



# RESEARCH REVIEW

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

JANUARY, 2014

## INTRODUCTION

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

Articles for this issue were located by searching the following databases: Applied Science and Technology, ATLA Religion Database, 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 721 articles, 83 articles have been retained from 64 journals. There are 43 pre-publication citations from 30 journals.

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

### 1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Almeida Souza Tedrus, Gloria Maria, Lineu Correa Fonseca & Gabriela Chaves Hoeehr. 2014. Spirituality aspects in patients with epilepsy. *Seizure: European Journal of Epilepsy* 23(1). 25–28. doi:10.1016/j.seizure.2013.09.005.

*This study aimed to determine whether an easy-to-administer scale, such as the spirituality self-rating scale (SSRS), could detect increased religiousness in people with epilepsy and verify how epilepsy influences spirituality. A total of 196 consecutive patients with epilepsy (epilepsy group, EG) and 66 subjects with no history of neurological or other chronic disorders (control group, CG) were assessed by the SSRS and neurologically. The SSRS scores of the EG and CG did not differ significantly. Patients with mesial temporal lobe epilepsy with hippocampal sclerosis (MTLE-HS) had significantly higher SSRS scores than those with other epileptic syndromes and, than in individuals of the CG. Multiple regression showed that the factors significantly associated with greater spirituality (greater SSRS score) for the EG, were lower education level, abnormal background EEG activity, and MTLE-HS. Other relationships with the clinical features of epilepsy and with the presence of psychiatric co-morbidity were not found. The present findings do not confirm a specific role of epilepsy in spirituality or of “epileptic hyperreligiosity,” but suggest that spirituality in people with epilepsy is influenced by education level, and may also stem from epilepsy-related factors such as abnormal background EEG activity and the presence of MTLE-HS.*

Converse, Alexander K., Elizabeth O. Ahlers, Brittany G. Travers & Richard J. Davidson. 2014. Tai chi training reduces self-report of inattention in healthy young adults. *Frontiers in Human Neuroscience* 8. 13. doi:10.3389/fnhum.2014.00013.

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*In this study of healthy young adults, researchers measured the effects of training in tai chi, which involves mindful attention to the body during movement. Using a non-randomized, controlled, parallel design, students in a 15-week introductory tai chi course (n=28) and control participants (n=44) were tested for ADHD indicators and cognitive function at three points over the course of the 15-weeks. The tai chi students' self-report of attention, but not hyperactivity-impulsivity, improved compared to controls. At baseline, inattention correlated positively with reaction time variability in an affective go/no-go task across all participants, and improvements in attention correlated with reductions in reaction time variability across the tai chi students. Affective bias changed in the tai chi students, as reaction times to positive- and negative-valenced words equalized over time. These results converge to suggest that tai chi training may help improve attention in healthy young adults.*

Kim, Dae-Keun, Jyoo-Hi Rhee & Seung Wan Kang. 2014. Reorganization of the brain and heart rhythm during autogenic meditation. *Frontiers in Integrative Neuroscience* 7. 109.  
doi:10.3389/fnint.2013.00109.

*The underlying changes in heart coherence that are associated with reported EEG changes in response to meditation have been explored. In this study, researchers measured EEG and heart rate variability (HRV) before and during autogenic meditation. Fourteen subjects participated in the study. Heart coherence scores were significantly increased during meditation compared to the baseline. Researchers found near significant decrease in high beta absolute power, increase in alpha relative power and significant increases in lower (alpha) and higher (above beta) band coherence during 3-min epochs of heart coherent meditation compared to 3-min epochs of heart non-coherence at baseline. The coherence and relative power increase in alpha band and absolute power decrease in high beta band could reflect relaxation state during the heart coherent meditation. The coherence increase in the higher (above beta) band could reflect cortico-cortical local integration and thereby affect cognitive reorganization, simultaneously with relaxation. Further research is still needed for a confirmation of heart coherence as a simple window for the meditative state.*

Marciniak, Rafal, Katerina Sheardova, Pavla Cermáková, Daniel Hudeček, Rastislav Sumec & Jakub Hort. 2014. Effect of Meditation on Cognitive Functions in Context of Aging and Neurodegenerative Diseases. *Frontiers in Behavioral Neuroscience* 8. 17.  
doi:10.3389/fnbeh.2014.00017.

*The present paper reviews evidence on the effects of several meditation practices on cognitive functions in the context of aging and neurodegenerative diseases. The effect of meditation in this area is still poorly explored. Seven studies were detected through the databases search, which explores the effect of meditation on attention, memory, executive functions, and other miscellaneous measures of cognition in a sample of older people and people suffering from neurodegenerative diseases. Overall, reviewed studies suggested a positive effect of meditation techniques, particularly in the area of attention, as well as memory, verbal fluency, and cognitive flexibility. These findings are discussed in the context of MRI studies suggesting structural correlates of the effects. Meditation can be a potentially suitable non-pharmacological intervention aimed at the prevention of cognitive decline in the elderly. However, the authors conclude that the conclusions of these studies are limited by their methodological flaws and differences of various types of meditation techniques.*

Pennycook, Gordon, James Allan Cheyne, Nathaniel Barr, Derek J. Koehler & Jonathan A. Fugelsang. 2014. Cognitive style and religiosity: The role of conflict detection. *Memory & Cognition* 42(1). 1–10.  
doi:10.3758/s13421-013-0340-7.

*Recent research has indicated a negative relation between the propensity for analytic reasoning and religious beliefs and practices. Here, researchers propose conflict detection as a mechanism underlying this relation, on the basis of the hypothesis that more-analytic people are less religious, in part, because they are more sensitive to conflicts between immaterial religious beliefs and beliefs about the material world. To examine cognitive conflict sensitivity,*

researchers presented problems containing stereotypes that conflicted with base-rate probabilities in a task with no religious content. In three studies, evidence was found that religiosity is negatively related to conflict detection during reasoning. Independent measures of analytic cognitive style also positively predicted conflict detection. The present findings provide evidence for a mechanism potentially contributing to the negative association between analytic thinking and religiosity, and more generally, they illustrate the insights to be gained from integrating individual-difference factors and contextual factors to investigate analytic reasoning.

Tan, Lee-Fan, Zoltan Dienes, Ashok Jansari & Sing-Yau Goh. 2014. Effect of mindfulness meditation on brain–computer interface performance. *Consciousness and Cognition* 23. 12–21. doi:10.1016/j.concog.2013.10.010.

*Electroencephalogram based brain-computer interfaces (BCIs) enable stroke and motor neuron disease patients to communicate and control devices. Mindfulness meditation has been claimed to enhance metacognitive regulation. The current study explores whether mindfulness meditation training can thus improve the performance of BCI users. To eliminate the possibility of expectation of improvement influencing the results, researchers introduced a music training condition. A norming study found that both meditation and music interventions elicited clear expectations for improvement on the BCI task, with the strength of expectation being closely matched. In the main 12 week intervention study, seventy-six healthy volunteers were randomly assigned to three groups: a meditation training group; a music training group; and a no treatment control group. The mindfulness meditation training group obtained a significantly higher BCI accuracy compared to both the music training and no-treatment control groups after the intervention, indicating effects of meditation above and beyond expectancy effects.*

Vugt, Marieke K. van & Heleen A. Slagter. 2014. Control over experience? Magnitude of the attentional blink depends on meditative state. *Consciousness and Cognition* 23. 32–39. doi:10.1016/j.concog.2013.11.001.

*The information processing capacity of the human mind is limited, as is evidenced by the so-called ‘attentional-blink’ deficit. This deficit is believed to result from competition between stimuli for limited attentional resources. Researchers examined to what extent advanced meditators can manipulate their attentional state and control performance on an attentional blink task. Researchers compared the magnitude of the attentional blink between states of focused attention meditation (in which one focuses tightly on an object) and states of open monitoring meditation (in which one is simply aware of whatever comes into experience) in a sample of experienced meditators. Researchers found a smaller attentional blink during open monitoring compared to focused attention meditation due to reduced T1 capture. Of note, this effect was only found for very experienced meditators (on average 10,704h of experience). These data may suggest that very advanced practitioners can exert some control over their conscious experience.*

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

Bègue, Laurent. 2014. Do just-world believers practice private charity? *Journal of Applied Social Psychology* 44(1). 71–76.

*The relationship between belief in a just world and private charity was examined in a representative sample of 805 French people. Participants were given money for their participation to a survey research and had the opportunity to allocate a part of it to an organization supporting victims of aggression. A multiple regression analysis including a selection of relevant covariates indicated that just-world beliefs provided a unique contribution to monetary generosity. The amount of money left for the organization supporting victims was higher among women, and was correlated with participant’s age and educational level. This study provides a behavioral demonstration of the relationship between just-world belief for self and altruistic behavior.*

El Mouden, C., J.-B. Andre, O. Morin & D. Nettle. 2014. Cultural transmission and the evolution of human behaviour: a general approach based on the Price equation. *Journal of Evolutionary Biology* 27(2). 231–241.

doi:10.1111/jeb.12296.

*Transmitted culture can be viewed as an inheritance system somewhat independent of genes that is subject to processes of descent with modification in its own right. Although many authors have conceptualized cultural change as a Darwinian process, there is no generally agreed formal framework for defining key concepts such as natural selection, fitness, relatedness and altruism for the cultural case. Here, researchers present and explore such a framework using the Price equation. Assuming an isolated, independently measurable culturally transmitted trait, researchers show that cultural natural selection maximizes cultural fitness, a distinct quantity from genetic fitness, and also that cultural relatedness and cultural altruism are not reducible to or necessarily related to their genetic counterparts. Results indicate that antagonistic coevolution will occur between genes and culture whenever cultural fitness is not perfectly aligned with genetic fitness, as genetic selection will shape psychological mechanisms to avoid susceptibility to cultural traits that bear a genetic fitness cost. The authors discuss the difficulties with conceptualizing cultural change using the framework of evolutionary theory, the degree to which cultural evolution is autonomous from genetic evolution, and the extent to which cultural change should be seen as a Darwinian process. The nonselection components of evolutionary change are much more important for culture than for genes, and that this and other important differences from the genetic case mean that different approaches and emphases are needed for cultural than genetic processes.*

Giroto, Vittorio, Telmo Pievani & Giorgio Vallortigara. 2014. Supernatural beliefs: Adaptations for social life or by-products of cognitive adaptations? *Behaviour* 151(2-3). 385–402.

doi:10.1163/1568539X-00003154.

