

RESEARCH REVIEW

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

DECEMBER, 2015

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 948 articles, 157 articles have been retained from 68 journals. There are 49 pre-publication citations from 35 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Kaur, Chamandeep & Preeti Singh. 2015. EEG Derived Neuronal Dynamics during Meditation: Progress and Challenges. *Advances in Preventive Medicine* 2015. 614723. doi:10.1155/2015/614723.

Meditation advances positivity but how these behavioral and psychological changes are brought can be explained by understanding neurophysiological effects of meditation. In this paper, a broad spectrum of neural mechanics under a variety of meditation styles has been reviewed. The overall aim of this study is to review existing scientific studies and future challenges on meditation effects based on changing EEG brainwave patterns. Albeit the existing researches evidenced the hold for efficacy of meditation in relieving anxiety and depression and producing psychological well-being, more rigorous studies are required with better design, considering client variables like personality characteristics to avoid negative effects, randomized controlled trials, and large sample sizes. A bigger number of clinical trials that concentrate on the use of meditation are required. Also, the controversial subject of epileptiform EEG changes and other adverse effects during meditation has been raised.

Kim, Jong-Hoon, Young-Don Son, Jeong-Hee Kim, Eun-Jung Choi, Sang-Yoon Lee, Yo-Han Joo, Young-Bo Kim & Zang-Hee Cho. 2015. Self-transcendence trait and its relationship with in vivo serotonin transporter availability in brainstem raphe nuclei: An ultra-high resolution PET-MRI study. *Brain Research* 1629. 63–71. doi:10.1016/j.brainres.2015.10.006.

Self-transcendence is an inherent human personality trait relating to the experience of spiritual aspects of the self. In this study, researchers examined the relationship between self-transcendence and serotonin transporter (SERT) availability in brainstem raphe nuclei, which are collections of five different serotonergic nuclei with rostro-caudal extension, using ultra-high resolution magnetic resonance imaging (MRI) and positron emission tomography (PET)

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Calendar year memberships US\$45 Discounts for retirees and students with (11)C-3-amino-4-(2-dimethylaminomethylphenylthio)benzonitrile ([(11)C]DASB) to elucidate potential roles of serotonergic neuronal activities in this personality trait. Sixteen healthy subjects completed 7.0T MRI and High Resolution Research Tomograph (HRRT) PET. The regions of interest (ROIs) included the dorsal raphe nucleus (R1), median raphe nucleus (R2), raphe pontis (R3), and the caudal raphe nuclei (R4 and R5). For the estimation of SERT availability, the binding potential (BPND) was derived using the simplified reference tissue model (SRTM2). The Temperament and Character Inventory was used to measure self-transcendence. The analysis revealed that the self-transcendence total score had a significant negative correlation with the [(11)C]DASB BPND in the caudal raphe (R5). The subscale score for spiritual acceptance was significantly negatively correlated with the [(11)C]DASB BPND in the median raphe nucleus (R2). The results indicate that the self-transcendence trait is associated with SERT availability in specific raphe subnuclei, suggesting that the serotonin system may serve as an important biological basis for human self-transcendence. Based on the connections of these nuclei with cortico-limbic and visceral autonomic structures, the functional activity of these nuclei and their related neural circuitry may play a crucial role in the manifestation of self-transcendence.

Silveira, Sarita, Yan Bao, Lingyan Wang, Ernst Pöppel, Mihai Avram, Fabian Simmank, Yuliya Zaytseva & Janusch Blautzik. 2015. Does a bishop pray when he prays? And does his brain distinguish between different religions? *PsyCh Journal* 4(4). 199–207. doi:10.1002/pchj.116.

Does a religion shape belief-related decisions and influence neural processing? In Experiment 1, researchers investigated a bishop of the Roman Catholic Church in Germany by using functional magnetic resonance imaging (fMRI) to assess neural processing while he was responding to short sentences of the Christian Bible, the Islamic Quran, and the Daodejing ascribed to Laozi. In Experiment 2, continuous praying was further compared to the resting state activity. In contrast to explicit statements of agreeing or not agreeing to different statements from the Bible and the Quran, the researchers found in Experiment 1 no difference in neural activation when the bishop was reading these statements from the two religions. However, compared to reading statements from the Bible, reading statements from the Daodejing resulted in significantly higher activation in the left inferior and middle frontal cortices and the left middle temporal gyrus, although he equally agreed to both statements explicitly. In Experiment 2, no difference during continuous praying and the resting state activity was observed. These results confirm the difference between explicit and implicit processing, and they suggest that a highly religious person may pray always—or never. On a more general level this observation suggests that ritualized activities might be subliminally represented in resting state activities.

Taren, Adrienne A., Peter J. Gianaros, Carol M. Greco, Emily K. Lindsay, April Fairgrieve, Kirk Warren Brown, Rhonda K. Rosen, et al. 2015. Mindfulness meditation training alters stress-related amygdala resting state functional connectivity: a randomized controlled trial. *Social Cognitive and Affective Neuroscience* 10(12). 1758–1768. doi:10.1093/scan/nsv066.

Recent studies indicate that mindfulness meditation training interventions reduce stress and improve stress-related health outcomes, but the neural pathways for these effects are unknown. The present research evaluates whether mindfulness meditation training alters resting state functional connectivity (rsFC) of the amygdala, a region known to coordinate stress processing and physiological stress responses. Researchers show in an initial discovery study that higher perceived stress over the past month is associated with greater bilateral amygdala-subgenual anterior cingulate cortex (sgACC) rsFC in a sample of community adults (n=130). A follow-up, single-blind randomized controlled trial shows that a 3-day intensive mindfulness meditation training intervention (relative to a well-matched 3-day relaxation training intervention without a mindfulness component) reduced right amygdala-sgACC rsFC in a sample of stressed unemployed community adults (n=35). Although stress may increase amygdala-sgACC rsFC, brief training in mindfulness meditation could reverse these effects. This work provides an initial indication that

mindfulness meditation training promotes functional neuroplastic changes, suggesting an amygdala-sgACC pathway for stress reduction effects.

Tomasino, Barbara & Franco Fabbro. 2015. Increases in the right dorsolateral prefrontal cortex and decreases the rostral prefrontal cortex activation after-8 weeks of focused attention based mindfulness meditation. *Brain and Cognition* 102. 46–54. doi:10.1016/j.bandc.2015.12.004.

Mindfulness meditation is a form of attention control training. The training exercises the ability to repeatedly focus attention. Researchers addressed the activation changes related to an 8-weeks mindfulness-oriented focused attention meditation training on an initially naïve subject cohort. Before and after training participants underwent an fMRI experiment, thus, although not strictly a cross over design, they served as their internal own control. During fMRI they exercised focused attention on breathing and body scan as compared to resting. The researchers found increased and decreased activation in different parts of the prefrontal cortex (PFC) by comparing pre- vs. post-mindfulness training (MT) during breathing and body scan meditation exercises that were compared against their own resting state. In the post-MT (vs. pre-MT) meditation increased activation in the right dorsolateral PFC and in the left caudate/anterior insula and decreased activation in the rostral PFC and right parietal area 3b. Thus a brief mindfulness training caused increased activation in areas involved in sustaining and monitoring the focus of attention (dorsolateral PFC), consistent with the aim of mindfulness that is exercising focused attention mechanisms, and in the left caudate/anterior insula involved in attention and corporeal awareness and decreased activation in areas part of the "default mode" network and is involved in mentalizing (rostral PFC), consistent with the ability trained by mindfulness of reducing spontaneous mind wandering.

Vural, Gonul, F. Irsel Tezer & Serap Saygi. 2015. Ictal movements mimicking Islamic praying rituals: localizing value in a series of 12 patients. *Epilepsy & Behavior* 53. 92–97. doi:10.1016/j.yebeh.2015.09.016.

The aim of this study was to determine the lateralizing value of the ictal praying gesture and of ictal religious speech in patients who are candidates for epilepsy surgery. Researchers retrospectively searched video/EEG data of 1,430 patients who were evaluated at an epilepsy center from 1999 to 2014. Twelve patients were found to have demonstrated ictal praying during their complex partial seizures. Among all patients, the ictal focus was in the right temporal region. Ictal behavior simulating prayer, which includes both hands as in the Islamic ritual tradition, is a rare automatism that lateralizes the ictal focus.

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Bankard, Joseph. 2015. Training Emotion Cultivates Morality: How Loving-Kindness Meditation Hones Compassion and Increases Prosocial Behavior. *Journal of Religion and Health* 54(6). 2324–2343.

doi:10.1007/s10943-014-9999-8.

Traditional moral philosophy has long focused on rationality, principled thinking, and good old-fashioned willpower, but recent evidence strongly suggests that moral judgments and prosocial behavior are more heavily influenced by emotion and intuition. As the evidence mounts, rational traditions emphasizing deliberative analysis and conscious decision-making are called into question. The first section highlights some compelling evidence supporting the primacy of affective states in motivating moral judgments and behavior. The real challenge is finding a way to align intuition with desired behavior. In cool reflective states, one may desire to be a kind and loving person. But when it is time to act, the moment is often accompanied by strong affect-laden intuitions. The author argues that if affective states are the primary motivators of behavior, then moral sentiments must be trained through habituation in order to increase prosocial behavior. The second section provides empirical evidence linking emotional training with increased prosociality. To highlight this connection, focus is placed on the relationship between habitual meditation training.

compassion, and prosocial behavior. Recent studies by Antoine Lutz, Richard Davidson, Susanne Leiberg, and others show that various meditation practices can dramatically affect the human person at various levels, i.e., increased physical health, neural restructuring, regulation and development of emotions, and increased helping behavior, to name a few. The current article focuses on the impact the habit of loving-kindness meditation (LKM) has on compassion and prosocial behavior. Recent studies strongly support the conclusion that LKM training hones compassion and ultimately leads to an increase in compassionate behavior.

Bohn, Manuel, Josep Call & Michael Tomasello. 2015. Communication about absent entities in great apes and human infants. *Cognition* 145. 63–72. doi:10.1016/j.cognition.2015.08.009.

There is currently debate about the extent to which non-linguistic beings such as human infants and great apes are capable of absent reference. In a series of experiments, researchers investigated the flexibility and specificity of great apes' (n=36) and 12 month-old infants' (n=40) requests for absent entities. Subjects had the choice between requesting visible objects directly and using the former location of a depleted option to request more of these now-absent entities. Importantly, the quality of the present and absent options were systematically varied. It was found that great apes as well as human infants flexibly adjusted their requests for absent entities to these contextual variations and only requested absent entities when the visible option was of lower quality than the absent option. These results suggest that the most basic cognitive capacities for absent reference do not depend on language and are shared by humans and their closest living relatives.

Elk, Michiel van, Bastiaan T. Rutjens & Joop van der Pligt. 2015. The development of the illusion of control and sense of agency in 7- to-12-year old children and adults. *Cognition* 145. 1–12. doi:10.1016/j.cognition.2015.08.004.

The illusion of control can be defined as the erroneous belief that one's actions cause a specific outcome, whereas sense of agency refers to the subjective feeling of authorship over one's actions. In the present study researchers investigated the development of illusory control and sense of agency. A novel card-guessing game was developed in which 7- to-12-year old children (Study 1) and adults (Study 2) were required to select a card, and the researchers manipulated the congruence of the outcome with their initial choice (i.e. congruent or incongruent) and the valence of the outcome that was presented (i.e. positive or negative). It was found that illusory control and the self-attribution bias (i.e. the bias to attribute positive outcomes to oneself) in the card guessing game decreased, as children get older. In contrast, for both children and adults sense of agency in the task was similarly affected by outcome congruency, suggesting that the ability to relate predicted to observed action outcomes reflects a basic mechanism that helps people to sustain a sense of agency. Thus, while the illusion of control decreases as people age, the experience of agency as a function of outcome congruency seems to be more stable across development.

Gomes, Cristina M. & Michael E. McCullough. 2015. The effects of implicit religious primes on dictator game allocations: A preregistered replication experiment. *Journal of Experimental Psychology. General* 144(6). e94–e104. doi:10.1037/xge0000027.

Shariff and Norenzayan (2007) discovered that people allocate more money to anonymous strangers in a dictator game following a scrambled sentence task that involved words with religious meanings. Researchers conducted a direct replication of key elements of Shariff and Norenzayan's (2007) Experiment 2, with some additional changes. Specifically, they (a) collected data from a much larger sample of participants (n=650); (b) added a second religious priming condition that attempted to prime thoughts of religion less conspicuously; (c) modified the wording of some of their task explanations to avoid deceiving participants; (d) added a more explicit awareness probe; (e) reduced prime-probe time; and (f) performed statistical analyses that are more appropriate for non-normal data. A statistically significant effect for religious priming was not found. Additional tests for possible between-subjects moderators of the religious priming effect also yielded nonsignificant results. A small-scale meta-analysis, which

included all known studies investigating the effect of religious priming on dictator game offers, suggested that the mean effect size is not different from zero, although the wide confidence intervals indicate that conclusions regarding this effect should be drawn with caution. Finally, the authors found some evidence of small-study effects: Studies with larger samples tended to produce smaller effects (a pattern consistent with publication bias). Overall, these results suggest that the effects of religious priming on dictator game allocations might be either not reliable or else quite sensitive to differences in methods or in the populations in which the effect has been examined.

Hermann, Anthony D., Austin J. Simpson, Mark J. Lehtman & Robert C. Fuller. 2015. Does Guilt Motivate Prayer? *Journal for the Scientific Study of Religion* 54(3). 540–554. doi:10.1111/jssr.12208.

Researchers recruited 110 college students for an experimental investigation of the role of guilt in motivating religious behavior. Experiment facilitators induced guilt in half of the participants before asking all subjects to indicate their current interest in prayer. Overall, participants in the guilt condition were more interested in praying, but this effect was not observed among those high in grandiose narcissism. These findings make a contribution not only to the study of the role that emotions have in motivating religious behavior, but also to the study of narcissists' susceptibility to guilt.

Jalal, Baland, Andrea Romanelli & Devon E. Hinton. 2015. Cultural Explanations of Sleep Paralysis in Italy: The Pandafeche Attack and Associated Supernatural Beliefs. *Culture, Medicine and Psychiatry* 39(4). 651–664. doi:10.1007/s11013-015-9442-y.

The current study examines cultural explanations regarding sleep paralysis (SP) in Italy. The study explores (1) whether the phenomenology of SP generates culturally specific interpretations and causal explanations and (2) what are the beliefs and local traditions associated with such cultural explanations. The participants were Italian nationals from the general population (n=68) recruited in the region of Abruzzo, Italy. All participants had experienced at least one lifetime episode of SP. The sleep paralysis experiences and phenomenology questionnaire were orally administered to participants. Researchers found a multilayered cultural interpretation of SP, namely the Pandafeche attack, associated with various supernatural beliefs. Thirty-eight percent of participants believed that this supernatural being, the Pandafeche—often referred to as an evil witch, sometimes as a ghost-like spirit or a terrifying humanoid cat—might have caused their SP. Twenty-four percent of all participants sensed the Pandafeche was present during their SP. Strategies to prevent Pandafeche attack included sleeping in supine position, placing a broom by the bedroom door, or putting a pile of sand by the bed. Case studies are presented to illustrate the study findings. The Pandafeche attack thus constitutes a culturally specific, supernatural interpretation of the phenomenology of SP in the Abruzzo region of Italy.

Phillips, Jonathan, Jamie B. Luguri & Joshua Knobe. 2015. Unifying morality's influence on non-moral judgments: The relevance of alternative possibilities. *Cognition* 145. 30–42. doi:10.1016/j.cognition.2015.08.001.

Past work has demonstrated that people's moral judgments can influence their judgments in a number of domains that might seem to involve straightforward matters of fact, including judgments about freedom, causation, the doing/allowing distinction, and intentional action. The present studies explore whether the effect of morality in these four domains can be explained by changes in the relevance of alternative possibilities. More precisely, the authors propose that moral judgment influences the degree to which people regard certain alternative possibilities as relevant, which in turn impacts intuitions about freedom, causation, doing/allowing, and intentional action. Employing the stimuli used in previous research, Studies 1a, 2a, 3a, and 4a show that the relevance of alternatives is influenced by moral judgments and mediates the impact of morality on non-moral judgments. Studies 1b, 2b, 3b, and 4b then provide direct empirical evidence for the link between the relevance of alternatives and judgments in these four domains by manipulating (rather than measuring) the relevance of alternative possibilities. Lastly, Study 5 demonstrates that

the critical mechanism is not whether alternative possibilities are considered, but whether they are regarded as relevant. These studies support a unified framework for understanding the impact of morality across these very different kinds of judgments.

Schmitt, David P. & Robert C. Fuller. 2015. On the varieties of sexual experience: Cross-cultural links between religiosity and human mating strategies. *Psychology of Religion and Spirituality* 7(4). (Nature and Evolution of Totemism, Shamanism, Religions, and Spirituality). 314–326. doi:10.1037/rel0000036.

The present researchers studied cross-cultural associations between religiosity and mating strategies by examining empirical links between personal religiosity and permissive sexuality across 10 major regions of the world: North America, South America, Western Europe, Eastern Europe, Southern Europe, Middle East, Africa, Oceania, South/Southeast Asia, and East Asia. The research team expected and found higher personal religiosity was cross-culturally associated with lower sexual permissivity, and these associations were typically stronger among women than men. The researchers also expected and found that higher personal religiosity was associated with higher levels of Agreeableness and Conscientiousness across most regions. These findings were consistent with evolutionary perspectives emphasizing religion's role in encouraging within-group cooperation, promoting social morality and normadherence, and reducing sexual permissivity. This investigation lends empirical support to studies showing religions are at least partially shaped by genetically evolved mechanisms designed by natural selection to solve persisting biological needs involving large scale social cooperation, alloparental care, and committed/monogamous reproductive strategies.

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Acevedo, Gabriel A. & Ali R. Chaudhary. 2015. Religion, Cultural Clash, and Muslim American Attitudes About Politically Motivated Violence. *Journal for the Scientific Study of Religion* 54(2). 242–260.

doi:10.1111/jssr.12185.

Does adherence to Islam predict attitudes about "suicide bombing" among American Muslims? This study examines the effects of religious and political factors on views of politically motivated violence (PMV). Researchers draw from diverse scholarship, emphasizing arguments that are inspired by Samuel Huntington's Clash of Civilizations perspective, as well as recent work in the sociology of Islam. Using a measure that gauges support for "suicide bombing" from the 2007 Pew Survey of American Muslims, results from logistic regression models suggest that political views and religious factors have a minimal effect on Muslim American attitudes toward suicide bombing. Furthermore, the authors find that Qur'ānic authoritativeness (i.e., the view that the Qur'ān is the word of God and not written by men) is associated with lower odds of supporting this form of PMV. The authors discuss the implications of these findings for the often anecdotal and alarmist accounts that link Muslim religiosity to support for "radical" extremism.

Agadjanian, Victor & Scott T. Yabiku. 2015. Religious Belonging, Religious Agency, and Women's Autonomy in Mozambique. *Journal for the Scientific Study of Religion* 54(3). 461–476. doi:10.1111/jssr.12210.

Women's autonomy has frequently been linked with women's opportunities and investments, such as education, employment, and reproductive control. The association between women's autonomy and religion in the developing world, however, has received less attention, and the few existing studies make comparisons across major religious traditions. In this study, researchers focus on variations in levels of female decision-making autonomy within a single religious tradition: Christianity. Using unique survey data from a predominantly Christian area in Mozambique, the researchers devise an autonomy scale and apply it to compare women affiliated with different Christian denominations as well as unaffiliated women. In addition to affiliation, the research team examines the relationship

between autonomy and women's religious agency both within and outside their churches. Multivariate analyses show that women belonging to more liberal religious traditions (such as Catholicism and mainline Protestantism) tend to have higher autonomy levels, regardless of other factors. These results are situated within the cross-national scholarship on religion and women's empowerment and are interpreted in the context of gendered religious dynamics in Mozambique and similar developing settings.

Al-Rawi, Ahmed. 2015. Online Reactions to the Muhammad Cartoons: YouTube and the Virtual Ummah. *Journal for the Scientific Study of Religion* 54(2). 261–276. doi:10.1111/jssr.12191.

The publication of 12 cartoons depicting the Prophet Muhammad by the Danish newspaper Jyllands-Posten on September 30, 2005, created a great deal of controversy over self-censorship, freedom of speech, and accusations of religious incitement. Muslim activists organized protests, and later hundreds of people were killed and hundreds of others were injured due to violent reactions to the cartoons. This article focuses on how people used YouTube to react to these cartoons by analyzing 261 video clips and 4,153 comments. Results show that the majority of the video clips and comments were moderate and positive in tone toward Islam and Muhammad; however, a small percentage either called for jihad against the West or made lethal threats against the artist. Other comments carried curses or insults against Denmark, while a few others were anti-Islamic. The fact that these online reactions were highly varied in tone suggests that the online public sphere is very much divided.

Amit, Karin & Shirly Bar-Lev. 2015. Immigrants' sense of belonging to the host country: The role of life satisfaction, language proficiency, and religious motives. *Social Indicators Research* 124(3). 947–961.

doi:10.1007/s11205-014-0823-3.

This paper focuses on a significant concept in migration studies: immigrants' sense of belonging to the host society. Drawing upon the literature of immigration and subjective well-being, researchers proposed a model in which life satisfaction is a major predictor of immigrants' sense of belonging, and is explained by background variables including religious affiliation, religious motivation, native language proficiency and ethnic segregation. The study was based on a survey of two groups of highly skilled migrants in Israel; immigrants from France and the Former Soviet Union who moved to Israel in the last two decades. The findings suggest that, as expected, life satisfaction had a significant influence on immigrants' sense of belonging and served as a mediator variable in the model. Whereas ethnic segregation was not found to be a significant parameter in the model, religious motivation and Hebrew language proficiency were found to be prominent. In light of the literature, the authors also discuss the importance of religious motivations to immigrants' subjective well-being, identity, and sense of belonging.

Arbuckle, Matthew B. & David M. Konisky. 2015. The Role of Religion in Environmental Attitudes: Role of Religion in Environmental Attitudes. *Social Science Quarterly* 96(5). 1244–1263. doi:10.1111/ssqu.12213.

