

## RESEARCH REVIEW

A DIGEST OF NEW SCIENTIFIC RESEARCH CONCERNING RELIGION, BRAIN & BEHAVIOR JUNE, 2014

### INTRODUCTION

IBCSR Research Review (IRR) is published by the Institute for the Biocultural Study of Religion, a non-profit research institute dedicated to the scientific study of religion using biocultural techniques. 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: H. W. Wilson Applied Science and Technology, ATLA Religion Database, H. W. Wilson General Science, PubMed, EBSCO Psychology and Behavioral Sciences Collection, PsycARTICLES, PsycINFO, ScienceDirect, and Web of Science. The search terms were altruism, god, goddess, meditat\*, prayer, relig\*, ritual, spiritu\*, and yoga, tailored to the database being searched. Books were located on Amazon.com. Articles not directly relevant to the scientific study of religion were excluded, as were correspondence and reviews. From a universe of 547 articles, 108 articles have been retained from 56 journals. There are 36 pre-publication citations from 18 journals.

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

#### 1.1 Scientific Study of Religion: Cognitive Neuroscience

Johnson, Kyle D., Hengyi Rao, Nancy Wintering, Namisha Dhillon, Siyuan Hu, Senhua Zhu, Marc Korczykowski, Katrina Johnson & Andrew B. Newberg. 2014. Pilot study of the effect of religious symbols on brain function: Association with measures of religiosity. Spirituality in Clinical Practice 1(2). 82–98. doi:10.1037/scp0000015.

Religious symbols are used throughout the world to evoke specific meaning in adherents. However, it is unclear if the impact of symbols is based upon their meaning or the inherent effect of the visual symbols on the brain. There has never been a study that has assessed the impact of religious symbols, of both positive and negative emotional content, on the brain. In addition, it would also be important to correlate the neurophysiological effect of various religious symbols to specific measures of a person's perspective on religion. Using functional magnetic resonance imaging to study 20 healthy subjects from different religious backgrounds, researchers found that neural activation in the primary visual cortex was significantly suppressed in response to religious negative symbols compared with neutral and nonreligious negative symbols. No such deactivation was observed for religious positive symbols. Subjects' scores on the Quest scale, an index of religious and spiritual orientation and belief, correlated significantly with activity in the primary visual cortex for negative symbols, but not for positive symbols. In addition, scores on the Beliefs About God Assessment Form (BAGAF), that measures the adaptability of a person's religious beliefs, correlated significantly with activity in the amygdala and insula when observing religious symbols. These findings suggest an early stage visual mechanism underlying the interaction between processing of visual religious symbols and both spiritual quest and adaptive religious beliefs. In addition, the emotional nature of a person's beliefs appears to interact with the emotional perceptions of different symbols.

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Research indicates that religiosity plays a complex role in mental illness. Despite this link, little work has been done to clarify the role of religiosity in persons exhibiting non-clinical psychosis (NCP, individuals experiencing fleeting psychotic-like symptoms in the absence of a formal psychotic disorder). Further, there are no NCP investigations into whether abnormalities exist in brain structures that are associated with religiosity. Understanding these relationships in NCP is important to clarify the role of religiosity and brain structural anomalies in psychosis. Twenty individuals experiencing NCP and twenty controls were assessed for intrinsic religiosity (IR; motivation/commitment to religious beliefs and/or practices) using a well-validated self-report scale. Structural magnetic resonance imaging was used to determine volumes of the orbitofrontal cortex (OFC), a critical region that has been associated with increased religiosity. Results indicate that IR is elevated in the NCP group, and that these individuals exhibit bilateral volume reduction in both the lateral and medial OFC. Sample-wide correlations are non-significant, but show notable relationships between smaller OFC regions and increased IR. Significant negative relationships were found between OFC volume and depressive and negative symptoms. Overall, results suggest that brain abnormalities associated with NCP may also confer a heightened susceptibility for religiosity.

Riekki, Tapani, Marjaana Lindeman & Tuukka T. Raij. 2014. Supernatural believers attribute more intentions to random movement than skeptics: An fMRI study. *Social Neuroscience* 9(4). 400–411. doi:10.1080/17470919.2014.906366.

A host of research has attempted to explain why some believe in the supernatural and some do not. One suggested explanation for commonly held supernatural beliefs is that they are a by-product of theory of mind (ToM) processing. However, this does not explain why skeptics with intact ToM processes do not believe. In this study, researchers employed fMRI to investigate activation differences in ToM-related brain circuitries between supernatural believers (n=12) and skeptics (n=11) while they watched 2D animations of geometric objects moving intentionally or randomly and rated the intentionality of the animations. The ToM-related circuitries in the medial prefrontal cortex were localized by contrasting intention-rating-related and control-rating-related brain activation. Compared with the skeptics, the supernatural believers rated the random movements as more intentional and had stronger activation of the ToM-related circuitries during the animation with random movement. The strength of the ToM-related activation covaried with the intentionality ratings. These findings provide evidence that differences in ToM-related activations are associated with supernatural believers' tendency to interpret random phenomena in mental terms. Thus, differences in ToM processing may contribute to differences between believing and unbelieving.

Thomas, John, Graham Jamieson & Marc Cohen. 2014. Low and then high frequency oscillations of distinct right cortical networks are progressively enhanced by medium and long term Satyananda Yoga meditation practice. *Frontiers in Human Neuroscience* 8. 197. doi:10.3389/fnhum.2014.00197.

Meditation proficiency is related to trait-like (learned) effects on brain function, developed over time. Previous studies show increases in EEG power in lower frequency bands (theta, alpha) in experienced meditators in both meditation states and baseline conditions. Higher gamma band power has been found in advanced Buddhist meditators, yet it is not known if this occurs in Yoga meditation practices. This study used eLORETA to compare differences in cortical source activity underlying scalp EEG from intermediate (mean experience 4 years) and advanced (mean experience 30 years) Australian meditators from the Satyananda Yoga tradition during a body-steadiness meditation, mantra meditation, and non-meditation mental calculation condition. Intermediate

Yoga meditators showed greater source activity in low frequencies (particularly theta and alpha1) during mental calculation, body-steadiness and mantra meditation. A similar spatial pattern of significant differences was found in all conditions but the number of significant voxels was double during body-steadiness and mantra meditation than in the non-meditation (calculation) condition. These differences were greatest in right (R) superior frontal and R precentral gyri and extended back to include the R parietal and occipital lobes. Advanced Yoga meditators showed greater activity in high frequencies (beta and especially gamma) in all conditions but greatly expanded during meditation practice. Across all conditions (meditation and non-meditation) differences were greatest in the same regions: R insula, R inferior frontal gyrus and R anterior temporal lobe. Distinct R core networks were identified in alpha1 (8-10 Hz) and gamma (25-42 Hz) bands, respectively. The voxels recruited to these networks greatly expanded during meditation practice to include homologous regions of the left hemisphere. Functional interpretation parallels traditionally described stages of development in Yoga proficiency.

Tomasino, Barbara, Alberto Chiesa & Franco Fabbro. 2014. Disentangling the neural mechanisms involved in Hinduism- and Buddhism-related meditations. *Brain and Cognition* 90C. 32–40. doi:10.1016/j.bandc.2014.03.013.

