backgrounds. *Journal of Genetic Counseling* 25(3). 596–609.
doi:10.1007/s10897-015-9918-5.

The main objective of this study was to shed light on the moral reasoning of undergraduate Israeli students towards genetic dilemmas, and on how these are affected by their religious affiliation, by the field they study and by their gender. An open ended questionnaire was distributed among 449 undergraduate students in institutions of higher education in Israel, and their answers were analyzed according to the framework described by Sadler and Zeidler. They were divided into two major categories: those whose reasoning was based on the consideration of moral consequences (MC), and those who supported their opinion by citing non-consequentialist moral principles (MP). Students' elaborations to questions dealing with values towards genetic testing showed a correlation between the students' religious affiliation and their reasoning, with religious students' elaborations tending to be more principle based than those of secular ones. Overall, the students' elaborations indicate that their main concern is the possibility that their personal genetic information will be exposed, and that their body's personal rights will be violated. The authors conclude the paper by offering several practical recommendations based on our findings for genetic counseling that is specifically tailored to fit different patients according to their background.

- Tongeren, Daryl R. Van, Joshua N. Hook, Don E. Davis, Jamie Aten & Edward B. Davis. 2016. Ebola as an Existential Threat? Experimentally-Primed Ebola Reminders Intensify National-Security Concerns Among Extrinsically Religious Individuals. *Journal of Psychology & Theology* 44(2). 133–141.

One of religion's psychological functions is to buffer against existential anxieties. This function may be especially pronounced among extrinsically religious individuals, who tend to harness religion for its personal and social benefits (e.g., emotional security, strengthened ingroup ties). Hence, in 2 experimental priming studies conducted within weeks of the first confirmed case of Ebola in the U.S., researchers examined whether extrinsically religious persons were especially likely to experience Ebola reminders as an existential threat that intensified national-security concerns (e.g., supporting strict travel bans, border security, and immigration laws). In Experiment 1 (n=368), extrinsic religiousness was more strongly associated with national-security concerns in the Ebola prime, relative to a control group. In Experiment 2 (n=532), researchers added a mortality salience condition. Replicating Experiment 1,

extrinsic religiousness was more strongly associated with national-security concerns in both the Ebola prime and mortality salience conditions, relative to a control group. Taken together, large-scale existential threats may be especially likely to intensify pro-ingroup/ anti-outgroup biases among extrinsically religious individuals.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

Kato, Hiroki. 2016. The Relationship between the Psychology of Religion and Buddhist Psychology. *Japanese Psychological Research* 58. 70–84.
doi:10.1111/jpr.12121.

The psychology of religion and Buddhist psychology have deep historical connections. However, there has been a lack of discourse between these fields of study. Therefore, this paper focuses on the relationship between the psychology of religion and Buddhist psychology as well as the history and research trends of each field. Recently, studies on the psychology of religion and Buddhist psychology have attracted attention based on the concepts of “spirituality” and “mindfulness.” Moreover, there have been a number of psychotherapeutic techniques developed that are based on mindfulness meditation. The relationship between the psychology of religion and Buddhist psychology is complex and often the subject of confusion. The complexity results from the fact that Buddhism could be seen as an alternative to psychology in the analysis of the mind; and moreover, Buddhism also contains aspects of psychotherapy that bring peace of mind.

PART 2: ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Ajibade, Adebayo, Joshua N. Hook, Shawn O. Utsey, Don E. Davis & Daryl R. Van Tongeren. 2016. Racial/ethnic identity, religious commitment, and well-being in African Americans. *Journal of Black Psychology* 42(3). 244–258.
doi:10.1177/0095798414568115.

Although the study of positive psychology has flourished in recent years, most research has focused on White samples. There is, however, a growing body of research examining cultural factors that may contribute to the psychological health and well-being of African Americans. The present study examined the associations between racial/ethnic identity, religious commitment, satisfaction with life, and meaning in a sample of African Americans (n=199). Racial/ethnic identity was positively associated with satisfaction with life and meaning, and these associations were partially mediated by high religious commitment. Researchers conclude by discussing implications for the findings and areas for future research.

Amadi, K. U., R. Uwakwe, P. C. Odinka, A. C. Ndukuba, C. R. Muomah & J. U. Ohaeri. 2016. Religion, coping and outcome in out-patients with depression or diabetes mellitus. *Acta Psychiatrica Scandinavica* 133(6). 489–496.
doi:10.1111/acps.12537.

The study assesses the association between religiosity and coping style with the outcome of depression and diabetes. Using a simple random sampling, Researchers recruited 112 participants with diabetes and an equal number with depression consecutively, matching for gender. Religiosity was determined using Religious Orientation Scale (revised) (ROS-R), coping styles with Brief Religious Coping (Brief RCOPE) scale and Mental Adjustment to Cancer (MAC) scale (adapted). Primary and secondary outcomes were evaluated using Sheehan's Disability Scale (SDS) and Beck's Depression Inventory-II (BDI-II) respectively. Among participants with diabetes, BDI-II total scores correlated negatively with ROS-R Extrinsic Social and Fighting Spirit but correlated positively with Helplessness/Hopelessness and Brief RCOPE Negative. SDS global scores correlated positively with Helplessness/Hopelessness and Brief RCOPE Negative. Among participants with depression, BDI-II total scores correlated negatively with Intrinsic religiosity and Fighting Spirit but correlated positively with Helplessness/Hopelessness and Brief RCOPE Negative. SDS global scores correlated negatively with Intrinsic religiosity and Fighting Spirit but correlated positively with Helplessness/Hopelessness and Brief RCOPE Negative.

Aziato, Lydia, Philippa N. A. Odai & Cephas N. Omenyo. 2016. Religious beliefs and practices in pregnancy and labour: An inductive qualitative study among post-partum women in Ghana. *BMC Pregnancy and Childbirth* 16(1). 138.
doi:10.1186/s12884-016-0920-1.

Religiosity in health care delivery has attracted some attention in contemporary literature. The religious beliefs and practices of patients play an important role in the recovery of the patient. Pregnant women and women in labor exhibit their faith and use religious artefacts. This phenomenon is poorly understood in Ghana. The study sought to investigate the religious beliefs and practices of post-partum Ghanaian women. A descriptive phenomenological study was conducted inductively involving 13 women who were sampled purposively. Individual in-depth interviews were conducted in English, Ga, Twi and Ewe. The interviews were audio-taped and transcribed. Concurrent analysis was done employing the principles of content analysis. Themes generated revealed religious beliefs and practices such as prayer, singing, thanksgiving at church, fellowship and emotional support. Pastors' spiritual interventions in pregnancy included prayer and revelations, reversing negative dreams, laying of hands and anointing women. Also, traditional beliefs and practices were food and water restrictions and tribal rituals. Religious artefacts

used in pregnancy and labor were anointing oil, blessed water, sticker, blessed white handkerchief, blessed sand, Bible and Rosary. Family influence and secrecy were associated with the use of artefacts.

- Barrows, Jennifer L. & Julie Fleury. 2016. Systematic Review of Yoga Interventions to Promote Cardiovascular Health in Older Adults. *Western Journal of Nursing Research* 38(6). 753–781. doi:10.1177/0193945915618610.

The benefits of physical activity are well established, yet few older adults engage in adequate physical activity to optimize health. While yoga may reduce the risk of cardiovascular disease, few studies have focused on the efficacy of yoga-based physical activity to promote cardiovascular health in older adults. The objective of this review is to provide an evaluation of yoga interventions to reduce cardiovascular risk in older adults. Four databases were searched for randomized controlled trials of yoga interventions in older adults. Studies with cardiovascular outcomes were included. Literature searches identified nine articles eligible for review. Significant health benefits were reported, including favorable changes in blood pressure, body composition, glucose, and lipids. Yoga practices, participant characteristics, and outcome measures were variable. There was limited use of theory. Yoga is safe and feasible in older adults; additional research is warranted to examine the specific components of yoga interventions essential to reducing cardiovascular risk.

- Bhargav, Praerna, Hemant Bhargav, Nagarathna Raghuram & Christoph Garner. 2016. Immediate effect of two yoga-based relaxation techniques on cognitive functions in patients suffering from relapsing remitting multiple sclerosis: A comparative study. *International Review of Psychiatry* 28(3). 299–308. doi:10.1080/09540261.2016.1191447.

Cognitive impairment (CI) is an important feature of relapsing remitting multiple sclerosis (RRMS). Yogic relaxation techniques have been found useful in improving various cognitive domains in health and disease. Eighteen subjects (13 females) in the age range of 51.5 ± 12.72 years with the diagnosis of RRMS by a neurologist since last 18.16 ± 12.59 years were recruited into the study from a neuro-rehabilitation center in Germany. Assessments were done before and immediately after two randomly allocated 30-min sessions of yogic relaxation: Cyclic Meditation (CM) and SR (supine rest orshavasana). Assessments were done for attention, psychomotor performance, information processing speed, executive functions, and immediate and delayed recall using standard psychometric tools. Both CM and SR sessions improved scores on Digit Symbol Substitution Test (DSST) and Auditory Verbal Learning Test. There was a significantly better performance in Trail Making Test (TMT)-A and forward digit span (FDS) after CM as compared to SR. Yogic relaxation techniques may have an immediate enhancing effect on processing speed, psychomotor performance, and recall of RRMS patients. CM is better than SR in improving processing speed, short-term memory, and verbal working memory.

- Cantarino, Sagrario Gómez, José Manuel de Matos Pinto, Joana Alice da Silva Amaro de Oliveira Fabião, Ana Maria Carrobles García, Minerva Velasco Abellán & Manuel Alves Rodrigues. 2016. The Importance of Religiosity/Spirituality in the Sexuality of Pregnant and Postpartum Women. *PLoS One* 11(6). e0156809. doi:10.1371/journal.pone.0156809.

In this article, researchers decided to study the representation of the Spanish pregnant and postpartum women and the importance of religiosity/spirituality and the social context for them. Researchers analyzed the influence of religion on the woman within her social context, seeking to understand how pregnant and postpartum women experience their sexuality according to their religious beliefs and the opinion of others from a socially learned perspective using qualitative study using ethnography. This study aims at understanding reality from the women's point of view, acknowledging that the points of view are constructed through interaction with others, through cultural and historical norms that influence the lives of individuals. The findings indicate a difference in the religious beliefs and sexual behaviors of these women, which is more marked in urban than rural areas. Mothers have an influence on their

daughters, conditioning their behavior. The authors conclude that the process of change is underway. However, some paradoxes still persist concerning the sexual roles to be adopted, as well as some contradictions between sexual behaviors and the statements on religion. Within the scope of our study, the authors can confirm that pregnant and postpartum women are more or less pressured by the religious and social norms conveyed by their mothers, mainly in rural settings. From an external point of view, to be sexually free goes against the maternal and social expectations. However, the internal representation, marked by religion, that has been experienced over the years does not change the narratives of sexual experiences, assigning women to traditional role. This role brings conflict more or less assumed by women.

- Carey, Lindsay B., Christine Hennequin, Lillian Krikheli, Annette O'Brien, Erin Sanchez & Candace R. Marsden. 2016. Rural Health and Spiritual Care Development: A Review of Programs across Rural Victoria, Australia. *Journal of Religion and Health* 55(3). 928–940.
doi:10.1007/s10943-015-0119-1.

Given declining populations in rural areas and diminishing traditional religious support, this research explores whether spiritual care education programs would be beneficial for and appreciated by those working in rural health and/or community organizations. An overview of literature identified three dominant rural health issues affecting the provision of spiritual care in rural areas, namely the disparity between rural and urban areas in terms of resources, the lack of access to services, plus the need for education and training within rural areas. Spiritual Health Victoria Incorporated (Victoria, Australia) sought to address these issues with the implementation of a variety of spiritual education programs within rural areas. Results of an evaluation of these programs are presented specifying participant demographics, reasons why participants attended, their evaluation of the program and any recommendations for future programs. In overall terms, the results indicated that at least 90 % of participants favorably rated their attended program as either “very good” or “good” and indicated that the main reason for their attendance was to develop their own education and/or practice of spiritual care within their rural context for the benefit of local constituents.

- Carmack, Chakema C. & Rhonda K. Lewis. 2016. Assessing Whether Religious Behaviors and Positive and Negative Affect Are Associated with Alcohol Use and Abuse Among a Sample of College Students Living in the Midwest. *Journal of Religion and Health* 55(3). 1107–1119.
doi:10.1007/s10943-016-0214-y.

Alcohol use and abuse are a problem on college campuses. Religious behaviors (religious attendance, prayer, and importance) have been shown to be a protective factor against alcohol use among college students. This study examined the role religious behaviors and positive and negative affect had on drinking (alcohol use and alcohol to intoxication). College students (765) completed an online survey. The results showed that college students who attended religious services were less likely to use alcohol than those who did not attend religious services.

- Clayton-Jones, Dora, Kristin Haglund, Ruth Ann Belknap, Jame Schaefer & Alexis A. Thompson. 2016. Spirituality and Religiosity in Adolescents Living with Sickle Cell Disease. *Western Journal of Nursing Research* 38(6). 686–703.
doi:10.1177/0193945915625065.

This study purports to address paucity in the literature regarding how adolescents with sickle cell disease (SCD) describe and experience spirituality and religiosity (S/R). This was a qualitative descriptive study. Two semi-structured interviews were conducted with nine adolescents. Data were analyzed using a template analysis style and a concurrent analysis process of data reduction. Three major themes encompassed the participants' descriptions of the relationships between S/R, health and illness in their lives including S/R as sources for coping, influence of S/R beliefs on health and illness, and sharing S/R with Health Care Providers (HCPs). S/R as coping mechanisms included six threads: interconnecting with God, interconnecting with others, interconnecting with creative arts, scriptural metanarratives, transcendent experiences, and acceptance and finding meaning. Expectations of health

providers included two threads: Religiosity is private/personal and sharing spiritual and religious beliefs is risky. S/R are particularly salient for adolescents with SCD.

- Cruz, Jonas Preposi, Paolo C. Colet, Hikmet Qubeilat, Jazi Al-Otaibi, Erwin I. Coronel & Roderick C. Suminta. 2016. Religiosity and Health-Related Quality of Life: A Cross-Sectional Study on Filipino Christian Hemodialysis Patients. *Journal of Religion and Health* 55(3). 895–908. doi:10.1007/s10943-015-0103-9.

This study aimed to measure the religiosity and health-related quality of life of Filipino Christian HD patients. A cross-sectional study of 100 HD patients was conducted. The Duke University Religion Index and the Ferrans and Powers QLI Dialysis Version-III were used. Data were analyzed using descriptive statistics and Pearson r correlation. Attendance to organizational religious activities and NORA were found to be correlated with some of the dimensions of HRQoL. Intrinsic religiosity showed a strong, positive correlation with HRQoL. It is essential to attend to and nourish their religious needs. Holistic approach in providing care to HD patients, with emphasis on spiritual care, is encouraged to improve their total health.

- Cucciare, Michael A., Xiaotong Han, Geoffrey M. Curran & Brenda M. Booth. 2016. Associations Between Religiosity, Perceived Social Support, and Stimulant Use in an Untreated Rural Sample in the U.S.A. *Substance Use & Misuse* 51(7). 823–834. doi:10.3109/10826084.2016.1155611.

Religiosity and perceived social support (SS) may serve as protective factors for more severe substance use in adults. This study sought to examine whether aspects of religiosity and SS are associated with longitudinal reductions in stimulant use over three years in an untreated sample of rural drug users. Respondent-driven sampling was used to recruit stimulant users (n=710) from Arkansas, Kentucky, and Ohio. Follow-up interviews were conducted at 6-month intervals for 36 months. Bivariate findings indicate that higher religiosity was associated with lower odds and fewer days of methamphetamine and cocaine use. After controlling for covariates, higher religiosity was associated with fewer days of crack cocaine use, but more days of methamphetamine use among a small sample of users in the two final interviews. Higher SS from drug-users was also associated with higher odds and days of methamphetamine and powder cocaine use, while higher SS from nondrug users was associated with fewer days of methamphetamine use.

- Dey, Anilesh, D. K. Bhattacha, D.N. Tibarewala, Nilanjan Dey, Amira Ashour, Dac-Nhuong Le, Evgeniya Gospodinova & Mitko Gospodinov. 2016. Chinese-chi and Kundalini yoga Meditations Effects on the Autonomic Nervous System: Comparative Study. *International Journal of Interactive Multimedia & Artificial Intelligence* 3(7). 87. doi:10.9781/ijimai.2016.3713.

Cardiac disease is one of the major causes for death all over the world. Heart rate variability (HRV) is a significant parameter that used in assessing Autonomous Nervous System (ANS) activity. Generally, the 2D Poincaré plot and 3D Poincaré plot of the HRV signals reflect the effect of different external stimuli on the ANS. Meditation is one of such external stimulus, which has different techniques with different types of effects on the ANS. Chinese Chi-meditation and Kundalini yoga are two different effective meditation techniques. The current work is interested with the analysis of the HRV signals under the effect of these two based on meditation techniques. The 2D and 3D Poincaré plots are generally plotted by fitting respectively an ellipse/ellipsoid to the dense region of the constructed Poincaré plot of HRV signals. However, the 2D and 3D Poincaré plots sometimes fail to describe the proper behavior of the system. Thus in this study, a three-dimensional frequency-delay plot is proposed to properly distinguish these two famous meditation techniques by analyzing their effects on ANS. This proposed 3D frequency-delay plot is applied on HRV signals of eight persons practicing same Chi-meditation and four other persons practicing same Kundalini yoga. To substantiate the result for larger sample of data, statistical Student t-test is applied, which shows

a satisfactory result in this context. The experimental results established that the Chi-meditation has large impact on the HRV compared to the Kundalini yoga.

- Doane, Michael J. & Marta Elliott. 2016. Religiosity and Self-Rated Health: A Longitudinal Examination of Their Reciprocal Effects. *Journal of Religion and Health* 55(3). 844–855.
doi:10.1007/s10943-015-0056-z.

While religiosity tends to be favorably associated with physical health, further research is needed to assess the causal directions between religiosity and health. This study examined reciprocal pathways between them with a three-wave panel dataset (General Social Survey, 2006-2010). Among Christians (n=585), religious activities were associated with improved self-rated health, while conservative religious beliefs were associated with worsened health over time. Additionally, worse health was associated with increased engagement in religious activities and greater endorsement of conservative religious beliefs over time. Results highlight the need for additional research and theory to map the complexity of the religion-health connection.

- Evangelista, Carla Braz, Maria Emilia Limeira Lopes, Solange Fatima Geraldo da Costa, Patricia Serpa de Souza Batista, Jaqueline Brito Vidal Batista & Amanda Maritsa de Magalhães Oliveira. 2016. Palliative care and spirituality: an integrative literature review. *Revista Brasileira De Enfermagem* 69(3). 591–601.
doi:10.1590/0034-7167.2016690324I.

Researchers sought to analyze scientific articles published in international online journals about palliative care and spirituality. Thirty-nine publications were identified and their textual analysis facilitated through four thematic approaches: the meaning of spirituality in the context of palliative care; palliative care and spiritual support; spirituality and relief of pain and other symptoms in patients under palliative care; and instruments to evaluate the spiritual dimension of the scope of palliative care.

- Gainey, Atikarn, Thep Himathongkam, Hirofumi Tanaka & Daroonwan Suksom. 2016. Effects of Buddhist walking meditation on glycemic control and vascular function in patients with type 2 diabetes. *Complementary Therapies in Medicine* 26. 92–97.
doi:10.1016/j.ctim.2016.03.009.

The objective of this study was to investigate and compare the effects of Buddhist walking meditation and traditional walking on glycemic control and vascular function in patients with type 2 diabetes mellitus. Twenty-three patients with type 2 diabetes (50-75 years) were randomly allocated into traditional walking exercise (WE; n=11) or Buddhism-based walking meditation exercise (WM; n=12). Both groups performed a 12-week exercise program that consisted of walking on the treadmill at exercise intensity of 50-70% maximum heart rate for 30min/session, 3 times/week. In the WM training program, the participants performed walking on the treadmill while concentrated on foot stepping by voiced “Budd” and “Dha” with each foot step that contacted the floor to practice mindfulness while walking. After 12 weeks, maximal oxygen consumption increased and fasting blood glucose level decreased significantly in both groups. Significant decrease in HbA1c and both systolic and diastolic blood pressure were observed only in the WM group. Flow-mediated dilatation increased significantly in both exercise groups but arterial stiffness was improved only in the WM group. Blood cortisol level was reduced only in the WM group.