This article examines the role of religion in public attitudes about the environment. While some have found that various aspects of theology and religious practices are responsible for lower levels of concern about the environment, the overall evidence is inconclusive, largely because the typical sample size is insufficient to gain insight into differences between religious traditions. The researchers use ordered logistic regression to analyze data from the 2010 Cooperative Congressional Election Study, a large survey that enabled the team to unpack the relationships among religious affiliation, religiosity, and environmental attitudes. Results show that members of Judeo-Christian traditions are less concerned about environmental protection than their nonreligious peers, and that religiosity somewhat intensifies these relationships for evangelical Protestants, Catholics, and mainline Protestants. While the results generally support traditional arguments that religion depresses concern about the environment, they also reveal considerable variation across and within religious traditions.

Atalan-Helicke, Nurcan. 2015. The halal paradox: negotiating identity, religious values, and genetically engineered food in Turkey. *Agriculture and Human Values* 32(4). 663–674. doi:10.1007/s10460-015-9585-z.

The halal food markets, catering to the dietary concerns of Muslims, have grown worldwide. Literature has discussed growing halal markets, particularly meat, and competing forms of certification to address quality and other concerns of Muslim consumers. Yet, discussions about genetically engineered (GE) food in the Muslim world are comparatively new. The GE debates also do not address diversity of opinions in the Islamic world about the halal status of GE food despite efforts to reach a consensus. This paper integrates debates on GE food and halal certification. It focuses on three major issues: the factors that affect the growth of halal markets; different interpretations of GE food in the Islamic world; and, the reasons for lack of consensus on the halal status of GE food through a case study of Turkey. It argues that fragmented halal markets, in which diverse actors from the state to the industry have different interests, and the complexity of GE food make it difficult to reach a consensus on the halal status of GE food. Divergence on the halal status of GE food presents further challenges for Muslim consumers who desire to access healthy and religiously proper food in global agri-food systems.

Bengtson, Vern L., Merril Silverstein, Norella M. Putney & Susan C. Harris. 2015. Does Religiousness Increase with Age? Age Changes and Generational Differences Over 35 Years. *Journal for the Scientific Study of Religion* 54(2). 363–379. doi:10.1111/jssr.12183.

A research team examined aging patterns and generational trends in religion using 35 years of survey data from 420 four-generation families and in-depth interviews with a subset of 25 families. Results indicate the importance of three time-related effects on religiosity: individual aging and religious development over the life course; cohort influences; and effects of historical trends in religion. Results indicate an overall aging effect with an upward drift in religious intensity and strength of beliefs over the adult lifespan, though religious attendance remains generally stable over adulthood until it drops in late life. Growth curves show that the oldest generations (G1 and G2) display a "retirement surge" in religiosity. Trajectories of change for G3s and G4s reflect both lifecycle and cohort effects. Qualitative analysis provides insight concerning the generational differences identified in the survey, suggesting two trends: (1) from older- to later-born age groups, spirituality becomes increasingly decoupled from religion; (2) conceptualizations of the divine show a shift from a God who is primarily transcendent ("out there") for the G1s to one that is more imminent and personal in the G4s.

Bergomi, Claudia, Wolfgang Tschacher & Zeno Kupper. 2015. Meditation practice and self-reported mindfulness: A cross-sectional investigation of meditators and non-meditators using the Comprehensive Inventory of Mindfulness Experiences (CHIME). *Mindfulness* 6(6). 1411–1421. doi:10.1007/s12671-015-0415-6.

Mindfulness meditation is generally recognized as the fundamental practice for the development of mindfulness. Accordingly, regular meditation practice is thought to lead to a better capacity to maintain mindfulness during everyday life. Most available studies did not measure the individual amount of experience with meditation practice in detail. In the present study, 683 participants from the general population completed a meditation experience questionnaire and the Comprehensive Inventory of Mindfulness Experiences (CHIME), a scale providing a broad multi-dimensional coverage of mindfulness. Of these, 183 reported currently practicing meditation on a regular basis and provided information about time elapsed since initiation of meditation practice, the amount of current practice, and the techniques used. Results provide evidence for the associations between self-reported mindfulness and meditation practice and suggest that mindfulness is particularly associated with continued practice in the present, rather than with accumulated practice over years. Moreover, no differences in the levels of mindfulness between subgroups practicing with different techniques (Zen, Vipassana, and body movement-oriented techniques) could be established, when differences in age and meditation practice were taken into account.

Bevelander, Pieter & Mikael Hjerm. 2015. The religious affiliation and anti-Semitism of secondary school-age Swedish youths: An analysis of survey data from 2003 and 2009. *Ethnic and Racial Studies* 38(15). 2705–2721.

doi:10.1080/01419870.2015.1042893.

Several international studies recently claim to measure an increase in anti-Semitic attitudes in recent decades. As prejudice is acquired in the early years of socialization, and/or is innate and fairly stable over the life cycle, examining adolescents' attitudes is vitally important. Hence, by controlling for individual demographic and socio-economic background factors, the present researchers study two interrelated questions: Has anti-Semitism among Swedish secondary school-age youths changed between 2003 and 2009? Are changes equal across groups, with a specific focus on religious groups? Using two unique cross-section surveys of secondary school-age students in Sweden for the years 2003 and 2009, the authors try to address the above questions. Their analysis shows, in contrast to the views of the general public and other related studies, that anti-Semitism has decreased slightly during the examined period. Moreover, the study finds a variation in anti-Semitism by religious affiliation: it has increased among Muslim youth, but remains stable in other groups.

Bradshaw, William S., Tim B. Heaton, Ellen Decoo, John P. Dehlin, Renee V. Galliher & Katherine A. Crowell. 2015. Religious Experiences of GBTQ Mormon Males. *Journal for the Scientific Study of Religion* 54(2). 311–329. doi:10.1111/jssr.12181.

This article examines the relationship between sexual orientation and religious experience of men from early adolescence to adulthood. Data have been obtained from an online survey of 1,042 males who were part of a larger sample of leshian, gay, bisexual, transgender, and queer/questioning (LGBTQ) persons who are current or former members of the Church of Jesus Christ of Latter-Day Saints (LDS, Mormon). While early religious experience was essentially identical to that of heterosexuals, the gap between religious norms and experience widened as these men moved through early and mid-adulthood. Those who married did so at a later age, and experienced a high rate of divorce. Continued participation, integration, and conformity to LDS ideals was not attributable to faith in, or a departure from, fundamental doctrinal belief. Instead, the responsible variable was sexual orientation, measured by the Kinsey Scale scores across behavior, attraction, and identity. For those near the exclusively homosexual end of the spectrum, the failure to change sexual orientation after intense effort over many years resulted in loss of belonging, belief, and participation, along with increased negative emotions and a sense of mistreatment.

Burke, Kelsy & Amy Moff Hudec. 2015. Sexual Encounters and Manhood Acts: Evangelicals, Latter-Day Saints, and Religious Masculinities. *Journal for the Scientific Study of Religion* 54(2). 330–344. doi:10.1111/jssr.12182.

The experiences of men in traditional religions are complex, at times inconsistent, and not necessarily the direct result of religious teachings. This article draws from two qualitative case studies to examine the ways in which evangelical and Latter-Day Saint men understand masculinity and their spiritual beliefs in the context of sexual activity. The authors present two masculine practices—acceptance of sexual rejection and sexual indifference—that allow religious men in this study to simultaneously challenge and uphold the system of hegemonic masculinity that their traditions promote. These findings point to the moments when creative, interpretative work helps religious men to reconcile their experiences with religious expectations and to alleviate the tensions they face in their everyday lives. This article offers new insights into how gender and sexuality studies may be integrated into the sociology of religion.

Carol, Sarah, Marc Helbling & Ines Michalowski. 2015. A Struggle over Religious Rights? How Muslim Immigrants and Christian Natives View the Accommodation of Religion in Six European Countries. *Social Forces* 94(2). 647–671. doi:10.1093/sf/sov054.

The accommodation of Muslim minorities in European countries has sparked controversies over the extension of religious rights. Previous research has mostly studied public institutions and debates. But which attitudes toward religious rights do Europeans hold and how can these attitudes be explained? To approach this question, researchers draw on the novel EURISLAM data set, which allows us for the first time to investigate attitudes of both Muslim minorities and Christian natives in six Western European countries. To explain attitudes, the researchers test the explanatory power of religiosity at the individual level and state-church regimes in both destination and origin countries at the macro level. Overall, Muslims, especially religious Muslims, are more supportive of religious rights than natives. However, it is also found that religious natives approve to a greater extent of out-group rights than non-religious natives. The authors argue that these findings have to be interpreted in light of asymmetric power relationships: Muslim minorities can hardly deny the rights of Christians, as this would undermine their own claims. Similarly, religious natives increasingly constitute a minority in secular societies and may therefore see Muslims as allies in order to strengthen the position of religion in Western Europe. The higher approval of religious individuals challenges the theory on out-group threat, which would lead us to expect that religious individuals are more reluctant to embrace out-group rights. Finally, state-church regimes in the destination countries play a minor role, while the degree of religiosity in the origin countries has an important impact on individual attitudes toward religious rights.

Chaiwutikornwanich, Apitchaya. 2015. Belief in the afterlife, death anxiety, and life satisfaction of Buddhists and Christians in Thailand: Comparisons between different religiosity. *Social Indicators Research* 124(3). 1015–1032. doi:10.1007/s11205-014-0822-4.

This research studied belief in the afterlife, death anxiety, and life satisfaction, of Buddhists and Christians in Thailand. The aim of this research was to compare the variables of interest between high and low religiosity within their religion. There were two studies of 800 participants. Study 1 compared between Buddhists and meditated Buddhists in terms of the above and related variables. Study 1 had 577 participants, comprised 532 Buddhists and 45 meditated Buddhists who had already been meditating for 6 months and just finished 1-h meditation. Study 2 compared between Christians and meditated Christians who had intense involvement in religious discipline and just finished religious attendance. Study 2 had 223 participants, comprised 175 Christians and 48 meditated Christians. The results show that meditated Buddhists had more belief in the afterlife and more frequency of going to temple than Buddhists. However, life satisfaction and death anxiety between Buddhists and meditated Buddhists were not significantly different. Meditated Christians had less death anxiety than Christians. Meditated Christians had more belief in the afterlife and more frequency of going to church than Christians. However, life satisfaction between Christians and mediated Christians was not significantly different.

Cragun, Ryan T. & J. E. Sumerau. 2015. God May Save Your Life, but You Have to Find Your Own Keys. *Archive for the Psychology of Religion* 37(3). 321–342. doi:10.1163/15736121-12341307.

Previous research has found that people make religious attributions under certain conditions. In this study, researchers used causally ambiguous vignettes to confirm some previous findings regarding religious attributions and extend these findings by testing: (a) whether implicit priming increased the odds of making causal attributions, and (b) whether atheists also exhibit an attribution bias. Like previous studies, researchers found that people who were less religious (i.e., atheists in our study) were substantially less likely to make religious causal attributions. Unlike previous studies, they found that atheists were more likely to attribute events to probability and/or luck. The authors also found, like previous studies, that religious people were more likely to make causal attributions when presented with vignettes involving health-related or life-and-death situations but not with quotidian events, like losing one's keys. No effect was found for implicit religious priming.

Cragun, Ryan T., Emily Williams & J. E. Sumerau. 2015. From Sodomy to Sympathy: LDS Elites' Discursive Construction of Homosexuality Over Time. *Journal for the Scientific Study of Religion* 54(2). 291–310.

doi:10.1111/jssr.12180.

In this article, researchers examine how leaders of The Church of Jesus Christ of Latter-Day Saints (LDS) discursively constructed homosexuality over the last 50 years. Based on textual analysis of LDS talks, magazines, and other publications, the researchers analyze how LDS elites, responding to shifting historical, cultural, and religious interpretations of sexualities, discursively constructed homosexuality as problematic for (1) society from the 1950s to the 1990s, (2) the family from the 1970s to present, and (3) divinely inspired gender roles from the 1980s to present. Further, they show how LDS elites softened their rhetoric in the 1990s, and in so doing, established a new discursive construction of homosexuality as an ailment requiring sympathetic treatment. Throughout their analysis, the researchers also examine how LDS elites accomplished such discursive work in response to shifting societal and religious attitudes concerning sexual minorities. In conclusion, the authors draw out implications for understanding how religious elites discursively construct sexual norms, the reciprocal relationship between sexual and religious discourse and advocacy, and the importance of examining how dominant religious discourses change over time.

Deak, Csilla & Vassilis Saroglou. 2015. Opposing Abortion, Gay Adoption, Euthanasia, and Suicide. *Archive for the Psychology of Religion* 37(3). 267–294. doi:10.1163/15736121-12341309.

In secularized modern Western societies, moral opposition to the liberalization of abortion, gay adoption, euthanasia, and suicide often relies on justifications based on other-oriented motives (mainly, protection of the weak, e.g., children). Moreover, some argue that the truly open-minded people may be those who, against the stream, oppose the established dominant liberal values in modern societies. Researchers investigated whether moral and religious opposition to, vs. the acceptance of, the above four issues, as well as the endorsement of respective con vs. pro arguments reflect (a) "compassionate openness" (prosocial, interpersonal, dispositions and existential flexibility), (b) "compassionate conservatism" (prosocial dispositions and collectivistic moral concerns), or (c) "self-centered moral rigorism" (collectivistic moral concerns, low existential quest, and low humility instead of prosocial dispositions). The results, to some extent, confirmed the third pattern. Thus, compassionate openness does not seem to underline modern moral opposition, possibly in contrast to some rhetoric of the latter.

Dildar, Yasemin. 2015. Patriarchal Norms, Religion, and Female Labor Supply: Evidence from Turkey. *World Development* 76. 40–61. doi:10.1016/j.worlddev.2015.06.010.

Despite significant structural and social change, the share of women working or seeking jobs in Turkey has declined. This paper focuses on the role of social conservatism as a constraint for women's labor force participation using 2008 Demographic and Health Survey data. In analyzing labor supply model, the author incorporates cultural constraints, specifically the sexual division of labor in the household and broader gender ideology into the analysis. It is found that both patriarchal norms and religiosity are negatively associated with female labor force participation, and that the impact of patriarchal norms is statistically significant after controlling for endogeneity.

Fishman, Robert M., Carlos Gervasoni & Keely Jones Stater. 2015. Inequality and the Altruistic Life: A Study of the Priestly Vocation Rate. *Journal for the Scientific Study of Religion* 54(3). 575–595. doi:10.1111/jssr.12216.

This article takes the rate of new incorporations into the Catholic priesthood within national societies as a social fact revealing underlying societal tendencies of broad theoretical relevance extending well beyond the study of religion. Emphasis lies on the impact of income inequality on the prevalence of altruistic life options. The researchers examine

cross-national and time-series variation in the priestly vocation rate as the empirical foundation to theorize social dynamics underpinning a life option that entails the renunciation of opportunities for individual material advantage alongside the commitment to serve a broader community. The article elaborates why the authors view the vocation rate as resting on a combination of piety and altruistic dispositions, and provides a theoretical rationale for expecting inequality to diminish this—and other—altruistic life options. The article also reports on the impact of other variables that have been theorized to influence the prevalence of Catholic clerical vocations and elaborate the broader theoretical relevance of these empirical findings.

Friesen, Amanda & Aleksander Ksiazkiewicz. 2015. Do Political Attitudes and Religiosity Share a Genetic Path? *Political Behavior* 37(4). 791–818. doi:10.1007/s11109-014-9291-3.

Social scientists have long recognized and sought to explain a connection between religious and political beliefs. The current research challenges the prevalent view that religion and politics constitute separate but related belief sets with a conceptual model that suggests the correlation between the two may be partially explained by an underlying psychological construct reflecting first principle beliefs on social organization. Moreover, the current researchers also push this challenge further by considering whether part of the relationship between political and religious beliefs is the result of shared genetic influences, which would suggest that a shared biological predisposition, or set of biological predispositions, underlies these attitudes. Using a classic twin design on a sample of American adults, the authors demonstrate that certain religious, political, and first principle beliefs can be explained by genetic and unique environmental components, and that the correlation between these three trait structures is primarily due to a common genetic path. As predicted, this relationship is found to hold for social ideology, but not for economic ideology. These findings provide evidence that the overlap between the religious and the political in the American context may in part be due to underlying principles regarding how to understand and organize society and that these principles may be adopted to satisfy biologically-influenced psychological needs.

Fuller, Robert C. 2015. Body Posture and Religious Attitudes. *Archive for the Psychology of Religion* 37(3). 227–239.

doi:10.1163/15736121-12341310.

One hundred and twenty-seven college students were recruited for an experimental investigation of the effect of body posture on religious attitudes. Roughly half of the participants were placed in lower, contractive body postures while the other half were placed in higher, expansive body postures. After five minutes in these postures, all were asked to fill out a measure of religious attitudes. As expected, participants in the lower, contractive positions expressed more agreement with conventional religious beliefs than those in the higher, expansive positions.

Genovese, Jeremy E. C. & Kathleen D. Little. 2015. Two studies of Superbrain Yoga's potential effect on academic performance based on the Number Facility Test. *Psychology of Consciousness: Theory, Research, and Practice* 2(4). 452–460. doi:10.1037/cns0000061.

Superbrain Yoga is an exercise that involves squatting while holding the ear lobes with controlled breathing. Advocates claim that this exercise improves cognition and academic performance. This study tested the ability of Superbrain Yoga to improve performance on a cognitive task called the Number Facility Test. In the first experiment, 30 adults completed a baseline version of the Number Facility Test; performed standard squats, Superbrain Yoga, and a rest trial (counterbalanced); and were re-administered the Number Facility Test after each task. A nonparametric Quade test showed no significant difference in outcome measures. In the second experiment, 30 adults completed a baseline version of the Number Facility Test, performed standard squats and 2 alternative forms of Superbrain Yoga (counterbalanced), and were re-administered the Number Facility Test after each task. A Quade test indicated no significant difference in outcome measures. These results provide no support for the claims

made for Superbrain Yoga. However, this research cannot exclude the possibility that alternative forms of Superbrain Yoga might be effective or that it might have an effect on cognitive skills not captured by the Number Facility Test.

Khattab, Nabil & Tariq Modood. 2015. Both Ethnic and Religious: Explaining Employment Penalties Across 14 Ethno-Religious Groups in the United Kingdom. *Journal for the Scientific Study of Religion* 54(3). 501–522. doi:10.1111/jssr.12220.

This article uses the case of the probability of being in employment among different ethno-religious groups in Britain over a period of 12 years (2002–2013) to illustrate how different degrees of labor market penalty in the United Kingdom are highly associated with the different processes of racialization they undergo in the United Kingdom. It is argued that what matters in producing the observed inequalities in the United Kingdom is the inescapable centrality of "color" (mainly blackness) and "culture" (particularly being Muslim) and the way different Muslim and black groups have been racialized. The findings of this study leave little doubt that there is a black and a Muslim penalty in the labor market, but at the same time it suggests that these penalties are not fixed but tend to vary in extent and nature.

Kim, Jeannie. 2015. The Academic Advantage of Devotion: Measuring Variation in the Value of Weekly Worship in Late Adolescence on Educational Attainment Using Propensity Score Matching. *Journal for the Scientific Study of Religion* 54(3). 555–574. doi:10.1111/jssr.12219.

This study measures the effect of regular worship attendance at age 17 on total years of schooling by age 25, using data from the National Longitudinal Survey of Youth 1997. Expanding on previous work, this study estimates differences in the impact of worship attendance by race and family income status using propensity score matching. Individuals who frequently attend religious services complete .69 more years of schooling than similar individuals who do not frequently attend services. There are significantly greater returns to attendance for low-income youth and no significant difference in returns by religious affiliation. These findings suggest that religious observance provides greater benefits for low-income individuals or perhaps provides resources high-income individuals have access to elsewhere. Moreover, this study extends previous work by examining a more recent and nationally representative sample of youth and by using methods that allow for greater causal inference.

Lewis, Andrew R., Paul A. Djupe, Stephen T. Mockabee & Joshua Su-Ya Wu. 2015. The (Non) Religion of Mechanical Turk Workers. *Journal for the Scientific Study of Religion* 54(2). 419–428. doi:10.1111/jssr.12184.

Social science researchers have increasingly come to utilize Amazon's Mechanical Turk (MTurk) to obtain adult, opt-in samples for use with experiments. Based on the demographic characteristics of MTurk samples, studies have provided some support for the representativeness of MTurk. Others have warranted caution based on demographic characteristics and comparisons of reliability. Yet, what is missing is an examination of the most glaring demographic difference in MTurk: religion. Researchers compare five MTurk samples with a student convenience sample and the 2012 General Social Survey, finding that MTurk samples have a consistent bias toward nonreligion. MTurk surveys significantly overrepresent seculars and underrepresent Catholics and evangelical Protestants. The authors then compare the religiosity of religious identifiers across samples as well as relationships between religiosity and partisanship, finding many similarities and a few important differences from the general population.

Liepyte, Skaiste & Kareena McAloney-Kocaman. 2015. Discrimination and religiosity among Muslim women in the UK before and after the Charlie Hebdo attacks. *Mental Health, Religion & Culture* 18(9). 789–794.

doi:10.1080/13674676.2015.1107890.

In January 2015, media outlets reported a series of attacks by Islamic terror groups in France, instigated at the offices of the Charlie Hebdo publication. Previous research has indicated that the consequence of exposure to terrorist attacks can extend beyond the immediate victims, with a potentially international reach. This secondary data analysis compares the perceptions of discrimination, religiosity, and religious engagement of 240 Muslim women in the UK, recruited before and after the Charlie Hebdo attacks. The results indicate greater religious engagement and perceptions of discrimination among those women recruited after the attacks. This suggests that the impact of such events may reach beyond the immediate victims, and societies need to develop and provide support in response to such attacks, regardless of the geographical location of the event.

Maliepaard, Mieke, Mérove Gijsberts & Karen Phalet. 2015. Islamic gatherings: Experiences of discrimination and religious affirmation across established and new immigrant communities. *Ethnic and Racial Studies* 38(15). 2635–2651. doi:10.1080/01419870.2015.1077983.

