



RESEARCH REVIEW

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

MARCH, 2013

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 684 articles, 60 articles have been retained from 54 journals. There are 31 pre-publication citations from 20 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Fayed, Nicolás, Yolanda Lopez Del Hoyo, Eva Andres, Antoni Serrano-Blanco, Juan Bellón, Keyla Aguilar, Ausias Cebolla & Javier Garcia-Campayo. 2013. Brain changes in long-term Zen meditators using proton magnetic resonance spectroscopy and diffusion tensor imaging: a controlled study. *PloS one* 8(3). e58476.
doi:10.1371/journal.pone.0058476.

This work aimed to determine whether (1)H magnetic resonance imaging (MRI), magnetic resonance spectroscopy (MRS), diffusion-weighted imaging (DWI) and diffusion tensor imaging (DTI) are correlated with years of meditation and psychological variables in long-term Zen meditators compared to healthy non-meditator controls. Participants in this study were meditators recruited from a Zen Buddhist monastery and a control group recruited from hospital staff. Analysis of results indicated that myo-inositol (mI) was increased in the posterior cingulate gyrus and Glutamate (Glu), and that N-acetyl-aspartate (NAA) and N-acetyl-aspartate/Creatine (NAA/Cr) was reduced in the left thalamus in meditators. Significant positive correlation was found between mI in the posterior cingulate and years of meditation. There were also found significant negative correlations between Glu, NAA and NAA/Cr in the left thalamus and years of meditation. Meditators showed a lower Apparent Diffusion Coefficient in the left posterior parietal white matter than did controls, and the ADC was negatively correlated with years of meditation. The results are consistent with the view that mI, Glu and NAA are the most important altered metabolites. This study provides evidence of subtle abnormalities in neuronal function in regions of the white matter in meditators.

Kozhevnikov, Maria, James Elliott, Jennifer Shephard & Klaus Gramann. 2013. Neurocognitive and Somatic Components of Temperature Increases during g-Tummo Meditation: Legend and Reality. *PloS one* 8(3). e58244.

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doi:10.1371/journal.pone.0058244.

Stories of meditators, trained in Tibetan g-tummo meditation, mysteriously able to dry wet sheets wrapped around their naked bodies during a frigid Himalayan ceremony have intrigued scholars and laypersons alike for a century. Study 1 was conducted in remote monasteries of eastern Tibet with expert meditators performing g-tummo practices while their axillary temperature and EEG activity were measured. Study 2 was conducted with Western participants (a non-mediator control group) instructed to use the somatic component of the g-tummo practice (vase breathing) without utilization of meditative visualization. Reliable increases in axillary temperature from normal to slight or moderate fever zone (up to 38.3°C) were observed among meditators only during the Forceful Breath type of g-tummo meditation accompanied by increases in alpha, beta, and gamma power. The magnitude of the temperature increases significantly correlated with the increases in alpha power during Forceful Breath meditation. The findings indicate that there are two factors affecting temperature increase. The first is the somatic component which causes thermogenesis, while the second is the neurocognitive component (meditative visualization) that aids in sustaining temperature increases for longer periods. Without meditative visualization, both meditators and non-meditators were capable of using the Forceful Breath vase breathing only for a limited time, resulting in limited temperature increases in the range of normal body temperature. Overall, the results suggest that specific aspects of the g-tummo technique might help non-meditators learn how to regulate their body temperature, which has implications for improving health and regulating cognitive performance.

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Curry, Oliver S. & Robin I.M. Dunbar. 2013. Sharing a joke: The effects of a similar sense of humor on affiliation and altruism. *Evolution and Human Behavior* 34(2). 125–129.
doi:10.1016/j.evolhumbehav.2012.11.003.

Cooperation requires that individuals are able to identify, and preferentially associate with, others who have compatible preferences and the shared background knowledge needed to solve interpersonal coordination problems. This body of shared knowledge constitute a substantial proportion of what is called “culture.” It has been argued that, for this reason, individuals prefer to associate with others who share their culture, and also that shared appreciation of humor provides a particularly effective means of identifying others with the relevant preferences and knowledge. The present experiment uses a “dummy rating procedure” to compare the effects of sharing an appreciation of non-humorous (first lines of novels) and humorous (jokes) cultural stimuli on interpersonal affiliation, altruism and assessment. The results show that the degree of shared appreciation for both sets of stimuli had a positive effect on Affiliation; only humorous stimuli had an effect on Altruism; and neither effected the Assessment of others’ personal traits. Thus, the results support the general theory that shared culture promotes affiliation, and provide evidence of the special role of humor in interpersonal relations.

Fehrler, Sebastian & Wojtek Przepiorka. 2013. Charitable giving as a signal of trustworthiness: Disentangling the signaling benefits of altruistic acts. *Evolution and Human Behavior* 34(2). 139–145.
doi:10.1016/j.evolhumbehav.2012.11.005.

It has been shown that psychological predispositions to benefit others can motivate human cooperation and the evolution of such social preferences can be explained with kin or multi-level selection models. It has also been shown that cooperation can evolve as a costly signal of an unobservable quality that makes a person more attractive with regard to other types of social interactions. Here the authors show that if a proportion of individuals with social preferences is maintained in the population through kin or multi-level selection, cooperative acts that are truly altruistic can be a costly signal of social preferences and make altruistic individuals more trustworthy interaction partners in social exchange. In a computerized laboratory experiment, researchers test whether altruistic behavior in the form of charitable giving is indeed correlated with trustworthiness and whether a charitable

donation increases the observing agents' trust in the donor. Results support these hypotheses and show that, apart from trust, responses to altruistic acts can have a rewarding or outcome-equalizing purpose. These findings corroborate that the signaling benefits of altruistic acts that accrue in social exchange can ease the conditions for the evolution of social preferences.

- House, Bailey, Joseph Henrich, Barbara Sarnecka & Joan B. Silk. 2013. The development of contingent reciprocity in children. *Evolution and Human Behavior* 34(2). 86–93.
doi:10.1016/j.evolhumbehav.2012.10.001.

Cooperation between nonrelatives is common in humans. Reciprocal altruism is a plausible evolutionary mechanism for cooperation within unrelated pairs, as selection may favor individuals who selectively cooperate with those who have cooperated with them in the past. Reciprocity is often observed in humans, but there is only limited evidence of reciprocal altruism in other primate species, raising questions about the origins of human reciprocity. In this article, the authors explore how reciprocity develops in a sample of American children ranging from 3 to 7.5 years of age, and also compare children's behavior to that of chimpanzees in prior studies to gain insight into the phylogeny of human reciprocity. Children show a marked tendency to respond contingently to both prosocial and selfish acts, patterns that have not been seen among chimpanzees in prior studies. Results show that reciprocity increases markedly with age in this population of children, and by about 5.5 years of age children consistently match the previous behavior of their partners.

- Joye, Yannick & Jan Verpooten. 2013. An exploration of the functions of religious monumental architecture from a Darwinian perspective. *Review of General Psychology* 17(1). 53–68.
doi:10.1037/a0029920.

In recent years, the cognitive science of religion has displayed a keen interest in religions' social function, bolstering research on religious prosociality and cooperativeness. The main objective of this article is to explore, from a Darwinian perspective, the biological and psychological mechanisms through which religious monumental architecture (RMA) might support that specific function. A frequently held view is that monumental architecture is a costly signal that served vertical social stratification in complex large-scale societies. The authors hypothesize, however, that the function(s) of RMA cannot be fully appreciated from a costly signaling perspective alone, and invoke a complementary mechanism, namely sensory exploitation. They propose that, in addition to being a costly signal, RMA also often taps into an adaptive "sensitivity for bigness." The central hypothesis of this paper is that when cases of RMA strongly stimulate that sensitivity, and when commoners become aware of the costly investments that are necessary to build RMA, then this may give rise to a particular emotional response, namely awe. By exploiting awe, RMA promotes and regulates prosocial behavior among religious followers and creates in them an openness to adopt supernatural beliefs.

- Lambert, Nathaniel, Frank D. Fincham, Nathan C. Dewall, Richard Pond & Steven R. Beach. 2013. Shifting toward cooperative tendencies and forgiveness: How partner-focused prayer transforms motivation. *Personal Relationships* 20(1). 184–197.
doi:10.1111/j.1475-6811.2012.01411.x.

Several studies tested whether partner-focused prayer shifts individuals toward cooperative tendencies and forgiveness. In Studies 1 and 2, participants who prayed more frequently for their partner were rated by objective coders as less vengeful. Study 3 showed that, compared to partners of targets in the positive partner thought condition, the romantic partners of targets assigned to pray reported a positive change in their partner's forgiveness. In Study 4, participants who prayed following a partner's "hurtful behavior" were more cooperative with their partners in a mixed-motive game compared to participants who engaged in positive thoughts about their partner. In Study 5, participants who prayed for a close relationship partner reported higher levels of cooperative tendencies and forgiveness.

Passie, T., J. Warncke, T. Peschel & U. Ott. 2013. Neurotheology. Neurobiological models of religious experience. *Nervenarzt* 84(3). 283.
doi:10.1007/s00115-011-3384-6.

This article presents a review of empirical results and hypothetical approaches to explain mystical religious experiences neurobiologically. The authors hold that religions are evolutionary selected social and cultural phenomena. Religions originate from a spectrum of religious experiences that are astonishingly widespread in the population. The most consistent and transculturally uniform religious experiences are the mystical experiences. Only these (and the prayer experience) have factually been researched in detail neurobiologically. In reviewing the results of neurobiological studies, the authors find that some of the explanatory hypotheses possess logical evidence, some are even supported by neurobiological studies, but all of them have their pitfalls and are at best partially consistent. One important insight from the evidence reviewed here is that there may be a whole array of different neurophysiological conditions which may result in the same core religious mystical experiences.

Petersen, Michael Bang. 2013. Moralization as protection against exploitation: Do individuals without allies moralize more? *Evolution and Human Behavior* 34(2). 78–85.
doi:10.1016/j.evolhumbehav.2012.09.006.

Over the course of human evolutionary history, individuals have required protection from other individuals who sought to exploit them. Moralization, defined as broadcasting relevant behaviors as immoral, is proposed as a strategy whereby individuals attempt to engage third parties in the protection against exploitation. Whereas previous accounts of strategic morality have focused on the effect of individual differences in mating strategies, the authors here argue for the importance of another factor: differences in the availability of alternative sources of protection. Given the potential costs of moralization, it is predicted that it is primarily used among individuals lacking protection in the form of social allies. Consistent with this, a large cross-national set of surveys is used to reveal how individuals without friends moralize more. In contrast, however, support from other social sources such as family or religious individuals increases moralization.

Riekki, Tapani, Marjaana Lindeman, Marja Alenoff, Anni Halme & Antti Nuortimo. 2013. Paranormal and Religious Believers Are More Prone to Illusory Face Perception than Skeptics and Non-believers. *Applied Cognitive Psychology* 27(2). 150–155.
doi:10.1002/acp.2874.

Illusory face perception, a tendency to find human-like faces where none are actually present in, for example, artifacts or scenery, is a common phenomenon that occasionally enters the public eye. Researchers used two tests (n=47) to analyze the relationship between paranormal and religious beliefs and illusory face perception. In a detection task, the participants detected face-like features from pictures of scenery and landscapes with and without face-like areas and, in a rating task, evaluated the face-likeness and emotionality of these areas. Believer groups were better at identifying the previously defined face-like regions in the images but were also prone to false alarms. Signal detection analysis revealed that believers had more liberal answering criteria than skeptics, but the actual detection sensitivity did not differ. The paranormal believers also evaluated the artifact faces as more face-like and emotional than the skeptics, and a similar trend was found between religious and non-religious people.

Terrizzi, John A., Natalie J. Shook & Michael A. McDaniel. 2013. The behavioral immune system and social conservatism: a meta-analysis. *Evolution and Human Behavior* 34(2). 99–108.
doi:10.1016/j.evolhumbehav.2012.10.003.

The behavioral immune system (BIS) is a cluster of psychological mechanisms (e.g., disgust) that have evolved to promote disease-avoidance. Recent evidence suggests that the BIS may promote avoidance of outgroup members, an historical source of contamination, by evoking social conservatism. That is, the BIS mechanisms may encourage the endorsement of socially conservative beliefs, which promote social exclusivity, tradition, and negativity toward

outgroups. The current study provides a systematic review and meta-analysis of 24 studies to evaluate the hypothesis that the BIS is predictive of social conservatism. The results indicate that behavioral immune strength, as indicated by fear of contamination and disgust sensitivity, is positively related to social conservatism (i.e., right-wing authoritarianism, social dominance orientation, religious fundamentalism, ethnocentrism, collectivism, and political conservatism). These findings provide initial evidence that socially conservative values may function as evolutionarily evoked disease-avoidance strategies.

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Baker, Joseph O. 2013. Acceptance of Evolution and Support for Teaching Creationism in Public Schools: The Conditional Impact of Educational Attainment. *Journal for the Scientific Study of Religion* 52(1). 216–228.

doi:10.1111/jssr.12007.

Public acceptance of evolution remains low in the United States relative to other Western countries. Although advocates for the scientific community often highlight the need for improved education to change public opinion, analyses of data from a national sample of American adults indicate that the effects of educational attainment on attitudes toward evolution and creationism are uneven and contingent upon religious identity. Consequently, higher education will only shift public attitudes toward evolution and away from support for teaching creationism in public schools for those who take non-“literalist” interpretive stances on the Bible, or to the extent that it leads to fewer people with literalist religious identities.

Belzen, Jacob A. 2013. Music and Religion: Psychological Perspectives and their Limits. *Archive for the Psychology of Religion* 35(1). 1–29.

doi:10.1163/15736121-12341256.

Criticizing some psychological approaches that speak in too general terms about both music and religion, this article turns to a precise empirical observation and asks what psychology might possibly contribute to its understanding, after first necessarily questioning what terms such as “religion”, “religious music” and “religious experience” encompass. Given the nature of the leading question, a cultural-psychological approach is chosen. After refuting a number of commonly heard assertions, and drawing on a number of psychological theories, the article then discusses several empirical observations and argues that contemporary psychology has indeed achieved some progress in dealing with classical questions.

Chui, Wing Hong, Kevin Kwok-yin Cheng & Lok Ping Wong. 2013. Spirituality and punitiveness: An exploration of Christian, Buddhist, and non-religious attitudes towards crime. *International Journal of Law, Crime and Justice* 41(1). 1–15.

doi:10.1016/j.ijlcj.2012.11.001.

