

## RESEARCH REVIEW

A DIGEST OF NEW SCIENTIFIC RESEARCH CONCERNING RELIGION, BRAIN & BEHAVIOR OCTOBER, 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 1,054 articles, 104 articles have been retained from 63 journals. There are 42 pre-publication citations from 29 journals.

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

#### 1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Brewer, Judson A, Kathleen A Garrison & Susan Whitfield-Gabrieli. 2013. What about the "Self" is Processed in the Posterior Cingulate Cortex? *Frontiers in Human Neuroscience* 7. 647. doi:10.3389/fnhum.2013.00647.

In the past decade, neuroimaging research has begun to identify key brain regions involved in self-referential processing, most consistently midline structures such as the posterior cingulate cortex (PCC). The majority of studies have employed cognitive tasks such as judgment about trait adjectives or mind wandering, that have been associated with increased PCC activity. Conversely, tasks that share an element of present-centered attention (being "on task"), ranging from working memory to meditation, have been associated with decreased PCC activity. Given the complexity of cognitive processes that likely contribute to these tasks, the specific contribution of the PCC to self-related processes still remains unknown. Building on this prior literature, recent studies have employed sampling methods that more precisely link subjective experience to brain activity, such as real-time fMRI neurofeedback. This recent work suggests that PCC activity may represent a sub-component cognitive process of self-reference, as in "getting caught up in" one's experience. For example, getting caught up in a drug craving or a particular viewpoint. In this paper, the authors review evidence across a number of different domains of cognitive neuroscience that converges in activation and deactivation of the PCC including recent neurophenomenological studies of PCC activity using real-time fMRI neurofeedback.

Craigmyle, Nancy A. 2013. The beneficial effects of meditation: Contribution of the anterior cingulate and locus coeruleus. *Frontiers in Psychology* 4. 731. doi:10.3389/fpsyg.2013.00731.

During functional magnetic resonance imaging studies of meditation the cortical salience detecting and executive

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Calendar year memberships US\$45 Discounts for retirees and students networks become active during "awareness of mind wandering," "shifting," and "sustained attention." The anterior cingulate (AC) is activated during "awareness of mind wandering." The AC modulates both the peripheral sympathetic nervous system (SNS) and the central locus coeruleus (LC) norepinephrine systems, which form the principal neuromodulatory system, regulating in multiple ways both neuronal and non-neuronal cells to maximize adaptation in changing environments. The LC is the primary source of central norepinephrine (C-NE) and nearly the exclusive source of cortical norepinephrine. Normally activated by novel or salient stimuli, the AC initially inhibits the SNS reflexively, lowering peripheral norepinephrine and activates the LC, increasing C-NE. Moderate levels of C-NE enhance working memory through alpha 2 adrenergic receptors, while higher levels of C-NE, acting on alpha 1 and beta receptors, enhance other executive network functions such as the stopping of ongoing behavior, attentional set-shifting, and sustained attention. The actions of the AC on both the central and peripheral noradrenergic systems are implicated in the beneficial effects of meditation. This paper explores some of the known functions and interrelationships of the AC, SNS, and LC with respect to their possible relevance to meditation.

Deeley, Quinton, Eamonn Walsh, David A Oakley, Vaughan Bell, Cristina Koppel, Mitul A Mehta & Peter W Halligan. 2013. Using hypnotic suggestion to model loss of control and awareness of movements: an exploratory FMRI study. *PloS one* 8(10). e78324. doi:10.1371/journal.pone.0078324.

The feeling of voluntary control and awareness of movement is fundamental to our notions of selfhood and responsibility for actions, yet can be lost in neuropsychiatric syndromes (e.g., delusions of control, non-epileptic seizures) and culturally influenced dissociative states (e.g., attributions of spirit possession). The brain processes involved remain poorly understood. For this study, researchers used suggestion and functional magnetic resonance imaging (fMRI) to investigate loss of control and awareness of right hand movements in 15 highly hypnotically suggestible subjects. Loss of perceived control of movements was associated with reduced connectivity between supplementary motor area (SMA) and motor regions. Reduced awareness of involuntary movements was associated with less activation in parietal cortices (BA 7, BA 40) and insula. Collectively these results suggest that the sense of voluntary control of movement may critically depend on the functional coupling of SMA with motor systems, and provide a potential neural basis for the narrowing of awareness reported in pathological and culturally influenced dissociative phenomena.

Hakamata, Yuko, Mikio Iwase, Takashi Kato, Kohei Senda & Toshiya Inada. 2013. The neural correlates of mindful awareness: A possible buffering effect on anxiety-related reduction in subgenual anterior cingulate cortex activity. *PloS one* 8(10). e75526. doi:10.1371/journal.pone.0075526.

In this study, researchers examined character-temperament interplay and explored the neural basis of character, with a particular focus on the subgenual anterior cingulate cortex extending to a ventromedial portion of the prefrontal cortex (sgACC/vmPFC), in a sample of 140 healthy adults. Resting brain glucose metabolism (GM) was measured, and personality traits were assessed using the Temperament and Character Inventory. Regions of interest analysis and whole-brain analysis were performed to examine a combination effect of temperament and character on the sgACC/vmPFC and to explore the neural correlates of character, respectively. The trait of Harm avoidance (HA) showed a significant negative impact on the sgACC/vmPFC GM, whereas self-transcendence (ST) exhibited a significant positive effect on GM in the same region. In addition, when coupled with strong ST, individuals with strong HA maintained the sgACC/vmPFC GM level comparable to the level of those with low scores on both HA and ST. Furthermore, exploratory whole-brain analysis revealed a significant positive relationship between ST and sgACC/vmPFC GM. The authors conclude that the sgACC/vmPFC might play a critical role in mindful awareness to something beyond as well as in emotional regulation. Developing a sense of mindfulness may temper exaggerated emotional responses in individuals with a risk for or having anxiety and depressive disorders.

Jensen, Mark P., Leslie H. Sherlin, Robert L. Askew, Felipe Fregni, Gregory Witkop, Ann Gianas, Jon D. Howe & Shahin Hakimian. 2013. Effects of non-pharmacological pain treatments on brain states. *Clinical Neurophysiology* 124(10). 2016–2024. doi:10.1016/j.clinph.2013.04.009.

In this article, researchers report on studies designed to evaluate the effects of a single session of four non-pharmacological pain interventions, relative to a sham tDCS procedure, on pain and electroencephalogram-(EEG-) assessed brain oscillations; and, to determine the extent to which procedure-related changes in pain intensity are associated with changes in brain oscillations. The study participants were 30 individuals with spinal cord injury and chronic pain, who were given an EEG and administered measures of pain before and after five procedures (hypnosis, meditation, transcranial direct current stimulation [tDCS], neurofeedback, and a control sham tDCS procedure). Each procedure was associated with a different pattern of changes in brain activity, and all active procedures were significantly different from the control procedure in at least three bandwidths. Very weak and mostly non-significant associations were found between changes in EEG-assessed brain activity and pain. The authors conclude that changes in EEG-assessed brain oscillations are not significantly associated with changes in pain, and therefore such changes do not appear useful for explaining the benefits of these treatments.

Tenke, C.E., J. Kayser, L. Miller, V. Warner, P. Wickramaratne, M.M. Weissman & G.E. Bruder. 2013. Neuronal generators of posterior EEG alpha reflect individual differences in prioritizing personal spirituality. *Biological Psychology* 94(2). 426–432. doi:10.1016/j.biopsycho.2013.08.001.

Prominent posterior EEG alpha is associated with depression and clinical response to antidepressants. Given that religious belief was protective against depression in a longitudinal study of familial risk, researchers hypothesized that individuals who differed by strength of spiritual beliefs might also differ in EEG alpha. Clinical evaluations and self-reports of the importance of religion or spirituality (R/S) were obtained from 52 participants, and again at 10-year followup when EEG was measured. EEG alpha was quantified using frequency PCA of current source densities (CSD-fPCA). Participants who rated R/S as highly important at initial assessment showed greater alpha compared to those who did not. Those who rated R/S important in both sessions showed greater alpha than those who changed their ratings. EEG differences were particularly well-defined for participants with lifetime depression. Findings extend the view of alpha as a marker for affective processes, suggesting an association with the ontogenesis of spirituality.

#### 1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Gantt, Edwin E. & Judson Burton. 2013. Egoism, altruism, and the ethical foundations of personhood. *Journal of Humanistic Psychology* 53(4). 438–460.

The authors hold that most contemporary theorizing in psychology rejects the possibility of genuine altruism, by endorsing explanations that assume psychological egoism, and they therefore seek to reframe psychological inquiry on the question of altruism by exploring an alternative, nonegoistic conceptual framework, within which genuine altruism is possible and whereby the meaning and moral dimensions of altruism can be more fruitfully explored. Two central features of their analysis are the conceptual necessity of human agency for the preservation of the possibility of meaning in human affairs, and an examination of the ontological necessity of a genuinely social and moral understanding of personhood that preserves the possibility of altruism. Once these two issues have been addressed, an alternative conceptual framework for exploring the question of altruism drawing on the work of the French philosopher Emmanuel Levinas is briefly presented.

Purzycki, Benjamin Grant. 2013. The minds of gods: A comparative study of supernatural agency. *Cognition* 129(1). 163–179. doi:10.1016/j.cognition.2013.06.010.

The present article is the first study to systematically compare the minds of gods by examining some of the intuitive processes that guide how people reason about them. By examining the Christian god and the spirit-masters of the Tyva Republic, it first confirms that the consensus view of the Christian god's mind is one of omniscience with acute concern for interpersonal social behavior (i.e., moral behaviors) and that Tyvan spirit-masters are not as readily attributed with knowledge or concern of moral information. Then, it reports evidence of a moralization bias of gods' minds; American Christians who believe that God is omniscient rate God as more knowledgeable of moral behaviors than non-moral information. Additionally, Tyvans who do not readily report pro- or antisocial behavior among the things that spirit-masters care about will nevertheless rate spirit-masters' knowledge and concern of moral information higher than non-moral information. However, this knowledge is distributed spatially: the farther away from spirits' place of governance a moral behavior takes place, the less they know and care about it. Finally, the wider the breadth of knowledge Tyvans attribute to spirit-masters, the more they attribute moral concern for behaviors that transpire beyond their jurisdiction. These results further demonstrate that there is a significant gulf between expressed beliefs and intuitive religious cognition and provides evidence for a moralization bias of gods' minds.

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

Berger, Allan S. 2013. The evil eye: A cautious look. *Journal of Religion and Health* 52(3). 785–788. doi:10.1007/s10943-010-9450-8.

This article analyzes the superstition of the evil eye from a psychosocial perspective. The commonly employed antidotes to the evil eye are discussed. These include knock on wood, kenehora, and various other culturally prescribed protective measures. The sin of envy, the role of God, Scripture, and Satan are examined. The author concludes with a statement of his own way of dealing with the evil eye and its underlying essence.

Chou, Hui-Tzu Grace, Janell Esplin & Shelby Ranquist. 2013. Childhood attachment to parents and frequency of prayer during the college years. *Mental Health, Religion & Culture* 16(8). 863–875. doi:10.1080/13674676.2012.727386.

This study examines the association between childhood attachment with parents and the frequency of prayer among people raised in Mormon families. Three types of attachment with fathers and mothers (secure, anxious, and avoidant) were measured on a Likert scale. Undergraduate students at a state university in Utah completed questionnaires that included measurements of childhood attachment with parents and frequency of prayer. According to bivariate correlations, frequency of prayer was related to the nature of childhood attachment to parents; according to multiple regression analyses, the correlation between frequency of prayer and childhood attachment was largely, but not entirely, accounted for by other factors involving general frequency of religious activity. Finally, these results differed somewhat between men and women. Men who had an avoidant relationship with their mother in childhood prayed less often when they were in college, while for women this association was not statistically significant.

Condon, Paul, Gaëlle Desbordes, Willa B. Miller & David DeSteno. 2013. Meditation increases compassionate responses to suffering. *Psychological Science* 24(10). 2125–2127. doi:10.1177/0956797613485603.

This study examined the effects of meditation on compassionate responses to suffering. The study utilized a design in which individuals were confronted with a person in pain in an ecologically valid setting. The authors utilized two separate meditation protocols, both to enhance generalizability and to ensure that any resulting effects of meditation on behavior could not be attributed to demand characteristics. Following 8 weeks of meditation practice or approximately 8 weeks after initial recruitment to the waiting list, participants were scheduled to come to the lab under the guise of completing tests of cognitive ability. To assess compassionate responding, the authors measured the waiting room interactions of the participants with confederates. As predicted, meditation directly

enhanced compassionate responding. This enhanced prosocial responding did not differ as a function of meditation protocol.

Coursey, Lauren E., Jared B. Kenworthy & Jennifer R. Jones. 2013. A Meta-Analysis of the Relationship between Intrinsic Religiosity and Locus of Control. *Archive for the Psychology of Religion* 35(3). 347–368.

doi:10.1163/15736121-12341268.

The authors meta-analytically examined the relationship between intrinsic religiosity and internal locus of control. Thirty-seven independent samples, comprising 9,924 participants, yielded an average effect size of r=.06, which was small, but significant, indicating a positive correlation between intrinsic religiosity and internal locus of control. Moderation analyses showed a significant trend of effects becoming weaker over time (from 1971 to 2011). The judged religiousness of samples significantly predicted the strength of the correlation, such that more religious samples showed stronger effect sizes.

Das, Aniruddha & Stephanie Nairn. 2013. Race differentials in partnering patterns among older U.S. men: Influence of androgens or religious participation? *Archives of Sexual Behavior* 42(7). 1119–1130.

doi:10.1007/s10508-013-0096-y.

Using nationally representative data from the 2005-2006 U.S. National Social Life, Health, and Aging Project, this study queried race differences in older men's polyamorous and casual sex, as well as stratification of these patterns by endogenous androgens (testosterone and dehydroepiandrosterone) and by regular religious participation. Results suggested that despite their respective prominence in the biomedical and sociological literatures on sex, neither "bottom up" hormonal influences nor "top down" religious social control were major structuring factors for greater lifetime as well as current likelihood of these behaviors among older Black than White men. Androgens were higher among the former, but did not seem to drive these race patterns. Regular church attendance, while negatively associated with non-monogamous and prolific partnering, and hence possibly a social control mechanism among all men, played only a weak role in moderating ethnic variations in these behaviors. The authors speculate that these differences may instead be driven by unexamined current or early factors, including, perhaps, Black men's greater exposure to sexualizing processes in adolescence that, even in late life, may outweigh more temporally-proximal influences.

Dragojlovic, Nicolas & Edna Einsiedel. 2013. Playing God or just unnatural? Religious beliefs and approval of synthetic biology. *Public Understanding of Science (Bristol, England)* 22(7). 869–885. doi:10.1177/0963662512445011.

Using evidence from a 2010 survey of 32 European publics, this article argues that belief in God increases disapproval for synthetic biology through two different mechanisms, depending on the strength of the individual's belief. Among weak believers, belief in God appears to be associated with the increased availability and accessibility of the idea that genetic manipulation interferes with nature. Strong believers, in contrast, appear to also engage in an explicitly theological evaluation of synthetic biology, with opposition to synthetic biology resulting from the perception that the creation of new types of organisms encroaches on a domain of activity (creation) that has traditionally been considered to be a divine prerogative. Overall, these findings suggest that value predispositions can influence public attitudes towards synthetic biology even when individuals engage in explicit deliberation about the technology in question.

Exline, J. J., S. J. Homolka & J. B. Grubbs. 2013. Negative Views of Parents and Struggles with God: An Exploration of Two Mediators. Journal of Psychology & Theology 41(3). 200–212.