To what extent are perceptions of discrimination associated with religious affirmation among Muslim minorities in the Netherlands? Drawing on recent nationally representative surveys among self-identified Muslims from five ethnic groups in the Netherlands, researchers test boundary conditions of reactive religiosity. The findings indicate that for Muslims from established immigrant groups, perceptions of discrimination are associated with more frequent religious attendance, but that this is not the case for Muslims from smaller, less established ethnic communities. Findings are interpreted using a boundary framework.

Pelz, Mikael L. & Corwin E. Smidt. 2015. Generational Conversion? The Role of Religiosity in the Politics of Evangelicals. *Journal for the Scientific Study of Religion* 54(2). 380–401. doi:10.1111/jssr.12186.

The political environment for evangelical Protestants has changed substantially since the Christian Right reached its apex, as a more issue and ideologically diffuse political environment has emerged. The present study tests two different theoretical perspectives on whether these contextual changes may have altered Millennial evangelicals' political perspectives vis-à-vis those of previous generations of evangelicals. On the one hand, theoretical perspectives related to differential political socialization processes across generations would lead to expectations of generational change among evangelicals. On the other hand, theoretical perspectives related to social identity theory would suggest far less change across generations. Using Pew's 2007 U.S. Religious Landscape Survey, researchers test these expectations by comparing the relationships between religiosity and political attitudes across three generations of evangelicals. Ordered probit and logistic regression models estimate the impact of religiosity on various political attitudes. These models reveal that Millennial evangelical religiosity continues to be strongly related to Republican Party identification and opposition toward abortion, which is largely consistent with the social identity perspective. Generational change is most evident in a variety of nonsocial issues in which religiosity is associated with less conservatism among Millennials. Additional analysis using the 2012 Religion and Politics Survey with a smaller sample of Millennial evangelicals confirms these results.

Perner, Josef, Michael Huemer & Brian Leahy. 2015. Mental files and belief: A cognitive theory of how children represent belief and its intensionality. *Cognition* 145. 77–88. doi:10.1016/j.cognition.2015.08.006.

The present research provides a cognitive analysis of how children represent belief using mental files. Specifically, researchers explain why children who pass the false belief test are not aware of the intentionality of belief. Fifty-one 3½- to 7-year old children were familiarized with a dual object, e.g., a ball that rattles and is described as a rattle. They observed how a puppet agent witnessed the ball being put into box 1. In the agent's absence the ball was taken from box 1, the child was reminded of it being a rattle, and emphasizing its being a rattle it was put back into box 1. Then the agent returned, the object was hidden in the experimenter's hands and removed from box 1, described as a "rattle," and transferred to box 2. Children who passed false belief had no problem saying where the puppet

would look for the ball. However, in a different condition in which the agent was also shown that the ball was a rattle they erroneously said that the agent would look for the ball in box 1, ignoring the agent's knowledge of the identity of rattle and ball. Their problems cease with their mastery of second-order beliefs (she thinks she knows). Problems also vanish when the ball is described not as a rattle but as a thing that rattles. The authors describe how the theory can account for these data as well as all other relevant data in the literature.

Reed, Jean-Pierre & Sarah Pitcher. 2015. Religion and Revolutionary We-Ness: Religious Discourse, Speech Acts, and Collective Identity in Prerevolutionary Nicaragua. *Journal for the Scientific Study of Religion* 54(3). 477–500. doi:10.1111/jssr.12213.

Building on language as action perspectives and recent social movement research on speech acts, researchers explore the role religious discourse plays in the maintenance of a collective identity termed revolutionary "we-ness." Using NV ivo qualitative data analysis software researchers perform a content analysis of Volume 1 of The Gospel in Solentiname (Cardenal 1976), a historical record of Bible study discussions in prerevolutionary Nicaragua. Based on a framework of collective identity construction (boundary work, oppositional consciousness, identity assertion) into which a taxonomy of speech acts (accusations, declarations, directives, exhortations, prescriptions, and warnings) are organized, a content analysis illustrates how revolutionary we-ness is constituted, and how the recursive employment of speech acts suggests a resonance of ideological motives in religious discourse. The authors found the degree to which identity assertion, expressed in declarative speech acts, predominated over oppositional consciousness, which in turn figured over boundary work in the constitution of revolutionary we-ness. The speech acts approach fills a void in framing theory and confirms religious discourse's capacity to promote radical self-understandings and commitment to revolutionary activism.

Rissanen, Inkeri, Kirsi Tirri & Elina Kuusisto. 2015. Finnish Teachers' Attitudes About Muslim Students and Muslim Student Integration. *Journal for the Scientific Study of Religion* 54(2). 277–290. doi:10.1111/jssr.12190.

Although there is much discussion of educational needs and how to integrate Muslim students into modern Western contexts, there is a shortage of research on teachers' attitudes about these issues. Finland offers a particularly interesting context for research, given its relatively new, small, yet rapidly growing Muslim population, its prominence of negative attitudes to visible religiosity, and its official policy of multiculturalism. This article presents the results of a quantitative study of Finnish teachers' attitudes to Muslim students and to their integration into Finnish schools. A nonprobability sample of Finnish preservice and practicing teachers (n=864) was surveyed and the resulting data analyzed with exploratory factor analysis, t-tests, and ANOVA. The results indicate that Finnish teachers consider learning about general democratic values important, but their attitudes to dealing with Islam and Muslims are not quite as positive. However, previous involvement with other cultures indicated more positive attitudes among preservice teachers. Female teachers and practicing teachers were more oriented toward the teaching of commonality, and teaching at a more advanced level indicated more positive attitudes to Muslims and Muslim integration.

Rosenberg, Erika L., Anthony P. Zanesco, Brandon G. King, Stephen R. Aichele, Tonya L. Jacobs, David A. Bridwell, Katherine A. MacLean, et al. 2015. Intensive meditation training influences emotional responses to suffering. *Emotion (Washington, D.C.)* 15(6). 775–790. doi:10.1037/emo0000080.

Meditation practices purportedly help people develop focused and sustained attention, cultivate feelings of compassionate concern for self and others, and strengthen motivation to help others who are in need. Researchers examined the impact of 3 months of intensive meditative training on emotional responses to scenes of human suffering. Sixty participants were assigned randomly to either a 3-month intensive meditation retreat or a wait-list control group. Training consisted of daily practice in techniques designed to improve attention and enhance compassionate

regard for others. Participants viewed film scenes depicting human suffering at pre- and post-training laboratory assessments, during which both facial and subjective measures of emotion were collected. At post-assessment, training group participants were more likely than controls to show facial displays of sadness. Trainees also showed fewer facial displays of rejection emotions (anger, contempt, disgust). The groups did not differ on the likelihood or frequency of showing these emotions prior to training. Self-reported sympathy-but not sadness or distress-predicted sad behavior and inversely predicted displays of rejection emotions in trainees only. These results suggest that intensive meditation training encourages emotional responses to suffering characterized by enhanced sympathetic concern for, and reduced aversion to, the suffering of others.

Schnabel, Landon. 2015. How Religious are American Women and Men? Gender Differences and Similarities. *Journal for the Scientific Study of Religion* 54(3). 616–622. doi:10.1111/jssr.12214.

Are women universally more religious than men? Some research on gender differences has argued that biology leads women to be innately more religious than men, but other research has highlighted the importance of avoiding universal claims and recognizing complexity. This brief note uses General Social Survey data to report gender differences in predicted religiosity by religious category across eight measures. In the United States, gender differences seem to be primarily a Christian phenomenon. Although women reveal higher levels of religiosity across Christian groups, this trend does not extend to non-Christian groups. Furthermore, there is variation even among Christian groups, with women not revealing higher levels of religiosity for all measures. Nevertheless, there does seem to be a general trend for women to report daily prayer more often than men. These findings further problematize the idea that there are innate gender differences in religiosity rooted in biology, and provide a descriptive foundation for future attempts to explain why (American) Christian groups reveal gender differences in religiosity.

Sheskin, Ira M. & Harriet Hartman. 2015. Denominational Variations Across American Jewish Communities. *Journal for the Scientific Study of Religion* 54(2). 205–221. doi:10.1111/jssr.12189.

This article explores the Jewish identity of different Jewish denominational identification groups using the Decade 2000 Data Set with its 19,800 interviews of Jewish households in 22 American Jewish communities. Researchers relate the Jewish identity of individuals in each denominational group (Orthodox, Conservative, Reform/Reconstructionist) to the denominational composition of the community. Communities are clustered via kmeans cluster analysis based on their denominational profiles. The authors examine the extent to which individual Jewish identification varies by the denominational composition of the community in which an individual resides, finding that considerable variation exists in Jewish identity measures depending on the type of denominational profile that exists in the individual's community. That is, Orthodox Jews, for example, behave differently in a community with a significant Orthodox population than in a community with few Orthodox, but many Reform Jews. Implications for Jewish communities, as well as for the broader interreligious community, are considered.

Shonin, Edo & William Gordon. 2015. Mindfulness of ignorance. *Mindfulness* 6(6). 1487–1490. doi:10.1007/s12671-015-0421-8.

This article discusses mindfulness of ignorance. The practice of mindfulness of ignorance is concerned with cultivating awareness of the ignorant beliefs, behaviors, and perceptions that one have allowed to become established in the mind. By developing meditative awareness of ignorant and unskillful ways, one can create the correct conditions for transforming ignorance into wisdom. Outer aspect of practice mindfulness of ignorance in order to transfer oneself from the domain of ignorance and dwelling in a bubble, to the state of wisdom, open mindedness, and clarity of perception. Inner aspect of the practice of mindfulness of ignorance, things are much less contrived. By loading one practice of mindful awareness it becomes much more spiritually potent. The hidden aspect of mindfulness of ignorance is concerned with completely relinquishing the idea that there is something to practice or that there exist such things as ignorance or wisdom.

Sümer, Zeynep Hatipoğlu. 2015. Gender, Religiosity, Sexual Activity, Sexual Knowledge, and Attitudes Toward Controversial Aspects of Sexuality. *Journal of Religion and Health* 54(6). 2033–2044.

doi:10.1007/s10943-014-9831-5.

The purpose of this study is to examine the role of gender, religiosity, sexual activity, and sexual knowledge in predicting attitudes toward controversial aspects of sexuality among Turkish university students. Participants were 162 female and 135 male undergraduate students who were recruited on a volunteer basis from an urban state university in Turkey. The SKAT-A Attitude Scale along with background information form, sexual activities inventory, and sexual knowledge scale were administered to the participants. Simultaneous multiple regression analyses revealed that religiosity, particularly attendance to religious services was the most significant predictor in explaining university students' attitudes toward masturbation, abortion, homosexuality, pornography, and sexual coercion.

Tekke, Mustafa, P. J. Watson, Nik A. Hisham İsmail & Zhuo Chen. 2015. Muslim Religious Openness and *Ilm. Archive for the Psychology of Religion* 37(3). 295–320. doi:10.1163/15736121-12341313.

Religious Reflection Scales yield cross-cultural data suggesting that religious traditions have potentials to integrate intellect with faith. This investigation extended analysis of that possibility to Sunni Muslim university students in Malaysia (n=211) and also examined the hypothesis that Islamic commitments to knowledge (Ilm) promote religious openness. Faith and Intellect Oriented Religious Reflection correlated positively and predicted openness. The Truth of Texts and Teachings factor from the Religious Schema Scales essentially assesses a form of fundamentalism and displayed direct linkages with religious openness as well. Ilm factors from the Ummatic Personality Inventory correlated positively with religious openness and mediated associations of Islamic Religious Reflection with other constructs. Quest as a presumed index of religious openness proved to be incompatible with sincere Muslim commitments. These findings supplemented previous Muslim, Christian, and Hindu data in confirming the potential openness of religious traditions.

Thomas, Jeremy N. & Andrew L. Whitehead. 2015. Evangelical Elites' Anti-Homosexuality Narratives as a Resistance Strategy Against Attribution Effects. *Journal for the Scientific Study of Religion* 54(2). 345–362.

doi:10.1111/jssr.12188.

While attribution theory expects that beliefs about the origins of homosexuality are directly related to beliefs about the moral acceptability of homosexual behavior, the present researchers use content analysis of the popular evangelical magazine Christianity Today to show that evangelical elites have developed a series of anti-homosexuality narratives that allow them to resist attribution effects. In particular, the authors find that even when evangelical elites have expressed belief in the physiological origins of homosexuality, such as the influence of genetics and/or prenatal hormones, their negative beliefs about the moral acceptability of homosexual behavior have not varied. The article argues, then, that evangelical elites' anti-homosexuality narratives provide them with a strategy for influencing rank-and-file evangelicals, so that while allowing for a diversity of beliefs about the origins of homosexuality, rank-and-file evangelicals still have a viable mechanism for connecting these beliefs—whatever they may be—to negative beliefs about the moral acceptability of homosexual behavior. These findings thus extend attribution theory, illuminate the potential power of moral narratives, and amplify the need for future research.

Villegas de Posada, Cristina & Elvia Vargas-Trujillo. 2015. Moral reasoning and personal behavior: A meta-analytical review. *Review of General Psychology* 19(4). 408–424. doi:10.1037/gpr0000053.

The meta-analysis examined the effect of moral development on 4 domains of action (real life, honesty, altruism, and resistance to conformity), and on action in general. The database, comprised by 151 studies across 71 years, stemmed from a previous narrative synthesis conducted by Blasi (1980), updated with studies published up to 2013. Results showed that (a) moral development was significantly related to action in general and to each domain; (b) the effect sizes were similar for altruism, real life, and resistance to conformity; (c) the effect size for honesty was lower than for the other 3 types of behaviors; and, (d) demographic or methodological variables did not affect the association between moral development and action. Discussion centers on similarities among domains of action, perfect and imperfect duties, and the need for other constructs to account for moral action.

Winchester, Daniel. 2015. Converting to Continuity: Temporality and Self in Eastern Orthodox Conversion Narratives. *Journal for the Scientific Study of Religion* 54(3). 439–460. doi:10.1111/jssr.12211.

Based on interviews with converts to Eastern Orthodox Christianity in the United States, this article documents and analyzes a narrative form in which conversion is described as the progressive discovery of a latent religious self that was part of one's life all along, or what the author terms a conversion to continuity. These findings contrast markedly with those of most contemporary conversion research, which emphasize the narration of a dramatic temporal break between converts' past and present religious selves (epitomized by the evangelical "born-again" genre). The article examines how and why temporal continuity was a characteristic feature of these conversion accounts and demonstrate how such narratives helped constitute forms of religious experience and self-identity that differ in important respects from those documented in previous studies. In light of these findings, the author argues for a reconceptualization of continuity and discontinuity within processes of religious identity change as an institutionally anchored figure/ground relationship as opposed to an either/or dichotomy. He also highlights promising avenues for future comparative research on the relationships between time, narrative, and subjectivity across religious and secular contexts.

Wright, Bradley R. E., Michael Wallace, Annie Scola Wisnesky, Christopher M. Donnelly, Stacy Missari & Christine Zozula. 2015. Religion, Race, and Discrimination: A Field Experiment of How American Churches Welcome Newcomers. *Journal for the Scientific Study of Religion* 54(2). 185–204. doi:10.1111/jssr.12193.

This article reports the results of a nationwide audit study testing how Christian churches welcome potential newcomers to their churches as a function of newcomers' race and ethnicity. Researchers sent email inquiries to 3,120 churches across the United States. The emails were ostensibly from someone moving to the area and looking for a new church to attend. That person's name was randomly varied to convey different racial and ethnic associations. In response to these inquiries, representatives from mainline Protestant churches—who generally embrace liberal, egalitarian attitudes toward race relations—actually demonstrated the most discriminatory behavior. They responded most frequently to emails with white-sounding names, somewhat less frequently to black- or Hispanic-sounding names, and much less to Asian-sounding names. They also sent shorter, less welcoming responses to nonwhite names. In contrast, evangelical Protestant and Catholic churches showed little variation across treatment groups in their responses. These findings underscore the role of homophily, organizational homogeneity, and the costs of racial integration in perpetuating the racial segregation of American religious life.

Wrocławska-Warchala, Emilia & Michał Warchala. 2015. The Heavens and Hells We Believe In. *Archive for the Psychology of Religion* 37(3). 240–266. doi:10.1163/15736121-12341308.

Individual eschatological images are rarely a research subject that applies in-depth interviews and qualitative methods of analysis. Due to the use of simple questionnaire measures, knowledge about possible variations in personal images of heaven or hell is very poor. Furthermore, data concerning any connection between personality and eschatological images is scarce. The research project presented in the article was an attempt to apply a narrative method and to

combine qualitative and simple quantitative methods to describe the wide variety of individual views of heaven, hell, and purgatory. The relationship between individual eschatological images, denominational culture, and the chosen dimension of personality—i.e., hope understood in Erik Erikson's terms as a relatively stable conviction that the world is meaningful, ordered and friendly towards people—was also explored. The research was conducted among religiously engaged Christians from two denominational groups: Catholics and Lutherans.

Yi, Joseph & Daniel Silver. 2015. God, Yoga, and Karate. *Journal for the Scientific Study of Religion* 54(3). 596–615.

doi:10.1111/jssr.12218.

The authors investigate the location patterns of organizations that embody key religious-spiritual traditions and that have grown to prominence in the latter 20th and early 21st centuries: evangelical churches, yoga, and martial arts. The distribution of key cultural organizations depends on the degree to which they are able to frame themselves in relation to one another and to core American traditions. Organizations associated with the American religious divide are more polarized in their social appeal and spatial distributions, and those framed as broadly neutral elements of popular culture are more widely distributed. Using a national database of local amenities, it is found that theologically conservative churches are popular in many neighborhoods but concentrated in less-educated and nonwhite areas. Yoga studios are less geographically dispersed and more spatially concentrated in college-educated and white areas. Compared to these, martial arts schools, sports clubs, and other pop-culture amenities are more widely distributed across different types of areas.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

Albinus, Lars. 2015. The Limitation of Truth-Semantics in the Understanding of Religion. *Method & Theory in the Study of Religion* 27(4-5). 447–474. doi:10.1163/15700682-12341344.

While this article salutes attempts to use Donald Davidson's principles of radical interpretation in the study of religion in order to avoid the pitfalls of correspondence theory of truth, on the one hand, and cultural relativism, on the other, it suggests that an adequate understanding of religion may also take other pragmatic aspects of meaning into account. Buying into Jürgen Habermas' critique of Davidson, the more specific argument is that a differentiation of validity criteria serves to disclose the restricted role "truth" plays in speech acts. It is also argued that although Richard Rorty's skepticism towards universal criteria of rationality borders on relativism, he is justified in focusing more radically—along with Robert Brandom—on pragmatic and situational criteria of meaning. Finally, drawing on Wittgenstein's concept of "perspicuous representation," the author suggest an alternate way of coming to grips with meaning potentials in religious ways of life.

Blum, Jason N. 2015. William James on How to Study Experience: Integrating Phenomenology of Religion and Radical Empiricism. *Method & Theory in the Study of Religion* 27(4-5). 423–446. doi:10.1163/15700682-12341343.

William James stands at the nexus of two intellectual traditions important to religious studies: phenomenology of religion and radical empiricism. Focusing on James's work, the author identifies three essential points of contact between radical empiricism and phenomenology of religion: epoché, the affective character of consciousness, and the inevitably open-ended nature of experience. He argues that these resonances allow them to be integrated, thereby furnishing a more robust and defensible understanding of the category of "experience." This integrated approach responds to recent criticisms of phenomenology of religion, and describes a complementary relationship between it and other, explanatory approaches to the study of religion and religious experience.

Dubuisson, Daniel. 2015. Visual Culture and Religious Studies: A New Paradigm. *Method & Theory in the Study of Religion* 27(4-5). 299–311.

doi:10.1163/15700682-12341352.

This introduction examines some of the theoretical problems which have delayed the cooperation between visual culture studies and contemporary religious studies.

Fuist, Todd Nicholas. 2015. Talking to God Among a Cloud of Witnesses: Collective Prayer as a Meaningful Performance. *Journal for the Scientific Study of Religion* 54(3). 523–539. doi:10.1111/jssr.12209.

There has been much work on the effects that individual prayer has on a variety of social-psychological indicators, yet there remains a lack of research on collective prayer. While it is tempting to assume that collective prayer may be analyzed as the aggregate of individual prayers, the research presented in this article suggests that worshipers pray differently when in community than when by themselves. To understand the role of collective prayer in the practices of faith communities, the author draws on work on group culture and ritual to create a framework for analyzing collective prayer. He asserts that collective prayer represents a meaningful social performance that locates those conducting it within wider fields of meaning. The article concludes with suggestions for future work, including examining how collective prayer acts as an element of conflict as well as unity.

Hodge, David R., Tarek Zidan & Altaf Husain. 2015. Validation of the Intrinsic Spirituality Scale (ISS) with Muslims. *Psychological Assessment* 27(4). 1264–1272. doi:10.1037/pas0000130.

This study validates an existing spirituality measure-the intrinsic spirituality scale (ISS)-for use with Muslims in the United States. A confirmatory factor analysis was conducted with a diverse sample of self-identified Muslims (n=281). Validity and reliability were assessed along with criterion and concurrent validity. The measurement model fit the data well, normed $\chi 2=2.50$, CFI = 0.99, RMSEA = 0.07, and SRMR = 0.02. All 6 items that comprise the ISS demonstrated satisfactory levels of validity ($\lambda > .70$) and reliability (R2 > .50). The Cronbach's alpha obtained with the present sample was .93. Appropriate correlations with theoretically linked constructs demonstrated criterion and concurrent validity. The results suggest the ISS is a valid measure of spirituality in clinical settings with the rapidly growing Muslim population. The ISS may, for instance, provide an efficient screening tool to identify Muslims that are particularly likely to benefit from spiritually accommodative treatments.

Maier, Harry O. 2015. Vision, Visualisation, and Politics in the Apostle Paul. *Method & Theory in the Study of Religion* 27(4-5). 312–332. doi:10.1163/15700682-12341356.

The essay applies the theoretical study of visual culture to an analysis of the role of the visual in the communication of religious ideas by the New Testament author, Paul. The discussion explores the contributions of anthropologists and iconologists to the study and understanding of visual culture. After an exploration of the role of vision in understanding generally, the essay then turns to the goals of creating visual experiences in ancient rhetoric. The letters of Paul and his followers drew on the experiences of Roman imperial iconography in multiple media to create their own visual worlds and effect persuasion.