Studies measuring religious views towards crime and punishment have mainly focused on Christianity and its denominations in a western setting. They have also used measures that are exclusive to the Christian faith. Other major religions have largely been ignored. This study attempts to rectify this by exploring the attitudes of Christians, Buddhists and those identifying themselves as non-religious towards crime. The results indicate some apparent contradictory findings as the more spiritual Buddhists are, the more they attribute crime to both individual and environmental causes as well as greater support for both coercive and social intervention measures. When compared to the Buddhists, Christians and the non-religious are more supportive of assistance towards the treatment of offenders in this study.

Danielsen, Sabrina. 2013. Fracturing Over Creation Care? Shifting Environmental Beliefs Among Evangelicals, 1984–2010. *Journal for the Scientific Study of Religion* 52(1). 198–215.

doi:10.1111/jssr.12017.

While evangelicals have been popularly portrayed as caring primarily about social issues including abortion and homosexuality, there have been more reports in recent years of evangelical leaders, congregations, and institutions shifting focus to environmental issues. Are evangelicals shifting attention to and becoming more progressive in their views on the environment? Moreover, are evangelicals fracturing over the issue of environmentalism, as some have suggested? Using content analysis of three evangelical periodicals from 1984 to 2010, the author finds not only that attention to environmental issues has increased over time, but also that the discussion has grown increasingly polarized and politicized. This change represents a potentially important break with the Republican Party and the Christian Right, as moderate evangelicals have moved to the left on environmental issues. Even among highly religious, self-identified evangelical political elites, there is more diversity in views and political leanings than is commonly assumed. The article concludes with a discussion of the implications of a lack of alignment between evangelical elites, traditional Christian Right leaders, and the Republican Party.

Escher, Daniel. 2013. How Does Religion Promote Forgiveness? Linking Beliefs, Orientations, and Practices. *Journal for the Scientific Study of Religion* 52(1). 100–119.
doi:10.1111/jssr.12012.

Scholars have long observed that religion and forgiveness are generally positively linked, but it is unclear why this is the case. This article proposes and tests potential mechanisms by which religion promotes forgiveness. Using data from the 1998 General Social Survey, the author finds that holding a collaborative orientation toward God, subscribing to a pervasive role of religion, and believing God forgives are primary factors promoting one's propensity to forgive both oneself and others. These factors have varying influence on interpersonal forgiveness compared to self-forgiveness and further illuminate the differences between the two processes. These findings demonstrate the importance of analyzing a person's religious beliefs and orientations directly, in addition to examining other dimensions of religion, such as affiliation, frequency of religious activity, and official religious teachings.

Full, Gisela E., Harald Walach & Mathis Trautwein. 2013. Meditation-induced changes in perception: An interview study with expert meditators (Sotapannas) in Burma. *Mindfulness* 4(1). 55–63.
doi:10.1007/s12671-012-0173-7.

Effects and implications of meditation, especially mindfulness-based practices, have become a focus of research in clinical and nonclinical studies over the past two decades. This qualitative study aimed at analyzing alterations in perception through tranquility and insight meditation. Semi-structured interviews were held with expert meditators (Sotapannas) in Burma. Four categories of alterations in perception could be identified: increase in the quality of perception, comprehension of interdependences in perception processing, cessation of subject/object-based perception, and nonconceptual perception. The findings suggest significant alterations in perception induced by mindfulness practices of tranquility and insight meditation. So far, however, it cannot be concluded whether these alterations are genuine experiences and to what extent they are culturally determined.

Ganzach, Yoav, Shmuel Ellis & Chemi Gotlibovski. 2013. On intelligence education and religious beliefs. *Intelligence* 41(2). 121–128.
doi:10.1016/j.intell.2013.01.001.

A number of authors have suggested that education mediates the negative effect of intelligence on religiosity. However, there is very little direct evidence for this mediation, and the indirect evidence is contradictory. The results of the current paper suggest that, by and large, education does not mediate the effect of intelligence on religiosity. However, the results also suggest that since education has a positive effect on religiosity when religious background is strong and a negative effect when religious background is weak, and since intelligence has a positive effect on education, the negative effect of intelligence on religiosity is stronger when religious background is strong than when

it is weak. The authors examine this mediated moderation model in two large, nationally representative, databases.

- Ghandour, Lilian A. & Donna S. El Sayed. 2013. Gambling behaviors among university youth: Does one's religious affiliation and level of religiosity play a role? *Psychology of Addictive Behaviors* 27(1). 279–286.

doi:10.1037/a0030172.

This study investigated the association between religion, religiosity, and gambling using a cross-sectional sample of 570 American University of Beirut students, who self-filled an anonymous English questionnaire. About half (55%) were lifetime gamblers, of which 12% screened as problem/pathological gamblers. Controlling for other demographics and lifetime substance use, Christian students (vs. Muslims) had higher odds of lifetime gambling, any strategic gambling, social nonproblem gambling (SNPG), and problem/pathological gambling (PG). Students who never/rarely practiced their faith were 3.6 times as likely to report lifetime gambling, 3.7 times as likely to report SNPG (vs. NG), and 7 times as likely to screen for PG (vs. NG). Decreased religious importance was associated with greater odds of lifetime gambling, SNPG and PG (vs. nongambling). Stronger associations were observed among Muslims. Religion and religiosity seem to play a protective role, particularly among Muslims whose faith strictly prohibits gambling.

- Giovannelli, Thorayya Said & LaTrelle Jackson. 2013. Sexual violence perceptions among Christian college students. *Mental Health, Religion & Culture* 16(3). 254–272.

doi:10.1080/13674676.2012.657618.

Sexual violence is a persistent problem, both nationally and globally, with college females having an elevated risk over their non-college peers. However, there have been limited studies exploring the beliefs that specific sub-populations, such as religious groups, have about sexual violence. A central objective of this study was to provide a better understanding of student needs in order to assist administrators and student service professionals as they offer support for students in Christian higher education settings. This study was a comprehensive, exploratory survey into the attitudes and perceptions of rape myth acceptance, sexism, authoritarianism, violence, and safety, as well as occurrence of sexual violence, among Christian college students at a mid-Atlantic Christian university was conducted. The results demonstrate which concepts relate to or were predicted by students' rape myth acceptance, as well as ascertaining similarities and differences between secular and religious colleges.

- Hayward, R. David & Neal Krause. 2013. Patterns of Change in Prayer Activity, Expectancies, and Contents During Older Adulthood. *Journal for the Scientific Study of Religion* 52(1). 17–34.

doi:10.1111/jssr.12014.

Prayer is the most common form of religious practice and a central part of religious experience, yet little is known about whether individuals' prayer activities and beliefs tend to remain stable or develop over the life course. This study examines change during the course of older adulthood in a range of dimensions of prayer, including total frequency of private prayer, specific beliefs and expectancies regarding prayer, and the contents of prayers. Data come from four waves of an ongoing longitudinal survey of Christian older adults, covering a period of seven years. Growth curve analysis was used to model patterns of within-person change in these factors. Linear increase was observed in total prayer frequency and in beliefs about prayer emphasizing placing trust in God over expecting immediate rewards. Frequency of prayer increased for all types of prayer contents, including prayers for others, for God's will, in thanksgiving, for guidance, for health, and for material goods. Only the belief that one's prayers are answered remained stable during the course of the study. Results highlight the dynamic nature of prayer beliefs and behaviors in late life, and partially support a pattern of growing faith maturity.

- Holbrook, Colin & Paulo Sousa. 2013. Supernatural Beliefs, Unconscious Threat and Judgment Bias in Tibetan Buddhists. *Journal of Cognition and Culture* 13(1-2). 33–56.

doi:10.1163/15685373-12342083.

Individuals who have been subtly reminded of death display heightened in-group favoritism, or “worldview defense”. Terror management theory argues (i) that death cues engender worldview defense via psychological mechanisms specifically evolved to suppress death anxiety, and (ii) that the core function of religiosity is to suppress death anxiety. Thus, terror management theory predicts that extremely religious individuals will not evince worldview defense. Here, two studies are presented in support of an alternative perspective. According to the unconscious vigilance hypothesis, subtly processed threats (which need not pertain to death) heighten sensitivity to affectively valenced stimuli (which need not pertain to cultural attitudes). From this perspective, religiosity mitigates the influence of mortality-salience only insofar as afterlife doctrines reduce the perceived threat posed by death. Tibetan Buddhism portrays death as a perilous gateway to rebirth rather than an end to suffering; faith in this doctrine should therefore not be expected to nullify mortality-salience effects. In Study 1, devout Tibetan Buddhists who were subtly reminded of death produced exaggerated aesthetic ratings unrelated to cultural worldviews. In Study 2, devout Tibetan Buddhists produced worldview defense following subliminal exposure to non-death cues of threat. The results demonstrate both the domain-generalizability of the process underlying worldview defense and the importance of religious doctrinal content in moderating mortality-salience effects.

Kane, Michael N. & Robin J. Jacobs. 2013. Perceptions of religious leaders’ culpability in the United States. *Mental Health, Religion & Culture* 16(3). 225–253.
doi:10.1080/13674676.2012.656079.

The aim of this study was to explore perceptions of religious leaders who are discovered in compromising situations. Respondents (n=374) read one of four vignettes about a well-known, 50-year-old religious leader who was found in the back of a car by police partially clothed and intoxicated. His accomplice in the back of the parked car was (a) a 19-year-old woman, (b) a 19-year-old man, (c) a 39-year-old woman, or (d) a 39-year-old man. The accomplice in the vehicle told police and the media that s/he had been seeking spiritual counseling from this religious leader. In the General Linear Model significance was observed in 10 of the 34 items following each of the vignettes. Eight other items possessed p-values slightly larger than 0.05 that merit consideration. Willingness to overlook infractions of professional behaviors were associated not with the religious leader’s behavior itself but with the age and gender of the accomplice of the religious leader. Overall, respondents were more accepting of the behaviors of the religious leader when he was found with a 39-year-old woman than with a 39-year-old man. Respondents were least likely to be understanding of his engaging in sexual behaviors with a 19-year-old adult, particularly a 19-year-old male.

Lewis, Valerie A., Carol Ann MacGregor & Robert D. Putnam. 2013. Religion, networks, and neighborliness: The impact of religious social networks on civic engagement. *Social Science Research* 42(2). 331–346.
doi:10.1016/j.ssresearch.2012.09.011.

A substantial literature has found that religiosity is positively related to individuals’ civic engagement and informal helping behavior. Concurrently, social networks as sources of information and encouragement have been suggested as the mechanism underlying phenomena including successful job searches, improved health and greater subjective well-being. In this paper the authors use data from the Portraits of American Life Study (PALS) to examine whether religiously based social networks explain the well-established relationship between religion and civic engagement. They test potential mechanisms including beliefs, affiliation, and social networks, and find that having a strong network of religious friends explains the effect of church attendance for several civic and neighborly outcomes. It is suggested that this phenomenon may exist in other, non-religious, spheres that also produce strong friendship networks.

Luhrmann, T. M., Howard Nusbaum & Ronald Thisted. 2013. “Lord, Teach Us to Pray”: Prayer Practice Affects Cognitive Processing. *Journal of Cognition and Culture* 13(1-2). 159–177.

doi:10.1163/15685373-12342090.

A secular observer might assume that prayer practice affects those who pray by making the cognitive concepts about God more salient to their lives. Those who pray, however, often talk as if prayer practice, and in particular, kataphatic (imagination-based) prayer, changes something about their experience of their own minds. This study examined the effect of kataphatic prayer on mental imagery vividness, mental imagery use, visual attention and unusual sensory experience. Christians were randomly assigned to two groups: kataphatic prayer or Bible study. Both groups completed computerized mental imagery tasks and an interview before and after a one month period of practice. The results indicate that the prayer group experienced increased mental imagery vividness, increased use of mental imagery, increased attention to objects that were the focus of attention, and more unusual sensory experience, including unusual religious experience, although there were substantial individual differences. These findings suggest that prayer practice may be associated with changes in cognitive processing.

Maranise, Anthony M. J. 2013. Superstition & Religious Ritual: An Examination of their Effects and Utilization in Sport. *Sport Psychologist* 27(1). 83–91.

This article discusses the use of superstition and religious rituals within sport. While the popular view among skeptics seems to be that religious ritual is nothing more than superstition, the author argues that while there admittedly are many similarities, there also exist major differences which separate superstition and religious ritual into distinct entities. The realm of sport is one widely known for the numerous exhibitions of both superstition and religious ritual. The examples of sport-related superstition and religious ritual are so numerous that they have even gained noted media attention in the past two decades. Thus, the author situates both terms within the practical framework of sport participation. From this foundation, he defines both terms in context and begins to examine the effects on athletes' individual holistic development arguing that religious ritual leads ultimately to a greater holistic development than does superstition. Holistic development is examined in four aspects which are comprised of physiology, emotionality, intellectuality, and spirituality. The positive effects of religious ritual as applied within athletics are mentioned in each aforementioned category. The author utilizes the disciplines of psychology of religion, sports psychology, as well as Judeo-Christian theological concepts regarding religious ritual, to approach the topic. The numerous positive benefits of religious ritual over superstition within athletics lead to a final argument that religious ritual provides significant meaning to the lives of athletes in a way which superstition is simply unable.

Marques, Susana C., Shane J. Lopez & Joanna Mitchell. 2012. The Role of Hope, Spirituality and Religious Practice in Adolescents' Life Satisfaction: Longitudinal Findings. *Journal of Happiness Studies* 14(1). 251–261.

doi:10.1007/s10902-012-9329-3.

This longitudinal study presents the first examination of the relation between hope, spirituality, religious practice and life satisfaction of students in Portugal. A sample of 227 adolescents aged 15-19 completed the Portuguese versions of the Children Hope Scale, Students' Life Satisfaction Scale and a single item for each spirituality and religious practice variable. The results from the cross-sectional and longitudinal analyses suggest that hope and spirituality, but not religious practice, were strongly linked to adolescents' life satisfaction. Hope significantly predicted life satisfaction at a single time point, 6-months and 1-year later, and spirituality scores added significant variance beyond hope scores. All the variables demonstrate moderate to high stability across 6-months and 1-year time frame; no significant changes were found between the variables across the administrations. These results parallel recent studies of adult and child life satisfaction and suggest strategies to promote life satisfaction in adolescents.

Mbotho, Mbali, Michelle Cilliers & Olagoke Akintola. 2013. Sailing against the tide? Sustaining sexual abstinence among Christian youth in a university setting in South Africa. *Journal of Religion and Health* 52(1). 208–222.

doi:10.1007/s10943-011-9466-8.

This qualitative study sought to understand the perceptions and experiences of abstinence among young Christians in a University in South Africa. Willingness to adhere to Christian teachings of sexual chastity is the primary motivation for sexual abstinence while spiritual, mental and physical health benefits of abstinence as well as enforcement of Christian teachings by members and peers are secondary motivations that help sustain sexual abstinence. Sexual pressures come from desire to satisfy sexual urge, subtle coercion, peer pressure, momentary loss of self-control. There is need for multi-pronged interventions aimed at empowering Christian youth to deal with sources of sexual pressures.