Could a negative view of one's mother or father be related to struggles with God? If so, what mediating variables might explain this connection? Researchers conducted two studies to examine these questions, one with a broad-

based internet sample (n=471) and one with undergraduates (n=236). Both studies confirmed that seeing one's mother or father as cruel was associated with two types of divine struggle: anger toward God and concern about God's anger or disapproval toward the self. A cruel God concept largely mediated the link with divine struggle in Study 1. In Study 2, a multiple mediation procedure identified two distinct mediators: not only a cruel God concept but also a sense of instability or anxiety about abandonment in one's perceived bond with God. These results complement other theoretical and empirical work that connects experiences with parents with perceptions and emotions regarding God.

Foubert, John D. 2013. Integrating Religiosity and Pornography Use into the Prediction of Bystander Efficacy and Willingness to Prevent Sexual Assault. Journal of Psychology & Theology 41(3). 242–251.

This study examined relationships between intrinsic and extrinsic religiosity, reasons for using Internet pornography, frequency of using Internet pornography during the last year, and the degree to which participants believed they were both confident in their efficacy and were willing to intervene to help prevent a sexual assault from occurring. Students volunteered to take an online survey as one of several options for course credit in a research participation system in a School of Education at a Midwestern public university. Men's extrinsic religiosity was positively correlated with their use of Internet pornography and negatively correlated with willingness to intervene as a bystander. Men's intrinsic religiosity was negatively correlated with how many reasons they had for using pornography and negatively correlated with their use of pornography. Women's extrinsic religiosity negatively correlated with their bystander efficacy. Women's intrinsic religiosity was negatively correlated with their use of pornography and their use of pornography. Women's use of pornography was negatively correlated with bystander efficacy.

Grossman, Jennifer M, Allison J Tracy & Anne E Noonan. 2013. Adolescents' religious discordance with mothers: is there a connection to sexual risk behavior during emerging adulthood? The Journal of Primary Prevention 34(5). 329–343. doi:10.1007/s10935-013-0315-2.

This study longitudinally investigates the relationship between adolescent/mother religious discordance and emerging adult sexual risk-taking 6-7 years later. Using data from the National Longitudinal Study of Adolescent Health (Add Health), researchers found that higher levels of adolescent/mother discordance in religious importance were related to increased emerging adult sexual risk-taking compared to those with similar levels of adolescent/mother religiosity, but this occurred only when mothers reported higher levels of religious importance than their children. In contrast, adolescents reporting higher frequency of prayer than their mothers reported lower levels of sexual risk-taking than those with similar frequency of adolescent/mother prayer. These findings suggest that the protective effects of family religious socialization can be interrupted. However, this influence of religious difference on sexual risk-behavior operates differently depending on the direction and level of religious difference. Even in emerging adulthood, a period marked by distance from childhood values and institutions, religious difference with a parent remains a meaningful influence.

Huuskes, Lee, Joseph Ciarrochi & Patrick C.L. Heaven. 2013. The longitudinal relationships between adolescent religious values and personality. Journal of Research in Personality 47(5). 483–487.

doi:10.1016/j.jrp.2013.04.010.

This research examined the longitudinal relationships between personality and religious values. High school students in Grades 10 and 12 completed personality and religious measures as part of the Wollongong Youth Study. Structural equation modelling (SEM) indicated that religious values at Time 1 predicted an increase in Agreeableness and a decrease in Psychoticism at Time 2. These effects were confirmed to be independent of each

other when the SEMs included both Agreeableness and Psychoticism. Results are discussed with reference to the implications of religious values for the development of personality.

Joe-Laidler, Karen & Geoffrey Hunt. 2013. Unlocking the Spiritual With Club Drugs: A Case Study of Two Youth Cultures. Substance Use & Misuse 48(12). 1099–1108. doi:10.3109/10826084.2013.808067.

Researchers have become increasingly interested in the link between spirituality and the use and misuse of drugs as well as intervention. First, studies have pointed to spirituality and religious involvement as a protective factor against substance use. Second, the quest for spirituality can play a role in drug use. This article has two aims. First, it seeks to examine the features of spirituality connected with both recovery from drug misuse and psychoactive drug use. Second, it seeks to understand the latter in the context of contemporary youth culture. The authors draw from a comparative study on club drug use among young people in two cultural locales, San Francisco and Hong Kong, where two different drugs, ecstasy and ketamine, have become associated in different dance party settings with a spiritual awakening of self-awareness and liberation.

Kimball, Cynthia, C. J. Boyatzis, K. V. Cook, K. C. Leonard & K. S. Flanagan. 2013. Attachment to God: A Qualitative Exploration of Emerging Adults' Spiritual Relationship with God. Journal of Psychology & Theology 41(3). 175–188.

This study assessed emerging adults' attachment relationships with parents, peers, and God to explore the sufficiency of the correspondence and compensation models of attachment. Researchers analyzed narratives of 119 (60 male) Christian college graduates describing their relational experiences with God. Narratives were coded for five relational patterns in attachment relationships. Participants also completed the IPPA scale and were categorized into high or low secure parental and peer attachment groups. No significant differences were found between peer and parental attachment, so peer attachment was dropped from further analysis. All of the relational attachment patterns appeared in participant narratives. Perceiving God as Stronger and Wiser appeared most often in both high and low secure parental narratives; Safe Haven and Secure Base also appeared in both attachment groups' narratives. Importantly, emerging adults with low parental security nevertheless articulated reciprocal experiences of secure, ultimate attachment with God, suggesting refinement in the correspondence and compensation models to include the potential for a spiritual relationship with God that serves a corrective or reparative role.

Krause, Neal & R. David Hayward. 2013. Emotional expressiveness during worship services and life satisfaction: Assessing the influence of race and religious affiliation. Mental Health, Religion & Culture 16(8). 813–831. doi:10.1080/13674676.2012.721349.

The purpose of this study was to see if an emotional expressive worship style is associated with life satisfaction. The study model contained the following core relationships: (1) blacks are more likely than whites to worship in conservative Protestant congregations; (2) members of conservative congregations and blacks will attend church services more often; (3) blacks and conservative Protestants are more likely than either whites or members of other congregations to openly express their emotions during worship services; (4) individuals who express their emotions during church services will be more likely say they worship in a highly cohesive congregation; (5) people who worship in highly cohesive congregations will generalize this sense of connectedness to people outside their place of worship; and (6) those who feel closely connected with all people will experience a greater sense of life satisfaction. Findings from a nationwide survey provide support for each of these relationships.

Ladd, Kevin L. & Catherine Borshuk. 2013. Metaphysical Chauvinism and Perceptions of Deviance in Religion, Atheism, and Alien Realms. International Journal for the Psychology of Religion 23(4). 325–337.

doi:10.1080/10508619.2013.798557.

Metaphysical chauvinism suggests that prejudicial attitudes extend beyond earthly concerns. Two studies examined this notion with attention to potential preferential treatment accorded religious belief systems. In Study 1, participants (n=169) were randomly assigned to rate 1 of 6 target groups (people with mental illness, atheists, people claiming alien visitations, people reporting angelic visitations, religious people, or "people like me") regarding social, moral, and psychological normalcy. Data supported the existence of metaphysical chauvinism in social and psychological but not the moral aspects. In Study 2, using a between-subjects design, participants (n=92) evaluated an art object ostensibly created by a person in response to an angelic visitation, an alien visitation, or a simple dream. Overt social distance measures and physical contact with the object supported the notion that angelic visitations were regarded more positively.

Manca, Terra. 2013. Medicine and spiritual healing within a region of Canada: Preliminary findings concerning Christian scientists' healthcare practices. Journal of Religion and Health 52(3). 789–803.

doi:10.1007/s10943-011-9504-6.

Christian Science is the largest and most recognized of various spiritual healing groups that encourage members to forgo or overcome the need for medicine. Even so, it appears that some Scientists occasionally use medicine. In this study, the author argues that Scientists in one region of Canada respond to influences on their healthcare practices differently and follow a variety of healthcare practices. These practices range from refusing medically necessary treatment (which could potentially harm individuals' health) to making full use of the medical system. The findings are based on interviews with eleven current members of Christian Science and one former Christian Scientist.

Ng Tseung-Wong, CarolineVerkuyten, Maykel. 2013. Religious and national group identification in adolescence: A study among three religious groups in Mauritius. International Journal of Psychology 48(5). 846–857. doi:10.1080/00207594.2012.701748.

The present study investigates religious group identification among adolescents of different faiths (Hindu, Muslim, Christian) living in multicultural Mauritius. It further explores how religious and national group identities come together among religious majority and minority adolescents. For three age groups (11 to 19 years; n=2,152) the authors examined the strength of adolescents' religious and national group identification, the associations between these two identities, and the relationships to global self-esteem. Across age and religious group, participants reported stronger identification with their religious group than with the nation. Identification with both categories declined with age, with the exception of Muslims, whose strong religious identification was found across adolescence. The association between religious and national identification was positive, albeit stronger for the majority group of Hindus and for early adolescents. The authors also examined the manner in which religious and national identities come together using a direct self-identification measure, and by combining the separate continuous measures of identification. Four distinct clusters of identification (predominant religious identifiers, dual identifiers, neutrals, and separate individuals) were found that were differently associated with global self-esteem. Dual identifiers reported the highest level of global self-esteem. The clusters of identification did not fully correspond to the findings for the direct self-identification measure. The results are discussed in terms of the meaning of dual identity and the positive manner in which adolescents can manage their multiple identities while taking into account the ideological framework in which those identities are played out.

Niens, Ulrike, Alison Mawhinney, Norman Richardson & Yuko Chiba. 2013. Acculturation and religion in schools: The views of young people from minority belief backgrounds. British Educational Research Journal 39(5). 907–924. doi:10.1002/berj.3016.

This paper aims to explore the relationship between religious identity, acculturation strategies and perceptions of acculturation orientation in the school context amongst young people from minority belief backgrounds. Based on a qualitative study including interviews with 26 young people from religious minority belief backgrounds in Northern Ireland, it is argued that acculturation theory provides a useful lens for understanding how young people from religious minority belief backgrounds navigate majority religious school contexts. Using a qualitative approach to explore acculturation theory enables an in-depth understanding of the inter-relationship between minority belief youth's acculturation strategies and their respective school contexts. Similar to previous research, integrationist attitudes generally prevailed amongst minority belief young people in this study. The findings highlight how young people negotiate their religious identities in a complex web of inter-relationships between their minority religious belief community and the mainstream school culture as represented through peer and staff attitudes, school ethos and practices and religious education. Young people demonstrated differentiated understandings of acculturation orientations within the school context, which they evaluated on the basis of complex perceptions of educational policy, interpersonal relationships and individuals' motivations. Findings are discussed in view of acculturation tensions, which arose particularly in relation to the religious education curriculum and their implications for opt-out provision as stipulated by human rights law.

Puffer, Keith A. 2013. Social Personality Traits as Salient Predictors of Religious Doubt Phenomena Among Undergraduates. Journal of Psychology & Theology 41(3). 229–241.

Twenty-six years ago, Bergin, Masters, and Richards (1987) published results from a correlational study of Allport's two religious orientations with indices of pathology and social personality traits. Curiously, Batson's quest religion, a third religious orientation, was not included. The omission appears to accompany the unremitting uneasiness and confusion with religious doubt in the American Christian church. In contrast, the present study identified a set of mature and adaptive social personality traits related to doubt phenomena. Specifically, multiple regression analyses of questionnaire data from 642 religious undergraduates revealed four personality dispositions predicted quest religious orientation and theological exploration. Implications with and applications of the findings are discussed.

Razmyar, Soroush & Charlie L. Reeve. 2013. Individual differences in religiosity as a function of cognitive ability and cognitive style. Intelligence 41(5). 667–673. doi:10.1016/j.intell.2013.09.003.

The current study examines the degree to which individual differences in cognitive ability and cognitive style (rational thinking vs. experiential thinking) uniquely and jointly account for differences in religiosity. Using an array of measures of religiosity, results show that cognitive ability has a medium to large negative effect on various aspects of religiosity. Though also negatively related to religiosity, rational thinking style did not add significant unique effects, nor did it convey a significant indirect effect from cognitive ability. Experiential thinking was generally unrelated to ability but was positively related to some aspects of religiosity. Overall the results confirm that those with higher cognitive ability are less likely to accept religious doctrine or engage in religious behaviors and those with lower ability are more likely to accept religious doctrine and exhibit higher levels of fundamentalism. Cognitive style appears to play a lesser role in explaining individual differences in religiosity than cognitive ability.

Sahdra, Baljinder K. & Phillip R. Shaver. 2013. Comparing Attachment Theory and Buddhist Psychology. International Journal for the Psychology of Religion 23(4). 282–293. doi:10.1080/10508619.2013.795821.

The authors focus on similarities and differences between attachment theory and Buddhist psychology. Both systems highlight the importance of giving and receiving love and of minimizing anxious clinging or avoidant aloofness and suppression of unwanted mental experiences. However, the two differ in their conception of security in adulthood. Attachment theory suggests that security is rooted in mental representations of a self that has been reliably loved

and cared for in close relationships. In Buddhist psychology, security is conceptualized as freedom from static or rigid views of self and others, and is cultivated by countering, often through formal meditation practices, our habitual tendencies of reifying or solidifying aspects of our ever-changing phenomenal experience. "Nonattachment" or release from mental fixations is a key construct in this process. It is empirically distinct from its Western counterpart of felt security. The authors discuss implications of the two systems for a unified model of optimal adult development and beneficial interventions involving social and introspective routes to reduced defensiveness, greater self- and other-oriented compassion, greater mental clarity, and more prosocial behavior.

Seong Eun Kim. 2013. The Relationship of Parental Attachment and Christian Spirituality with Intergenerational Conflict Between Korean-American Young Adults and Their Parents. Journal of Psychology & Theology 41(3). 189–199.

This empirical study had two main interests: relationships among Intergenerational Conflict (Intergenerational Conflict Inventory), Parent Attachment (Inventory of Parent Peer Attachment), and Christian Spirituality (Spiritual Assessment Inventory); and, the mediation of Parent Attachment between Intergenerational Conflict and Christian Spirituality. This study defines Christian spirituality as the relationship with God (God-Relationship), measured by the SAL. Based on the self-report of 406 Korean-American young adults in California, who were either one-and-a-half (1.5) or second generation immigrants, this study indicated three significant correlations among three factors: Intergenerational Conflict between Parent Attachment, Parent Attachment between Christian Spirituality, and Intergenerational Conflict between the subscales of Christian Spirituality such as Awareness, Disappointment, Realistic Acceptance, Instability, and Impression Management. Significant effects of Parent Attachment on the prediction of the subscales of Christian Spirituality were found. Conversely, Parent Attachment and Instability, one of the subscales of the SAL, predicted the effect on intergenerational conflict. Thus, parental attachment showed significant prediction on the subscales of Christian spirituality and intergenerational conflict. These results could induce developmental/psychological, cultural, spiritual, and biblical interpretations and suggest some implications for churches, parents, and young adults who are experiencing intergenerational conflict.

Triplett, Ruth A., Garland White & Randy Gainey. 2013. Churches as neighborhood organizations and their relationship to street and domestic violent crime: The role of denomination, stability, and heterogeneity. Deviant Behavior 34(10). 803–823. doi:10.1080/01639625.2013.781440.

Recent developments in both theory and research on neighborhood crime have focused attention on the role of organizations. The current research builds on the existing literature to examine the relationship of churches to neighborhood "street" and domestic violence. The findings suggest that churches are fairly stable neighborhood organizations and not importantly heterogeneous, and neither factor appears to be related to neighborhood crime. Alternatively, the number of churches in a neighborhood is positively related to both street crimes and domestic assaults, and denomination does play an important role especially as it relates to domestic assaults.