McNamara, Patrick, April Minsky, Victoria Pae & Alina Gusev. 2015. Cognitive Phenomenology of Religious Experience in Religious Narratives, Dreams, and Nightmares. *Archive for the Psychology of Religion* 37(3). 343–357. doi:10.1163/15736121-12341311.

McNamara (2009) hypothesized that a 4-step sequential decentering process (diminished agency, liminality, effort, and success) characterized the phenomenology of religious and spiritual experiences (RSE) and was rooted in dreams and nightmares. Researchers content analyzed 50 RSE, 50 dreams, and 50 nightmares, for presence and ordering of elements of the decentering process. Thirty-six percent of RSE, 48% of dreams, and 44% of nightmares had all four decentering elements. The sense of success occurred most frequently in RSE (11% of all decentering instances)

and least frequently in nightmares (5%). Conversely, diminishment of agency occurred least often in RSE (7% of all decentering instances) and most often in nightmares (10%). For RSE 66% of instances of effort occurred, as hypothesized, after liminality and diminishment. The authors conclude that an orderly 4-step decentering process is reliably detectable in many, but not all, RSE, and that randomly ordered decentering elements occur abundantly in dreams and nightmares.

Melvær, Knut Mordal. 2015. Towards a "Redescription" of "Spirituality": A Response. *Method & Theory in the Study of Religion* 27(4-5). 475–488. doi:10.1163/15700682-12341350.

In The Spiritual Illusion (2014), Jonathan R. Herman wishes to initiate a discussion of the feasibility of the category "spirituality" within the study of religions. This response addresses several methodological problems with his effort, and questions the feasibility of this ironic approach. The critique is five-fold. First, Herman draws a crude picture of the relationship between theology and the study of religion. Second, he does not explain why his sample of authors constitutes a hegemony for the understanding of "spirituality" in the study of religions. Third, he ignores those who have been influential for how the category is used today. Fourth, religion is assumed to be a "rectified" category not worthy of discussion. Finally, it remains unclear where an "ironic" and "imaginative" comparison of spiritual\religion and penis\varphiagina will take us.

Meyer, Birgit. 2015. Picturing the Invisible. *Method & Theory in the Study of Religion* 27(4-5). 333–360. doi:10.1163/15700682-12341357.

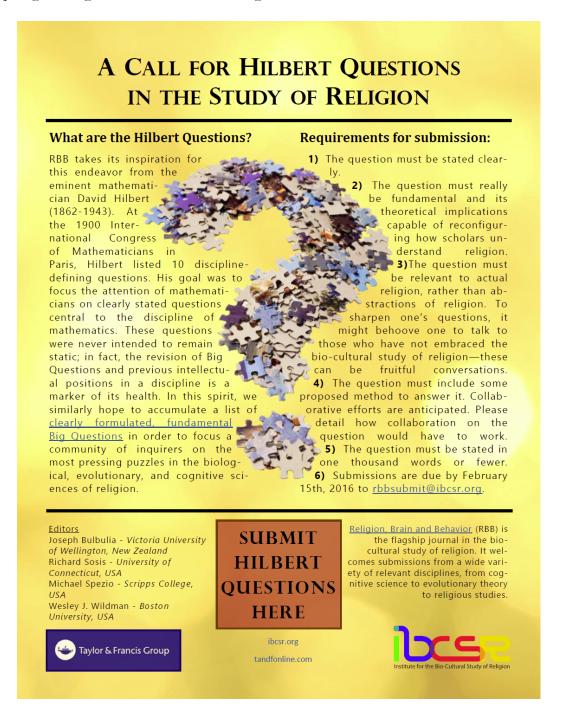
An understanding of religion as a practice of mediation has great potential to open up new methods and theories for a critical study of religion. Leading beyond the privileged medium of the text, this understanding approaches religion as a multi-media phenomenon that mobilizes the full sensorium. The central point of this article is that forms of visual culture are a prime medium of religion, and studying them offers deep insights into the genesis of worlds of lived experience. Pictorial media streamline and sustain religious notions of the visible and the invisible and involve embodied practices of seeing that shape what and how people see. Discussing the implications of the "pictorial turn" for the study of religion, the author argues that a more synthesized approach is needed that draws these fields together. The methodological and theoretical implications of this approach are exemplified by turning to my research on video and representations of the "spiritual" in Southern Ghana.

Schwadel, Philip. 2015. Explaining Cross-National Variation in the Effect of Higher Education on Religiosity. *Journal for the Scientific Study of Religion* 54(2). 402–418. doi:10.1111/jssr.12187.

While sociologists have long argued that higher education has a secularizing influence, recent research emphasizes the moderating role of social contexts in the relationship between social class and religion. The present author extends this line of research by examining sources of cross-national variation in the association between higher education and religiosity using survey data from more than 46,000 respondents in 39 nations. Multilevel models of a religiosity scale show (1) in the aggregate, higher education has a moderate, negative effect on the religiosity scale, (2) this effect varies considerably across nations, and (3) the negative effect of higher education on religiosity is most robust in relatively religious nations. These results demonstrate the importance of national contexts in moderating the effect of education on religiosity. The results also support a cultural diffusion argument that suggests that the highly educated are innovators and early adopters of secular behaviors but that low levels of religiosity then diffuse to less-educated segments of a population as secularity becomes more common.

Uehlinger, Christoph. 2015. Approaches to Visual Culture and Religion. *Method & Theory in the Study of Religion* 27(4-5). 384–422. doi:10.1163/15700682-12341362.

Written from the point of view of a historian of religion\s, the article asks why the so-called "visual turn" has not left a major effect on the study of religion\s as an academic discipline and how things could be improved to that effect. It offers a synthetic account of earlier and contemporary involvements of scholars of religion and scholarly networks with images and visual culture, pointing to a general lack of sustained training and little exposure to relevant methodology and theory developed in relevant neighboring disciplines. The author argues that the study of religion\s would benefit from increased attention to images and visual culture, emphasizing the potential of earlier (iconology in the Warburg-Panofsky tradition and the Groningen trajectory) as well as more recent approaches developed in Europe and the U.S., which theorize the visual in terms of visual culture, visual media, visual and scopic regimes, religious aesthetics and material religion.



PART 2: ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Alzyoud, Sukaina, Khalid A. Kheirallah, Kenneth D. Ward, Noha M. Al-Shdayfat & Abd Albaset Alzyoud. 2015. Association of Religious Commitment and Tobacco Use Among Muslim Adolescents. *Journal of Religion and Health* 54(6). 2111–2121. doi:10.1007/s10943-014-9921-4.

The purpose of this study was to examine the relationship between religious observance and tobacco use among a sample of Jordanian youth. Using multistage, random sampling, a cross-sectional survey of middle and high school students was conducted. Of the 950 Muslim students in the study, 32% were daily tobacco users and 72% prayed regularly. Frequency of praying was negatively associated with tobacco smoking. Religious observance was found to be strongly associated with tobacco smoking among Jordanian youth. Results indicate that religion can be a culturally important tool in health professionals' efforts for tobacco control.

Best, Megan, Lynley Aldridge, Phyllis Butow, Ian Olver, Melanie A. Price & Fleur Webster. 2015. Treatment of holistic suffering in cancer: A systematic literature review. *Palliative Medicine* 29(10). 885–898.

doi:10.1177/0269216315581538.

Holistic suffering is a debilitating problem for cancer patients. Although many treatments have been suggested for its alleviation, they have not been compared for effectiveness. This literature review seeks to identify what interventions are effective in treatment of holistic suffering of cancer patients. A systematic review was conducted to identify and evaluate studies of interventions for holistic suffering in adult cancer patients. Search terms were generated iteratively from the literature. The databases MEDLINE, EMBASE, the Cochrane Library and PsycINFO databases were searched for the years 1992-2015. Included studies were peer-reviewed, English language reports of either a controlled trial or a randomized controlled trial focusing on therapies aimed at relieving suffering in adult cancer patients. Articles were excluded if focused predominantly on spiritual or existential issues or concerns not leading to suffering. Studies were graded for quality using the QualSyst quantitative checklist. Levels of evidence were ascertained by completing the National Health and Medical Research Council criteria. Results are reported according to AMSTAR guidelines. The studies represented seven intervention types. Meaning-centred, hope-centred and stress-reduction interventions were found to be effective. Results of both psycho-educational and spiritual interventions in improving spiritual well-being were mixed. Supportive-expressive interventions—with the exception of forgiveness therapy—were not efficacious. There was little or no evidence for the efficacy of creative and healing arts and other assessed interventions such as animal therapy and haptotherapy.

Brewer, Gayle, Sarita Robinson, Altaf Sumra, Erini Tatsi & Nadeem Gire. 2015. The Influence of Religious Coping and Religious Social Support on Health Behaviour, Health Status and Health Attitudes in a British Christian Sample. *Journal of Religion and Health* 54(6). 2225–2234. doi:10.1007/s10943-014-9966-4.

Previous research has established a relationship between religion and health. However, the specific aspects of religion which may influence health are not fully understood. The present study investigates the effect of religious social support and religious coping on health behaviors, health status and attitudes to health whilst controlling for age and non-religious social support. The results indicate religious coping and religious social support positively impact on self-reported current health status, depression, health outlook and resistance susceptibility. However, negative religious coping was predictive of increased alcohol consumption. Overall congregational support and negative religious coping had the greatest impact on health.

Chatrung, Chutikarn, Siroj Sorajjakool & Kwanjai Amnatsatsue. 2015. Wellness and Religious Coping Among Thai Individuals Living with Chronic Kidney Disease in Southern California. *Journal of Religion and Health* 54(6). 2198–2211. doi:10.1007/s10943-014-9958-4.

This qualitative research is based on eight Thai participants living with chronic kidney disease living in Southern California. Four emerging themes are (a) wellness, (b) self-care, (c) impact of illness on life, and (d) religious coping. Family relations, social support, and religious coping affected self-care and how they managed their everyday activities. Knowledge about the disease and its mechanism were crucial to the decision-making process in relation to self-care. Good self-care and appropriate self-management led to wellness and improved quality of life. Religion provided a belief system focusing on the place of acceptance that was essential for coping with emotional stressors.

- Chen, Ping-Ho, Sheng-Miauh Huang, Chen-Jei Tai, Li-Yin Chien, Pei-Ju Lien & Yu-Hsien Chen. 2015. Meditative qigong relieved symptom severity and interference among patients with breast carcinoma receiving chemotherapy. *European Journal of Integrative Medicine* 7(6). 617–622. doi:10.1016/j.eujim.2015.08.010.
 - Qi, known as meridian energy, runs throughout the human body via meridian vessels. This study compared symptom severity, interference, and meridian energy among breast carcinoma patients who had training in meditative qigong with those who did not. A quasi-experimental study was conducted with 57 patients receiving routine care and 33 receiving qigong training. Data was collected before the start of treatment and at 4 and 12 weeks after the start of treatment. Symptom severity, interference, and meridian energy were assessed. The generalized linear mixed model was used to analyze the independent effect of meditative qigong after adjusting for potential confounders. At 12 weeks, patients in the qigong group had lower symptom severity and interference scores than those in the control group. Whether or not the participants were in the qigong group, there were no significant differences in the meridian energy over time. Higher meridian energy was related to lower symptom severity and interference.
- Chu, I.-Hua, Yuh-Jen Lin, Wen-Lan Wu, Yu-Kai Chang & I.-Mei Lin. 2015. Effects of Yoga on Heart Rate Variability and Mood in Women: A Randomized Controlled Trial. *Journal of Alternative and Complementary Medicine* 21(12). 789–795. doi:10.1089/acm.2015.0138.

The objective of this article was to examine the effects of an 8-week yoga program on heart rate variability and mood in generally healthy women utilizing a randomized controlled trial. Fifty-two healthy women were randomly assigned to a yoga group or a control group. Participants in the yoga group completed an 8-week yoga program, which comprised a 60-minute session twice a week. Each session consisted of breathing exercises, yoga pose practice, and supine meditation/relaxation. The control group was instructed not to engage in any yoga practice and to maintain their usual level of physical activity during the study. Following intervention, no measures of heart rate variability changed significantly in either the yoga or control group after intervention. State anxiety was reduced significantly in the yoga group but not in the control group. No significant changes were noted in perceived stress, depression, or trait anxiety in either group. Conclusions: An 8-week yoga program was not sufficient to improve heart rate variability. However, such a program appears to be effective in reducing state anxiety in generally healthy women. Future research should involve longer periods of yoga training, include heart rate variability measures both at rest and during yoga practice, and enroll women with higher levels of stress and trait anxiety.

Farsi, Zahra. 2015. The Meaning of Disease and Spiritual Responses to Stressors in Adults With Acute Leukemia Undergoing Hematopoietic Stem Cell Transplantation. *Journal of Nursing Research* 23(4). 290–297.

doi:10.1097/JNR.00000000000000088.

Some studies have shown that patients with cancer may experience significant spiritual distress as well as spiritual growth, that there is a positive association between spirituality and coping, and that positive religious coping predicts enhanced health outcomes. This study was designed to help explain how the meaning of disease and spiritual responses to threatening stressors influence the final experiential outcomes of adults with leukemia undergoing hematopoietic stem cell transplantation in Iran. This grounded theory study conducted in-depth interviews between 2009 and 2011 on 10 adults in Iran with leukemia undergoing hematopoietic stem cell transplantation. Recorded audio interviews were transcribed verbatim in Persian and coded and analyzed using Corbin and Strauss (2008)'s approach. Main categories that emerged from data included experiencing the meaning of cancer; changing perceptions of death, life and health; and moving toward perfection and sublimity. Finding meaning was the main concept that defined the final outcome of the experience of participants. Conclusions/Implications for Practice: Understanding the meaning to patients of disease and treatments may help healthcare providers better appreciate the patients' perspective and improve the physician-patient relationship. Nurses are well positioned to play a decisive role in helping patients cope effectively with their treatment process and in helping ensure positive outcomes for treatments through their helping patients find the unique meaning of their experience.

Gerbarg, Patricia L., Vinita E. Jacob, Laurie Stevens, Brian P. Bosworth, Fatiha Chabouni, Ersilia M. DeFilippis, Ryan Warren, et al. 2015. The Effect of Breathing, Movement, and Meditation on Psychological and Physical Symptoms and Inflammatory Biomarkers in Inflammatory Bowel Disease: A Randomized Controlled Trial. *Inflammatory Bowel Diseases* 21(12). 2886–2896. doi:10.1097/MIB.0000000000000568.

This study evaluated the effects of the Breath-Body-Mind Workshop (BBMW) (breathing, movement, and meditation) on psychological and physical symptoms and inflammatory biomarkers in inflammatory bowel disease (IBD). Twenty-nine IBD patients from the Jill Roberts IBD Center were randomized to BBMW or an educational seminar. Beck Anxiety Inventory, Beck Depression Inventory, Brief Symptom Inventory 18, IBD Questionnaire, Perceived Disability Scale, Perceived Stress Questionnaire, Digestive Disease Acceptance Questionnaire, Brief Illness Perception Questionnaire, fecal calprotectin, C-reactive protein, and physiological measures were obtained at baseline and weeks 6 and 26. The BBMW group significantly improved between baseline and week 6 on Brief Symptom Inventory 18, Beck Anxiety Inventory, and IBD Questionnaire, and between baseline and week 26 on Brief Symptom Inventory 18, Beck Anxiety Inventory, Beck Depression Inventory, IBD Questionnaire, Perceived Disability Scale, and Perceived Stress Questionnaire by paired t tests. No significant changes occurred in the educational seminar group at week 6 or 26. By week 26, median C-reactive protein values decreased significantly in the BBMW group) versus no significant change in the educational seminar group.

Himelstein, Sam, Stephen Saul & Albert Garcia-Romeu. 2015. Does mindfulness meditation increase effectiveness of substance abuse treatment with incarcerated youth? A pilot randomized controlled trial. *Mindfulness* 6(6). 1472–1480. doi:10.1007/s12671-015-0431-6.

A growing body of evidence suggests that mindfulness meditation is associated with a number of physiological and psychological benefits in both adult and juvenile populations. Research on mindfulness-based interventions among at-risk and incarcerated youth populations has also shown feasibility as a means of enhancing self-regulation and well-being. This randomized controlled trial examined an 8- to 12-week program in which participants received individual and group psychotherapy. Participants in the experimental condition received formal mindfulness training alongside psychotherapy, while those in the control condition received psychotherapy without mindfulness training. All participants received the group intervention. Participants were recruited from a court-mandated substance abuse group treatment program at a juvenile detention camp in the San Francisco Bay Area. Participants were 35 incarcerated youth (100% male; 70% Hispanic; mean age = 16.45). Of these, 27 provided complete pre- and post-treatment assessment data. Measures of mindfulness, locus of control, decision-making, self-esteem, and attitude toward drugs were administered before and after the intervention. Detention camp staff provided behavioral rating

points for each participant in the week prior to beginning the study treatment and in the week after completing the intervention. Significant increases in self-esteem and decision-making skills were observed among the entire study sample. Between-group analyses found significantly greater increases in self-esteem and staff ratings of good behavior in the mindfulness treatment group, consistent with prior research. These results suggest a potentially important role for mindfulness-based interventions in improving well-being and decreasing recidivism among this at-risk population.

Hodge, David R., Tarek Zidan & Altaf Husain. 2015. Modeling the Relationships between Discrimination, Depression, Substance Use, and Spirituality with Muslims in the United States. Social Work Research 39(4). 223–233. doi:10.1093/swr/svv025.

Little research has been conducted with Muslims despite the growing size of this population in the United States. This study addresses this gap in the literature by examining the relationship between discrimination and two consequential health outcomes--depression and substance use--in tandem with the protective effects of spirituality on these two outcomes. Drawing from stress and coping theory, a theoretically based model was developed and tested using structural equation modeling with a diverse community sample of Muslims (n=265). The results indicate that discrimination predicts depression, but not substance use. Spirituality does not function as a mediator but rather exhibits a direct, independent effect on both depression and substance use. The findings underscore the importance of addressing discrimination directed toward Muslims. The results also imply that spirituality may play a critical role in helping Muslims ameliorate depression and substance use in direct practice settings.

Ji, Eun Sun, Sally P. Lundeen & Jia Lee. 2015. Effect of prenatal Qi exercise on mother-infant interaction and behavioral state. *Journal of Child Health Care* 19(4). 504–512. doi:10.1177/1367493514522575.

The purpose of this study was to investigate the effects of prenatal Qi exercise on mother-infant interaction and the behavioral state of the infant. A prospective, quasi-experimental design was used in 70 healthy pregnant women of more than 18 weeks of gestation. Pregnant women in the intervention group received 90 minutes of prenatal Qi exercise twice a week for 12 weeks. Prenatal Qi exercise group's Nursing Child Assessment of Feeding Scale scores was higher in mother's sensitivity to cues, responses to distress, socioemotional growth fostering, and cognitive fostering and for children in responsiveness. There was no significant difference in Anderson Behavioral State Scoring System scores between groups. The results suggested that prenatal Qi exercise is a valuable approach to positively influence mother-infant interaction post-delivery.

Jung, Hee Young, Haejung Lee & Jina Park. 2015. Comparison of the effects of Korean mindfulness-based stress reduction, walking, and patient education in diabetes mellitus. *Nursing & Health Sciences* 17(4). 516–525. doi:10.1111/nhs.12229.

The purpose of this study was to compare the effects of Korean mindfulness-based stress reduction (K-MBSR), walking, and patient education regarding diabetes mellitus (DM) on stress response, glycemic control, and vascular inflammation in patients with diabetes mellitus. A cluster randomized trial including 56 adults with diabetes mellitus (K-MBSR group=21, walking group=18, patient education group=17) was conducted between 13 July and 14 September 2012. The questionnaire included the Diabetes Distress Scale and Perceived Stress Response Inventory. Fasting blood samples were used to measure levels of cortisol, blood glucose, plasminogen activator inhibitor-1 (PAI-1), and tissue plasminogen activator (t-PA). There were no statistically significant differences between the effects of K-MBSR, walking, and patient education on stress, glycemic control, or vascular inflammation. However, in the K-MBSR and walking groups, significant reductions in the levels of serum cortisol and PAI-1 were observed. A significant reduction in psychological responses to stress was observed in the walking and patient education groups. Longitudinal studies could provide better insight into the impact of K-MBSR, walking, and patient education on health outcomes in adults with diabetes mellitus.

Khoramirad, Ashraf, Maryam Mousavi, Tahmineh Dadkhahtehrani & Davoud Pourmarzi. 2015. Relationship Between Sleep Quality and Spiritual Well-Being/Religious Activities in Muslim Women with Breast Cancer. *Journal of Religion and Health* 54(6). 2276–2285. doi:10.1007/s10943-014-9978-0.

For determining relationship between quality of sleep and spiritual well-being/religious activities in Muslim women with breast cancer (WBC), researchers conducted a cross-sectional study on 80 WBC who presented at all chemotherapy clinics in Qom, Iran, in 2012. The researchers used Pittsburgh Sleep Quality Index (PSQI), spiritual well-being scale (SWBS), and religious activities (RA) questionnaire. Global PSQI score and its seven components score were not significantly correlated with total score of SWBS and its two subscales. Global PSQI score was not significantly correlated with total score of RA questionnaire, but its "sleep latency" and "use of sleep medications" components were significantly correlated with total score of RA. Global PSQI was significantly correlated with "I don't get much personal strength and support from my God," "I believe there is some real purpose for my life" questions in SWBS, and "Attendance in mosque or religious places" subscale of RA.

Kim, Jibum, Tom W. Smith & Jeong-han Kang. 2015. Religious Affiliation, Religious Service Attendance, and Mortality. *Journal of Religion and Health* 54(6). 2052–2072. doi:10.1007/s10943-014-9902-7.