- Mirams, Laura, Ellen Poliakoff, Richard J. Brown & Donna M. Lloyd. 2013. Brief body-scan meditation practice improves somatosensory perceptual decision making. *Consciousness and Cognition* 22(1). 348–359.
doi:10.1016/j.concog.2012.07.009.

Researchers have previously found that attention to internal somatic sensations (interoceptive attention) during a heartbeat perception task increases the misperception of external touch on a somatic signal detection task (SSDT), during which healthy participants erroneously report feeling near-threshold vibrations presented to their fingertip in the absence of a stimulus. However, it has been suggested that mindful interoceptive attention should result in more accurate somatic perception, due to its non-evaluative and controlled nature. To investigate this possibility, 62 participants completed the SSDT before and after a period of brief body-scan mindfulness meditation training, or a control intervention (listening to a recorded story). The meditation intervention reduced tactile misperception and increased sensitivity during the SSDT. This finding suggests that the perceptual effects of interoceptive attention depend on its particular nature, and raises the possibility that body-scan meditation could reduce the misperception of physical symptoms in individuals with medically unexplained symptoms.

- Neff, Kristin D. & Elizabeth Pommier. 2013. The Relationship between Self-compassion and Other-focused Concern among College Undergraduates, Community Adults, and Practicing Meditators. *Self and Identity* 12(2). 160–176.
doi:10.1080/15298868.2011.649546.

The present study examined the link between self-compassion and concern for the well-being of others. Other-focused concern variables included compassion for humanity, empathetic concern, perspective taking, personal distress, altruism and forgiveness. Participants included 384 college undergraduates, 400 community adults, and 172 practicing meditators. Among all participant groups, higher levels of self-compassion were significantly linked to more perspective taking, less personal distress, and greater forgiveness. Self-compassion was linked to compassion for humanity, empathetic concern, and altruism among community adults and meditators but not college undergraduates. The strength of the association between self-compassion and other-focused concern also varied according to participant group and gender. The strongest links tended to be found among meditators, while women tended to show weaker associations than men.

- Pearce, Lisa D., E. Michael Foster & Jessica Halliday Hardie. 2013. A Person-Centered Examination of Adolescent Religiosity Using Latent Class Analysis. *Journal for the Scientific Study of Religion* 52(1). 57–79.
doi:10.1111/jssr.12001.

Empirical studies of religion's role in society, especially those focused on individuals and analyzing survey data, conceptualize and measure religiosity as ranging from low to high on a single measure or a summary index of multiple measures. Other concepts, such as "lived religion," "believing without belonging," or "fuzzy fidelity" emphasize what scholars have noted for decades: humans are rarely consistently low, medium, or high across dimensions of religiosity including institutional involvement, private practice, salience, or belief. A method with great promise for identifying population patterns in how individuals combine types and levels of belief, practice, and personal religious salience is latent class analysis. In this article, the authors use data from the first wave of the

National Study of Youth and Religion's telephone survey to discuss how to select indicators of religiosity in an informed manner, as well as the implications of the number and types of indicators used for model fit. They identify five latent classes of religiosity among adolescents in the United States and their sociodemographic correlates. These findings highlight the value of a person-centered approach to understanding how religion is lived by American adolescents.

Perera, Sulani & Patricia A. Frazier. 2013. Changes in religiosity and spirituality following potentially traumatic events. *Counselling Psychology Quarterly* 26(1). 26–38.
doi:10.1080/09515070.2012.728883.

The purpose of this study was to investigate spiritual and religious changes in the context of life adversities. Specifically, university students (n=122) who had recently experienced a potentially traumatic event (PTE) were compared with a matched comparison group (n=122) who had not experienced a recent PTE, in terms of: (1) the amount of actual and self-perceived positive and negative change in religiosity and spirituality; (2) the relations between perceived and actual positive and negative spiritual change; and (3) the relation between change in religiosity and spirituality and change in distress. Although there were small actual and perceived changes in religiosity and spirituality within each group, there were no between-group differences in terms of religious and spiritual change. Thus, changes over time in these life domains are not unique to PTE exposure. As expected, the relations between actual and perceived changes were small, highlighting that perceived and actual change are different constructs. Finally, differences between the two groups in the relations between religious and spiritual change and distress suggested that changes in these life domains may reflect coping efforts in the PTE group.

Perry, Samuel L. 2013. Social Capital, Race, and Personal Fundraising in Evangelical Outreach Ministries. *Journal for the Scientific Study of Religion* 52(1). 159–178.
doi:10.1111/jssr.12005.

This study examines the relationship between social capital inequality, race, and personal fundraising within evangelical outreach ministries (EOMs). Drawing on quantitative and qualitative data that assess the personal fundraising experiences and outcomes of a large sample of EOM workers (n=715), the author demonstrates that the fundraising challenges and deficits faced by EOM workers are best understood as deficits in the social capital of these individual workers. Multivariate analyses affirm that social capital deficits (that is, having smaller social networks and networks with fewer resources) negatively affect the fundraising experiences and outcomes of EOM workers, especially for racial minorities. Findings also evidence a strong correlation between the paucity of minority EOM workers' social capital and the extent to which they must seek bridging social capital from white individuals and churches. This study concludes with implications for the financing of American evangelical parachurch organizations, the sustained racial and socioeconomic homogeneity of EOMs, and theories of social capital exchanges within interracial religious organizations.

Rosenkranz, Patrick & Bruce G. Charlton. 2013. Individual Differences in Existential Orientation: Empathizing and Systemizing Explain the Sex Difference in Religious Orientation and Science Acceptance. *Archive for the Psychology of Religion* 35(1). 119–146.
doi:10.1163/15736121-12341255.

On a wide range of measures and across cultures and societies, women tend to be more religious than men. Religious beliefs are associated with evolved social-cognitive mechanisms such as agency detection and theory-of-mind. Women perform better on most of these components of social cognition, suggesting an underlying psychological explanation for these sex differences. The Existential Orientation Scale was developed to extend the measurement of religion to include non-religious beliefs (Study 1). Factor analysis extracted two dimensions: religious orientation and science acceptance. This new scale was used to investigate the hypothesis that the dimensions of empathizing, a measure of social cognition, and systemizing can explain the sex differences in religious orientation (Study 2). The sex differences in both religious orientation and science acceptance disappeared

when empathizing and systemizing were entered. This indicates that underlying dimensions of individual differences can explain existential orientation better than being male or female.

- Schafer, Markus H. 2013. Close Ties, Intercessory Prayer, and Optimism Among American Adults: Locating God in the Social Support Network. *Journal for the Scientific Study of Religion* 52(1). 35–56. doi:10.1111/jssr.12010.

Prayer is often an interpersonal phenomenon. It represents not only a form of social support shared between or among people, but also a means of embedding an unobservable actor (God) within a conventionally observable social network. This study considers whether the receipt of intercessory prayer from close network ties is associated with future-oriented well-being. Analyses use social network module data from the Portraits of American Life Study (PALS), a nationally representative study of American adults containing a breadth of information not available in prior studies of networks, prayer, and well-being. Despite experiencing more instances of recent adversity (mental or physical health problem, financial trouble, and unemployment), prayed-for PALS respondents report the highest levels of optimism. Furthermore, the association between network prayer and optimism is robust to inclusion of individual-level indicators of religiosity. Finally, other forms of social support that an individual receives from his or her close ties do not explain the benefits of intercessory prayer.

- Schnell, Tatjana. 2012. Spirituality with and without Religion: Differential Relationships with Personality. *Archive for the Psychology of Religion* 34(1). 33–61. doi:10.1163/157361212X644495.

This study contributes to the exploration of self-rated spirituality by anchoring self-ratings of spirituality and religiosity in an integrative model of personality. For the measurement of personality dispositions and characteristic adaptations, the NEO Personality Inventory Revised (NEO-PI-R, German version) and the Sources of Meaning and Meaning in Life Questionnaire (SoMe) have been administered to a sample (n=135) of German-speaking students. A three-step study design is employed. First, previous findings on associations between personality and religiosity/spirituality are replicated and supplemented. Second, sources of meaning are shown to explain a considerably higher amount of unique variance in religiosity and spirituality than do personality dispositions. Third, two types of spirituality—religious-and-spiritual and spiritual-but-not-religious—are identified and distinguished on the basis of personality traits. The spiritual-but-not-religious type shows significantly higher degrees of Neuroticism, and lower degrees of Agreeableness. Possible interpretations and lines of future research on “spirituality without religion” are sketched out.

- Stroope, Samuel, Scott Draper & Andrew L. Whitehead. 2013. Images of a loving God and sense of meaning in life. *Social Indicators Research* 111(1). 25–44. doi:10.1007/s11205-011-9982-7.

Although prior studies have documented a positive association between religiosity and sense of meaning in life, the role of specific religious beliefs is currently unclear. Past research on images of God suggests that loving images of God will positively correlate with a sense of meaning and purpose. Mechanisms for this hypothesized relationship are drawn from prior work on attachment theory, religious coping, and symbolic interaction. The authors here suggest that these mechanisms are complementary and that secure attachment styles, reliable coping strategies, and positive self-images work in tandem to facilitate a sense of meaning and purpose. Using a random, national sample from the second wave of the Baylor Religion Survey, researchers perform multivariate regression analysis that controls for key religious and demographic effects. In this model, results indicate that the dependent variable is positively associated with student status, religious non-affiliation, congregational friendship networks, and frequency of prayer. Most important from the perspective of the present study, the connection between loving images of God and a sense of meaning and purpose is consistent and robust.

- Ulland, Dagfinn. 2012. Embodied Spirituality. *Archive for the Psychology of Religion* 34(1). 83–104.

doi:10.1163/157361212X645340.

The main findings on embodied spirituality within the Toronto Blessing are presented in this article. The aim of this study is to interpret ecstatic religious experiences from a psychological point of view. The theoretical framework is interdisciplinary, using theories from ego-psychology, social psychology, sociology, cultural anthropology, and ritual theory. Regarding the latter notion, Thomas Csordas has developed cultural phenomenology, which is a culturally constructed way of understanding a situation through using bodily senses in a sort of sensory engagement that is linked with inter-subjectivity. This way of thinking assumes that the body can impart knowledge and help us understand apparently non-rational phenomena. Ecstatic phenomena can be interpreted as bodily knowledge, a habitus, stored or saved in the body to be later activated in a cultural and ritual context.

Yeh, Jin-Tsann & Chyong-Ling Lin. 2013. Beauty and healing: Examining sociocultural expectations of the embodied goddess. *Journal of Religion and Health* 52(1). 318–334.

doi:10.1007/s10943-011-9470-z.

Studies indicate mental health improvement can occur via religious communities offering social support and other resources. Many people from many cultures regard medicine as a supernatural or magical treatment that can somehow lead to a better state of living. In medical advertising, female role portrayal involves the blending of beauty, ritual and attractiveness in combination with the best product image. A Chinese saying suggests that, “A girl will doll herself up for him who loves her.” Female role attraction is a very important ethical subject in gender issues. Moving forward in time, female role visualization and consumption in medical advertising reveal depictions that encouraged women to do some self-searching and find, or develop, inner strength. This study is designed to examine female role portrayals in a restricted patriarchal society. The results indicate that the ideology of motherhood is an accepted social orientation that the public readily identifies with. Results further indicate that beautification through medical products incorporates an emotional element of religious healing and that the objectification of beauty in the media reveals a possible neglect of women’s internal beauty.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

La Cour, Peter, Nadja Hørdam Ausker & Niels Christian Hvidt. 2012. Six understandings of the word “spirituality” in a secular country. *Archive for the Psychology of Religions* 34(1). 63–81.

doi:10.1163/157361212X649634.

Spirituality is a growing research theme, especially in relation to health issues. The term is often poorly defined and one’s understanding is often so broad that it becomes a mere frame word devoid of meaning. In this study, the authors asked 514 adult Danes about their understanding of the word “spirituality”. Factor analysis of the answers resulted in six different understandings of spirituality: (1) positive dimensions in human life and well-being; (2) New Age ideology; (3) an integrated part of established religious life; (4) a vague striving, opposed to religion; (5) selfishness; and (6) ordinary inspiration in human activities. It is concluded that a common understanding of the term spirituality does not exist, at least in a modern secular setting.

Keller, Barbara, Constantin Klein, Anne Swahajor-Biesemann, Christopher F. Silver, Ralph Hood & Heinz Streib. 2013. The Semantics of “Spirituality” and Related Self-Identifications: A Comparative Study in Germany and the USA. *Archive for the Psychology of Religion* 35(1). 71–100.

doi:10.1163/15736121-12341254.

Culturally different connotations of basic concepts challenge the comparative study of religion. Do persons in Germany or in the United States refer to the same concepts when talking about “spirituality” and “religion”? Does it make a difference how they identify themselves? The Bielefeld-Chattanooga Cross-Cultural Study on “Spirituality” includes a semantic differential approach for the comparison of self-identified “neither religious nor spiritual”, “religious”, and “spiritual” persons regarding semantic attributes attached to the concepts “religion”

and “spirituality” in each research context. Results show that “spirituality” is used as a broader concept than “religion”. Regarding religion, semantics attributed by self-identified religious persons differ significantly from those of the spiritual persons. The “spiritual” and the “religious” groups agree on semantics attributed to spirituality but differ from the “neither spiritual nor religious” group. Qualifications of differences and agreements become visible from the comparison between the United States and Germany.

Kramp, Joseph M. 2013. The sacrifice of knowledge: Vain debates in the social scientific study of religion. *Journal of Religion and Health* 52(1). 66–73.
doi:10.1007/s10943-010-9427-7.

Since its inception, the social scientific study of religion has been a battleground for scholars advocating for the advantages of one sort of methodology over against the other. The present author argues that these debates have more to do with the personalities of the researchers rather than any kind of justifiable proof that one method is better than another. It is further argued that the process by which scholars quarrel over methods is a sign of stagnation or regression in the academy, and he draws broad implications for the health of the discipline of religious studies.

Kunst, Jonas R., David L. Sam & Pål Ulleberg. 2013. Perceived Islamophobia: Scale development and validation. *International Journal of Intercultural Relations* 37(2). 225–237.
doi:10.1016/j.ijintrel.2012.11.001.