Wansink, Brian & Craig S. Wansink. 2013. Are there atheists in foxholes? Combat intensity and religious behavior. Journal of Religion and Health 52(3). 768–779. doi:10.1007/s10943-013-9733-y.

After battle, the moral and mortality stresses influence different soldiers in different ways. Using two large-scale surveys of World War II veterans, this research investigates the impact of combat on religiosity. Study 1 shows that as combat became more frightening, the percentage of soldiers who reported praying rose from 42 to 72%. Study 2 shows that 50 years later, many soldiers still exhibited religious behavior, but it varied by their war experience. Soldiers who faced heavy combat (vs. no combat) attended church 21% more often if they claimed their war experience was negative, but those who claimed their experience was positive attended 26% less often. The

more a combat veteran disliked the war, the more religious they were 50 years later. The authors conclude that saying there are no atheists in foxholes may be less of an argument against atheism than it is against foxholes.

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

Allamani, Allaman, Stan-Shlomo Einstein & Theodore M. Godlaski. 2013. A review of the many meanings of an unseizable concept. *Substance Use & Misuse* 48(12). 1081–1084. doi:10.3109/10826084.2013.810497.

The current editorial explores about the meanings of an unseizable concept spirituality and religion may have different meanings in different cultures across time, like the Australian First Nation and the descendants of colonizers, not only in different cultures that are contemporary, like in Europe and in America nowadays. Spirituality can be a pilgrim's quest attracting New Age believers in paths to overcome old(er) Age challenges. Spirituality can be a mission, a doctrine, substituting for, and replacing, "nature's drugs" enhancing by "natural" ways and beliefs. Spirituality can be a mindfulness-changing mindset, creating and sustaining dialogue with self and with others. Spirituality can be a meme. Spirituality can be an existential negotiation, which may, or may not, become a social and cultural "tipping point." The focus of what is being presented is narrow, when one considers the multidimensionality and dynamics of spirituality; however, it is currently defined and related to, and how it will be, in the future.

Austin, James H. 2013. Zen and the brain: Mutually illuminating topics. *Frontiers in Psychology* 4. 784. doi:10.3389/fpsyg.2013.00784.

Zen Buddhist meditative practices emphasize the long-term, mindful training of attention and awareness during one's ordinary daily-life activities, the shedding of egocentric behaviors, and the skillful application of one's innate compassionate resources of insight-wisdom toward others and oneself. This review focuses on how such a comprehensive approach to training the brain could relate to a distinctive flavor of Zen: its emphasis on direct experience, with special reference to those major acute states of awakening that create deep transformations of consciousness and behavior. In Japanese, these advanced states are called kensho and satori. Ten key concepts are reviewed. They begin by distinguishing between the concentrative and receptive forms of meditation, noticing the complementary ways that they each train our normal "top-down" and "bottom-up" modes of attentive processing. Additional concepts distinguish between our two major processing pathways. The self-centered, egocentric frame of reference processes information in relation to our body (our soma) or to our mental functions (our psyche). The other-centered frame of reference processes information anonymously. Its prefix, "allo-" simply means "other" in Greek. Subsequent concepts consider how these useful Greek words (ego/allo, soma/psyche) correlate with the normal functional anatomy of important thalamo-cortical connections. A plausible model then envisions how a triggering stimulus that captures attention could prompt the reticular nucleus to release GABA, and how its selective inhibition of the dorsal thalamus could then block both our higher somatic and psychic cortical functions. The consequences of this process are the deletion of the maladaptive aspects of selfhood, along with the release of the direct, all-inclusive, globally-unified experience of other. Two final concepts consider how the long-term meditative training of intuitive functions relates to certain kinds of word-free spatial tasks that involve insightful creative problem-solving.

Berghuijs, Joantine, Jos Pieper & Cok Bakker. 2013. Conceptions of Spirituality among the Dutch Population. *Archive for the Psychology of Religion* 35(3). 369–397. doi:10.1163/15736121-12341272.

This article explores the conceptions of spirituality in a large and representative sample (n=2313) of the general population in the Netherlands. Spirituality is described mostly in cognitive terms (54%), especially in the form of general references to a transcendent reality (e.g., "more things in heaven and earth"). Experiential expressions are used in more than a quarter of the descriptions. Important patterns in the descriptions are: spirituality as the

transcendent God; spirituality as inwardness; and spirituality as mental health. In the sample, 21% of the participants distance themselves from spirituality; among people with a secular outlook this percentage is 35%. The authors paid special attention to differences in conceptions of spirituality between people inside and outside institutional religious contexts, and between people who self-identify as 'spiritual' and those who do not.

Gorsuch, Richard L. 2013. Spilka's Impact on the Psychological Study of the Concepts of God. *International Journal for the Psychology of Religion* 23(4). 307–314. doi:10.1080/10508619.2013.795802.

In 1964, the researchers Spilka, Amatas, and Nussbaum published the paper "The Concept of God: A Factor-Analytic Approach." As each decade has passed it has been cited more frequently. The measurement technique has been adaptable to numerous situations and topics. The literature citing this work ranges from studies of how groups differ in conceptualization of God to studies of developmental issues to psychological adjustment, with significant and meaningful correlations in every area. The research growing from this seminal article reinforces the rationale that concepts of God are of central importance to the study of how religion develops and how it impacts people.

Hood, Ralph W. 2013. Theory and Methods in the Psychological Study of Mysticism. *International Journal for the Psychology of Religion* 23(4). 294–306. doi:10.1080/10508619.2013.795803.

The contemporary study of mysticism has focused upon empirical methods to test explicit theories. Included among the theoretical considerations is the possibility that mystical experiences share a common core that can be empirically identified and measured. Using empirical measures of mysticism, conditions that immediately effect the report of mystical experiences and the context in which such experiences have been reported have been identified that suggest that mystical experience can be facilitated under a wide variety of laboratory and non-laboratory conditions. Bernie Spilka has been influential in anticipating many of the directions of the empirical study of mysticism.

McClure, Barbara. 2013. Divining the Sacred in the Modern World: Ritual and the Relational Embodiment of Spirit. *Pastoral Psychology* 62(5). 727–742. doi:10.1007/s11089-013-0515-y.

This essay explores the relationship of spirituality to religious practice, asserting that spirituality is directly related to ritual, but that the rituals that relay a sense of the sacred are not necessarily ecclesially-based, nor are they detached from 'ordinary,' material life.

McIntosh, Daniel N. & Taylor Newton. 2013. An Explicit Request for Mini-theories in the Psychology of Religion and Spirituality. *International Journal for the Psychology of Religion* 23(4). 261–270.

doi:10.1080/10508619.2013.795805.

Mini-theories aim to understand relatively specific phenomena, in contrast to larger scale or grand theories that aim to be comprehensive, inclusive theories of the psychology of religion. By focusing on more narrow phenomena or questions, mini-theories allow clearer delineation of concepts, facilitate attention to questions that drive interest in the psychology of religion and enhance the applicability of the findings, support investigation of diverse topics, accelerate scientific progress, and help the psychology of religion connect with other areas of psychology. Risks of a mini-theory approach include dispersion of effort, hobbling development of promising grand theories, generating a disconnected hodgepodge of findings, and deemphasizing the importance of theory. The advantages of mini-theories can be strengthened and the risks decreased by explicitly tying each study to the larger intellectual and theoretical context, intentionally connecting mini-theory-driven studies to each other, and valuing theoretical discussion and integration in research reports.

Notermans, Catrien & Heleen Kommers. 2013. Researching religion: The iconographic elicitation method. *Qualitative Research* 13(5). 608–625. doi:10.1177/1468794112459672.

This article offers a contribution to context-related methods in anthropological fieldwork. The multidimensional realities of ethnographic fieldwork require much creativity in adapting research strategies to peculiar research contexts. This idea is illustrated with a description of a variant on the elicitation method as developed during research on Marian pilgrimage. Researchers studying religion come across specific problems, such as peoples' profound emotions and private suffering, that may strongly inhibit communication with the researcher. The elicitation method as used in the project explicitly aimed at overcoming the problem of silence and outburst of tears among emotionally touched respondents, which seriously hampered initial interviews based on verbal stimuli. In contrast to this, emotional responses to the iconographic stimuli appeared to evoke stories revealing important religious meanings, whereas precisely this emotional dimension made it difficult for the people to express themselves when approached by the use of conventional interview techniques.

Pargament, Kenneth I. 2013. Spirituality as an Irreducible Human Motivation and Process. *International Journal for the Psychology of Religion* 23(4). 271–281. doi:10.1080/10508619.2013.795815.

Researchers and practitioners have defined the critical functions of religion in terms of presumably more basic psychological, social, and physiological functions, such as self-regulation, anxiety-reduction, community, meaning, and evolutionary advantage. While there is support for each of these perspectives, this paper asserts that the most fundamental function of religion is spiritual; that is, people are motivated to discover, sustain, and transform a relationship with something sacred in their lives. Drawing on a variety of theoretical and empirical sources, this paper presents evidence that spirituality is an important, irreducible motivation and process in and of itself. This approach places spirituality where it belongs, at the center of the psychology of religion and spirituality. The paper concludes by considering some theoretical, practical, and empirical implications of a non-reductive approach to spirituality.

Sahin, Adem. 2013. Reflections on the Possibility of an Islamic Psychology. *Archive for the Psychology of Religion* 35(3). 321–335. doi:10.1163/15736121-12341270.

Many studies have been done in non-Western academia that raise the issue of indigenousness, holding that it should be taken into consideration as an important element in explaining human behavior. It is within this context that one can regard the studies and discussions on the notion of Islamic psychology. An investigation into the literature on Islamic psychology shows that although a good number of studies on the subject have been done, sufficient attention has not been paid to its epistemological foundations, e.g., its nature, origin, and scope. With regard to Islamic psychology, this study is intended to analyze the relationship between science and religion, the borders of religion and science, and the possibility of Islamic psychology as a nascent social discipline.

#### PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

#### 2.1 Spirituality & Health: General Health & Well-Being

D'Abbs, Peter & Richard Chenhall. 2013. Spirituality and Religion in Response to Substance Misuse Among Indigenous Australians. *Substance Use & Misuse* 48(12). 1114–1129. doi:10.3109/10826084.2013.800746.

The ongoing quest for effective ways of preventing and managing alcohol and other drug use-related problems among Indigenous Australians has spawned a variety of approaches, including AA-based treatment, population health-based preventive approaches, and various forms of cultural healing. This paper examines two inter-related sources of ideas and strategies: firstly, the emergence since the 1970s of evangelical Christianity in some Aboriginal communities as a response to profound changes, including increased access to alcohol. The second is the attempt to invoke Indigenous spirituality as an alternative to both western Christianity and western biomedical intervention models. The authors also discuss the representation of Australian Indigenous spirituality within New Age and related discourses.

Alzahrani, Hasan Ali & Mohammad Gamal Sehlo. 2013. The impact of religious connectedness on health-related quality of life in patients with diabetic foot ulcers. *Journal of Religion and Health* 52(3). 840–850.

doi:10.1007/s10943-011-9529-x.

Religious connectedness is common phenomenon in Saudi Arabia and adjacent Gulf countries. An observational case control study was designed, enrolling 180 adult patients to report the association between religious connectedness and health-related quality of life (HRQL) in people with and without diabetes and foot ulcers. Sixty diabetic patients with foot ulcers (Group II) were compared with sixty diabetic patients without foot ulcer (Group II) and sixty healthy subjects (Group III) for assessment of their HRQL by using SF-36 questionnaire. The effect of religious connectedness was assessed using intrinsic/extrinsic religious connectedness scale. HRQL was found to be significantly lower in Group I compared with Group II and III as well as in group II compared with group III. Group I patients showed a poorer HRQL with increased severity, duration and multiplicity of foot ulcers. There was a strong positive relationship between religious connectedness and HRQL as indicated by a positive correlation between religious connectedness scale and mental, physical component summary scores. While quality of life is generally poor in people with diabetic foot ulcers, there exists a strong positive relationship between religious connectedness and higher HRQL.

Anye, Ernest Tamanji, Tara L. Gallien, Hui Bian & Michael Moulton. 2013. The Relationship Between Spiritual Well-Being and Health-Related Quality of Life in College Students. *Journal of American College Health* 61(7). 414–421. doi:10.1080/07448481.2013.824454.

This study investigated the relationship between spiritual well-being (SWB) and various aspects of health-related quality of life (HRQL) of college students. Participants (n=225) were surveyed in October 2010 to assess SWB and HRQL using the Spiritual Well-Being Scale and questions from the Centers for Disease Control and Prevention's scale for HRQL, respectively. Hierarchical multiple linear regression analyses tested the relationship between SWB and multiple measures of HRQL while controlling for sex, age, and race. Participants who reported higher SWB scores were more likely to participate in religious-type activities and report better HRQL compared with students who reported a moderate sense of SWB. Jointly, SWB and participation in religious activities explained 18% of the variance in HQRL in this sample.

Bharmal, Nazleen, Robert Kaplan, Martin F. Shapiro, Marjorie Kagawa-Singer, Mitchell D. Wong, Carol M. Mangione, Hozefa Divan & William J. McCarthy. 2013. The association of religiosity with overweight/obese body mass index among Asian Indian immigrants in California. *Preventive Medicine* 57(4). 315–321.

doi:10.1016/j.ypmed.2013.06.003.

The aim of this study was to examine the association between religiosity and overweight or obese body mass index among a multi-religious group of 3,228 Asian Indian immigrants residing in California. Survey data indicated that high self-identified religiosity was significantly associated with higher BMI after adjusting for sociodemographic and acculturation measures. Highly religious Asian Indians had 1.53 greater odds of being overweight or obese than low religiosity immigrants, though this varied by religious affiliation. Religiosity was associated with greater odds of being overweight/obese for Hindus and Sikhs, but not for Muslims

Canada, Andrea L., George Fitchett, Patricia E. Murphy, Kevin Stein, Kenneth Portier, Corinne Crammer & Amy H. Peterman. 2013. Racial/ethnic differences in spiritual well-being among cancer survivors. *Journal of Behavioral Medicine* 36(5). 441–453. doi:10.1007/s10865-012-9439-8.

This study examined racial/ethnic differences in spiritual well-being (SWB) among survivors of cancer. The authors hypothesized higher levels of Peace and Faith, but not Meaning, among Black and Hispanic survivors compared to White survivors, differences that would be reduced but remain significant after controlling for sociodemographic and medical factors. Hypotheses were tested with data from the American Cancer Society's Study of Cancer Survivors-II. In general, bivariate models supported the initial hypotheses. After adjustment for sociodemographic and medical factors, however, Blacks had higher scores on both Meaning and Peace compared to Hispanics and Whites, and Hispanics' scores on Peace were higher than Whites' scores. In contrast, sociodemographic and medical factors had weak associations with Faith scores. The pattern with Faith in bivariate models persisted in the fully adjusted models. Racial/ethnic differences in Meaning and in Peace, important dimensions of SWB, were even stronger after controlling for sociodemographic and medical factors. However, racial/ethnic differences in Faith appeared to remain stable.

Carim-Todd, Laura, Suzanne H Mitchell & Barry S Oken. 2013. Mind-body practices: an alternative, drug-free treatment for smoking cessation? A systematic review of the literature. *Drug and Alcohol Dependence* 132(3). 399–410. doi:10.1016/j.drugalcdep.2013.04.014.

The aim of this systematic review is to assess the efficacy of yoga and other meditation-based interventions for smoking cessation, to identify the challenges of clinical trials applying mind-body treatments, and to outline directions for future research on these types of therapies to assist in smoking cessation. Fourteen clinical trials met the inclusion criteria defined for this review. Analysis of the literature supported yoga and meditation-based therapies as candidates to assist smoking cessation. However, the small number of studies available and associated methodological problems require more clinical trials with larger sample sizes and carefully monitored interventions to determine rigorously if yoga and meditation are effective treatments.