*In this paper, researchers discuss the limits of the traditional view that supernatural beliefs and behaviors are adaptations for social life. Researchers compare it to an alternative hypothesis, according to which supernatural thinking is a secondary effect of cognitive predispositions originally shaped for different adaptive reasons. Finally, the authors discuss the respective role of such predispositions and socio-cultural factors in shaping and promoting the diffusion of supernatural beliefs.*

Hui, C. Harry, Stephanie W.Y. Chan, Esther Y.Y. Lau, Shu-Fai Cheung & Doris Shu Ying Mok. 2014. The role of religion in moderating the impact of life events on material life goals: some evidence in support of terror management theory. *Mental Health, Religion & Culture* 17(1). 52–61.

doi:10.1080/13674676.2012.745494.

*How would religion and a life event carrying an existential threat (LEET) jointly impact a person's life goals of becoming wealthy and successful in one's career? Goal reprioritization, socio-emotional selectivity, and gerotranscendence theories predict a shift away from material goals following a LEET, independent of the effect of religion. However, terror management theory (TMT) predicts that the effect of death thoughts depends on one's prevailing cultural values. As religion can be regarded as a culture, it is possible that Christians' and non-believers' material life goals would be differentially altered by LEET. Data from 1259 young Chinese adults reveal no main effect of LEET, but a strong effect of religion. Moreover, there was an interaction effect between LEET and religion on material life goals: LEET weakened material goals for Christians but not for non-believers. These findings suggest that TMT is more suitable than the other theories for predicting life goal changes.*

Legare, Cristine H & André L Souza. 2014. Searching for control: Priming randomness increases the evaluation of ritual efficacy. *Cognitive Science* 38(1). 152–161.

doi:10.1111/cogs.12077.

*Reestablishing feelings of control after experiencing uncertainty has long been considered a fundamental motive for human behavior. Researchers propose that rituals (i.e., socially stipulated, causally opaque practices) provide a means for coping with the aversive feelings associated with randomness due to the perception of a connection between ritual action and a desired outcome. Two experiments were conducted (one in Brazil [n=40] and another in the United States [n=94]) to evaluate how the perceived efficacy of rituals is affected by feelings of randomness. In a between-subjects design, the Scramble Sentence Task was used as a priming procedure in three conditions (i.e., randomness, negativity, and neutral) and participants were then asked to rate the efficacy of rituals used for problem-solving purposes. The results demonstrate that priming randomness increased participants' perception of ritual efficacy relative to negativity and neutral conditions.*

Neuberg, Steven L., Carolyn M. Warner, Stephen A. Mistler, Anna Berlin, Eric D. Hill, Jordan D. Johnson, Gabrielle Filip-Crawford, et al. 2014. Religion and intergroup conflict: Findings from the Global Group Relations Project. *Psychological Science* 25(1). 198–206.  
doi:10.1177/0956797613504303.

*How might religion shape intergroup conflict? Researchers tested whether religious infusion—the extent to which religious rituals and discourse permeate the everyday activities of groups and their members—moderated the effects of two factors known to increase intergroup conflict: competition for limited resources and incompatibility of values held by potentially conflicting groups. Researchers used data from the Global Group Relations Project to investigate 194 groups (e.g., ethnic, religious, national) at 97 sites around the world. When religion was infused in group life, groups were especially prejudiced against those groups that held incompatible values, and they were likely to discriminate against such groups. Moreover, whereas disadvantaged groups with low levels of religious infusion typically avoided directing aggression against their resource-rich and powerful counterparts, disadvantaged groups with high levels of religious infusion directed significant aggression against them—despite the significant tangible costs to the disadvantaged groups potentially posed by enacting such aggression. This research suggests mechanisms through which religion may increase intergroup conflict and introduces an innovative method for performing nuanced, cross-societal research.*

Norenzayan, Ara. 2014. Does religion make people moral? *Behaviour* 151(2-3). 365–384.  
doi:10.1163/1568539X-00003139.

*The author addresses three common empirical questions about the connection between religion and morality: (1) Do religious beliefs and practices shape moral behavior? (2) Do all religions universally concern themselves with moral behavior? (3) Is religion necessary for morality? The article draws on recent empirical research on religious prosociality to reach several conclusions. First, awareness of supernatural monitoring and other mechanisms found in religions encourage prosociality towards strangers, and in that regard, religions have come to influence moral behavior. Second, religion's connection with morality is culturally variable; this link is weak or absent in small-scale groups, and solidifies as group size and societal complexity increase over time and across societies. Third, moral sentiments that encourage prosociality evolved independently of religion, and secular institutions can serve social monitoring functions; therefore religion is not necessary for morality. Supernatural monitoring and related cultural practices build social solidarity and extend moral concern to strangers as a result of a cultural evolutionary process.*

Oohashi, Tsutomu, Tadao Maekawa, Osamu Ueno, Norie Kawai, Emi Nishina & Manabu Honda. 2014. Evolutionary Acquisition of a Mortal Genetic Program: The Origin of an Altruistic Gene. *Artificial Life* 20(1). 95–110.  
doi:10.1162/artl\_a\_00098.

*As part of work on programmed self-decomposition, researchers formed the hypothesis that originally immortal terrestrial organisms evolve into ones that are programmed for autonomous death. The researchers then conducted evolutionary simulation experiments in which they examined this hypothesis using an artificial ecosystem that*

*researchers designed to resemble a terrestrial ecosystem endowed with artificial chemistry. Notable results corroborating our hypothesis were obtained, which showed that mortal organisms emerged from indigenous immortal organisms through mutation; such mortal organisms survived and left behind offspring, albeit very rarely, and, having survived, surpassed immortal organisms without exception. In this article, the authors report the details of the above findings and also discuss a background framework previously constructed for approaching altruism.*

Ramsay, Jonathan E., Joyce S. Pang, Megan Johnson Shen & Wade C. Rowatt. 2014. Rethinking Value Violation: Priming Religion Increases Prejudice in Singaporean Christians and Buddhists. *International Journal for the Psychology of Religion* 24(1). 1–15.  
doi:10.1080/10508619.2012.761525.

*Ingroup religious priming has been shown to increase prejudice in American Christians, but it is currently unknown whether this effect can be generalized to other religions and cultures. The present research assessed the effects of religious priming on attitudes toward religious and cultural outgroups in Christian and Buddhist students at a Singapore university. Both Christians and Buddhists primed with religious ingroup words demonstrated more negative pretest to posttest attitude change toward homosexuals than those primed with neutral words. This effect remained even when statistically controlling for levels of right-wing authoritarianism and spirituality. These results indicate that religious priming affects Christians and Buddhists in the same way, promoting bias towards culturally relevant outgroups even in the absence of religious value-violation. This suggests that religion may exert its prejudicial effects indirectly through activation of associated cultural value systems, such as traditionalism/conservatism.*

Shariff, Azim F & Lara B Aknin. 2014. The emotional toll of hell: Cross-national and experimental evidence for the negative well-being effects of hell beliefs. *PloS one* 9(1). e85251.  
doi:10.1371/journal.pone.0085251.

*Though beliefs in Heaven and Hell are related, they are associated with different personality characteristics and social phenomena. Here researchers present three studies measuring Heaven and Hell beliefs' associations with and impact on subjective well-being. It is found that that a belief in Heaven is consistently associated with greater happiness and life satisfaction, while a belief in Hell is associated with lower happiness and life satisfaction at the national (Study 1) and individual (Study 2) level. An experimental priming study (Study 3) suggests that these differences are mainly driven by the negative emotional impact of Hell beliefs. Possible cultural evolutionary explanations for the persistence of such a distressing religious concept are discussed.*

Stetler, Cinnamon. 2014. Adherence, expectations and the placebo response: why is good adherence to an inert treatment beneficial? *Psychology & Health* 29(2). 127–140.  
doi:10.1080/08870446.2013.830721.

*The current study sought to better understand why good adherence to a placebo treatment has been reliably associated with health benefits. Researchers proposed a model where initial expectations shape adherence, which then influences subsequent expectations that affect placebo response. Seventy-two participants were told that they were enrolling in a study of physical activity and memory, and were asked to increase their physical activity by 35% for two weeks (placebo treatment). Initial expectations predicted adherence to physical activity, but adherence did not predict subsequent expectations. Testing a multi-step mediational model revealed that initial expectations predicted better memory even after controlling for adherence, subsequent expectations, baseline memory and gender. Stronger expectations for memory improvement predicted better memory performance, but adherence and later expectations did not mediate this association. The author concludes that good adherence to a placebo may reflect strong treatment expectations which may convey benefits by enhancing the non-specific effects of treatment.*

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

Baier, Dirk. 2014. The influence of religiosity on violent behavior of adolescents: A comparison of Christian and Muslim religiosity. *Journal of Interpersonal Violence* 29(1). 102–127.  
doi:10.1177/0886260513504646.