- Goldberg, Deborah Rae, Diane Wind Wardell, Noel Kilgarriff, Berney Williams, David Eichler & Paul Thomlinson. 2016. An Initial Study Using Healing Touch for Women Undergoing a Breast Biopsy. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association* 34(2). 123–134.
doi:10.1177/0898010115585414.

Researchers sought to determine if a noninvasive complementary therapy, Healing Touch, would benefit women undergoing diagnostic procedures for the determination of breast cancer. Women often experience high levels of fear and anxiety during this diagnostic period. An out-patient clinic specializing in breast care management was used.

Seventy-three women age 18 to 85 years old participated, with 31 in the control group of standard care and 42 in the intervention group receiving Healing Touch, a noninvasive energy therapy. A specific technique, magnetic clearing, was provided by a practitioner for 15 minutes prior to the biopsy procedure. Both the State-Trait Anxiety Inventory and the Coping Resources Inventory were used pre-procedurally and the following day to assess changes. A mixed analysis of variance indicated that State Anxiety for the Healing Touch group showed a statistically significant reduction of anxiety that was sustained into the following day. For Trait Anxiety, there was a significant change pre-and post-intervention to the day after. The Coping Resources Inventory had significant changes in two subcategories, Emotional and the Spiritual/Philosophical, in the Healing Touch group.

Haenen, Sharon, Ivan Nyklicek, Jenny van Son, Victor Pop & Francois Pouwer. 2016. Mindfulness facets as differential mediators of short and long-term effects of Mindfulness-Based Cognitive Therapy in diabetes outpatients: Findings from the DiaMind randomized trial. *Journal of Psychosomatic Research* 85. 44–50.
doi:10.1016/j.jpsychores.2016.04.006.

There is increasing evidence that mindfulness-based interventions reduce psychological distress in various medical populations. However, it has hardly been studied if these effects are mediated by an increase in mindfulness. The aim of this study was to examine mediating effects of various mindfulness facets on effects of a Mindfulness Based Cognitive Therapy (MBCT) on perceived stress and mood. Outpatients with diabetes types 1 and 2 and low levels of emotional wellbeing were randomized into a group receiving MBCT (n=70) or a waiting-list control group (n=69). Primary outcomes were mood and perceived stress. Before, after and at follow-up (6 months after intervention) relevant questionnaires were completed. Mediation analysis using bootstrap resampling indicated that increases in total mindfulness and the facets observing and non-reactivity mediated the effects of the intervention on depressed and angry mood, anxiety (only observing), and perceived stress (only non-reactivity) from pre- to post-intervention. In contrast, from post-intervention to follow-up, besides total mindfulness the facets of acting with awareness and non-judging mediated the effects on depressed, anxious, and angry mood, while only non-judging mediated the effects on perceived stress. The findings indicate that increases in levels of mindfulness mediate the effects of the Mindfulness Based Cognitive Therapy in patients with diabetes. It is notable that different facets may be important for immediate change versus long-term outcome.

Hayward, R. David, Neal Krause, Gail Ironson, Peter C. Hill & Robert Emmons. 2016. Health and Well-Being Among the Non-religious: Atheists, Agnostics, and No Preference Compared with Religious Group Members. *Journal of Religion and Health* 55(3). 1024–1037.
doi:10.1007/s10943-015-0179-2.

Although recent research suggests that the proportion of the US population identifying as non-religious has been rapidly expanding over the course of the last decade, relatively little research has examined the implications of this development for health and well-being. This study uses data from a large representative survey study of religion and health in the adult US population (n=3,010) to examine group differences among religious group members (n=2,401) and three categories of non-religious individuals: atheists (n=83), agnostics (n=189), and those stating no religious preference (n=329). MANCOVA was used to analyze group differences on five outcome dimensions, incorporating 27 outcome variables. Religious non-affiliates did not differ overall from affiliates in terms of physical health outcomes (although atheists and agnostics did have better health on some individual measures including BMI, number of chronic conditions, and physical limitations), but had worse positive psychological functioning characteristics, social support relationships, and health behaviors. On dimensions related to psychological well-being, atheists and agnostics tended to have worse outcomes than either those with religious affiliation or those with no religious preference. If current trends in the religious composition of the population continue, these results have implications for its future healthcare needs.

Holder, Mark, Ben Coleman, Tim Krupa & Eugene Krupa. 2016. Well-Being's Relation to Religiosity and Spirituality in Children and Adolescents in Zambia. *Journal of Happiness Studies* 17(3). 1235–1253.

doi:10.1007/s10902-015-9640-x.

The relations among dimensions of subjective well-being (i.e., happiness and life satisfaction), spirituality and religiousness were assessed in children (aged 7-12, n=391) and adolescents (aged 13-19, n=902) in Zambia. These participants were sampled from schools in both urban and rural regions that represented a relatively wide range of affluence. Participants self-reported their happiness using the Faces Scale and the Subjective Happiness Scale, and their life satisfaction using the Student Life Satisfaction Scale. The surveys were available in English as well as two local languages, and were delivered in classroom settings. To assess religiosity, participants were asked about the frequency that they attended church and about the importance of religion in their life. To assess spirituality, participants were asked about whether they considered themselves to be a spiritual person and about the nature domain of spirituality (e.g., "I feel connected to nature"). Results indicated that age, gender, grade and religiosity were not strong predictors of children's well-being. However, spirituality accounted for 21 % of the variance in life satisfaction beyond these demographic variables and religiosity, but did not account for additional variance in happiness. The results were similar for adolescents except that the demographic variables were weakly predictive of their life satisfaction, and religiosity was a modest predictor of their happiness. Spirituality predicted variance in happiness and life satisfaction more so among adolescents than among children. These results confirm earlier work showing that spirituality, but not necessarily religiosity, is associated with children's and adolescents' well-being.

Hopkins, Lindsey B., Johnna L. Medina, Scarlett O. Baird, David Rosenfield, Mark B. Powers & Jasper A. J. Smits. 2016. Heated hatha yoga to target cortisol reactivity to stress and affective eating in women at risk for obesity-related illnesses: A randomized controlled trial. *Journal of Consulting and Clinical Psychology* 84(6). 558–564.

doi:10.1037/ccp0000091.

Cortisol reactivity to stress is associated with affective eating, an important behavioral risk factor for obesity and related metabolic diseases. Yoga practice is related to decreases in stress and cortisol levels, thus emerging as a potential targeted complementary intervention for affective eating. This randomized controlled trial examined the efficacy of a heated, hatha yoga intervention for reducing cortisol reactivity to stress and affective eating. Females (n=52; ages 25–46 years; 75% White) at risk for obesity and related illnesses were randomly assigned to 8 weeks of Bikram Yoga practice or to waitlist control. Cortisol reactivity to a laboratory stress induction were measured at Weeks 0 (pre-treatment) and 9 (post-treatment). Self-reported binge eating frequency and coping motives for eating were assessed at Weeks 0, 3, 6, and 9. Among participants with elevated cortisol reactivity at pretreatment ("high reactors"), those randomized to the yoga condition evidenced greater pre- to posttreatment reductions in cortisol reactivity, but there were not significant condition differences for the "low reactors.". Yoga participants reported greater decreases in binge eating frequency and eating to cope with negative affect.

Innes, Kim E., Terry Kit Selfe, Dharma Singh Khalsa & Sahiti Kandati. 2016. A randomized controlled trial of two simple mind-body programs, Kirtan Kriya meditation and music listening, for adults with subjective cognitive decline: Feasibility and acceptability. *Complementary Therapies in Medicine* 26. 98–107.

doi:10.1016/j.ctim.2016.03.002.

In this randomized controlled trial (RCT), researchers assessed the feasibility and acceptability of two simple home-based relaxation programs in adults experiencing subjective cognitive decline, a strong predictor of Alzheimer's disease. Sixty participants were randomized to a beginner Kirtan Kriya meditation (KK) program or a music listening (ML) program. Participants were asked to practice 12 min daily for the first 12 weeks, then as often as they liked for the following 3 months. Participants underwent assessments at baseline, 12 weeks, and 6 months to

evaluate changes in key outcomes. Feasibility and acceptability were evaluated by measuring recruitment and retention rates, assessment visit attendance, practice adherence, and treatment expectancy; exit questionnaires completed at 12 weeks and 6 months provided additional data regarding participant experience with the study, perceived barriers to and facilitators of practice, reasons for drop-out, and views regarding the assigned intervention. Fifty-three participants (88%) completed the 6-month study. Adherence in both groups was excellent, with participants completing 93% of sessions on average in the first 12 weeks, and 71% during the 3 month, practice-optional, follow-up period. At week 12, over 80% of participants indicated they were likely to continue practicing following study completion. Responses to both structured and open-ended exit questionnaire items also suggested high satisfaction with both programs.

- Johns, Shelley A., Diane Von Ah, Linda F. Brown, Kathleen Beck-Coon, Tasneem L. Talib, Jennifer M. Alyea, Patrick O. Monahan, Yan Tong, Laura Wilhelm & R. Brian Giesler. 2016. Randomized controlled pilot trial of mindfulness-based stress reduction for breast and colorectal cancer survivors: effects on cancer-related cognitive impairment. *Journal of Cancer Survivorship* 10(3). 437–448.
doi:10.1007/s11764-015-0494-3.

Cancer-related cognitive impairment (CRCI) is a common, fatigue-related symptom that disrupts cancer survivors' quality of life. Few interventions for CRCI exist. As part of a randomized pilot study targeting cancer-related fatigue, the effects of mindfulness-based stress reduction (MBSR) on survivors' cognitive outcomes were investigated. Breast and colorectal cancer survivors (n=71) with moderate-to-severe fatigue were randomized to MBSR (n=35) or a fatigue education and support (ES; n=36) condition. The Attentional Function Index (AFI) and the Stroop test were used to assess survivors' cognitive function at baseline (T1), after the 8-week intervention period (T2), and 6 months later (T3) using intent-to-treat analysis. Mediation analyses were performed to explore mechanisms of intervention effects on cognitive functioning. MBSR participants reported significantly greater improvement on the AFI total score compared to ES participants at T2 and T3. MBSR also significantly outperformed ES on most AFI subscales, although both groups improved over time. MBSR produced greater Stroop accuracy rates relative to ES at T2 and T3, with improved accuracy over time only for the MBSR group. There were no significant differences in Stroop reaction time between groups. Improvements in mindfulness mediated the effect of group (e.g., MBSR vs. ES) on AFI total score at T2 and T3. Additional randomized trials with more comprehensive cognitive measures are warranted to definitively assess the efficacy of MBSR for CRCI. This pilot study has important implications for all cancer survivors as it is the first published trial to show that MBSR offers robust and durable improvements in CRCI.

- Jones, Salene M. W., Katherine A. Guthrie, Susan D. Reed, Carol A. Landis, Barbara Sternfeld, Andrea Z. LaCroix, Andrea Dunn, Robert L. Burr & Katherine M. Newton. 2016. A yoga & exercise randomized controlled trial for vasomotor symptoms: Effects on heart rate variability. *Complementary Therapies in Medicine* 26. 66–71.
doi:10.1016/j.ctim.2016.03.001.

Heart rate variability (HRV) reflects the integration of the parasympathetic nervous system with the rest of the body. Studies on the effects of yoga and exercise on HRV have been mixed but suggest that exercise increases HRV. Researchers conducted a secondary analysis of the effect of yoga and exercise on HRV based on a randomized clinical trial of treatments for vasomotor symptoms in peri/post-menopausal women. Study design was a randomized clinical trial of behavioral interventions in women with vasomotor symptoms (n=335), 40–62 years old from three clinical study sites. Interventions consisted of 12-weeks of a yoga program, designed specifically for mid-life women, or a supervised aerobic exercise-training program with specific intensity and energy expenditure goals, compared to a usual activity group. Main outcome measure was time and frequency domain HRV measured at baseline and at 12 weeks for 15 min using Holter monitors. Women had a median of 7.6 vasomotor symptoms per 24 h. Time and frequency

domain HRV measures did not change significantly in either of the intervention groups compared to the change in the usual activity group. HRV results did not differ when the analyses were restricted to post-menopausal women.

- Jorge, Márcia P., Danilo F. Santaella, Isabella M. O. Pontes, Victor K. M. Shiramizu, Ezequiel B. Nascimento, Alícia Cabral, Telma M. A. M. Lemos, Regina H. Silva & Alessandra M. Ribeiro. 2016. Hatha Yoga practice decreases menopause symptoms and improves quality of life: A randomized controlled trial. *Complementary Therapies in Medicine* 26. 128–135. doi:10.1016/j.ctim.2016.03.014.

Yoga practice includes a group of specific psychophysical techniques. Although previous studies showed beneficial effects of yoga for health and rehabilitation, improving quality of life, there are few studies on the possible therapeutic application of yoga during the climacteric period. The purpose of this study was to investigate the psychophysiological effects of Hatha Yoga regular practice in post-menopausal women. Eighty-eight post-menopausal women volunteered for this 12-week trial. They were randomly assigned to one of three groups: control (no intervention), exercise, and yoga. Questionnaires were applied in order to evaluate climacteric syndrome (Menopause Rating Scale), stress (Lipp Stress Symptom Inventory), quality of life (Brief World Health Organization Quality of Life), depression (Beck Depression Inventory) and anxiety (State/Trait Anxiety Inventories). Physiological changes were evaluated through hormone levels (cortisol, FSH, LH, progesterone and estradiol). At 12 weeks, yoga practitioners showed statistically lower scores for menopausal symptoms, stress levels and depression symptoms, as well as significantly higher scores in quality of life when compared to control and exercise groups. Only control group presented a significant increase in cortisol levels. The yoga and exercise groups showed decreased levels of FSH and LH when compared to control group.

- Li, Shanshan, Meir J. Stampfer, David R. Williams & Tyler J. VanderWeele. 2016. Association of Religious Service Attendance with Mortality Among Women. *JAMA internal medicine* 176(6). 777–785. doi:10.1001/jamainternmed.2016.1615.

Studies on the association between attendance at religious services and mortality often have been limited by inadequate methods for reverse causation, inability to assess effects over time, and limited information on mediators and cause-specific mortality. The present study evaluates associations between attendance at religious services and subsequent mortality in women. Attendance at religious services was assessed from the first questionnaire in 1992 through June 2012, by a self-reported question asked of 74,534 women in the Nurses' Health Study who were free of cardiovascular disease and cancer at baseline. Data analysis was conducted from return of the 1996 questionnaire through June 2012. Cox proportional hazards regression model and marginal structural models with time-varying covariates were used to examine the association of attendance at religious services with all-cause and cause-specific mortality. Researchers adjusted for a wide range of demographic covariates, lifestyle factors, and medical history measured repeatedly during the follow-up, and performed sensitivity analyses to examine the influence of potential unmeasured and residual confounding. Among the 74,534 women participants, there were 13,537 deaths, including 2,721 owing to cardiovascular deaths and 4,479 owing to cancer deaths. After multivariable adjustment for major lifestyle factors, risk factors, and attendance at religious services in 1992, attending a religious service more than once per week was associated with 33% lower all-cause mortality compared with women who had never attended religious services. Comparing women who attended religious services more than once per week with those who never attend, the hazard ratio for cardiovascular mortality was 0.73 and for cancer mortality was 0.79. Results were robust in sensitivity analysis. Depressive symptoms, smoking, social support, and optimism were potentially important mediators, although the overall proportion of the association between attendance at religious services and mortality was moderate.

- Lucchetti, Giancarlo, Janaina De Rossi, Juliane P. B. Gonçalves & Alessandra L. Granero Lucchetti. 2016. Peripheral Facial Palsy: Does Patients' Religiousness Matter for the Otorhinolaryngologist? *Journal of Religion and Health* 55(3). 856–861.
doi:10.1007/s10943-015-0062-1.

In order to deal with the suffering, a frequent strategy employed by patients is the use of religious beliefs and behaviors. Nevertheless, few studies in otorhinolaryngology have investigated this dimension. Therefore, the present study aims to investigate the role of religiousness on quality of life, mental health, self-esteem and appearance in 116 patients with peripheral facial palsy (PFP). A cross-sectional, single-center study was carried out between 2010 and 2012 in PFP outpatients. Researchers assessed socio-demographic data, PFP characteristics, depression, anxiety, quality of life, self-esteem, appearance and religiosity. A linear regression (adjusted for confounders) was performed to investigate whether religiosity was associated with any outcomes. The present study found that religious attendance, but not other types of religiousness, was related to quality of life and mental health on PFP patients. In addition, ENT patients would like their doctors to ask them about their faith and religion as part of their medical care. These findings give further support to the importance of religious and spiritual beliefs on ENT patients. Otorhinolaryngologists should be aware of the positive and negative aspects of religion and be prepared to address these issues in clinical practice.

- Maruthai, Nirmala, Ravindra P. Nagendra, Arun Sasidharan, Sulekha Srikumar, Karuna Datta, Sunao Uchida & Bindu M. Kutty. 2016. Senior Vipassana Meditation practitioners exhibit distinct REM sleep organization from that of novice meditators and healthy controls. *International Review of Psychiatry* 28(3). 279–287.
doi:10.3109/09540261.2016.1159949.

The present study is aimed to ascertain whether differences in meditation proficiency alter rapid eye movement sleep (REM sleep) as well as the overall sleep-organization. Whole-night polysomnography was carried out using 32-channel digital EEG system. 20 senior Vipassana meditators, 16 novice Vipassana meditators and 19 non-meditating control subjects participated in the study. The REM sleep characteristics were analyzed from the sleep-architecture of participants with a sleep efficiency index >85%. Senior meditators showed distinct changes in sleep-organization due to enhanced slow wave sleep and REM sleep, reduced number of intermittent awakenings and reduced duration of non-REM stage 2 sleep. The REM sleep-organization was significantly different in senior meditators with more number of REM episodes and increased duration of each episode, distinct changes in rapid eye movement activity (REMA) dynamics due to increased phasic and tonic activity and enhanced burst events (sharp and slow bursts) during the second and fourth REM episodes. No significant differences in REM sleep organization was observed between novice and control groups. Changes in REM sleep-organization among the senior practitioners of meditation could be attributed to the intense brain plasticity events associated with intense meditative practices on brain functions.

- Michalsen, Andreas, Natalie Kunz, Michael Jeitler, Stefan Brunnhuber, Larissa Meier, Rainer Lüdtko, Arndt Büssing & Christian Kessler. 2016. Effectiveness of focused meditation for patients with chronic low back pain-A randomized controlled clinical trial. *Complementary Therapies in Medicine* 26. 79–84.
doi:10.1016/j.ctim.2016.03.010.

Researchers aimed to evaluate the effectiveness of an 8-week meditation program (focused meditation) in patients with chronic low-back pain. A randomized clinical trial was conducted on 68 patients (55 years;75% female) with chronic low-back pain who scored >40mm on a 100mm Visual-Analogue-Scale. Subjects were allocated to an 8-week meditation program (focused meditation) with weekly 75min classes or to a self-care exercise program with a wait-list offer for meditation. Both groups were instructed to practice at home. Outcomes were assessed baseline and after 4 and 8 weeks. The primary outcome measure was the change in mean back pain at rest after 8 weeks.

Secondary outcomes included function, pain-related bothersomeness, perceived stress, quality-of-life (QOL), and psychological outcomes. Twelve (meditation) and 4 (exercise) patients were lost to follow-up. The primary outcome, pain at rest after 8 weeks, was reduced from 59.3 ± 13.9 mm to 40.8 ± 21.8 mm with meditation vs. 52.9 ± 11.8 mm to 37.3 ± 18.2 mm with exercise. Perceived stress was significantly more reduced with meditation. No significant treatment effects were found for other secondary outcomes as pain-related bothersomeness, function, quality-of-life and psychological scores, although the meditation group consistently showed non-significant better improvements compared to the exercise group.

- Osborne, Danny, Petar Milojev & Chris G. Sibley. 2016. Examining the indirect effects of religious orientations on well-being through personal locus of control. *European Journal of Social Psychology* 46(4). 492–505.
doi:10.1002/ejsp.2182.

Religiosity often positively correlates with well-being. Some orientations towards religion may, however, adversely affect well-being by decreasing perceptions of personal locus of control, a critical antecedent of mental health. Researchers examined this possibility in a New Zealand-based national sample of religiously identified adults ($n=1,486$). As predicted, fundamentalism had a negative indirect effect on life satisfaction, but a positive indirect effect on psychological distress. Conversely, people's intrinsic religious orientation had a positive indirect effect on life satisfaction, but a negative indirect effect on psychological distress. Notably, all four indirect effects were transmitted through personal, but not God, locus of control. These results highlight the diversity of religious orientations and show that religious orientations that deemphasize people's personal locus of control have negative consequences for well-being.