“Islamophobia” has been used as an umbrella term capturing different types of religious stigma towards Muslims. However, the operationalization of the term for research purposes varies greatly, where little attention heretofore has been paid on how islamophobia affects Muslim minorities’ lives. Against this background, the authors aimed to develop and validate the Perceived Islamophobia Scale (PIS). In the first study (167 German-Arabs, 184 German-Turks and 205 British-Pakistanis), exploratory factor analyses of a preliminary item pool gave support of a three-factor scale in all samples. Subscales were computed for each factor (i.e., perceptions of a general fear of Islam and Muslims, fear of islamization, and islamophobia in the media), which were reliable across the samples. In all samples, the PIS was positively related to psychological distress and in two samples this relation remained significant, after controlling for experiences of discrimination. In Study 2 (262 German-Turks, 277 French-Maghrebis and 249 British-Pakistanis), confirmatory factor analyses supported the structural equivalence of the scale’s three-factor solution. The PIS was positively related to perceived stress and discrimination. Lastly, PIS predicted higher levels of religious and ethnic identification, controlling for discrimination. The PIS seems to be a valid and reliable measure across different Muslim minority groups. The fact that perceptions of islamophobia in two samples negatively predicted psychological distress after controlling for experiences of discrimination, suggests that anti-discrimination laws may be insufficient in protecting Muslim minorities of the negative effects of stigma on psychological well-being.

Salander, Pär. 2012. The Emperor’s New Clothes: Spirituality. A Concept Based on Questionable Ontology and Circular Findings. *Archive for the Psychology of Religion* 34(1). 17–32.
doi:10.1163/157361212X645241.

“Spirituality” is an old word which throughout history has been given different meanings. Over the last two decades, it has successively become an increasingly frequent concept in scientific studies, not the least in psychosocial oncology. Advocates of “Spirituality” regard it as a human dimension and state that since all humans have “spiritual needs” it is urgent to develop “spiritual care”. With the focus on recent publications, this article critically scrutinizes aspects of scientific soundness in this growing research tradition, foremost problems of the lack of conceptual clarity and reliance on interconnected instruments that imply circular findings. It is concluded that the concept adds more confusion than clarity if it is not put into a meaningful theoretical and cultural context, and subsequently it is important to guard against preconceptions and vague meanings in this research field.

Westerink, Herman. 2012. Spirituality in Psychology of Religion: A Concept in Search of Its Meaning. *Archive for the Psychology of Religion* 34(1). 3–15.
doi:10.1163/157361212X644486.

In this article it is argued that the apparent vagueness and broadness of the concept “spirituality”; and the difficulty in finding an agreeable definition for it are related to the different meanings of the concept within different intellectual and religious contexts and, subsequently, to different valuations of spirituality in relation to religion and lived religiosity. This article also examines the concept spirituality in the context of the psychology of religions historical entanglement with theology. On the one hand, the psychology of religion has emancipated itself from theological discourse and theological institutions. On the other hand, the psychology of religion is still closely connected to a modernist theological project of founding religiousness in a province of the mind that resists religious critique of traditional contents and institutional structures in a secular era. The author pleas for more differentiation between theistic and non-theistic dimensions of the concept spirituality.

PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Abel, Allison N., Lisa K. Lloyd & James S. Williams. 2013. The Effects of Regular Yoga Practice on Pulmonary Function in Healthy Individuals: A Literature Review. *Journal of Alternative and Complementary Medicine* 19(3). 185–190.
doi:10.1089/acm.2011.0516.

The authors performed a literature review on research investigating yoga's effects on pulmonary function, to determine if regular yoga training improves pulmonary function in apparently healthy individuals. Analysis of these studies indicated that yoga improved pulmonary function, as measured by maximum inspiratory pressure, maximum expiratory pressure, maximum voluntary ventilation, forced vital capacity, forced expiratory volume in 1 second, and peak expiratory flow rate, in 8 of 9 studies. The authors conclude that pulmonary function appears to improve with a minimum of 10 weeks of regular yoga practice, and the magnitude of this improvement is related to fitness level and/or the length of time the subjects spend practicing pranayama (i.e., breathing exercises). In other words, greater improvements in pulmonary function are more likely to be seen in less-fit individuals and/or those that engage in longer periods of pranayama.

Barlow, Fiona, Jan Walker & George Lewith. 2013. Effects of Spiritual Healing for Women Undergoing Long-Term Hormone Therapy for Breast Cancer: A Qualitative Investigation. *Journal of Alternative and Complementary Medicine* 19(3). 211–216.
doi:10.1089/acm.2012.0091.

This qualitative observation study investigated whether Spiritual Healing could support patients with breast cancer undergoing long-term hormonal therapy. The study took place in a specialist research facility in a general hospital. Spiritual Healing was provided by 4 healers registered with the National Federation of Spiritual Healers. Twelve patients with breast cancer undergoing long-term hormone treatment and who found the effects onerous, self-referred themselves and were given ten weekly sessions of approximately 40 minutes each. Data collected included participant's daily records, direct observations noted by healers, the researcher's field diary and a one-to-one semi-structured interview. Researchers found that the positive effects of Spiritual Healing included alleviation of the physical side-effects of their treatment, increased energy levels, enhanced well-being, emotional relaxation, and re-engagement with pre-cancer activities. Although 1 participant admitted considering a drug holiday prior to joining the study, none of the participants felt tempted to stop their hormonal treatments while receiving Spiritual Healing.

Basiński, Andrzej, Tomasz Stefaniak, Magdalena Stadnyk, Arfan Sheikh & Ad J J M Vingerhoets. 2013. Influence of religiosity on the quality of life and on pain intensity in chronic pancreatitis patients after neurolytic celiac plexus block: case-controlled study. *Journal of Religion and Health* 52(1). 276–284.
doi:10.1007/s10943-011-9454-z.

The quality of life in patients with chronic pancreatitis (CP) is reduced due to their suffering of high levels of pain. It has been presented that quality of life can also be linked to religiosity and/or spirituality. The aim of this study is to assess the influence of religious practices on the quality of life and on the subjective level of pain in CP patients. Ninety-two patients (37 women) with chronic pancreatitis were treated invasively for pain with neurolytic celiac plexus block (NCPB). The religiosity of the patients was recorded and served as a dichotomizer. Group 1 was for patients who claimed to have no contact with the church or to have very sporadic contact (n=35 patients). Group 2 was for patients who claimed to have deep faith and were regular participants at church activities (n=57 patients). The patients were assessed prior to the pain-relieving intervention and subsequently 2 and 8 weeks after it. The intensity of pain was reduced in both groups significantly after performing the NCPB. Patients who

declared a deep faith reported higher level of pain on the VAS scale prior to intervention than non-religious patients. Quality of life in both groups of patients significantly improved after NCPB. Following NCPB, global quality of life in patients who declared higher religiosity/church attendance was significantly higher than for those patients who have no contact or sporadic contact with the church. NCPB resulted in significant reduction of pain and increase in quality of life in both groups of patients with CP. Nevertheless, in the group declaring higher religiosity/church attendance, reported pain was higher, but, despite that, quality of life was better.

Black, David S, Steve W Cole, Michael R Irwin, Elizabeth Breen, Natalie M St. Cyr, Nora Nazarian, Dharma S Khalsa & Helen Lavretsky. 2013. Yogic meditation reverses NF- κ B and IRF-related transcriptome dynamics in leukocytes of family dementia caregivers in a randomized controlled trial. *Psychoneuroendocrinology* 38(3). 348–355.
doi:10.1016/j.psyneuen.2012.06.011.

The present study examined if a yogic meditation might alter the activity of inflammatory and antiviral transcription control pathways that shape immune cell gene expression. Forty-five family dementia caregivers were randomized to either Kirtan Kriya Meditation (KKM) or Relaxing Music (RM), listening for 12 min daily for 8 weeks, and 39 caregivers completed the study. Genome-wide transcriptional profiles were collected from peripheral blood leukocytes sampled at baseline and 8-week follow-up. It was found that a brief daily yogic meditation intervention may reverse the pattern of increased NF- κ B-related transcription of pro-inflammatory cytokines and decreased IRF1-related transcription of innate antiviral response genes previously observed in healthy individuals confronting a significant life stressor.

Brown, Anthony E, J Scott Tonigan, Valory N Pavlik, Thomas R Kosten & Robert J Volk. 2013. Spirituality and confidence to resist substance use among Celebrate Recovery participants. *Journal of Religion and Health* 52(1). 107–113.
doi:10.1007/s10943-011-9456-x.

Since self-efficacy is a positive predictor of substance use treatment outcome, researchers investigated whether it is associated with spirituality within a religious 12-step program. This was a cross-sectional survey (n=91) of 10 different Celebrate Recovery sites held at community churches. The mean spirituality score for those with high confidence was significantly greater than those with low confidence. Spirituality associated with greater confidence to resist substance use. Thus, every unit increase of measured spirituality increased the odds of being above the median in self-efficacy by 9%.

Brown, Christopher A. & Anthony K. P. Jones. 2013. Psychobiological Correlates of Improved Mental Health in Patients With Musculoskeletal Pain After a Mindfulness-based Pain Management Program. *Clinical Journal of Pain* 29(3). 233–244.
doi:10.1097/AJP.0b013e31824c5d9f.

In this study, researchers investigated whether improvement in mental health might require (1) reduction in the sensory pain experience and brain correlates of that experience, and/or (2) improved perceptions of the controllability of pain and corresponding brain activity related to cognitive control and emotional regulation. Twenty-eight patients with chronic pain were assessed and randomized into an intervention group (who attended an 8-wk mindfulness-based pain management program [MBPM]) or a control group (treatment-as-usual), before being reassessed after 8 weeks. Following intervention, improvements were found in the MBPM group relative to the control group in mental health, which related to greater perceived control of pain, but not to reductions in clinical or experimental pain ratings. Anticipatory and pain-evoked event-related potentials to acute experimental pain were decreased, but sources of these event-related potentials were estimated to be in regions that modulate emotional responses rather than pain intensity. Mental health and perceived control outcomes correlated with reduced anticipatory deactivations of dorsolateral prefrontal and somatosensory cortices.

- Chen, Kevin W, Christine C Berger, Devang Gandhi, Eric Weintraub & C W Lejuez. 2013. Adding integrative meditation with ear acupressure to outpatient treatment of cocaine addiction: A randomized controlled pilot study. *Journal of alternative and complementary medicine (New York, N.Y.)* 19(3). 204–210.
doi:10.1089/acm.2011.0311.

This pilot therapy development study attempts to examine the feasibility and preliminary efficacy of adding breathing-based Integrative Meditation and Ear Acupressure (IMEA) to outpatient treatment of cocaine addiction. Fifty-six (56) cocaine-dependent patients were recruited from an outpatient addiction treatment facility in Baltimore, MD and randomized into either an IMEA or a treatment as usual (TAU) group for the 12 weeks of study, with weekly meetings to monitor treatment outcomes and to facilitate meditative therapy. With the assistance of simplified breath training and a portable MP4 device, 80% of IMEA participants self-reported practicing breathing or meditation 5+ days a week with acceptable compliance and showed strong interest in meditative techniques. Compared to TAU, IMEA participants reported significantly higher treatment completion rates by week 8 (89% versus 63%) and week 12 (81% versus 58%), higher abstinence rates (66% versus 34%), and significantly greater reduction in craving, anxiety, and other addiction-related symptoms.

- Cramer, Holger, Romy Lauche, Claudia Hohmann, Rainer Luedtke, Heidemarie Haller, Andreas Michalsen, Jost Langhorst & Gustav Dobos. 2013. Randomized-controlled Trial Comparing Yoga and Home-based Exercise for Chronic Neck Pain. *Clinical Journal of Pain* 29(3). 216–223.
doi:10.1097/AJP.0b013e318251026c.

The aim of this study was to evaluate the effect of Iyengar yoga compared with exercise on chronic nonspecific neck pain. Participants were randomly assigned to either yoga (n=25) or exercise (n=26). The yoga group attended a 9-week yoga course and the exercise group received a self-care manual on home-based exercises for neck pain relief. After the study period, patients in the yoga group reported significantly less neck pain intensity compared with the exercise group. The yoga group reported less disability and better mental quality of life. Range of motion and proprioceptive acuity were improved and the pressure pain threshold was elevated in the yoga group.

- Dhameja, Kanupriya, Savita Singh, M. D. Mustafa, K. P. Singh, Basu Dev Banerjee, Mukul Agarwal & Rafat S. Ahmed. 2013. Therapeutic Effect of Yoga in Patients with Hypertension with Reference to GST Gene Polymorphism. *Journal of Alternative and Complementary Medicine* 19(3). 243–249.
doi:10.1089/acm.2011.0908.

The present study was designed to investigate the association of glutathione S-transferase (GST) gene polymorphism with oxidative stress in hypertensive patients and the possible beneficial effect of yoga on them. Sixty hypertensive individuals were divided into two groups of 30 each. The yoga group was subjected to 50-60 minutes of yogic practices daily for 42 days, while the control group included the remaining 30 age-and sex-matched hypertensive individuals. GST gene polymorphism was analyzed using multiple allele specific polymerase chain reaction, and oxidative stress parameters were assessed biochemically. Assessment of blood pressure showed a statistically significant though modest reduction in the yoga group as compared to the control group. Malondialdehyde was observed to be significantly low, while antioxidant capacity in the form of GST showed an increasing trend and ferric-reducing ability of plasma was significantly increased in the subjects who practiced yoga. The authors conclude that the results indicate that yoga decreases blood pressure as well as the levels of oxidative stress in patients with hypertension.

- Fitchett, George, Maureen R Benjamins, Kimberly A Skarupski & Carlos F Mendes de Leon. 2013. Worship attendance and the disability process in community-dwelling older adults. *The journals of Gerontology. Series B, Psychological Sciences and Social Sciences* 68(2). 235–245.
doi:10.1093/geronb/gbs165.

The authors examined the contribution of religious involvement to age-related declines in health by examining the association of worship attendance with measures of different stages in the disability continuum. Participants included 5,863 Black and White older adults from the Chicago Health and Aging Project. Worship attendance was coded in 3 levels: very frequent (several times a week or more), frequent (several times a month), and infrequent (several times a year or less). Measures of disability included self-reported instrumental activities of daily living (IADL) and activities of daily living (ADL) disability as well as observed physical function. In multiple regression models adjusted for demographic factors, compared with those with infrequent worship attendance, those with frequent or very frequent attendance had lower levels of IADL and ADL disability and higher levels of physical performance at baseline. These associations remained significant in models that adjusted for health and cognitive status. There was no association between frequency of worship attendance and change in disability or physical function over time.

Garcia, Ginny, Christopher G Ellison, Thankam S Sunil & Terrence D Hill. 2013. Religion and selected health behaviors among Latinos in Texas. *Journal of Religion and Health* 52(1). 18–31. doi:10.1007/s10943-012-9640-7.