*Different criminological theories assume that religiosity protects against violent behavior. Up to now, this assumption is tested empirically almost exclusively for the Christian religiosity. The study presented here questions whether such a relationship between religiosity and violent behavior could be found for Muslims. Using a German-wide representative school survey of 16,545 male students in the ninth grade, who belong either to a Christian or an Islamic denomination, it is revealed that only for Christians does higher religiosity correlates with a lower rate of violent behavior. This influence of Christian religiosity can be explained by mainly control theory variables. For Muslims, there is no significant correlation between religiosity and violent behavior in a bivariate analysis. A multivariate analysis, however, reveals a suppression effect: Controlling for alcohol consumption, Muslim religiosity increases violent behavior. In addition, high religious Muslims agree more often to norms of masculinity and consume more often media violence, which are risk factors of violent behavior. Accordingly, it can be concluded that religiosity is not a violence-protecting factor in general; instead, a more differentiated view for separate religious groups is necessary.*

Camp, Debbie Van, Lloyd Ren Sloan & Amanda ElBassiouny. 2014. Religious Bias Among Religiously Conscious Black Christians in the United States. *Journal of Social Psychology* 154(1). 4–7.  
doi:10.1080/00224545.2013.835708.

*Research with White participants has demonstrated religious intergroup bias; however, religious identity may be different for Black Americans. Only religiously conscious Black Christians demonstrated a preference for Christian targets over Muslim and Atheist targets.*

Campbell, Maggie & Johanna Ray Vollhardt. 2014. Fighting the good fight: The relationship between belief in evil and support for violent policies. *Personality & Social Psychology Bulletin* 40(1). 16–33.  
doi:10.1177/0146167213500997.

*The rhetoric of good and evil is prevalent in many areas of society and is often used to garner support for “redemptive violence” (i.e., using violence to rid and save the world from evil). While evil is discussed in psychological literature, beliefs about good and evil have not received adequate empirical attention as predictors of violent versus peaceful intergroup attitudes. In four survey studies, researchers developed and tested novel measures of belief in evil and endorsement of redemptive violence. Across four different samples, belief in evil predicted greater support for violence and lesser support for nonviolent responses. These effects were, in most cases, mediated by endorsement of redemptive violence. Structural equation modeling suggested that need for cognitive closure predicts belief in evil, and that the effect of belief in evil on support for violence is independent of right-wing authoritarianism, religious fundamentalism, and dangerous world beliefs.*

Fergus, Thomas A. & Wade C. Rowatt. 2014. Personal Uncertainty Strengthens Associations Between Scrupulosity and Both the Moral Appraisals of Intrusive Thoughts and Beliefs that God is Upset with Sins. *Journal of Social and Clinical Psychology* 33(1). 51–74.  
doi:10.1521/jscp.2014.33.1.51.

*Difficulties tolerating uncertainty are considered central to anxiety disorders. Despite researchers providing indirect evidence for the potential importance of personal uncertainty to obsessive-compulsive disorder (OCD), extant research has focused on how intolerance of informational uncertainty relates to this disorder. In the current study, researchers addressed this gap in the literature by examining the impact of personal uncertainty on a moral/religious subtype of OCD (i.e., scrupulosity) in the present research. In Study 1, community respondents*



*(n=120) completed a personal uncertainty or control manipulation and self-report measures assessing the moral appraisals of intrusive thoughts and scrupulosity. In Study 2, community respondents (n=90) completed a personal uncertainty or control manipulation and self-report measures assessing beliefs that God is upset with sins and scrupulosity. In both studies, personal uncertainty causally strengthened associations between scrupulosity and the targeted criterion. Observed effects were not attributable to religiosity, negative affect, or intolerance of uncertainty. Overall, the present results support the relevancy of personal uncertainty to scrupulosity.*

Hardy, Sam A., Lawrence J. Walker, Joseph A. Olsen, Ryan D. Woodbury & Jacob R. Hickman. 2014. Moral identity as moral ideal self: Links to adolescent outcomes. *Developmental Psychology* 50(1). 45–57.  
doi:10.1037/a0033598.

*The purposes of this study were to conceptualize moral identity as moral ideal self, to develop a measure of this construct, to test for age and gender differences, to examine links between moral ideal self and adolescent outcomes, and to assess purpose and social responsibility as mediators of the relations between moral ideal self and outcomes. Data came from a local school sample (Data Set 1: n=510 adolescents; 10–18 years of age) and a national online sample (Data Set 2: n=383 adolescents; 15–18 years of age) of adolescents and their parents. All outcome measures were parent-report (Data Set 1: altruism, moral personality, aggression, and cheating; Data Set 2: environmentalism, school engagement, internalizing, and externalizing), whereas other variables were adolescent-report. Structural equation models demonstrated that, even after accounting for moral identity internalization, in Data Set 1 moral ideal self positively predicted altruism and moral personality and negatively predicted aggression, whereas in Data Set 2 moral ideal self positively predicted environmentalism and negatively predicted internalizing and externalizing symptoms. Further, purpose and social responsibility mediated most relations between moral ideal self and the outcomes in Data Set 2. Moral ideal self was unrelated to age but differentially predicted some outcomes across age. Girls had higher levels of moral ideal self than boys, although moral identity did not differentially predict outcomes between genders. Thus, moral ideal self is a salient element of moral identity and may play a role in morally relevant adolescent outcomes.*

Harvey, Annelie J. & Mitchell J. Callan. 2014. The role of religiosity in ultimate and immanent justice reasoning. *Personality and Individual Differences* 56. 193–196.  
doi:10.1016/j.paid.2013.08.023.

*Religious teachings endorse notions of ultimate justice (a misfortune is compensated in the long run) and immanent justice (a misfortune is caused by previous misdeeds). The current research examined whether individual differences in observers' religiosity moderated ultimate and immanent justice reasoning in response to an unfortunate accident that occurred to either a good or bad person. Results showed that participants higher in religiosity perceived greater ultimate justice for the victim regardless of his moral worth. Participants higher in religiosity engaged in greater immanent justice reasoning when the victim was bad, but not when he was good. Perceived deservingness of the accident mediated the effect of the victim's moral worth on immanent justice attributions more strongly among participants higher in religiosity.*

Just, Aida, Maria Elena Sandovici & Ola Listhaug. 2014. Islam, religiosity, and immigrant political action in Western Europe. *Social Science Research* 43(1). 127–144.  
doi:10.1016/j.ssresearch.2013.09.005.

*The issues of migration and immigrant political integration in western democracies have become increasingly intertwined with debates on religion, particularly Islam. To date, however, researchers have surprisingly little systematic research on how religious beliefs are related to immigrants' political engagement. In this study, researchers argue that religion has a capacity to mobilize immigrants politically, but the strength of this relationship depends on immigrant generation, religiosity, and the type of religion. Using survey data collected as part of the European Social Survey (ESS) 2002-2010 in 18 West European democracies, the authors' analyses*

*reveal that religion is indeed linked to political engagement of immigrants in a complex way: while belonging to a religion is generally associated with less political participation, exposure to religious institutions appears to have the opposite effect. Moreover, researchers find that, compared to foreign-born Muslims, second-generation Muslim immigrants are not only more religious and more politically dissatisfied with their host countries, but also that religiosity is more strongly linked to their political engagement. This relationship, however, is limited to uninstitutionalized political action.*

- Lindahl, Jared R., Christopher T. Kaplan, Evan M. Winget & Willoughby B. Britton. 2014. A phenomenology of meditation-induced light experiences: Traditional Buddhist and neurobiological perspectives. *Frontiers in Psychology* 4. 973.  
doi:10.3389/fpsyg.2013.00973.

*This paper presents reports of various meditation-induced light experiences derived from American Buddhist practitioners. The reports of light experiences are classified into two main types: discrete lightforms, and patterned or diffuse lights. Similar phenomena are well documented in traditional Buddhist texts but are virtually undocumented in scientific literature on meditation. Within Buddhist traditions, these phenomena are attributed a range of interpretations. However, because it is insufficient and problematic to rely solely upon the textual sources as a means of investigating the cause or significance of these phenomena, these qualitative reports are also considered in relation to scientific research on light-related experiences in the context of sensory deprivation, perceptual isolation, and clinical disorders of the visual system. The typologies derived from these studies also rely upon reports of experiences and closely match typologies derived from the qualitative study of contemporary practitioners and typologies found in Buddhist literary traditions. Taken together, these studies also provide evidence in support of the hypothesis that certain meditative practices—especially those that deliberately decrease social, kinesthetic, and sensory stimulation and emphasize focused attention—have perceptual and cognitive outcomes similar to sensory deprivation. Given that sensory deprivation increases neuroplasticity, meditation may also have an enhanced neuroplastic potential beyond ordinary experience-dependent changes. By providing and contextualizing these reports of meditation-induced light experiences, scientists, clinicians, and meditators gain a more informed view of the range of experiences that can be elicited by contemplative practices.*

- Lu, Long-Chuan, Ya-Wen Huang & Hsiu-Hua Chang. 2014. Confucian Dynamism, the Role of Money and Consumer Ethical Beliefs: An Exploratory Study in Taiwan. *Ethics & Behavior* 24(1). 34–52.  
doi:10.1080/10508422.2013.818921.

*Consumer ethics are the moral principles that guide consumers to determine whether certain consumption behaviors are ethically right or wrong. Whereas cultural and personal dimensions are crucial constructs affecting individual ethical attitudes and behaviors, few studies consider Confucian dynamism and the role of money in consumer ethics. Confucian dynamism, a cultural dimension based on Confucianism, has played a central role in guiding moral obligations and ethics in human relations in several East Asian countries. Thus, this study tested its hypotheses using a sample of 521 respondents obtained via a systematic random sampling technique. The authors find that individuals with a higher tendency to Confucian dynamism are less tolerant of unethical practices. These findings also show that the role of money partially influences consumer ethical beliefs. Finally, researchers examine the impact of demographic variables and find that age and education affect consideration of ethical values.*

- Mammana-Lupo, Vincent, Nathan R. Todd & Jaclyn D. Houston. 2014. The Role of Sense of Community and Conflict in Predicting Congregational Belonging. *Journal of Community Psychology* 42(1). 99–118.  
doi:10.1002/jcop.21596.