The most diffuse forms of meditation derive from Hinduism and Buddhism spiritual traditions. Different cognitive processes are set in place to reach these meditation states. According to an historical-philological hypothesis the two forms of meditation could be disentangled. While mindfulness is the focus of Buddhist meditation reached by focusing sustained attention on the body, on breathing and on the content of the thoughts, reaching an ineffable state of nothingness accompanied by a loss of sense of self and duality (Samadhi) is the main focus of Hinduism-inspired meditation. It is possible that these different practices activate separate brain networks. Researchers tested this hypothesis by conducting an activation likelihood estimation (ALE) meta-analysis of functional magnetic resonance imaging (fMRI) studies. The network related to Buddhism-inspired meditation (16 experiments, 263 subjects, and 96 activation foci) included activations in some frontal lobe structures associated with executive attention, possibly confirming the fundamental role of mindfulness shared by many Buddhist meditations. By contrast, the network related to Hinduism-inspired meditation (8 experiments, 54 activation foci and 66 subjects) triggered a left lateralized network of areas including the postcentral gyrus, the superior parietal lobe, the hippocampus and the right middle cingulate cortex. The dissociation between anterior and posterior networks support the notion that different meditation styles and traditions are characterized by different patterns of neural activation.

Zeidan, Fadel, Katherine T. Martucci, Robert A. Kraft, John G. McHaffie & Robert C. Coghill. 2014. Neural correlates of mindfulness meditation-related anxiety relief. *Social Cognitive and Affective Neuroscience* 9(6). 751–759. doi:10.1093/scan/nst041.

Anxiety is the cognitive state related to the inability to control emotional responses to perceived threats. Anxiety is inversely related to brain activity associated with the cognitive regulation of emotions. Mindfulness meditation has been found to regulate anxiety. However, the brain mechanisms involved in meditation-related anxiety relief are largely unknown. Researchers employed pulsed arterial spin labeling MRI to compare the effects of distraction in the form of attending to the breath (ATB; before meditation training) to mindfulness meditation (after meditation training) on state anxiety across the same subjects. Fifteen healthy subjects, with no prior meditation experience, participated in 4 d of mindfulness meditation training. ATB did not reduce state anxiety, but state anxiety was significantly reduced in every session that subjects meditated. Meditation-related anxiety relief was associated with activation of the anterior cingulate cortex, ventromedial prefrontal cortex and anterior insula. Meditation-related activation in these regions exhibited a strong relationship to anxiety relief when compared to ATB. During meditation, those who exhibited greater default-related activity (i.e. posterior cingulate cortex) reported greater anxiety, possibly reflecting an inability to control self-referential thoughts. These findings provide evidence that

mindfulness meditation attenuates anxiety through mechanisms involved in the regulation of self-referential thought processes.

#### 1.2 Scientific Study of Religion: Evolution

Crespi, Bernard & Kyle Summers. 2014. Inclusive fitness theory for the evolution of religion. *Animal Behaviour* 92. 313–323.

doi:10.1016/j.anbehav.2014.02.013.

The authors describe and evaluate an integrative hypothesis for the origin and evolution of human religious cognition and behavior, based on maximization of inclusive fitness. By this hypothesis, the concept of God is represented by one's circle of kin and social salience, such that serving God and serving this circle become synonymous. The theory is supported by data from anthropology, evolutionary theory, psychology, neuroscience, psychiatry, endocrinology and genetics. It is largely compatible with, yet can subsume, previous theories of religion that are also based on adaptation and natural selection.

Draper, Scott. 2014. Effervescence and Solidarity in Religious Organizations. *Journal for the Scientific Study of Religion* 53(2). 229–248. doi:10.1111/jssr.12109.

In the ritual theories of Durkheim and Collins, collective effervescence is the engine that drives social solidarity. The author uses data from religious organizations to perform a rare test of this hypothesis. In addition, four other hypotheses from Collins's interaction ritual theory are tested regarding ritual dynamics that are expected to promote effervescence and solidarity. Congregational data from the 2001 United States Congregational Life Survey reveal the following: (1) organizational attendance rates strongly correlate with the dependent variables; (2) longer rituals tend to be more emotionally rewarding, although there appear to be diminishing returns for symbolic solidarity; (3) crowded rituals are more rewarding, although socioeconomic status is a crucial intervening variable; (4) barriers to outsiders in the form of behavioral proscriptions correlate with symbolic solidarity; and (5) most important, there is a consistent and robust relationship between effervescence and solidarity. Interaction ritual theory provides a valuable framework for understanding how some religious organizations become more effective than others at providing emotional and symbolic rewards for their members.

Kang, Yoona, Jeremy R. Gray & John F. Dovidio. 2014. The nondiscriminating heart: lovingkindness meditation training decreases implicit intergroup bias. *Journal of Experimental Psychology. General* 143(3). 1306–1313. doi:10.1037/a0034150.

Although meditation is increasingly accepted as having personal benefits, less is known about the broader impact of meditation on social and intergroup relations. Researchers tested the effect of loving-kindness meditation training on improving implicit attitudes toward members of 2 stigmatized social outgroups: Blacks and homeless people. Healthy non-Black, nonhomeless adults (n=101) were randomly assigned to 1 of 3 conditions: 6-week loving-kindness discussion (a closely matched active control), or wait list control. Decreases in implicit bias against stigmatized outgroups (as measured by Implicit Association Test) were observed only in the loving-kindness practice condition. Reduced psychological stress mediated the effect of loving-kindness practice on implicit bias against homeless people, but it did not mediate the reduced bias against Black people. These results suggest that loving-kindness meditation can improve automatically activated, implicit attitudes toward stigmatized social groups and that this effect occurs through distinctive mechanisms for different stigmatized social groups.

Sosis, Richard & Jordan Kiper. 2014. Why religion is better conceived as a complex system than a norm-enforcing institution. *Behavioral and Brain Sciences* 37(03). 275–276.

doi:10.1017/S0140525X13003038.

The authors respond to the issue's target article: "The cultural evolution of emergent group-level traits" by Paul E. Smaldino. They hold that although religions, as Smaldino demonstrates, provide informative examples of culturally evolved group-level traits, religions are more accurately analyzed as complex adaptive systems than as norm-enforcing institutions. An adaptive systems approach to religion not only avoids various shortcomings of institutional approaches, but also offers additional explanatory advantages regarding the cultural evolution of group-level traits that emerge from religion.

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

Burkimsher, Marion. 2014. Is Religious Attendance Bottoming Out? An Examination of Current Trends Across Europe. *Journal for the Scientific Study of Religion* 53(2). 432–445. doi:10.1111/jssr.12111.

The purpose of this research note is to summarize the available data on trends in religious attendance across 24 European countries to determine whether a base level has been reached in some countries. Researchers focus on the changes observed in the period 1990-2012. After critically assessing the data quality of the recent European Social Survey (ESS) and European Values Study (EVS), Researchers present four different methods of assessing current trends. First, intercohort differentials, an indicator previously used extensively, were assess. Researchers then look at trends in young people's rates of attendance, followed by trends of the postwar cohorts born in 1950-1981. The author proceeds to an appraisal of individual life-course variations by looking at attendance as a child and young adult. A compilation of these indicators shows that they often do not fully agree on whether there is growth, decline, or stability. To generalize, the high-attending Catholic countries are more likely to exhibit religious decline, whilst a few ex-communist countries are seeing sustained growth. The most secular countries seem to be generally stabilizing in the 5-20 percent range for attendance rates of the postwar generations.

Garfield, Andrew M., Brian B. Drwecki, Colleen F. Moore, Katherine V. Kortenkamp & Matthew D. Gracz. 2014. The Oneness Beliefs Scale: Connecting Spirituality with Pro-Environmental Behavior. *Journal for the Scientific Study of Religion* 53(2). 356–372. doi:10.1111/jssr.12108.