Chen, Yu, Xueling Yang, Liyuan Wang & Xiaoyuan Zhang. 2013. A randomized controlled trial of the effects of brief mindfulness meditation on anxiety symptoms and systolic blood pressure in Chinese nursing students. *Nurse education today* 33(10). 1166–1172. doi:10.1016/j.nedt.2012.11.014.

The results of a national survey of determinants of drinking, smoking and betel-nut chewing behaviors are analyzed. The purpose of this paper is to empirically investigate whether those activities were influenced by a variety of religions based on Taiwan data. Results suggest that Buddhism, Taoism and practitioners of Chinese

folk region are positively associated with heavy betel nut chewing while the religion effects on heavy smoking and drinking are statistically insignificant. Findings on religious effects in Taiwan can be a valuable reference for comparison in Christian and western countries.

Eda, Nobuhiko, Kazuhiro Shimizu, Satomi Suzuki, Yoko Tanabe, Eunjae Lee & Takao Akama. 2013. Effects of yoga exercise on salivary beta-defensin 2. *European Journal of Applied Physiology* 113(10). 2621–2627. doi:10.1007/s00421-013-2703-y.

The aim of this study was to determine the effect of yoga stretching on mucosal immune functions, primarily human beta-defensin 2 (HBD-2) in saliva, in a sample of 15 healthy adults. Participants rested for 90 min on the first day and performed yoga for 90 min on the second day. Measurements were carried out before and after rest or yoga. Saliva samples were collected by chewing a sterile cotton at a frequency of 60 cycles per min. HBD-2 concentration after yoga stretching was significantly higher than that before yoga stretching. HBD-2 expression rate after yoga stretching was significantly higher than that before yoga stretching. HBD-2 concentration and HBD-2 expression rate at post on the second day (yoga) was significantly higher than that on the first day (rest). POMS score of anger-hostility was lower after yoga than before.

Gallegos, Autumn M., Michael Hoerger, Nancy L. Talbot, Michael S. Krasner, Jennifer M. Knight, Jan A. Moynihan & Paul R. Duberstein. 2013. Toward identifying the effects of the specific components of mindfulness-based stress reduction on biologic and emotional outcomes among older adults. *Journal of Alternative and Complementary Medicine* 19(10). 787–792. doi:10.1089/acm.2012.0028.

The objectives of this study were to examine the effects of specific Mindfulness-Based Stress Reduction (MBSR) activities (yoga, sitting and informal meditation, body scan) on immune function, circulating insulin-like growth factor (IGF)-1 concentrations, and positive affect among older adults (n=100). Participants maintained weekly practice logs documenting participation in yoga, sitting meditation, informal meditation, and body scan. More practice of yoga was associated with higher post-treatment IGF-1 levels and greater improvement in positive affect from study entry to postintervention. Sitting meditation was positively associated with post-treatment IGF-1. Greater use of body scanning was associated with reduced antigen-specific IgM and IgG 3 weeks postintervention but not 24 weeks. No associations were found between MBSR activities and IL-6 levels.

Gmel, Gerhard, Meichun Mohler-Kuo, Petra Dermota, Jacques Gaume, Nicolas Bertholet, Jean-Bernard Daeppen & Joseph Studer. 2013. Religion is good, belief is better: religion, religiosity, and substance use among young Swiss men. *Substance Use & Misuse* 48(12). 1085–1098. doi:10.3109/10826084.2013.799017.

Researchers examined the influence of religious denomination (RD) and religiosity/spirituality on licit and illicit substance use beyond the potential impact of parental variables, in a sample of 5,387 Swiss men approximately 20 years old. Logistic regressions (adjusting for parenting and socioeconomic background) of results of survey data revealed that religiosity/spirituality was inversely associated with substance use and that it was more strongly associated than denomination. RD, particularly having no denomination, was independently associated with the use of most substances.

Hughes, Joel W, David M Fresco, Rodney Myerscough, Manfred H. M. van Dulmen, Linda E Carlson & Richard Josephson. 2013. Randomized controlled trial of mindfulness-based stress reduction for prehypertension. *Psychosomatic Medicine* 75(8). 721–728. doi:10.1097/PSY.0b013e3182a3e4e5.

A randomized clinical trial of mindfulness-based stress reduction (MBSR) for high blood pressure (BP) was conducted to determine whether BP reductions associated with MBSR exceed those observed for an active control

condition consisting of progressive muscle relaxation (PMR) training. A sample of 56 participants, averaging 50.3 years of age with unmedicated BP in the prehypertensive range were randomized to 8 weeks of MBSR or PMR delivered in a group format. Following intervention, patients randomized to MBSR exhibited a 4.8-mm Hg reduction in clinic SBP, which was larger than the 0.7-mm Hg reduction observed for PMR. Those randomized to MBSR exhibited a 1.9-mm Hg reduction in DBP compared with a 1.2-mm Hg increase for PMR. MBSR did not result in larger decreases in ambulatory BP than in PMR.

Hunter, Bradley D & Ray M Merrill. 2013. Religious orientation and health among active older adults in the United States. *Journal of Religion and Health* 52(3). 851–863. doi:10.1007/s10943-011-9530-4.

This study utilizes a combination of intrinsic and extrinsic Religious Orientation Scales to explore the connection between religion and health in a sample of physically active, older adults. The revised Religious Orientation Scale and the RAND Short Form 36 (SF-36) were adopted to relate religious orientation (intrinsic, extrinsic, proreligious, and non-religious) and self-rated mental and physical health status. Individuals of pro-religious orientation reported significantly worse health for physical functioning, role limitations due to physical health, and energy or fatigue when compared with those of all other religious orientations; however, no dose-response relationships were found between religious orientation and self-rated health. The results of this study indicate that deleterious health effects may accompany pro-religious orientation.

Hunter, Stacy D., Mandeep Dhindsa, Emily Cunningham, Takashi Tarumi, Mohammed Alkatan & Hirofumi Tanaka. 2013. Improvements in glucose tolerance with Bikram yoga in older obese adults: A pilot study. *Journal of Bodywork and Movement Therapies* 17(4). 404–407. doi:10.1016/j.jbmt.2013.01.002.

Researchers studied the effect of Bikram yoga on glucose tolerance. Fourteen young lean and 15 older obese subjects completed an 8-week Bikram yoga intervention in which classes were completed 3 times per week. Glucose tolerance was assessed using a 75 g oral glucose tolerance test. The area under the glucose curve following the oral glucose tolerance test was significantly reduced as a result of the Bikram Yoga intervention in older obese, but not in young lean, subjects.

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* 32(10). 1104–1109. doi:10.1037/a0031362.

Researchers measured self-reported mindfulness and p.m. cortisol near the beginning and end of a 3-month meditation retreat (n=57). They found that mindfulness increased from pre- to post-retreat. Cortisol did not significantly change. However, mindfulness was inversely related to p.m. cortisol at pre-retreat and post-retreat, after controlling for age and body mass index. Pre- to post-change in mindfulness was associated with pre to post-change in p.m. cortisol: larger increases in mindfulness were associated with decreases in p.m. cortisol, whereas smaller increases (or slight decreases) in mindfulness were associated with an increase in p.m. cortisol. The authors conclude that these data suggest a relation between self-reported mindfulness and resting output of the hypothalamic-pituitary-adrenal system.

Klassen, Brian J., Kathryn Z. Smith & Emily R. Grekin. 2013. Differential Relationships Between Religiosity, Cigarette Smoking, and Waterpipe Use: Implications for College Student Health. *Journal of American College Health* 61(7). 381–385. doi:10.1080/07448481.2013.819806.

The authors examined differential relationships between religiosity and the frequency of cigarette and waterpipe tobacco smoking among 614 individuals beginning their first year at a large, public, midwestern university.

Results indicate that although a latent, generalized religiosity factor was negatively associated with frequency of cigarette smoking, there was no such relationship for frequency of waterpipe use.

Kretchy, Irene, Frances Owusu-Daaku & Samuel Danquah. 2013. Spiritual and religious beliefs: Do they matter in the medication adherence behaviour of hypertensive patients? *BioPsychoSocial Medicine* 7(1). 15.

doi:10.1186/1751-0759-7-15.

This study sought to examine the interrelationship between spirituality/ religiosity and medication adherence among 400 hypertensive patients 18 years old and above. Researchers found that the majority (93.25%) of patients poorly adhered to their medications. While high spiritual and religious beliefs formed core components of the lifestyles of patients, spirituality and not religiosity related directly with medication non-adherence. Likewise, after controlling for demography and other medical co-morbidities, patients with high spirituality were 2.68 times more likely to be poorly adherent than patients who place lower emphasis on the association between spirituality and health.

LeJeune, Brenna C, Gregory D Zimet, Faouzi Azzouz, J Dennis Fortenberry & Matthew C Aalsma. 2013. Religiosity and sexual involvement within adolescent romantic couples. *Journal of Religion and Health* 52(3). 804–816. doi:10.1007/s10943-011-9512-6.

The impact of religiosity in adolescent romantic partnerships on sexual behavior was assessed. Data were obtained from the National Longitudinal Study of Adolescent Health reciprocated couples database using religious- and relationship-oriented variables to predict sexual involvement in 374 couples (748 participants). The authors found that individual- and couple-based religiosity impacted sexual behavior. These findings provide evidence for dyad religiosity as a component involved in the expression of sexual behavior in romantic relationships.

Milbury, K., A. Chaoul, K. Biegler, T. Wangyal, A. Spelman, C. A. Meyers, B. Arun, J. L. Palmer, J. Taylor & L. Cohen. 2013. Tibetan sound meditation for cognitive dysfunction: Results of a randomized controlled pilot trial. *Psycho-Oncology* 22(10). 2354–2363. doi:10.1002/pon.3296.

This randomized controlled trial examined the feasibility and preliminary efficacy of a Tibetan Sound Meditation (TSM) program to improve cognitive function and quality of life in 47 breast cancer patients who reported cognitive impairment at study entry. Participants were randomized to either two weekly TSM sessions for 6 weeks or a wait list control group. Relative to the control group, women in the TSM group performed better on the verbal memory test and the short-term memory and processing speed task and reported improved cognitive function, cognitive abilities, mental health, and spirituality at the end of treatment but not 1 month later.

Moore, Erin W, Jannette Y Berkley-Patton & Starlyn M Hawes. 2013. Religiosity, alcohol use, and sex behaviors among college student-athletes. *Journal of Religion and Health* 52(3). 930–940. doi:10.1007/s10943-011-9543-z.

The current study examined the relationship between religiosity (e.g., influence of religious beliefs and church attendance) and alcohol use and sex behavior among college student-athletes. Most of the student-athletes (n=83) were religious. Influence of religious beliefs was a significant predictor of less alcohol use and less sexual activity (i.e., oral and vaginal sex, number of sex partners). However, increased church attendance was not found to be a protective factor. Findings suggest that religious beliefs may contribute to reduction of alcohol use and sexual risk among college student-athletes.

Moriello, Gabriele, Christopher Denio, Megan Abraham, Danielle DeFrancesco & Jill Townsley. 2013. Incorporating yoga into an intense physical therapy program in someone with Parkinson's disease: A case report. *Journal of Bodywork and Movement Therapies* 17(4). 408–417.

doi:10.1016/j.jbmt.2013.01.005.

This case study reports on an intense exercise program integrating yoga with physical therapy exercise in a male with Parkinson's disease. The participant performed an intense 1½-hour program (Phase A) incorporating strengthening, balance, agility and yoga exercises twice weekly for 12 weeks. He then completed a new home exercise program developed by the researchers (Phase B) for 12 weeks. Following intervention, the participant's score on the Parkinson's Disease Questionnaire improved 16 points while his score on the High Level Mobility Assessment tool improved 11 points. There were also improvements in muscle length of several lower extremity muscles, in upper and lower extremity muscle strength, in dynamic balance and he continues to work full time 29 months later. There were no improvements in thoracic posture or aerobic power.

Pedersen, Christina Gundgaard, Søren Christensen, Anders Bonde Jensen & Robert Zachariae. 2013. In God and CAM we trust: Religious faith and use of complementary and alternative medicine (CAM) in a nationwide cohort of women treated for early breast cancer. *Journal of Religion and Health* 52(3). 991–1013. doi:10.1007/s10943-012-9569-x.

Information on faith in God or a higher spiritual power and use of CAM was provided by a nationwide sample of 3,128 recurrence-free Danish women who had received surgery for early-stage breast cancer 15-16 months earlier. Socio-demographic, clinical, and health status variables were obtained from national longitudinal registries, and health behaviors had been assessed at 3-4 months post-surgery. Of the women, 47.3% reported a high degree of faith (unambiguous believers), 35.9% some degree of faith (ambiguous believers), while the remaining 16.8% were non-believers. Unambiguous believers were more likely than ambiguous believers to experience their faith as having a positive impact on their disease and their disease-related quality-of-life. When compared to non-believers, unambiguous believers were also older, had poorer physical function, and were more frequent users of CAM, and more inclined to believe that their use of CAM would have a beneficial influence on their cancer. Disease- and treatment-related variables were unrelated to faith. While overall religious faith appears equally prevalent among Danish and US breast cancer patients, the majority of Danish breast cancer patients experienced ambiguous faith, whereas the majority of US patients have been found to express unambiguous faith.

Plunkett, Robyn & Beverly D Leipert. 2013. Women's health promotion in the rural church: a Canadian perspective. *Journal of Religion and Health* 52(3). 877–889. doi:10.1007/s10943-011-9535-z.

The purpose of this paper is to explore the relevance of the Christian church and faith community nurses in promoting the health of rural Canadian women in the evolving rural context. The findings from an extensive literature search reveal that religion and spirituality often influence the health beliefs, behaviors, and decisions of rural Canadian women. The church and faith community nurses may therefore be a significant health resource for rural Canadian women, although this phenomenon has been significantly understudied.

Room, Robin. 2013. Spirituality, Intoxication and Addiction: Six Forms of Relationship. Substance Use & Misuse 48(12). 1109–1113. doi:10.3109/10826084.2013.803879.

The paper considers six connections between spirituality and intoxication or addiction. They are: intoxication as a means of communication with a spiritual world; intoxication as destroying spirituality; shared use and intoxication as creating and validating community; spirituality and religion as a means of collective sobering-up; spirituality in individual sobering up; and abstinence as a spiritual practice, a witness, or a badge of membership in a spiritual community. Intoxication can either enhance or impede spirituality, both at individual and collective levels. Spirituality is often important in sobering up, both individually and collectively, and abstinence is a part of

spiritual or religious practice in some traditions. However, a full account must acknowledge the diversity in the interactions of spirituality and intoxication or addiction.

Rosário, José Luís Pimentel do, Larissa Schwarzwälder Orcesi, Fernanda Naomi Kobayashi, Alexandre Nicolau Aun, Iane Tavares Diolindo Assumpção, Gisele Janaina Blasioli & Érica Sato Hanada. 2013. The immediate effects of modified Yoga positions on musculoskeletal pain relief. *Journal of Bodywork and Movement Therapies* 17(4). 469–474. doi:10.1016/j.jbmt.2013.03.004.

The aim of the present study was to assess the efficiency of a single session of two modified Yoga positions with 110 subjects and their 147 pain-related complaints. The participants were divided into two groups: The Yoga Group, which received treatment of two 20-min postures and the Control Group, which received a placebo treatment of 15 min with a turned off ultrasound. All volunteers experienced some pain before treatment and were assessed before and after treatment using the analog pain scale. A score of 0 indicated no pain whereas 10 was the maximum degree of pain on the scale. The difference before and after treatment was compared between the groups with a p-value of 0.0001, as measured by the Student's t-test. The authors conclude that one therapy session is effective in the treatment of various musculoskeletal problems.