*This investigation examines how a sense of community and congregational conflict predict a sense of belonging to one's religious congregation. Based on a national random sample of 86,863 individuals nested in 424*

*congregations, researchers used multilevel logistic regression to test individual, congregational, and cross-level interactive effects. Findings revealed that sense of community dimensions of membership, influence, and emotional connections positively predicted belonging at the individual level, whereas fulfillment of spiritual needs positively predicted belonging at both individual and congregational levels. Conflict also predicted belonging; however, conflict negatively predicted belonging at the individual level and positively predicted belonging at the congregational level. Congregational conflict also moderated two associations between (a) belonging and influence and (b) belonging and emotional connection such that associations were stronger and more positive in the presence of greater conflict.*

- Noll, Jolanda van der. 2014. Religious toleration of Muslims in the German Public Sphere. *International Journal of Intercultural Relations* 38. 60–74.  
doi:10.1016/j.ijintrel.2013.01.001.

*This study investigates public resistance towards Muslims' civil liberties, such as the wearing of headscarves, the provision of Islamic education and the building of mosques, as well as the official recognition of Islam by creating a Islamic public holiday. Explanations were sought in negative perceptions and attitudes towards Muslims and individual value orientations. The main findings, based on German 2009 survey data, are (1) that people differentiate between what they are asked to support, (2) that support for such restrictions exists among people with a negative as well as among people with a positive attitude towards Muslims, and (3) that individual value orientations have an independent effect on perceptions and attitudes towards Muslims and support for Muslims' civil liberties. The results of this study contribute to the understanding of the relation between prejudice and tolerance, as well as the current debates about practicing Islam in Western societies.*

- Oda, Ryo, Wataru Machii, Shinpei Takagi, Yuta Kato, Mia Takeda, Toko Kiyonari, Yasuyuki Fukukawa & Kai Hiraishi. 2014. Personality and altruism in daily life. *Personality and Individual Differences* 56. 206–209.  
doi:10.1016/j.paid.2013.09.017.

*Personality may be among the factors contributing to individual differences in altruism. Given that explanations of altruistic behavior differ according to the relationship between actors and recipients, the personality traits contributing to altruistic behavior may differ according to the relationship between the parties involved. However, few studies on the effect of personality on altruism have examined the relationship between donor and recipient, and no study has addressed altruistic behavior in daily life. Researchers employed the Self-Report Altruism Scale Distinguished by the Recipient, which was newly developed to evaluate altruism among Japanese undergraduates, to investigate the relationship between the Big-Five personality traits and the frequency of altruistic behaviors toward various recipients (family members, friends or acquaintances, and strangers) in daily life. With the exception of extraversion, which commonly contributed to altruistic behavior toward all three types of recipients, the particular traits that contributed to altruism differed according to recipient. Conscientiousness contributed to altruism only toward family members, agreeableness contributed to altruism only toward friends/acquaintances, and openness contributed to altruism only toward strangers.*

- Sibley, Chris G. & Joseph A. Bulbulia. 2014. How Do Religious Identities and Basic Value Orientations Affect Each Other Over Time? *International Journal for the Psychology of Religion* 24(1). 64–76.  
doi:10.1080/10508619.2013.771600.

*Religion and values appear to be related, but their causal underpinnings remain unclear. To evaluate causality, researchers analyzed data from 1,571 religious people who formed part of a broader longitudinal national probability sample conducted in New Zealand. First, it was found that religious identification predicted change in conservative/tradition values. Specifically, those low in religious identification at Time 1 became lower in conservative/tradition values at Time 2, whereas those high in religious identification at Time 1 became higher in conservative/tradition values at Time 2. Religious identification was not associated with change in other value*

*domains. Second, openness values predicted change in religious identity. Specifically, those low in openness values at Time 1 became higher in religious identification at Time 2, whereas those high in openness values at Time 1 became lower in their religious identification at Time 2. Only openness values were associated with changes in religious identification. Third, the random components in our multilevel models were not significant, indicating that these cross-lagged effects were comparable across the religious denominations of an entire country.*

Swan, Lawton K., Martin Heesacker, Daniel J. Snipes & Paul B. Perrin. 2014. Social Perceptions of Religiosity: Dogmatism Tarnishes the Religious Halo. *International Journal for the Psychology of Religion* 24(1). 16–27.  
doi:10.1080/10508619.2012.761470.

*Researchers have provided much evidence in support of a religious halo effect—the tendency for people to evaluate a religious target more favorably than a nonreligious counterpart. This experimental study (n=361 U.S. adults) extended previous work beyond the dichotomy of religious versus nonreligious by varying a fictional target’s degree of belief. Only religious participants exhibited a nonspecific pro-religious bias consistent with the religious halo effect, favoring religious over not religious and very over somewhat religious targets. However, indicators of dogmatic thinking (e.g., I am so sure I am right about the important things in life, there is no evidence that could convince me otherwise) degraded target evaluations by religious and nonreligious participants alike. Results suggest that religiosity’s positive associations depend upon an assumption of strong but flexible belief and underscore the importance of studying social perceptions of religious fundamentalists.*

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

Inchausti, Felix, Gerardo Prieto & Ana R. Delgado. 2014. Rasch analysis of the Spanish version of the Mindful Attention Awareness Scale (MAAS) in a clinical sample. *Revista de Psiquiatría y Salud Mental (English Edition)* 7(1). 32–41.  
doi:10.1016/j.rpsmen.2013.07.001.

*The clinical use of mindfulness has increased recently, and the Mindful Attention Awareness Scale (MAAS) has become one of the most used tools to measure it. The aim of this study was to test the effectiveness of mindfulness training and to analyze the psychometric properties of the MAAS scores in a clinical sample using the Rasch Model. One hundred and ninety-nine participants with mood-anxiety clinical symptoms were recruited. The experimental group (n=103) received mindfulness training, and the control group (n=96) a conventional outpatient treatment for the same duration. The pre–post MAAS scores were analyzed to test the effectiveness of training, the psychometric properties of the scores, and differential item functioning (DIF) using the Rating Scale Model (RSM). Misfit in items 9 and 12, DIF in item 9, and Spanish translation problems in the items 5, 9 and 12 were observed. The repetition of the analysis without these items was decided. Appropriate dimensionality, fit and reliability values were obtained with the short version, MAAS-12. Contrary to previous studies, the MAAS was sensitive to treatment-associated change. However, the commonly used MAAS has some translation and metric problems, and should be revised. MAAS-12 is a better scale than MAAS but suffers from construct under-representation. Constructing tools from a coherent theoretical perspective is suggested, so that all mindfulness facets are represented.*

## PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

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

Asubiaro, Olayinka Yetunde & Adesegun Olayiwola Fatusi. 2014. Differential effects of religiosity on sexual initiation among Nigerian in-school adolescents. *International Journal of Adolescent Medicine and Health* 26(1). 93–100.  
doi:10.1515/ijamh-2012-0118.

*This study examined the influence of religiosity on sexual debut among 1,350 adolescents in Lagos State, Nigeria. Of the participants, 19.8% of the females and 26.6% of the males have had sex. Internal religiosity was protective against sexual debut among females, whereas external religiosity was protective among the males. Age was positively associated with sexual debut among both male and female adolescents. Early pubertal development was also a risk factor for male adolescent sexual initiation. In addition, knowledge of HIV/AIDS risk was a protective factor against sexual debut among adolescent females, whereas the positive perspective of friends' involvement in sex was a risk factor.*

Blom, Kimberly, Brian Baker, Maxine How, Monica Dai, Jane Irvine, Susan Abbey, Beth L. Abramson, et al. 2014. Hypertension Analysis of Stress Reduction Using Mindfulness Meditation and Yoga: Results From the HARMONY Randomized Controlled Trial. *American Journal of Hypertension* 27(1). 122–129.  
doi:10.1093/ajh/hpt134.

*The HARMONY study was a randomized, controlled trial examining the efficacy of an 8-week mindfulness-based stress reduction (MBSR) program for blood pressure (BP) lowering among 101 unmedicated stage 1 hypertensive participants. Participants diagnosed with stage 1 hypertension based on ambulatory BP were randomized to either immediate treatment of MBSR for 8 weeks or wait-list control. At week 12, there were no significant differences between intervention and wait-list control for all ambulatory BP parameters. The secondary within-group analysis found a small reduction in BP after MBSR compared with baseline, a finding limited to female subjects in a sex analysis.*

Branco, Kenneth & Julia Crane. 2014. Religiousness, coping styles, and situational optimism among nursing home residents. *Journal of Religion, Spirituality & Aging* 26(1). 2–21.  
doi:10.1080/15528030.2013.807485.

*This study explored relationships between optimism and ways of coping among nursing home residents (n=1347) in the United States. Realistic optimists used approach coping and drew strength from faith. Unrealistic optimists were more likely to be African American. Unrealistic pessimists used avoidance coping, had greater activities of daily living (ADL) impairment, and more medical conditions. Nursing home religious activities were associated with a lower probability of unrealistic pessimism. Prior church attendance interacted with ADL impairment to increase the probability of unrealistic pessimism.*

Casellas-Grau, Anna, Antoni Font & Jaume Vives. 2014. Positive psychology interventions in breast cancer. A systematic review: Positive interventions in breast cancer. *Psycho-Oncology* 23(1). 9–19.  
doi:10.1002/pon.3353.