The authors used a probability sample of Texas adults to test the relationship between religion and its influence on patterns of alcohol (especially binge drinking) and tobacco consumption among Latinos in Texas. Results revealed that clear distinctions emerge on the basis of both denomination and frequency of attendance. Specifically, Protestants who regularly attend religious services are significantly more likely to be abstainers and to have never smoked, while those with no religious affiliation exhibit relatively unfavorable risk profiles. These findings persist despite a range of socio-demographic controls. The study supports the assertion that religion may serve as an important protective influence on risky health behaviors.

Gaston-Johansson, Fannie, Mary Ellen Haisfield-Wolfe, Bobbie Reddick, Nancy Goldstein & Tokunbor A Lawal. 2013. The relationships among coping strategies, religious coping, and spirituality in African American women with breast cancer receiving chemotherapy. *Oncology Nursing Forum* 40(2). 120–131. doi:10.1188/13.onf.120-131.

Researchers examined coping capacity, psychological distress, spiritual well-being, positive and negative religious coping, and coping strategies among 17 African American (AA) women with breast cancer, and explored relationships among these variables to enhance an already tested comprehensive coping strategy program (CCSP) intervention for AA women with breast cancer (CCSP-AA). Analysis of questionnaires revealed that a higher coping capacity was beneficial, as it was related to less psychological distress, negative religious coping, and catastrophizing. Women using less negative religious coping had greater spiritual well-being and less distress. Using more coping self-statements was associated with higher spiritual well-being and less negative religious coping. Catastrophizing had a negative effect on psychological distress and spiritual well-being.

Gomes, Fernanda Carolina, Arthur Guerra de Andrade, Rafael Izbicki, Alexander Moreira Almeida & Lúcio Garcia de Oliveira. 2013. Religion as a protective factor against drug use among Brazilian university students: a national survey. *Revista brasileira de psiquiatria (São Paulo, Brazil: 1999)* 35(1). 29–37.

Researchers investigated the relationship between religiosity and drug use among 12,595 Brazilian university students using survey data and responses to questionnaires. Students were divided into two groups according to their attendance at religious services: frequent attenders (FR; 39.1%) and non-frequent attenders (NFR; 60.8%). Drug use over the last 30 days was higher among NFR students even after controlling for demographic variables. NFR students were more likely to use alcohol, tobacco, marijuana, and at least one illicit drug compared to FR students.

Horton, Karissa D & Alexandra Loukas. 2013. Discrimination, religious coping, and tobacco use among White, African American, and Mexican American vocational school students. *Journal of Religion and Health* 52(1). 169–183.
doi:10.1007/s10943-011-9462-z.

This study examined whether religious coping moderates the impact of racial/ethnic discrimination on current (past 30 day) cigarette and cigar/cigarillo use among a racially/ethnically diverse sample of 984 technical/vocational school students. Results indicate that discrimination increased the likelihood of current cigarette use among African American students and current cigar/cigarillo use among white and African American students. Positive religious coping decreased the likelihood of cigarette and cigar/cigarillo smoking for white students only. Negative religious coping increased the likelihood of cigarette use for white students and cigar/cigarillo use for white and African American students. Two 2-way interactions indicate that positive and negative religious coping moderate the discrimination-cigarette smoking relationship for African American and Mexican American students, respectively.

Hsu, Sharon Hsin, Susan E. Collins & G. Alan Marlatt. 2013. Examining psychometric properties of distress tolerance and its moderation of mindfulness-based relapse prevention effects on alcohol and other drug use outcomes. *Addictive Behaviors* 38(3). 1852–1858.
doi:10.1016/j.addbeh.2012.11.002.

This research project evaluated the basic psychometric properties of the Distress Tolerance Scale (DTS) in a clinical sample of individuals with alcohol and other drug (AOD)-use disorders and tested whether distress tolerance for negative psychological states moderated treatment effects on AOD outcomes in an initial efficacy trial of mindfulness-based relapse prevention (MBRP). Patients with AOD-use disorders (n=168) were recruited for the study. Following intervention, DTS was positively associated with all mindfulness subscales.

Kang Sim, D. Eastern, C. Richard Hofstetter, Veronica L. Irvin, John W. Ayers, Caroline A. Macera, Ming Ji & Melbourne F. Hovell. 2013. Do Christian denominations exhibit higher rates of alcohol consumption? A study of Korean American women in California. *Journal of Religion and Health* 52(1). 285–298.
doi:10.1007/s10943-011-9471-y.

This cross-sectional study examined the associations of religious denomination and religious commitment to alcohol consumption among Korean American women in California. Polychotomous regression models were used to provide estimates of the associations between religious denomination and religious commitment to alcohol consumption. Catholic Korean American women and Independent Christian women showed stronger associations to heavy alcohol consumption when compared to Conservative Christian Korean American women. Path analysis suggested that specific denominations had both direct and indirect effects on the outcome of interest, and that religious commitment and drinking models served as moderators for this phenomenon.

Kisenyi, Rita N., Joshua K. Muliira & Elizabeth Ayebare. 2013. Religiosity and adherence to antiretroviral therapy among patients attending a public hospital-based HIV/AIDS clinic in Uganda. *Journal of Religion and Health* 52(1). 307–317.
doi:10.1007/s10943-011-9473-9.

In Uganda, the prevalence of non-adherence to antiretroviral therapy (ART) by HIV/AIDS patients remains high and sometimes this is blamed on patients' religious behavior. A descriptive design was used to examine the relationship between religiosity and ART adherence in a sample of 220 patients attending a HIV/AIDS clinic in a Ugandan public hospital. Participants who self-identified as Pentecostal and Muslim had the highest percentage of members with high religiosity scores and ART adherence. Among Muslim participants (34), 82% reported high religiosity scores and high levels of ART adherence. Of the fifty Pentecostals participants, 96%

reported high religiosity scores and 80% reported high levels of ART adherence. Correlation analysis showed a significant relationship between ART adherence and religiosity.

Lakkireddy, Dhanunjaya, Donita Atkins, Jayasree Pillarisetti, Kay Ryschon, Sudharani Bommana, Jeanne Drisko, Subbareddy Vanga & Buddhadeb Dawn. 2013. Effect of Yoga on Arrhythmia Burden, Anxiety, Depression, and Quality of Life in Paroxysmal Atrial Fibrillation: The YOGA My Heart Study. *Journal of the American College of Cardiology* 61(11). 1177–1182.
doi:10.1016/j.jacc.2012.11.060.

This single-center, pre-post study enrolled patients with symptomatic paroxysmal atrial fibrillation (AF) with an initial 3-month noninterventional observation period followed by twice-weekly 60-min yoga training for next 3 months. Yoga training reduced symptomatic AF episodes, symptomatic non-AF episodes, asymptomatic AF episodes, and depression and anxiety, and improved the QoL parameters of physical functioning, general health, vitality, social functioning, and mental health domains. There was significant decrease in heart rate, and systolic and diastolic blood pressure before and after yoga.

Longo, Joseph, N. Eugene Walls & Hope Wisneski. 2013. Religion and religiosity: protective or harmful factors for sexual minority youth? *Mental Health, Religion & Culture* 16(3). 273–290.
doi:10.1080/13674676.2012.659240.

The current study examines the association between religious tradition, religiosity, and non-suicidal self-injury (NSSI) behavior. Results indicate that religion plays both a protective and harmful role for sexual minority youth. Those identifying as Christians with high religious guidance had the greatest risk, seculars had a comparatively moderate risk, and Christians with low religious guidance had the least risk. Implications for clinical practice and future areas of research are discussed.

Nakau, Maiko, Jiro Imanishi, Junichi Imanishi, Satoko Watanabe, Ayumi Imanishi, Takeshi Baba, Kei Hirai, Toshinori Ito, Wataru Chiba & Yukihiro Morimoto. 2013. Spiritual Care of Cancer Patients by Integrated Medicine in Urban Green Space: A Pilot Study. *Explore (New York, N.Y.)* 9(2). 87–90.
doi:10.1016/j.explore.2012.12.002.

The present study, involving 22 cancer patients, was designed to examine the effect of spiritual care of cancer patients by integrated medicine in a green environment. Integrated medicine consisted of forest therapy, horticultural therapy, yoga meditation, and support group therapy, and sessions were conducted once a week for 12 weeks. There were significant differences in functional well-being and spiritual well-being pre- and postintervention. This program improved quality of life and reduced cancer-associated fatigue. Furthermore, some aspects of psychological state were improved and natural killer cell activity was increased.

Paiva, Carlos Eduardo, Bianca Sakamoto Ribeiro Paiva, Rafael Amaral de Castro, Cristiano de Pádua Souza, Yara Cristina de Paiva Maia, Jairo Aparecido Ayres & Odair Carlito Michelin. 2013. A pilot study addressing the impact of religious practice on quality of life of breast cancer patients during chemotherapy. *Journal of Religion and Health* 52(1). 184–193.
doi:10.1007/s10943-011-9468-6.

The aim of this preliminary study was to investigate whether religious practice can modify quality of life (QoL) in breast cancer (BC) patients during chemotherapy. QoL and religion practice questionnaire (RPQ) scores were evaluated in a sample of BC patients in different moments. Before chemotherapy initiation, women with lower physical and social functional scores displayed higher RPQ scores. On the other hand, low RPQ patients worsened some QoL scores over time. Body image acceptance was positively correlated with religious practice and specifically praying activity.

Raghavan, Rajeev, Laura Ferlic-Stark, Cinda Clarke, Manish Rungta & Richard Goodgame. 2013. The role of patient religiosity in the evaluation and treatment outcomes for chronic HCV infection. *Journal of Religion and Health* 52(1). 79–90.

doi:10.1007/s10943-011-9455-y.

This prospective, blinded, cohort study was performed on hepatitis C-infected patients categorized as “higher religiosity” (n=38) and “lower religiosity” (n=49) based on responses to a religiosity questionnaire. Comparisons were made between high and low religiosity patients on demographics, pre-treatment laboratory values, and response to treatment. The frequency of being offered treatment, accepting treatment, and completing treatment was similar in both religiosity cohorts. Depression was more frequent in the low religiosity group. Logistic regression modeling revealed that males having higher religiosity gave greater odds of Sustained Virological Response (SVR) than those with lower religiosity. The level of religiosity did not affect the decision to begin treatment for chronic HCV infection and was not associated with a better treatment outcome.

Rodriguez, Lindsey M., Clayton Neighbors & Dawn W. Foster. 2013. Priming Effects of Self-Reported Drinking and Religiosity. *Psychology of Addictive Behaviors*.

doi:10.1037/a0031828.

The present research provided an experimental evaluation of response biases of self-reported religiosity and alcohol consumption based on order of assessment. Participants (n=301 undergraduate students) completed an online survey. Based on random assignment, religiosity was assessed either before or after questions regarding recent alcohol consumption. Social desirability bias was also measured. Results revealed a priming effect such that participants who answered questions about their religiosity prior to their alcohol consumption reported fewer drinks on their peak drinking occasions, drinking less on typical occasions, and drinking less frequently, even when controlling for social desirability and for the significant negative associations between their own religiosity and drinking. In contrast, assessment order was not significantly associated with religiosity. Results indicate priming religion results in reporting lower, but potentially more accurate, levels of health risk behaviors and that these effects are not simply the result of socially desirable responding.

Shor, Eran & David J. Roelfs. 2013. The Longevity Effects of Religious and Nonreligious Participation: A Meta-Analysis and Meta-Regression. *Journal for the Scientific Study of Religion* 52(1). 120–145.

doi:10.1111/jssr.12006.

This study tests the religious efficacy hypothesis regarding the reduced mortality risk associated with frequent participation in religious services by comparing the effects of religious participation with nonreligious participation using meta-analyses of 312 mortality risk estimates from 74 publications (providing data on more than 300,000 persons). No significant difference was found between the mean hazard ratio for low religious participation and the mean HR for low nonreligious participation. These findings suggest that the positive health effects of religious participation may largely be attributed to the social participation component, rather than to the religious component of the act.

Stewart, William C, Michelle P Adams, Jeanette A Stewart & Lindsay A Nelson. 2013. Review of clinical medicine and religious practice. *Journal of Religion and Health* 52(1). 91–106.

The authors of this study reviewed articles that assessed the influence of religious practices on medicine as a primary or secondary variable in clinical practice. This review evaluated 49 articles and found that religious faith is important to many patients, particularly those with serious disease, and patients depend on it as a positive coping mechanism. The findings of this review can suggest that patients frequently practice religion and interact with God about their disease state. This spiritual interaction may benefit the patient by providing comfort,

increasing knowledge about their disease, greater treatment adherence, and quality of life. The results of prayer on specific disease states appear inconsistent with cardiovascular disease but stronger in other disease states.

Thune-Boyle, Ingela C. V., Jan Stygall, Mohammed R. S. Keshtgar, Tim I. Davidson & Stanton P. Newman. 2013. Religious/spiritual coping resources and their relationship with adjustment in patients newly diagnosed with breast cancer in the UK. *Psycho-Oncology* 22(3). 646–658.
doi:10.1002/pon.3048.

This paper reports the cross-sectional data of a longitudinal study examining the beneficial and harmful effects of religious/spiritual coping resources on adjustment in the first year after a breast cancer diagnosis in 155 patients. Following assessments, of the patients, it was found that “Feeling punished and abandoned by God” significantly explained 5% of the variance in increased levels of anxiety but was partially mediated by denial coping. It was also partially mediated by acceptance coping, lowering levels of anxiety. Feeling punished and abandoned by God was a significant independent predictor of depressed mood, explaining 4% of the variance.

Watkins, Yashika J, Lauretta T Quinn, Laurie Ruggiero, Michael T Quinn & Young-Ku Choi. 2013. Spiritual and Religious Beliefs and Practices and Social Support’s Relationship to Diabetes Self-Care Activities in African Americans. *The Diabetes Educator* 39(2). 231–239.
doi:10.1177/0145721713475843.

In a study of 132 participants with type 2 diabetes, researchers found significant relationships between spiritual and religious beliefs and practices and general diet. Additional significant relationships were found for social support with general diet, specific diet, and foot care. Based on multiple linear regression, social support was a significant predictor for general diet, specific diet, and foot care.

2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Abdel-Khalek, Ahmed M. 2013. The relationships between subjective well-being, health, and religiosity among young adults from Qatar. *Mental Health, Religion & Culture* 16(3). 306–318.
doi:10.1080/13674676.2012.660624.

The aims of this study were to explore the associations between, and the factors of, subjective well-being, health, and religiosity among Qatari undergraduates (n=246). Men obtained a significantly higher mean score on self-rating of mental health than did their female counterparts. The only predictor of religiosity was the self-rating scale of satisfaction in men and women. It was concluded that those who consider themselves as religious in the present study reported higher subjective well-being and good health.