The inherent unity of all phenomena, or oneness, is a central concept of mysticism, but there have heretofore been no measures of oneness beliefs. The present authors developed the Oneness Beliefs Scale, with spiritual and physical oneness subscales. The spiritual oneness subscale fills a need in the field for a short, reliable measure of spirituality not characterized by the language of traditional Western religiousness. The physical oneness subscale allows researchers to juxtapose spiritual beliefs with a nonspiritual, materialist counterpart. Researchers found that spiritual oneness beliefs were more strongly related to mystic experiences and spirituality than to traditional religiousness. Physical oneness was not strongly associated with either religiousness or spirituality. Both spiritual and physical oneness were positively associated with pro-environmental attitudes but not with depression, anxiety, or negative affect. Spiritual oneness was a better predictor of pro-environmental attitudes than was religiousness. Spiritual oneness also predicted donating to a pro-environmental group, making this the first empirical study to show a positive association between a religion or spirituality measure and observed, rather than self-reported, pro-environmental behavior.

Kunst, Jonas R., Lotte Thomsen & David L. Sam. 2014. Late Abrahamic reunion? Religious fundamentalism negatively predicts dual Abrahamic group categorization among Muslims and Christians: Late Abrahamic reunion. *European Journal of Social Psychology* 44(4). 337–348. doi:10.1002/ejsp.2014.

Although extensive research has documented the effectiveness of common or dual in-groups on improving intergroup relations, little is known about how individual-difference variables affect people's willingness to make such recategorizations in the first place. Here, researchers demonstrate that individual differences in religious fundamentalism predict willingness to categorize in terms of the common Abrahamic religious origins of Christianity and Islam among Christians and Muslims. Study 1 (n=243 Christians, 291 Muslims) uses multigroup structural equation modeling and Study 2 (n=80 Christians) an experimental manipulation to show that religious fundamentalism causes lower dual Abrahamic categorization, which, in turn, predicts more positive attitudes toward the respective out-group, mediating the negative effects of religious fundamentalism on religious intergroup bias. While making the general case that individual differences may play important roles for dual categorizations, these results also highlight the specific positive potential of dual ecumenical categorizations for improving interreligious relations. Research and societal implications are discussed. Copyright © 2014 John Wiley & Sons, Ltd.

Latifnejad Roudsari, Robab, Helen T. Allan & Pam A. Smith. 2014. Iranian and English women's use of religion and spirituality as resources for coping with infertility. *Human Fertility* 17(2). 114–123.

doi:10.3109/14647273.2014.909610.

The study reported in this paper explores how infertile women cope with infertility using their religious and spiritual beliefs. In total, 30 infertile women affiliated to different denominations of Christianity and Islam were interviewed in the UK and Iranian fertility clinics using grounded theory. The categories which emerged included governing ones' 'Self' through gaining control of emotions, adopting religious coping strategies, and handling the burden of infertility peacefully, which all related to the core category of 'relying on a higher being'. Researchers argue that infertile women employ a variety of religious and spiritual coping strategies which are associated with adaptive health outcomes. Further scientific inquiry is required to investigate how religion and spirituality promote adaptation to infertility.

Lepherd, Laurence. 2014. Spirituality in men with advanced prostate cancer: "it's a holistic thing . . . it's a package." *Journal of Holistic Nursing* 32(2). 89–101; quiz 102–103. doi:10.1177/0898010113504492.

Spirituality is often regarded as being helpful during an unwell person's journey but definitions of the concept can be confusing, and its use synonymously with religion can be misleading. This research sought to answer the question, "What is the nature of spirituality in men with advanced prostate cancer," and to discover the role spirituality may have in these men as they face the challenges of living with their disease. A qualitative approach and narrative method was used to explore the spirituality of nine men with advanced prostate cancer who volunteered to participate and to tell the story of their cancer journey with particular focus on their spirituality. The study found that spirituality for these men, who were all Caucasians, was a "holistic thing" that involved physical, psychosocial, and spiritual matters that enabled them to transcend the everyday difficulties of their journey. Through their spirituality they obtained greater comfort and peace of mind during what was for many of them a very traumatic time. The central theme in the men's stories was that of connectedness-to themselves, to their partners, sometimes to a higher being, to other people such as their family and friends, and to other aspects of their lives.

Lucadou, Walter von & Franziska Wald. 2014. Extraordinary experiences in its cultural and theoretical context. *International Review of Psychiatry* 26(3). 324–334. doi:10.3109/09540261.2014.885411.

Abstract The growing complexity, opaqueness and specialization of many areas of life and - above all - a booming psychological and esoteric market create the necessity for counseling and advice for individuals who encounter so-called 'paranormal' experiences. These experiences are often interpreted as 'transpersonal' or 'spiritual', depending

on the cultural background and religious traditions. The term 'spiritual crisis' has become a fashionable diagnosis with some transpersonal psychotherapists. Paranormal experiences, regardless of their acceptance of academic psychology and psychiatry, are still a taboo subject in society. The Parapsychological Counselling Office in Freiburg is a professional unit with governmental support, which helps individuals to cope with such experiences adequately. The work and responsibilities of the counseling center are presented. A large collection of cases in the form of letters, which were sent in by individuals wanting to communicate their unusual or extraordinary experiences have been analyzed. Some of the results are reported here. Finally, the authors discuss a special form of 'inexplicable experiences' based on a theoretical model. Its recommendations seem counter-intuitive but are ultimately successful. The model starts from a system-theoretical viewpoint and uses concepts such as complementarity and entanglement of generalized quantum theory (GQT) and the model of pragmatic information (MPI). Since it turned out that individuals who contact the counselling centre also offer their own interpretations and 'explanation', the question arises how these resources can be used to help clients.

Minarik, Pavol. 2014. Employment, Wages, and Religious Revivals in Postcommunist Countries. *Journal for the Scientific Study of Religion* 53(2). 296–315. doi:10.1111/jssr.12113.

The fall of communist regimes in Central and Eastern Europe has profoundly changed the religious landscape in many countries. Sociologists have studied the rise and decline of religious beliefs and participation in the post-communist region, but economic approaches have been rare. This article suggests supplementing the dominant theories-the demand-side explanation of secularization and the supply-side explanation of religious revivals-with a model of individual time allocation. The model presented in the article predicts both the initial growth and the subsequent decline of religious participation in post-communist countries. The empirical portion of the article focuses on six central European countries with different levels of religiosity. Data from the three waves of the ISSP survey support the model.

Pössel, Patrick, Stephanie Winkeljohn Black, Annie C. Bjerg, Benjamin D. Jeppsen & Don T. Wooldridge. 2014. Do trust-based beliefs mediate the associations of frequency of private prayer with mental health? A cross-sectional study. *Journal of Religion and Health* 53(3). 904–916. doi:10.1007/s10943-013-9688-z.

Significant associations of private prayer with mental health have been found, while mechanisms underlying these associations are largely unknown. This cross-sectional online study (n=325) used path modeling to test if trust-based beliefs (whether, when, and how prayers are answered) mediated the associations of prayer frequency with the Anxiety, Confusion, and Depression Profile of Mood States-Short Form scales. The association of prayer and depression was fully mediated by trust-based beliefs; associations with anxiety and confusion were partially mediated. Further, the interaction of prayer frequency by stress was associated with anxiety.

Sigalow, Emily & Nicole S. Fox. 2014. Perpetuating Stereotypes: A Study of Gender, Family, and Religious Life in Jewish Children's Books. *Journal for the Scientific Study of Religion* 53(2). 416–431. doi:10.1111/jssr.12112.

This paper examines award-winning Jewish children's literature as a medium to explore how religiosity gets constructed differently for men and women. Researchers analyze three decades of winners of the Sydney Taylor Jewish Book Award, a prestigious annual award given by the Association of Jewish Libraries to an outstanding Jewish children's book. The authors demonstrate how these award-winning books produce and perpetuate gendered religious stereotypes that associate men with agency and women with communion. Researchers also show how these books construct images of a 'domestic Judaism' for women and a 'public Judaism' for men and how women have been symbolically annihilated from the titles and central character roles in these books. Drawing on Cecilia Ridgeway's gender-framing perspective, it is argued that the gender stereotypes evident in these books matter to society because they produce and enforce gender inequalities in religiousness.