- Puffer, Eve S., Eric P. Green, Kathleen J. Sikkema, Sherryl A. Broverman, Rose A. Ogwang-Odhiambo & Jessica Pian. 2016. A church-based intervention for families to promote mental health and prevent HIV among adolescents in rural Kenya: Results of a randomized trial. *Journal of Consulting and Clinical Psychology* 84(6). 511–525.
doi:10.1037/ccp0000076.

To evaluate a family- and church-based intervention for adolescents and caregivers in rural Kenya to improve family relationships, reduce HIV risk, and promote mental health. The intervention was developed using community-based participatory methods and focused on strengthening family communication. Modules addressed economic, relationship, and HIV-related topics using evidence-based behavioral strategies alongside culturally grounded content. A stepped wedge cluster randomized trial was conducted with 124 families (237 adolescents ages 10 to 16; 203 caregivers) from 4 churches. Participants completed interviewer-administered surveys over 5 rounds. Primary outcomes included family communication, HIV risk knowledge, self-efficacy, and beliefs. Secondary outcomes included parenting, social support, mental health, and adolescent sexual behavior. Researchers estimated intent-to-treat effects via ordinary least squares regression with clustered standard errors. Relative to controls, the intervention group reported better family communication across domains at 1- and 3-months post-intervention and higher self-efficacy for risk reduction skills and HIV-related knowledge at 1-month post-intervention. Sexually active youth in the intervention reported fewer high-risk behaviors at 1-month post-intervention, including unprotected sex or multiple partners. Male caregivers in the intervention reported higher parental involvement at both time points, and youth reported more social support from male caregivers at 3-months post-intervention. No effects on secondary outcomes of parenting, social support, and mental health were detected.

- Reynolds, Nina, Sylvie Mrug, Kelly Wolfe, David Schwebel & Jan Wallander. 2016. Spiritual coping, psychosocial adjustment, and physical health in youth with chronic illness: A meta-analytic review. *Health Psychology Review* 10(2). 226–243.
doi:10.1080/17437199.2016.1159142.

The current systematic review and meta-analysis aimed to assess the strength of the relationships between religious/spiritual coping strategies and psychosocial adjustment and physical health in youth with chronic illness. Faced with medical stressors and uncertainty about their illness, spiritual beliefs and behaviors are important for youth with chronic illness. Research suggests that some spiritual coping strategies are helpful (positive), while others are not (negative), and these dimensions of spiritual coping are important predictors of functioning among youth with chronic illness. Fourteen studies, published between 1990 and 2015, met inclusion criteria for the meta-analysis and were analyzed using both a fixed effects model and random effects model (REM). Findings revealed significant, small to moderate associations between negative spiritual coping and more concurrent internalizing problems, lower quality of life, and poorer health. Under the fixed, but not REM, the combined effects showed small to moderate significant relationships between positive spiritual coping and fewer internalizing problems and better physical health.

Rosenbaum, Mark S. & Jane Van de Velde. 2016. The Effects of Yoga, Massage, and Reiki on Patient Well-Being at a Cancer Resource Center. *Clinical Journal of Oncology Nursing* 20(3). E77–E81. doi:10.1188/16.cjon.e77-e81.

Cancer resource centers offer patients a variety of therapeutic services. However, patients with cancer and cancer healthcare practitioners may not fully understand the specific objectives and benefits of each service. This research offers guidance to cancer healthcare practitioners on how they can best direct patients to partake in specific integrative therapies, depending on their expressed needs. This article investigates the effects of yoga, massage, and Reiki services administered in a cancer resource center on patients' sense of personal well-being. The results show how program directors at a cancer resource center can customize therapies to meet the needs of patients' well-being. The experimental design measured whether engaging in yoga, massage, or Reiki services affects the self-perceived well-being of 150 patients at a cancer resource center at two times: before and after each service. Data were analyzed for each well-being outcome using mixed-model analysis of variance. All three services helped decrease stress and anxiety, improve mood, and enhance cancer center patrons' perceived overall health and quality of life in a similar manner. Reiki reduced the pain of patients with cancer to a greater extent than either massage or yoga.

Salmoirago-Blotcher, Elena, George Fitchett, Katherine Leung, Gregory Volturo, Edwin Boudreaux, Sybil Crawford, Ira Ockene & Farr Curlin. 2016. An exploration of the role of religion/spirituality in the promotion of physicians' wellbeing in Emergency Medicine. *Preventive Medicine Reports* 3. 189–195. doi:10.1016/j.pmedr.2016.01.009.

Burnout is highly prevalent among Emergency Medicine (EM) physicians and has significant impact on quality of care and workforce retention. The objective of this study was to determine whether higher religion/spirituality (R/S) is associated with a lower prevalence of burnout among EM physicians (primary outcome). A history of malpractice lawsuits and maladaptive behaviors were the secondary outcomes. This was a cross-sectional, survey-based study conducted among a random sample of physicians from the Massachusetts College of Emergency Physicians mailing list. Burnout was measured using a validated 2-item version of the Maslach Burnout Inventory. Maladaptive behaviors (smoking, drinking, and substance use) and medical malpractice were self-reported. R/S measures included organized religiosity, religious affiliation, private R/S practice, self-rated spirituality, religious rest, and religious commitment. Logistic regression was used to model study outcomes as a function of R/S predictors. Of 422 EM physicians who received the invitation to participate, 138 completed the survey (32.7%). The prevalence of burnout was 27%. No significant associations were observed between burnout and R/S indicators. Maladaptive behaviors and history of medical malpractice were less likely among physicians reporting to be more involved in organized religious activity and to observe a day of rest for religious reasons, respectively.

Srinivasan, T. M. 2016. Yoga and physical exercise. *International Review of Psychiatry* 28(3). 241–241. doi:10.1080/09540261.2016.1188786.

The author considers the place of yoga as a therapeutic strategy in the holistic approach to mental disorders and the challenges inherent to research in this area. He cites several studies where emerging data is encouraging such as reviews on yoga and depression where yoga consistently emerged as a potential antidepressant with impressive effect size of more than one. He notes that yoga as compared to exercise obtained an overall improvement as measured by clinical global impression.

- Sutar, Roshan, Suresh Yadav & Geetha Desai. 2016. Yoga intervention and functional pain syndromes: a selective review. *International Review of Psychiatry* 28(3). 316–322.
doi:10.1080/09540261.2016.1191448.

The definition of functional pain syndromes is varied across literature. No effort has been made to see all functional pain disorder groups under broad nomenclature which would exclude conditions for which pathophysiology is strongly known. Since these disorders are commonly treated with alternative treatment modalities and impose significant burden on health utilization, an effort to look into studies on yoga-based interventions on “functional pain syndromes” (FPS) was made. This study defined FPS as “Chronic relapsing remitting pain conditions, the origin of which is difficult to trace with no definite physical pathology on clinical suspicion or available laboratory measures and are valid based on subjective pain reporting, associated distress and socio-occupational dysfunction.” Chronic headache, neck pain, back pain, fibromyalgia, pelvic pain, Irritable Bowel Syndrome, Chronic Fatigue Syndrome, and somatoform pain disorders were included for this review. The review found four meta-analyses on the selected topic both indicating modest efficacy and benefit of yoga in these disorders. Future efforts should be directed to do a large meta-analysis of functional pain syndromes.

- Tang, Yi-Yuan, Rongxiang Tang & Michael I. Posner. 2016. Mindfulness meditation improves emotion regulation and reduces drug abuse. *Drug and Alcohol Dependence* 163 Suppl 1. S13–18.
doi:10.1016/j.drugalcdep.2015.11.041.

The core clinical symptoms of addiction include an enhanced incentive for drug taking (craving), impaired self-control (impulsivity and compulsivity), emotional dysregulation (negative mood) and increased stress reactivity. Symptoms related to impaired self-control involve reduced activity in anterior cingulate cortex (ACC), adjacent prefrontal cortex (mPFC) and other brain areas. Behavioral training such as mindfulness meditation can increase the function of control networks including those leading to improved emotion regulation and thus may be a promising approach for the treatment of addiction. In a series of randomized controlled trials (RCTs), researchers tested whether increased ACC/mPFC activity is related to better self-control abilities in executive functions, emotion regulation and stress response in healthy and addicted populations. After a brief mindfulness training (Integrative Body-Mind Training, IBMT), researchers used the Positive and Negative Affect Schedule (PANAS) and Profile of Mood States (POMS) to measure emotion regulation, salivary cortisol for the stress response and fMRI for brain functional and DTI structural changes. Relaxation training was used to serve as an active control. In both smokers and nonsmokers, improved self-control abilities in emotion regulation and stress reduction were found after training and these changes were related to increased ACC/mPFC activity following training. Compared with nonsmokers, smokers showed reduced ACC/mPFC activity in the self-control network before training, and these deficits were ameliorated after training.

- Wielgosz, Joseph, Brianna S. Schuyler, Antoine Lutz & Richard J. Davidson. 2016. Long-term mindfulness training is associated with reliable differences in resting respiration rate. *Scientific Reports* 6. 27533.
doi:10.1038/srep27533.

Respiration rate is known to correlate with aspects of psychological well-being, and attention to respiration is a central component of mindfulness meditation training. Both traditional contemplative systems and recent empirical evidence support an association between formal mindfulness practice and decreased respiration rate. However, the question of whether long-term mindfulness training is associated with stable, generalized changes in respiration has

yet to be directly investigated. Researchers analyzed respiration patterns across multiple time points, separated by two months or more, in a group of long-term mindfulness meditation practitioners (LTMs, n=31) and a matched group of non-meditators (Controls, n=38). On average, LTMs showed slower baseline respiration rate (RR) than Controls. Among LTMs, greater practice experience was associated with slower RR, independently of age and gender. Furthermore, this association was specific to intensive retreat practice, and was not seen for routine daily practice. Full days of meditation practice did not produce detectable changes in baseline RR, suggesting distal rather than immediate effects. All effects were independent of physiological characteristics including height, weight, body-mass index and waist-hip ratio.

Yadav, Rashmi, Raj Kumar Yadav, Ravindra Mohan Pandey & Kanwal P. Kochar. 2016. Effect of a Short-Term Yoga-Based Lifestyle Intervention on Health-Related Quality of Life in Overweight and Obese Subjects. *Journal of Alternative and Complementary Medicine* 22(6). 443–449.
doi:10.1089/acm.2015.0268.

The study objective was to determine the effect of a short-term yoga-based lifestyle intervention on health-related quality of life (HRQOL) in 279 overweight and obese persons. Intervention consisted of retested yoga-based lifestyle intervention, including asanas (postures), pranayama (breathing exercises), relaxation techniques, lectures, group support, nutrition awareness program, and individualized advice. The primary outcome measure was HRQOL, measured by using short version of World Health Organization Quality of Life (WHOQOL-BREF) questionnaire. Secondary outcome measures were anthropometric variables, systolic and diastolic blood pressure, pulse rate, lipid profile, and fasting glucose. A subgroup analysis according to sex was also performed. The overall quality of life and health improved after short-term yoga-based lifestyle intervention in overweight and obese persons. Physical, psychological and environmental domain scores significantly increased from baseline to day 10, and efficacy was noted in both male and female subgroups. After 10 days of intervention, the following also decreased significantly: body weight, BMI, total body fat, waist and hip circumference, waist-to-hip ratio, systolic and diastolic blood pressure, total cholesterol, low-density lipoprotein, triglycerides, and fasting glucose.

Zhang, Jun, Rui Xu, Bo Wang & Jinxia Wang. 2016. Effects of mindfulness-based therapy for patients with breast cancer: A systematic review and meta-analysis. *Complementary Therapies in Medicine* 26. 1–10.
doi:10.1016/j.ctim.2016.02.012.

Researchers sought to quantify the effects of mindfulness-based therapy (MBT) on physical health, psychological health and quality of life (QOL) in patients with breast cancer utilizing a literature review. Studies were identified through a systematic search of six electronic databases. Randomized control trials (RCTs) examining the effects of MBT, versus a control group receiving no intervention on physical health, psychological health and QOL in breast cancer patients were included. Two authors independently assessed the methodological quality of included studies using a quality-scoring instrument developed by Jadad et al. and extracted relevant information according to a predesigned extraction form. Seven studies involving 951 patients were included. While limited in power, the results of meta-analysis indicated a positive effect of MBT in reducing anxiety, depression, fear of recurrence, and fatigue associated with breast cancer, and improving emotional well-being, physical function, and physical health in these patients. Although the effects on stress, spirituality, pain and sleep were in the expected direction, they were not statistically significant. Moreover, there is limited evidence from a narrative synthesis that MBT can improve QOL of breast cancer patients.

2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Alda, Marta, Marta Puebla-Guedea, Baltasar Rodero, Marcelo Demarzo, Jesus Montero-Marin, Miquel Roca & Javier Garcia-Campayo. 2016. Zen meditation, length of telomeres, and the role of experiential avoidance and compassion. *Mindfulness* 7(3). 651–659.

doi:10.1007/s12671-016-0500-5.

Mindfulness refers to an awareness that emerges by intentionally focusing on the present experience in a nonjudgmental or evaluative manner. Evidence regarding its efficacy has been increasing exponentially, and recent research suggests that the practice of meditation is associated with longer leukocyte telomere length. However, the psychological mechanisms underlying this potential relationship are unknown. Researchers examined the telomere lengths of a group of 20 Zen meditation experts and another 20 healthy matched comparison participants who had not previously meditated. They also measured multiple psychological variables related to meditation practice. Genomic DNA was extracted for telomere measurement using a Life Length proprietary program. High-throughput quantitative fluorescence in situ hybridization (HT-Q-FISH) was used to measure the telomere length distribution and the median telomere length (MTL). The meditators group had a longer MTL and a lower percentage of short telomeres in individual cells than those in the comparison group. To determine which of the psychological variables contributed more to telomere maintenance, two regression analyses were conducted. In the first model, which applied to the MTL, the following three factors were significant: age, absence of experiential avoidance, and Common Humanity subscale of the Self Compassion Scale. Similarly, in the model that examined the percentage of short telomeres, the same factors were significant: age, absence of experiential avoidance, and Common Humanity subscale of the Self Compassion Scale. Although limited by a small sample size, these results suggest that the absence of experiential avoidance of negative emotions and thoughts is integral to the connection between meditation and telomeres.

Anum, Jawaria & Rabia Dasti. 2016. Caregiver Burden, Spirituality, and Psychological Well-Being of Parents Having Children with Thalassemia. *Journal of Religion and Health* 55(3). 941–955.
doi:10.1007/s10943-015-0127-1.

The present research determined the relationship of caregiving burden, spirituality and psychological well-being of parents of 80 Pakistani thalassaemic patients in a cross-sectional research design. Survey data were analyzed through correlation and mediational analyses. Results indicated that the caregiver burden was negatively correlated with the psychological well-being and the domains of spirituality, while the psychological well-being and spirituality were positively correlated. The researchers identified that the caregiver burden has direct effect on the psychological well-being of the parents and it influences the psychological well-being through the pathway of the two domains of spirituality, self-discipline and meanness-generosity. These results highlighted the role of spirituality upon the psychological well-being of caregivers, which could be utilized to prevent pathological influences (such as hard feelings, hopelessness, depressed mood, anxiety, and relationship problems) of caregiver burden and enhance psychological well-being through spiritual counseling. Caregivers can work on their well-being and burden by disciplining their lives and forgoing hard feelings toward others.

Banta, Jim E. & Ogbochi McKinney. 2016. Faith-Based Hospitals and Variation in Psychiatric Inpatient Length of Stay in California, 2002-2011. *Journal of Religion and Health* 55(3). 787–802.
doi:10.1007/s10943-015-0175-6.

Researchers examined current treatment patterns at faith-based hospitals. Psychiatric discharges from all community-based hospitals in California were obtained for 2002-2011 and a Behavioral Model of Health Services Utilization approach used to study hospital religious affiliation and length of stay (LOS). During 10 years there were 1,976,893 psychiatric inpatient discharges, of which 14.3% were from faith-based nonprofit hospitals (eighteen Catholic, seven Seventh-day Adventist, and one Jewish hospital). Modest differences in patient characteristics and shorter LOS (7.5 vs. 8.3 days) were observed between faith-based and other hospitals. Multivariable negative binomial regression found shorter LOS at faith-based nonprofit hospitals and greater LOS at all nonprofits as compared to local government-controlled hospitals. Faith-based hospitals provide a substantial and consistent amount of psychiatric care in California and may have slightly lower LOS after adjusting for patient and other hospital characteristics.

Beblo, Thomas & Kirsten Metzger. 2016. Mindfulness-based Therapy of Cognitive Functions. *Zeitschrift Fur Neuropsychologie* 27(2). 95–105.
doi:10.1024/1016-264X/a000176.

In the last decades, the practice of mindfulness has become into the focus of clinical psychology and medicine. In the recent past, researchers have also investigated whether mindfulness interventions improve attention and cognitive functions as mindfulness is closely related to the concept of attention. The present paper aims to review those findings and to go further into the question whether mindfulness based therapy is useful for treating cognitive impairment of neurologic and psychiatric patients. Researchers suggest that first studies yielded promising results in particular for the domains of attention and working memory and associated brain areas. Future studies need to compare mindfulness interventions and traditional neuropsychological therapies.

Bhat, Shubha, Shivarama Varambally, Sneha Karmani, Ramajayam Govindaraj & B. N. Gangadhar. 2016. Designing and validation of a yoga-based intervention for obsessive compulsive disorder. *International Review of Psychiatry* 28(3). 327–333.
doi:10.3109/09540261.2016.1170001.

Some yoga-based practices have been found to be useful for patients with obsessive compulsive disorder (OCD). The authors could not find a validated yoga therapy module available for OCD. This study attempted to formulate a generic yoga-based intervention module for OCD. A yoga module was designed based on traditional and contemporary yoga literature. The module was sent to 10 yoga experts for content validation. The experts rated the usefulness of the practices on a scale of 1–5 (5 = extremely useful). The final version of the module was pilot-tested on patients with OCD (n=17) for both feasibility and effect on symptoms. Eighty-eight per cent (22 out of 25) of the items in the initial module were retained, with modifications in the module as suggested by the experts along with patients' inputs and authors' experience. The module was found to be feasible and showed an improvement in symptoms of OCD on total Yale-Brown Obsessive-Compulsive Scale (YBOCS) score. A generic yoga therapy module for OCD was validated by experts in the field and found feasible to practice in patients. A decrease in the symptom scores was also found following yoga practice of 2 weeks.

Burshtein, S., B. P. Dohrenwend, I. Levav, N. Werbeloff, M. Davidson & M. Weiser. 2016. Religiosity as a protective factor against suicidal behaviour. *Acta Psychiatrica Scandinavica* 133(6). 481–488.
doi:10.1111/acps.12555.

Data suggest that adherence to religious beliefs is associated with lower rates of suicide. A number of mediating factors have been hypothesized to explain this association, including enhanced social support, less substance abuse, and lower rates of psychopathology. Researchers utilized data from a two-phase population-based, epidemiological study of mental disorders among young Jewish Israel born in a 10-year birth-cohort conducted in the 1980s. This study included data on religiosity and suicidal behavior. Twenty-five years thereafter, mortality data were obtained from a national vital statistics registry. Rates of suicidal ideation were similar among secular, partially observant, and religious subjects (9.4%, 6.7%, and 6.2%, respectively). Rates of suicide attempts were significantly lower among religious subjects (2.4%, 2.5%, and 0.4% for secular, partially observant, and religious, respectively). Of the 4,914 subjects, eight died by suicide: Seven of them were secular and one was partially observant. There were no differences in social functioning or rates of psychopathology among the study groups.

Büssing, Arndt & Daniela R. Recchia. 2016. Spiritual and Non-spiritual Needs Among German Soldiers and Their Relation to Stress Perception, PTSD Symptoms, and Life Satisfaction: Results from a Structural Equation Modeling Approach. *Journal of Religion and Health* 55(3). 747–764.
doi:10.1007/s10943-015-0073-y.

In an anonymous cross-sectional survey (using standardized questionnaires) among 1,092 German soldiers, researchers found that 21% regard their faith as a “strong hold in difficult times.” Only a few had specific religious

needs. Rather, a consistent theme from the participants was the need to communicate their own fears, worries and desire to attain states of inner peace. Soldiers' stress perception and posttraumatic stress disorder symptoms were associated particularly with existential and Inner Peace Needs. Structural equation modeling indicated that stress perception has a negative influence on soldiers' life satisfaction, which in turn gives rise to specific unmet spiritual needs. These specific needs may indicate psycho-emotional problems which could be supported very early to prevent health affections and service failure.