Sung, Hung-En & Doris C. Chu. 2013. The Varieties of Religious Experience and the Retention of Clients in Taiwanese Faith-Based Residential Drug User Treatment. Substance Use & Misuse 48(12). 1219–1232. doi:10.3109/10826084.2013.805597.

This study investigated whether subgroups of faith-based treatment clients displaying similar religious experiences and treatment performance can be theoretically specified and empirically identified. Highlighting the volitional dimension of the change process, four subgroups (i.e., non-Christians, baseline Christians, rededicated Christians, and newly converted Christians) were proposed according to the direction and magnitude of clients' change in religiosity during treatment. Data obtained for 707 subjects who entered a Christian residential therapeutic community program in Taiwan between 2000 and 2009 were analyzed. Results showed that the typology of religious experiences powerfully predicted treatment retention and completion.

Tonigan, J Scott, Kristina N Rynes & Barbara S McCrady. 2013. Spirituality as a Change Mechanism in 12-Step Programs: A Replication, Extension, and Refinement. Substance Use & Misuse 48(12). 1161–1173.

doi:10.3109/10826084.2013.808540.

This National Institutes of Health funded study investigated spiritual growth as a change mechanism in 12-step programs. A total of 130 people, early 12-step affiliates with limited Alcoholics Anonymous (AA) histories, were recruited from 2007 to 2008 from AA, treatment, and community centers in a Southwestern city in the United States. A majority of the sample was alcohol dependent. Participants were interviewed at baseline and at 3, 6, and 9 months. Lagged General Linear Modeling analyses indicated that spiritual change as measured by the Religious Background and Behavior (RBB) self-report questionnaire were predictive of increased abstinence and decreased drinking intensity, and that the magnitude of this effect varied across different RBB scoring algorithms.

Tumwesigye, Nazarius M, Lynn Atuyambe, Simon P S Kibira, Fred Wabwire-Mangen, Florence Tushemerirwe & Glenn J Wagner. 2013. Do Religion and Religiosity Have Anything to Do With Alcohol Consumption Patterns? Evidence From Two Fish Landing Sites on Lake Victoria Uganda. Substance Use & Misuse 48(12). 1130–1137. doi:10.3109/10826084.2013.808464.

This paper examines the role of religion and religiosity on alcohol consumption at two fish landing sites on Lake Victoria in Uganda. Questionnaires were administered to randomly selected people at the sites. Dependent variables included alcohol consumption during the previous 30 days, whereas the key independent variables were religion and religiosity. People reporting low religiosity were five times more likely to have consumed alcohol compared with those reporting low/average religiosity.

Tyagi, Anupama & Marc Cohen. 2013. Oxygen consumption changes with yoga practices: A systematic review. *Journal of Evidence-Based Complementary & Alternative Medicine* 18(4). 290–308. doi:10.1177/2156587213492770.

This systematic review attempted to include all studies of yoga that also measured oxygen consumption or metabolic rate as an outcome. A total of 58 studies were located involving between 1 and 104 subjects (average 21). The studies were generally of poor methodological quality and demonstrated great heterogeneity with different experimental designs, yoga practices, time periods, and small sample sizes. Studies report yoga practices to have profound metabolic effects producing both increase and decrease in oxygen consumption, ranging from 383% increase with cobra pose to 40% decrease with meditation. Compared to non-practitioners, basal oxygen consumption is reported to be up to 15% less in regular yoga practitioners, and regular yoga practice is reported to have a training effect with oxygen consumption during submaximal exercise decreasing by 36% after 3 months. Yoga breathing practices emphasize breathing patterns and retention ratios as well as unilateral nostril breathing, and these factors appear critical in influencing oxygen consumption. A number of studies report extraordinary volitional control over metabolism in advanced yoga practitioners who appear to be able to survive extended periods in airtight pits and to exceed the limits of normal human endurance.

Wade, Wendy. 2013. Catholic Mass and Its Healing Implications for the Addicted Person. Substance Use & Misuse 48(12). 1138–1149. doi:10.3109/10826084.2013.800744.

A convenience sample of 12 recovering alcoholics/addicts were interviewed, using open-ended interviews, during 2009 regarding their experience of Catholic Mass in relation to their recovery. Half of the participants had been raised Catholic, whereas the other half had converted. All have participated in Alcoholics Anonymous and lived in various areas in California. Data analysis used a phenomenological method allowing for use of the participant's own vocabulary.

Yel, Daravuth, Anthony Bui, Jayakaran S Job, Synnove Knutsen & Pramil N Singh. 2013. Beliefs about tobacco, health, and addiction among adults in Cambodia: findings from a national survey. *Journal of Religion and Health* 52(3). 904–914. doi:10.1007/s10943-011-9537-x.

In the present study, the researchers examined the relation between beliefs (faith-based, other) about tobacco, health, and addiction among 13,988 adults in Cambodia. Data revealed that (1) 88-93% believe that Buddhist monks should not use tobacco, buy tobacco, or be offered tobacco during a religious ceremony; (2) 86-93% believe that the Wat (temple) should be a smoke-free area; (3) 93-95% believe that tobacco is addictive in the same way as habits (opium, gambling, alcohol) listed under the fifth precept of Buddhism; and (4) those who do not use tobacco are significantly more likely to cite a Buddhist principle as part of their anti-tobacco beliefs. These data indicate that anti-tobacco sentiments are highly prevalent in the Buddhist belief system of Cambodian adults and are especially evident among non-users of tobacco.

#### 2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Aghababaei, Naser & Mohammad Taghi Tabik. 2013. Gratitude and mental health: differences between religious and general gratitude in a Muslim context. *Mental Health*, *Religion & Culture* 16(8). 761–766.

doi:10.1080/13674676.2012.718754.

The present study examined the relation of religious gratitude and dispositional gratitude with mental health, subjective well-being and personality among a sample of 256 Iranian students. The two types of gratitude were associated with higher levels of mental health and well-being. Agreeableness and Conscientiousness were the strongest personality correlates of both types of gratitude. Dispositional gratitude showed stronger relationship with mental health, subjective well-being and personality factors. Dispositional gratitude also out-predicted the religious gratitude in relation with mental health and subjective well-being, showing that religious gratitude compared to dispositional gratitude has less effect on mental health and well-being.

Andersen, Anders J.W., Ingrid Kristine Hasund & Inger Beate Larsen. 2013. "Heaven and Hell on Earth" A critical discourse analysis of religious terms in Norwegian autobiographies describing personal experience of mental health problems. *Mental Health, Religion & Culture* 16(8). 781–796. doi:10.1080/13674676.2012.721347.

This article explores the use of religious terms in six Norwegian autobiographies written between 1925 and 2005 by people who themselves have been patients in the mental health services. Through a critical discourse analysis, the authors discuss the functions of religious discourse in the texts and its position in contrast to the medical discourse predominant in today's mental health services. It was found that religious (predominantly Christian) terms were used to varying degrees in all autobiographies as a means to capture the immensity and inherent ambivalence characteristic of mental health problems. Despite the "medical turn" in professional mental health discourse, there is no clear evidence of a decrease in the use of religious terms from the oldest to the most recent text. The authors propose that professional mental health workers to a larger extent take into account the religious dimension in therapy, and reflect on its larger historical and sociocultural context.

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* 150(3). 753–759. doi:10.1016/j.jad.2013.02.034.

Using data from a national study of 493 major depressive patients in France, resarchers found that 234 (55.2%) could be classified as having high religious involvement (HRI), and 190 (44.8%) as having low religious involvement (RI). The following independent variables were associated with religious involvement: age, depressive temperament, mixed polarity of first episode, and chronic depression. The authors conclude that, in depressive patients belonging to the bipolar spectrum, high religious involvement associated with mixed features may increase the risk of suicidal behavior, despite the existence of religious affiliation.

Bilderbeck, Amy C., Miguel Farias, Inti A. Brazil, Sharon Jakobowitz & Catherine Wikholm. 2013. Participation in a 10-week course of yoga improves behavioural control and decreases psychological distress in a prison population. *Journal of Psychiatric Research* 47(10). 1438–1445. doi:10.1016/j.jpsychires.2013.06.014.

For this study, participants were recruited from 7 British prisons and randomly allocated to either a 10-week yoga program (yoga group; 1 class per week; n=45) or a control group (n=55). Following intervention, participants in the yoga group showed increased self-reported positive affect, and reduced stress and psychological distress, compared to participants in the control group. Participants who completed the yoga course also showed better performance in

the cognitive-behavioral task, making significantly fewer errors of omission in Go trials and fewer errors of commission on No-Go trials, compared to control participants.

Buser, Juleen K. & Janine M. Bernard. 2013. Religious Coping, Body Dissatisfaction, and Bulimic Symptomatology. *Counseling & Values* 58(2). 158–176. doi:10.1002/j.2161-007X.2013.00031.x.

The authors explored the association among body dissatisfaction, religious coping, and bulimic symptomatology. The results suggest that spiritual discontent religious coping was detrimental for the college female participants (n=398) when considered in relationship to bulimic symptomatology.

Chhatre, Sumedha, David S. Metzger, Ian Frank, Jean Boyer, Edward Thompson, Sanford Nidich, Luis J. Montaner & Ravishankar Jayadevappa. 2013. Effects of behavioral stress reduction Transcendental Meditation intervention in persons with HIV. *AIDS Care* 25(10). 1291–1297. doi:10.1080/09540121.2013.764396.

Researchers evaluated the feasibility of implementing Transcendental Meditation (TM), and evaluated its effects on outcomes in persons with HIV. Twenty-two persons with HIV were equally randomized to TM intervention or healthy eating (HE) education control group. Following intervention, the TM group exhibited significant improvement in vitality. Significant between group differences were observed for generic and HIV-specific health-related quality of life.

Delui, Mahdy Hassanzadeh, Maliheh Yari, Gholamreza Khouyinezhad, Maral Amini & Mohammad Hosein Bayazi. 2013. Comparison of cardiac rehabilitation programs combined with relaxation and meditation techniques on reduction of depression and anxiety of cardiovascular patients. *The Open Cardiovascular Medicine Journal* 7. 99–103. doi:10.2174/1874192401307010099.

The aim of this study was to determine the effectiveness of rehabilitation techniques in cardiac patients including psychological-physical interventions such as Meditation and Relaxation. Participants were 45 patients with CVD and depression. The patients were allocated to 3 groups (Relaxation, Meditation and Control). There was a significant reduction on depression, systolic blood pressure and heart rate in the Meditation group compared with the control group.

Field, Tiffany, Miguel Diego, Jeannette Delgado & Lissette Medina. 2013. Yoga and social support reduce prenatal depression, anxiety and cortisol. *Journal of Bodywork and Movement Therapies* 17(4). 397–403.

doi:10.1016/j.jbmt.2013.03.010.

The purpose of this study was to compare the effects of yoga (physical activity) versus social support (verbal activity) on prenatal and postpartum depression. Ninety-two prenatally depressed women were randomly assigned to a yoga or a social support control group at 22 weeks gestation. The yoga group participated in a 20-min group session (only physical poses) once per week for 12 weeks. The social support group (a leaderless discussion group) met on the same schedule. At the end of the first and last sessions the yoga group reported less depression, anxiety, anger, back and leg pain as compared to the social support group. At the end of the last session the yoga group and the support group did not differ. They both had lower depression (CES-D), anxiety (STAI), and anger (STAXI) scores and improved relationship scores. In addition, cortisol levels decreased for both groups following each session. Estriol and progesterone levels decreased after the last session. At the postpartum follow-up assessment depression and anxiety levels were lower for both groups.

Hamblin, Rebecca & Alan M Gross. 2013. Role of religious attendance and identity conflict in psychological well-being. *Journal of Religion and Health* 52(3). 817–827. doi:10.1007/s10943-011-9514-4.

A sample of individuals who identified as gay or lesbian were administered measures of church attendance, their religious organization's view of homosexuality, perceived conflict between religious faith identity and sexual orientation identity, social support, depression, and generalized anxiety. Among participants who rated their church as rejecting of homosexuality, greater frequency of attendance was related to a higher incidence of Generalized Anxiety Disorder (GAD), but not depression. No correlation was found for those attending accepting faith communities. Those who attend rejecting faith communities attended services less often, experienced greater identity conflict, and reported significantly less social support than those of the Accepted group. Regression analyses indicated that identity conflict and social support did not fully account for the relationship between attendance and GAD symptoms. Overall, findings from the current study support previous suggestions that participation in conservative or rejecting religious communities may adversely affect the emotional well-being of GL individuals.

Hasanović, Mevludin & Izet Pajević. 2013. Religious moral beliefs inversely related to trauma experiences severity and depression severity among war veterans in Bosnia and Herzegovina. *Journal of Religion and Health* 52(3). 730–739. doi:10.1007/s10943-012-9643-4.

The aim of this study is to determine the association of religious moral beliefs and depression severity of war veterans in Bosnia and Herzegovina. The sample consists of male war veterans who were inpatients with clinically presented depression and those who were observed as healthy, regarding results of previous psychological testing (n=65 for each). The Bosnia-Herzegovina versions of Hopkins Symptom Checklist and Harvard Trauma Questionnaire with questionnaire for religious moral beliefs were applied. The religious moral belief index was inversely correlated to depression severity. The religious moral beliefs may help protection of the war veterans' mental health stability after surviving multiple war traumas.

Helgason, Chanel & Jerome Sarris. 2013. Mind-body medicine for schizophrenia and psychotic disorders: A review of the evidence. *Clinical Schizophrenia & Related Psychoses* 7(3). 138–148. doi:10.3371/CSRP.HESA.020813.

Over half of psychiatric patients use some kind of Complementary and Alternative Medicine, with Mind-Body Medicine (MBM) being the most commonly used collective modality. The purpose of this paper is to present the first review in this area. Forty-two clinical studies and reviews of MBMs were located, revealing varying levels of evidence. All studies included used MBMs as an adjunctive therapy to usual care, including medication. Overall, supportive evidence was found for music therapy, meditation and mindfulness techniques. Some positive studies were found for yoga and breathing exercises, general relaxation training, and holistic multi-modality MBM interventions. Due to insufficient data, a conclusion cannot be reached for hypnosis, thermal or EMG biofeedback, dance or drama therapy, or art therapy. No clinical trials were found for guided imagery, autogenic training, journal writing, or ceremony practices. For many techniques, the quality of research was poor, with many studies having small samples, no randomization, and no adequate control.

Hickman, Enith E., Carol R. Glass, Diane B. Arnkoff & Roger D. Fallot. 2013. Religious coping, stigma, and psychological functioning among HIV-positive African American women. *Mental Health, Religion & Culture* 16(8). 832–851. doi:10.1080/13674676.2012.725162.

The present study examined the role of religious coping in psychological distress and adjustment both cross-sectionally and longitudinally among 141 HIV-positive African American women. Cross-sectional analyses showed that negative religious coping was associated with poorer mental health and functioning, and greater perceptions of stigma and discrimination. Longitudinal analyses revealed that greater negative religious coping at baseline significantly predicted greater changes in mental health in a negative direction 12 months later. Positive religious coping was not associated with any measures of psychological well-being, nor did it predict any mental

health outcomes at 12 months. However, participants who experienced high levels of HIV-related stigma and reported high levels of positive religious coping were less depressed than those who reported lower levels of positive religious coping. These results suggest that for this population, negative religious coping was a more salient determinant of psychological distress than positive religious coping was of psychological health.

Ivtzan, Itai, Christine P L Chan, Hannah E Gardner & Kiran Prashar. 2013. Linking religion and spirituality with psychological well-being: Examining self-actualisation, meaning in life, and personal growth initiative. *Journal of Religion and Health* 52(3). 915–929. doi:10.1007/s10943-011-9540-2.