Very few studies have examined the effects of both religious affiliation and religiosity on mortality at the same time, and studies employing multiple dimensions of religiosity other than religious attendance are rare. Using the newly created General Social Survey-National Death Index data, this report contributes to the religion and mortality literature by examining religious affiliation and religiosity at the same time. Compared to Mainline Protestants, Catholics, Jews, and other religious groups have lower risk of death, but Black Protestants, Evangelical Protestants, and even those with no religious affiliation are not different from Mainline Protestants. While this study is consistent with previous findings that religious attendance leads to a reduction in mortality, the researchers did not find other religious measures, such as strength of religious affiliation, frequency of praying, belief in an afterlife, and belief in God to be associated with mortality. The authors also find interaction effects between religious affiliation and attendance. The lowest mortality of Jews and other religious groups is more apparent for those with lower religious attendance. Thus, the results may emphasize the need for other research to focus on the effects of religious group and religious attendance on mortality at the same time.

Kim, SoJung, Michael G. Bemben, Allen W. Knehans & Debra A. Bemben. 2015. Effects of an 8-Month Ashtanga-Based Yoga Intervention on Bone Metabolism in Middle-Aged Premenopausal Women: A Randomized Controlled Study. *Journal of Sports Science and Medicine* 14(4). 756–768.

Although Yoga has the potential to be an alternative physical activity to enhance bone health, there is a lack of high quality evidence for this type of intervention. The purpose of this randomized controlled trial was to examine the effects of a progressive 8-month Ashtanga-based Yoga program on bone turnover markers (BTM), areal bone mineral density (aBMD) and volumetric bone characteristics in premenopausal women. Thirty-four premenopausal women (35-50 years) were randomly assigned either to a Yoga group (YE, n=16) or a control group (CON, n=18). Participants in YE group performed 60 minutes of an Ashtanga-based Yoga series 2 times/week with one day between sessions for 8 months, and the session intensity was progressively increased by adding the number of sun salutations (SS). Participants in CON were encouraged to maintain their normal daily lifestyles monitored by the bone specific physical activity questionnaire (BPAQ) at 2 month intervals for 8 months. Body composition was measured by dual energy x-ray absorptiometry (DXA). Bone formation (bone alkaline phosphatase, Bone ALP) and bone resorption (Tartrate-Resistant Acid Phosphatase-5b, TRAP5b) markers were assessed at baseline and after 8 months. aBMD of total body, lumbar spine and dual proximal femur and tibia bone characteristics were measured using DXA and peripheral Quantitative Computed Tomography (pQCT), respectively. Researchers found that the serum Bone ALP concentrations were maintained in YE, but significantly decreased in CON after

the 8 month intervention, and there were significant group differences in Bone ALP percent changes. No changes in TRAP5b were found in either group. The 8-month Yoga program did not increase aBMD or tibia bone strength variables. Body composition results showed no changes in weight, fat mass, or % fat, but small significant increases in bone free lean body mass occurred in both groups. The findings of this study suggest that regular long-term Ashtanga Yoga had a small positive effect on bone formation but did not alter aBMD or tibia bone characteristics in premenopausal women.

Loprinzi, Paul D. 2015. Yoga participation and all-cause mortality: National prospective cohort study. *Complementary Therapies in Medicine* 23(6). 757–758. doi:10.1016/j.ctim.2015.08.004.

The relatively few studies examining the effect of yoga participation on chronic disease come from small, short-term studies. As a result, the purpose of this study was to prospectively examine the effects of yoga participation on all-cause mortality in a large nationally representative study with a relatively long follow-up period (up to 12 year follow-up). Data from the 1999-2006 National Health & Nutrition Examination Survey were used, with follow-up through 2011. Yoga participation was self-reported, with participant identification linked to death certificate data from the National Death Index to ascertain mortality status. In the analyzed sample, which included 22,598 adult participants, 240 participants engaged in yoga and 3176 died over the follow-up period; the median follow-up period was 102 months (8.5 years). In an unadjusted Cox hazard model, those engaging in yoga, compared to those not engaging in yoga, had a 63% reduced risk of premature all-cause mortality. However, after adjusting for age, the association was attenuated and no longer statistically significant. In conclusion, yoga participation was not significantly associated with reduced all-cause mortality risk in an adjusted model.

Lycett, Deborah. 2015. The Association of Religious Affiliation and Body Mass Index (BMI): An Analysis from the Health Survey for England. *Journal of Religion and Health* 54(6). 2249–2267. doi:10.1007/s10943-014-9975-3.

Obesity and obesity-related morbidity and mortality are an ongoing concern in developed countries. Religion is associated with reduced premature mortality and morbidity. However, the association between religion and obesity is unclear and unexplored in the general English population. This cross-sectional study uses Health Survey for England 2012 data to investigate the association of religious affiliation and BMI. A representative sample of 7,414 adults (16 years or older) was included. Waist-to-hip ratio was measured in a smaller sample and was explored as a secondary outcome. Interviews were administered, questionnaires self-completed, and height and weight measured. Sequential linear regression models were used to adjust for health behaviors. Religious affiliation was associated with a 0.91 kg/m(2) higher BMI. Some of this was explained demographically, but it was not accounted for by smoking status, alcohol consumption or physical activity level. Evidence of this association was strongest among those affiliated to a Christian religion. A significantly higher WHR was also seen in Christian and Sikh men. English prospective studies measuring intrinsic religiosity and dietary energy are needed. Religious communities may need greater healthy weight promotion or benefit from tailored interventions built on their beliefs.

O'Brien, Mary R. & David Clark. 2015. Spirituality and/or religious faith: A means for coping with the effects of amyotrophic lateral sclerosis/motor neuron disease? *Palliative & Supportive Care* 13(6). 1603–1614.

doi:10.1017/S1478951515000097.

The notion of spirituality/religious belief is recognized internationally as a domain within end-of-life care and is important in patients' and carers' quality-of-life. When faced with incurable illness, patients often become more philosophical about their life; many seek comfort in spiritual or religious philosophies. Our intention was to understand how personal spirituality and religious faith might help those living with amyotrophic lateral sclerosis/motor neuron disease (ALS/MND) cope with their impending death. Unsolicited narratives (internet and print-published) written by individuals diagnosed with the terminal condition of ALS/MND were analyzed

thematically. Narratives from 161 individuals diagnosed with ALS/MND written over a period of 37 years (from 1968 to 2005) were included. These findings reveal that religious faith sustains and helps people to avoid despair, and personal spirituality helps them make sense of what is happening to them.

Polis, Rachael L., Debra Gussman & Yen-Hong Kuo. 2015. Yoga in Pregnancy An Examination of Maternal and Fetal Responses to 26 Yoga Postures. *Obstetrics and Gynecology* 126(6). 1237–1241. doi:10.1097/AOG.0000000000001137.

This article examines the acute maternal and fetal effects of yoga postures and suspected contraindicated postures in a prospective cohort of healthy pregnant women in the third trimester. This was a prospective study that evaluated pregnant women between 35 0/7 and 37 6/7 weeks of gestation in a one-on-one yoga session. A baseline non-stress test, vital signs, and pulse oximetry were performed. Participants then assumed 26 yoga postures. Vital signs, pulse oximetry, tocometry, and continuous fetal heart rate monitoring were obtained in each posture. Post-session non-stress test, vital signs, and pulse oximetry were obtained. Participants were contacted 24 hours post-session. Twenty-five healthy pregnant women were evaluated. Ten reported regular yoga practice, eight were familiar with yoga, and seven had no yoga experience. Yoga groups were similar in age, race, body mass index, gestational age, and parity. Pre-session and post-session non-stress tests were reactive. Pre-session and post-session data showed no change in maternal heart rate, temperature, pulse oximetry, or fetal heart rate. During the 26 yoga postures, vital signs, pulse oximetry, and uterine tocometry remained normal in all women and in all postures. The fetal heart rate across all 26 postures was normal. There were no falls or injuries during the total cumulative 650 poses. No participants reported decreased fetal movement, contractions, leakage of fluid, or vaginal bleeding in the 24-hour follow-up.

Radin, Dean, Marilyn Schlitz & Christopher Baur. 2015. Distant Healing Intention Therapies: An Overview of the Scientific Evidence. *Global Advances in Health and Medicine: Improving Healthcare Outcomes Worldwide* 4(Suppl). 67–71. doi:10.7453/gahmj.2015.012.suppl.

This article provides a broad overview of "distant healing intention" (DHI) therapies, i.e., intentional healing modalities claimed to transcend the usual constraints of distance through space or time. The authors provide a summary of previous reviews and meta-analyses that have explored a diverse array of DHI modalities, outcome measures, and experimental protocols. While some significant experimental effects have been observed, the evidence to date does not yet provide confidence in its clinical efficacy. The purported "nonlocal" nature of DHI raises significant methodological and theoretical challenges. The authors conclude by recommending several avenues for improving future research.

Rahnama, P., A. N. Javidan, H. Saberi, A. Montazeri, S. Tavakkoli, A. H. Pakpour & M. Hajiaghababaei. 2015. Does religious coping and spirituality have a moderating role on depression and anxiety in patients with spinal cord injury? A study from Iran. *Spinal Cord* 53(12). 870–874. doi:10.1038/sc.2015.102.

Researchers evaluate the level of anxiety and depression among patients with spinal cord injury (SCI) in relation with their religious coping and spiritual health. The setting was the Brain and Spinal Cord Injury Repair Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran. A sample of patients with SCI participated in this cross-sectional study. They completed a sociodemographic questionnaire, the Hospital Anxiety and Depression Scale, the Brief Religious Coping Questionnaire and the Spiritual Well-being Scale. Then, the association between anxiety, depression and independent variables was examined. In all, 213 patients with SCI were studied. Of these, 64 (30%) have had anxiety and 32 (15%) have had depression. Multiple logistic regression analyses revealed that gender, employment, negative religious coping, and existential spiritual well-being were significant contributing factors to anxiety (Table 3), whereas negative religious coping and existential spiritual well-being were significant contributing factors to depression.

Rana, Madiha, Majeed Rana, Philipp Y. Herzberg & Christin Krause. 2015. Religious Confession and Symptom Severity: A Prospective Comparative Study. *Journal of Religion and Health* 54(6). 2142–2154.

doi:10.1007/s10943-014-9937-9.

Little research has been done on comparing confessions regarding mental health. In the present study, 320 people (78 Buddhists, 77 Catholics, 89 Protestants and 79 Muslims) were compared in terms of their symptom severity. Buddhists and Protestants had lower scores than Catholics and Muslims for obsessive-compulsive behavior and hostility. Muslim group had the highest comparative scores for psychoticism. Buddhists and Protestants had comparatively low scores for paranoid ideation and overall symptom severity, with Catholics and Muslims having high ones. Results reveal that confession should be taken in account in psychological research and diagnosis, since it is explicitly associated with psychological well-being.

Ryu, Kyung Hee, Hye Sook Shin & Eun Young Yang. 2015. Effects of Laughter Therapy on Immune Responses in Postpartum Women. *Journal of Alternative and Complementary Medicine* 21(12). 781–788. doi:10.1089/acm.2015.0053.

Researchers examined the effects of laughter therapy on secretory IgA (sIgA) in postpartum women using a nonequivalent control group with non-synchronized design. The participants were 76 postpartum women who agreed to participate in this study and were selected by convenience sampling (experimental group, n=38; control group, n=38). The experimental group participated in a postpartum laughter program from a laughter therapy expert for 60 minutes per session, twice a week for 2 weeks, for a total of four sessions. To evaluate the effects of the postpartum laughter program, sIgA levels in breast milk were measured. Following intervention, immune response (sIgA) significantly differed between the experimental and control groups.

Sanchez, Mariana, Frank R. Dillon, Maritza Concha & Mario De La Rosa. 2015. The impact of religious coping on the acculturative stress and alcohol use of recent Latino immigrants. *Journal of Religion and Health* 54(6). 1986–2004. doi:10.1007/s10943-014-9883-6.

Religion plays a prominent role in Latino culture and could be influential during difficult life transitions, such as those experienced during the immigration process. This study examines relations between religious coping, acculturative stress, and alcohol use in a sample of 415 recent Latino immigrants. Higher levels of acculturative stress were associated more positive and negative religious coping. Positive religious coping was related to lower alcohol use. Negative religious coping moderated the relationship between acculturative stress and alcohol use. Participants who used more negative religious coping had higher rates of alcohol use when experiencing high levels acculturative stress.

2.2 Spirituality & Health: Mental Health

Barnhofer, Thorsten, Catherine Crane, Kate Brennan, Danielle S. Duggan, Rebecca S. Crane, Catrin Eames, Sholto Radford, Sarah Silverton, Melanie J. V. Fennell & J. Mark G. Williams. 2015. Mindfulness-based cognitive therapy (MBCT) reduces the association between depressive symptoms and suicidal cognitions in patients with a history of suicidal depression. *Journal of Consulting and Clinical Psychology* 83(6). 1013–1020. doi:10.1037/ccp00000027.

In patients with a history of suicidal depression, recurrence of depressive symptoms can easily reactivate suicidal thinking. In this study, researchers investigated whether training in mindfulness, which is aimed at helping patients "decenter" from negative thinking, could help weaken the link between depressive symptoms and suicidal cognitions. Analyses were based on data from a recent randomized controlled trial, in which previously suicidal patients were

allocated to mindfulness-based cognitive therapy (MBCT), an active control treatment, cognitive psychoeducation (CPE), which did not include any meditation practice, or treatment as usual (TAU). After the end of the treatment phase, researchers compared the associations between depressive symptoms, as assessed through self-reports on the Beck Depression Inventory-II, and suicidal thinking, as assessed through the Suicidal Cognitions Scale. In patients with minimal to moderate symptoms at the time of assessment, comparisons of the correlations between depressive symptoms and suicidal cognitions showed significant differences between the groups. Although suicidal cognitions were significantly related to levels of symptoms in the 2 control groups, there was no such relation in the MBCT group. The findings suggest that, in patients with a history of suicidal depression, training in mindfulness can help to weaken the association between depressive symptoms and suicidal thinking, and thus reduce an important vulnerability for relapse to suicidal depression.

Bradshaw, Matt, Christopher G. Ellison, Qijuan Fang & Collin Mueller. 2015. Listening to Religious Music and Mental Health in Later Life. *The Gerontologist* 55(6). 961–971. doi:10.1093/geront/gnu020.

Research has linked several aspects of religion-including service attendance, prayer, meditation, religious coping strategies, congregational support systems, and relations with God, among others-with positive mental health outcomes among older U.S. adults. This study examines a neglected dimension of religious life: listening to religious music. Two waves of nationally representative data on older U.S. adults were analyzed (n=1,024). Findings suggest that the frequency of listening to religious music is associated with a decrease in death anxiety and increases in life satisfaction, self-esteem, and a sense of control across the 2 waves of data. In addition, the frequency of listening to gospel music (a specific type of religious music) is associated with a decrease in death anxiety and an increase in a sense of control. These associations are similar for blacks and whites, women and men, and low- and high-socioeconomic status individuals.

Buzdar, Muhammad Ayub, Akhtar Ali, Masood Nadeem & Muhammad Nadeem. 2015. Relationship Between Religiosity and Psychological Symptoms in Female University Students. *Journal of Religion and Health* 54(6). 2155–2163. doi:10.1007/s10943-014-9941-0.

Depression, anxiety and stress are among major psychiatric conditions being prevalent in contemporary youth. This study intended to examine the role of three religious orientations in students demonstrating these psychological symptoms. A sample comprising 502 Pakistani girls studying at university level was randomly selected. Age Universal I-E Scale and Depression, Anxiety and Stress Scale were used to collect data. Findings reveal an inverse relationship between extrinsic personal religious orientation and symptoms of depression, anxiety and stress among the respondents. Results support the integration of religious orientations in mental health care of young adults in Pakistan.

Chaney, Cassandra, Antonius Skipper & Ashley Harvey. 2015. Black Mega Churches: attitudes towards corporal punishment and perceived guilt or innocence. *Mental Health, Religion & Culture* 18(10). 859–872.

doi:10.1080/13674676.2015.1082539.

The allegation of child abuse against mega-church leader Creflo Dollar on 8 June 2012 has led many to evaluate the guilt or innocence of this religious leader. This case is especially interesting in that, in contrast to studies that have examined the sexual discretions of church leaders, this study examines the presumed innocence or guilt of Dollar's 15-year-old daughter (whom he alleged choked) and the man at the center of this debate. This study will examine over 3000 comments made by anonymous contributors on CNN's public website and analyzed using a qualitative methodology. The following six themes were identified: (1) Condemnation of Mega-Churches and Mega-Church Leaders: "The love of money is the root of all evil"; (2) Condemnation of Creflo Dollar's Actions Against His Daughter: "He is a child beater"; (3) Condemnation of Religious Leaders: "Most priests are crooks"; (4)

Condemnation of God and Religion: "God is not great and religion poisons everything"; (5) Support for Corporal Punishment: "Spare the Rod, Spoil the Child"; (6) Support for Creflo Dollar's Actions: "It sounds like the man of the house handled business!" Narratives will be offered to support and illustrate each of these themes, and the implications for the mental health of African Americans will be discussed.

Deo, Guru, Itagi Ravi Kumar, T. M. Srinivasan & Kuldeep Kumar Kushwah. 2015. Changes in electrophotonic imaging parameters associated with long term meditators and naive meditators in older adults practicing meditation. *European Journal of Integrative Medicine* 7(6). 663–668. doi:10.1016/j.eujim.2015.08.004.

Anapanasati meditation is one of the techniques, practiced in the initial part of V ipassana in Theravada School of Buddhism. In this method, practitioners focus their entire attention on the incoming and outgoing breath. Study aims to observe effect of Anapanasati meditation and gender related differences on the electrophotonic imaging (EPI) parameters at physiological and psychophysiological level in long-term meditators and naive meditators. The study consisted of 309 subjects: 199 long-term and 110 naive meditators. Subjects were divided into two groups, long-term meditators (LTM) practicing for 12 months or longer (mean months of practice 79.22 \pm 49.10, daily 1.68 \pm 1.02 h) and naive meditators (NM) practicing for the first time, for seven days daily for 2.30 h. A total 266 subjects were included in the analysis after excluding 43 outliers. Comparisons were between long-term meditators and naive meditators on EPI parameters: Activation Coefficient (AC, stress parameter), Integral Area (IA, general health parameter) and Integral Entropy (IE, disorderliness parameter). Following intervention, comparison between groups yielded-less disorderliness (IE) at the psychophysiological level in NM group. The gender related results showed highly significant improvements in the health related parameter (IA) at the physiological and psychophysiological level in LTM and NM females compared to males.

Doué, Constance Mambet & Nicolas Roussiau. 2015. Religiosité et Épisodes Dépressifs Chez les Migrants Africains Séropositifs: La Médiation de la Santé - Subjective Religiosity and Depressive Episodes Among African Migrant HIV positive: The Mediation of Subjective Health. *Archive for the Psychology of Religion* 37(3). 358–378. doi:10.1163/15736121-12341312.

Religion and spirituality seem to be very important for <small>HIV </small>-positive patients believers. Indeed, a recurring number of studies show strong correlations between religiosity/spirituality of individuals and different dimensions of health. The majority of these studies show most positive associations of religiosity/spirituality to physical health through reducing emotional distress, reduced rates of depression, greater optimism, better psychological adjustment, better preservation of CD4 cells, better control of viral load. The objective of this research is to understand the nature of the relationship between religiosity and emotional health among HIV-positive patients, migrants from sub-Saharan Africa. Religiosity, the frequency of depressive episodes and subjective health 81 asymptomatic HIV patients regularly followed, were evaluated. Regression models and mediation, backed by a resampling procedure (5000) were tested. From mediation analyzes, the results show that through the mediating effect of subjective health, religiosity explains a decrease in the number of depressive episodes in people with HIV migrants from sub-Saharan Africa.

Frederick, Thomas & Kristen M. White. 2015. Mindfulness, Christian Devotion Meditation, Surrender, and Worry. *Mental Health, Religion & Culture* 18(10). 850–858. doi:10.1080/13674676.2015.1107892.

This article will present an approach for accommodating the benefits of mindfulness into therapy with Christians struggling with worry. Given the psychological benefits of mindfulness and its connection to spirituality, it is not surprising that both therapists and Christian clients are attempting to incorporate it into counselling. Centering prayer, which is a form of Christian Devotion Meditation, provides an accommodative approach to managing worry

for Christian clients. The results of this study indicate that surrender, a key component of centering prayer, provides an empirical link for incorporating the benefits of mindfulness for Christians.

Golparvar, Mohsen, Akram Ahmadi & Zahra Javadian. 2015. Relationships between spiritual capital components with spiritual and psychological well-being. *Psychological Research* 17(2). 30–52.

The present research was administered with the aim of investigating the relationships between spiritual capital components with spiritual and psychological well-being. The research population consisted of employees of two industrial organizations, among whom 277 persons were selected using simple random sampling. Research instruments consisted of Spiritual Capital Questionnaire, Spiritual Well-Being Questionnaire, and Psychological Well-Being Questionnaire. Data were analyzed using Pearson's correlation coefficient and concurrent multiple regression analysis. The results of multiple regression analysis showed that: 1) Among spiritual capital components, spiritual value orientation, spiritual effectiveness, spiritual arbitration, antithetic affair, honoring humanity, and spiritual trust can predict personal spiritual well-being; 2) Among spiritual capital components spiritual value orientation can predict environmental spiritual well-being; 3) Among spiritual capital components. spiritual effectiveness, opportunity to give a private audience to God. and spiritual trust can predict transcendental spiritual wellbeing; and, 4) Among spiritual capital components, spiritual value orientation, opportunity to give a private audience to God, authentic affair, and spiritual trust can predict psychological wellbeing. The results of this research revealed that, spiritual capital components have potential capacity for promoting individual's spiritual and psychological well-being at workplace.

Gore, Jonathan. 2015. Testing the Culture-Fit Hypothesis with religious beliefs: A multilevel analysis. *Mental Health, Religion & Culture* 18(9). 753–764. doi:10.1080/13674676.2015.1092507.

This study tested the hypothesis that internalizing cultural values that fit internalized Christian religious orientations would produce higher levels of well-being than internalizing cultural values that are incongruous with one's religious orientation. Participants (n=409) completed self-report measures of cultural values (individualism and collectivism), religious orientation (quest and Christian orthodoxy) and well-being. A series of hierarchical regression analyses and hierarchical linear modelling revealed several Cultural Value X Religious Orientation interaction effects. Specifically, people whose cultural values did not cohere with their religious orientation experienced lower levels of well-being than those whose cultural values fit well with their religious orientation.