Uecker, Jeremy E. 2014. Religion and Early Marriage in the United States: Evidence from the Add Health Study. *Journal for the Scientific Study of Religion* 53(2). 392–415. doi:10.1111/jssr.12114.

Early marriage has important consequences for individuals in the United States. Several studies have linked religion to early marriage but have not examined this relationship in depth. Using data from Waves 1, 3, and 4 of the National Longitudinal Study of Adolescent Health, the author conducts multilevel event-history analysis to examine how religion, at both individual and contextual levels, is associated with early marriage. Further, mediators of the religion-early marriage relationship are tested. Significant variation is found in early marriage by religious tradition, religious service attendance, religious salience, belief in scriptural inerrancy, and religious context in high school. The individual religious effects, but not the school context effects, are explained in part by differential attitudes toward marriage and cohabitation.

VanHeuvelen, Tom. 2014. The Religious Context of Welfare Attitudes. *Journal for the Scientific Study of Religion* 53(2). 268–295. doi:10.1111/jssr.12118.

This article examines the influence of three dimensions of religion-belonging (faith tradition membership), behaving (frequency of service attendance), and context (one's relationship to aggregate population characteristics)-on attitudes toward multiple forms of state-provided social protection, or welfare attitudes. To do so, this article uses data from 17 countries surveyed in the 2006 Role of Government' wave of the International Social Survey Program (ISSP). Results from mixed effects regression show that contextual effects are highly predictive of welfare attitudes. Nations that are more religiously heterogeneous are less supportive of state protection, while nations that are more homogeneous, particularly Catholic nations, are more supportive. Results hold net of fractionalization, political institutional measures, and economic characteristics. At the individual level, all three dimensions of religiosity are predictive of welfare attitudes. These patterns suggest that in rich Western democracies, religion continues to play an important role in structuring the moral economies.

Walt, Freda van der & Jeremias J. de Klerk. 2014. Workplace spirituality and job satisfaction. *International Review of Psychiatry* 26(3). 379–389. doi:10.3109/09540261.2014.908826.

The objective of the current research was to determine the relationship between workplace spirituality and a positive attitude related to work, that is, job satisfaction. A cross-sectional study was conducted with a sample of 600 white-collar workers, chosen from two organizations in different industries in South Africa. The research results indicate that there is a positive relationship between workplace spirituality and job satisfaction. These findings deepen the understanding of personal spirituality, organizational spirituality, and job satisfaction. They bring new insights into the significant role which spirituality plays in the context of the workplace. To survive in the 21st century, organizations need to be spiritually based. This, in turn, will lead to workers being satisfied with their entire work experience.

Zarzycka, Beata & Elżbieta Rydz. 2014. Explaining the relationship between post-critical beliefs and sense of coherence in Polish young, middle, and late adults. *Journal of Religion and Health* 53(3). 834–848.

doi:10.1007/s10943-013-9680-7.

The subject of the presented research is the analysis of relations between Post-Critical Belief and Sense of Coherence in women and men in early, middle, and late adulthood. Six hundred and thirty-six individuals participated in the research, 332 women and 304 men, at the age of 18-79 years. Researchers applied the Post-Critical Belief scale by Hutsebaut and the Sense of Coherence scale (SOC-29) by Antonovsky. The results

suggest that the salutogenic function of religiosity is related to age and gender; in women, it is most strongly marked in late, and in men, in middle adulthood.

#### 1.4 Scientific Study of Religion: Method & Theory

Geertz, Armin W. 2014. Long-lost Brothers: On the Co-histories and Interactions Between the Comparative Science of Religion and the Anthropology of Religion. *Numen* 61(2/3). 255–280. doi:10.1163/15685276-12341319.

This article briefly surveys and compares the histories of research in the comparative science of religion (beginning with Friedrich Max Müller) and the anthropology of religion. The article notes the close interactions between these two fields and argues that the comparative science of religion drew significant inspiration from anthropology and sociology during the twentieth century until about the 1970s when anthropology came under heavy fire from critics. The postcolonial, feminist, and postmodern wave did not have a significant impact on the comparative science of religion until the 1990s. But already during the 1980s a new approach to religion, championed by Jonathan Z. Smith, contributed to a theoretical and critical analysis of religion that neither bought into postmodernism nor into the "sui generis" approach to religion. During the 1990s, another new approach began making an impact, namely, the cognitive science of religion, championed by E. Thomas Lawson, Robert N. McCauley (both scholars of religion), and Pascal Boyer (anthropologist). The article suggests in conclusion that the two disciplines can once again meet in the growing fields of experimental anthropology and experimental science of religion and in the need to explore and address how culture affects and rewires the brain. Furthermore, evolutionary theory is also beginning to serve as a common framework for thinking about religion.

Rossi, Maurizio & Ettore Scappini. 2014. Church Attendance, Problems of Measurement, and Interpreting Indicators: A Study of Religious Practice in the United States, 1975-2010. *Journal for the Scientific Study of Religion* 53(2). 249–267. doi:10.1111/jssr.12115.

Church attendance is usually measured in surveys by asking a direct question about frequency of churchgoing over a preset period of time, which is typically a year. Different studies have cast doubt over the validity of this indicator as it tends to overestimate actual attendance to a significant degree. The aim of this article is to compare data on church attendance provided by two different types of research conducted in the United States between 1975 and 2010: survey data (GSS) and data obtained from time use surveys (ATUS). This comparison has three main objectives: (1) to confirm the hypothesis that survey data tend to overestimate actual attendance; (2) to show that this overestimation is not constant over time and space, but tends to vary in an erratic and unpredictable way; and (3) to demonstrate that data provided by time use surveys are more reliable than the frequencies of churchgoing provided by traditional surveys when the objective is to identify trends in religiosity in a population.

Sibley, Chris G., Joseph Bulbulia & Marc Stewart Wilson. 2014. Thin and Thinner: Hypothesis-driven Research and the Study of Humans. *Numen* 61(2/3). 166–181. doi:10.1163/15685276-12341314.

Some say that researchers who study humans are locked in to frameworks of epistemic assumptions from which there can be no escape. The present authors explain, on the contrary, how researchers who disagree may nevertheless reconcile their differences. Freedom from the epistemic dungeon is made possible by practices that convert beliefs into testable hypotheses, which are then tested. Such practices are the engines of scientific progress. To clarify misunderstandings about practices of hypothesis testing, the authors discuss Bayes' rule, a mathematically perfect algebra for belief revision. To illustrate both the benefits and inevitable limitations of scientific research on religion, the details of a recent national questionnaire study that revealed five different types of supernatural believers are analyzed.

Steets, Silke. 2014. Multiple Realities and Religion: A Sociological Approach. *Society* 51(2). 140–144. doi:10.1007/s12115-014-9753-6.

The essay introduces a number of sociological theories that can be used to explore how individuals combine religious and secular discourses in their consciousness and behavior in pluralistic societies. Two concepts coined by Alfred Schutz seem to be most fruitful for this enterprise: the notion of 'multiple realities' (that make up an individual's life-world) and the notion of 'relevance structures' (as co-existing and potentially conflicting perspectives within the reality of everyday life). While the capacity to switch between realities and to juggle relevancies is probably an anthropological constant, the number of available relevancies increases radically in the course of modernization.