- Crescentini, Cristiano, Viviana Capurso, Samantha Furlan & Franco Fabbro. 2016. Mindfulness-Oriented Meditation for Primary School Children: Effects on Attention and Psychological Well-Being. *Frontiers in Psychology* 7. 805.
doi:10.3389/fpsyg.2016.00805.

Mindfulness-based interventions are increasingly being used as methods to promote psychological well-being of clinical and non-clinical adult populations. Much less is known, however, on the feasibility of these forms of mental training on healthy primary school students. Here, researchers tested the effects of a mindfulness-meditation training on a group of 16 healthy children within 7-8 years of age from an Italian primary school. An active control condition focused on emotion awareness was employed on a group of 15 age-matched healthy children from the same school. Both programs were delivered by the same instructors three times per week, for 8 total weeks. The same main teacher of the two classes did not participate in the trainings but she completed questionnaires aimed at giving comprehensive pre-post training evaluations of behavior, social, emotion, and attention regulation skills in the children. A children's self-report measure of mood and depressive symptoms was also used. From the teacher's reports researchers found a specific positive effect of the mindfulness-meditation training in reducing attention problems and also positive effects of both trainings in reducing children's internalizing problems. However, subjectively, no child in either group reported less depressive symptoms after the trainings. The findings were interpreted as suggestive of a positive effect of mindfulness-meditation on several children's psychological well-being dimensions and were also discussed in light of the discrepancy between teacher and children's reports.

- Crescentini, Cristiano, Luca Chittaro, Viviana Capurso, Riccardo Sioni & Franco Fabbro. 2016. Psychological and physiological responses to stressful situations in immersive virtual reality: Differences between users who practice mindfulness meditation and controls. *Computers in Human Behavior* 59. 304–316.
doi:10.1016/j.chb.2016.02.031.

Several studies in the literature have shown positive psychophysical effects during or immediately after mindfulness meditation. However, the extent to which such positive effects are maintained in real-life, stressful contexts, remains unclear. This paper investigates the effects of an 8-week mindfulness-oriented meditation (MOM) program on the psychological and physiological responses evoked by immersive virtual environments (IVEs) that simulate emergency situations that may occur in life. Before and after the 8-week period, healthy MOM participants and a group of controls not involved in any meditation course were administered self-report measures of mindfulness and anxiety, and acted in the IVEs while a set of physiological parameters were recorded. Responses of MOM participants to the immersive virtual experiences were different from those of controls. MOM participants showed increased mindfulness and decreased anxiety levels. They also showed decreased heart rate and corrugator muscle activity while facing IVEs. Researchers explain these results in terms of the awareness and acceptance components of mindfulness. More generally, the present experimental methods could also open up new lines of research that combine psychological and physiological indices with ecologically valid stimuli provided by IVEs in an effort to increase understanding of the impact of mindfulness meditation on realistic life situations.

- Dilber, Ružica, Dragan Babić, Ivan Vasilj, Marko Martinac, Romana Babić & Branka Aukst-Margetić. 2016. Religiosity and Mental Health in Nursing Students. *Psychiatria Danubina* 28(2). 188–192.

Young people and nursing students are prone to stress and psychological consequences of it. The aim of the current study was to assess the associations between psychopathology and religiosity in the group of nursing university students. The study included 100 nursing students of the Faculty of Health Studies in Mostar. The participants were assessed with the SCL-90-R and Dimensions of Religiosity Questionnaire. Sociodemographic data were also collected. All SCL-90-R subscales negatively correlated with religiosity showing that the strength of religiosity was associated with better mental health of nursing students. Twenty-two percent of potential cases of mental disorder were detected based on the GSI cut-off score. Religiosity was a significant predictor of mental disorder in logistic regression based on the GSI. The year of the study and quality of family relations were associated with students' religiosity. Gender, socioeconomic status and parents' education were associated with higher psychopathology scores.

- Gaiswinkler, L. & H. F. Unterrainer. 2016. The relationship between yoga involvement, mindfulness and psychological well-being. *Complementary Therapies in Medicine* 26. 123–127.
doi:10.1016/j.ctim.2016.03.011.

The aim of this study was to examine how different levels of yoga involvement are related to different parameters of mental health and illness. A total sample of 455 participants (410 females) were investigated by means of an internet survey. 362 yoga practitioners (327 females) rated their degree of yoga involvement on the Yoga Immersion Scale. A control group was comprised of 93 gymnastics practitioners (83 females). Results indicate that highly involved yoga practitioners exhibited a significantly increased amount of mindfulness and religious/spiritual well-being and lower psychiatric symptoms such as depression compared to those who were only marginally/moderately yoga-involved or who were in the gymnastics control group.

- Galla, Brian M. 2016. Within-person changes in mindfulness and self-compassion predict enhanced emotional well-being in healthy, but stressed adolescents. *Journal of Adolescence* 49. 204–217.
doi:10.1016/j.adolescence.2016.03.016.

Meditation training programs for adolescents are predicated on the assumptions that mindfulness and self-compassion can be directly cultivated, and further, that doing so is beneficial for emotional well-being. Yet, very little research with adolescents has tested these assumptions directly. In the current study, the author examined longitudinal relationships between changes in mindfulness and self-compassion and changes in emotional well-being among healthy, but stressed adolescents who participated in five-day, intensive meditation retreats. Immediately before and after the retreats, and then three months later, 132 adolescents completed questionnaires measuring mindfulness, self-compassion, and emotional well-being. Repeated measures ANOVA showed adolescents improved in mindfulness, self-compassion, and all indices of emotional well-being immediately following the retreat, and many of these improvements were maintained three months later. Further, multilevel growth curve analyses with time-varying covariates indicated within-person changes in self-compassion predicted enhanced emotional well-being more consistently than within-person changes in mindfulness. Specifically, increases in self-compassion predicted reductions in perceived stress, rumination, depressive symptoms, and negative affect, and conversely, increases in positive affect and life satisfaction.

- Goforth, Anisa N., Andy V. Pham, Heejung Chun, Sara M. Castro-Olivo & Erin R. Yosai. 2016. Association of acculturative stress, Islamic practices, and internalizing symptoms among Arab American adolescents. *School Psychology Quarterly: The Official Journal of the Division of School Psychology, American Psychological Association* 31(2). 198–212.
doi:10.1037/spq0000135.

Although the numbers of Arab American immigrant youth in schools is increasing, there is little understanding of their mental health and the sociocultural factors that might influence it. This study examined the relationship between 2 sociocultural factors (i.e., acculturative stress and religious practices) and internalizing symptoms in first- and second-generation Muslim Arab American adolescents. Adolescents (n=88) ages 11 to 18 completed measures related to acculturative stress, religious practices, internalizing symptoms, and general demographic information.

Results of multiple regression analyses found that acculturative stress significantly predicted internalizing symptoms. Gender was found to moderate this association. No differences in the reported acculturative stress and internalizing symptoms were found between youth of different generational status (i.e., first- vs. second-generation). Finally, adolescents' organizational religious practices, but not their private religious practices, were found to be associated with lower acculturative stress. Implications are discussed related to how school psychologists can provide culturally responsive services to this population.

Gordon, William Van, Edo Shonin & Mark D. Griffiths. 2016. Meditation Awareness Training for the Treatment of Sex Addiction: A Case Study. *Journal of Behavioral Addictions* 5(2). 363–372. doi:10.1556/2006.5.2016.034.

Sex addiction is a disorder that can have serious adverse functional consequences. Treatment effectiveness research for sex addiction is currently underdeveloped, and interventions are generally based on the guidelines for treating other behavioral (as well as chemical) addictions. Consequently, there is a need to clinically evaluate tailored treatments that target the specific symptoms of sex addiction. It has been proposed that second-generation mindfulness-based interventions (SG-MBIs) may be an appropriate treatment for sex addiction because in addition to helping individuals increase perceptual distance from craving for desired objects and experiences, some SG-MBIs specifically contain meditations intended to undermine attachment to sex and/or the human body. The current study conducts the first clinical investigation into the utility of mindfulness for treating sex addiction. An in-depth clinical case study was conducted involving an adult male suffering from sex addiction that underwent treatment utilizing an SG-MBI known as Meditation Awareness Training (MAT). Following completion of MAT, the participant demonstrated clinically significant improvements in addictive sexual behavior, as well as reductions in depression and psychological distress. The MAT intervention also led to improvements in sleep quality, job satisfaction, and non-attachment to self and experiences. Salutory outcomes were maintained at 6-month follow-up.

Gutierrez, Daniel, Abigail H. Conley & Mark Young. 2016. Examining the Effects of Jyoti Meditation on Stress and the Moderating Role of Emotional Intelligence. *Counselor Education & Supervision* 55(2). 109–122. doi:10.1002/ceas.12036.

The authors examined whether Jyoti meditation (JM), a spiritually based meditation, influenced student counselors' (n=60) level of stress and emotional intelligence (EI). Results from a randomized controlled trial and growth curve analysis provided a multilevel model in which JM reduced stress and EI moderated the effect.

Hankey, Alex & Rashmi Shetkar. 2016. Self-transcending meditation is good for mental health: why this should be the case. *International Review of Psychiatry* 28(3). 236–240. doi:10.1080/09540261.2016.1191449.

A simple theory of health has recently been proposed: while poor quality regulation corresponds to poor quality health so that improving regulation should improve health, optimal regulation optimizes function and optimizes health. Examining the term “optimal regulation” in biological systems leads to a straightforward definition in terms of “criticality” in complexity biology, a concept that seems to apply universally throughout biology. Criticality maximizes information processing and sensitivity of response to external stimuli, and for these reasons may be held to optimize regulation. In this way a definition of health has been given in terms of regulation, a scientific concept, which ties into detailed properties of complex systems, including brain cortices, and mental health. Models of experience and meditation built on complexity also point to criticality: it represents the condition making self-awareness possible, and is strengthened by meditation practices leading to the state of pure consciousness, the content-free state of mind in deep meditation. From this it follows that healthy function of the brain cortex, its sensitivity, and consistency of response to external challenges should improve by practicing techniques leading to content-free awareness, transcending the original focus introduced during practice.

Hiebler-Ragger, Michaela, Johanna Falhansl-Scheinecker, Gerhard Birnhuber, Andreas Fink & Human Friedrich Unterrainer. 2016. Facets of Spirituality Diminish the Positive Relationship between Insecure Attachment and Mood Pathology in Young Adults. *PLoS One* 11(6). e0158069. doi:10.1371/journal.pone.0158069.

Traditionally, in attachment theory, secure attachment has been linked to parameters of mental health, while insecure attachment has been associated with parameters of psychopathology. Furthermore, spirituality and attachment to God have been discussed as corresponding to, or compensating for, primary attachment experiences. Accordingly, they may contribute to mental health or to mental illness. In this cross-sectional observational study, researchers investigate attachment styles (Avoidant and Anxious Attachment; ECR-RD), spirituality (Religious and Existential Well-Being; MI-RSWB), and mood pathology (Anxiety, Depression, Somatization; BSI-18) in 481 (76% female) young adults (age range: 18-30 years) who had a Roman Catholic upbringing. In accordance with previous research, researchers found insecure attachment to be associated with low levels of spirituality. Furthermore, insecure attachment and low levels of spirituality were associated with higher levels of mood pathology. In hierarchical regression analyses, only Anxious Attachment positively predicted all three dimensions of mood pathology while Existential Well-Being, but not Religious Well-Being, was an additional negative predictor for Depression. These results underline that spirituality can correspond to the attachment style, or may also compensate for insecure attachment. Higher Existential Well-Being, comprised of facets such as hope for a better future, forgiveness and the experience of sense and meaning, seems to have an especially corrective effect on mood pathology, independent of attachment styles. These findings emphasize the vital role of existential well-being in young adults' affective functioning, which might be considered in prevention and treatment.

Huguelet, Philippe, Sylvia Madeleine Mohr, Emilie Olié, Sonia Vidal, Roland Hasler, Paco Prada, Mircea Bancila, Philippe Courtet, Sébastien Guillaume & Nader Perroud. 2016. Spiritual Meaning in Life and Values in Patients with Severe Mental Disorders. *Journal of Nervous and Mental Disease* 204(6). 409–414. doi:10.1097/NMD.0000000000000495.

Spirituality and meaning in life are key dimensions of recovery in psychiatric disorders. The aim of this study was to explore spiritual meaning in life in relation to values and mental health among 175 patients with schizophrenia, borderline personality disorder, bipolar disorder, and anorexia nervosa. For 26% of the patients, spirituality was essential in providing meaning in life. Depending on the diagnosis, considering spirituality as essential in life was associated with better social functioning; self-esteem; psychological and social quality of life; fewer negative symptoms; higher endorsement of values such as universalism, tradition (humility, devoutness), and benevolence (helpfulness); and a more meaningful perspective in life. These results highlight the importance of spirituality for recovery-oriented care.

Kazi, Tasnim Bibi & Sarojini Naidoo. 2016. Does Religiosity Mediate Suicidal Tendencies? A South African Study of Muslim Tertiary Students. *Journal of Religion and Health* 55(3). 1010–1023. doi:10.1007/s10943-015-0167-6.

Despite international studies into religion's protective mechanism against suicidal tendencies, within South Africa there is a paucity of research investigating this relationship. This quantitative study investigates the relationship between religiosity and suicidal tendencies in a sample of Muslim students (n=111). Two scales were used to test the hypothesis that religion mediates suicidal tendency: the Religious Orientation Test and the Multi-Attitude Suicide Tendency Scale. The findings confirmed this hypothesis but disconfirmed our second hypothesis that there would be gender differences between the variables. The authors concluded that a high degree of religiosity acts as a protective mechanism against suicidal tendencies.

LaChiusa, Ida C. 2016. The Transformation of Ashtanga Yoga: Implicit Memory, Dreams, and Consciousness for Survivors of Complex Trauma. *Neuroquantology* 14(2). 255–271.

doi:10.14704/nq.2016.14.2.941.

This mixed methods study explored whether body-work such as Ashtanga yoga can lead to improved affect regulation and body awareness among survivors of complex childhood trauma. It examined the prevalence of complex trauma among Ashtanga yoga practitioners to determine qualitatively whether their perceptions of emotions, their ability to manage affective states, and their body awareness changed over the course of their practice. In addition, this study also explored relevant dreams and images which arose for participants during the course of their practice. The study is based on the hypothesis that body-work such as yoga can help survivors of complex childhood trauma integrate traumatic experiences, resulting in greater levels of affective regulation and body acceptance. A total of 31 female participants who practiced Ashtanga yoga on a regular basis were administered the Childhood Trauma Questionnaire. The findings suggested that the majority of these participants had experienced some form of emotional, physical, or sexual abuse, and found yoga practice to be helpful in regulating emotions and improving body awareness. Those who scored at least moderate levels in at least one of the subscales for self-reported abuse and neglect were selected for qualitative interviews. A total of 6 participants agreed to qualitative interviews. The emergent themes from the interviews revealed that participants found that practice did help them with affect regulation and body acceptance. Moreover, dreams and images which emerged spontaneously for these participants have been helpful in their psychological growth. Such findings suggest that a consistent Ashtanga yoga practice may help female survivors of complex trauma improve their ability to regulate their emotions as well as improve their body awareness, resulting in improved consciousness of various aspects of experience.

Luna, Naelys, Gail Horton, David Newman & Tammy Malloy. 2016. An empirical study of attachment dimensions and mood disorders in inpatient substance abuse clients: The mediating role of spirituality. *Addiction Research & Theory* 24(3). 248–260.
doi:10.3109/16066359.2015.1119267.

Adult attachment style has been related to both spirituality and psychopathology. This study aimed to test the possible mediating role of two dimensions of spirituality (purpose and meaning in life, and perceived relationship with God/higher power) between two attachment dimensions (anxiety and avoidance) and three mood disorders (major depressive disorder, dysthymia and bipolar). In total, 305 clients receiving inpatient substance abuse treatment completed a battery of self-report questionnaires. Path analyses revealed negative associations between the anxiety attachment and all the mood disorders. No significant associations were found for attachment avoidance and the mood disorders. Results also indicated negative associations between the two attachment dimensions and purpose and meaning in life. Concerning the perceived relationship with God/higher power, attachment avoidance was the only dimension that showed a significant negative association. Mediating effects of meaning in life and the perceived relationship with God/higher power were found between both attachment dimensions and two of the mood disorders: major depressive disorder and dysthymia. Further analyses of the mediating effects revealed that purpose and meaning in life was the factor accounting for the mediating effects.

Maxwell, Lindsay & Elsie Duff. 2016. Mindfulness: An Effective Prescription for Depression and Anxiety. *Journal for Nurse Practitioners* 12(6). 403–409.
doi:10.1016/j.nurpra.2016.02.009.

Depression and anxiety are common mental illnesses that are associated with substantial economic burdens. Mindfulness practices focus on being present in the moment and can thereby alleviate the suffering that often accompanies depression and anxiety. The benefits of mindfulness practices, including meditation, body recognition, and yoga, have been demonstrated in evidence-based research. In addition, research suggests that an understanding of Buddhist philosophy, and how it complements Western psychology, can help maximize the role of mindfulness in the treatment of mental illness.

Mehta, Urvakhsh Meherwan, Matcheri S. Keshavan & Bangalore N. Gangadhar. 2016. Bridging the schism of schizophrenia through yoga-Review of putative mechanisms. *International Review of Psychiatry* 28(3). 254–264.
doi:10.1080/09540261.2016.1176905.

Schizophrenia patients experience a “disconnect” at multiple levels: neuronal networks, mental processes, and interpersonal relationships. The resultant poor quality-of-life and functional disability are related to the persistent cognitive deficits and negative symptoms, which are rather resistant to conventional antipsychotic medications. Yoga has emerged as an important therapeutic intervention to improve quality-of-life in schizophrenia. Recent preliminary evidence suggests that effects of yoga on cognitive and negative symptoms may drive this benefit. This study attempts to integrate evidence from neuroscience-based research, which focuses on the neuroplasticity-harnessing effects of yoga, to bridge the schizophrenia connectopathy. In an overarching model to study putative neurobiological mechanisms that drive therapeutic effects of yoga, it is proposed that (a) various styles of meditation may help in strengthening the lateral and medial prefrontal brain networks, thus improving neurocognition and mentalizing abilities, and (b) learning and performing coordinated physical postures with a teacher facilitates imitation and the process of being imitated, which can improve social cognition and empathy through reinforcement of the premotor and parietal mirror neuron system. Oxytocin may play a role in mediating these processes, leading to better social connectedness and social outcomes.

Olson, Trevor, Theresa Clement Tisdale, Edward B. Davis, Elizabeth A. Park, Jiyun Nam, Glendon L. Moriarty, Don E. Davis, Michael J. Thomas, Andrew D. Cuthbert & Lance W. Hays. 2016. God image narrative therapy: A mixed-methods investigation of a controlled group-based spiritual intervention. *Spirituality in Clinical Practice* 3(2). 77–91.
doi:10.1037/scp0000096.

This article reports findings from a controlled, manualized 10-week group-based spiritual intervention designed to improve God images, attachment to God, and narrative identity, using primarily narrative and experiential interventions. Participants were 61 Christian adults (n=32 intervention, n=29 matched controls) from the student population of 2 faith-based universities. Quantitative results (including data from self-report measures and quantified data from God-representation figure drawings) yielded nonsignificant findings. However, in posttest journal entries and during debriefing interviews, intervention participants reported experiencing positive changes in God images, God attachment, and narrative identity. These discrepant results are discussed in terms of the existing literature, with a focus on measurement issues. The authors also discuss the potential of using qualitative and mixed-methods research to study God images and God attachment, particularly (a) in the context of outcome research and (b) if non-self-report methods (e.g., projective measures, narrative methods) are utilized more heavily than self-report methods.

Pascoe, Anita E., Terrence D. Hill, Kryisia N. Mossakowski & Robert J. Johnson. 2016. Religious Involvement and Perceptions of Control: Evidence from the Miami-Dade Health Survey. *Journal of Religion and Health* 55(3). 862–873.
doi:10.1007/s10943-015-0081-y.

This study uses data collected through the 2011 Miami-Dade Health Survey (n=444) to test whether religious involvement is associated with three distinct control beliefs. Regression results suggest that people who exhibit high levels of religious involvement tend to report higher levels of the sense of control, self-control, and the health locus of control than respondents who exhibit low levels of religious involvement. Although this study suggests that religious involvement can promote perceptions of control over one’s own life, this pattern is apparently concentrated at the high end of the distribution for religious involvement, indicating a threshold effect.