Kattimani, Shivanand, Siddharth Sarkar, Balaji Bharadwaj & Ravi Philip Rajkumar. 2015. An Exploration of the Relationship Between Spirituality and State and Trait Anger Among Medical Students. *Journal of Religion and Health* 54(6). 2134–2141. doi:10.1007/s10943-014-9933-0.

There is a dearth of studies exploring spiritual attitudes of medical students from developing countries and its relationship to anger. This study was conducted to assess spiritual attitudes and their relationship with anger in a set of medical students in southern India. In this cross-sectional observational study, medical students who were undergoing clinical rotations were offered participation. Selected demographic data were obtained. The participants were rated using the Spiritual Attitudes Inventory (SAI, which comprises of Duke Religiosity Index, Existential Well-Being Scale, Negative Religious Coping and Multidimensional Health Locus of Control Scale) and State and Trait Anger Expression Inventory 2. Out of 98 students approached, 82 participated (response rate 83.6%). The mean age of sample was 20.7 years (±0.9 years) with a slight preponderance of females (54.9%). SAI scores correlated well significantly with subscale scores. Gender had no difference on the SAI or subscale score. Differences were found between self-reported religion and EWBS scores. Total SAI score had a significant negative correlation with state anger, trait anger and anger expression. High levels of spirituality may be correlated with lower levels of state anger, trait anger and anger expression in medical students.

Kavuri, Vijaya, Pooja Selvan, Ariel Malamud, Nagarathna Raghuram & Senthamil R. Selvan. 2015. Remedial yoga module remarkably improves symptoms in irritable bowel syndrome patients: A 12-week randomized controlled trial. *European Journal of Integrative Medicine* 7(6). 595–608. doi:10.1016/j.eujim.2015.11.001.

Irritable bowel syndrome (IBS) is very common disorder, with various associated symptoms and affects quality of life. Alternatives to Western medication are often sought. Previous research has suggested that Yoga practice could have a positive impact on alleviating these symptoms. The aim was to evaluate a comprehensive Remedial Yoga Module (RYM) for use as an intervention for IBS. IBS patients (diagnosed according to Rome III criteria) were randomized into 3 groups: Yoga + limited conventional treatment; Combination (Yoga + conventional treatment); and, Wait-list Control groups. Yoga and Combination groups received RYM sessions, three times a week, for 12 weeks, and the Wait-list Control group maintained their current lifestyle. Primary endpoints were IBS-Symptom Severity Scales (IBS-SSS) and IBS Quality of Life (IBS-QOL). Secondary endpoints were Hospital Anxiety and Depression Scale (HADS), Autonomic Symptom Score (ASS), IBS Global Assessment of Improvement (IBS-GAI), Medicine and Supplement Use, physical flexibility, and autonomic functions. In all, 97 patients were randomized and 78 patients completed the study with high adherence (90%) to RYM sessions. There were significant improvements in IBS-SSS and IBS-QOL scores in Yoga (n=25) and Combination groups (n=26) when compared to Wait-list Control group (n=27). Also, HADS, ASS, IBS-GAI, physical flexibility, and autonomic functions were significantly improved which correlated with a reduction in the amount of Medicine and Supplement Use in the Yoga and Combination groups.

Kevern, Peter. 2015. The spirituality of people with late-stage dementia: a review of the research literature, a critical analysis and some implications for person-centred spirituality and dementia care. *Mental Health, Religion & Culture* 18(9). 765–776. doi:10.1080/13674676.2015.1094781.

If spirituality is fundamental to personhood, it must be as integral to the life of a person with dementia as to any other person. In this paper, the author uses a three-stage process to explore the features, meanings and significance of spirituality in late-stage dementia. First, a critical literature review is undertaken to evaluate the present state of research and its methodological limitations. The second stage of the argument comprises a critical analysis of the available models of how spirituality may persist beyond the loss of cognitive and communicative capacity, leading the elucidation of two dimensions to spirituality (duration over time and the role of social space) that can sometimes be overlooked. Finally, these findings are brought to bear on wider questions of how person-centred spiritual care may be offered to people with dementia and the role of shared social values in building spiritual resilience.

Klainin-Yobas, Piyanee, Win Nuang Oo, Pey Ying Suzanne Yew & Ying Lau. 2015. Effects of relaxation interventions on depression and anxiety among older adults: a systematic review. *Aging & Mental Health* 19(12). 1043–1055. doi:10.1080/13607863.2014.997191.

This systematic review examined empirical evidence of the effects of relaxation interventions on anxiety and depression among older adults. A comprehensive literature search identified studies that satisfied the pre-set inclusion and exclusion criteria. Researchers focused on 15 published and non-published studies undertaken from 1994 to 2014. Twelve were randomized controlled trials and three were non-randomized controlled trials. Three reviewers selected studies, extracted data, and appraised the methodological quality. Researchers then computed Hedges' effect sizes and used these to represent the effects of intervention. These findings suggested that older adults who received relaxation interventions experienced greater reductions in depression and anxiety than controls in most studies. Progressive muscle relaxation training, music intervention, and yoga had the strongest intervention effects on depression. Music intervention, yoga, and combined relaxation training most effectively reduced anxiety symptoms

among older adults. Furthermore, the impact of some relaxation interventions remained in effect for between 14 and 24 weeks after the interventions.

Krok, Dariusz. 2015. The Role of Meaning in Life Within the Relations of Religious Coping and Psychological Well-Being. *Journal of Religion and Health* 54(6). 2292–2308. doi:10.1007/s10943-014-9983-3.

The purpose of this study was to examine whether meaning in life understood in terms of presence, search, and personal meaning is a mediator in the relationships between religious coping and psychological well-being. Associations of religiousness and psychological well-being are complex and suggest the existence of meaning and purpose in their internal structures. Two studies were conducted. In Study 1, presence of meaning in life was a mediator between negative coping and psychological well-being in the scope of a total score and all its dimensions. Search for meaning in life did not mediate the above relations. In Study 2, personal meaning turned out to be a partial mediator between negative coping and psychological well-being. These findings suggest that meaning in life is a crucial element of religious coping and psychological well-being that is used by people as a part of their meaning system to cope with life's difficulties and challenges.

Mancini, Francesco & Amelia Gangemi. 2015. Deontological guilt and obsessive compulsive disorder. *Journal of Behavior Therapy and Experimental Psychiatry* 49(Pt B). 157–163. doi:10.1016/j.jbtep.2015.05.003.

The emotion of guilt plays a pivotal role in the genesis and maintenance of Obsessive-Compulsive Disorder (OCD). But what kind of guilt do OC patients want to prevent? Several studies suggest the existence of two different types of guilt emotions, namely deontological and altruistic guilt. This research suggests that the former, more than the latter, is involved in OCD. Studies in which people must hypothetically choose between killing one person to save a few (consequentialist choice) or take no action and allow things to take their course (omission choice), have found that the latter is consistent with the "Do not play God" moral principle whereas the former is consistent with altruistic motivations. This paper is aimed at verifying whether both OC patients, with no induction, and nonclinical participants, after the induction of deontological guilt prefer omission more often than a consequentialist option. It is hypothesized that people with OCD will be motivated to avoid feeling deontological guilt and thus will be more likely to opt for omission. Similarly, nonclinical participants who receive a deontological guilt induction will also be more likely to choose omission. In two studies participants were given seven scenarios (four moral dilemmas, three control scenarios). Twenty patients with OCD, 20 anxious controls, and 20 healthy participants took part in study 1. In study 2, researchers recruited 70 healthy participants who were randomly assigned to receive a deontological guilt or a control induction. Consistent with hypotheses, in Study 1 OC patients preferred omission, instead of the consequentialist option, more so than did the clinical and nonclinical controls. In Study 2, the group receiving the deontological guilt induction preferred omission to a greater extent than did the altruistic group.

Man-Ging, Carlos Ignacio, Jülyet Öven Uslucan, Martin Fegg, Eckhard Frick & Arndt Büssing. 2015. Reporting spiritual needs of older adults living in Bavarian residential and nursing homes. *Mental Health, Religion & Culture* 18(10). 809–821. doi:10.1080/13674676.2015.1100159.

Researchers studied unaddressed psychosocial and spiritual needs among older people (of at least 65 years of age) living in nine residential/nursing homes in Bavaria in Southern Germany. An anonymous cross-sectional study was conducted with standardized questionnaires (i.e., Spiritual Needs Questionnaire, Brief Multidimensional Life Satisfaction Scale, Schedule for Meaning in Life Evaluation, etc.). Religious needs were predicted best by residents' religious trust. Existential needs and inner peace needs correlated moderately with grief, and were predicted best by family/social support needs. All members of an interdisciplinary team should be trained in the specific competence of recognizing older people's unmet spiritual needs. When these needs are recognized, caregivers and relatives have the chance to react.

McCarthy, Valerie Lander, Jiying Ling, Sharon Bowland, Lynne A. Hall & Jennifer Connelly. 2015. Promoting self-transcendence and well-being in community-dwelling older adults: A pilot study of a psychoeducational intervention. *Geriatric Nursing* 36(6). 431–437. doi:10.1016/j.gerinurse.2015.06.007.

Self-transcendence changes how older adults perceive themselves, their relationships with others, the material world, and the metaphysical or spiritual dimension. It is associated with multiple indicators of well-being. The purpose of this pilot study (n=20) was to examine the feasibility and effectiveness of a psychoeducational intervention to increase self-transcendence and well-being in older adults. Data were analyzed using generalized estimating equations. All variables trended in the directions hypothesized. Self-transcendence increased in the intervention group and decreased in the control group but not significantly. The group \times time interaction for life satisfaction was significant. This feasibility study supports further investigation to assess the effectiveness of the intervention in a larger sample.

Mihaljević, Sanea, Branka Aukst-Margetić, Bjanka Vuksan-Ćusa, Snježana Karničnik & Miro Jakovljević. 2015. Spirituality and Its Relationship with Personality in Depressed People: Preliminary Findings. *Journal of Religion and Health* 54(6). 2099–2110. doi:10.1007/s10943-014-9913-4.

The relationship between spirituality and personality in patients with depression is complex and not much explored. The aim of our study is to examine the interconnection between the spiritual quality of life (QoL) and Cloninger's psychobiological model of personality in patients with depression. The sample consisted of 85 consecutive outpatients treated for depression. The measurements used were: Beck Depression Inventory, WHO-Quality of Life-Spiritual, Religious, Personal Beliefs, and Temperament and Character Inventory. The results have shown that higher harm avoidance, lower self-directedness and lower cooperativeness are personality dimensions associated with depression. The spiritual QoL has showed to play a significant role in depression, just as it has proved to be a unique predictor of lower depressive symptoms, adjusted for personality dimensions. The spiritual QoL itself is predicted by personality dimensions, self-directedness and self-transcendence implying that spirituality is a broader construct than the character dimension. These findings may contribute to a more comprehensive understanding of depression, spirituality and personality.

Modesto-Lowe, Vania, Pantea Farahmand, Margaret Chaplin & Lauren Sarro. 2015. Does mindfulness meditation improve attention in attention deficit hyperactivity disorder? *World Journal of Psychiatry* 5(4). 397–403. doi:10.5498/wjp.v5.i4.397.

Attention deficit hyperactivity disorder (ADHD) manifests by high levels of inattention, impulsiveness and hyperactivity. ADHD starts in childhood and results in impairments that continue into adulthood. While hyperactivity declines over time, inattention and executive function difficulties persist, leading to functional deficits. Adolescents and adults with ADHD have pervasive impairment in interpersonal and family relationships. They may develop addiction, delinquent behavior and comorbid psychiatric disorders. Despite advances in diagnosis and treatment, persistent residual symptoms are common, highlighting the need for novel treatment strategies. Mindfulness training, derived from Eastern meditation practices, may improve self-regulation of attention. It may also be a useful strategy to augment standard ADHD treatments and may be used as a potential tool to reduce impairments in patients with residual symptoms of ADHD. Clinically, this would manifest by an increased ability to suppress task-unrelated thoughts and distractions resulting in improved attention, completion of tasks and potential improvement in occupational and social function.

Muallem, Helen Kakounda & Moshe Israelashvilli. 2015. Religiosity as a buffer against suicidal ideation: a comparison between Christian and Muslim-Arab adolescents. *Mental Health*, *Religion & Culture* 18(10). 838–849.

doi:10.1080/13674676.2015.1107891.

The majority of existing studies on the impact of religious beliefs on adolescents' suicidal ideation have been conducted among Christians living in Western countries. This study explored the association between religious beliefs and suicidal thoughts among Muslim and Christian adolescents from the Arab minority population of the State of Israel. An estimated 219 late-adolescents participated in this study, including 110 Muslims and 99 Christians, with the same proportion of boys and girls. Participants completed questionnaires on reasons for living, suicidal ideation and religiosity. A significant negative correlation was found between level of religiosity and suicidal ideation, but only among the Christian adolescents. Religious devoutness may not be a universal buffer against suicidal ideation, across different religions.

Pandya, Samta. 2015. Pilgrimage and devotion to the divine mother: Mental well-being of devotees of Mata Vaishno Devi. *Mental Health*, *Religion & Culture* 18(9). 726–737. doi:10.1080/13674676.2015.1112771.

Based on a study of 10,354 devotees of Mata Vaishno Devi, a popular shrine in North India, this article focuses on how devotion to the Mata, and undertaking the arduous pilgrimage regularly, contributes to the happiness and mental well-being of her followers. Their scores on the Mature Religiosity Scale (MRS) were high. Analyses of variance showed that religiosity scores, duration of being a devotee, education and pilgrimage frequency influenced their subjective happiness and mental well-being. Logistic regression models showed that those who had better education, belonged to the higher economic class, were devotees of the Mata since a long time, undertook the pilgrimage annually, had higher MRS and Gratitude Questionnaire scores were more likely to have higher scores on Warwick-Edinburgh Mental Wellbeing Scale, and hence better mental well-being. This in general corroborates the positive relationship between religiosity, devotion and well-being, and specifically, the literature on well-being promoting potential of pilgrimage.

Rathier, Lucille A., Jennifer Duncan Davis, George D. Papandonatos, Christine Grover & Geoffrey Tremont. 2015. Religious Coping in Caregivers of Family Members With Dementia. *Journal of Applied Gerontology* 34(8). 977–1000. doi:10.1177/0733464813510602.

The degree of depression experienced by caregivers of individuals with dementia was examined in relation to religious coping strategies, religious practice, and spirituality in the framework of the stress and coping model. Caregivers of 191 persons with dementia completed the Religious Coping Scale, self-report measures of religious practices and spirituality, burden, and depression. There was no evidence that any religious coping strategy or religious practice moderated the relationship between caregiving stress and depression. Certain types of religious coping strategies had a direct effect on depression. Higher levels of religious coping working with God were associated with decreased depression, whereas higher levels of religious coping working through God were associated with increased depression. Higher burden, lower overall caregiver health rating, and worse reactions to memory and behavior problems were associated with higher levels of depression. Frequency of prayer and the importance of spirituality were weakly associated with lower levels of depression.

Sandage, Steven J., Peter Jankowski, Sarah A. Crabtree & Maria Schweer. 2015. Attachment to God, adult attachment, and spiritual pathology: mediator and moderator effects. *Mental Health*, *Religion & Culture* 18(10). 795–808. doi:10.1080/13674676.2015.1090965.

In this exploratory study, researchers examined moderated mediation models grounded in psychoanalytic and attachment theory regarding the correspondence between adult attachment and Divine—human relating in a sample of graduate students in the USA. Results supported the correspondence hypothesis as positive correlations between adult attachment dimensions and attachment to God dimensions were observed. An interaction effect was observed as spiritual grandiosity moderated the indirect effect between insecure adult attachment and insecure God attachment dimensions through spiritual instability. Results therefore provided support for the theoretical notion that spiritual

dysregulation can function as a mechanism of the attachment correspondence that varies as a function of spiritual grandiosity. Findings are discussed in the context of advancing existing theory on implicit models of attachment correspondence and the nature of the association between spiritual insecurity and spiritual grandiosity.

Sansone, Randy A. & Michael W. Wiederman. 2015. Religiosity/spirituality: Relationships with non-suicidal self-harm behaviors and attempted suicide. *The International Journal of Social Psychiatry* 61(8). 762–767.

doi:10.1177/0020764015579738.

The relationships between religiosity/spirituality (RS) and self-harm behavior, including non-suicidal self-harm behavior (NS-SHB) and suicide attempts/completions, remain of keen interest. Whereas the majority of studies strongly suggest that RS protects against suicide attempts/completions, relationships between RS and NS-SHB have been rarely studied. In this study, RS was examined in relationship to both NS-SHB (six explicit behaviors) and past history of suicide attempts. In a cross-sectional sample of 306 consecutive primary care outpatients, researchers administered four self-report assessments for RS (extent participant considered self a religious person, extent participant considered self a spiritual person, extent religion is involved in understanding/dealing with stressful situations, Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (FACIT-Sp-12)) as well as examined seven items on the Self-Harm Inventory: six items reflecting NS-SHB and one item reflecting a past suicide attempt. Analysis revealed that, while two RS items yielded no significant findings (extent participant considered self a spiritual person, extent religion is involved in understanding/dealing with stressful situations), the remaining two items were associated with a lowered risk of self-harm behavior, particularly the FACIT-Sp-12.

Schultz, Jon-Håkon & Lars Weisæth. 2015. The power of rituals in dealing with traumatic stress symptoms: Cleansing rituals for former child soldiers in Northern Uganda. *Mental Health*, Religion & Culture 18(10). 822–837. doi:10.1080/13674676.2015.1094780.

International guidelines for emergency response note the importance of cultural adaptions and facilitation of local spiritual and religious healing practices when appropriate. Deciding whether traditional medicine is safe, effective and appropriate is a complex matter. This study explores the therapeutic factors of a local cleansing ritual in Northern Uganda aimed at healing former child soldiers. The components of the ritual are analyzed and compared with research-based therapy for post-traumatic stress disorder. Participant observation was used during the ritual, followed by qualitative in-depth interviews and follow-up interviews over three years. The key informant is a former child soldier participating in the ritual. He was abducted and forced to commit several killings during a three-year period. The collective mobilization of social support, the collective forgiveness and the strength of the psycho-education appear central for the effect of the ritual. In addition, the ritual draws on common therapeutic factors. The findings indicate that such a ritual involves elements that safely and effectively deal with symptoms in accordance with modern research on trauma therapy, perhaps more powerfully than Western-style therapy.

Stroud, Caroline H., Robert J. Cramer, Amanda C. La Guardia, James W. Crosby & Craig E. Henderson. 2015. Personality, spirituality, suicide, and self-injury proneness among lesbian, gay, and bisexual adults. *Mental Health, Religion & Culture* 18(9). 777–788. doi:10.1080/13674676.2015.1096240.

The present study sought to clarify gaps in current knowledge integrating personality, spirituality, and risk for suicide/self-harm among sample of 336 lesbian, gay, and bisexual community members. It was hypothesized that Neuroticism would positively predict, and Extraversion and Agreeableness would negatively predict, measures of suicide and self-injury proneness. Additionally, it was predicted that spirituality, defined as Spiritual Life Integration (SLI) and Social Justice Commitment, would interact with personality traits to attenuate risk for suicide and self-injury. Results supported the role of Neuroticism, and identified an unexpected predictor of

Conscientiousness, at the main effect level. Moderation patterns were observed such that Agreeableness and Extraversion interacted with SLI to attenuate risk, such that high levels of each trait and high levels of spirituality were protective against suicide and self-injury proneness. Theoretical and practical implications with emphasis on counselling intervention implementation and future research are discussed.

Szekeres, Roberta A. & Eleanor H. Wertheim. 2015. Evaluation of Vipassana Meditation Course Effects on Subjective Stress, Well-being, Self-kindness and Mindfulness in a Community Sample: Post-course and 6-month Outcomes. *Stress and Health* 31(5). 373–381. doi:10.1002/smi.2562.

Residential Vipassana meditation courses, which teach mindfulness skills, are widely available globally but underevaluated. This study examined effects of a standardized, community-based Vipassana course, on subjective stress, well-being, self-kindness and trait mindfulness in a community sample. Participants completed self-report measures of these variables at pre-course and post-course (n=122), and outcomes were compared to a control group of early enrollers (EEs) (n=50) who completed measures at parallel time points before course commencement. Six-month follow-up was undertaken in the intervention group (n=90). Findings, including intention-to-complete analyses, suggested positive effects of the Vipassana course in reducing subjective stress and increasing well-being, self-kindness and overall mindfulness (present-moment awareness and non-reaction). Although some reductions in post-course gains were found at follow-up, particularly in stress, follow-up scores still showed improvements compared to precourse scores. Mindfulness change scores between pre-course and 6-month follow-up were moderately to highly correlated with outcome variable change scores, consistent with the idea that effects of the Vipassana course on stress and well-being operate, at least partially, through increasing mindfulness. The present research underscores the importance of undertaking further investigations into Vipassana courses' effects and applications.

Zwan, Judith Esi van der, Wieke de Vente, Anja C. Huizink, Susan M. Bögels & Esther I. de Bruin. 2015. Physical Activity, Mindfulness Meditation, or Heart Rate Variability Biofeedback for Stress Reduction: A Randomized Controlled Trial. *Applied Psychophysiology and Biofeedback* 40(4). 257–268. doi:10.1007/s10484-015-9293-x.