Waldron, William. 2014. Text and Context in Religious Studies and Yogācāra Cognitive Theory: Discovering Theory "in the Wild." *Numen* 61(2/3). 208–220. doi:10.1163/15685276-12341316.

This paper discusses the creative dynamic between abstraction, reification, and reflexivity in the study of religion in general and textual analysis and Indian Buddhist thought in particular. The author defines "texts" narrowly, as written materials signifying human speech, something doubly removed from sensory experience, inviting abstraction and reification, while enabling reflexive analysis. Such analyses accumulate in literate civilizations, having the effect of both alienating yet enabling humanity. For example, the critical methods of Biblical analysis ironically undermined its own a historical assumptions, e.g., the idea of an "Ur-text" independent of historical context. Philosophy of science displays similar developments: abstract theories enable analyses of data, which are, however, only meaningful within specific contexts of interpretation. Indian Buddhist philosophy similarly critiques ordinary assumptions about identity, subserved by innate tendencies to abstract and reify experience, while recognizing its analytic insights. Its own accumulating traditions led Buddhist thinkers to critique multiple theories of cognition, concluding that, like an Ur-text, the notion of an independent Self is an abstract social and especially linguistic construct that, nevertheless, operates at the deepest levels of our common cognitive processes. This insight depended on textual traditions to develop.

Warner, Cameron David. 2014. On the Relationship Between Method and the Object of Study When Studying Religion. *Numen* 61(2/3). 131–144. doi:10.1163/15685276-12341312.

If a discipline is defined by the object of its study, then the definition of the object of study has a priori paramount importance. Studies of the evolution of the study of religion show that researchers have been unable to escape their own socio-political contexts. The author begins with a brief consideration of the evolution of superstition as a means to gain perspective on the evolution of the study of religion and definitions of religion and as a cautionary note to both the contextual study of religion and the cognitive-evolutionary (CE) study of religion. He then continues with an overview of the conference, "Researching Religion: Methodological Debates in Anthropology and the Study of Religion," at Aarhus University, and the seven articles published in the special double issue of Numen (61[2/3]). Taken together, the articles reflect and address an international rupture between the contextual and the CE study of religion, and point towards productive avenues for future research.

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

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

Brotto, Lori A. & Rosemary Basson. 2014. Group mindfulness-based therapy significantly improves sexual desire in women. *Behaviour Research and Therapy* 57. 43–54. doi:10.1016/j.brat.2014.04.001.

The goal of this study was to test the effectiveness of mindfulness-based therapy, either immediately or after a 3-month waiting period, in women seeking treatment for low sexual desire and arousal. Women participated in four 90-min group sessions that included mindfulness meditation, cognitive therapy, and education. A total of 117 women were assigned to either the immediate treatment (n=68) or delayed treatment (n=49) group, in which women had two pre-treatment baseline assessments followed by treatment. A total of 95 women completed assessments through to the 6-month follow-up period. Compared to the delayed treatment control group, treatment significantly improved sexual desire, sexual arousal, lubrication, sexual satisfaction, and overall sexual functioning. Sex-related distress significantly decreased in both conditions, regardless of treatment, as did orgasmic difficulties and depressive symptoms. Increases in mindfulness and a reduction in depressive symptoms predicted improvements in sexual desire.

Burdette, Amy M., Stacy H. Haynes, Terrence D. Hill & John P. Bartkowski. 2014. Religious variations in perceived infertility and inconsistent contraceptive use among unmarried young adults in the United States. *The Journal of Adolescent Health* 54(6). 704–709. doi:10.1016/j.jadohealth.2013.11.002.

Researchers examine associations among personal religiosity, perceived infertility, and inconsistent contraceptive use among unmarried young adults (ages 18-29), using data from the National Survey of Reproductive and Contraceptive Knowledge (n=1,695). It was found that evangelical Protestants were more likely than non-affiliates to believe that they were infertile. Among the young women who indicated some likelihood of infertility, evangelical Protestants were also more likely than their other Protestant or non-Christian faith counterparts to believe that they were infertile because they had unprotected sex without becoming pregnant. Although evangelical Protestants were more likely to exhibit inconsistent contraception use than non-affiliates, the authors were unable to attribute any portion of this difference to infertility perceptions.

Castaldelli-Maia, João Mauricio & Dinesh Bhugra. 2014. Investigating the interlinkages of alcohol use and misuse, spirituality and culture - Insights from a systematic review. *International Review of Psychiatry* 26(3). 352–367. doi:10.3109/09540261.2014.899999.

The present systematic review aims to summarize current knowledge on the relationship between alcohol use and misuse, religiousness/spirituality, and culture drawn from medical studies. Data from the medical literature indicate that for some racial and ethnic minorities a return to the traditional culture linked with concepts of spiritual or religious factors can produce a major degree of support for people trying to maintain abstinence from alcohol. This can be seen even in the worst environments. On the other hand, among the general population, religion and/or spirituality can play a positive role in the maintenance of abstinence, but a local heavy drinking culture is a strong risk factor for relapse.

Christman, Lisa K., Alexis D. Abernethy, Richard L. Gorsuch & Allan Brown. 2014. Intrinsic religiousness as a mediator between fatalism and cancer-specific fear: clarifying the role of fear in prostate cancer screening. *Journal of Religion and Health* 53(3). 760–772. doi:10.1007/s10943-012-9670-1.

Understanding factors that influence screening receptivity may enhance African-American men's receptivity to prostate cancer screening. Men of African descent (n=481) between the ages of 40 and 70 were recruited. The hypotheses that Fatalism would be related to Intrinsic Religiousness and Fear, Intrinsic Religiousness would act as a mediator between Fatalism and Fear, and Fatalism as well as Prostate Cancer-Specific Fear would be negatively related to past Prostate-Specific Antigen Testing and Screening Intent were supported. This meditational finding suggests that when religious beliefs are a motivating force, the fear-inducing effects of fatalism are reduced.

Cramer, Holger, Paul Posadzki, Gustav Dobos & Jost Langhorst. 2014. Yoga for asthma: a systematic review and meta-analysis. *Annals of Allergy, Asthma & Immunology* 112(6). 503–510.e5. doi:10.1016/j.anai.2014.03.014 (27 July, 2014).

This literature review systematically assessed and meta-analyzed the available data on efficacy and safety of yoga in alleviating asthma. Fourteen randomized controlled trials with 824 patients were included. Evidence for effects of yoga compared with usual care was found for asthma control, asthma symptoms, quality of life, peak expiratory flow rate, and ratio of forced expiratory volume in 1 second to forced vital capacity. Evidence for effects of yoga compared with psychological interventions was found for quality of life and peak expiratory flow rate. No evidence for effects of yoga compared with sham yoga or breathing exercises was revealed. No effect was robust against all potential sources of bias. Yoga was not associated with serious adverse events.

Creswell, J. David, Laura E. Pacilio, Emily K. Lindsay & Kirk Warren Brown. 2014. Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress. *Psychoneuroendocrinology* 44. 1–12. doi:10.1016/j.psyneuen.2014.02.007.

For this study, sixty-six participants were randomly assigned to either a brief 3-day (25-min per day) mindfulness meditation training, or an analytic cognitive training control program. Results indicate that brief mindfulness meditation training reduced self-reported psychological stress reactivity but increased salivary cortisol reactivity to the Trier Social Stress Test (TSST), relative to the cognitive training comparison program. Participants who were low in pre-existing levels of dispositional mindfulness and then received mindfulness meditation training had the greatest cortisol reactivity to the TSST. No significant main or interactive effects were observed for systolic or diastolic blood pressure reactivity to the TSST.