Research largely shows that religion and spirituality have a positive correlation to psychological well-being. However, there has been a great deal of confusion and debate over their operational definitions. This study attempted to delineate the two constructs and categorize participants into different groups based on measured levels of religious involvement and spirituality. The groups were then scored against specific measures of well-being. A total of 205 participants from a wide range of religious affiliations and faith groups were recruited from various religious institutions and spiritual meetings. They were assigned to one of four groups with the following characteristics: (1) a high level of religious involvement and spirituality, (2) a low level of religious involvement with a high level of spirituality, (3) a high level of religious involvement with a low level of spirituality, and (4) a low level of religious involvement and spirituality. Multiple comparisons were made between the groups on three measures of psychological well-being: levels of self-actualization, meaning in life, and personal growth initiative. As predicted, it was discovered that, aside from a few exceptions, groups (1) and (2) obtained higher scores on all three measures.

Jermann, F., M. Linden, M. Gex-Fabry, A. Guarin, M. Kosel, G. Bertschy, J.-M. Aubry & G. Bondolfi. 2013. Cognitive Functioning in Patients Remitted from Recurrent Depression: Comparison with Acutely Depressed Patients and Controls and Follow-up of a Mindfulness-Based Cognitive Therapy Trial. Cognitive Therapy & Research 37(5). 1004–1014. doi:10.1007/s10608-013-9544-1.

Mindfulness-Based Cognitive Therapy (MBCT) is a promising intervention to prevent depressive relapse. Yet beyond efficacy studies, little is known regarding the mechanisms that could be modified through MBCT. Objectives of the present study were twofold: determine whether cognitive functioning was altered among patients remitted from depression at admission in a MBCT trial; and document possible changes during the trial and follow-up. In a cross-sectional perspective, cognitive functioning (autobiographical memory, shifting capacities, dysfunctional attitudes, mindful attention awareness and rumination habits) was first compared between 36 patients remitted from depression, 20 acutely depressed patients and 20 control participants. In a longitudinal perspective, changes in the remitted sample were explored during a MBCT plus Treatment As Usual versus Treatment As Usual randomized controlled trial and 9-month follow-up. Performances of remitted patients were similar to the ones of control participants for autobiographical memories, shifting capacities, and mindful attention awareness, whereas levels of rumination and dysfunctional attitudes were significantly elevated. Participation in the MBCT program was accompanied with a significant decrease of dysfunctional attitudes that continued up to 9-month postintervention. No other change was observed that was specific to MBCT. Results suggest that MBCT might help people to identify dysfunctional attitudes at a very early stage and to avoid engaging further in these attitudes.

Lee, Kyoung Hag & Hyeyoung Woo. 2013. Stressors, social support, religious practice, and general well-being among Korean adult immigrants. *Journal of Evidence-based Social Work* 10(5). 421–434. doi:10.1080/15433714.2012.759483.

In this cross-sectional study the authors explore how stressors, social support, and religious practice are associated with the general well-being of 147 Korean adult immigrants. Hierarchical regression analysis of interviews with

participants reveals that low English proficiency and financial hardship are significantly related to low general well-being. However, high social support and religious practice are significantly associated with high general well-being.

Leurent, B., I. Nazareth, J. Bellon-Saameno, M.-I. Geerlings, H. Maaroos, S. Saldivia, I. Svab, F. Torres-Gonzalez, M. Xavier & M. King. 2013. Spiritual and religious beliefs as risk factors for the onset of major depression: an international cohort study. *Psychological Medicine* 43(10). 2109–2120.

doi:10.1017/S0033291712003066.

For this study, data were collected in a prospective cohort study of 8,318 adult general practice attendees across seven countries. Participants were followed at 6 and 12 months. Spiritual and religious beliefs were assessed, and DSM-IV diagnosis of major depression was made using the Composite International Diagnostic Interview. Results of data analysis do not support the notion that religious and spiritual life views enhance psychological well-being. Of participants reporting a spiritual understanding of life at baseline, 10.5% had an episode of depression in the following year compared to 10.3% of religious participants and 7.0% of the secular group. However, the findings varied significantly across countries, with the difference being significant only in the U.K., where spiritual participants were nearly three times more likely to experience an episode of depression than the secular group. The strength of belief also had an effect, with participants with strong belief having twice the risk of participants with weak belief. There was no evidence of religion acting as a buffer to prevent depression after a serious life event.

Morledge, Thomas J., Didier Allexandre, Emily Fox, Alex Z. Fu, Mitchell K. Higashi, Denise T. Kruzikas, Sissi V. Pham & Pat Ray Reese. 2013. Feasibility of an Online Mindfulness Program for Stress Management: A Randomized, Controlled Trial. *Annals of Behavioral Medicine* 46(2). 137–148.

doi:10.1007/s12160-013-9490-x.

This study aims to determine feasibility of an 8-week Internet-based stress management program (ISM) based on mindfulness principles in reducing stress in a 12-week, parallel, randomized, controlled trial. Participants were randomly allocated to ISM, ISM plus online message board (ISM+), or control groups. Perceived stress, mindfulness, self-transcendence, psychological well-being, vitality, and quality of life were measured at baseline, week 8, and week 12 using standard validated questionnaires. Following intervention, ISM and ISM+ groups demonstrated statistically significant improvements compared with control on all measures except vitality and physical health.

Sansone, Randy A, Amy R Kelley & Jeremy S Forbis. 2013. The relationship between forgiveness and borderline personality symptomatology. *Journal of Religion and Health* 52(3). 974–980. doi:10.1007/s10943-013-9704-3.

Using a consecutive cross-sectional sample of 307 internal medicine outpatients and a survey methodology, researchers examined correlations between the Forgiveness Scale and borderline personality symptomatology. Numerous forgiveness subscales as well as the composite Forgiveness Scale score demonstrated statistically significant relationships with both measures for borderline personality symptomatology, such that individuals with this personality pathology demonstrated lower scores on these forgiveness subscales. Findings indicate that among individuals with borderline personality symptomatology, there are numerous aspects of forgiveness that are significantly lower than in individuals without this symptomatology.

Sirati Nir, Masoud, Abbas Ebadi, Masoud Fallahi Khoshknab & Abbas Tavallae. 2013. Spiritual experiences of war veterans who suffer from combat-related post-traumatic stress disorder: a qualitative study. *Journal of Religion and Health* 52(3). 719–729. doi:10.1007/s10943-012-9629-2.

The present study has been carried out to determine the spiritual experiences of 22 Iranian Muslim warriors who suffer from post-traumatic stress disorder. Interview data were analyzed using content analysis. The spiritual experiences of the participants were divided into two main categories as follows: (1) religious attitude consisting of three sub-categories known as "religious beliefs," "religious sentiments," and "religious behaviors"; and, (2) a national sensibility that includes the two sub-categories of "patriotism" and "proud" of being injured for my homeland. The analysis of the participants' spiritual experiences showed that their specific religious orientation and feelings of nationalism assisted with their improved ability to cope with the consequences of their disorder.

Staton-Tindall, Michele, Jamieson Duvall, Danelle Stevens-Watkins & Carrie B. Oser. 2013. The Roles of Spirituality in the Relationship Between Traumatic Life Events, Mental Health, and Drug Use Among African American Women from One Southern State. Substance Use & Misuse 48(12). 1246–1257.

doi:10.3109/10826084.2013.799023.

This study examined the role of spirituality as a moderator of the relationship between traumatic life experiences, mental health, and drug use in a sample of 206 African American women. It was hypothesized that there would be an inverse relationship overall between spirituality and mental health and drug use among this sample of African American women. Secondly, it was expected that spirituality would moderate the relationship between traumatic life events and mental health and drug use. Interview results indicated that there was a main effect for spirituality and traumatic life events, mental health, and alcohol use. In addition, spirituality was a significant moderator of the relationship between traumatic life events and cocaine use.

Stratta, Paolo, Cristina Capanna, Ilaria Riccardi, Giulio Perugi, Cristina Toni, Liliana Dell'Osso & Alessandro Rossi. 2013. Spirituality and religiosity in the aftermath of a natural catastrophe in Italy. *Journal of Religion and Health* 52(3). 1029–1037. doi:10.1007/s10943-012-9591-z.

The aim of this study is to assess the influence of spirituality and religiousness on the psychological traumatic effects of a catastrophic event in a population that had been exposed to an earthquake, compared with a control population that had not been exposed. A total of 901 people were evaluated using: (1) Brief Multidimensional Measure of Religiousness/Spirituality; (2) Impact of Event Scale and (3) Trauma and Loss Spectrum-Self Report (TALS-SR). Self-perceptions of spirituality and religiousness were used to rank the samples, distinguishing between spiritual and religious, spiritual-only, religious-only and neither spiritual nor religious groups. The sample that had experienced the earthquake showed lower scores in spiritual dimension. The religious-only group of those who were exposed to the earthquake demonstrated TALS-SR re-experiencing and arousal domain scores similar to the population that was not exposed. A weakening of spiritual religiosity in people having difficulty coping with trauma is a consistent finding. The authors observed that the religious dimension helped to buffer the community against psychological distress caused by the earthquake, and they conclude that the religiosity dimension can positively affect the ability to cope with traumatic experiences.

Taylor, Robert Joseph, Linda M Chatters & Ann W Nguyen. 2013. Religious participation and DSM IV major depressive disorder among Black Caribbeans in the United States. *Journal of Immigrant and Minority Health / Center for Minority Public Health* 15(5). 903–909. doi:10.1007/s10903-012-9693-4.

This study examined the relationship between religious involvement and 12-month and lifetime DSM-IV major depressive disorder (MDD) within a nationally representative sample of Black Caribbean adults. Study findings indicate that religious involvement is associated with 12-month and lifetime prevalence of MDD. Multivariate relationships between religious involvement and MDD indicate lower prevalence of 12-month and lifetime MDD among persons who use religious coping and characterize themselves as being religious (for lifetime prevalence only); persons who frequently listen to religious radio programs report higher lifetime MDD. Lower rates of 12-month

and lifetime MDD are noted for persons who attend religious services at least once a week (as compared to both higher and lower levels of attendance), indicating a curvilinear relationship. The findings are discussed in relation to previous research on religion and mental health concerns, conceptual models of the role of religion in mental health (e.g., prevention, resource mobilization) that specify multiple and often divergent pathways and mechanisms of religious effects on health outcomes, and the role of religion among Caribbean Blacks.

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

Bayes, Joan Estelle Box & Kate Miriam Loewenthal. 2013. How do Jewish teachings relate to beliefs about depression in the strictly orthodox Jewish community? *Mental Health, Religion & Culture* 16(8). 852–862.

doi:10.1080/13674676.2012.726215.

The aim of this study was to explore whether and, if so, how Jewish teachings influence strictly orthodox Jewish beliefs about depression. The rabbinic literature was searched for Jewish teachings relevant to depression. Ten consenting strictly orthodox Jews were purposively selected and interviewed using a semi-structured interview schedule focusing on their beliefs about causes of and treatments for depression. Thematic analysis was used to analyze transcribed interviews and explore relationships between community beliefs and the Jewish teachings identified in the review. The key themes in both the rabbinic literature and the community included the overriding importance in Judaism of preserving life, using appropriate, acceptable means to do so, and obligations to help others. Contrasts between rabbinic teachings and community beliefs included community concerns about stigma, generally lacking in the rabbinic literature, and greater rabbinic emphasis on spiritual exertion in dealing with depression.

Berg, Gina M, Robin E Crowe, Ginny Budke, Jennifer Norman, Valerie Swick, Sue Nyberg & Felecia Lee. 2013. Kansas physician assistants' attitudes and beliefs regarding spirituality and religiosity in patient care. *Journal of Religion and Health* 52(3). 864–876. doi:10.1007/s10943-011-9532-2.

This article reports on a cross-sectional study of Kansas physician assistants (PA) regarding spirituality/religion (S/R) in patient care. Surveys included questions about personal S/R beliefs and attitudes about S/R in patient care. Self-reported religious respondents agreed (92%) they should be aware of patient S/R; 82% agreed they should address it. Agreement with incorporating S/R increased significantly based on patient acuity. This research indicates Kansas PAs' personal S/R beliefs influence their attitudes toward awareness and addressing patient S/R.

Bonner, Laura M, Andy B Lanto, Cory Bolkan, G Stennis Watson, Duncan G Campbell, Edmund F Chaney, Kara Zivin & Lisa V Rubenstein. 2013. Help-seeking from clergy and spiritual counselors among veterans with depression and PTSD in primary care. *Journal of Religion and Health* 52(3). 707–718.

doi:10.1007/s10943-012-9671-0.

In this article the authors describe openness to and actual help-seeking from spiritual counselors among primary care patients with depression. Researchers screened consecutive VA primary care patients for depression; 761 Veterans with probable major depression participated in telephone surveys. Participants were asked about (1) openness to seeking help for emotional problems from spiritual counselors/clergy and (2) actual contact with spiritual counselors/clergy in the past 6 months. At baseline, almost half of the participants, 359 (47.2%), endorsed being "very" or "somewhat likely" to seek help for emotional problems from spiritual counselors; 498 (65.4%) were open to a primary care provider, 486 (63.9%) to a psychiatrist, and 409 (66.5%) to another type of mental health provider. Ninety-one participants (12%) reported actual spiritual counselor/clergy consultation. Ninety-five (10.3%) participants reported that their VA providers had recently asked them about spiritual

support; the majority of these found this discussion helpful. Participants with current PTSD symptoms, and those with a mental health visit in the past 6 months, were more likely to report openness to and actual help-seeking from clergy. Veterans with depression and PTSD are amenable to receiving help from spiritual counselors/clergy and other providers.

Bray, Peter. 2013. Bereavement and transformation: a psycho-spiritual and post-traumatic growth perspective. *Journal of Religion and Health* 52(3). 890–903. doi:10.1007/s10943-011-9539-8.

In the aftermath of loss, it is not uncommon for individuals to disclose psycho-spiritual experiences that lead to personal changes and psychological growth. This article argues for and outlines a broad conceptual framework that captures and acknowledges the significance of these subjective experiences. The model synthesizes and integrates two approaches to healthy growth: Lawrence Calhoun and Richard Tedeschi's post-traumatic growth model and Stanislav and Christina Grof's model of psycho-spiritual transformation. A rationale for a broader model and underpinning theory is briefly discussed, and their shared understandings about the human potential for growth in the struggle through loss are explored.

Brelsford, Gina M. & Joseph Ciarrocchi. 2013. Spiritual Disclosure and Ego Resiliency: Validating Spiritual Competencies. *Counseling and Values* 58(2). 130–141. doi:10.1002/j.2161-007X.2013.00029.x.

A counselor's spiritual and religious competency depends primarily on the ability to facilitate client spiritual disclosure. Little is known, however, about the empirical qualities of spiritual disclosure. In a sample of 318 adults, spiritual disclosure independently predicted ego resiliency, a critical quality for stress-related growth. Spiritual disclosure predicted ego resiliency over the partial mediators of the 5 factors of personality, general global disclosure, and congregational support.

Cadge, Wendy & Meredith Bergey. 2013. Negotiating health-related uncertainties: Biomedical and religious sources of information and support. *Journal of Religion and Health* 52(3). 981–990. doi:10.1007/s10943-013-9718-x.

This article explores how people experience health-related uncertainties and how they look to biomedical and religious sources of information in response. Data were gathered in a larger project focused on spirituality in everyday life. Respondents were not asked any direct questions about their health or health care, but almost all of the 95 participants brought up the topics in response to other questions. About one-third spoke of being uncertain about some aspect of their health or healthcare. The authors explored the health-related topics about which people were uncertain and how they looked to biomedical and religious sources of information, most often seeing the religious as a support for the biomedical. They outline the range of ways they experienced God in this process pointing to the multiple complex ways they make sense of health-related uncertainties.