In contemporary western societies stress is highly prevalent, therefore the need for stress-reducing methods is great. This randomized controlled trial compared the efficacy of self-help physical activity (PA), mindfulness meditation (MM), and heart rate variability biofeedback (HRV-BF) in reducing stress and its related symptoms. researchers randomly allocated 126 participants to PA, MM, or HRV-BF upon enrollment, of whom 76 agreed to participate. The interventions consisted of psycho-education and an introduction to the specific intervention techniques and 5 weeks of daily exercises at home. The PA exercises consisted of a vigorous-intensity activity of free choice. The MM exercises consisted of guided mindfulness meditation. The HRV-BF exercises consisted of slow breathing with a heart rate variability biofeedback device. Participants received daily reminders for their exercises and were contacted weekly to monitor their progress. They completed questionnaires prior to, directly after, and 6 weeks after the intervention. Following intervention, results indicated an overall beneficial effect consisting of reduced stress, anxiety and depressive symptoms, and improved psychological well-being and sleep quality. No significant between-intervention effect was found, suggesting that PA, MM, and HRV-BF are equally effective in reducing stress and its related symptoms. These self-help interventions provide easily accessible help for people with stress complaints.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Applebaum, Allison J., Julia R. Kulikowski & William Breitbart. 2015. Meaning-Centered Psychotherapy for Cancer Caregivers (MCP-C): Rationale and Overview. *Palliative & Supportive Care* 13(6). 1631–1641.

doi:10.1017/S1478951515000450.

The multidimensional burden that results from providing care to a patient with cancer is well documented and a growing number of psychosocial interventions have been developed to address this burden. None, however, target existential distress, a critical, common element—and potentially driving mechanism—of caregiver burden. Meaning-Centered Psychotherapy (MCP) is a structured psychotherapeutic intervention originally developed by our group to target existential distress and spiritual well-being among patients with advanced cancer. Researchers are currently developing Meaning-Centered Psychotherapy for Cancer Caregivers (MCP-C). The objective of this qualitative study is to describe the application of MCP to the unique experience of caregivers of patients with advanced cancer. In this article, a case study of a participant from an initial MCP-C group is presented, with a focus on the application of sources of meaning to the cancer caregiving experience. The exploration of critical sources of meaning in the participant's life generally, and related to caregiving specifically, highlighted significant areas of growth, including an increased understanding of the historical context shaping her experience of providing care, the recognition of the need for improved self-care and reconnecting with meaningful activities, and the possibility for continued connectedness to others and the world, despite the limitations resulting from her husband's terminal illness. Existential distress is a critical and often overlooked element of burden among cancer caregivers. MCP-C is intended to target this component of burden and address this critical gap in the palliative care literature.

Awaad, Rania, Sara Ali, Melina Salvador & Belinda Bandstra. 2015. A Process-Oriented Approach to Teaching Religion and Spirituality in Psychiatry Residency Training. *Academic Psychiatry* 39(6). 654–660.

doi:10.1007/s40596-014-0256-y.

Although the importance of addressing issues of spirituality and religion is increasingly acknowledged within psychiatry training, many questions remain about how to best teach relevant knowledge, skills, and attitudes. Current literature on curricula highlights the importance of maintaining a clinical focus and the balance between didactic content and process issues. The authors present findings from a program evaluation study of a course on religion, spirituality, and psychiatry that deliberately takes a primarily process-oriented, clinically focused approach. Two six-session courses were offered. The first course targeted fourth-year psychiatry residents and the second targeted third-year psychiatry residents. Teaching sessions consisted of brief didactics combined with extensive process-oriented discussion. A two-person faculty team facilitated the courses. Clinical case discussions were integrated throughout the curriculum. A panel of chaplains was invited to participate in one session of each course to discuss the interface between spiritual counsel and psychiatry. A modified version of the Course Impact Questionnaire, a 20-item Likert scale utilized in previous studies of spirituality curricula in psychiatry, assessed residents' personal spiritual attitudes, competency, change in professional practice, and change in professional attitudes before and after the course (n=20). Qualitative feedback was also elicited through written comments. The results from this study showed a statistically significant difference between the pre- and post-test scale for residents' self-perceived competency and change in professional practice.

Baumsteiger, Rachel & Tiffany Chenneville. 2015. Challenges to the Conceptualization and Measurement of Religiosity and Spirituality in Mental Health Research. *Journal of Religion and Health* 54(6). 2344–2354.

doi:10.1007/s10943-015-0008-7.

Investigating religiosity and spirituality may help to further elucidate how individuals' worldviews influence their attitudes, behavior, and overall well-being. However, inconsistencies in how these constructs are conceptualized and measured may undercut the potential value of religiosity and spirituality research. Results from a survey of undergraduate students suggest that laypeople define spirituality as independent from social influence and that few people associate religiosity with negative terms. A content analysis of spirituality measures indicates that spirituality measures contain items that do not directly measure the strength of spirituality.

Carr, John C. 2015. The Evolution of Research Paradigms in Pastoral/Spiritual Care, Counseling, and Education. *The journal of pastoral care & counseling: JPCC* 69(4). 232–239. doi:10.1177/1542305015616101.

This partially autobiographical article is presented as a chapter in the narrative of the evolution of research methodology in the social sciences and the impact that evolution has had on pastoral/spiritual care research as the author has experienced and observed it during the latter part of the 20th century and the early years of the 21st century.

Carter, Erik W., Harold L. Kleinert, Tony F. LoBianco, Kathleen Sheppard-Jones, Laura N. Butler & Milton S. Tyree. 2015. Congregational Participation of a National Sample of Adults With Intellectual and Developmental Disabilities. *Intellectual and Developmental Disabilities* 53(6). 381–393. doi:10.1352/1934-9556-53.6.381.

Supporting people with intellectual and developmental disabilities (IDD) to thrive requires careful consideration of multiple avenues of community involvement. Yet little attention has focused on the place of faith community participation in the lives of adults with IDD. Researchers examined attendance at religious services using National Core Indicator data for a sample of 12,706 adults with IDD residing in 24 states. Almost half of adults (48.3%) reported attending a religious service in the past month, and more than one third (34.6%) attended 3 or more times. Religious involvement varied considerably based on a variety of individual (e.g., race, disability type, behavioral support needs, communication mode) and contextual factors (e.g., geographic locale, residential type). Moreover, monthly involvement in religious activities was much less common than participation in other community activities (i.e., exercise, entertainment, eating out, shopping). The authors offer recommendations for supporting the spiritual lives of adults with IDD, as well as highlight areas for future research and practice.

Chaves, Lindanor Jacó & Claudia Aranha Gil. 2015. Older people's concepts of spirituality, related to aging and quality of life. *Ciencia & Saude Coletiva* 20(12). 3641–3652. doi:10.1590/1413-812320152012.19062014.

Increased life expectancy and the prospect of longevity lead to reflection on the importance of spirituality while aging. This article aims to investigate and analyze the concepts that older people have of spirituality and how this concept affects their quality of life. It is a descriptive, exploratory, quantitative-qualitative study, with a sample of 12 participants over the age of 60. The following tools were used: semi-structured interviews, social-demographic questionnaires and WHOQOL (Bref, SRPB and Domain VI). The statistical program SPSS 21.0, and Content Analysis, were used in the analysis. The average score on the Psychological Health and Social Relationship domains was high, and the WHOQOL-SRPB showed high averages in all facets, and positive association with the Bref domains. Content analysis showed a relationship between Quality of Life and Spirituality. The latter is conceptualized as: Support, Relationship with the Sacred, and Transcendence; and is distinguished from Religion, which is defined by Religious Affiliation, Cultural Affiliation, and Dogmas. The relationship between spirituality and old age takes place through the capacity to bear the limitations, difficulties and losses inherent to the process; thus, the nature of living a spiritual life was observed to be heterogeneous, while all had in common the recognition of its importance and its significance for living an old age with Quality of Life.

Ching, Ho-Hoi, Malcolm Koo, Tsung-Huang Tsai & Chiu-Yuan Chen. 2015. Effects of a Mindfulness Meditation Course on Learning and Cognitive Performance among University Students in Taiwan. Evidence-Based Complementary and Alternative Medicine: eCAM 2015. 254358. doi:10.1155/2015/254358.

Mindfulness training has recently gained much research interest because of its putative benefits for both mental and physical health. However, little is available in its effects on Asian students. Therefore, a quasi-experimental pre/posttest design was used to assess the effects of a one-semester mindfulness meditation course in 152 first-year

Taiwanese university students and compared with 130 controls. The Chinese version of the College Learning Effectiveness Inventory (CLEI) and a computer software program focused on specific cognitive tasks were used for the evaluation. Results from the analysis of covariance revealed that while the score of the full CLEI scale was significantly higher in the intervention group compared with the control, none of the comparisons between the nine CLEI subscales were significantly different between the two groups. For the computer cognitive tasks, the intervention group exhibited significantly better performance in the accuracy of the digital vigilance task, choice reaction time, spatial working memory, and digital vigilance task reaction time. This study showed that a one-semester mindfulness meditation course was able to improve learning effectiveness and both attention and memory aspects of cognitive performance among Taiwanese university students.

Cramer, Holger, Jost Langhorst, Gustav Dobos & Romy Lauche. 2015. Associated Factors and Consequences of Risk of Bias in Randomized Controlled Trials of Yoga: A Systematic Review. *Plos One* 10(12). e0144125. doi:10.1371/journal.pone.0144125.

Background Bias in randomized controlled trials (RCTs) of complementary therapy interventions seems to be associated with specific factors and to potentially distort the studies' conclusions. This systematic review assessed associated factors of risk of bias and consequences for the studies' conclusions in RCTs of yoga as one of the most commonly used complementary therapies. For the review, Medline/PubMed, Scopus, IndMED and the Cochrane Library were searched through February 2014 for yoga RCTs. Risk of selection bias was assessed using the Cochrane tool and regressed to a) publication year; b) country of origin; c) journal type; and d) impact factor using multiple logistic regression analysis. Likewise, the authors' conclusions were regressed to risk of bias. A total of 312 RCTs were included. Impact factor ranged from 0.0 to 39.2 (media n=1.3); 60 RCT (19.2%) had a low risk of selection bias, and 252 (80.8%) had a high or unclear risk of selection bias. Only publication year and impact factor significantly predicted low risk of bias; RCTs published after 2001 and those published in journals with impact factor were more likely to have low risk of bias. The authors' conclusions were not associated with risk of bias.

Culatto, A. & C. B. Summerton. 2015. Spirituality and Health Education: A National Survey of Academic Leaders UK. *Journal of Religion and Health* 54(6). 2269–2275. doi:10.1007/s10943-014-9974-4.

Whole person care is deemed important within UK medical practice and is therefore fundamental in education. However, spirituality is an aspect of this often neglected. Confusion and discomfort exists regarding how care relating to issues of spirituality and health (S&H) should be delivered. Different interpretations have even led to disciplinary action with professionals seeking to address these needs. Previous research shows 45% of patients want spiritual needs to be addressed within their care. Two-thirds of healthcare professionals want to do this. However, lack of knowledge is a significant barrier. Little is known regarding how Medical schools address S&H, only one limited study exists in the literature. Thirty-two UK educational institutions were surveyed. The chosen survey was compiled by Koenig and Meador. Fifty-nine academics were contacted across UK medical schools, and the response rate was 57.6%. Of the respondents, 5.6% institutions provide required and dedicated S&H teaching, 63.4% provided it as an integrated component. Nearly 40% felt staff were not adequately trained to teach S&H but welcomed opportunities for training. S&H is given value in undergraduate education but with little evidence of formal teaching. Institutions feel that this area is addressed within other topic delivery, although previous studies have shown integrating S&H with PBL leads to poor clinical performance.

Downs, Holly E., Raymond Miltenberger, Jessica Biedronski & Lisa Witherspoon. 2015. The effects of video self-evaluation on skill acquisition with yoga postures. *Journal of Applied Behavior Analysis* 48(4). 930–935. doi:10.1002/jaba.248.

This study evaluated the use of video self-evaluation and video feedback to increase the accuracy of yoga poses. The interventions were assessed in a multiple baseline design across behaviors with 2 adults. Results showed that video self-evaluation increased the accuracy of all poses, and video feedback further increased the accuracy of 1 pose for 1 participant.

Frewen, Paul, Nicholas Rogers, Les Flodrowski & Ruth Lanius. 2015. Mindfulness and metta-based trauma therapy (MMTT): Initial development and proof-of-concept of an internet resource. *Mindfulness* 6(6). 1322–1334. doi:10.1007/s12671-015-0402-y.

Trauma and stressor-related disorders, including post-traumatic stress disorder (PTSD) and related comorbid disorders such as anxiety, depression, and dissociative disorders, are difficult to treat. Mindfulness-based clinical interventions have proven efficacy for mental health treatment in face-to-face individual and group modalities, although the feasibility and efficacy of delivering these interventions via the internet has not been evaluated. The present research developed mindfulness and metta-based trauma therapy (MMTT) as an internet resource to support the practice of mindfulness and metta (loving-kindness) meditations for self-regulation and healing from trauma and stressor-related disorders. In the present "proof-of-concept" study, research participants (n=177) recruited online practiced mindfulness and metta meditations and related therapeutic exercises available via the website and rated their perceived credibility as interventions for improving self-regulation and well-being and reducing PTSD symptoms, anxiety, depressive, and dissociative experiences, as well as their experienced ease, helpfulness, and informational value. Results suggest that, independent of level of self-reported current and past psychiatric history and PTSD symptoms, participants considered the MMTT website as a credible and helpful therapeutic intervention for improving self-regulation and well-being and reducing PTSD, anxiety, depression, and dissociation. Overall, participants considered guided and non-guided meditation practices more helpful than a journaling exercise, and participants with increased PTSD symptoms preferred metta (loving-kindness) meditations less than other participants. The authors conclude that MMTT should be piloted in clinical trials as an adjunctive intervention to evidence-based treatments for persons with mood, anxiety, and trauma and stressor-related disorders, as well as more generally as an online resource to support self-regulation and well-being practices.

Heard, Clark Patrick, Jared Scott & Stephen Yeo. 2015. Walking the Labyrinth: Considering Mental Health Consumer Experience, Meaning Making, and the Illumination of the Sacred in a Forensic Mental Health Setting. *Journal of Pastoral Care & Counseling* 69(4). 240–250. doi:10.1177/1542305015616102.

The purpose of this study is to explore the unique meaning and experience associated with walking a unicursal seven circuit outdoor Chartress Labyrinth and 11 circuit indoor Chartress Labyrinth for persons residing at a forensic mental health care facility. Over the past several decades labyrinths have enjoyed something of a renaissance and are often utilized by spiritual care practitioners and health care clinicians in order to support reflection, stress reduction, and the exploration of personal wellness in a sacred setting. Labyrinths are used in many settings including places of worship, hospitals, long-term care facilities, and parks. While labyrinths are becoming more prevalent, an understanding of their impact, particularly in the mental health context, is limited. This qualitative study supports a novel investigation of the meaning associated with participation in walking a labyrinth for persons residing at a forensic mental health care facility. The study design is a qualitative methodology involving transcribed interviews with 12 individuals resident at the Southwest Centre for Forensic Mental Health Care who participated in the "Walking the Labyrinth" program as facilitated by spiritual care staff. A standardized interview protocol was utilized and the collected data was coded for themes. Several methods were employed to establish trustworthiness including triangulation by analyst and by theory/perspective. Member checking was also utilized in order to further validate the themes.

Hotz, Kendra G. 2015. "Big Momma Had Sugar, Imma Have It Too": Medical Fatalism and the Language of Faith Among African-American Women in Memphis. *Journal of Religion and Health* 54(6). 2212–2224.

doi:10.1007/s10943-014-9969-1.

This essay offers a theological exploration of the relationship between medical fatalism and religious belonging among African-American women in Memphis. Drawing on the work of black and womanist theologians and on conversations with participants in a diabetes intervention program administered by a faith-based community health provider, the author argues that how persons narrate the meanings of their own bodies is irreducibly religious. The language one uses to interpret and communicate the meaning of bodily existence emerges from a set of assumptions, often unarticulated, about what is of ultimate value to us. The essay focuses on three interlocking features that link faith with fatalism or hope: (1) The idea that if "I don't claim that" disease cannot enter my body; (2) the role of faith-based clinics in re-establishing trust with marginalized communities; and (3) how nuanced attention to the social location of health seekers can re-frame our understanding of patient compliance. Disrupting fatalism can only be done from within a health seeker's own narrative, and therefore, healthcare providers who learn these narratives and respect their holiness will develop more effective interventions.

Humphrey, Caroline. 2015. Shadows along the spiritual pathway. *Journal of Religion and Health* 54(6). 2376–2388.

doi:10.1007/s10943-015-0037-2.

Contemporary spirituality discourses tend to assume that a canopy of light and love overarches all spiritual pathways. Unfortunately, the dark side of humanity cannot be spirited away so easily, and aberrations of personal spiritual development, interpersonal spiritual relationships and new spiritual movements can often be traced to the denial, repression and return of our dark side. Transpersonal psychology offers a way of approaching, reframing and redeeming the unconscious depths of our psyche, with its metaphors of shadows and daimons on the one hand, and its therapeutic practices for symbolically containing and transcending polarities on the other. In its absence, any spirituality which eulogizes holistic growth is likely to engender the reverse effect.

Hunter-Hernández, Migda, Rosario Costas-Muñíz & Francesca Gany. 2015. Missed Opportunity: Spirituality as a Bridge to Resilience in Latinos with Cancer. *Journal of Religion and Health* 54(6). 2367–2375.

doi:10.1007/s10943-015-0020-y.

Going through adverse life events can help a person learn how to cope with life's challenges, overcome them, learn from the adverse experiences, grow, and be positively transformed by them. Spirituality is a resource that supports adaptation and resilience to improve quality of life in patients with cancer or other chronic illnesses. For Latinos, spirituality is an important core cultural value. As such, it is crucial to pay close attention to how cultural values play a role in health-related concerns when caring for Latino cancer patients, and to how spirituality, being an important aspect of Latino culture, influences how Latinos adjust and cope with cancer. Understanding how to facilitate resilience in the face of potentially negative life events, such as cancer, can not only help Latino cancer patients in active treatment, but can also impact effectiveness of managing and coping with the consequences of cancer during survivorship.

Isgandarova, Nazila. 2015. Physician-Assisted Suicide and Other Forms of Euthanasia in Islamic Spiritual Care. *Journal of Pastoral Care & Counseling* 69(4). 215–221. doi:10.1177/1542305015616099.

The muteness in the Qur'an about suicide due to intolerable pain and a firm opposition to suicide in the hadith literature formed a strong opinion among Muslims that neither repentance nor the suffering of the person can remove the sin of suicide or mercy "killing" (al-qatl al-rahim), even if these acts are committed with the purpose of relieving

suffering and pain. Some interpretations of the Islamic sources even give advantage to murderers as opposed to people who commit suicide because the murderers, at least, may have opportunity to repent for their sin. However, people who commit suicide are 'labeled' for losing faith in the afterlife without a chance to repent for their act. This paper claims that Islamic spiritual care can help people make decisions that may impact patients, family members, health care givers and the whole community by responding to questions such as 'What is the Islamic view on death?', What is the Islamic response to physician-assisted suicide and other forms of euthanasia?', 'What are the religious and moral underpinnings of these responses in Islam?'

LeBaron, Virginia T., Amanda Cooke, Jonathan Resmini, Alexander Garinther, Vinca Chow, Rebecca Quiñones, Sarah Noveroske, et al. 2015. Clergy Views on a Good Versus a Poor Death: Ministry to the Terminally Ill. *Journal of Palliative Medicine* 18(12). 1000–1007. doi:10.1089/jpm.2015.0176.

Clergy are often important sources of guidance for patients and family members making medical decisions at the endof-life (EOL). Previous research revealed spiritual support by religious communities led to more aggressive care at
the EOL, particularly among minority patients. Understanding this phenomenon is important to help address
disparities in EOL care. The study objective was to explore and describe clergy perspectives regarding "good" versus
"poor" death within the participant's spiritual tradition. Community clergy from various spiritual backgrounds,
geographical locations within the United States, and races/ethnicities were recruited. Participants included 35 clergy
who participated in one-on-one interviews (n=14) and two focus groups (n=21). Semi-structured interviews explored
clergy viewpoints on factors related to a "good death." Principles of grounded theory were used to identify a final set
of themes and subthemes. Analysis of results indicated that a good death was characterized by wholeness and certainty
and emphasized being in relationship with God. Conversely, a "poor death" was characterized by separation, doubt,
and isolation. Clergy identified four primary determinants of good versus poor death: dignity, preparedness, physical
suffering, and community. Participants expressed appreciation for contextual factors that affect the death experience;
some described a "middle death," or one that integrates both positive and negative elements. Location of death was
not viewed as a significant contributing factor.

Levine, Ellen G., Stephen Vong & Grace J. Yoo. 2015. Development and Initial Validation of a Spiritual Support Subscale for the MOS Social Support Survey. *Journal of Religion and Health* 54(6). 2355–2366.

doi:10.1007/s10943-015-0005-x.

While spirituality and religious practices are important in coping with illness or other crises, there are few ways of assessing support that people receive from members of their spiritual communities. The goal of this study was to validate a new spiritual support subscale for the Medical Outcomes Study Social Support Scale (MOS-SSS). Questions for the subscale were formed based on responses of 135 breast cancer survivors who were interviewed about their cancer experience. Exploratory factor analysis resulted in four specific factors for the MOS-SSS: emotional/informational, tangible, affectionate, and spiritual support. The new spiritual support subscale has adequate reliability and validity and may be useful in assessing an area of support that is not always addressed.

Mathisen, Bernice, Lindsay B. Carey, Christa L. Carey-Sargeant, Gwendalyn Webb, CaraJane Millar & Lilli Krikheli. 2015. Religion, Spirituality and Speech-Language Pathology: A Viewpoint for Ensuring Patient-Centred Holistic Care. *Journal of Religion and Health* 54(6). 2309–2323. doi:10.1007/s10943-015-0001-1.

This paper presents a viewpoint concerning the largely neglected clinical relevance of spirituality and religious belief in speech-language pathology (SLP) assessments, interventions and outcomes across the lifespan. An overview of the refereed SLP literature is presented with regard to religion and spirituality. It was found that while there is increasing research with regard to spirituality, health and well-being, there is very little specific to SLP. What is available and clinically relevant, generally relates to holistic care and/or cultural and linguistic diversity. Amidst the health care

literature, however, there is a growing number of recommended instruments (for religious/spiritual screening) sensitive to intercultural and interfaith issues that are currently available to medical, nursing, allied health and chaplaincy practitioners. These instruments can also be of value to SLPs to ensure holistic assessments and interventions. It would seem timely for SLPs (and other allied health practitioners) to consider including spiritual screenings/assessments as part of their clinical practice so as to ensure appropriate holistic care. This would also mean undertaking research and including relevant education within tertiary institutions and professional development programs.