Ronneberg, Corina R., Edward Alan Miller, Elizabeth Dugan & Frank Porell. 2016. The Protective Effects of Religiosity on Depression: A 2-Year Prospective Study. *Gerontologist* 56(3). 421–431.

doi:10.1093/geront/gnu073.

Approximately 20% of older adults are diagnosed with depression in the United States. Extant research suggests that engagement in religious activity, or religiosity, may serve as a protective factor against depression. This prospective study examines whether religiosity protects against depression and/or aids in recovery. Study data are drawn from the 2006 and 2008 waves of the Health and Retirement Study. The sample consists of 1,992 depressed and 5,740 non-depressed older adults (mean age = 68.12 years), at baseline (2006), for an overall sample size of 7,732. Logistic regressions analyzed the relationship between organizational (service attendance), non-organizational (private prayer), and intrinsic measures of religiosity and depression onset (in the baseline non-depressed group) and depression recovery (in the baseline depressed group) at follow-up (2008), controlling for other baseline factors. Religiosity was found to both protect against and help individuals recover from depression. Individuals not depressed at baseline remained non-depressed 2 years later if they frequently attended religious services, whereas those depressed at baseline were less likely to be depressed at follow-up if they more frequently engaged in private prayer.

Rosenkrantz, Dani E., Sharon S. Rostosky, Ellen D. B. Riggle & Jennifer R. Cook. 2016. The positive aspects of intersecting religious/spiritual and LGBTQ identities. *Spirituality in Clinical Practice* 3(2). 127–138.

doi:10.1037/scp0000095

Religion and spirituality are positive resources in the lives of many individuals. Although much of the existing research on the intersection of religious/spiritual and lesbian, gay, bisexual, transgender, and/or queer (LGBTQ) identities has focused on conflicts in these identities, a growing number of studies suggests that religious/spiritual LGBTQ people experience positive aspects similar to those emphasized in the general literature. Researchers sought to extend previous findings by asking LGBTQ participants (n=314) to describe the positive aspects of identifying as both religious/spiritual and LGBTQ. Qualitative analysis revealed that the positive aspects were characterized by 5 themes: (a) Love and Acceptance for one's LGBTQ identity; (b) Deeper Meaning and Purpose due to having an LGBTQ perspective; (c) Empathy, Openness, and Compassionate Action rooted in LGBTQ identity and a passion to actively live religious/spiritual values; (d) Positive Relationships with families, partners, and communities based in a shared religious/spiritual identity and authentic expression of LGBTQ identity; and (e) Spiritual Strength for coming out and coping with sexual or gender identity stigma and prejudice. Participants' responses suggest that religious/spiritual and LGBTQ identities interact in ways that synergistically enhance each other and may provide an important source of strength and support that can be mobilized in clinical practice.

Schuver, Katie J. & Beth A. Lewis. 2016. Mindfulness-based yoga intervention for women with depression. *Complementary Therapies in Medicine* 26. 85–91.

doi:10.1016/j.ctim.2016.03.003.

The purpose of this study was to examine the efficacy of a 12-week mindfulness-based yoga intervention on depressive symptoms and rumination among depressed women. Experimental design was a prospective, randomized, controlled 12-week intervention pilot study. Depressive symptoms were assessed at baseline, post-intervention (12 weeks), and one-month follow-up. Women with a history of diagnosed depression and currently depressed were randomized to a mindfulness-based yoga condition or a walking control. The mindfulness-based yoga intervention consisted of a home-based yoga asana, pranayama and meditation practice with mindfulness education sessions delivered over the telephone. The walking control condition consisted of home-based walking sessions and health education sessions delivered over the phone. Both groups reported decreases in depressive symptoms from baseline to post-intervention, and from baseline to one-month follow-up. After controlling for baseline, there were no significant between group differences on depression scores at post-intervention and the one-month follow-up assessment. The mindfulness-based yoga condition reported significantly lower levels of rumination than the control condition at post-intervention, after controlling for baseline levels of rumination.

- Soriano, Christian Albert F., Winona D. Sarmiento, Francis Justin G. Songco, John Rey B. Macindo & Alita R. Conde. 2016. Socio-demographics, spirituality, and quality of life among community-dwelling and institutionalized older adults: A structural equation model. *Archives of Gerontology and Geriatrics* 66. 176–182.
doi:10.1016/j.archger.2016.05.011.

The increasing life expectancy of the population prompts an array of health conditions that impair an older adults' quality of life (QoL). Although demographics and spirituality have been associated with QoL, limited literature elucidated the exact mechanisms of their interactions, especially in a culturally-diverse country like Philippines. Hence, this study determined the relationship among socio-demographics, spirituality, and QoL of Filipino older adults in a community and institutional setting. A predictive-correlational study among 200 randomly selected community-dwelling and institutionalized older adults was conducted, with a 99% power and a medium effect size. Data were collected using a three-part questionnaire from September to November 2015. The questionnaire was composed of the "robotfoto," Spirituality Assessment Scale, and modified Older People's Quality of Life which assessed socio-demographics, spirituality, and QoL. Analysis showed that institutionalization in a nursing home positively and negatively affected spirituality and QoL, generating an acceptable model. The negative direct effect of institutionalization on social relationship, leisure, & social activities QoL also initiates a cascade of indirect negative effects on both spirituality and QoL dimensions. The development of a structural model illustrating the interrelationship of socio-demographics, spirituality, and QoL helps healthcare professionals in predicting facets of spirituality and QoL that can be compromised by living in a nursing home.

- Struve, Ann Riesselman, Der-Fa Lu, Laura K. Hart & Theresa Keller. 2016. The Use of Intercessory Prayer to Reduce Disruptive Behaviors of Patients with Dementia: A Pilot Feasibility Study. *Journal of Holistic Nursing* 34(2). 135–145.
doi:10.1177/0898010115587400.

A prospective longitudinal design was used to identify the feasibility, and preliminary efficacy of 12 weeks of intercessory prayer to reduce the disruptive behaviors of six late-stage dementia patients. One group of Catholic nuns offered the Lord's Prayer for assigned patients twice a day. Intercessory prayer for the entire subject group was also offered, by a second group of nuns, via a Latria (modality) called "Perpetual Adoration." Disruptions were documented from 3 weeks pre-intervention to 3 weeks post-intervention. Consents were received for two thirds of invited patients. Retention was reduced by the death of two patients. Fidelity, assessed by retrospective report, was maintained throughout the study. Use of off-label antipsychotic medications was reduced or discontinued in four patients during the trial. The repeated measures analysis of variance, while indicative of a trend, did not reach a level of significance, likely due to small sample size. However, the average effect on behavior resulted in a reduction of disruptive incidents, for the group, in approximately 27 behavior categories/week. This study suggests that it is feasible to improve the life quality of patients in the terminal phase of their illness through prayer reducing their need to respond to life in a disturbed manner.

- Sutar, Roshan, Geetha Desai, Shivarama Varambally & B. N. Gangadhar. 2016. Yoga-based intervention in patients with somatoform disorders: an open label trial. *International Review of Psychiatry* 28(3). 309–315.
doi:10.1080/09540261.2016.1188785.

Somatoform disorders are common mental disorders associated with impaired functioning and increased utilization of health resources. Yoga-based interventions have been used successfully for anxiety, depression, and chronic pain conditions. However, literature on the use of yoga in treatment of somatoform disorders is minimal. The current study assessed the effect of a specific yoga-based intervention in patients with somatoform disorders. Consenting patients meeting ICD-10 criteria for somatoform disorders were offered a specific yoga module (1 h per day) as a treatment. Assessments including Visual Analogue Scale (VAS), Brief Pain Inventory (BPI), and others were

carried out at baseline and after 2, 6, and 12 weeks. Sixty-four subjects were included in the study and 34 completed 12 weeks follow-up. Significant improvement was noted in pain severity from baseline to 12 weeks after regular yoga sessions. The mean VAS score dropped from 7.24 to 2.88. Worst and average pain score in the last 24h on BPI dropped from 7.71 to 3.26 and from 6.12 to 2.0,7 respectively. Results of the study suggest that yoga-based intervention can be one of the non-pharmacological treatment options in somatoform disorders. These preliminary findings need replication in larger controlled studies.

Tzu, Gary, Brittany Bannerman & Karim McCallum. 2016. Novices' Transition from Separation into Non-Dual Being: A Transpersonal, Existential, Phenomenological Analysis. *International Journal of Mental Health and Addiction* 14(3). 291–312.
doi:10.1007/s11469-015-9595-5.

Cultivating non-dual awareness involves transcendent movement through specific stages of psyche development. This transition allows for freedom from the constraints of the ego self or the illusory self and the mind, and a new focus on the collapse of dualism into oneness and acceptance of life as it presents itself. Such non-dual awareness was thought to be a rare occurrence, but new research is pointing to its increasing availability and accessibility. This transcendence, however, is not without its plights, crises, fluctuations, and breakthroughs. Using a transpersonal, existential, and phenomenological approach the authors investigated consciousness as it manifested in the journeys of nine novice's awakening and transitioning from duality and separation into non-dual being. This article focuses on the themes that manifested in the initial transition from duality to non-duality. Existential issues, as well as resistances to them, played an important role in serving as openings into such non-dual states of being. Themes in duality included: Seeking to the fill the void, frustration, and despair; reinforcement of the ego through the other and assumed roles; a lack of sense of belonging resulting in alienation and loneliness; patterns of childhood trauma and resultant wounding; and experiences of betrayal, fear, and adopted coping mechanisms. Themes during the transition into non-duality included: Disillusionment with seeking, failurehood, and the seeker's hell; ego deconstruction and questioning of reality; experiences of intuitive knowing and gnosis; direct experiences of non-duality; recollection of childhood experiences of no-self and oneness; reassertion of the mind and ego, as well as fluctuations in and out of non-duality; avoidance of spiritual bypass by working through wounds and personal issues; and fueling of the non-dual journey by reconnecting to one's authentic energy. These themes are explored in the context of transcendence through the stages of psyche development and the implications of the first part of the novice's journeys of awakening into non-duality are discussed.

Uebelacker, Lisa A., Cynthia L. Battle, Kaeli A. Sutton, Susanna R. Magee & Ivan W. Miller. 2016. A pilot randomized controlled trial comparing prenatal yoga to perinatal health education for antenatal depression. *Archives of Women's Mental Health* 19(3). 543–547.
doi:10.1007/s00737-015-0571-7.

Researchers conducted a pilot randomized controlled trial (RCT) comparing a prenatal yoga intervention to perinatal-focused health education in pregnant women with depression. Findings document acceptability and feasibility of the yoga intervention: no yoga-related injuries were observed, instructors showed fidelity to the yoga manual, and women rated interventions as acceptable. Although improvements in depression were not statistically different between groups, they favored yoga. This study provides support for a larger scale RCT examining prenatal yoga to improve mood during pregnancy.

Wang, Zhizhong, Harold G. Koenig, Hui Ma & Saad Al Shohaib. 2016. Religion, Purpose in Life, Social Support, and Psychological Distress in Chinese University Students. *Journal of Religion and Health* 55(3). 1055–1064.
doi:10.1007/s10943-016-0184-0.

Researchers examined the relationship between religious involvement and psychological distress and explored the mediating effects of social support and purpose in life in university students in western, mid-western, and eastern

China. Cross-sectional survey of a representative sample of 1812 university students was conducted. The Purpose in Life scale, Duke Social Support Index, and Religious Commitment Inventory-10 were administered, along with Kessler's Psychological Distress Scale. Structural equation modeling was used to test two models of the mediation hypothesis, examining direct, indirect, and total effects. Model 1 (with direction of effect hypothesized from religiosity to psychological distress) indicated that religious involvement had a direct effect on increasing psychological distress with minor mediated effects. However, Model 2 (with direction of effect hypothesized from psychological distress to religiosity) indicated strong indirect protective effects of religiosity on psychological distress through purpose in life and social support. The findings are consistent with the hypothesis that psychological distress increases religious involvement, which then increases purpose in life and social support that then lead to lower psychological distress.

Wolff, Joshua R., Heather L. Himes, Sabrina D. Soares & Ellen Miller Kwon. 2016. Sexual minority students in non-affirming religious higher education: Mental health, outness, and identity. *Psychology of Sexual Orientation and Gender Diversity* 3(2). 201–212.
doi:10.1037/sgd0000162

Sexual minority (SM) students are vulnerable to increased rates of psychological distress and harassment as a result of stigma and other forms of marginalization in the college environment. However, little research has been conducted on the experiences and psychological functioning among SMs who attend non-affirming religiously affiliated universities (NARAU) that enforce restrictive admission and conduct policies toward SM students, and/or view same-sex romantic expressions and identities as sinful. SM students (n=213) attending NARAU completed the Counseling Center Assessment of Psychological Symptoms (CCAPS), the Outness Inventory (OI), and the Lesbian, Gay and Bisexual Identity Scale (LGBIS). Results indicate that SM students who attend Mormon, Evangelical, and Nondenominational Christian NARAU had more difficulty coming to terms with their sexual orientation than those in Catholic or Mainline Protestant schools. Furthermore, Mormon students reported significantly more incongruence between their sexual orientation and religious beliefs than other religious groups. Students who were involved with a Gay–Straight Alliance (GSA) had significantly less difficulty with their sexual orientation, less negative identities, and less religious incongruence than those students not involved with a GSA. More than 1 third (37%) reported being bullied or harassed at school because of their sexual orientation. Almost 1 in 5 (17%) reported a mental health professional had attempted to change their sexual orientation. Implications and recommendations for NARAU campus communities and counseling centers are discussed.

Worthington, Jr., Everett L., Brandon J. Griffin, Loren L. Toussaint, Camilla W. Nonterah, Shawn O. Utsey & Rachel C. Garthe. 2016. Forgiveness as a Catalyst for Psychological, Physical, and Spiritual Resilience in Disasters and Crises. *Journal of Psychology & Theology* 44(2). 152–165.

In this conceptual article, researchers argue that some people are resilient in the face of disasters while others are not. Resilience may necessitate forgiveness of perpetrators of interpersonal harms (e.g., Rwandan Genocide in 1994), of inadequate responder assistance (e.g., Hurricane Katrina), or in situations where community members perceive themselves as victims of offense by virtue of their group affiliation, although they themselves were not actually harmed (e.g., survivors of school shootings). Victims may experience a lack of forgiveness toward others in human-caused disasters and may deal with a lack of forgiveness toward God in natural disasters. Forgiveness may be an effective response to disaster-related injustices that promotes resilience. The resent research team used a meta-analysis of forgiveness interventions and an empirical study of awareness-raising campaigns on college campuses to estimate the effects of forgiveness on public health, public mental health, relationships, and spirituality across society after disasters. The authors advocate for forgiveness as one of many potential resilient responses. Specifically, forgiveness could potentially transform lack of forgiveness into a stronger sense of purpose and improved social relations.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Aboul-Enein, Basil H. 2016. Health-Promoting Verses as mentioned in the Holy Quran. *Journal of Religion and Health* 55(3). 821–829.
doi:10.1007/s10943-014-9857-8.

The Quran is regarded as both the spiritual and behavioral guidance for all Muslims. This narrative study was designed at examining relevant health-promoting verses in the Quran and to identify the chapters and verses where keywords and phrases are mentioned relevant to health promotion and behavior. Twenty-eight verses were identified, with a focus on diet and nutrition, personal hygiene, alcohol abstention, and the importance of a healthy lifestyle. These results suggest that the Quran could serve as an influential medium for culturally competent public health practitioners in diverse populations, particularly in Muslim communities, for improving and maintaining healthy behaviors.

Ahmad, Mahjabeen & Shamsul Khan. 2016. A Model of Spirituality for Ageing Muslims. *Journal of Religion and Health* 55(3). 830–843.
doi:10.1007/s10943-015-0039-0.

Spirituality's influence on general well-being and its association with healthy ageing has been studied extensively. However, a different perspective has to be brought in when dealing with spirituality issues of ageing Muslims. Central to this perspective is the intertwining of religion and spirituality in Islam. This article will contribute to the understanding of the nature of Islamic spirituality and its immense importance in the life of a practicing ageing Muslim. Consequently, it will help care providers to include appropriate spiritual care in the care repertoire of a Muslim care recipient. It is assumed that the framework for a model of spirituality based on Islamic religious beliefs would help contextualize the relationship between spirituality and ageing Muslims. Not only challenges, but also the opportunities that old age provides for charting the spiritual journey have underpinned this model.

Anefalos, Alexandre, Wilkens Aurélio Buarque E Silva, Renan Mercuri Pinto, Renée Danckwardt Ferrari, Aparecida de Fátima Boni, Hélio Goulart Dos Santos & Cleide Borges Duarte. 2016. Experience of the Spiritist Hospital Chaplaincy Service: A Retrospective Study. *Journal of Religion and Health* 55(3). 909–917.
doi:10.1007/s10943-015-0106-6.

The Hospital Chaplaincy service is made of religious volunteer work done by representatives of various religions properly trained to offer spiritual support to hospitalized patients, as well as their families, contributing as a source of protection, comfort and restoring faith in the face of illness. The objective of this study is to present a retrospective analysis of records made by chaplains, guided by the Spiritist Medical Association of Piracicaba, through 7,419 calls to 2,191 patients admitted at Unimed Hospital of Piracicaba in 2014. The results contributed to the production of scientific documentation about this new holistic model that still lies in acceptance phase in the country.

Ayeh, Derek D., Hyo Jung Tak, John D. Yoon & Farr A. Curlin. 2016. U.S. Physicians' Opinions About Accommodating Religiously Based Requests for Continued Life-Sustaining Treatment. *Journal of Pain and Symptom Management* 51(6). 971–978.
doi:10.1016/j.jpainsymman.2015.12.337.

Families of critically ill patients occasionally request that physicians continue life-sustaining treatment (LST), sometimes giving religious reasons. The objective of this study was to examine whether U.S. physicians are more likely to accommodate requests for LST that are based on religious reasons. In 2010, researchers surveyed 1,156 practicing U.S. physicians from specialties likely to care for adult patients with advanced illness. The questionnaire included two randomized experimental vignettes: one where a family asked that LST be continued for a patient that met brain death criteria and a second where the son of an elderly patient with cancer insists on continuing LST. In both, the research team experimentally varied the reasons that the family member gave to justify the request, to see

if physicians are more likely to accommodate a request based on a religious requirement or hope for a miracle, compared to no mention of either. For physicians' religious characteristics, their religious affiliation and level of religiosity were assessed. For the patient meeting brain death criteria, physicians were more likely to accommodate the request to continue LST when the family mentioned their Orthodox Jewish community (85% vs. 70%). For the patient with metastatic cancer, physicians were more likely to accommodate the request when the son said his religious faith does not permit discontinuing LST (65% vs. 46%), but not when he said he expected divine healing (50% vs. 46%). The authors conclude that physicians appear more willing to accommodate requests to continue LST when those requests are based on particular religious communities or traditions, but not when based on expectations of divine healing.

- Best, Alicia L., S. Melinda Spencer, Daniela B. Friedman, Ingrid J. Hall & Deborah Billings. 2016. The Influence of Spiritual Framing on African American Women's Mammography Intentions: A Randomized Trial. *Journal of Health Communication* 21(6). 620–628.
doi:10.1080/10810730.2015.1114055.

Spiritual framing of breast cancer communication may provide a useful strategy for addressing disparate rates of breast cancer mortality among African American women. The efficacy of a spiritually framed breast cancer screening (BCS) message was compared with that of a traditional BCS message. Specifically, 200 African American women were randomly assigned to review either a spiritually framed or traditional BCS message and complete a self-administered survey, including a thought-listing form. Message efficacy was measured by number of thoughts generated (elaboration), ratio of positive to negative thoughts (polarity), and intention to obtain and/or recommend a mammogram. Multiple linear regression and structural equation modeling were used to assess direct and indirect (mediated) associations among variables. Spiritual framing was positively associated with greater elaboration and more positive polarity. Spiritual framing also had a significant indirect effect on mammography intentions through polarity. These results indicate that spiritual framing may improve the efficacy of BCS messages among African American women by eliciting more positive thoughts about screening. Interventions targeting African American women might consider the role of spirituality when tailoring messages to encourage regular mammography use.

- Bova, Michael, Stanley Krippner, Ashwin Budden & Roberto Galante. 2016. The Indigenous Healing Tradition in Calabria, Italy. *Neuroquantology* 14(2). 193–212.
doi:10.14704/nq.2016.14.2.937.