Dohn, Michael N., Santa Altagracia Jiménez Méndez, Maximinia Nolasco Pozo, Elizabet Altagracia Cabrera & Anita L. Dohn. 2014. Alcohol use and church attendance among seventh through twelfth grade students, Dominican Republic, 2011. *Journal of Religion and Health* 53(3). 675–689. doi:10.1007/s10943-012-9663-0.

A survey in the Dominican Republic showed increasing church attendance by middle and high school students (n=3,478) was associated with a delay in age at first alcoholic drink, fewer students who had consumed alcohol in the past month (current drinkers), lower alcohol consumption levels, fewer episodes of inebriation, and less heavy episodic alcohol consumption. The results suggested that it may be useful to conceive of church-attending youth as a subset of the adolescent social network when planning primary alcohol prevention programs for young people.

Foo, Xiang Yi, Muhd Najib Mohd Alwi, Siti Irma Fadhillah Ismail, Normala Ibrahim & Zubaidah Jamil Osman. 2014. Religious commitment, attitudes toward suicide, and suicidal behaviors among college students of different ethnic and religious groups in Malaysia. *Journal of Religion and Health* 53(3). 731–746. doi:10.1007/s10943-012-9667-9.

This study sought to examine the impact of religious commitment and attitudes toward suicide on suicidal behaviors of college students across major ethnic and religious groups in a multicultural society of Malaysia. A

total of 139 college students completed Religious Commitment Inventory-10, Attitudes Toward Suicide Scale, and Suicidal Behavior Questionnaire-Revised. Findings showed significant discrepancies in attitudes toward suicide, but not suicidal behaviors across ethnic and religious groups. Suicide acceptance significantly affected suicidal behaviors as well. Although religious commitment is not associated with suicidal behaviors, its deviation is reflected in students' acceptance of suicide. Additionally, college students' suicide risk, lifetime, and recent suicide ideation, as well as their likelihood of future suicide attempt can be associated with their acceptance of suicide.

Goldingay, Sarah, Paul Dieppe & Miguel Farias. 2014. "And the pain just disappeared into insignificance": The healing response in Lourdes - Performance, psychology and caring. *International Review of Psychiatry* 26(3). 315–323. doi:10.3109/09540261.2014.914472.

Three academic/practitioners from different disciplines (performance, medicine and psychology) describe the ways in which observing, and importantly, participating in the healing rituals of the French pilgrimage site of Lourdes challenged their ways of thinking about both their discipline's research approaches and their understandings of community, caring and healing. By positioning themselves as both first-person and third-person researchers, they suggest that a new type of 'trans-disciplinary', longitudinal, reflexively sensitive methodology is needed in order to investigate activities involving groups of people and spiritual practices as a whole system in order to better understand how they can positively affect our innate healing response.

Hainsworth, Keri R., Katherine S. Salamon, Kim Anderson Khan, Bryant Mascarenhas, W. Hobart Davies & Steven J. Weisman. 2014. A Pilot Study of Yoga for Chronic Headaches in Youth: Promise Amidst Challenges. *Pain Management Nursing* 15(2). 490–498. doi:10.1016/j.pmn.2012.12.002.

The primary aim of the current study was to provide preliminary data on the feasibility, acceptability, and safety of alignment-based yoga for youths with chronic headaches. A secondary aim was to provide preliminary estimates of yoga's ability to improve headache pain, daily functioning, quality of life, and anxiety level in this population. The yoga intervention consisted of 8 weekly, 75-minute classes. Participant flow data revealed challenges to feasibility primarily due to recruitment and retention. Scores on most outcome measures changed in the predicted direction with medium effect sizes found for the functional outcomes. Pain measures did not change significantly. This pilot suggests that yoga for pediatric headaches may be acceptable, as indicated by positive parent and participant ratings of the yoga experience. These preliminary findings suggest that yoga trials for pediatric headaches include both challenges and promise. Recommendations for overcoming challenges include designs that optimize family convenience.

Harmon, Brook E., Swann A. Adams, Dolores Scott, Yvonne S. Gladman, Bernice Ezell & James R. Hebert. 2014. Dash of faith: a faith-based participatory research pilot study. *Journal of Religion and Health* 53(3). 747–759. doi:10.1007/s10943-012-9664-z.

The Dash of Faith pilot used a community-based participatory research approach to design an experiential dietary intervention based on two African-American churches, one intervention and one comparison. Congregation members identified components that were incorporated into 12 weekly and 4 monthly sessions, with a goal of increasing fruit and vegetable and lowering fat intake. At 2 months, a marginally significant (p=0.07) increase in fruit and vegetable consumption was observed in the intervention group but was not maintained at study conclusion. Researchers propose that these mixed findings may be attributable, in part, to bias introduced by the participatory nature of the design.

Harrell, Zaje A. T. & Kandace Powell. 2014. The relationship between parent and student religious coping and college alcohol use. *Journal of Religion and Health* 53(3). 895–903.

doi:10.1007/s10943-013-9683-4.

The present study examined social support and alcohol norms as mediators of the relationship between religious coping and college drinking (e.g., frequency and heavy drinking). The sample consisted of college students (n=129) and their parents (n=113). Religious coping (parent and student) was associated with less frequent alcohol use and less heavy drinking. Using a path model to test direct and indirect effects, the mediators were entered simultaneously and allowed to correlate with each other. Alcohol norms mediated the relationship between religious coping and drinking outcomes. Social support was not a significant mediator.

Hill, Nicholas J., Mxolisi Siwatu & Alexander K. Robinson. 2014. "My religion picked my birth control": the influence of religion on contraceptive use. *Journal of Religion and Health* 53(3). 825–833.

doi:10.1007/s10943-013-9678-1.

This research investigates the influence of religious preference and practice on the use of contraception. Much of earlier research examines the level of religiosity on sexual activity. This research extends this reasoning by suggesting that peer group effects create a willingness to mask the level of sexuality through the use of contraception. While it is understood that certain religions, that is, Catholicism does not condone the use of contraceptives, this research finds that Catholics are more likely to use certain methods of contraception than other religious groups. With data on contraceptive use from the Center for Disease Control's Family Growth Survey, a likelihood probability model is employed to investigate the impact religious affiliation on contraception use. Findings suggest a preference for methods that ensure non-pregnancy while preventing feelings of shame and condemnation in their religious communities.

Lyon, Maureen E., Patricia Garvie, Jianping He, Robert Malow, Robert McCarter & Lawrence J. D'Angelo. 2014. Spiritual well-being among HIV-infected adolescents and their families. *Journal of Religion and Health* 53(3). 637–653. doi:10.1007/s10943-012-9657-y.

Congruence in spirituality between HIV+ adolescent/family dyads (n=40) and psychological adjustment and quality of life were assessed. Congruence in spirituality between adolescent/surrogate dyads remained unchanged at 3 months. High congruence existed for "having a reason for living"; rejection of "life lacks meaning/purpose" and "HIV is a punishment from God." Adolescents were less likely to forgive the harm others caused them than their families.

Mohammadpoorasl, Asghar, Abbas Abbasi Ghahramanloo, Hamid Allahverdipour & Christoph Augner. 2014. Substance abuse in relation to religiosity and familial support in Iranian college students. *Asian Journal of Psychiatry* 9. 41–44. doi:10.1016/j.ajp.2013.12.015.

The aims of present study were to determine the prevalence of alcohol use and substance abuse and related factors in a sample of Iranian college students. The randomly selected sample consisted of 1837 college students. In the sample, the prevalence of alcohol use in the past 30 days and ever drug abuse were 7.7% and 8.0%, respectively. After adjusting for other factors, living in dormitory in comparison to parental home and having higher score of religious beliefs were protective factors for every use of illicit drugs. Being male, living in the single house in comparison to parental home, smoking, alcohol use, hookah smoking, and having unsafe sex were risk factors ever use of illicit drugs.