*This systematic review synthesizes evidence about positive psychology interventions utilized in breast cancer. Only those papers focused on interventions related to positive psychology and carried out on breast cancer patients were included. Of the 7266 articles found through databases, 16 studies were finally included in this review. Five groups of therapies were found: mindfulness-based approaches, expression of positive emotions, spiritual interventions, hope therapy, and meaning-making interventions. These specific interventions promoted positive*

*changes in breast cancer participants, such as enhanced quality of life, well-being, hope, benefit finding, or optimism. However, the disparity of the interventions and some methodological issues limit the outcomes.*

- Chen, Chiang-Ming. 2014. The influence of religious affiliation on heavy drinking, heavy smoking and heavy betel nut chewing. *Addictive Behaviors* 39(1). 362–364.  
doi:10.1016/j.addbeh.2013.10.003.

*The purpose of this paper is to empirically investigate whether drinking, smoking and betel-nut chewing are influenced by a variety of religions based on Taiwan data. The results of a national survey of determinants of drinking, smoking and betel-nut chewing behaviors are analyzed. Results suggest that Buddhism, Taoism and practitioners of Chinese folk religion are positively associated with heavy betel nut chewing while the religion effects on heavy smoking and drinking are statistically insignificant.*

- Fleisher, Kimberly A., Elizabeth R. Mackenzie, Eitan S. Frankel, Christina Seluzicki, David Casarett & Jun J. Mao. 2014. Integrative reiki for cancer patients: a program evaluation. *Integrative Cancer Therapies* 13(1). 62–67.  
doi:10.1177/1534735413503547.

*This mixed methods study sought to evaluate the outcomes of an integrative Reiki volunteer program in an academic medical oncology center setting. Researchers used de-identified program evaluation data to perform both quantitative and qualitative analyses of participants' experiences of Reiki sessions. Qualitative data were derived from written responses to open-ended questions asked after each Reiki session and were analyzed for key words and recurring themes. Of the 213 pre-post surveys of first-time sessions in the evaluation period, researchers observed a more than 50% decrease in self-reported distress, anxiety, depression, pain, and fatigue. Using conservative estimates that treat missing data as not endorsing Reiki, researchers found 176 (82.6%) of participants liked the Reiki session, 176 (82.6%) found the Reiki session helpful, 157 (73.7%) plan to continue using Reiki, and 175 (82.2%) would recommend Reiki to others. Qualitative analyses found that individuals reported that Reiki induced relaxation and enhanced spiritual well-being.*

- Hagins, Marshall, Andrew Rundle, Nathan S. Consedine & Sat Bir S. Khalsa. 2014. A Randomized Controlled Trial Comparing the Effects of Yoga With an Active Control on Ambulatory Blood Pressure in Individuals With Prehypertension and Stage 1 Hypertension. *Journal of Clinical Hypertension* 16(1). 54–62.  
doi:10.1111/jch.12244.

*The purpose of this study was to compare the effects of yoga with an active control (nonaerobic exercise) in individuals with prehypertension and stage 1 hypertension. A randomized clinical trial was performed using two arms: (1) yoga and (2) active control. Primary outcomes were 24-hour day and night ambulatory systolic and diastolic blood pressures. Within-group and between-group analyses were performed using paired t tests and repeated-measures analysis of variance (time  $\times$  group), respectively. Eighty-four participants enrolled, with 68 participants completing the trial. Within-group analyses found 24-hour diastolic, night diastolic, and mean arterial pressure all significantly reduced in the yoga group but no significant within-group changes in the active control group. Direct comparisons of the yoga intervention with the control group found a single blood pressure variable (diastolic night) to be significantly different.*

- Hayward, R David & Neal Krause. 2014. The effect of belonging to an alcohol-proscribing religious group on the relationship between moderate alcohol consumption and mortality. *Social Science & Medicine* (1982) 101. 1–8.  
doi:10.1016/j.socscimed.2013.10.039.

*This study examined whether belonging to a religious group that proscribes alcohol use moderated the relationship between moderate alcohol use and mortality. Data came from the Americans' Changing Lives study, based on a*

*representative probability sample of adults 25 and older in the US, including 3,390 participants. Survey data were collected in 1986, and mortality tracked by death certificate through 2005. Proportional hazards modeling indicated that, consistent with previous research, moderate alcohol consumption (two drinks or fewer per day on average) was related with lower mortality compared with both total abstention from alcohol and heavy consumption (more than two drinks per day) among participants who did not belong to an alcohol-proscribing group. By contrast, moderate drinkers who belonged to alcohol-proscribing groups had higher mortality risk compared with non-drinkers. Means comparisons suggested possible group differences including health behaviors (moderate drinkers in proscribing groups drank somewhat less often but more on each occasion and were more likely to smoke) and social relationships (they had fewer close friends, felt more isolated, and had more negative social interactions).*

Krause, Neal & R David Hayward. 2014. Religious Music and Health in Late Life: A Longitudinal Investigation. *International Journal for the Psychology of Religion* 24(1). 47–63.  
doi:10.1080/10508619.2012.761529.

*The purpose of this study is to test a conceptual model that specifies one way in which religious music may be associated with change in health over time. This model contains the following core relationships: (1) people who attend worship services more often will have stronger emotional reactions to religious music; (2) individuals who are more emotionally involved in religious music will be more likely to feel a close sense of connectedness with other people; (3) people who feel more closely connected with others will be more hopeful about the future; and (4) individuals who feel more hopeful will be more likely to rate their health in a favorably over time. The data provide support for each of these relationships. Significant variations by race were also observed in the findings.*

Kristiansen, Maria, Tasneem Irshad, Allison Worth, Raj Bhopal, Julia Lawton & Aziz Sheikh. 2014. The practice of hope: a longitudinal, multi-perspective qualitative study among South Asian Sikhs and Muslims with life-limiting illness in Scotland. *Ethnicity & Health* 19(1). 1–19.  
doi:10.1080/13557858.2013.858108.

*Researchers explored the role of faith and religious identities in shaping end of life experiences in South Asian Muslims and Sikhs with life-limiting illnesses. Using interview data among South Asian Sikhs and Muslims in Scotland (25 participants, 15 family members and 20 health care professionals), researchers found that hope emerged as a central construct in the accounts of illness constructed by the participants as they struggled to make sense of and uphold a meaningful life. Clinical encounters and, for some, religious beliefs served as sources of hope for participants. Hope unfolded as an active process that enabled them to live with the personal and in particular the social ramifications of their illness. Changing images of hope were formulated and reflected as illness progressed or treatments failed. These ranged from hoping for cure, prolonged life, the regaining of lost capabilities needed to fulfil social roles, or at times death when suffering and the consequences for the family became too hard to bear. C*

Mocini, Mahin, Fariba Taleghani, Tayebeh Mehrabi & Amir Musarezaie. 2014. Effect of a spiritual care program on levels of anxiety in patients with leukemia. *Iranian Journal of Nursing and Midwifery Research* 19(1). 88–93.

*This study was hence performed to determine the effects of a spiritual care program on anxiety of patients with leukemia. This randomized clinical trial was conducted in Syyed-Al-Shobada Hospital affiliated to Isfahan University of Medical Sciences (Isfahan, Iran) in 2012. Sixty four adult patients with leukemia were randomly divided into the experiment and control groups. The spiritual care program including supportive presence and support for religious rituals was implemented for 3 days. Anxiety subscale from the 42-item depression, anxiety and stress scale was completed before and after the intervention for both groups. There was no significant difference between the two groups before the intervention. However, after the intervention, mean score of anxiety were significantly lower in the experiment group than in the control group. There was also a significant difference in the scores of the experiment group before and after the intervention. Such a difference was absent in the control group.*

Piderman, Katherine M., Mary E. Johnson, Marlene H. Frost, Pamela J. Atherton, Daniel V. Satele, Matthew M. Clark, Maria I. Lapid, Jeff A. Sloan & Teresa A. Rummans. 2014. Spiritual quality of life in advanced cancer patients receiving radiation therapy. *Psycho-Oncology* 23(2). 216–221. doi:10.1002/pon.3390.

*The aim of this randomized controlled trial for patients with advanced cancer receiving radiation therapy was to determine the effect of a multidisciplinary intervention on spiritual quality of life (QOL) at the end of the intervention (week 4) and at two follow-up time points (weeks 26 and 52). One hundred thirty-one persons were randomized to either the intervention or control (forms only) groups. The intervention included six 90-min in-person sessions based on the physical, emotion, social, and spiritual domains of QOL. Following the intervention, the intervention group demonstrated improved spiritual QOL on the FACIT-Sp, whereas the spiritual QOL of the control group decreased, resulting in significant mean changes between groups. Results indicate that a multidisciplinary intervention which includes a spiritual component can maintain the spiritual QOL of patients with advanced cancer during radiation therapy.*

Rider, Katie A, Deanne J Terrell, Timothy A Sisemore & Janet E Hecht. 2014. Religious coping style as a predictor of the severity of anorectic symptomology. *Eating Disorders* 22(2). 163–179. doi:10.1080/10640266.2013.864890.

*A review of the literature concerning the relationship between anorexia nervosa (AN) and religion reveals two disparate themes: religion as a cultivator of AN, and religion as a recovery benefactor. The purpose of the present study was to address this discrepancy by exploring one factor (religious coping style) suspected to influence the role religion assumes in the lives of individuals with AN. A sample of 134 women who self-identified as having received an AN diagnosis completed measures of religious coping style and anorectic symptomology. Analyses revealed that religious coping style significantly predicted severity of anorectic symptomology.*

Schellekens, Melanie P. J., Desiree G. M. van den Hurk, Judith B. Prins, Johan Molema, A. Rogier T. Donders, Willem H. Woertman, Miep A. van der Drift & Anne E. M. Speckens. 2014. Study protocol of a randomized controlled trial comparing Mindfulness-Based Stress Reduction with treatment as usual in reducing psychological distress in patients with lung cancer and their partners: the MILON study. *BMC cancer* 14. 3. doi:10.1186/1471-2407-14-3.