In 2003, a research team spent several weeks in Calabria, Italy interviewing local people about folk healing remedies and attended a Feast Day honoring St. Cosma and St. Damian. The researchers also paid two visits to the Shrine of Madonna dello Scoglio, where they interviewed its founder, Fratel Cosimo. In this essay, the authors provide their impressions of Calabria. Although it is one of the poorest areas in Italy, Calabria is one of the richest in its folk traditions and alternative modes of healing.

- Cardoso, Roberto, Elaine Sales, Liliana Centurione, Mario S. Bazzarella & Mary U. Nakamura. 2016. Operational Definition: The “Achilles Heel” of Meditation. *Neuroquantology* 14(2). 433–438.
doi:10.14704/nq.2016.14.2.956.

Meditation is a practice that can produce a quantic phenomenon, often allowing a change of consciousness not totally predictable. Coming from ancestral traditions, meditation is an increasingly accepted intervention in the academic community; however, studies still need an adequate operational description that will allow its complete reproducibility. This article presents this aspect that needs to be revisited: the basic methodological care that enables the study and the use of meditation in health.

- Chen, Allen K., Anagha Kumar & Aviad Haramati. 2016. The effect of Mind Body Medicine course on medical student empathy: A pilot study. *Medical Education Online* 21. 31196.

Empathy among medical practitioners has been shown to affect patient care and outcomes. Factors such as stress and depression are known to have a negative impact on medical student empathy. Approaches such as mindfulness, meditation, and other mind-body techniques can enhance empathy and reverse burnout symptoms. In the present study, researchers evaluated impact of Mind Body Medicine (MBM) course on perceived stress and empathy on first-year medical students. Thirteen first-year medical students in total self-selected into MBM (experimental) and seven non-MBM (control) groups completed a prospective, pre- and post-test analysis, using the Jefferson Scale of Physician Empathy – Students (JSPE-S), Perceived Stress Scale (PSS), and Personal Health Questionnaire (PHQ) to evaluate empathy, stress, and depression, respectively. Results showed an increase in stress, as well as a decrease in empathy, in both MBM and non-MBM groups throughout the course of the study.

- Cruz, Jonas P., Donia R. Baldacchino & Nahed Alquwez. 2016. Validity and Reliability of the Spiritual Coping Strategies Scale Arabic Version in Saudi Patients Undergoing Haemodialysis. *Journal of Renal Care* 42(2). 107–114.
doi:10.1111/jorc.12155.

Patients often resort to religious and spiritual activities to cope with physical and mental challenges. The effect of spiritual coping on overall health, adaptation and health-related quality of life among patients undergoing haemodialysis (HD) is well documented. Thus, it is essential to establish a valid and reliable instrument that can assess both the religious and non-religious coping methods in patients undergoing HD. This study aimed to assess the validity and reliability of the Spiritual Coping Strategies Scale Arabic version (SCS-A) in Saudi patients undergoing HD. A convenience sample of 60 Saudi patients undergoing HD was recruited for this descriptive, cross-sectional study. Data were collected between May and June 2015. Forward-backward translation was used to formulate the SCS-A. The SCS-A, Muslim Religiosity Scale and the Quality of Life Index Dialysis Version III were used to procure the data. Internal consistency reliability, stability reliability, factor analysis and construct validity tests were performed. Analyses were set at the 0.05 level of significance. The SCS-A showed an acceptable internal consistency and strong stability reliability over time. The EFA produced two factors (non-religious and religious coping). Satisfactory construct validity was established by the convergent and divergent validity and known-groups method.

- Darrell, Linda. 2016. Faith that God cares: The experience of spirituality with African American hemodialysis patients. *Social Work & Christianity* 43(2). 189–212.

Given the high prevalence of End Stage Renal Disease (ESRD) among African Americans, this article will explore the significance of faith, spirituality, and coping in the management of mental health concerns with African Americans receiving hemodialysis. The findings of the study from which this article is drawn point to the identification and use of spiritual assessment tools as a guide for clinical social work practice. Spiritual assessments may help identify the strengths of spirituality in the development of positive coping skills in patients diagnosed with chronic or end stage illness within populations for whom spirituality may be a significant factor.

- Davis, Judson. 2016. The Primordial Mandalas of East and West: Jungian and Tibetan Buddhist Approaches to Healing and Transformation. *Neuroquantology* 14(2). 242–254.
doi:10.14704/nq.2016.14.2.940.

A comparative analysis of Jungian depth psychology and Tibetan Buddhist Tantra reveals a fascinating array of similarities, which are united in their most essential form through the manner in which mythic imagery is employed in both disciplines as a powerful agent of inner transformation. Various forms of creative engagement with sacred symbols, including mandalas, are enacted in each tradition as a vehicle through which latent spiritual potentialities can be brought forth into consciousness, a process that is greatly enhanced through a number of dynamic artistic techniques and contemplative practices. It should be emphasized from the outset that both disciplines represent complex systems that include sometimes widely varying notions of a higher spiritual order or ultimate reality. However, despite any differences in ontological postulations or metaphysical precepts, they share a number of

surprising and sometimes striking characteristics. For example, both emphasize the mind, or psyche, as the foundational basis of existence and the primary means through which liberation (in the tantric tradition) and psychic wholeness (as in Jungian psychology) are pursued. Each also emphasizes the realm of dreams (e.g., dream analysis in depth psychology and dream yoga in Tibetan Tantra), contemplative and creative visualizations (such as the focus on wisdom figures and sacred symbols), and an assortment of other practices that are designed to effect a reconciliation of opposites and the attendant union of masculine and feminine principles. Their respective methodologies thus represent essential avenues through which to deepen an understanding of human nature's far-reaching spiritual capacities while demonstrating the vital role that mythic imagery, in particular the mandala, plays in the process of healing and inner transformation.

Derose, Kathryn Pitkin, Ann Haas & Laura Werber. 2016. US Religious Congregations' Programming to Support Veterans: A Mixed Methods Study. *Journal of Religion and Health* 55(3). 956–972. doi:10.1007/s10943-015-0132-4.

Religious congregations may be well equipped to address veterans' reintegration needs, but little is known about the prevalence and nature of such support. Researchers conducted a mixed methods study using nationally representative congregational survey data and in-depth interviews with congregational leaders. Overall, 28 % of congregations nationally reported having programming to support veterans and positive, independent predictors included: community context (county veteran presence, high-poverty census tract, rural compared to urban location); congregational resources (more adult attendees, having a paid employee that spent time on service programs); and external engagement (assessing community needs, collaboration, and social service participation). Qualitative interviews revealed a range of activities, including attending to spiritual issues, supporting mental, physical and social well-being, and addressing vocational, legal, financial, and material needs.

Dharmawardene, Marisa, Jane Givens, Amy Wachholtz, Suzana Makowski & Jennifer Tjia. 2016. A systematic review and meta-analysis of meditative interventions for informal caregivers and health professionals. *BMJ supportive & palliative care* 6(2). 160–169. doi:10.1136/bmjspcare-2014-000819.

Burnout, stress and anxiety have been identified as areas of concern for informal caregivers and health professionals, particularly in the palliative setting. Meditative interventions are gaining acceptance as tools to improve well-being in a variety of clinical contexts, however, their effectiveness as an intervention for caregivers remains unknown. The aim of this study is to explore the effect of meditative interventions on physical and emotional markers of well-being as well as job satisfaction and burnout among informal caregivers and health professionals. A systematic review of randomized clinical trials and pre-post intervention studies with meditative interventions for caregivers was carried out using relevant databases. Of 1,561 abstracts returned, 68 studies were examined in full text with 27 eligible for systematic review. Controlled trials of informal caregivers showed statistically significant improvement in depression, anxiety, stress, and self-efficacy, at an average of 8 weeks following intervention initiation. Controlled trials of health professionals showed improved emotional exhaustion, personal accomplishment, and life satisfaction at an average of 8 weeks following intervention initiation.

Erickson, Deborah L., Debbi Fisher, Bob Woelk, Wanda Buckner & Crystal Ashley. 2016. A Mixed Methods Study of Telepathic Interspecies Communication with Therapeutic Riding Horses and Their Recovering Wounded Veteran Partners. *Neuroquantology* 14(2). 404–426. doi:10.14704/nq.2016.14.2.953.

Telepathic parapsychology research is a subject of much debate. This small pilot study explored the proposition that telepathic communication between humans and therapy equines may be possible with a human utilizing contemplative/meditative techniques to shift consciousness. The human participants were 7 military veterans in retired or inactive status diagnosed with combat-related posttraumatic stress disorder (PTSD). Each veteran was assigned to one therapy horse. The 12 equine participants all had the same guardians. The veterans signed an online

consent to participate and submitted questions for their horses on the consent form. Both veterans and guardians were blind as to which of 2 telepathic animal communicators would be randomly assigned to the session by the principal researcher. Both animal communicators were physically located in another town from the horses when the sessions were conducted. The answers to the veteran's questions, allegedly received telepathically from the horses, were documented and emailed to the principal researcher. The summary document from each session was shared with the veteran for their horse by the guardians, and all summaries were shared with the guardians. During an in-person or telephone interview with the principal researcher, the veterans offered qualitative comments and used Likert scales to rate the usefulness of the information received from 1 (not at all useful) to 6 (extremely useful). The average overall usefulness rating as judged by the veterans was 4.9. The guardians also submitted Likert ratings and qualitative comments on the usefulness of the information received; the guardian ratings average was 5.75. These findings contribute to the body of equine therapy studies as well as the wealth of literature that supports the human-animal bond. Further research is needed to explore additional nuances of this category of consciousness and healing research.

Frazão-Moreira, Amélia. 2016. The symbolic efficacy of medicinal plants: practices, knowledge, and religious beliefs amongst the Nalu healers of Guinea-Bissau. *Journal of Ethnobiology and Ethnomedicine* 12(1). 24.

doi:10.1186/s13002-016-0095-x.

In attempting to understand how the use of medicinal plants is symbolically valued and transformed according to specific cosmologies, researchers gain valuable insight into the ethnopharmacological practices, in terms of the major role played by healers, as custodians of local ethnobotanical knowledge, but also as ritual masters. Thus, the goal of this paper is to understand how medicinal plants are used differently depending on a combination between the healers' field of expertise and personal history on the one hand, and the diversified religious and symbolical frameworks on the other. This essay is based on intense ethnographical research carried out amongst the Nalu people of Guinea-Bissau. Methods included participant observation and semi-directed interviews with six locally-renown healers (four men and two women). The progress of their work and the changes operated within the sets of beliefs associated with ethnopharmacological practices were registered by means of repeated field visits. A total of 98 species and 147 uses are accounted for, as well as a description of the plant parts that were used, as well as the methods of preparation and application according to the different healers' specialized practices. At the same time, this research describes those processes based on pre-Islamic and Muslim cosmologies through which medicinal plants are accorded their value, and treatments are granted their symbolic efficiency. The author concludes that medicinal plants are valued differently in the pre-Islamic medicine and in the medicine practiced by Islamic masters. The increasing relevance of Islam within this context has affected the symbolic framework of ethnopharmacological practices. Nevertheless, the endurance of those processes by which symbolic efficiency is attributed to local treatments based on plants is explained not only by the syncretic nature of African Islam, but also by the fact that patients adopt different therapeutic pathways simultaneously.

Frecska, Ede, Mihaly Hoppal & Luis E. Luna. 2016. Nonlocality and the Shamanic State of Consciousness. *Neuroquantology* 14(2). 155–165.

doi:10.14704/nq.2016.14.2.934.

Healing methods based on the altered states of consciousness common to spiritual or shamanic traditions escape neuroscientific explanations based on classical physics and classical cognition-denoted here as “perceptual-cognitive” (characteristic of the ordinary state of consciousness) information processing. A second foundation of knowledge-named as “nonlocal-intuitive” approach-with another way for making representation of the environment is recommended to be introduced for better understanding of the shaman's reintegrative role in their community and for an improved interpretation of the shamanic state of consciousness with the “soul flight” in its center. This essay offers terminology for translating some common elements of indigenous world views into a frame closer to the contemporary Western mindset. The proposed model suggests that when the coping capacity of the “perceptual-cognitive” mode of processing is exhausted in a stressful or unmanageable situation, or its dominance is eliminated by the use of

hallucinogens or contemplation, a frame shift occurs, and an alternate source of environmental information is opened through a “nonlocal-intuitive” channel. Consequently, the core activity of shamanic practice, the shamanic journey, occurs in a field of quantum connections and is not restricted by space-time constraints, but limited by the uncertainty principle.

- Galiatsatos, Panagis, Siddhi Sundar, Adil Qureshi, Gavyn Ooi, Paula Teague & W. Daniel Hale. 2016. Health Promotion in the Community: Impact of Faith-Based Lay Health Educators in Urban Neighborhoods. *Journal of Religion and Health* 55(3). 1089–1096.
doi:10.1007/s10943-016-0206-y.

Promoting wellness and providing reliable health information in the community present serious challenges. Lay health educators, also known as community health workers, may offer a cost-effective solution to such challenges. This is a retrospective observational study of graduates from the Lay Health Educator Program (LHEP) at Johns Hopkins Bayview Medical Center from 2013 to 2014. Students were enrolled from the surrounding community congregations and from the hospital’s accredited clinical pastoral education program. There were 50 events implemented by the lay health educators from 2014 to 2015, reaching a total of 2,004 individuals. The mean time from date of graduation from the LHEP to implementation of their first health promotional event was 196 ± 76 days. A significant number of lay health educators implemented events within the first year after completing their training. Ongoing monitoring of their community activity and the clinical impact of their efforts should be a priority for future studies.

- Geros-Willfond, Kristin N., Steven S. Ivy, Kianna Montz, Sara E. Bohan & Alexia M. Torke. 2016. Religion and Spirituality in Surrogate Decision Making for Hospitalized Older Adults. *Journal of Religion and Health* 55(3). 765–777.
doi:10.1007/s10943-015-0111-9.

Researchers conducted semi-structured interviews with 46 surrogate decision makers for hospitalized older adults to characterize the role of spirituality and religion in decision making. Three themes emerged: (1) religion as a guide to decision making, (2) control, and (3) faith, death and dying. For religious surrogates, religion played a central role in end of life decisions. There was variability regarding whether God or humans were perceived to be in control; however, beliefs about control led to varying perspectives on acceptance of comfort-focused treatment. The authors conclude that clinicians should attend to religious considerations due to their impact on decision making.

- Gonçalves, Lídia Maria, Igraine Helena Scholz Osório, Luan Leal Oliveira, Lígia Rodrigues Simonetti, Edilson Dos Reis & Giancarlo Lucchetti. 2016. Learning from Listening: Helping Healthcare Students to Understand Spiritual Assessment in Clinical Practice. *Journal of Religion and Health* 55(3). 986–999.
doi:10.1007/s10943-015-0146-y.

Researchers aim in the present article to evaluate the perceptions of healthcare students while taking a spiritual history (SH). Fifty students were trained on how to take a SH, interviewed inpatients and answered a questionnaire concerning their perceptions. A total of 362 patients were interviewed: 60.1 % of students felt comfortable taking a SH, 85.1 % believed the patient liked the approach, and 72.1 % believed more benefits could come with a follow-up. When students felt more comfortable, they tended to believe the patient, like the approach, feel better, and be more motivated. Spirituality/health educational strategies may be a valid strategy to prepare future health professionals to face spiritual issues in health scenarios.

- Govindaraj, Ramajayam, Sneha Karmani, Shivarama Varambally & B. N. Gangadhar. 2016. Yoga and physical exercise - a review and comparison. *International Review of Psychiatry* 28(3). 242–253.
doi:10.3109/09540261.2016.1160878.

Yoga is a multifaceted spiritual tool with enhanced health and well-being as one of its positive effects. The components of yoga which are very commonly applied for health benefits are asanas (physical postures), pranayama (regulated

breathing) and meditation. In the context of asanas, yoga resembles more of a physical exercise, which may lead to the perception that yoga is another kind of physical exercise. This article aims at exploring the commonalities and differences between yoga and physical exercise in terms of concepts, possible mechanisms and effectiveness for health benefits. A narrative review is undertaken based on traditional and contemporary literature for yoga, along with scientific articles available on yoga and exercise including head-to-head comparative trials with healthy volunteers and patients with various disease conditions. Physical exercises and the physical components of yoga practices have several similarities, but also important differences. Evidence suggests that yoga interventions appear to be equal and/or superior to exercise in most outcome measures. Emphasis on breath regulation, mindfulness during practice, and importance given to maintenance of postures are some of the elements which differentiate yoga practices from physical exercises.

- Govindaraj, Ramajayam, Shivarama Varambally, Manjunath Sharma & Bangalore Nanjundaiah Gangadhar. 2016. Designing and validation of a yoga-based intervention for schizophrenia. *International Review of Psychiatry* 28(3). 323–326.
doi:10.3109/09540261.2016.1151404.

Schizophrenia is a chronic mental illness which causes significant distress and dysfunction. Yoga has been found to be effective as an add-on therapy in schizophrenia. Modules of yoga used in previous studies were based on individual researcher's experience. This study aimed to develop and validate a specific generic yoga-based intervention module for patients with schizophrenia. The study was conducted at NIMHANS Integrated Centre for Yoga (NICY). A yoga module was designed based on traditional and contemporary yoga literature as well as published studies. The yoga module along with three case vignettes of adult patients with schizophrenia was sent to 10 yoga experts for their validation. Experts (n=10) gave their opinion on the usefulness of a yoga module for patients with schizophrenia with some modifications. In total, 87% (13 of 15 items) of the items in the initial module were retained, with modification in the remainder as suggested by the experts. The authors conclude that a specific yoga-based module for schizophrenia was designed and validated by experts. Further studies are needed to confirm efficacy and clinical utility of the module. Additional clinical validation is suggested.

- Houston-Kolnik, Jaclyn D. & Nathan R. Todd. 2016. Examining the Presence of Congregational Programs Focused on Violence Against Women. *American Journal of Community Psychology* 57(3-4). 459–472.
doi:10.1002/ajcp.12055.

Religious congregations are uniquely poised to provide programs to support survivors of violence against women, yet little is known regarding the prevalence of such programs. In this study, researchers used data from three waves of the National Congregation Study (n=3334) to examine change across time in the presence of a congregational program to support survivors of sexual assault or domestic violence. The research team also explored results among different Christian religious traditions across time. Given the gendered nature of this violence, researchers also tested whether the (a) gender of the head clergy (i.e., religious leader), and (b) ability of women to serve in congregational leadership roles predicted the presence of programs. As points of comparison, they also examined the total number of congregational social service programs and food programs in particular. Overall, different patterns of change were found across religious traditions for the different programs. Moreover, clergy gender and the ability of women to serve in leadership roles predicted the presence of different types of programs.

- Huppert, Jonathan D. & Isaac Fradkin. 2016. Validation of the Penn Inventory of Scrupulosity (PIOS) in scrupulous and nonscrupulous patients: Revision of factor structure and psychometrics. *Psychological Assessment* 28(6). 639–651.
doi:10.1037/pas0000203.

Scrupulosity, or obsessive-compulsive symptoms related to religiosity or religion, is a common presentation of obsessive compulsive disorder (OCD), and it is important to elucidate its phenomenology and measurement. Today, the most

widespread questionnaire for the assessment of scrupulosity is the Penn Inventory of Scrupulosity (PIOS). The current study examines the psychometric properties of the PIOS in outpatient, treatment-seeking patients. Results of a confirmatory factor analysis suggested an unsatisfactory fit for previously suggested factor structures. A follow-up exploratory factor analysis suggested that a bifactor model was the most suitable solution. In addition, the scores of the PIOS and its revised subscales were found to have moderate-good concurrent validity; however, its scores discriminated poorly between patients with scrupulous obsessions and patients with OCD and other repugnant obsessions. Group differences and receiver operating characteristics (ROC) analyses both indicated that the PIOS is more suitable in discriminating scrupulous obsessions in Christian patients but not in other religious groups (i.e., Jews, nonreligious patients). Additional analyses revealed that the co-occurrence of scrupulous and other repugnant obsessions is also moderated by religious affiliation. These results raise questions in terms of grouping scrupulosity with other repugnant obsessions and suggest for the need of culturally sensitive instruments of scrupulosity.

- Iqbal, Fareed, Shafquat Zaman, Sharad Karandikar, Charles Hendrickse & Douglas M. Bowley. 2016. Engaging with Faith Councils to Develop Stoma-specific Fatawās: A Novel Approach to the Healthcare Needs of Muslim Colorectal Patients. *Journal of Religion and Health* 55(3). 803–811. doi:10.1007/s10943-013-9772-4.