Montgomery, Brooke E. E., Katharine E. Stewart, Karen H. K. Yeary, Carol E. Cornell, LeaVonne Pulley, Robert Corwyn & Songthip T. Ounpraseuth. 2014. Religiosity and sexual risk behaviors among african american cocaine users in the rural South. *The Journal of Rural Health* 30(3). 284–291.

doi:10.1111/jrh.12059.

This study examined the relationship between well-defined dimensions of religion and specific sexual behaviors among 205 African Americans who use cocaine living in the rural southern United States. After adjusting individualized network estimator weights based on the recruitment strategy, different dimensions of religion had inverse relationships with sexual risk behavior, including church leadership support with number of unprotected vaginal/ anal sexual encounter and positive religious coping with number of sexual partners and with total number of vaginal/ anal sexual encounters. Results suggest that specific dimensions of religion may have protective effects on certain types of sexual behavior, which may have important research implications.

Nicdao, Ethel G. & Amy L. Ai. 2014. Religion and the use of complementary and alternative medicine (CAM) among cardiac patients. *Journal of Religion and Health* 53(3). 864–877. doi:10.1007/s10943-013-9681-6.

This study investigates the prevalence and predictors of using complementary and alternative medicine (CAM) among middle-aged and older patients prior to cardiac surgery. Comprehensive data were collected from adult patients undergoing cardiac surgery through a preoperative survey 2 weeks prior to surgery, followed by a telephone interview the day before surgery. More than two-thirds of participants (80.9%) indicated at least one CAM use. Income, religiosity, education, BMI, employment, and congestive heart failure predicted greater CAM utility. After multiple controls, major cardiac indicators were significantly positively associated with greater utility of CAM. There was also a significant positive association between religiosity and CAM use. Findings suggest considerable CAM use in this cardiac sample and certain associations among cardiac conditions, religiosity, and itemized CAM utilization.

Palamar, Joseph J., Mathew V. Kiang & Perry N. Halkitis. 2014. Religiosity and exposure to users in explaining illicit drug use among emerging adults. *Journal of Religion and Health* 53(3). 658–674. doi:10.1007/s10943-012-9660-3.

In this study, a racially diverse sample (n=962) was surveyed about religiosity, exposure to users, and recent use of marijuana, powder cocaine, ecstasy, and nonmedical use of opioids and amphetamine. Results suggest that identifying as Agnostic increased odds of use for each of the five drugs; however, this effect disappeared when controlling for religious importance and attendance. High levels of religious attendance were protective against recent use of marijuana and cocaine, but protective effects diminished when controlling for exposure to users, which was a robust predictor of use of every drug. Religion is a protective mechanism against drug use, but this effect may diminish in light of exposure to users. Alternative preventative methods need to be directed toward individuals who are not religious or are highly exposed to users.

Petter, Mark, Patrick J. McGrath, Christine T. Chambers & Bruce D. Dick. 2014. The effects of mindful attention and state mindfulness on acute experimental pain among adolescents. *Journal of Pediatric Psychology* 39(5). 521–531. doi:10.1093/jpepsy/jsu007.

The purpose of this study was to test a novel mindful attention manipulation on adolescent's experimental pain responses. Furthermore, the relationship between state mindfulness and experimental pain was examined. A total of 198 adolescents were randomly assigned to a mindful attention manipulation or control group prior to an experimental pain task. Overall the manipulation had no effect on pain. Secondary analysis showed that meditation experience moderated the effect of the manipulation. State mindfulness predicted pain outcomes, with reductions in situational catastrophizing mediating this relationship.

Pillay, Brindha, Stuart J. Lee, Lynda Katona, Sue Burney & Sharon Avery. 2014. Psychosocial factors associated with quality of life in allogeneic stem cell transplant patients prior to transplant. *Psycho-Oncology* 23(6). 642–649.

doi:10.1002/pon.3462.

The primary aim of this retrospective study was to determine levels of psychological distress and quality of life (QoL) immediately prior to allogeneic stem cell transplantation in 122 allograft patients. In this study, 12% and 14% of the sample experienced significant levels of depressive and anxiety symptoms, respectively. Half of the sample reported impaired physical QoL, whereas approximately 40% reported poor psychological and social QoL. Besides relationship status, the limited number of demographic (age and gender) and medical factors (disease status) tested did not contribute significantly to reported QoL. After controlling for medical and demographic factors, weaker Fighting Spirit and higher levels of depression (trend towards significance) were associated with poorer physical and social QoL.

#### 2.2 Spirituality & Health: Mental Health

Berman, Noah C., Abigail Stark, Kesley Ramsey, Allison Cooperman & Jonathan S. Abramowitz. 2014. Prayer in Response to Negative Intrusive Thoughts: Closer Examination of a Religious Neutralizing Strategy. *Journal of Cognitive Psychotherapy* 28(2). 87–100. doi:10.1891/0889-8391.28.2.87.

This study aimed to highlight development and maintenance factors for one such strategy, compensatory prayer, to inform assessment and treatment of related obsessional phenomena. Researchers used a multi-method approach to examine the predictors and function of prayer when it is used in response to negative intrusive thoughts. Participants were 85 undergraduate students who self-identified with a branch of Christianity. Results indicated that religiosity, intrinsic religious motivation, and moral thought-action fusion (TAF) positively predicted the use of prayer, with moral TAF emerging as a unique predictor and a complete mediator between religiosity and the use of prayer. Regarding the function of prayer, results indicated that when prayer is used maladaptively (i.e., negative coping style), it is associated with higher scores on religious measures and moral TAF, as well as more frequent engagement in prayer, and a greater reduction in anxiety post-prayer. Surprisingly, likelihood TAF was not found to be related to the use or function of prayer.

Britton, Willoughby B., Nathaniel E. Lepp, Halsey F. Niles, Tomas Rocha, Nathan E. Fisher & Jonathan S. Gold. 2014. A randomized controlled pilot trial of classroom-based mindfulness meditation compared to an active control condition in sixth-grade children. *Journal of School Psychology* 52(3). 263–278. doi:10.1016/j.jsp.2014.03.002.

The current study is a pilot trial to examine the effects of a non-elective, classroom-based, teacher-implemented, mindfulness meditation intervention on standard clinical measures of mental health and affect in middle school children. A total of 101 healthy sixth-grade students (55 boys, 46 girls) were randomized to either an Asian history course with daily mindfulness meditation practice (intervention group) or an African history course with a matched experiential activity (active control group). Following intervention, both groups decreased significantly on clinical syndrome subscales and affect but did not differ in the extent of their improvements. Meditators were significantly less likely to develop suicidal ideation or thoughts of self-harm than controls. These results suggest that mindfulness training may yield both unique and non-specific benefits that are shared by other novel activities.

Castellar, Juarez I., César A. Fernandes & C. Eduardo Tosta. 2014. Beneficial Effects of Pranic Meditation on the Mental Health and Quality of Life of Breast Cancer Survivors. *Integrative Cancer Therapies* 13(4). 341–350. doi:10.1177/1534735414534730.

The purpose of the present investigation was to assess the effect of pranic meditation on the quality of life and mental health of breast cancer survivors. The subjects were 75 women submitted either to breast cancer therapy or

to post-therapy control who agreed to practice pranic meditation for 20 minutes, twice a day, during 8 weeks, after receiving a formal training. After 8 weeks of pranic meditation practice, the subjects showed a significant improvement of their quality of life scores that included physical, role, emotional, and social functioning, as well as global health status, fatigue, pain, sleep disturbances, body image, arm symptoms, and breast symptoms. They also showed a reduction of the side effects of systemic therapy and being upset by hair loss. Moreover, meditation was associated with improvement of the mental health parameters of the practitioners that included psychic stress, death ideation, performance diffidence, psychosomatic disorders, and severity of mental disorders. The extension of the meditation period from 8 to 15 weeks caused no substantial extra benefits in practitioners.