Carlin, Nathan. 2013. A Religious Experience: A Psychological Interpretation of Kevin Kelly's Conversion to Christianity. *Pastoral Psychology* 62(5). 587–605. doi:10.1007/s11089-013-0508-x.

This paper uses the work of Sigmund Freud and Donald Capps to interpret a religious experience. The religious experience, a narrative about being born again, is recounted from the first story on the first episode of the radio program This American Life, which focuses on the religious conversion of Kevin Kelly, founder of Wired magazine. Using Freud's 'A Religious Experience' as a model for interpretation, the author employs psychoanalytic ideas (such as the castration complex) to provide an initial reading of the experience, and then uses Capps's work on male melancholia and life cycle theory to further the interpretation. The author argues that this young man's religious experience is reflective of what Capps calls 'the religion of honor' and 'the religion of hope';

that the timing of his religious experience can be understood by means of life cycle theory; and that, theologically speaking, his experience can be understood using the language of the spirit and the soul.

Cornish, Marilyn A., Nathaniel G. Wade & Melissa A. Knight. 2013. Understanding group therapists' use of spiritual and religious interventions in group therapy. *International Journal of Group Psychotherapy* 63(4). 572–591. doi:10.1521/ijgp.2013.63.4.572.

The current study examined therapist characteristics that are related to the use of spiritual and religious interventions in group therapy and to perceived barriers to attending to spirituality in group therapy among a sample of experienced group therapists. Results demonstrated that greater therapist spirituality was associated with more frequent use of both spiritual and religious interventions, as well as lower perceived barriers to attending to spirituality in group therapy. Religious commitment was only uniquely related to perceived barriers, such that therapists with higher religious commitment actually perceived greater barriers. Training in religion and spirituality and comfort with spiritual discussions was also related to therapists' use of religious and spiritual interventions and perceived barriers.

Cramer, Holger, Romy Lauche, Jost Langhorst, Gustav Dobos & Anna Paul. 2013. Characteristics of patients with internal diseases who use relaxation techniques as a coping strategy. *Complementary Therapies in Medicine* 21(5). 481–486. doi:10.1016/j.ctim.2013.08.001.

In this study of 2,486 patients with internal diseases researchers found that 1075 (43.2%) reported to have used relaxation techniques, 648 (60.3%) reported benefits, and 11 (1.0%) reported harms. Use of relaxation techniques was independently associated with female gender, higher education, fibromyalgia, and internal health locus of control. Use of relaxation techniques was negatively associated with age below 30 or above 64, full-time employment, current smoking, osteoarthritis, rheumatic arthritis, good to excellent health status, and high life satisfaction.

Crockett, Stephanie A. & Elizabeth A. Prosek. 2013. Promoting Cognitive, Emotional, and Spiritual Client Change: The Infusion of Solution-Focused Counseling and Ritual Therapy. *Counseling & Values* 58(2). 237–253. doi:10.1002/j.2161-007X.2013.00036.x.

Solution-focused brief counseling offers clients an opportunity to find solutions to problems and evoke cognitive change. This treatment modality is criticized for negating the emotional and spiritual aspects of client change. The authors propose that the inclusion of rituals in solution-focused brief counseling can enhance the counseling experience for clients by encouraging meaningful cognitive, emotional, and spiritual change. A new model, Brief Solution Rituals, was developed to incorporate the use of rituals into solution-focused counseling. The 6-phase model, example clinical scenarios, and a case study are presented in this article. The strengths and potential limitations of the new model are discussed.

Crosby, James W. 2013. Making Sense of Quest's Multidimensionality: The Search for a Higher Order Structure. *Journal of Psychology & Theology* 41(3). 213–228.

The multidimensionality of the Quest construct has been suggested by a number of authors, although there is a paucity of multidimensional Quest scales in the extant literature. Further, the vast majority of researchers continue to utilize uni-dimensional measures of Quest. In a sample of 436 university students, the Multidimensional Quest Orientation Scale was subjected to a principal axis factor analysis. The results suggested a nine-factor structure, although the Exploration scale was removed, due to its suspected measurement of apologetics. The remaining eight factors were subjected to a secondary factor analysis, suggesting a higher-order factor structure consistent with concepts of "hard" and "soft" Quest. Correlational analyses between the MQOS subscales and other measures of

religiosity (e.g., extrinsic and intrinsic motivation, religious commitment, and defensive theology) support the usage of multidimensional measures of Quest, due to the unique information provided by each of the dimensions and their respective higher order factors. However, the higher order structure helps to elucidate the broader themes suggested within the multiple dimensions of Quest.

DiClemente, Carlo C. 2013. Paths Through Addiction and Recovery: The Impact of Spirituality and Religion. *Substance Use & Misuse* 48(12). 1260–1261. doi:10.3109/10826084.2013.808475.

This article explores the fact that the path into addiction, and from addiction into recovery, is a complicated one, filled with personal strengths and weaknesses, motivational and behavioral tasks, significant support, and intrinsic and extrinsic influences that become part of a cyclical, seemingly chaotic process that leads to sustained, often radical change in the life of the addicted individual. Religion and spirituality can act both as risk and as protective factors in initiation of and recovery from addiction. Initiation of the use of drugs can be fueled both by disenchantment with, or rebellion against, overly restrictive religious regulation as well as a search for spiritual enlightenment. Support for recovery includes healthful and helpful people, places, and activities. Recovery is not the absence of substances but the return to wholeness and health.

Doehring, Carrie. 2013. New Directions for Clergy Experiencing Stress: Connecting Spirit and Body. *Pastoral Psychology* 62(5). 623–638. doi:10.1007/s11089-013-0512-1.

This paper describes an online course on self-care based on current research on clergy stress, motivation, self-compassion, will power, and habits. This practical theological learning experience connects body and spirit by integrating an authentic spirituality into one's daily experiences of coping with stress. Students shared Google document journals about implementing spiritual practices and a stress-relieving habit. Self-reflection and peer support fostered a practical theological process of change in their lived theology of values, beliefs, and spiritual practices. Espoused values and beliefs were incorporated into spiritual and self-care practices fostering compassion. This lived theology of compassion revealed and counteracted embedded values and beliefs, notably about God's judgment.

Gold, Joshua M. 2013. Spirituality and Self-Actualization: Considerations for 21st-century Counselors. *Journal of Humanistic Counseling* 52(2). 223–234. doi:10.1002/j.2161-1939.2013.00044.x.

This article presents the core of individual self-actualization found in individuals' spiritual identity, as illustrated through a case study, its debriefing, and identification of counterindications for the clinical use of spiritual interventions. Future research possibilities on the topic of spirituality and self-actualization are provided.

Greenwood, Tracey C & Teresa Delgado. 2013. A journey toward wholeness, a journey to God: physical fitness as embodied spirituality. *Journal of Religion and Health* 52(3). 941–954. doi:10.1007/s10943-011-9546-9.

The authors show that physical fitness expressed through exercise can be, if done with the right intention, a form of spiritual discipline that reflects the relational love of humanity to God, as well as an expression of a healthy love of the embodied self. Through an analysis of the physiological benefits of exercise science applied to the human body, this paper demonstrates how such attention to the optimal physical fitness of the body, including weight and cardiovascular training and nutrition, is an affirmation of three foundational theological principles of human embodiment: as created in the "imago Dei", as unified body/spirit, and as part of God's creation calling for proper stewardship. Dr. Greenwood presents the most current scientific data in the field of biokinetics that grounds the theological analysis offered by Dr. Delgado, whose personal journey through anorexia and scholarly emphasis on Christian theological anthropology inform this work. Taken together, the authors suggest a response to God's

love for humanity, including physical bodily humanity, which entails a responsibility to attend to the physical fitness of our bodies in order to live into the fullness, flourishing and love of God's creation as God intended.

Grossman, Teddi. 2013. The god within and the god without. Substance Use & Misuse 48(12). 1150–1156.

doi:10.3109/10826084.2013.808485.

Spirituality enables the direct experience of connection between the individual and God, and can exist with or without an intermediary such as a religious institution. Via meditation or spiritual practice one can find God within oneself. Seeing oneself as a little Christ or Buddha affirms that one is sacred, and worthy of self-love and self-respect. This self-image is incongruent with violence to the self, such as substance misuse. The authors finds that, through spirituality, one learns to see oneself as one part of a whole, and worthy of the love and respect of others. This love is sustainable, and can fulfill what was unconsciously or consciously sought through the misuse of substances. From the point of view of the therapist, this is the beginning of healing.

Hanfstingl, Barbara. 2013. Ego and spiritual transcendence: Relevance to psychological resilience and the role of age. *Evidence-based Complementary and Alternative Medicine: eCAM* 2013. 949838. doi:10.1155/2013/949838.

Ego transcendence, spiritual transcendence, and meaning in life were measured in a sample of 265 people. The main result of a multiple regression analysis is that, in the subsample with people below 29 years, only one rather secular scale that is associated with ego transcendence predicts resilience, whereas for the older subsample of 29 years and above, spiritual transcendence gains both a positive (oneness and timelessness) and a negative (spiritual insight) relevance to psychological resilience. On the one hand, these results concur with previous studies that also found age-related differences. On the other hand, it is surprising that spiritual insight predicts psychological resilience negatively, and the effect increases with age. One possible explanation concerns wisdom research. Here, an adaptive way of dealing with the age-related loss of control is assumed to be relevant to successful aging.

Hornik-Lurie, Tzipi, Julie Cwikel, Marjorie C. Feinson, Yaacov Lerner & Nelly Zilber. 2013. Use of unconventional therapies by primary care patients: Religious resources vs. complementary or alternative medicine services. *Complementary Therapies in Medicine* 21(5). 517–524. doi:10.1016/j.ctim.2013.08.010.

Data was collected from 8 primary care clinics in Israel, and included 905 Jewish patients. Analysis of a self-report questionnaire showed that primary care patients suffering from emotional problems have a propensity to utilize unconventional therapies in addition to conventional medical treatment. However, differences exist between patients who turn to "religious resources for medical purposes" (RRMP) and to CAM. The risk factors for turning to RRMP are North African, Middle Eastern or Israeli origin, low socio-economic status (SES), religious observance, and high use of primary care clinics. For using CAM services the risk factor is high SES.

Hutch, Richard A. 2013. Health and healing: Spiritual, pharmaceutical, and mechanical medicine. *Journal of Religion and Health* 52(3). 955–965. doi:10.1007/s10943-011-9545-x.

Modern medical practice is identified as a relatively recent way of approaching human ill health in the wide scope of how people have addressed sickness throughout history and across a wide range of cultures. The ideological biases of medical or "allopathic" (disease as "other" or "outsider") practice are identified and grafted onto other perspectives on how people not engaged in modern medicine have achieved healing and health. Alternative forms of healing and health open a consideration of ethnomedicine, many forms of which are unknown and, hence, untested by modern medical research. Ethnomedicine the world over and throughout human history has displayed unique spiritual (vitalism), pharmaceutical (herbs/drugs), and mechanical (manipulation/surgery) approaches to treating illness. The argument is that modern allopathic medicine would do well to consider such "world medicine" as

having valuable alternative and complementary therapies, the use of which could enhance contemporary medical advice and practice.

Kang, Ezer, Darcie A. P. Delzell, John J. Chin, Elana Behar & Ming Ying Li. 2013. Influences of Stigma and HIV Transmission Knowledge on Member Support for Faith-Placed HIV Initiatives in Chinese Immigrant Buddhist and Protestant Religious Institutions in New York City. *AIDS Education and Prevention: Official Publication of the International Society for AIDS Education* 25(5). 445–456.

doi:10.1521/aeap.2013.25.5.445.

Ethnic religious institutions in the United States are uniquely positioned to influence HIV programming within Asian immigrant communities at large. This article examines how knowledge of HIV transmission and stigma potentially influenced attendees' support for their institutions' involvement in HIV programs. Participants were 400 Chinese attendees of Protestant churches and 402 attendees of Buddhist temples in New York City. Analysis showed that HIV stigma significantly mediated the direct effects of HIV transmission knowledge on attendees' support of their institution's involvement in HIV education, HIV care, and stigma reduction initiatives, while controlling for religious affiliation, age, gender, and education. To mobilize Chinese churches and temples to engage in HIV programming, it remains important to support educational programs on HIV transmission that specifically help to mitigate stigma toward persons living with HIV.

Keating, David M. 2013. Spirituality and support: a descriptive analysis of online social support for depression. *Journal of Religion and Health* 52(3). 1014–1028. doi:10.1007/s10943-012-9577-x.

This study examined supportive messages in spiritual and non-spiritual online support groups for depression. Both social support and religiosity have been associated with reduced depressive symptomology. Proportions of three types of support (i.e., informational, emotional, and network) were considered; messages were further delineated as being either religious or non-religious in nature. Messages (n=2,674) from two Christian and two unaffiliated online groups were analyzed. Results indicated that Christian groups communicated more informational support, and the unaffiliated groups communicated more network support. Christian groups communicated more religious messages.

Klingemann, Harald, Katrin Schläfli & Martin Steiner. 2013. "What Do You Mean by Spirituality? Please Draw Me a Picture!" Complementary Faith-Based Addiction Treatment in Switzerland From the Client's Perspective. Substance Use & Misuse 48(12). 1187–1202. doi:10.3109/10826084.2013.803875.

This article reviews: (1) the relative importance of spirituality and religion in Switzerland and the United States, (2) the rationale for faith-based addiction intervention programs and the drawbacks of measurement approaches, and (3) results from a pilot study exploring the meaning of spirituality and religiosity from the consumer's perspective. Twenty-three patients entering the Swiss Südhang clinic in-patient alcohol user treatment program during the first five months in 2012 participated upon their admission in a video-taped drawing task, designed to provide their personal visualized definitions of the terms 'spirituality' and 'religiosity.' Nine dimensions emerged pointing to a high complexity of the concepts.

Kopacz, Marek S. 2013. Providing pastoral care services in a clinical setting to veterans at-risk of suicide. *Journal of Religion and Health* 52(3). 759–767. doi:10.1007/s10943-013-9693-2.

The value of enhanced spiritual wellbeing has largely been overlooked as part of suicide prevention efforts in Veterans. The aim of this qualitative study is to examine the clinical pastoral care services provided by VA Chaplains to Veterans at risk of suicide. This study was conducted using in-depth interviews with five Chaplains affiliated with a medical center located in upstate New York. This study was able to show that some at-risk

individuals do actively seek out pastoral care, demonstrating a demand for such services. In conclusion, a pastoral care framework may already exist in some clinical settings, giving at-risk Veterans the opportunity to access spiritual care.

Lima, Nádia Nara Rolim, Vânia Barbosa do Nascimento, Sionara Melo Figueiredo de Carvalho, Modesto Leite Rolim Neto, Marcial Moreno Moreira, Aline Quental Brasil, Francisco Telésforo Celestino Junior, Gislene Farias de Oliveira & Alberto Olavo Advíncula Reis. 2013. Spirituality in childhood cancer care. *Neuropsychiatric Disease and Treatment* 9. 1539–1544. doi:10.2147/NDT.S42404.