Intestinal stomas are common. Muslims report significantly lower quality of life following stoma surgery compared to non-Muslims. A fatwa is a ruling on a point of Islamic law according to a recognized religious authority. The use of fatwas to guide health-related decision-making has becoming an increasingly popular practice amongst Muslims, regardless of geographic location. This project aimed to improve the quality of life of Muslim ostomates by addressing faith-specific stoma concerns. Through close collaboration with Muslim ostomates, a series of 10 faith-related questions were generated, which were posed to invited local faith leaders during a stoma educational event. Faith leaders received education concerning the realities of stoma care before generating their fatwas. The event led to the formulation of a series of stoma-specific fatwas representing Hanafi and Salafi scholarship, providing faith-based guidance for Muslim ostomates and their caregivers. Enhanced communication between healthcare providers and Islamic faith leaders allows for the delivery of informed fatwas that directly benefit Muslim patients and may represent an efficient method of improving health outcomes in this faith group.

- Isaac, Kathleen S., Jennifer L. Hay & Erica I. Lubetkin. 2016. Incorporating Spirituality in Primary Care. *Journal of Religion and Health* 55(3). 1065–1077. doi:10.1007/s10943-016-0190-2.

Addressing cultural competency in health care involves recognizing the diverse characteristics of the patient population and understanding how they impact patient care. Spirituality is an aspect of cultural identity that has become increasingly recognized for its potential to impact health behaviors and healthcare decision-making. Here researchers consider the complex relationship between spirituality and health, exploring the role of spirituality in primary care, and consider the inclusion of spirituality in existing models of health promotion. They discuss the feasibility of incorporating spirituality into clinical practice, offering suggestions for physicians.

- Izenstark, Dina & Aaron T. Ebata. 2016. Theorizing family-based nature activities and family functioning: The integration of attention restoration theory with a family routines and rituals perspective. *Journal of Family Theory & Review* 8(2). 137–153. doi:10.1111/jftr.12138.

Time spent in nature has been recognized as beneficial for individuals, but the benefits of nature engagement for families remain insufficiently studied and lack theoretical underpinnings. Here researchers draw from the family studies, family leisure, and environmental psychology literature to suggest a new theoretical approach, integrating attention restoration theory and a routines and rituals perspective to study family-based nature activities. Attention restoration theory shows how certain types of behavioral settings have different effects on restored attention, which may influence interactions between family members, and a family routines and rituals perspective predicts greater

developmental benefits from certain types of ritualized activities over onetime experiences. The authors argue that participation in family-based nature activities can serve as a pathway for positive family functioning more so than other types of leisure contexts.

- Jang, Jung Eun. 2016. The Interactive Play and a Persuasive God: A Psychoanalytic Approach to Re-envisioning Pastoral Care and Counseling. *Journal of Pastoral Care & Counseling: JPCC* 70(2). 136–142.
doi:10.1177/1542305016643057.

The purpose of this article is to present a sketch of a new image of pastoral care and counseling, which reflects the psychoanalytic understanding of the interacting transference and countertransference matrix, along with a process view of God in a mutually influencing relationship with creatures. A more effective approach in pastoral care and counseling can be conceptualized as the interactive play in which pastoral caregivers and receivers co-create a therapeutic relationship with their own past experiences and their creative capabilities. The interactive play is a concept of describing the mutually influencing relationship in the transference and countertransference interchange. The article introduces the concept of a persuasive God as a new image of pastoral care and counseling which includes aspects of the mutually interacting process in play.

- Jones, Martin I. & John K. Parker. 2016. A conditional process model of the effect of mindfulness on 800-m personal best times through pain catastrophizing. *Journal of Sports Sciences* 34(12). 1132–1140.
doi:10.1080/02640414.2015.1093648.

The purpose of this study was to examine the relationship between mindfulness and 800-m personal best (PB) times through pain catastrophizing and to see whether the magnitude and direction of the relationship depended on gender. One hundred and nine participants reported their gender, completed measures of mindfulness (MAAS) and pain catastrophizing (PCS) and reported PB 800m times that were standardized based on current world records. Results revealed moderate-sized relationships between the predictor variables and standardized 800m PB. The size of these relationships reduced after researchers controlled for gender. The follow-up, conditional process analysis revealed significant direct and indirect effects that confirmed that pain catastrophizing partially mediated the relationship between mindfulness and 800m PB and that gender moderated the indirect paths. The indirect path between mindfulness and pain catastrophizing was consistent with existing literature. However, the path between pain catastrophizing and standardized 800m PB was positive for females and negative for males. The different direction of the relationship could suggest that pain catastrophizing could be performance enhancing for females.

- Kopacz, Marek S., Bruce D. Feldstein, Cecille Allman Asekoff, Maurice S. Kaprow, Rebecca Smith-Coggins & April L. Connery. 2016. A preliminary study examining chaplains' support for veterans at the end of life. *International Journal of Palliative Nursing* 22(6). 300–302.
doi:10.12968/ijpn.2016.22.6.300.

This descriptive study examines the involvement of professional chaplains in addressing loss of dignity, inconsequential life or not having a legacy, fear of burdensomeness, and fear of pain in veterans at the end of life. A convenience sample of Jewish chaplains responded to an online survey gauging their involvement in these areas. Results are presented descriptively. Most respondents stated either rarely ($\leq 1 \times$ month) or sometimes ($\geq 1 \times$ month) encountering veterans with end-of-life issues. Respondents reported varying degrees of involvement in supporting veterans at the end of life with respect to the aforementioned areas. As research into the end-of-life care needs of veterans continues to develop, recognizing chaplains as a source of both spiritual and psychosocial support can serve as an opportunity for better meeting the needs of this population.

- Leung, ManChui R., John J. Chin & Miruna Petrescu-Prahova. 2016. Involving immigrant religious organizations in HIV/AIDS prevention: The role of bonding and bridging social capital. *Social Science & Medicine* (1982) 162. 201–209.

doi:10.1016/j.socscimed.2016.06.042.

Immigrant religious organizations in the United States are uniquely positioned to address critical issues beyond religion because of their moral, social and cultural prominence in community life. Increasingly, religious organizations have taken on a leadership role around health issues such as decreasing HIV/AIDS stigma and misinformation. However, there are barriers for some religious leaders and organizations in adopting new health programs, especially if the issue is seen as controversial. This study examines how social network structures among religious members influence organizational acceptance of new information or controversial ideas, like HIV/AIDS. Using social network analysis methods on data from 2841 contacts in 20 immigrant Chinese Buddhist temples and Christian churches in New York City, researchers tested whether an immigrant religious organization's likelihood of being involved in HIV/AIDS activities was associated with the presence of bonding or bridging social capital. These two forms of social capital have been found to mediate the levels of exposure and openness to new ideas. The researchers found HIV/AIDS-involved religious organizations were more likely to have lower levels of bonding social capital as indicated by members having fewer ties and fewer demographic attributes in common. It was also found that HIV/AIDS-involved religious organizations were more likely to have higher levels of bridging social capital as indicated by members having significantly more ties to people outside of their organization.

- McGuire, Chelsea, Jonathan Gabison & Benjamin Kligler. 2016. Facilitators and Barriers to the Integration of Mind-Body Medicine into Primary Care. *Journal of Alternative and Complementary Medicine* 22(6). 437–442.
doi:10.1089/acm.2016.0043.

The aim of this study was to improve understanding of the facilitators and barriers affecting the integration of mind-body medicine (MBM) into primary care and describe the experiences of mind-body primary care providers. The authors conducted a qualitative analysis of semi-structured telephone interviews with mind-body primary care providers selected via a maximum variation sampling strategy. Four main themes emerged: (1) MBM is an approach to patient care as well as a set of modalities; (2) time and reimbursement pose significant challenges to MBM; (3) support for MBM in one's practice setting is a key facilitator; and (4) commitment to MBM comes from personal experience. "Insufficient time" was the most highly ranked barrier among survey respondents. Interviewees described innovative strategies to overcome barriers, including customized intake forms, MBM training for staff, MBM group visits, and discounted referrals for low-income patients. Conclusions: While increased MBM and self-care training for providers may facilitate the integration of MBM into primary care, systematic changes are needed to decrease time pressures on providers and incentivize patient wellness. Despite barriers, providers are using innovative strategies to provide mind-body primary care in diverse practice settings.

- McLaughlin, Bryan, JungHwan Yang, Woohyun Yoo, Bret Shaw, Soo Yun Kim, Dhavan Shah & David Gustafson. 2016. The effects of expressing religious support online for breast cancer patients. *Health Communication* 31(6). 762–771.
doi:10.1080/10410236.2015.1007550.

The growth of online support groups has led to an expression effects paradigm within the health communication literature. Although religious support expression is characterized as a typical sub-dimension of emotional support, researchers argue that in the context of a life-threatening illness, the inclusion of a religious component creates a unique communication process. Using data from an online group for women with breast cancer, researchers test a theoretical expression effects model. Results demonstrate that for breast cancer patients, religious support expression has distinct effects from general emotional support messages, which highlights the need to further theorize expression effects along these lines.

- Meng, Jingbo, Margaret McLaughlin, Katrina Pariera & Sheila Murphy. 2016. A Comparison Between Caucasians and African Americans in Willingness to Participate in Cancer Clinical Trials: The

Roles of Knowledge, Distrust, Information Sources, and Religiosity. *Journal of Health Communication* 21(6). 669–677.
doi:10.1080/10810730.2016.1153760.

This study aims to (a) examine the roles of knowledge, distrust in medical professionals, information sources, and 2 dimensions of religiosity (i.e., religious activity and religious belief) in influencing willingness to participate (WTP) in cancer clinical trials and to (b) compare the results for Caucasians and African Americans in order to inform future recruitment. An online survey was fielded via a Knowledge Networks panel with a nationally representative sample including 478 Caucasians and 173 African Americans. The results showed that distrust in medical professionals was a strong barrier to WTP for both ethnic groups, whereas factual knowledge about trial procedures was not associated with WTP for either ethnic group. Seeking trial information from doctors was positively associated with WTP for Caucasians; seeking trial information from hospitals was positively associated with WTP for African Americans. More interestingly, levels of religious activity negatively predicted WTP for Caucasians but positively predicted WTP for African Americans. Self-reported religious belief was not associated with WTP for either ethnic group. In sum, although distrust is a common barrier to WTP, the influence of preferred information sources and religious activity on WTP varies as a function of ethnicity.

Newmeyer, Mark, Benjamin Keyes, Kamala Palmer, Vanessa Kent, Sara Spong, Faith Stephen & Mary Troy. 2016. Spirituality and Religion as Mitigating Factors in Compassion Fatigue Among Trauma Therapists in Romania. *Journal of Psychology & Theology* 44(2). 142–151.

Emerging research suggests that, among trauma therapists, religiousness and spirituality may (a) buffer against compassion fatigue, secondary traumatic stress, and burn out and (b) bolster spiritual growth and compassion satisfaction. Despite findings that indicate spirituality and religion are sources of hope for people coping with painful circumstances, research investigating the role of religion and spirituality as a protective factor or as potentially promoting wellness for trauma therapists is limited. This study (n=46) replicated a previous finding in which trauma therapists who endorsed a strong spiritual orientation reported increased compassion satisfaction when engaged in short-term (1–2 weeks), cross-cultural trauma work. Additionally, these short-term trauma therapists were compared to equally trained professionals working in the same context for 2 to 5 months and 6 months to 1 year (intermediate and long-term trauma therapists, respectively). The self-report instruments evidenced statistically significant increases in secondary trauma in both the intermediate and long-term trauma therapists when compared with short-term therapists. An unanticipated effect of the short-term trauma therapists' presence was revealed: on pre- and post-measures the long-term trauma therapists reported statistically significant increases in resilience. This implies that the presence of the short-term therapists was beneficial to the long-term therapists. Thus, "respite care" for trauma therapists in long-term trauma settings might increase their capacity to thrive professionally.

Nunez, Sal. 2016. Medicinal Drumming: An Ancient and Modern Day Healing Approach. *Neuroquantology* 14(2). 226–241.
doi:10.14704/nq.2016.14.2.939.

This article reviews the medicinal drumming praxis, an ancient and modern day ceremonial approach to psychological and spiritual well-being. A brief overview of similar, but culturally diverse healing modalities is presented along with a background on the evolution of certain Afro-Caribbean rhythms that are centerpiece to the drumming ceremony, and are used to activate and channel healing energy within a group setting. Distinctions between different drumming styles are presented and an explanation regarding the uniqueness of ceremonial drumming is offered. The conceptualization of the medicinal drumming praxis is operationalized into stages that sequentially unfold over the course of the ceremony. A discussion about the manner in which rhythms, plant medicine, song, storytelling, colors, symbols and elements such as water, air, fire and earth, are used to produce an effect is presented. The effects generated by the ceremonial process and the tools used during a drumming ceremony are addressed. The process by which the facilitator (guide) ushers the group through the ceremony is explained and the manner in which the energetic current

of the group is activated and molded during the ceremony is described. A discussion on generating and encoding intention into sound vibrations is provided. The capacity to stimulate group cohesion, unconditional positive regard, social connectivity, and well-being through ceremony is argued. The ability to elevate consciousness through drumming ceremony is explored. A discussion, on the use of ceremony as a sacred space that generates a pathway whereby the projection of constructive intentionality and communion with higher consciousness occurs, is presented. A previous evaluation of the model is offered along with a summary of a current training and implementation project funded by the San Francisco Department of Public Health is described.

Nuzum, Daniel, Sarah Meaney & Keelin O'Donoghue. 2016. The provision of spiritual and pastoral care following stillbirth in Ireland: A mixed methods study. *BMJ supportive & palliative care* 6(2). 194–200.
doi:10.1136/bmjspcare-2013-000533.

The death of a baby is recognized as one of the most difficult bereavements with life-long impact for parents. How bereaved parents are cared for influences their grief journey. Optimal holistic care is provided when the physical, emotional, spiritual and social needs of parents are attended to. This study reviewed how spiritual care is provided to bereaved parents following stillbirth in maternity units in Ireland and the impact of stillbirth on healthcare chaplains. This was a mixed methods study using semi-structured qualitative interviews with hospital chaplains in Irish maternity units. Quantitative data about the provision of services to bereaved parents were collated from the interviews. Qualitative data were analyzed thematically to identify key themes. Twenty chaplains from 17 units participated in the study (85% of Irish maternity units). Twelve chaplains (60%) are formally accredited chaplains; only one has received specialist training in perinatal bereavement care. Eleven chaplains (55%) provide follow-up bereavement care. Seven chaplains (35%) did not feel part of the multidisciplinary team. The main themes that emerged were the impact of stillbirth, suffering and the challenge to faith creating inner conflict and doubt. The authors conclude that the provision of spiritual care following stillbirth in Ireland is diverse. Spiritual care in this specialized area by chaplains who are not professionally trained and accredited potentially impacts quality and depth of care. Chaplains experience considerable impact and challenge to personal faith and belief as they provide care.

O'Grady, Kari A., James Douglas Orton, Kenneth White & Nicole Snyder. 2016. A Way Forward for Spirituality, Resilience, and International Social Science. *Journal of Psychology & Theology* 44(2). 166–172.

This article introduces a special issue of the journal. The issue on spirituality in resilience processes across international contexts helps clarify a three-pronged research agenda for the future study of trauma and disasters by psychologists of religion and spirituality. First, the special issue demonstrates the value of expanding from U.S.-based theories, data, models, and practices to incorporate a wider repertoire of international research (e.g., Western Africa, Romania, Haiti, China, and diverse additional contexts). Second, the special issue suggests that the topic of resilience defies the constraints of traditional variance-based research methodologies and requires the adoption of newer process-based research methodologies in order to study longitudinal phenomena, such as cosmology episodes, post-traumatic growth, and forgiveness processes. Third, the special issue emphasizes the need for psychologists of religion and spirituality to collaborate more frequently with allied social scientists (e.g., sociologists of religion and scholars of management, spirituality and religion) in order to comprehend the systemic, multilevel complexities of large-scale trauma.

Park, Crystal L., Kristen E. Riley, Elena Bedesin & V. Michelle Stewart. 2016. Why practice yoga? Practitioners' motivations for adopting and maintaining yoga practice. *Journal of Health Psychology* 21(6). 887–896.
doi:10.1177/1359105314541314.

Researchers examined motives for adopting and maintaining yoga practice in a national survey of yoga practitioners (360 yoga students, 156 yoga teachers). Both students and teachers adopted yoga practice primarily for exercise and

stress relief, but reported many other reasons, including flexibility, getting into shape, and depression/anxiety relief. Over 62% of students and 85% of teachers reported having changed their primary reason for practicing or discovering other reasons; for both, the top changed primary reason was spirituality. Findings suggest that most initiate yoga practice for exercise and stress relief, but for many, spirituality becomes their primary reason for maintaining practice.

- Perry-Parrish, Carisa, Nikea Copeland-Linder, Lindsey Webb & Erica M. S. Sibinga. 2016. Mindfulness-Based Approaches for Children and Youth. *Current Problems in Pediatric and Adolescent Health Care* 46(6). 172–178.
doi:10.1016/j.cppeds.2015.12.006.

Mindfulness meditation is a useful adjunct to behavioral and medical interventions to manage a range of symptoms, including psychological and physical responses to stress, anxiety, depression, and disruptive behavior. Mindfulness approaches can be taught to children, adolescents, and their parents to improve self-regulation, particularly in response to stress. Mindfulness may be particularly relevant for youth and families who have an increased risk for exposure to chronic stress and unique stressors associated with medical and/or social-contextual considerations. Moreover, mindfulness parenting techniques can augment traditional behavioral approaches to improve children's behavior through specific parent-child interactions. A growing body of empirical studies and clinical experience suggest that incorporating mindfulness practices will enable clinicians to more effectively treat youth and their families in coping optimally with a range of challenging symptoms.

- Peteet, John R., Vithya B. Rodriguez, Marta D. Herschkopf, Alyssa McCarthy, Jennifer Betts, Stephanie Romo & J. Michael Murphy. 2016. Does a Therapist's World View Matter? *Journal of Religion and Health* 55(3). 1097–1106.
doi:10.1007/s10943-016-0208-9.

While past research indicates that mental health professionals are less religious than the public they serve, little is known about the implications of therapists' world views for their practice. In this study, approximately 50 therapists completed surveys that assessed self-identification in relation to spirituality, religion, and/or world view; how relevant they considered their patients' and their own world views; and responses to clinical vignettes involving issues arising in treatment. While a minority considered themselves religious, a majority indicated that they considered themselves moderately or very spiritual. When asked how they would respond to a series of clinical vignettes involving topics such as assisted suicide and encouraging the use of spiritual resources, responses varied significantly by world view. Respondents endorsed several factors limiting the integration of religion/spiritualities/world views into their clinical work. These data raise questions about how to further explore the clinical relevance of the therapist's world view.

- Pichon, Latrice C., Terrinieka Williams Powell, Siri A. Ogg, Andrea L. Williams & Nicole Becton-Odum. 2016. Factors Influencing Black Churches' Readiness to Address HIV. *Journal of Religion and Health* 55(3). 918–927.
doi:10.1007/s10943-015-0117-3.

This study employed a community-based participatory research approach to understand factors that influence church readiness to engage in HIV prevention and treatment activities. A convenience sample of twenty-six Black faith leaders participated in four focus groups. Data analysis was done through qualitative content analysis. Three themes emerged. First, the pastor's blessing and authority as the church's decision-maker determines readiness to engage in HIV prevention. Second, the church's purview of sexual health as part of a holistic ministry facilitates faith leader's readiness. Lastly, securing financial and human resources makes it feasible for faith leaders to implement activities. Findings suggest HIV-related stigma alone does not explain readiness to address HIV. Participants also discussed activities their churches are equipped to handle, including HIV testing events and health fairs.

Raffay, Julian, Emily Wood & Andrew Todd. 2016. Service user views of spiritual and pastoral care (chaplains) in NHS mental health services: a co-produced constructivist grounded theory investigation. *BMC Psychiatry* 16. 200.
doi:10.1186/s12888-016-0903-9.

Within the UK National Health Service (NHS), Spiritual and Pastoral Care (SPC) Services (chaplains) have not traditionally embraced research due to the intangible nature of their work. However, small teams like SPC can lead the way towards services across the NHS becoming patient-centered and patient-led. Using co-production principles within research can ensure it, and the resulting services, are truly patient-led. A series of interviews were conducted with service users across directorates of a large NHS mental health Trust. Their views on the quality of SPC services and desired changes were elicited. Grounded theory was used with a constant comparative approach to the interviews and analysis. Initial analysis explored views on spirituality and religion in health. Participants' concerns included what chaplains should do, who they should see, and how soon after admission. Theoretical analysis suggested incorporating an overarching spiritual element into the bio-psycho-social model of mental healthcare. The authors conclude that service users' spirituality should not be sidelined. To service users with strong spiritual beliefs, supporting their spiritual resilience is central to their care and well-being. Failure will lead to non-holistic care unlikely to engage or motivate.