*This article describes the study protocol of the MILON study, which will investigate the effectiveness of MBSR versus treatment as usual (TAU) in patients with lung cancer and their partners. A parallel group, randomized controlled trial is conducted to compare MBSR with TAU. Lung cancer patients who have received or are still under treatment, and their partners are recruited. Assessments will take place at baseline, post intervention and at three-month follow-up. The primary outcome is psychological distress (i.e., anxiety and depressive symptoms). Secondary outcomes are quality of life (only for patients), caregiver appraisal (only for partners), relationship quality and spirituality. In addition, cost-effectiveness ratio (only in patients) and several process variables are assessed. This trial will provide information about the clinical and cost-effectiveness of MBSR compared to TAU in patients with lung cancer and their partners.*

Sodhi, Candy, Sheena Singh & Amit Bery. 2014. Assessment of the Quality of Life in Patients with Bronchial Asthma, Before and After Yoga: a Randomised Trial. *Iranian Journal of Allergy Asthma and Immunology* 13(1). 55–60.

*The objective of this study was to assess the effect of yoga on quality of life in patients with bronchial asthma. 120 non-smoking male and female patients of asthma in the age group of 17-50 years were randomized into two groups: Group A (Yoga group), and Group B (control group). All patients remained on their prescribed medication, but Group A patients practiced yoga breathing exercises for 8 weeks. Group A subjects showed a*



*statistically significant improvement in “symptoms”, “activities” and “environmental” domains of AQLQ at 8 weeks and significant reduction in daily number and severity of attacks, and the dosage of medication required at 4 and 8 weeks compared to the baseline. Yoga breathing exercises used adjunctively with standard pharmacological treatment significantly improved quality of life in patients with bronchial asthma.*

- Sullivan, Susan Crawford & Renée L. Beard. 2014. Faith and forgetfulness: The role of spiritual identity in preservation of self with Alzheimer’s. *Journal of Religion, Spirituality & Aging* 26(1). 65–91.  
doi:10.1080/15528030.2013.811462.

*Since research on religion has historically employed a psychological framework of coping, sociocultural influences on illness identities are not well understood. This article explores the role of religion/spirituality in a diverse sample of seniors dealing with Alzheimer’s. Interviews with 75 affected elders reveal that faith can promote “strength and hope,” “never feeling alone,” “remembering,” “keeping a positive attitude,” “contentment,” and “social and interpersonal benefits.” This protective aspect of religious identities suggests views of self that are far less compromised and of dementia that are far less medicalized in this predominantly African American sample than previous studies with white counterparts report.*

- Toise, Stefanie C. F., Samuel F. Sears, Mark H. Schoenfeld, Mark L. Blitzer, Mark A. Marieb, John H. Drury, Martin D. Slade & Thomas J. Donohue. 2014. Psychosocial and Cardiac Outcomes of Yoga for ICD Patients: A Randomized Clinical Control Trial. *Pace: Pacing and Clinical Electrophysiology* 37(1). 48–62.  
doi:10.1111/pace.12252.

*Because as many as 46% of implantable cardioverter defibrillator (ICD) patients experience clinical symptoms of shock anxiety, this randomized controlled study evaluated the efficacy of adapted yoga (vs. usual care) in reducing clinical psychosocial risks shown to impact morbidity and mortality in ICD recipients. Forty-six participants were randomized to a control group or an 8-week adapted yoga group that followed a standardized protocol with weekly classes and home practice. Total shock anxiety decreased for the yoga group and increased for the control group, with significant differences between these changes. Similarly, consequential anxiety decreased for the yoga group but increased for the control group. Compared to the control, the yoga group had greater overall self-compassion and greater mindfulness at the end of the study. Exploratory analyses revealed that the expected number of device-treated ventricular (DTV) events in the yoga group was significantly lower than in the control group. Compared to the control, the yoga group had a 32% lower risk of experiencing device-related firings at end of follow-up.*

- Wagoner, Nicholas Van, Michael Mugavero, Andrew Westfall, John Hollimon, Larry Z. Slater, Greer Burkholder, James L. Raper & Edward W. Hook. 2014. Church Attendance in Men Who Have Sex With Men Diagnosed With HIV Is Associated With Later Presentation for HIV Care. *Clinical Infectious Diseases* 58(2). 295–299.  
doi:10.1093/cid/cit689.

*Researchers demonstrate an interdependent relationship between sexual behavior and church attendance on timing of human immunodeficiency virus (HIV) diagnosis and presentation for care. Men who have sex with men (MSM) and who attend church are more likely to present with lower CD4(+) T-lymphocyte counts than MSM who do not attend church.*

- Winter, Torsten, Sakari Karvonen & Richard J Rose. 2014. Associations between Sexual Abstinence Ideals, Religiosity, and Alcohol Abstinence: A Longitudinal Study of Finnish Twins. *Journal of sex research* 51(2). 197–207.  
doi:10.1080/00224499.2012.721098.

Researchers analyzed prevalence and stability of attitudes endorsing sexual abstinence ideals from late adolescence into early adulthood and studied associations of these attitudes with religiosity and alcohol abstinence in a sexually liberal Nordic society. A population-based sample of Finnish twins permitted comparisons of co-twins concordant for religiosity but discordant for drinking to evaluate the association of sexual abstinence ideals with alcohol abstinence, controlling for household environment. From age 17 to 24, endorsement of sexual abstinence as a romantic ideal declined from 25% to 15%. Religiosity and alcohol abstinence correlated, both separately and together, with endorsing sexual abstinence. Abstinence ideals were associated with literal belief in fundamental tenets of the Bible. The association of sexual abstinence ideals with alcohol abstinence was confirmed in within-family comparisons of co-twins discordant for drinking but concordant for religiosity. Alcohol-abstinent twins were significantly more likely than their non-alcohol-abstinent twin siblings to endorse sexual abstinence ideals; that result suggests the association of sexual abstinence ideals with abstaining from alcohol is not explained by unmeasured confounds in familial background and structure.

Woods, N. F., E. S. Mitchell, J. G. Schnall, L. Cray, R. Ismail, L. Taylor-Swanson & A. Thomas. 2014. Effects of mind-body therapies on symptom clusters during the menopausal transition. *Climacteric* 17(1). 10–22.

doi:10.3109/13697137.2013.828198.

Although most women experience symptom clusters during the menopausal transition and early postmenopause, investigators reporting clinical trial effects for hot flushes often omit co-occurring symptoms. The aim of this study was to review controlled clinical trials of mind-body therapies for hot flushes and at least one other co-occurring symptom from these groups: sleep, cognitive function, mood, and pain. Of 1,193 abstracts identified, 58 trials examining effectiveness of therapies for hot flushes and at least one additional co-occurring symptom of interest were identified. Eight trials (ten publications) examined relaxation, yoga, or exercise. Physical activity/exercise trials (six) yielded mixed results; only one significantly reduced hot flushes and mood symptoms. Of two relaxation therapy trials, only mindfulness-based stress reduction training reduced sleep and mood symptoms and had within-group treatment effects on hot flushes. Yoga (one trial) significantly reduced hot flushes and improved cognitive symptoms more than exercise, and also had within-group effects on sleep and pain symptoms.

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

Abdel-Khalek, Ahmed M. 2014. Happiness, health, and religiosity: Significant associations among Lebanese adolescents. *Mental Health, Religion & Culture* 17(1). 30–38.

doi:10.1080/13674676.2012.742047.

The present study sought to test for an association between, and sex-related differences in, happiness, health, and religiosity. A sample of 239 Lebanese adolescents was recruited. They responded to the Oxford Happiness Inventory, the Satisfaction with Life Scale, the Love of Life Scale as well as five self-rating scales to assess happiness, satisfaction, mental health, physical health, and religiosity. Boys obtained a higher mean score on mental health than did their female counterparts. All the Pearson correlations between the study scales were significant and positive but two. Principal components analysis yielded two salient components in boys and labelled “Happiness”, and “Religiosity and health”. In girls, only one component was retained, and labelled “Happiness, health, and religiosity.” It was concluded that those consider themselves as enjoying happiness, experienced good mental and physical health and more religious.

Aghababaei, Naser, Jason Adam Wasserman & Drew Nannini. 2014. The religious person revisited: cross-cultural evidence from the HEXACO model of personality structure. *Mental Health, Religion & Culture* 17(1). 24–29.

doi:10.1080/13674676.2012.737771.

*The relationship of religiousness with the HEXACO (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, Openness) model of personality was studied in Iran and the United States. Correlations of personality factors and religiousness were generally similar across the two societies. In both countries, religiousness was associated with higher scores on Honesty-Humility, Extraversion, Agreeableness, and Conscientiousness. The Honesty-Humility factor was one of the strongest correlates of religiousness in both countries. These findings support Saroglou's observation that the main personality characteristics of religiousness are consistent across different religious contexts and personality measures and models.*

- Appel, Hoa B., Amy L. Ai, Bu Huang & Ethel Nicdao. 2014. Detrimental Effects of Discrimination on Mental Health in Asian Americans: Counteracting Roles of Religious Involvement. *International Journal for the Psychology of Religion* 24(1). 28–46.  
doi:10.1080/10508619.2012.761524.

*Few studies have examined the role of religious involvement as a potential protective factor in the mental health of Asian Americans. Using the first national sample from the National Latino and Asian American Study (2002–2003), this study explored the direct effect of religious attendance on the diagnosis of generalized anxiety disorder and self-rated mental health in Asian Americans (n=2,095), above and beyond that of discrimination and acculturation factors. Hierarchical regression models associated (a) gender and discrimination with generalized anxiety disorder, and (b) gender, employment status, English proficiency, and discrimination with self-rated mental health. Including religious attendance added explanatory power to both models, indicating its influence on mental health. There was no interaction between religious attendance and discrimination, suggesting a suppressing rather than stress-buffering effect of religious attendance. These patterns suggest future investigation in the relationship between religious involvement and mental health in relation to subcultural differences among Asian Americans.*

- Bos, Elisabeth H., Ria Merea, Erik van den Brink, Robbert Sanderman & Agna A. Bartels-Velthuis. 2014. Mindfulness Training in a Heterogeneous Psychiatric Sample: Outcome Evaluation and Comparison of Different Diagnostic Groups: Mindfulness in a Heterogeneous Sample. *Journal of Clinical Psychology* 70(1). 60–71.  
doi:10.1002/jclp.22008.