This study analyzes the influence of spirituality in childhood cancer care, involving biopsychosocial aspects of the child, the family, and the health care team facing the disease. To accomplish this purpose, a nonsystematic review of literature of articles on national and international electronic databases was conducted. After the search, 20 articles met the eligibility criteria and were included in the final sample. The review showed that the relation between spirituality and health has lately become a subject of growing interest among researchers, as a positive influence of spirituality in the people's welfare was noted. Studies that were retrieved using the mentioned search strategy in electronic databases, independently assessed by the authors according to the systematic review, showed that spirituality emerges as a driving force that helps pediatric patients and their families in coping with cancer. Health care workers have been increasingly attentive to this dimension of care. However, it is necessary to improve their knowledge regarding the subject. The search highlighted that spirituality is considered a source of comfort and hope, contributing to a better acceptance of his/her chronic condition by the child with cancer, as well as by the family.

Luhrmann, Tanya Marie. 2013. Making God real and making God good: Some mechanisms through which prayer may contribute to healing. *Transcultural Psychiatry* 50(5). 707–725. doi:10.1177/1363461513487670.

Many social scientists attribute the health-giving properties of religious practice to social support. This paper argues that another mechanism may be a positive relationship with the supernatural, a proposal that builds upon anthropological accounts of symbolic healing. Such a mechanism depends upon the learned cultivation of the imagination and the capacity to make what is imagined more real and more good. This paper offers a theory of the way that prayer enables this process and provides some evidence, drawn from experimental and ethnographic work, for the claim that a relationship with a loving God, cultivated through the imagination in prayer, may contribute to good health and may contribute to healing in trauma and psychosis.

Malmin, Mark. 2013. Warrior culture, spirituality, and prayer. *Journal of Religion and Health* 52(3). 740–758.

doi:10.1007/s10943-013-9690-5.

Research has shown an increase in suicides by military veterans and law enforcement officers in the United States. Etiologic research elucidates warrior culture and subculture as contributing factors of this pathology. This paper examines the idiosyncratic nature and influence of warrior culture and subculture and offers recommendations to promote culture change. Faith-based spirituality and prayer are examined as adjunct modalities for stress management and emotional healing.

Matus, Thomas. 2013. Dharma, yoga, tantra. *Substance Use & Misuse* 48(12). 1180–1186. doi:10.3109/10826084.2013.803878.

In the mid-20th century, Selvararajan Yesudian (1916-1998), who was born in India to a Christian father, a physician, and spent most of his life in Switzerland, coauthored (with Elisabeth Haich) a book entitled Yoga and Health; since then, the coupling of these two words has largely defined the meaning of yoga in the West, especially in promotional literature for urban yoga schools and health-club programs. Authentic Indian traditions have indeed affirmed the therapeutic benefit of yoga, but they have consistently seen yoga as a "therapy of the soul," a

way of "quieting the agitations of the heart," to the end of perceiving the Ultimate within the soul and, in religious terms, of realizing union with God. This paper will examine some classical yoga texts in relation to spiritual remedies for substance misuse and other forms of addiction and chemical dependency.

Miller, William R. 2013. Addiction and spirituality. *Substance Use & Misuse* 48(12). 1258–1259. doi:10.3109/10826084.2013.799024.

The author observes that there seems to be a mysterious relationship between spirituality and the use of psychoactive substances. As research emerges on spirituality and addiction, there seems as well to be an inverse relationship. Religious involvement is a protective factor, associated in both correlational and longitudinal research with lowered risk of substance use and related disorders. The practice of transcendental meditation has been linked to lower risk for substance use and related problems, and is increasingly included in the treatment of substance use disorders. Religions have seldom been neutral with regard to psychoactive substances. Wine has central ritual uses in Judaism and Christianity, though both proscribe drunkenness. The author holds that enough research evidence exists to warrant serious attention to spirituality in addiction research and treatment.

Miller-McLemore, Bonnie. 2013. Embodied Knowing, Embodied Theology: What Happened to the Body? *Pastoral Psychology* 62(5). 743–758. doi:10.1007/s11089-013-0510-3.

This paper is a preliminary investigation into how biology and physicality shape human knowing. It asks whether, in the frequent use of the phrase embodied knowing or embodied theology, religion scholars have paid sufficient attention to actual bodies. It argues that there has been a lapse of attention to physical dimensions of bodies in the unreflective employment of such phrases, ironically among practical and pastoral theologians who have strong interest in understanding how theology operates on the ground. The paper traces evolving interest in embodiment across several disciplines, including theology, before exploring what might be learned from recent research on evolution, biology, and bodies in anthropology and the biological sciences.

Nagai, Chikako. 2013. Responding to culturally based spiritual experiences in clinical practice from East Asian perspectives. *Mental Health*, *Religion & Culture* 16(8). 797–812. doi:10.1080/13674676.2012.721348.

This study explored how East Asian clinicians respond to spiritual beliefs expressed and spiritual practices utilized by their East Asian clients. Three focus groups were formed consisting of nine clinicians from Chinese, Korean, and Japanese communities in the Northwest region of the United States. Each group was interviewed based on the semi-structured question guideline and the data were analyzed to identify core themes of culturally based spiritual experiences and delineate effective ways to understand and respond to them. This article includes various case examples as well as clinical recommendations suggested by research participants.

Nash, Shondrah Tarrezz, Cynthia Faulkner & Ritta R. Abell. 2013. Abused Conservative Christian Wives: Treatment Considerations for Practitioners. *Counseling and Values* 58(2). 205–220. doi:10.1002/j.2161-007X.2013.00034.x.

Through narrative, the authors explore the faith-based challenges of a physically and emotionally abused Conservative Christian wife to illustrate her ideological assessment of agency in a violent marriage and her concerns about the religious consequences of escape. To offset religious teachings that obstruct the safety and self-assertion of abused Conservative Christian wives, the authors offer practitioners practical, idiomatic recommendations through which clients can reassess the limitations of common religious schemas, including conceptions of wifely submission, marital permanence, infinite forgiveness, and pious suffering. The religious community's responses to abused wives, particularly those of the clergy, are also discussed.

Olex, Stephen, Andrew Newberg & Vincent M Figueredo. 2013. Meditation: Should a cardiologist care? *International Journal of Cardiology* 168(3). 1805–1810.

doi:10.1016/j.ijcard.2013.06.086.

Meditation refers to a family of practices that may share many similarities, but can have differences in underlying methods and goals. Religious and spiritual associations are common but are not requisite for meditation practice and it should be recognized that the basis of many if not all practices is the training of the brain and body, a process that appears to have profound effects on both structure and function. In recent decades there has been interest regarding the effects of these ancient practices on the cardiovascular system, as meditation has intuitive appeal for benefit in this area. This paper describes potential beneficial effects on autonomic tone, autonomic reflexes, blood pressure, and even established cardiovascular disease.

Oyola-Santiago, Tamara, Rachel Knopf, Tracy Robin & Kristen Harvey. 2013. Provision of Auricular Acupuncture and Acupressure in a University Setting. *Journal of American College Health* 61(7). 432–434.

doi:10.1080/07448481.2013.820190.

Auricular acupuncture using the National Acupuncture Detoxification Association protocol stimulates 5 points in each ear: the Shen Men, sympathetic nervous system, liver, kidney, and lung. This protocol is also known as Acu Detox, and has been used for recovery in community-based settings and drug use treatment programs. It has also been proven to be effective in alleviating stress and enhancing a general sense of well-being. This article describes the auricular acupuncture and acupressure program developed for a university setting and its use as a tool to enhance harm reduction and mental health services.

Park, Nan Sook, Beom S Lee, Fei Sun, David L Klemmack, Lucinda L Roff & Harold G Koenig. 2013. Typologies of religiousness/spirituality: implications for health and well-being. *Journal of Religion and Health* 52(3). 828–839. doi:10.1007/s10943-011-9520-6.

The purpose of this study was to develop empirically based typologies of religiousness/spirituality (R/S) and to determine whether the typologies were related to health and well-being. The study used a nationally representative sample of adults (n=1,431). Using latent profile analysis, typologies were derived based on religious service attendance, prayer, positive religious coping, and daily spiritual experiences. Multivariate statistical tests were used to examine cluster differences in health and well-being. A four-class model was identified: highly religious, moderately religious, somewhat religious, and minimally religious or non-religious. The four classes were distinctively different in psychological well-being, in that the highly religious class was most likely to be happy and satisfied with finances and least likely to be psychologically distressed.

Pirutinsky, Steven. 2013. Is the connection between religiosity and psychological functioning due to religion's social value? A failure to replicate. *Journal of Religion and Health* 52(3). 782–784. doi:10.1007/s10943-013-9739-5.

Increasingly, religion and spirituality has been tied to well-being. However, the mediators are likely multifold, contextually dependent, and remain unclear. A recent report suggested that this is due to religion's social value and presented results indicating that religiosity was more strongly related to psychological adjustment within countries with higher mean religiosity. Effect sizes were small, and given previous research suggesting other more proximal mediators, it was the hypothesis of this study that the findings would not be replicated. Analysis of data from the European Social Survey revealed no significant interactions between country-level religiosity and individual religiosity in predicting psychological well-being. These conflicting findings point to the nuanced nature of the religion-health relationship and suggest that this correlation is unlikely to be due to social valuation. Studies using cursory measures are likely to explain only a small proportion of the variance, yield contradictory findings, and fail to significantly enhance theory in this domain.

Reis, Ria. 2013. Children enacting idioms of witchcraft and spirit possession as a response to trauma: Therapeutically beneficial, and for whom? *Transcultural Psychiatry* 50(5). 622–643. doi:10.1177/1363461513503880.

This article examines children's enactment of spirit possession idioms and witchcraft in Africa including the meanings such idioms provide and the local healing resources they mobilize. Idioms of haunting spirits in Northern Uganda and witch-children elsewhere in Africa can be interpreted as manifestations of social crises and mass traumatic stress. On the other hand, such idioms also allow children to articulate, reflect upon, and communicate the complex feelings resulting from their precarious positions within families and communities under duress. With the help of Dow's transactional model of symbolic healing, this article explores obstacles to the efficacy of the rich variety of symbolic healing available for haunting spirits in Uganda and points to the generational gap between children and their families and communities.

Robertson, John M. 2013. Perceiving religious men through counselor eyes: Risks and tips. *Journal of Counseling & Development* 91(4). 410–418.

The author offers practical suggestions on counseling religiously-affiliated men. Much can be learned by considering a man's attitudes toward religious questions; his views may be reductionist, exclusivist, nominalist, pluralist, or holistic. A counselor's religiosity also affects counseling. Specific tips are provided on developing gender-sensitive and religion-respectful counseling relationships: gathering clinical information from religious memories, preparing for "test questions," responding to subtle religious comments, identifying reliable resources on religious groups, and more.

San-Juan, César. 2013. Rethinking psychosocial interventions in natural disasters: lessons from holistic ecocentrism and religious beliefs. *Journal of Religion and Health* 52(3). 1038–1047. doi:10.1007/s10943-012-9589-6.

The history of thought has been determined by the understanding and regulation of the relationships among the human being, Nature and God. This trilogy traditionally consists of completely differentiated elements with suggestive implications in the aesthetic landscape experience. But it is possible to identify cultures in different parts of the world or historic moments characterized by the assimilation of humans as part of Nature, or Nature as part of God. These considerations are particularly important in the so-called "primitive" contemporary societies when devastating natural phenomenon occur, since the design of psychosocial intervention strategies could become linked to religious rituals.

Schaub, Richard. 2013. Spirituality and the health professional. Substance Use & Misuse 48(12). 1174–1179.

doi:10.3109/10826084.2013.803883.

The inclusion of spirituality in addictions recovery began with the 12-steps program of Alcoholics Anonymous. Cofounded by Bill Wilson, the 12-steps' spiritual orientation is based on Wilson's own recovery from alcoholism that was associated with a spiritual experience. His correspondence with Carl Jung, who verified the importance of Wilson's experience, empowered Wilson to make spirituality central to the 12 steps. Spirituality remains a source of misunderstanding between the scientific, empirically informed mental health community, and the 12-step recovery movement. This article offers an outline of spiritual development, based on neuroscience, which the professional can utilize in the spiritual aspect of a patient's recovery.

Schnitker, Sarah A. & Robert A. Emmons. 2013. Spiritual Striving and Seeking the Sacred: Religion as Meaningful Goal-Directed Behavior. *International Journal for the Psychology of Religion* 23(4). 315–324.

doi:10.1080/10508619.2013.795822.

In this article, the personal strivings approach to understanding spiritual goals, or ultimate concerns, is introduced, and the processes by which spiritual and sanctified strivings provide meaning, significance, and agency are articulated through a description of their motivational, cognitive, and social functions. The literature shows a positive relation between the sanctification of strivings and well-being, which may be mediated by increased meaning.

Sremac, Srdjan & R. Ruard Ganzevoort. 2013. Addiction and Spiritual Transformation. An Empirical Study on Narratives of Recovering Addicts' Conversion Testimonies in Dutch and Serbian Contexts. *Archive for the Psychology of Religion* 35(3). 399–435. doi:10.1163/15736121-12341267.

This article examines how recovering drug addicts employ testimonies of conversion and addiction to develop and sustain personal identity and create meaning from varied experiences in life. Drawing on 31 autobiographies of recovering drug addicts the authors analyze conversion and addiction testimonies in two European contexts (Serbia and the Netherlands, including a sample of immigrants). The analysis shows how existing frames of reference and self-understanding are undermined and/or developed. The authors first describe the substance abuse in participants' addiction trajectory. Next, they outline the religious aspects and the primary conception of recovering addicts' conversions as an example of spiritual transformation and narrative change. Moreover, participants select and creatively adapt cultural practices in their testimonies. In many of these examples (mostly in the migrant sample) converts clearly employ elements from their personal and family histories, their ethnic and religious heritages, and their larger cultural and historical context to create a meaningful conversion narrative.

Sussman, Steve, Joel Milam, Thalida E Arpawong, Jennifer Tsai, David S Black & Thomas A Wills. 2013. Spirituality in addictions treatment: wisdom to know...what it is. *Substance Use & Misuse* 48(12). 1203–1217. doi:10.3109/10826084.2013.800343.

Spirituality has long been integrated into treatments for addiction. However, how spirituality differs from other related constructs and implications for recovery among nonspiritual persons remains a source of discussion. This article examines ways in which spirituality is delineated, identifies variables that might mediate the relations between spirituality and recovery from substance abuse disorders, describes distinctions between spiritual and nonspiritual facets of addictions treatment, and suggests means to assist in further clarification of this construct.

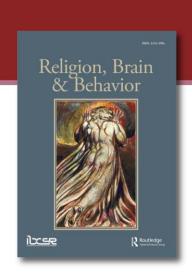
Walker, Robert, Theodore M Godlaski & Michele Staton-Tindall. 2013. Spirituality, Drugs, and Alcohol: A Philosophical Analysis. *Substance Use & Misuse* 48(12). 1233–1245. doi:10.3109/10826084.2013.799020.

Spirituality has long been associated with recovery from the socially constructed "addictive disease." Alcoholics Anonymous (AA) and its analogs have enjoyed widespread acceptance as a spiritual approach for achieving recovery. AA or its derivatives are the predominant approaches in treatment programs even though a wide array of evidence-based approaches are now promoted by governmental sources in the United States. This philosophical analysis contrasts the state of science about addictive disorders with the reliance on a spiritual approach that is heavily grounded in Christian theology. The authors present four problems that need consideration before accepting the applicability of 12-step spiritual practices as the backbone of addiction treatment or recovery.

Zavan, Valeria & Patrizia Scuderi. 2013. Perception of the role of spirituality and religiosity in the addiction treatment program among the Italian health professionals: A pilot study. *Substance Use & Misuse* 48(12). 1157–1160. doi:10.3109/10826084.2013.820988.

In this pilot study, 69 health professionals working in public and private programs treating drug users and alcohol misusers in Italy were interviewed during 2012 using the Vederhus and Laudet questionnaire as a framework to

explore the importance of the concepts of spirituality and religiosity and their possible roles in the treatment through patient's referral to mutual-help groups.



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