Ai, Amy Lee, Faith Hopp, Terrence N Tice & Harold Koenig. 2013. Existential relatedness in light of eudemonic well-being and religious coping among middle-aged and older cardiac patients. *Journal of Health Psychology* 18(3). 368–382.
doi:10.1177/1359105311434754.

This study examined the prediction of preoperative faith factors for perceived spiritual support, indicating existential relationship as a dimension of eudemonic well-being (EWB), at 30 months after cardiac surgery (n=226). Preoperative prayer coping, subjective religiousness, and internal control were positive predictors of spiritual support. Negative religious coping was a negative predictor. Internal control mediated the role of positive religious coping.

Barton, Yakov A., Lisa Miller, Priya Wickramaratne, Marc J. Gameroff & Myrna M. Weissman. 2013. Religious attendance and social adjustment as protective against depression: A 10-year prospective study. *Journal of Affective Disorders* 146(1). 53–57.
doi:10.1016/j.jad.2012.08.037.

This study examined the association of frequency of religious services attendance with subsequent depression, while accounting for the effects of social adjustment. Participants were 173 adult offspring of depressed and nondepressed parents, followed longitudinally over 25 years. Frequent religious services attendance was found to protect against subsequent depression at a trend level. High functioning social adjustment was found to protect against subsequent depression, especially within the immediate and extended family. Adults without a depressed parent who reported attending religious services at least once a month had a lower likelihood of subsequent depression. Among adults with a depressed parent, those with high functioning social adjustment had a lower likelihood of subsequent depression.

Bennett, Kellie S. & Julie M. Shepherd. 2013. Depression in Australian women: The varied roles of spirituality and social support. *Journal of Health Psychology* 18(3). 429–438.
doi:10.1177/1359105312443400.

This study investigated the influence of spirituality on depression in Western Australian women. Two hundred and seventy-eight women (aged 18-78) completed an online survey about factors relating to daily spiritual experience, depression, anxiety and social support. Significant correlations were found between spiritual experience and depression, whereby individuals who reported higher spirituality also reported higher rates of social support and lower levels of depression. Spirituality accounted for a significant proportion of variance in depressive symptoms beyond the mediating effect of social support.

Bergomi, Claudia, Gunnar Ströhle, Johannes Michalak, Friedrich Funke & Matthias Berking. 2013. Facing the Dreaded: Does Mindfulness Facilitate Coping with Distressing Experiences? A Moderator Analysis. *Cognitive Behaviour Therapy* 42(1). 21–30.
doi:10.1080/16506073.2012.713391.

Researchers tested the hypothesis that mindfulness moderates the association between the occurrence of unavoidable distressing experiences (UDE) and mental health (n=376). Results indicated that mindfulness moderated the association between unavoidable distressing events and psychopathological symptoms/negative affect. Thus, mindfulness may contribute to enhance the ability to cope with UDE and thus mitigate the detrimental effects of these experiences on mental health.

Doran, Frances & Julie Hornibrook. 2013. Women's experiences of participation in a pregnancy and postnatal group incorporating yoga and facilitated group discussion: A qualitative evaluation. *Women and Birth* 26(1). 82–86.
doi:10.1016/j.wombi.2012.06.001.

This paper reports on a small qualitative research study which explored women's experiences of participation in a pregnancy and postnatal group that incorporated yoga and facilitated discussion. Fifteen women participated in individual, in-depth face-to-face interviews. Thematic analysis was undertaken to analyze the qualitative data. Six themes were developed, one with 3 subthemes. One theme was labeled as: "the pregnancy and motherhood journey" and included 3 sub-themes which were labeled: "preparation for birth", "connecting with the baby" and "sharing birth stories." The other five themes were: "feminine nurturing safe space", "watching and learning the mothering", "building mental health, well-being and connections", the "group like a rock and a seed" and "different from mainstream".

Holt, Cheryl L., Min Qi Wang, Eddie M. Clark, Beverly Rosa Williams & Emily Schulz. 2013. Religious involvement and physical and emotional functioning among African Americans: The mediating role of religious support. *Psychology & Health* 28(3). 267–283.
doi:10.1080/08870446.2012.717624.

This study aimed to examine whether religious social support played a mediating role between religious involvement and physical and emotional functioning, and depressive symptoms. The study used a cross sectional telephone

survey among a national probability sample of African Americans (n=803). In both the emotional functioning and depressive symptoms models, the indirect effect test from religious behaviors to emotional religious support indicated evidence for mediation. There was no mediation for the physical functioning model.

Huang, Fu-Jung, Ding-Kuo Chien & Ue-Lin Chung. 2013. Effects of Hatha Yoga on Stress in Middle-Aged Women. *Journal of Nursing Research* 21(1). 59–66.
doi:10.1097/jnr.0b013e3182829d6d.

This study investigated the comparative effectiveness of a single 90-minute Hatha yoga class and an 8-week, 90-minute-class-per-week course. Researchers recruited 63 female community residents in New Taipei City aged 40-60 years. Participants were randomly divided into an experimental group (n=30) and a control group (n=33). The experimental group received the 8-week Hatha yoga course. The control group received no intervention. After a single 90-minute class of Hatha yoga, experimental group stress scores were significantly less than those of the control group. Although experimental group heart rate variability had improved, these changes were not statistically significant. Stress measurements for the single 90-minute class and 8-week course did not significantly differ. Generalized estimating equations analyzed changes in the effectiveness over time of stress reduction (HRV and PSS) after the Hatha yoga intervention. Results showed the postintervention HRV and stress measurements of the experimental group decreased significantly more than the control group.

Khalsa, Sat Bir S., Bethany Butzer, Stephanie M. Shorter, Kristen M. Reinhardt & Stephen Cope. 2013. Yoga Reduces Performance Anxiety in Adolescent Musicians. *Alternative Therapies in Health & Medicine* 19(2). 34–45.

Researchers evaluated the effects of a yoga intervention on music performance anxiety (MPA) and performance-related musculoskeletal disorders (PRMDs). The research team assigned participants, adolescent musicians, into two groups. The intervention group (n=84) took part in a 6-wk yoga program, and the control group (n=51) received no treatment. Yoga participants showed statistically significant reductions in MPA from baseline to the end of the program compared to the control group; however, the results for PRMDs were inconsistent.

Khan, Ziasma Haneef, P. J. Watson & Zhuo Chen. 2012. Islamic Religious Coping, Perceived Stress, and Mental Well-being in Pakistanis. *Archive for the Psychology of Religion* 34(2). 137–147.
doi:10.1163/15736121-12341236.

Research suggests that religious beliefs may both help and hinder how Muslims cope. In a Pakistani sample, the Positive Islamic Coping, Islamic Identity, and Extra-Prayer Commitment factors from the Psychological Measure of Islamic Religiousness correlated negatively with Perceived Stress and positively with Mental Well-Being, Intrinsic Religious Orientation, and Extrinsic Personal Religious Orientation. Islamic Identity also partially mediated the negative relationship of Perceived Stress with Mental Well-Being. A Punishing Allah Reappraisal factor failed to display any evidence that it operationalized a maladaptive form of Muslim coping. These data confirmed the positive coping potentials of Muslim commitments, with Islamic Identity being especially noteworthy.

Krause, Neal & David Hayward. 2013. Older Mexican Americans and God-mediated control: Exploring the influence of Pentecostal/Evangelical affiliation. *Mental Health, Religion & Culture* 16(3). 319–333.
doi:10.1080/13674676.2012.661409.

The purpose of this study is to explore the benefits that are associated with joining Pentecostal and Evangelical congregations. A latent variable model is specified that contains the following core relationships: (1) older Mexican Americans who affiliate with Pentecostal/Evangelical congregations will attend worship services more often; (2) older Mexican Americans who attend church more often will receive more spiritual support from their fellow church members; (3) older Mexican Americans who receive more spiritual support will develop a closer relationship with God; and (4) older Mexican Americans who have a close relationship with God will develop a

stronger sense of God-mediated control. Findings from a nationwide survey of older Mexican Americans provide support for each of these linkages.

Krause, Neal & R. David Hayward. 2012. Negative Interaction with Fellow Church Members and Depressive Symptoms among Older Mexican Americans. *Archive for the Psychology of Religion* 34(2). 149–171.

doi:10.1163/15736121-12341234.

The purpose of this study is to examine the relationship between church-based negative interaction and depressive symptoms with data from a nationwide sample of older Mexican Americans. Statistically significant findings were found for the following core relationships in the study model: (1) older Mexican Americans who encounter negative interaction with fellow church members experience more doubts about their faith; (2) older Mexican Americans who experience more doubts about their faith are more likely to expect transgressors to perform acts of contrition (i.e., make amends); and (3) older Mexican Americans who require transgressors to perform acts of contrition are more likely to experience symptoms of depression. Subsequent empirical analyses provide support for each of these relationships.

Langman, Louise & Man Cheung Chung. 2013. The Relationship Between Forgiveness, Spirituality, Traumatic Guilt and Posttraumatic Stress Disorder (PTSD) Among People with Addiction. *Psychiatric Quarterly* 84(1). 11–26.

doi:10.1007/s11126-012-9223-5.

To investigate the relationship between forgiveness, spirituality, guilt, posttraumatic stress (PTSD) and psychological co-morbidity among people in recovery from addiction, 81 people in recovery from drug and alcohol addiction were recruited from two residential units and two drop-in centers in a city in the United Kingdom. The control group comprised 83 individuals who confirmed that they did not have addiction. 54 % of the addiction group met the criteria for full PTSD and reported anxiety, somatic problems and depression. They described themselves as spiritual, had strong feelings of guilt associated with their addiction, and had difficulty in forgiving themselves. Regression analyses showed that spirituality predicted psychological co-morbidity, while feelings of guilt predicted PTSD symptoms and psychological co-morbidity. Unexpectedly, forgiveness did not predict outcomes.

Lee, Sherman A., Laurin B. Roberts & Jeffrey A. Gibbons. 2013. When religion makes grief worse: negative religious coping as associated with maladaptive emotional responding patterns. *Mental Health, Religion & Culture* 16(3). 291–305.

doi:10.1080/13674676.2012.659242.

A total of 99 college students who had experienced a loss provided demographics and measures of social desirability, religiousness, spirituality, neuroticism, and two forms of religious coping. Participants also completed a Loss Interview (LI) that was designed to elicit grief by discussing memories of the deceased. Participants were also asked to evaluate their emotional state before the LI, immediately following the LI, one minute and five minutes after the LI. As hypothesized, negative religious coping predicted dysregulation of grief in the form of heightened reactivity and prolonged recovery. These results are the first ones to relate negative religious coping to maladaptive emotion patterns as well as identify specific aspects of religious coping relevant to dysfunction.

Lee, Sherman A. & Nicole A. Surething. 2013. Neuroticism and Religious Coping Uniquely Predict Distress Severity among Bereaved Pet Owners. *Anthrozoos* 26(1). 61–76.

doi:10.2752/175303713X13534238631470.

The purpose of this study was to examine the influence of neuroticism and religious coping on pet bereavement distress (PBD) while controlling for other variables of interest (n=510). Following the completion of online surveys and statistical analysis, it was found that a tendency to experience negative emotions (neuroticism) and using religion to deal with loss in an unsupportive and negative manner (negative religious coping) would be unique

predictors of PBD. Negative religious coping was also the strongest predictor in the model. In addition, death type, time since pet death, pet attachment, social desirability, death anxiety, spirituality, and positive religious coping also explained unique variance in PBD.

McIntire, Laura & Renae Duncan. 2013. Associations among Religious Coping, Daily Hassles, and Resiliency. *Archive for the Psychology of Religion* 35(1). 101–117.
doi:10.1163/15736121-12341252.

The purpose of this study is to examine relationships among religious coping styles, the experience of daily hassles, and resiliency. Through the use of a set of questionnaires, positive and negative religious coping styles (Brief RCOPE) are identified and analyzed in relation to a direct measure of resiliency (CD-RISC), level of psychological distress (BSI), and level of daily hassles (BCSHS). Negative religious coping is positively related to psychological distress, while individuals who experience more daily hassles but use higher levels of positive religious coping have greater resiliency than individuals who use higher levels of negative religious coping. Additionally, the combination of daily hassles, major life stressors, level of positive religious coping, and resiliency accounted for a significant proportion of the variability in psychological distress. Post hoc analyses removed questions of spirituality from the resiliency scale that could possibly overlap with the measure of religious coping. These exploratory analyses indicate that negative religious coping is negatively correlated with non-spiritual resiliency. Exploratory analyses also indicate that individuals who experience more daily hassles but use higher levels of positive religious coping do not have greater levels of non-spiritual resiliency than individuals who use negative religious coping.

Pieper, Joseph Z. T., Margreet R. de Vries-Schot & Marinus H. F. van Uden. 2012. Religious and Receptive Coping Importance for the Well-Being of Christian Outpatients and Parishioners. *Archive for the Psychology of Religion* 34(2). 173–189.
doi:10.1163/15736121-12341241.

This article presents the results of a study in The Netherlands among two groups of religious people: i.e., 165 Christian outpatients and 171 parishioners. The following main questions were focused on: (1) To what degree did these two groups of Christians (with/without psychological treatment) practice positive religious coping, negative religious coping and receptive coping? (2) What are the relationships between these three coping strategies? (3) To what degree were positive religious, negative religious and receptive coping activities related to the well-being of the respondents (with/without psychological treatment)? (4) What are the best predictors of well-being: positive religious, negative religious or receptive coping? The results showed that positive religious, negative religious and receptive coping were three independent predictors of well-being, with negative religious coping being the best predictor.

Sørensen, Torgeir, Alv A. Dahl, Sophie D. Fosså, Jostein Holmen, Lars Lien & Lars J. Danbolt. 2012. Is “Seeking God’s Help” Associated with Life Satisfaction and Disease-specific Quality of Life in Cancer Patients? The HUNT Study. *Archive for the Psychology of Religion* 34(2). 191–213.
doi:10.1163/15736121-12341237.

This study investigates the prevalence of “Seeking God’s Help”, its relation to time since diagnosis, and its association with Life Satisfaction for all cancer types. This study also investigates Disease-Specific Quality of Life for patients with breast, prostate, and colorectal cancers (n=2,086). Results indicate a higher prevalence of “Seeking God’s Help” after a shorter time since diagnosis among men. No association was observed in multivariate analyses between “Seeking God’s Help,” and “Life Satisfaction” or “Disease-Specific QoL” in long-term cancer survivors.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Bennett, Patrick R & Marta Elliott. 2013. God give me strength: exploring prayer as self-disclosure. *Journal of Religion and Health* 52(1). 128–142.
doi:10.1007/s10943-011-9

The current project was designed to examine the contention that written prayers about difficult life events function as self-disclosure to God and are structurally and effectively the same as other forms of written self-disclosure, at least in the short term. Over four writing sessions, 155 participants either wrote about mundane experiences (the control group) or wrote narratives about traumatic or stressful life events that were targeted at no one, targeted at a person of their choice, or construed as prayers to God. The results indicate that written prayers are lexically similar to the other two types of written narratives and distinct from the control group. Furthermore, the immediate effects of trauma writing on mood and physical well-being were similar as well. These findings have potentially important implications for understanding the relationship between personal prayer and a variety of health outcomes.