*This article examines patient outcomes after mindfulness training in a heterogeneous psychiatric outpatient population and compares outcome in different diagnostic groups. One hundred and forty-three patients in 5 diagnostic categories completed questionnaires about psychological symptoms, quality of life, and mindfulness skills prior to and immediately after treatment. The mixed patient group as a whole improved significantly on all outcome measures. Differential improvement was found for different diagnostic categories with respect to psychological symptoms and quality of life: bipolar patients did not improve significantly on these measures. This finding could be explained by longer illness duration and lower baseline severity in the bipolar category.*

- Caldeira, Sílvia, Emilia Campos de Carvalho & Margarida Vieira. 2014. Between spiritual wellbeing and spiritual distress: possible related factors in elderly patients with cancer. *Revista latino-americana de enfermagem* 22(1). 28–34.  
doi:10.1590/0104-1169.3073.2382.

*This article describes the assessment of the spiritual wellbeing of elderly patients with cancer submitted to chemotherapy and possible predictive factors of the spiritual distress diagnosis. Forty-five elderly patients participated in this study. The prevalence of spiritual distress was of 42%; 24.4% of the elderly patients were under anti-depressant medication. A significant association was noted between spiritual distress, anti-depressant medication and level of education.*

- El Ansari, Walid, Rene Sebens & Christiane Stock. 2014. Do Importance of Religious Faith and Healthy Lifestyle Modify the Relationships Between Depressive Symptoms and Four Indicators of Alcohol Consumption? A Survey of Students Across Seven Universities in England, Wales, and Northern Ireland. *Substance Use & Misuse* 49(3). 211–220.  
doi:10.3109/10826084.2013.824476.

*Researchers examined the associations between depressive symptoms and four indicators of alcohol consumption (high frequency of drinking, frequency of heavy episodic drinking, problem drinking, and possible alcohol dependence) in 3,220 students at seven UK universities. Controlling for demographic variables, depressive symptoms were positively associated with problem drinking and possible alcohol dependence for both genders. Religiosity was negatively associated with frequency of drinking and heavy episodic drinking among both genders, while healthy lifestyle was not associated with any of the four measures of alcohol consumption among both genders. No evidence suggested that either religiosity or healthy lifestyle modified the relationships between depressive symptoms and any of the four measures of alcohol consumption. This study shows a link between hazardous drinking and mental ill health and suggests religiosity as a protective factor for high alcohol consumption.*

- Kasen, Stephanie, Priya Wickramaratne & Marc J Gameroff. 2014. Religiosity and longitudinal change in psychosocial functioning in adult offspring of depressed parents at high risk for major depression. *Depression and Anxiety* 31(1). 63–71.  
doi:10.1002/da.22131.

*In this study, offspring selected for having a depressed parent and offspring of nondepressed parents were evaluated for lifetime major depressive disorder (MDD) in childhood and adolescence, and at 10-year (T10) and 20-year (T20) follow-ups. Relations between self-reported religiosity at T10 and longitudinal change in psychosocial function from T10 to T20 were examined separately in 109 daughters and 76 sons by risk status. Lifetime MDD was diagnosed in 57.8% of daughters and 40.8% of sons by T20. Among daughters, only those with lifetime MDD showed improved psychosocial functioning in relation to higher level of service attendance at T10, their mean GAS score improving by 3.5 points over the next decade. For daughters with and without lifetime MDD, relations between higher levels of religiosity and improved psychosocial function were of greater magnitude in those with a depressed parent. Among sons, only those with lifetime MDD showed improved psychosocial function in relation to higher level of religious/spiritual importance; that relation was of greater magnitude in sons with both lifetime MDD and a depressed parent.*

- Martínez, Beatriz Bertolaccini & Rodrigo Pereira Custódio. 2014. Relationship between mental health and spiritual wellbeing among hemodialysis patients: A correlation study. *São Paulo medical journal=Revista paulista de medicina* 132(1). 23–27.  
doi:10.1590/1516-3180.2014.1321606.

*The purpose of this study was to evaluate the relationship between mental health and spiritual well-being among 150 hemodialysis (HD) patients. A significant correlation was found between mental health and spiritual wellbeing. Spiritual wellbeing was the strongest predictor of mental health, psychological distress, sleep disturbance and psychosomatic complaints.*

- Ngamaba, Kayonda Hubert. 2014. Religious leaders' perceptions of their emotional and psychological needs. *Mental Health, Religion & Culture* 17(1). 62–78.  
doi:10.1080/13674676.2012.746654.

*This study investigates religious leaders' perceptions of their emotional and psychological needs using a qualitative Interpretative Phenomenological Analysis design consisting of semi-structured in-depth interviews. This study found that there are different factors contributing to becoming a religious leader; the participants are seeing their profession as a vocation, a job, a service, a calling but not as a career. Participants indicated having emotional*

*problems but also having strong commitment to continue their work. Religious leaders are shown to have role conflicts and are not finding it easy to maintain their relationships. Participants used different coping strategies to overcome their emotional problems.*

Saavedra, Javier. 2014. Function and meaning in religious delusions: a theoretical discussion from a case study. *Mental Health, Religion & Culture* 17(1). 39–51.  
doi:10.1080/13674676.2012.745493.

*This study uses a qualitative methodology to analyze a religious delusion complex in situ during a narrative interview with a person with paranoid schizophrenia. On the basis of this analysis researchers suggest that the functions and meanings of religious beliefs within the patient's narrative and cultural context require analysis before they can be categorized as delusive.*

Soler, Joaquim, Ausiàs Cebolla, Albert Feliu-Soler, Marcelo M P Demarzo, Juan C Pascual, Rosa Baños & Javier García-Campayo. 2014. Relationship between Meditative Practice and Self-Reported Mindfulness: The MINDSENS Composite Index. *PLoS one* 9(1). e86622.  
doi:10.1371/journal.pone.0086622.

*The present study explores the role of practice parameters on self-reported mindfulness skills. A total of 670 voluntary participants with and without previous meditation experience (n=384 and n=286, respectively) responded to an internet-based survey on various aspects of their meditative practice (type of meditation, length of session, frequency, and lifetime practice). Participants also completed the Five Facets Mindfulness Questionnaire (FFMQ), and the Experiences Questionnaire (EQ). The group with meditation experience obtained significantly higher scores on all facets of FFMQ and EQ questionnaires compared to the group without experience. However, different effect sizes were observed, with stronger effects for the Observing and Non-Reactivity facets of the FFMQ, moderate effects for Decentering in EQ, and a weak effect for Non-judging, Describing, and Acting with awareness on the FFMQ. Results indicate that not all practice variables are equally relevant in terms of developing mindfulness skills. Frequency and lifetime practice, but not session length or meditation type, were associated with higher mindfulness skills.*

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

Kuczewski, Mark G, Michael P McCarthy, Aaron Michelfelder, Emily E Anderson, Katherine Wasson & Lena Hatchett. 2014. “I Will Never Let That Be OK Again”: Student Reflections on Competent Spiritual Care for Dying Patients. *Academic Medicine* 89(1). 54–59.  
doi:10.1097/ACM.0000000000000057.

*In 2010-2011, the authors gave third-year students at Loyola University Chicago Stritch School of Medicine an essay assignment, prompting them to reflect on the experience of the death of one of their patients. The authors analyzed the content of the essays using an iterative, multistep process. A salient theme in the students' writings was awareness of their personal and professional development. Students reported being aware that they were becoming desensitized to the human dimension of care, and particularly to dying patients and their families. Students wished to learn to contain their emotions to better serve their patients, and they articulated a commitment to addressing patient and family needs. Students identified systemic fragmentation of patient care as a barrier to meeting patient needs and as a facilitator of provider desensitization. The authors conclude that written student reflections are a rich source of data regarding the spiritual care of dying patients and their families. They provide insight into the personal and professional development of medical students and suggest that medical schools should support students' formation.*

- Ledford, Christy J. W., Dean A. Seehusen, Mollie Rose Canzona & Lauren A. Cafferty. 2014. Using a Teaching OSCE to Prompt Learners to Engage With Patients Who Talk About Religion and/or Spirituality. *Academic Medicine* 89(1). 60–65.  
doi:10.1097/ACM.0000000000000062.

*The objective structured clinical examination (OSCE) has only occasionally been used as a teaching tool. The authors describe the initial use of an educational innovation consisting of a teaching OSCE used as “sensitizing practice,” followed by personal, guided, and group reflection. Participants were staff, resident physicians, and one medical student (n=28). The initial use of the educational innovation allowed learners to engage in a potentially challenging conversation with a standardized patient about religion and/or spirituality (R/S). The aim of the innovation was not to equip learners with a particular tactic to introduce or discuss R/S but, rather, to prompt learners to engage in mindful practice with patients who identify R/S as part of their biopsychosocial contexts. Written, dyadic, and group reflection added value to the OSCE by allowing participants to reflect on a difficult learning objective over time. The authors found that the educational innovation helped the learners become more aware of and skillful in dealing with difficult physician-patient communication topics.*

- Lomas, Tim, Damien Ridge, Tina Cartwright & Trudi Edginton. 2014. Engagement with meditation as a positive health trajectory: Divergent narratives of progress in male meditators. *Psychology & Health* 29(2). 218–236.  
doi:10.1080/08870446.2013.843684.