McLean, Gillian. 2015. An Integrative Professional Theory and Practice Paper: Personal Reflections from the Journey through Clinical Pastoral Education. *Journal of Pastoral Care & Counseling* 69(4). 201–214.

doi:10.1177/1542305015616100.

CPE is an experience-based approach to learning spiritual care which combines clinical care with qualified supervision, in-class education and group reflection. Through didactic seminars, group presentations and personal reading there is opportunity for the student to acquire, apply and integrate relevant theoretical information into their practice. Written for a CPE Specialist application, this paper describes how, through the course of advanced CPE education, the author learned to utilize and integrate theory into clinical work. Beginning with three strands—authenticity, listening and storytelling—she then discusses how the behavioral sciences and theology inform clinical practice. Focusing on empathy, the author speaks of the application of disclosure, the use of counter-transference as a diagnostic tool, and the place of therapeutic termination. Group theory, family systems theory, theological reflection, liturgical ministry, and multi-faith practices are considered.

Moloney, Sharon & Susan Gair. 2015. Empathy and spiritual care in midwifery practice: Contributing to women's enhanced birth experiences. *Women and Birth* 28(4). 323–328. doi:10.1016/j.wombi.2015.04.009.

Research has identified empathy as a crucial ingredient in effective practice for health professionals, including midwifery. Equally, the role of spirituality has been recognized as enhancing the quality of the birth experience through the care, compassion and presence of the midwife. Yet literature discussing birthing women's lived experiences of caregiver empathy and spiritual care appears uncommon. The aim of this article is to highlight women's stories about midwives' empathy and spiritual care or lack thereof during birth, in order to contribute to the promotion of more empathic, spiritually aware midwifery practice. Ten interviews and seven focus groups were conducted with forty-eight women, including mothers, midwives and staff from a women's service. A secondary analysis of the data was conducted examining women's descriptions and reflections on midwives' levels of empathy and spiritual care. When midwives' empathy and spiritual care were evident, women's birth experiences appeared enhanced, providing a solid foundation for confident mothering. Conversely, participants appeared to link a lack of caregiver empathy, compassion or spiritual care with more enduring consequences, birth trauma and difficulty bonding with their babies.

Mthembu, Thuli Godfrey, Firdous Ahmed, Thembi Nkuna & Khalipha Yaca. 2015. Occupational Therapy Students' Perceptions of Spirituality in Training. *Journal of Religion and Health* 54(6). 2178–2197.

doi:10.1007/s10943-014-9955-7.

Spirituality is recognized as an essential and integral component of a holistic approach in occupational therapy practice. However, little is known about occupational therapy students' perceptions regarding spirituality in learning context. This study used qualitative exploratory, descriptive design to explore the occupational therapy students' perceptions about spirituality in training. Using purposive sampling, four semi-structured interviews were conducted with two students, a lecturer and an occupational therapist. In addition, two focus groups were conducted with students in order to collect data. Data collected were audio-taped; transcribed and thematic analysis was used to identify themes. The analysis resulted in emergence of four themes: "Unique to every individual," "Spirituality in

occupational therapy," "To be or not to be taught," and "The Real world." Participants perceived spirituality as an individually experienced. The study contributes to the body of knowledge base of occupational therapy education regarding spirituality. However, there is a need for guidelines to integrate spirituality in occupational therapy training.

Ødbehr, Liv Skomakerstuen, Kari Kvigne, Solveig Hauge & Lars Johan Danbolt. 2015. Spiritual care to persons with dementia in nursing homes: A qualitative study of nurses and care workers experiences. *BMC nursing* 14. 70. doi:10.1186/s12912-015-0122-6.

Spiritual care for people with dementia who are in nursing homes is one aspect of the holistic care provided by nurses. A number of studies have explored the concepts of spirituality and religiosity, but fewer studies describe how nurses provide spiritual care in practice. The purpose of the study was thus to investigate how nurses and care workers can provide spiritual care for people with dementia who live in nursing homes. This is a qualitative study with an exploratory design using a phenomenological-hermeneutic approach. Interviews were conducted in eight focus groups with 31 nurses and care workers in four Norwegian nursing homes. The nurses were unsure about whether they actually provided spiritual care. Through discussions in the focus groups, a new understanding and insight was developed. The spiritual care that the nurses provided included: (1) integrating spiritual care into general care, described as 'physical touch' and 'responsiveness and intuition'; (2) spiritual care in terms of togetherness, described as 'being present' and 'sensitivity in communication'; and (3) spiritual care as providing meaningful activities for everyday life, described as 'facilitating activities' and 'meeting the residents' religious needs'.

O'Donnell, Karen. 2015. Help for Heroes: PTSD, Warrior Recovery, and the Liturgy. *Journal of Religion and Health* 54(6). 2389–2397. doi:10.1007/s10943-015-0034-5.

The incidence of PTSD is on a steady rise in combative countries around the world, and civilian churches are increasingly like to encounter persons suffering from PTSD. This article considers the ancient rituals for the purification of warriors after battle to demonstrate the responsibility of the church toward returning warriors and explore how the liturgy can function as a place for recovery. The author demonstrates how the sacraments of Reconciliation, the Eucharist, and the Anointing of the Sick function as sites of re-integration into the world the warriors have fought for, recovery from trauma, and purification after battle.

Oliver, Amparo, Laura Galiana & Enric Benito. 2015. Evaluation tools for spiritual support in end of life care: increasing evidence for their clinical application. *Current Opinion in Supportive and Palliative Care* 9(4). 357–360.

doi:10.1097/SPC.00000000000000173.

In this article, the authors summarize current evidence on evaluation tools for spiritual care, paying special attention to recent validations and new instruments, systematic reviews, recent consensus on spiritual care and its measurement, plus other emergent topics. The systematic review resulted in 45 identified studies, 14 of which were considered: five works addressed the need for development and validation of spiritual tools; three studies reviewed tools for spirituality assessment, interventions, or related concepts; three more covered the efforts to define guidelines and priorities for spiritual care and its measurement. Other topics such as pediatric spiritual care, the use of new technologies, or nationwide surveys, also arose. The authors found that recent contributions outline usability traits such as to shorten scales and measurement protocols for maximum respect of patients' quality of life. Other works addressed complicated grief or satisfaction with attention to spiritual care, transcending the patients, family and professionals' focus in on a sort of combined perspective. Further attention to culturally based specific models supporting questionnaires, a deeper understanding of quality of the spiritual care, both for patients and families, or further research on the relation between spiritual care and life span should be welcomed.

Rickhi, Badri, Ania Kania-Richmond, Sabine Moritz, Jordan Cohen, Patricia Paccagnan, Charlotte Dennis, Mingfu Liu, Sonya Malhotra, Patricia Steele & John Toews. 2015. Evaluation of a spirituality informed e-mental health tool as an intervention for major depressive disorder in adolescents and young adults: A randomized controlled pilot trial. *BMC Complementary and Alternative Medicine* 15(1). 450. doi:10.1186/s12906-015-0968-x.

Depression in adolescents and young adults is a major mental health condition that requires attention. Research suggests that approaches that include spiritual concepts and are delivered through an online platform are a potentially beneficial approach to treating/managing depression in this population. The purpose of this study was to evaluate the effectiveness of an 8-week online spirituality informed e-mental health intervention (the LEAP Project) on depression severity, and secondary outcomes of spiritual well-being and self-concept, in adolescents and young adults with major depressive disorder of mild to moderate severity. A parallel group, randomized, waitlist controlled, assessor-blinded clinical pilot trial was conducted in Calgary, Alberta, Canada. The sample of 62 participants with major depressive disorder (DSM-IV-TR) was defined by two age subgroups: adolescents (ages 13 to 18 years; n=31) and young adults (ages 19 to 24 years; n=31). Participants in each age subgroup were randomized into the study arm (intervention initiated upon enrolment) or the waitlist control arm (intervention initiated after an 8-week wait period). Comparisons were made between the study and waitlist control arms at week 8 (the point where study arm had completed the intervention and the waitlist control arm had not) and within each arm at four time points over 24-week follow-up period. At baseline, there was no statistical difference between study and waitlist participants for both age subgroups for all three outcomes of interest. After the intervention, depression severity was significantly reduced; comparison across arms at week 8 and over time within each arm and both age subgroups. Spiritual wellbeing changes were not significant, with the exception of an improvement over time for the younger participants in the study arm. Self-concept improved significantly for younger participants immediately after the intervention and over time in the study arm. In the older participants, change was minimal, with the exception of a significant improvement in one of six factors (vulnerability) in study arm over time.

Rosmarin, David H., Brent P. Forester, Daniel M. Shassian, Christian A. Webb & Thröstur Björgvinsson. 2015. Interest in spiritually integrated psychotherapy among acute psychiatric patients. *Journal of Consulting and Clinical Psychology* 83(6). 1149–1153. doi:10.1037/ccp0000046.

Spiritually integrated psychotherapy (SIP) is increasingly common, though systematic assessment of interest in such treatments, and predictors of such interest, has not yet been conducted among acute psychiatric patients. Researchers conducted a survey with 253 acute psychiatric patients (95-99% response rate) at a private psychiatric hospital in Eastern Massachusetts to assess for interest in SIP, religious affiliation, and general spiritual or religious involvement alongside clinical and demographic factors. More than half (58.2%) of patients reported "fairly" or greater interest in SIP, and 17.4% reported "very much" interest. Demographic and clinical factors were not significant predictors except that current depression predicted greater interest. Religious affiliation and general spiritual or religious involvement were associated with more interest; however, many affiliated patients reported low or no interest (42%), and conversely many unaffiliated patients reported "fairly" or greater interest (37%).

Sawchuk, Dana. 2015. Aging and older adults in three Roman Catholic magazines: Successful aging and the Third and Fourth Ages reframed. *Journal of Aging Studies* 35. 221–228. doi:10.1016/j.jaging.2015.08.012.

This article is a qualitative content analysis of how aging and older adults are represented in the articles of three Roman Catholic magazines in the United States: America, Commonweal, and U.S. Catholic. The findings suggest that, as in mainstream secular magazines, the concept of successful aging is common in portrayals of older adults in the Third Age. Distinctive in Catholic magazine portrayals of successful aging is an emphasis on meaningful activity

and on the wisdom that is gained and transmitted in this stage of life. In contrast to the lack of attention to Fourth Age decline in mainstream magazines, in the Catholic publications the difficult features of such deterioration are acknowledged but are also reframed as potential sources of value. The theoretical implications of these more complex faith-based renderings of the Third and Fourth Ages are briefly explored.

Singh, Kamlesh & Mahima Raina. 2015. Development and validation of a test on Anasakti (non-attachment): an Indian model of well-being. *Mental Health*, *Religion & Culture* 18(9). 715–725. doi:10.1080/13674676.2015.1084612.

Deriving a theoretical model from the Hindu religious text Srimad Bhagvad Gita, gaps in the existing frameworks on the concept of Anasakti (non-attachment) were found. The purpose of the study was to develop and test psychometric properties of a scale based on this Indian concept. Researchers pooled 46 items which included items from existing scales as well as new items. The data were collected from 366 students (236 females and 130 males; mean age = 23.55 years). The final scale consists of 22 items comprising six subscales: Outcome Vulnerability, Faith in God, Empathy, Frustration Tolerance, Effort Orientation and Emotional Equipoise. The scale is psychometrically robust, explaining 50.79 per cent of variance and also acceptable levels of reliability (a = .70). The researchers tested for convergent validity by correlating the new scale with the Scale of Positive and Negative Experiences (SPANE), the Mental Health Continuum (MHC) and the Flourishing Scale (FS). The new scale demonstrated acceptable convergent validity showing significant positive correlation with SPANE-P, SPANE-B, FS and MHC and a significant negative correlation with SPANE-N.

Torskenaes, Kristina B., Mary H. Kalfoss & Berit Saeteren. 2015. Meaning given to spirituality, religiousness and personal beliefs: explored by a sample of a Norwegian population. *Journal of Clinical Nursing* 24(23-24). 3355–3364. doi:10.1111/jocn.12962.

The aim of this article is to explore the meanings given to the words 'spirituality', 'religiousness' and 'personal beliefs' by a Norwegian sample of healthy and sick individuals. Studies show that a high proportion of nurses do not identify the spiritual needs of their patients, even if the nurses are educated to give care for the whole person, including the spiritual dimension. Qualitative data generated from six focus groups were collected in southeast Norway. The focus groups were comprised of three groups of health professionals (n=18) and three groups of patients from different institutions (n=15). The group discussions revealed that the meanings of spirituality, religiousness and personal beliefs were interwoven, and the participants had difficulty in finding a common terminology when expressing their meanings. Many of the participants described the spiritual dimension with feelings of awe and respect. They were dependent on spirituality in order to experience balance in life and cope with life crises.

Turner, Mahshid. 2015. Can the Effects of Religion and Spirituality on Both Physical and Mental Health be Scientifically Measured? An Overview of the Key Sources, with Particular Reference to the Teachings of Said Nursi. *Journal of Religion and Health* 54(6). 2045–2051. doi:10.1007/s10943-014-9894-3.

Within Western secular societies, everything has to be substantiated by empirical evidence; this means it has to be quantifiable and measurable. Research, particularly quantitative research, then, is the criterion by which everything, including religion, is either accepted or rejected. The separation of religion from science began with the Renaissance, the Reformation and the advent of the Enlightenment. It was perceived that religion did not match the language of science and that there was no logical proof or empirical evidence for the existence of God. Religion therefore, due to its inability to be measured and quantified, has since been largely marginalized. In recent times, in order to integrate 'religion' into everyday life, attempts have been made to argue and bring in scientific proof for the effectiveness of religion for improved health and well-being. The psychiatrist Harold Koenig has been one of the key people whose collation of research evidence has shown that religion has a positive effect on both physical and mental health. By looking firstly at the definitions of religion and spirituality and then discussing various opinions from both secular

and religious perspectives, including those of Said Nursi, this paper aimed to determine whether religion and spirituality can indeed be measured.

Valverde, Raul. 2015. Neurotechnology as a Tool for Inducing and Measuring Altered States of Consciousness in Transpersonal Psychotherapy. *Neuroquantology* 13(4). 502–517.

Transpersonal psychotherapy is based on transpersonal psychology and considers that the psyche is multidimensional and that there are several "levels of consciousness" and each has different characteristics and is governed by different laws. Transpersonal psychology is the study of human nature and proceeds on the assumption that human beings possess potentials that exceed the limits of their ego and integrate the spiritual experience within a broader understanding of the human psyche and consciousness. Altered states of consciousness have been used as psychotherapy in transpersonal psychology for decades. Although there are very well known techniques to induce altered state of consciousness as holotropic breathwork, neurotechnology offers an alternative way not only to induce these states for transpersonal therapy but also to measure the level of a state of consciousness. The objective of this article is to provide a review of the main concepts of neurotechnology and the main technologies that can be used to induce and measure altered state of consciousness for transpersonal psychotherapy.

Walther, Nikki Georggi, Rae Jean Proeschold-Bell, Sara Benjamin-Neelon, Sherine Adipo & Eunice Kamaara. 2015. "We Hide Under the Scriptures": Conceptualization of Health Among United Methodist Church Clergy in Kenya. *Journal of Religion and Health* 54(6). 2235–2248. doi:10.1007/s10943-014-9947-7.

As community leaders, clergy are well-positioned to impact the health of their congregants. Clergy's conceptualizations of health influence their own self-care and how they minister to others. Interviews and focus group discussions on health conceptualizations and health-seeking behaviors were conducted with 49 United Methodist Church clergy in Western Kenya. Data were analyzed using interpretative phenomenological methods. Participants defined health holistically using an environmental health model. Some participants reported not seeking health care so their congregants would believe that their faith kept them healthy. Participants who believed that health comes directly from God reported seeking health care less often. Participants also reported combining traditional indigenous medicine with Western medicine. This study has implications for health promotion among Kenyan clergy and offers the first study of health conceptualization among clergy in Africa.

Weatherhead, Stephen & Anna Daiches. 2015. Key Issues to Consider in Therapy with Muslim Families. *Journal of Religion and Health* 54(6). 2398–2411. doi:10.1007/s10943-015-0023-8.

The authors present the key issues to consider in therapy with Muslim families. Following a brief introduction, five themes are presented: self, family dynamics, causation, and coping strategies. The section on "self" includes a discussion of three terms which link the four Islamic models of "self" identified through the review. The family dynamics section pays particular attention to interconnectedness, family roles, and gender. Causation is discussed with reference to supernatural and spiritual causes. On the theme of coping strategies, religious responses are discussed as are the roles of religious leaders, and professional mental health services. Clinical implications from the key themes are also discussed in addition to limitations of the published literature in this area. This includes a discussion of the epistemological and paradigmatic issues related to the research. The review concludes by summarizing these issues and presenting areas for further research.

Wu, Li-Fen, Malcolm Koo, Hui-Chen Tseng, Yu-Chen Liao & Yuh-Min Chen. 2015. Concordance between nurses' perception of their ability to provide spiritual care and the identified spiritual needs of hospitalized patients: A cross-sectional observational study. *Nursing & Health Sciences* 17(4). 426–433. doi:10.1111/nhs.12210.

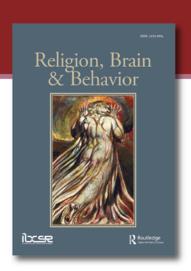
Spiritual care is essential to the well-being of patients, and nurses provide spiritual care as a fundamental part of nursing practice. In this study, researchers investigated the spiritual care needs of hospitalized patients to determine whether the perceived knowledge of nurses corresponded with these spiritual care needs. A cross-sectional study was conducted on 1351 hospitalized patients and 200 registered nurses recruited from a medical center in central Taiwan. A questionnaire, including the 21-item Spiritual Care Needs Inventory (patient and nurse version) and basic demographic information, was distributed to eligible participants. The top three items of the spiritual care needs expressed by the hospitalized patients were respect for privacy and dignity, showing concern, and guidance in gaining a sense of hope in life; the percentages of nurses not knowing how to provide these spiritual care needs were 0%, 1%, and 15%, respectively. The spiritual care needs of patients showed a significant relationship with the knowledge of nurses, suggesting that the perceived knowledge of the nurses generally corresponded with the spiritual care items that the patients required most.

Yamasaki, Jill. 2015. Aging with service, socialization, and support: The work of faith-based stories in a lifetime community. *Journal of Aging Studies* 35. 65–73. doi:10.1016/j.jaging.2015.08.004.

This project explores the impact that stories told through the church have on rural older adults and their perceptions of community resources, possibilities, and responsibilities as they age in the same small town where they have lived most, if not all, of their lives. The author combines qualitative research practices with narrative theorizing to understand the ways in which faith-based stories work with, for, and on community members. She seeks to understand how these stories foster a culture of altruism and spirit of stewardship that can ultimately build an inclusive community, nurture a sense of responsibility across generations, and enable residents to age in place with meaningful connection, purpose, and support.

Zakaria Kiaei, M., A. Salehi, A. Moosazadeh Nasrabadi, D. Whitehead, M. Azmal, R. Kalhor & E. Shah Bahrami. 2015. Spirituality and spiritual care in Iran: nurses' perceptions and barriers. *International Nursing Review* 62(4). 584–592. doi:10.1111/inr.12222.

This study aimed to explore the perception of Iranian nurses concerning spiritual care and to reveal any confronted barriers. Although the context of spiritual care is a substantial aspect of holistic care, the delivery of spiritual care has been problematic due to lack of nurses' understanding of this concept. This cross-sectional survey was conducted in 2013 with 259 nurses working in hospitals affiliated with Qazvin University of Medical Sciences, Iran. Data were collected using the Spirituality and Spiritual Care Rating Scale alongside qualitative open-ended questions. Descriptive and inferential statistics were used for the quantitative data and content analysis for the qualitative data. The overall average for spirituality and spiritual care was 2.84 (score range: 1-4), indicating a moderate mean score. A significant relationship was found between education level and spiritual care. The majority of participants believed that they did not receive enough training in this aspect of care. The main obstacles regarding delivering spiritual care included busy working schedules, insufficient knowledge regarding spiritual care, low motivation, diversity of patients' spiritual needs and feeling 'unqualified' to provide spiritual cares.



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PART 3: BOOKS

3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Ben-Avie, Michael, Yossi Ives & Kate Miriam Loewenthal (eds.). 2015. Applied Jewish Values in Social Sciences and Psychology. Springer.
- Boddy, Janice & Michael Lambek (eds.). 2015. *Companion to the Anthropology of Religion*. (Wiley Blackwell Companions to Anthropology). Wiley-Blackwell.
- Cheruvallil-Contractor, Sariya & Suha Shakkour (eds.). 2015. *Digital Methodologies in the Sociology of Religion*. New York: Bloomsbury Academic.
- Goulet, Jean-Guy, Lisa Murphy & Anastasia Panagakos (eds.). 2015. Religious Diversity Today: Experiencing Religion in the Contemporary World. Santa Barbara: Praeger.
- Harvey, Graham & Robert J. Wallis. 2015. *Historical Dictionary of Shamanism*. 2nd ed. 3 vols. (Historical Dictionaries of Religions, Philosophies, and Movements Series). Rowman & Littlefield Publishers.
- Pintchman, Tracy & Corinne G. Dempsey (eds.). 2015. Sacred Matters: Material Religion in South Asian Traditions. State University of New York Press.
- Plate, S. Brent (ed.). 2015. Key Terms in Material Religion. Bloomsbury Academic.
- Schultz, Brad & Mary Lou Sheffer (eds.). 2015. Sport and Religion in the Twenty-First Century. Lexington Books.
- Stolz, Jörg, Mallory Schneuwly Purdie, Michael Kruggeler, Thomas Englberger & Judith Konemann (eds.). 2015. (Un-)believing in Modern Society: Religion, Spirituality, and Religious-Secular Competition. Ashgate.

Winzeler, Robert L. 2016. Popular Religion in Southeast Asia. Rowman & Littlefield.

3.2 SPIRITUALITY & HEALTH RESEARCH

Sisemore, Timothy A. 2015. The Psychology of Religion and Spirituality: From the Inside Out. Wiley.

PART 4: ARTICLES IN PRESS

4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

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