Rowe, Angela C., Laura Shepstone, Katherine B. Carnelley, Kate Cavanagh & Abigail Millings. 2016. Attachment security and self-compassion priming increase the likelihood that first-time engagers in mindfulness meditation will continue with mindfulness training. *Mindfulness* 7(3). 642–650.
doi:10.1007/s12671-016-0499-7.

Mindfulness practice has many mental and physical health benefits but can be perceived as 'difficult' by some individuals. This perception can discourage compliance with mindfulness meditation training programs. The present research examined whether the activation of thoughts and feelings related to attachment security and self-compassion (through semantic priming) prior to a mindfulness meditation session might influence willingness to engage in future mindfulness training. Researchers expected both of these primes to positively influence participants' willingness to continue with mindfulness training. Researchers primed 117 meditation-naïve individuals (84 female; mean age of 22.3 years, SD = 4.83) with either a self-compassion, attachment security, or a neutral control prime prior to an introductory mindfulness exercise and measured their post-session willingness to engage in further training. Both experimental primes resulted in higher willingness to engage in further mindfulness training relative to the control condition. The self-compassion prime did so indirectly by increasing state mindfulness, while the attachment security prime had a direct effect. This study supports theoretical links between self-compassion and mindfulness and reveals a causal role for these factors in promoting willingness to engage in mindfulness training. These findings have implications for improving compliance with mindfulness intervention programs.

Rubinart, Marta, Tim Moynihan & Joan Deus. 2016. Using the collaborative inquiry method to explore the Jesus Prayer. *Spirituality in Clinical Practice* 3(2). 139–151.
doi:10.1037/scp0000104.

This article describes a spiritual intervention that used the collaborative inquiry method for exploring the Jesus Prayer. A nonclinical sample of middle-aged Catholics was encouraged to learn the prayer in a self-directed way while reflecting on the experience. This method provided abundant phenomenological accounts of the participants' inner experiences while practicing the Jesus Prayer. All participants reported that the prayer provided them with a sense of calm and tranquility. Some participants had difficulty finding time to pray on a daily basis, whereas other participants could easily incorporate the prayer into their lives and reported several spiritual benefits, including a deeper connection with their hearts and with a Higher Source, and also acquiring a "vital trust." The collaborative inquiry process revealed that the Jesus Prayer could be a tool for coping with conflict. It also showed that the prayer enhanced participants' mindfulness skills and fostered a greater connection with their unconscious.

Smith, Kaleb R. 2016. Modeling the Flesh of God: Semantic Hyperpriming and the Teonanacatl Cults of Mexico. *Neuroquantology* 14(2). 297–308.
doi:10.14704/nq.2016.14.2.944.

The ritualistic use of the ancient psychoactive sacrament teonanacatl, or “The Flesh of God,” represents an integral aspect of pre-colonial Mesoamerican culture and continues, in various syncretic forms, to this day. Providing a brief history of various tribes of Mexico known to utilize Psilocybe species within a shamanic context, focusing primarily on the Mazatec people of Oaxaca, this paper attempts to utilize contemporary cognitive research of psilocybin to better understand and contextualize the ancient teonanacatl ceremony; specifically, research into psilocybin’s induction of the hyper-priming state of cognition. Hyper-priming, or indirect semantic priming, is characterized by its expansive branched hierarchical associative structure within the semantic network and presents us with a valid and useful explanatory framework with which to interpret many of the reported psychological, linguistic, and perceptual effects underlying the traditional teonanacatl ceremony.

Softing, Gunn Helen, Atle Dyregrov & Kari Dyregrov. 2016. Because I’m also part of the family. Children’s participation in rituals after the loss of a parent or sibling: A qualitative study from the children’s perspective. *Omega: Journal of Death and Dying* 73(2). 141–158.
doi:10.1177/0030222815575898.

The objective of this study was to examine how Norwegian children today are included in death-related rituals after the loss of a parent or sibling, how they experienced their own participation, and to explore the meaning the rituals had for them. Our study indicates that it was very important for the children to be included in the rituals and accordingly be recognized as grievors alongside adults. Being included contributes to legitimating their status as a “full” member of the family system, with an equal status to adult grievors in an important and vulnerable phase of the family’s life. The children were pleased that they through ritual performances were given the opportunity to “see for themselves,” both in order to better comprehend and accept the reality of the loss and to take farewell with their loved ones.

Speck, Peter. 2016. Culture and spirituality: essential components of palliative care. *Postgraduate Medical Journal* 92(1088). 341–345.
doi:10.1136/postgradmedj-2015-133369.

Palliative care advocates a holistic, multi-professional approach to the care of people with life-threatening disease. In addition to the control of physical symptoms attention should also be paid to psychosocial, cultural and spiritual aspects of the patient’s experience of illness. Guidance documents and research evidence reflect the complexity of the patient’s journey and the need to regularly assess these areas of need over time. Cultural background can shape how patients respond to life-threatening illness, as can the beliefs held by the patients, whether religious or more broadly spiritual. Research evidence shows the importance of identifying and addressing cultural and spiritual aspects of care held by patients, families and staff. These are often neglected in clinical practice due to the focus on biomedical concerns and staff discomfort in engaging with beliefs and culture. Recent studies have highlighted gaps in the research, and some methodological difficulties and indicate many patients welcome healthcare staff enquiring about the importance of their beliefs and culture. Identifying research priorities is necessary to guide future research and strengthen the evidence base.

Sperry, Len. 2016. Spiritually sensitive clinical practice: Differentiating basic from specialized competencies. *Spirituality in Clinical Practice* 3(2). 73–76.
doi:10.1037/scp0000106.

Over the past 10 years, major changes have occurred in spiritually sensitive clinical practice. During this time there has been increasing “evidence that the mental health professions are warming up to a more routine and explicit focus on spiritual issues” (Hathaway & Ripley, 2009, p. 44). Reflective of this change is a noticeable shift from an

awareness of the need to incorporate spirituality in the treatment process, to the need to competently integrate spirituality in everyday practice. Ethical codes for the various mental health professions increasingly require that professionals be sensitive to a client's religious and spiritual concerns. However, it is not always clear how therapists and other providers are expected to demonstrate such sensitivity. Does it mean that a spiritual history is to be performed? Should religious and spiritual concerns be identified, and these concerns be addressed by the provider? Or, are psychotherapists expected to provide spiritually oriented psychotherapy? This article considers these questions and offer a framework for answering them. It begins by distinguishing 2 types of spiritual care: basic and specialized spiritual care, and reflects on the professional responsibilities associated with each type. Then, it describes efforts to specify clinical competencies and finally identifies some implications of these efforts.

Tetty, Naa-Solo, Pedro A. Duran, Holly S. Andersen, Niajee Washington & Carla Boutin-Foster. 2016. "It's Like Backing up Science with Scripture": Lessons Learned from the Implementation of HeartSmarts, a Faith-Based Cardiovascular Disease Health Education Program. *Journal of Religion and Health* 55(3). 1078–1088.
doi:10.1007/s10943-016-0196-9.

African-Americans are disproportionately impacted by cardiovascular disease (CVD). Faith-based institutions provide a non-traditional route for health education targeted at African-Americans. This paper describes HeartSmarts, a faith-based CVD education program. Evidence-based literature was used to develop a curriculum, which was tailored by integrating biblical scripture representing aspects of health behaviors. Eighteen church peer-educators were recruited to participate in a 12-week training. They then disseminated the faith-based curriculum to members of their congregations. There were 199 participants of which 137 provided feedback via open-ended surveys indicating that HeartSmarts was well accepted and effective for disseminating CVD health messages while engaging spirituality.

Turner, Akiva. 2016. Chassidic Teachings and Modern Psychology: Toward a More Unified Approach. *Journal of Religion and Health* 55(3). 973–985.
doi:10.1007/s10943-015-0145-z.

This article describes how many modern psychological constructs and theories exist in older as well as newer Chassidic and Jewish teachings, particularly those of Chabad Lubavitch. This exploration points toward a potential benefit for a unification of psychology and Chassidic teachings. Psychological theories and constructs explored are Freudian psychoanalysis, cognitive dissonance, cognitive restructuring/reframing, self-efficacy/planned behavior, and logotherapy/existentialism. The article then concludes with a discussion of possible implications of moving toward a unified approach for clinical practitioners.

Varambally, Shivarama & B. N. Gangadhar. 2016. Current status of yoga in mental health services. *International Review of Psychiatry* 28(3). 233–235.
doi:10.3109/09540261.2016.1159950.

Yoga (derived from "yuj" which means to yoke together or unite) has been used for millennia as a tool for self-improvement, with the ultimate goal of uniting the individual consciousness with the universal. The physical elements of yoga, although seen as necessary in the path to achieve the goal, they were not considered as the endpoint for a practitioner. Sage Patanjali, who codified the practices into an eight-limbed model (Ashtanga yoga) in the Patanjali Yoga Sutras, makes it clear that the target of yoga is primarily the mind. However, in the modern world, yoga practices have become immensely popular as aids to improve health. Yoga-based practices are being extensively used as therapeutic ingredients, alone or as adjuncts to other therapies in a variety of disorders, both physical and mental. There is now strong evidence to suggest that yoga-based interventions are beneficial in several lifestyle disorders. Recent research has also shown significant benefits in mental disorders such as depression, anxiety, and psychosis. This paper discusses the place of yoga as one of the therapeutic strategies in the holistic approach to mental disorders, and the challenges inherent to research in this area.

- Vieten, Cassandra, Shelley Scammell, Alan Pierce, Ron Pilato, Ingrid Ammondson, Kenneth I. Pargament & David Lukoff. 2016. Competencies for psychologists in the domains of religion and spirituality. *Spirituality in Clinical Practice* 3(2). 92–114.
doi:10.1037/scp0000078.

Religion and spirituality are important aspects of human diversity that should receive adequate attention in cultural competence training for psychologists. Furthermore, spiritual and religious beliefs and practices are relevant to psychological and emotional well-being, and clinicians who are trained to sensitively address these domains in their clinical practice should be more effective. The current research team previously published a set of 16 religious and spiritual competencies based on a combination of focus group and survey research with the intent that they could be used to guide training. In the present study, the researchers conducted a survey to determine whether these competencies would be acceptable to a broader population of practicing clinicians. Results indicate a large degree of support for the proposed competencies. Between 73.0 and 94.1% of respondents agreed that psychologists should receive training and demonstrate competence in each of the 16 areas. The majority (52.2% – 80.7%) indicated that they had received little or no training, and between 29.7% and 58.6% had received no training at all, in these competencies. The authors conclude with recommendations for integrating these religious and spiritual competencies more fully into clinical training and practice.

- Vincensi, Barbara Baele & Lisa Burkhart. 2016. Development and Psychometric Testing of Two Tools to Assess Nurse Practitioners' Provision of Spiritual Care. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association* 34(2). 112–122.
doi:10.1177/0898010114544302.

The purpose of this study was to develop and evaluate the psychometric properties of two tools measuring the frequency nurse practitioners (NPs) assess for spiritual need and provide spiritual interventions. Spiritual care provided by NPs has the potential to improve health indicators without increasing costs. A concept analysis of the literature supported each item developed for the new assessment and intervention tools. Content validity was tested with six subject matter experts using Lawshe's method of content validity ratios (CVR). Inter-item correlations further supported convergent and divergent validity of the items with 133 practicing NPs. Cronbach's alpha supported internal consistency of the tools and subscales. Researchers found that CVR analysis provided data supporting revision of the original tools. Convergent and divergent validity were also supported for each item. Both the assessment and intervention tools had high Cronbach's alpha's that met the required 0.70 for the entire scale and subscales.

- Vu, Milkie, Alia Azmat, Tala Radejko & Aasim I. Padela. 2016. Predictors of Delayed Healthcare Seeking Among American Muslim Women. *Journal of Womens Health* 25(6). 586–593.
doi:10.1089/jwh.2015.5517.

Delayed care seeking is associated with adverse health outcomes. For Muslim women, delayed care seeking might include religion-related motivations, such as a preference for female clinicians, concerns about preserving modesty, and fatalistic beliefs. The present study assesses associations between religion-related factors and delayed care seeking due to a perceived lack of female clinicians. Surveys were distributed to Muslim women attending mosque and community events in Chicago. Survey items included measures of religiosity, religious fatalism, discrimination, modesty, and alternative medicine utilization and worship practices. The outcome measure asked for levels of agreement to the statement "I have delayed seeking medical care when no woman doctor is available to see me." Two hundred fifty-four women completed the survey with nearly equal numbers of African Americans (26%), Arab Americans (33%), and South Asians (33%). Fifty-three percent reported delays in care seeking due to a perceived lack of female clinicians. In multivariate analysis adjusting for sociodemographic factors, higher religiosity and modesty levels were positively associated with delayed care seeking. Having lived in the United States for more than 20 years was negatively associated with delayed care seeking. The authors conclude that many American Muslim women reported delays in care seeking due to a perceived lack of female clinicians. Women with higher levels of modesty and self-

rated religiosity had higher odds of delaying care. Women who had lived in the United States for longer durations had lower odds of delaying care. The research highlights the need for gender-concordant providers and culturally sensitive care for American Muslims.

- Waelde, Lynn C., Jason M. Thompson, Alicia Robinson & Sierra Iwanicki. 2016. Trauma therapists' clinical applications, training, and personal practice of mindfulness and meditation. *Mindfulness* 7(3). 622–629.
doi:10.1007/s12671-016-0497-9.

Mindfulness and meditation (MM) are increasingly used in trauma treatment, yet there is little research about therapist qualifications and clinical applications of these practices. Researchers surveyed trauma therapists (n=116) about their clinical uses, training, and personal practice of MM. Most respondents reported use of MM in trauma therapy, primarily MM-related imagery and breathing exercises and mindfulness in session or daily life. Almost a third used mindfulness-based stress reduction, mindfulness-based cognitive therapy, or mindfulness-based relapse prevention. Across all respondents, 66 % were trained by a mental health (MH) professional, 16 % were trained exclusively by a spiritual teacher, and 18 % received no training. On average, therapists used four types of MM. Less than half maintained a personal meditation practice and only 9 % reported practicing daily meditation. Therapists who were trained by a MH professional were more likely to integrate MM into trauma psychotherapy; those who were trained by a spiritual teacher were more likely to teach clients to use MM between sessions and reported more personal practice of MM. Results indicate divergence from standard recommendations for therapist personal practice and professional training in manualized uses; however, there is little guidance about requisite training and personal practice to support individualized uses of MM such as breathing exercises and imagery. Further research should address relationships of therapist training and personal practice to clinical outcomes in MM-informed trauma therapy.

- Wyner, Garret B. & Joshua D. Wyner. 2016. You and I: Psycho-Spiritual Health and the Voice of Love. *Neuroquantology* 14(2). 272–284.
doi:10.14704/nq.2016.14.2.942.

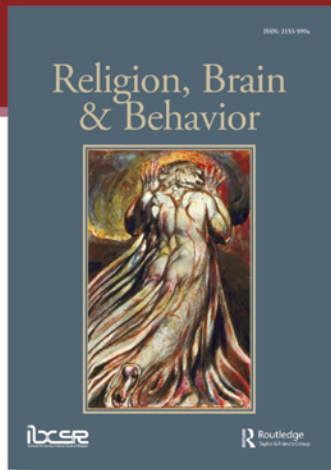
As therapists, the present authors regularly observe the extent to which patients are distanced from a voice of love or compassion toward themselves and others (e.g., inner good voice, benevolent superego, good internal object, spirit of love, God). The authors believe the extent to which one realizes an intimate relationship to this voice (through the tangible mediation of loving others) is the defining measure of psycho-spiritual health. As such, the curative power of “love” is grounded in a tangible relationship with a self-transcendent good that is not reducible to simply subjective experience, affect, behavior, or social interaction. To that end, the present paper aims to examine some individual, group, and collective psycho-spiritual health implications of a case wherein a patient experienced a moment of “spiritual perfection,” during which he felt “immersed in a self-transcendent spirit of love” that brought with it a sense of self-actualization. While the experience lasted, the patient reported a vivid sense that intentional wrongdoing harmed himself far more than others, and psycho-spiritual health was directly bound with loving others. Methodologically, the authors approach this case from both a multidisciplinary and psychologically integrative “phenomenological” viewpoint that may speak to our patients as well as to a more professional audience, with two primary goals in view: first, to define and demonstrate the importance of this “love,” and second, to elucidate the process by which individuals might operationalize and examine it in a reasoned, methodological, and testable fashion. Through this case, the authors hope to provide readers with an appreciation for the utility of such an experience and knowledge, in particular as it relates to overcoming issues related to addiction, freedom, and power that can enable persons to become more and better than they presently are.

- Yang, Kyeongra & Khara A. James. 2016. Yoga, as a transitional platform to more active lifestyle: a 6-month pilot study in the USA. *Health Promotion International* 31(2). 423–429.
doi:10.1093/heapro/dau108.

A 6-month pilot study explored the effects of a yoga program on the physical activity (PA) level of overweight or obese sedentary adults. Fourteen community-dwelling overweight or obese sedentary adults participated in a 6-month program (2-month yoga program and 4-month follow-up) delivered by two types of instruction [the direct guidance of an instructor (face-to-face group) vs. the self-learning method of using a DVD (DVD group)]. Measurements included program adherence (class attendance and home practice; min/week) and level of PA [metabolic equivalent (MET); hour/week] at baseline, 2, 4 and 6 months. Descriptive statistics and nonparametric tests were used to describe the sample and examine differences by group and time. There were no significant differences in demographic variables by group assigned. Participants showed significant PA changes from baseline to each measurement point. The direct guidance of an instructor was preferred over the self-learning method. At each time interval, the DVD group showed higher levels of PA than the face-to-face group; the only difference that achieved statistical significance occurred at 4 months. The PA level significantly changed over 6 months in the DVD group, but not in the face-to-face group. The results indicate that a yoga program may be utilized as a “stepping-stone” toward regular exercise among overweight sedentary adults. Research with a larger sample is needed to further evaluate the effects of the program on the level of PA among this population.

Zamaria, Joseph A. 2016. A Phenomenological Examination of Psilocybin and its Positive and Persisting Aftereffects. *Neuroquantology* 14(2). 285–296.
doi:10.14704/nq.2016.14.2.943.

This study is an examination of the positive and persisting psychological and behavioral aftereffects in eight individuals who reported consumption of psilocybin-containing mushrooms. Mushrooms containing psilocybin have been used for healing and spiritual purposes for thousands of years, and the therapeutic applications of psilocybin were scientifically examined beginning in the mid-20th century. Research from this era suggested that psilocybin was indicated as an effective adjunct to psychotherapy for conditions such as depression, anxiety, chemical dependency, and obsessive-compulsive disorder. Recent research at the Johns Hopkins School of Medicine demonstrated that participants who consumed psilocybin reported having profoundly meaningful experiences, and that these participants experienced persisting and positive changes to their mood, attitude, and behavior at 1-month and 14-month follow up. However, there has not yet been ample research examining the mechanism of the connection between participants' experience with psilocybin and the existence of these positive and persisting aftereffects. This study employed a phenomenological approach, using an unstructured interview to gain an understanding of participants' description of this mechanism. Eight adults were interviewed who reported using psilocybin in the past. A within-case analysis and cross-case analysis were conducted on the data, producing 11 themes within three categories: Set (which included the themes of Preliminary Anxiety and Substantial Preparation); Experience of Psilocybin Effect (which included the themes of Profound Shift in Attention, Unity Consciousness, Increased Introspection, Positive Emotional State, and Transcendental Experience); and Persisting Aftereffects (which included the themes of Short Term Reduction in Anxiety, Persisting Insight, Assistance with Psychological Distress, and Inspired Behavioral Change). Participants maintained insights gained during their experience of psilocybin far beyond the course of the substance. This research suggests that the positive and persisting aftereffects related to the consumption of psilocybin may be useful for psychological healing and growth, and that these aftereffects should continue to be studied.



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- Ikejiam, Damian Emeka. 2016. *Social Conflicts and Violence among Christian Churches and Denominations in Igboland*. (African Theological Studies). Peter Lang.
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PART 4: ARTICLES IN PRESS

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