*For this study, researchers recruited 30 male meditators and conducted two in-depth interviews with each, separated by a year, in order to elicit narratives of their experiences of trying to maintain a meditation practice. The authors identified an overall theme of a ‘positive health trajectory,’ in particular, making ‘progress’ through meditation. Under this were six main accounts. Only two articulated a ‘positive’ message about progress: Climbing a hierarchy of practitioners, and progress catalyzed in other areas of life. The other four reflected the difficulties around progress: Progress being undermined by illness; disappointment with progress; progress ‘forgotten’ (superseded by other concerns); and progress re-conceptualized due to other priorities.*

- McEvoy, Mimi, Sheira Schlair, Zsuzsanna Sidlo, William Burton & Felise Milan. 2014. Assessing Third-Year Medical Students’ Ability to Address a Patient’s Spiritual Distress Using an OSCE Case. *Academic Medicine* 89(1). 66–70.  
doi:10.1097/ACM.0000000000000061.

*During March and April 2010, 170 third-year medical students completed an eight-station videotaped objective structured clinical examination (OSCE) at Albert Einstein College of Medicine of Yeshiva University. One of the standardized patients (SPs) was a 65-year-old man with acute chest pain who mentioned his religious affiliation and fear of dying. If prompted, he revealed his desire to speak with a chaplain. The SP assessed students’ history taking, physical examination, and communication skills. In a postencounter written exercise, students reported their responses to the patient’s distress via four open-ended questions. Analysis of the postencounter notes was conducted by three coders for emergent themes. Clinical skills performance was compared between students who reported making chaplain referral and those who did not. A total of 108 students (64%) reported making a chaplain referral; 4 (2%) directly addressed the patient’s religious/spiritual beliefs. Students’ clinical performance scores showed no significant association with whether they made a chaplain referral.*

- Mokel, Melissa J. & Juliette M. Shellman. 2014. Acceptability of the Fetzer/NIA Multidimensional Measure of Religiousness and Spirituality in a Sample of Community-Dwelling Black Adults. *Journal of Transcultural Nursing* 25(1). 70–79.  
doi:10.1177/1043659613504113.

*Researchers sought to examine the acceptability of the National Institute on Aging/Fetzer Multidimensional Measure of Religiosity and Spirituality in a sample of Black, community-dwelling, older adults using focus group inquiry (n=15). Key findings were that (a) self-rating on religiosity was uncomfortable for many participants, (b) selfless was a word many participants confused with selfish, and (c) spirituality was an important concept. Overall, the Measure was found to be culturally acceptable and required little modification.*

- Olsman, E., C. Leget, B. Onwuteaka-Philipsen & D. Willems. 2013. Should palliative care patients' hope be truthful, helpful or valuable? An interpretative synthesis of literature describing healthcare professionals' perspectives on hope of palliative care patients. *Palliative Medicine* 28(1). 59–70.  
doi:10.1177/0269216313482172.

*The article discusses research which examined healthcare professionals' stand on palliative care patients' hope described in literature. It cites the association of palliative care patients' hope with their psycho-spiritual well-being. Findings revealed that 31 literary articles were of sufficient quality and described perspectives of nurses or physicians. The types of perspectives on hope of palliative care patients include realistic, functional and narrative perspective.*

- Perechocky, Andrew, Horace DeLisser, Ralph Ciampa, James Browning, Judy A Shea & Amy M Corcoran. 2014. Piloting a Medical Student Observational Experience With Hospital-Based Trauma Chaplains. *Journal of Surgical Education* 71(1). 91–95.  
doi:10.1016/j.jsurg.2013.07.001.

*The authors of this article developed a pilot program in which medical students shadowed a trauma chaplain during an on-call shift in an urban level 1 trauma center. Students subsequently completed an evaluative survey of their experience. Of 21 participants, 14 (67%) completed the questionnaire. Students observed an average of 1.50 traumas and 3.57 interactions with patients or families. One-third of the students witnessed a death. More than 90% of respondents agreed or strongly agreed that (1) the program provided them with a greater understanding of how to engage patients and families in difficult conversations; (2) they learned about the chaplain's role in the hospital; and (3) the experience was useful for their medical education, careers, and personal development. About two-thirds (9/14) perceived that they learned how to discuss spirituality with patients and families. All recommended the experience be part of the medical school curriculum.*

- Puchalski, Christina M, Benjamin Blatt, Mikhail Kogan & Amy Butler. 2014. Spirituality and health: the development of a field. *Academic Medicine* 89(1). 10–16.  
doi:10.1097/ACM.0000000000000083.

*This commentary describes the history of the field of spirituality and health: its origins, its furtherance through the Medical School Objectives Project, and its ultimate incorporation into the curricula of over 75% of U.S. medical schools. The commentary concludes with the authors' proposals for future directions for the field.*

- Saleem, Rizwan, Ian Treasaden & Basant K. Puri. 2014. Provision of spiritual and pastoral care facilities in a high-security hospital and their increased use by those of Muslim compared to Christian faith. *Mental Health, Religion & Culture* 17(1). 94–100.  
doi:10.1080/13674676.2012.749453.

*The relationship between religion and psychiatry remains controversial amongst British psychiatrists. Researchers looked at the provision of spiritual and pastoral care facilities in a high-security hospital and the role of faith chaplains with particular reference to the Muslim minority group. There was a significantly higher uptake of pastoral care services amongst those of Muslim faith compared to Church of England and Roman Catholic Christians. Possible reasons for this are discussed. Resources allocated for the Muslim faith group were limited and heavily dependent on the availability of the Muslim faith chaplain. The study highlighted the need for clearly*

*defined standards for the provision of spiritual and pastoral care within high-secure psychiatric hospitals, and by implication other NHS psychiatric settings, a re-examination of the role of the faith chaplain in relation to the clinical team, and raised questions about the equitable allocation of resources between various faith groups within the hospital.*

Stephenson, Pam Shockey & Devon M. Berry. 2014. Spirituality and Uncertainty at the End of Life. *Oncology Nursing Forum* 41(1). 33–39.  
doi:10.1188/14.ONF.33-39.

*This article analyzes relevant empirical and theoretical articles in order to present an innovative way of viewing how spirituality is experienced at the end of life (EOL). The likelihood that uncertainty and spirituality can coexist as a simultaneous and even blended construct that influences the EOL is supported and warrants additional exploration.*

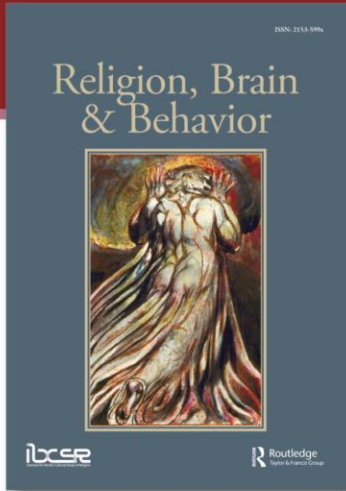
Stewart, Melissa. 2014. Spiritual assessment: A patient-centered approach to oncology social work practice. *Social work in health care* 53(1). 59–73.  
doi:10.1080/00981389.2013.834033.

*Spirituality is central to many people's lives, yet social workers often defer discussing the topic with patients. The author holds that this avoidance can be linked to the lack of training on how to speak with patients about spiritual matters, and suggests that, with further education, clinical social workers are empowered to assess this significant aspect of the patient's cancer experience as they progress along the illness continuum. The social worker's comfort and familiarity with spiritual assessment, spiritual language, and various forms of religious and/or spiritual practices will improve their clinical work with patients who have chronic cancer by providing insight to guide appropriate social work interventions designed to enhance spiritual well-being.*

Talley, Jan A. & Richard Magie. 2014. The Integration of the “Spirituality in Medicine” Curriculum Into the Osteopathic Communication Curriculum at Kansas City University of Medicine and Biosciences. *Academic Medicine* 89(1). 43–47.  
doi:10.1097/ACM.0000000000000078.

*This article describes how faculty at Kansas City University of Medicine and Biosciences (KCUMB) developed the Spirituality in Medicine curriculum. In developing the curriculum, faculty took into consideration competencies required by the Association of American Medical Colleges and qualitative results from surveys of medical school applicants and enrolled students. Strategies for curriculum delivery included lectures, panel discussions, role-playing, and training in the use of a spirituality assessment tool. A majority of the 250 students who received the training in 2010-2011 were able to demonstrate the following competencies: (1) being sensitive to patients' spiritual and cultural needs, (2) assessing patients' and their own spiritual needs, (3) appropriately using chaplain services for patient care, and (4) understanding the effects of health disparities and ethical issues on patient care. Challenges to implementation included a reduction in chaplain availability due to the economic downturn, a lack of student exposure to direct patient care during shadowing, too little religious diversity among chaplains, and changes in assignment schedules. New competencies required by the National Board of Osteopathic Medical Examiners overlap with and help ensure sustainability of the Spirituality in Medicine curriculum. KCUMB leaders have incorporated the use of the spirituality assessment tool into other parts of the curriculum and into service experiences, and they have introduced a new elective in palliative care. Synergistic efforts by faculty leaders for this initiative were critical to the implementation of this curriculum.*





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## PART 3. BOOKS

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

Heilman, Kenneth & Russell Donda. 2014. *The Believer's Brain: Home of the Religious and Spiritual Mind*. Psychology Press.

Sequeira, Sonia (ed.). 2014. *Advances in Meditation Research: Neuroscience and Clinical Applications*. Vol. 1307. (Annals of the New York Academy of Sciences). Oxford: Blackwell.

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

Feuerstein, Georg. 2014. *The psychology of yoga: Integrating Eastern and Western approaches for understanding the mind*. Shambhala.

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## PART 4. ARTICLES IN PRESS

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

- Albertson, Bethany L. 2014. Dog-whistle politics: Multivocal communication and religious appeals. *Political Behavior*.  
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