Berg Torskenæs, Kristina & Mary H Kalfoss. 2013. Translation and focus group testing of the WHOQOL spirituality, religiousness, and personal beliefs module in Norway. *Journal of Holistic Nursing: Official Journal of the American Holistic Nurses' Association* 31(1). 25–34.
doi:10.1177/0898010112461976.

This study describes the Norwegian translation of the World Health Organization Quality of Life Spirituality, Religiousness, and Personal Beliefs module. Translation has followed the World Health Organization's standardized protocol. Six focus groups were recruited from six geographical regions in southeastern Norway: three groups of health professionals (n=18) and three groups of patients (n=15). All facets and items were found to be culturally relevant. The facet awe underwent three literary changes, spiritual strength two, and meaning, inner peace, and faith underwent one change each. The facets spiritual connection, wholeness, and integration and hope and optimism did not undergo any changes. The facets spiritual connection, meaning in life, experiences of awe, and wholeness and integration displayed the strongest discriminatory power.

Bergomi, Claudia, Wolfgang Tschacher & Zeno Kupper. 2013. Measuring mindfulness: First steps towards the development of a comprehensive mindfulness scale. *Mindfulness* 4(1). 18–32.
doi:10.1007/s12671-012-0102-9.

The present study describes the development of and results obtained from the first version of a new mindfulness scale: the Comprehensive Inventory of Mindfulness Experiences beta (CHIME-β). The aim of the present analysis was to investigate two relevant open questions in mindfulness assessment: (1) the coverage of aspects of mindfulness and (2) the type of interrelationships among these aspects. A review of the aspects of mindfulness assessed by eight currently available mindfulness questionnaires led to the identification of nine aspects of mindfulness. The CHIME-β was constructed in order to cover each of these aspects in a balanced way. Initially, principal component and confirmatory factor analyses, as well as reliability and validity analyses, were performed in the entire sample (n=313) of individuals from the general population and mindfulness-based stress reduction (MBSR) groups. The factor structure that emerged from this analysis was further investigated in meditation-trained individuals (n=144) who had just completed an MBSR intervention. Results suggested a four-factor structure underlying the nine aspects proposed. The relationship between these mindfulness factors appears to be influenced by the degree of meditation experience. In fact, the mindfulness factors showed a greater interconnectedness among meditation-trained participants. Finally, data suggest that a non-avoidant stance plays a central role in mindfulness, while the capacity to put inner experiences into words may be related to mindfulness rather than a component of the construct.

Borneman, Tami, Olga F. Bluman, Linda Klein, Jay Thomas & Betty Ferrell. 2013. Spiritual Care for Jewish Patients Facing a Life-Threatening Illness. *Journal of Palliative Care* 29(1). 58–62.

The authors discuss the fact that caring for a Jewish patient with lung cancer can be complex, in that providing holistic care encompasses meeting physical, psychological, social, and spiritual needs as they arise. How patients approach a life-threatening illness may or may not be founded in, or influenced by, their religion or belief system. Often, clinicians assume that because a person identifies himself or herself as Jewish, that person adheres to the Jewish religion.

- Büssing, Arndt, Xiao-Feng Zhai, Wen-Bo Peng & Chang-Quan Ling. 2013. Psychosocial and spiritual needs of patients with chronic diseases: Validation of the Chinese version of the Spiritual Needs Questionnaire. *Journal of integrative medicine* 11(2). 106–115.
doi:10.3736/jintegrated2013020.

The aim of this study was to validate the Chinese version of the Spiritual Needs Questionnaire (SpNQ-Ch) and thus to measure psychosocial and spiritual needs of Chinese patients. This was a cross-sectional study among 168 patients with chronic diseases. Statistical analysis revealed that the SpNQ-Ch is congruent with its primary version, and can be used in future studies with the mostly nonreligious patients from China. First findings indicate specific psychosocial and spiritual needs which should be addressed by health care professionals to support patients in their struggle with chronic illness in terms of psycho-emotional stabilization, finding hope and meaning, and thus achieving peaceful states of mind despite chronic illness.

- Cadge, Wendy & Emily Sigalow. 2013. Negotiating Religious Differences: The Strategies of Interfaith Chaplains in Healthcare. *Journal for the Scientific Study of Religion* 52(1). 146–158.
doi:10.1111/jssr.12008.

The authors explore the two main strategies that chaplains at one large academic medical center use when working with patients and families whose religious and spiritual backgrounds are different from the chaplain's own. Through training in clinical pastoral education and experiences on the job, chaplains learn to neutralize (use a broad language of spirituality that emphasizes commonalities rather than differences) and to code-switch (use the languages, rituals, and practices of the people with whom they work). To the extent that the strategies evident here are present among chaplains in a broader range of institutional settings, they suggest a kind of spiritual secularism or broad approach to meaning makings that may be facilitated by interfaith chaplains in a range of settings.

- Campbell, Duane. 2013. Spirituality, stress, and retention of nurses in critical care. *Dimensions of critical care nursing: DCCN* 32(2). 78–83.
doi:10.1097/dcc.0b013e31828083a4.

A study that measures spiritual well-being, stress, and nursing retention is the focus of this review. Providing care to patients in critical care units generates stress. Helping the critical care nurse manage this stress can lead to better patient experiences and higher nursing retention. While providing holistic care to patients produces better outcomes, addressing the holistic needs of the caregiver must also be considered. Included in the holistic needs of the nurse is their spiritual well-being.

- Collins, Mick. 2013. Asklepan dreaming and the spirit of transformational healing: linking the placebo response to therapeutic uses of self. *Journal of Religion and Health* 52(1). 32–45.
doi:10.1007/s10943-012-9614-9.

Asklepan medicine as an archetype of healing was underpinned by therapeutic uses of self, which, if understood, could be beneficial to modern healthcare. This article proposes that therapeutic uses of self from instrumental, authentic and transpersonal perspectives could support the process of endogenous healing. Such therapeutic uses of self could play a pivotal role in activating and enhancing the potential for placebo responses, with spiritual significance.

Hatami, Hossein, Maryam Hatami & Neda Hatami. 2013. The religious and social principles of patients' rights in holy books (Avesta, Torah, Bible, and Quran) and in traditional medicine. *Journal of Religion and Health* 52(1). 223–234.
doi:10.1007/s10943-012-9619-4.

To study the different ideologies of traditional medicine in relation to patients' rights, appropriate data were extracted from the original resources of traditional medicine and from religious books. By means of library research researchers studied these resources in addition to electronic versions of the Albavi book (by Rhazes), the Kamel-al-Sanaab (by Abvazi), the Canon of Medicine (by Avicenna), the Zakhireye Khanrazmshahi (by Jorjani), the Avesta, the Torah, the Bible, the Quran, and many other resources, and, finally, after searching, gathering, and encoding the findings, analyzed them qualitatively for thematic content. Analysis reveals that, in these resources, some warnings are offered in relation to fake drugs, the lack of awareness of some physicians, the need for complete preparedness of medical society, and the need to manufacture appropriate drugs and offer a suitable medical service. According to the evidence available about traditional medicine, there was no specific difference between public and professional ethics, public and professional rights, or rights and ethics-ethics were no different from rights nor rights from ethics. The authors conclude that health rights in Iran both before and after the emergence of Islam have been based on guidance from divine religions, observation of humanist ethics, passing suitable courses in the basic sciences, and an introduction to traditional practical piety, in addition to the syllabus of medical and health education.

Joshanloo, Mohsen & Parviz Rastegar. 2013. Development and Initial Validation of a Scale to Assess Sufi Beliefs. *Archive for the Psychology of Religion* 35(1). 49–69.
doi:10.1163/15736121-12341235.

Although the beliefs that Sufis have introduced and promoted in the Islamic world seem to have had far-reaching influence on the way Muslims think and act, neither theorizing nor empirical research in the psychological literature has as yet focused on such beliefs and their impact on Islamic societies. Furthermore, although intellectual controversies about the functionality of Sufi beliefs abound, there is no instrument to address the existing issues empirically. The purpose of the three studies presented here is to identify major domains of Sufi belief, to describe the development and factor structure of a scale used to assess them, and to test the internal consistency, temporal stability (Study 1), and the convergent validity of this scale's scores (Studies 2 and 3) in three samples of Iranian Shiite university students. The combined findings from the three studies reported here provide initial evidence that the Sufi Beliefs Scale is reliable, valid, and can be used in further studies.

Marchand, William R. 2013. Mindfulness meditation practices as adjunctive treatments for psychiatric disorders. *The Psychiatric Clinics of North America* 36(1). 141–152.
doi:10.1016/j.psc.2013.01.002.

This review provides information needed by clinicians to help patients maximize the benefits of mindfulness training and develop an enduring meditation practice.

McFarland, Michael J., Tetyana Pudrovska, Scott Schieman, Christopher G. Ellison & Alex Bierman. 2013. Does a cancer diagnosis influence religiosity? Integrating a life course perspective. *Social Science Research* 42(2). 311–320.
doi:10.1016/j.ssresearch.2012.10.006.

Based on a life course framework, the authors propose that a cancer diagnosis is associated with increased religiosity and that this relationship is contingent upon three social clocks: cohort (1920–1945, 1946–1964, 1964+), age-at-diagnosis, and years-since-diagnosis. Using prospective data from the National Survey of Midlife Development (n=3,443), taken in 1994–1995 and 2004–2006, the authors test these arguments. Results showed that a cancer diagnosis was associated with increased religiosity. Moreover, researchers found: (a) no

evidence that the influence of cancer varied by cohort; (b) strong evidence that people diagnosed with cancer at earlier ages experienced the largest increases in religiosity; and (c) no evidence that changes in religiosity are influenced by years-since-diagnosis.

- Ning, Ana M. 2013. How “alternative” is CAM? Rethinking conventional dichotomies between biomedicine and complementary/alternative medicine. *Health (London, England: 1997)* 17(2). 135–158.
doi:10.1177/1363459312447252.

The aim of this article is to interrogate the pervasive dichotomization of “conventional” and “alternative” therapies in popular, academic and medical literature, and to rethink the concepts such as holism, vitalism, spirituality, natural healing and individual responsibility for health care as taken-for-granted alternative ideologies. Further, this article rethinks major social practices against binary oppositions by illustrating through literature review that the biomedical and CAM models may be homologous in their original inceptions and in recent cross-fertilizations towards a rigorous approach in medicine. By highlighting biomedicine and CAM as homologous symbolic systems, this article also sheds light on the potential for enhancing dialogue between diverse perspectives to facilitate an integrative health care system that meets multiple consumer needs.

- Okoro, Catherine A., Guixiang Zhao, Chaoyang Li & Lina S. Balluz. 2013. Has the Use of Complementary and Alternative Medicine Therapies by U.S. Adults with Chronic Disease-Related Functional Limitations Changed from 2002 to 2007? *Journal of Alternative and Complementary Medicine* 19(3). 217–223.
doi:10.1089/acm.2012.0009.

This study examined changes in the use of complementary and alternative medicine (CAM) therapies by U.S. adults aged 18 years or older with chronic disease-related functional limitations between 2002 and 2007. Data were obtained from the 2002 and 2007 U. S. National Health Interview Survey to compare the use of 22 CAM therapies (n=9313 and n=7014, respectively). The unadjusted and age-standardized prevalence of overall CAM use (22 therapies comparable between both survey years) was higher in 2007 than in 2002. Adults with functional limitations that included changing and maintaining body position experienced a significant increase in CAM use between 2002 and 2007. The use of deep breathing exercises was the most prevalent CAM therapy in both 2002 and 2007 and increased significantly during this period. The use of meditation, massage, and yoga also increased significantly from 2002 and 2007, while the use of the Atkins diet decreased.

- Park, Elyse R., Lara Traeger, Ana-Maria Vranceanu, Matthew Scutt, Jonathan A. Lerner, Herbert Benson, John Denninger & Gregory L. Fricchione. 2013. The Development of a Patient-Centered Program Based on the Relaxation Response: The Relaxation Response Resiliency Program (3RP). *Psychosomatics* 54(2). 165–174.

The authors review the past decades of relaxation response (RR) research, outline the development of the Relaxation Response Resiliency Program (3RP) treatment, and provide an overview of the program’s theory and content. The 3RP is based on principles from the fields of stress management, cognitive-behavioral therapy, and positive psychology, and has three core target areas: (1) elicitation of the RR; (2) stress appraisal and coping; and (3) growth enhancement. An 8-week patient-centered treatment program has been developed, with the purpose of assisting patients with a variety of psychological and medical issues to better cope with chronic stress.

- Shin, Jiwon Helen, John D. Yoon, Kenneth A. Rasinski, Harold G. Koenig, Keith G. Meador & Farr A. Curlin. 2013. A Spiritual Problem? Primary Care Physicians’ and Psychiatrists’ Interpretations of Medically Unexplained Symptoms. *Journal of General Internal Medicine* 28(3). 392–398.
doi:10.1007/s11606-012-2224-0.

This article examines how variations in physicians' interpretations of medically unexplained symptoms (MUS) are associated with physicians' religious characteristics and with physician specialty (primary care [n=1,504] vs. psychiatry [n=523]). More religious/spiritual physicians were more likely to believe that MUS reflect a spiritual problem and that these patients would benefit from paying attention to their spiritual life. Psychiatrists were more likely to believe that scientific research will one day explain MUS and that these symptoms will improve with treatment by a physician. They were less likely to believe that MUS reflect a spiritual problem. Physicians' interpretations of MUS vary widely, depending in part on physicians' religious characteristics and specialty. One in three physicians believes that patients with MUS have root problems that are spiritual in nature. Physicians who are more religious or spiritual are more likely to think of MUS as stemming from spiritual concerns. Psychiatrists are more optimistic that these patients will get better with treatment by physicians.

Slocum-Gori, Suzanne, A Fuchsia Howard, Lynda G Balneaves & Arminée Kazanjian. 2013. Investigating the perceived feasibility of integrative medicine in a conventional oncology setting: yoga therapy as a treatment for breast cancer survivors. *Integrative Cancer Therapies* 12(2). 103–112. doi:10.1177/1534735412443851.

The current study examined the perceived feasibility of implementing yoga therapy as a treatment service for breast cancer patients. A mixed-methods approach that included focus groups and self-reported surveys with health care providers (HCPs) and breast cancer patients was used in this research. Overall, results indicated that breast cancer patients and HCPs were supportive and eager for the implementation of a yoga therapy program. Six themes emerged from the analysis of the focus group and the survey data: (1) the availability of resources and accessibility of yoga therapy, (2) the credibility and transparency of yoga therapy, (3) the understanding of yoga therapy, (4) an educational component, (5) the therapeutic context, and (6) the integration of yoga therapy. Specific facilitators and barriers became evident within these themes.

Talik, Elżbieta B. 2013. The adolescent Religious Coping Questionnaire. Translation and cultural adaptation of Pargament's RCOPE Scale for Polish adolescents. *Journal of Religion and Health* 52(1). 143–158. doi:10.1007/s10943-011-9464-x.

The paper presents the process of translation and cultural adaptation of the Religious Coping Questionnaire (the RCOPE) by Pargament et al. (2000) for Polish adolescents. The work was driven by the necessity to obtain a structural and measurement equivalence between the American and Polish versions of the instrument. The Polish version was created at the Department of Clinical Psychology of Children and Adolescents at The John Paul II Catholic University of Lublin, Poland. The exploratory factor analysis with the Oblimin oblique rotation was carried out. The principal components method was used as an extraction method of common factors. The results provided input for constructing the scales. The Adolescent Religious Coping Questionnaire consists of 105 items, grouped in 16 scales, which reflects positive and negative religious coping strategies.

Telles, Shirley & Nilkamal Singh. 2013. Science of the Mind: Ancient Yoga texts and Modern Studies. *The Psychiatric Clinics of North America* 36(1). 93–108. doi:10.1016/j.psc.2013.01.010.

The practice of yoga is gaining in popularity with a wide range of practices. Recent research and descriptions from the ancient texts are often concurrent with regard to the effects of the practice, taking into account expected differences between modern scientific terms and those used in the original texts. Voluntarily regulated yoga breathing practices form a bridge between physical and mental changes. The voluntarily regulated yoga breathing has distinct effects on metabolism, the autonomic nervous system, higher brain functions, and mental state. The effects of meditation on the nervous system and mental state are even clearer.

Turan, Turkan & Ayla Yavuz Karamanoglu. 2013. Determining intensive care unit nurses' perceptions and practice levels of spiritual care in Turkey. *Nursing in Critical Care* 18(2). 70–78. doi:10.1111/j.1478-5153.2012.00538.x.

The purpose of this study is to determine the validity and reliability of the Turkish version of the Spiritual Care Perceptions and Practices Scale and to evaluate factors that may be effective in providing spiritual care by general intensive care unit (ICU) nurses (n=123). A statistically significant difference was found between the marital status of the nurses and the total scale mean score. It was also determined that ICU nurses are in a better position regarding their perception levels of spiritual care compared to their practice levels of spiritual care, and nurses with a higher perception of spiritual care also have higher scores in the practice of spiritual care. ICU nurses were found to be inadequate in spiritual care practices.

Webb, Benjamin, Melissa Bopp & Elizabeth A Fallon. 2013. A qualitative study of faith leaders' perceptions of health and wellness. *Journal of Religion and Health* 52(1). 235–246. doi:10.1007/s10943-011-9476-6.

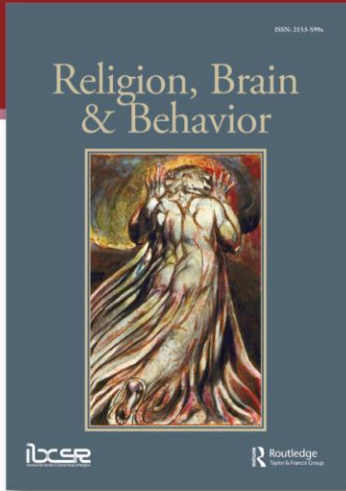
This qualitative study examined perceptions about the link between health, spirituality, and religion among a volunteer sample of faith leaders (n=413) from different denominations. The major themes included: influences on health and wellness promotion and a relationship between spirituality and health. The results indicated that perceptions about the link among health, spirituality, and religion vary among faith leaders, regardless of denomination. Future faith-based interventions should be developed with consideration for denomination as a socially and culturally relevant factor.

Winter-Pfändler, Urs & Kevin J Flannelly. 2013. Patients' expectations of healthcare chaplaincy: a cross-sectional study in the German part of Switzerland. *Journal of Religion and Health* 52(1). 159–168. doi:10.1007/s10943-010-9451-7.

A sample of 612 patients from 32 general hospitals and psychiatric clinics in the German part of Switzerland was surveyed about their expectations of chaplaincy service. A principal component factor analysis of participants' ratings found that the survey items fell into three distinct categories. These were the need for (1) emotional support, (2) help to cope with illness/disease, and (3) religious/spiritual assistance. Among the expectations, the need for emotional support was rated most important, followed by help to cope and, lastly, religious/spiritual assistance. Gender, religious denomination, general religiosity, and subjective health status significantly influenced these expectations. The results showed that fulfilling patients' expectations increases their overall satisfaction with, and the importance they accord to the chaplain's visit, as well as their confidence in the chaplain.

De Zoysa, Piyanjali. 2013. The use of mindfulness practice in the treatment of a case of obsessive compulsive disorder in Sri Lanka. *Journal of Religion and Health* 52(1). 299–306. doi:10.1007/s10943-011-9461-0.

For over 20 centuries, Buddhism has been the spiritual practice of the majority of Sri Lankans. Though Buddhist practices have been increasingly influencing psychotherapy in the West, the use of such practices in psychotherapy in Sri Lanka is not common. This paper attempts to bridge this gap by presenting a case study where Buddhist mindfulness practice was used successfully in the treatment of a case of obsessive compulsive disorder. This paper also presents an outline of the association between Buddhist mindfulness practice and mindfulness practices used in modern-day psychotherapy and discusses issues in the use of mindfulness practice in psychotherapy.



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PART 3. BOOKS

3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Grice, Keiron Le. 2013. *The Rebirth of the Hero: Mythology as a Guide to Spiritual Transformation*. Muswell Hill Press.
- Pathak, Shubha (ed.). 2013. *Figuring Religions: Comparing Ideas, Images, and Activities*. State University of New York Press.
- Waal, Frans de. 2013. *The Bonobo and the Atheist: In Search of Humanism Among the Primates*. W. W. Norton & Company.

3.2 SPIRITUALITY & HEALTH RESEARCH

- Ellor, James W. (ed.). 2013. *Methods in Religion, Spirituality & Aging*. Routledge.
- Jeffers, Steven L., Michael E. Nelson, Vern Barnet & Michael C. Brannigan (eds.). 2013. *The Essential Guide to Religious Traditions and Spirituality for Health Care Providers*. Radcliffe Medical Press.
- Johnson, Rick. 2013. *Spirituality in Counseling and Psychotherapy: An Integrative Approach that Empowers Clients*. Wiley.
- Merkur, Daniel. 2013. *Psychoanalytic Approaches to Myth*. Routledge.

PART 4. ARTICLES IN PRESS

4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Bilewicz, Michał & Jarosław Klebaniuk. Psychological Consequences of Religious Symbols in Public Space: Crucifix Display at a Public University. *Journal of Environmental Psychology*. doi:10.1016/j.jenvp.2013.03.001.
- Chen, Chia-Ching, I-Ming Chiu, John Smith & Tetsuji Yamada. Too smart to be selfish? Measures of cognitive ability, social preferences, and consistency. *Journal of Economic Behavior & Organization*. doi:10.1016/j.jebo.2013.03.032.
- Pearte, Catherine, Kimberly Renk & Charles Negy. 2013. Explaining variation in relations among intrinsic religiosity, political conservatism, and homonegativity as a function of authoritarianism's three components: An expansion on recent literature. *Sexuality Research & Social Policy: A Journal of the NSRC*. doi:10.1007/s13178-013-0114-9.
- Preston, Stephanie D. 2013. The Origins of Altruism in Offspring Care. *Psychological Bulletin*. doi:10.1037/a0031755.
- Richardson, Frank C. 2013. Investigating psychology and transcendence. *Pastoral Psychology*. doi:10.1007/s11089-013-0536-6.
- Woolley, Jacqueline D & Maliki E Ghossainy. 2013. Revisiting the Fantasy-Reality Distinction: Children as Naïve Skeptics. *Child development*. doi:10.1111/cdev.12081.

4.2 SPIRITUALITY & HEALTH RESEARCH

- Anshel, Mark H & Mitchell Smith. 2013. The Role of Religious Leaders in Promoting Healthy Habits in Religious Institutions. *Journal of Religion and Health*. doi:10.1007/s10943-013-9702-5.
- Azorin, J-M, A Kaladjian, E Fakra, M Adida, R Belzeaux, E Hantouche & S Lancrenon. 2013. Religious involvement in major depression: Protective or risky behavior? The relevance of bipolar spectrum. *Journal of affective disorders*. doi:10.1016/j.jad.2013.02.034.
- Badr, Lina Kurdahi, Asma Taha & Vivien Dee. 2013. Substance Abuse in Middle Eastern Adolescents Living in Two Different Countries: Spiritual, Cultural, Family and Personal Factors. *Journal of Religion and Health*. doi:10.1007/s10943-013-9694-1.
- Beauvais, Audrey M., Susan DeNisco & Julie Stewart. 2013. Emotional Intelligence And Spiritual Well-Being Among Nursing Students. *Nursing Research* 62(2). E43–E44.
- Bergen-Cico, Dessa & Sanghyeon Cheon. 2013. The mediating effects of mindfulness and self-compassion on trait anxiety. *Mindfulness*. doi:10.1007/s12671-013-0205-y.

- Caldeira, Sílvia, Emília Campos Carvalho & Margarida Vieira. 2013. Spiritual Distress-Proposing a New Definition and Defining Characteristics. *International journal of nursing knowledge*. doi:10.1111/j.2047-3095.2013.01234.x.
- Dundas, Ingrid, Jon Vøllestad, Per-Einar Binder & Børge Sivertsen. 2013. The Five Factor Mindfulness Questionnaire in Norway. *Scandinavian journal of psychology*. doi:10.1111/sjop.12044.
- Freund, Anat, Miri Cohen & Faisal Azaiza. 2013. The Doctor is Just a Messenger: Beliefs of Ultraorthodox Jewish Women in Regard to Breast Cancer and Screening. *Journal of Religion and Health*. doi:10.1007/s10943-013-9695-0.
- Greenberg, Jonathan & Nachshon Meiran. 2013. Is mindfulness meditation associated with “feeling less?” *Mindfulness*. doi:10.1007/s12671-013-0201-2.
- Haber, Jon Randolph, Julia D. Grant, Carolyn E. Sartor, Laura B. Koenig, Andrew Heath & Theodore Jacob. 2013. Religion/Spirituality, Risk, and the Development of Alcohol Dependence in Female Twins. *Psychology of Addictive Behaviors*. doi:10.1037/a0031915.
- Harris, Grant M, Rebecca S Allen, Linda Dunn & Patricia Parmelee. 2013. “Trouble Won’t Last Always”: Religious Coping and Meaning in the Stress Process. *Qualitative health research*. doi:10.1177/1049732313482590.
- Hoge, Elizabeth A, Eric Bui, Luana Marques, Christina A Metcalf, Laura K Morris, Donald J Robinaugh, John J Worthington, Mark H Pollack & Naomi M Simon. 2013. Randomized controlled trial of mindfulness meditation for generalized anxiety disorder: effects on anxiety and stress reactivity. *The Journal of clinical psychiatry*. doi:10.4088/JCP.12m08083.
- Jacobs, Tonya L., Phillip R. Shaver, Elissa S. Epel, Anthony P. Zanesco, Stephen R. Aichele, David A. Bridwell, Erika L. Rosenberg, et al. 2013. Self-Reported Mindfulness and Cortisol During a Shamatha Meditation Retreat. *Health Psychology*. doi:10.1037/a0031362.
- Kopacz, Marek S. 2013. Providing Pastoral Care Services in a Clinical Setting to Veterans At-Risk of Suicide. *Journal of Religion and Health*. doi:10.1007/s10943-013-9693-2.
- Lee, Eun-Kyoung Othelia & Younsook Yeo. 2013. Relaxation Practice for Health in the United States: Findings From the National Health Interview Survey. *Journal of holistic nursing: official journal of the American Holistic Nurses’ Association*. doi:10.1177/0898010113477253.
- McAloney, Kareena. 2013. “Mixed” Religion Relationships and Well-being in Northern Ireland. *Journal of Religion and Health*. doi:10.1007/s10943-013-9701-6.
- Meisenhelder, Janice Bell & Charae J. D’Ambra. 2013. Journaling as an Intervention: A Case Study of Spiritual Coping. *Nursing Research* 62(2). E16–E16.

- Nam, Sanggon. The Effects of Religious Attendance and Obesity on Health by Race/Ethnicity. *Osong Public Health and Research Perspectives*. doi:10.1016/j.phrp.2013.03.002.
- Pimenta, Filipa, João Maroco, Catarina Ramos & Isabel Leal. 2013. Menopausal Symptoms: Is Spirituality Associated with the Severity of Symptoms? *Journal of Religion and Health*. doi:10.1007/s10943-013-9696-z.
- Rodriguez, Lindsey M, Clayton Neighbors & Dawn W Foster. 2013. Priming Effects of Self-Reported Drinking and Religiosity. *Psychology of addictive behaviors: journal of the Society of Psychologists in Addictive Behaviors*. doi:10.1037/a0031828.
- Saffari, Mohsen, Harold G Koenig, Ghader Ghanizadeh, Amir H Pakpour & Donia R Baldacchino. 2013. Psychometric Properties of the Persian Spiritual Coping Strategies Scale in Hemodialysis Patients. *Journal of Religion and Health*. doi:10.1007/s10943-013-9700-7.
- Timmins, Fiona & Freda Neill. 2013. Teaching nursing students about spiritual care - A review of the literature. *Nurse education in practice*. doi:10.1016/j.nepr.2013.01.011.
- Webb, Jon R, Loren Toussaint & Chris S Dula. 2013. Ritualistic, Theistic, and Existential Spirituality: Initial Psychometric Qualities of the RiTE Measure of Spirituality. *Journal of Religion and Health*. doi:10.1007/s10943-013-9697-y.
- Yablonsky, Abigail. 2013. A Platform for Nursing Research on Spirituality and Religiosity. *Western journal of nursing research*. doi:10.1177/0193945913484391.
- Zhang, Kaili Chen, C Harry Hui, Jasmine Lam, Esther Yuet Ying Lau, Shu-Fai Cheung & Doris Shui Ying Mok. 2013. Personal Spiritual Values and Quality of Life: Evidence from Chinese College Students. *Journal of Religion and Health*. doi:10.1007/s10943-013-9686-1.