Cilliers, Frans & Landa Terblanche. 2014. The role of spirituality in coping with the demands of the hospital culture amongst fourth-year nursing students. *International Review of Psychiatry* 26(3). 279–288.

doi:10.3109/09540261.2014.890922.

The aim of this research was to describe the role of spirituality in coping with the demands of the hospital culture amongst fourth-year nursing students. A case study of 14 female Canadian nursing students was asked to write an essay on their experiences of the demands of the hospital culture. Content analysis was used and positive psychology served as the interpretive lens. The findings indicated that although the nursing students expressed themselves in religious and spiritual words, they did not significantly illustrate the theoretically associated intra-, interpersonal and sacred behaviors to be referred to as being spiritual in their experience as a care giver in the hospital culture. They also did not illustrate behaviors linked to other positive psychology constructs such as sense of coherence, resilience, engagement or emotional intelligence. Rather, the nursing students experienced identity crises.

Hayward, R. David & Neal Krause. 2014. Voluntary leadership roles in religious groups and rates of change in functional status during older adulthood. *Journal of Behavioral Medicine* 37(3). 543–552. doi:10.1007/s10865-012-9488-z.

Linear growth curve modeling was used to compare rates of change in functional status between three groups of older adults: Individuals holding voluntary lay leadership positions in a church, regular church attenders who were not leaders, and those not regularly attending church. Functional status was tracked longitudinally over a 4-year period in a national sample of 1,152 Black and White older adults whose religious backgrounds were either Christian or unaffiliated. Leaders had significantly slower trajectories of increase in both the number of physical impairments and the severity of those impairments. Although regular church attenders who were not leaders had lower mean levels of impairment on both measures, compared with those not regularly attending church, the two groups of non-leaders did not differ from one another in their rates of impairment increase. Leadership roles may contribute to longer maintenance of physical ability in late life, and opportunities for voluntary leadership may help account for some of the health benefits of religious participation.

Irmak, M. Kemal. 2014. Schizophrenia or possession? *Journal of Religion and Health* 53(3). 773–777. doi:10.1007/s10943-012-9673-y.

Schizophrenia is typically a life-long condition characterized by acute symptom exacerbations and widely varying degrees of functional disability. Some of its symptoms, such as delusions and hallucinations, produce great subjective psychological pain. The most common delusion types are as follows: "My feelings and movements are controlled by others in a certain way" and "They put thoughts in my head that are not mine." Hallucinatory experiences are generally voices talking to the patient or among themselves. Hallucinations are a cardinal positive symptom of schizophrenia which deserves careful study in the hope it will give information about the pathophysiology of the disorder. Researchers thought that many so-called hallucinations in schizophrenia are really illusions related to a real environmental stimulus. One approach to this hallucination problem is to consider the possibility of a demonic world. Demons are unseen creatures that are believed to exist in all major religions and

have the power to possess humans and control their body. Demonic possession can manifest with a range of bizarre behaviors which could be interpreted as a number of different psychotic disorders with delusions and hallucinations. The hallucination in schizophrenia may therefore be an illusion: a false interpretation of a real sensory image formed by demons. A local faith healer known to the author helps the patients with schizophrenia. His method of treatment seems to be successful because his patients become symptom free after 3 months. Therefore, it would be useful for medical professions to work together with faith healers to define better treatment pathways for schizophrenia.

Koszycki, Diana, Cynthia Bilodeau, Kelley Raab-Mayo & Jacques Bradwejn. 2014. A multifaith spiritually based intervention versus supportive therapy for generalized anxiety disorder: a pilot randomized controlled trial. *Journal of Clinical Psychology* 70(6). 489–509. doi:10.1002/jclp.22052.

Twenty-three participants with generalized anxiety disorder (GAD) of at least moderate severity were randomized to 12 individual sessions of the spiritually based intervention (SBI) or supportive psychotherapy (SP; n=12). Intent-to-treat analysis revealed the SBI fared better than SP in decreasing blind clinician ratings of anxiety and illness severity and self-report worry and intolerance of uncertainty, with large between-group effect sizes. The SBI also produced greater changes in spiritual well-being. Results remained the same when supplementary analyses were performed on the completer sample. Treatment gains were maintained at 3-months follow-up.

Krause, Neal, Deborah Bruce, R. David Hayward & Cynthia Woolever. 2014. Gratitude to God, Self-Rated Health, and Depressive Symptoms. *Journal for the Scientific Study of Religion* 53(2). 341–355.

doi:10.1111/jssr.12110.

This study has three goals. The first is to see whether the opportunity to engage in volunteer work at church fosters friendships with co-religionists. The second goal is to see whether the support these friends provide bolsters feelings of gratitude to God. The third goal is to see whether feelings of gratitude to God are associated with health and depressive symptoms. The following linkages in our conceptual model elaborate and extend these objectives: (1) people who go to church more often will be more likely to participate in volunteer work through their congregations; (2) individuals who perform volunteer work at church will have more friends among their co-religionists; (3) people who have more friends where they worship will report receiving more emotional support from fellow congregants; (4) those who receive more support from co-religionists will feel more grateful to God; and (5) individuals who are more grateful to God will rate their health in a more favorable manner and experience fewer symptoms of depression. Data from the U.S. Congregational Life Survey provide support for each of these relationships.

Kumar, Vineet & Sandeep Kumar. 2014. Workplace spirituality as a moderator in relation between stress and health: An exploratory empirical assessment. *International Review of Psychiatry* 26(3). 344–351.

doi:10.3109/09540261.2014.924909.

The present study explores the role of workplace spirituality in moderating the relationship between occupational stress and the health of managerial personnel in India. A sample of 150 managers working in different public and private organizations was used to measure workplace spirituality, occupational stress, and health using the Spirituality at Work scale, the Occupational Stress Index and the 28-item General Health Questionnaire, respectively. The findings reveal that workplace spirituality moderates the negative relationship of stress and health. The study also found that stress has a negative impact on health while workplace spirituality positively correlated with health.

Levin, Jeff. 2014. Religion and Happiness Among Israeli Jews: Findings from the ISSP Religion III Survey. *Journal of Happiness Studies* 15(3). 593–611.

doi:10.1007/s10902-013-9437-8.

This study investigates religious predictors of happiness in a population-based sample of Israeli Jewish adults (n=991). Using data collected in 2009-2010 as a part of the International Social Survey Programme's Religion III Survey, analyses were conducted on a fully recursive structural model of the effects of synagogue attendance and several religious mediators on a single-item measure of happiness. Bivariately, every religious measure (synagogue attendance, prayer frequency, certainty of God beliefs, a four-item Supernatural Beliefs Scale, and subjective religiosity) is positively and significantly associated with happiness. In the structural model, 11 of 15 hypothesized paths are significant. Of these, only subjective religiosity exhibits a significant direct effect on happiness. The other four religious indicators, however, all exert indirect effects on happiness through subjective religiosity and combinations of each other. Total effects on happiness of both synagogue attendance and the Supernatural Beliefs Scale are statistically significant. Analyses adjust for effects of age and other socio-demographic covariates.

Lim, Caroline, Kang Sim, Vidhya Renjan, Hui Fang Sam & Soo Li Quah. 2014. Adapted cognitive-behavioral therapy for religious individuals with mental disorder: a systematic review. *Asian Journal of Psychiatry* 9. 3–12. doi:10.1016/j.ajp.2013.12.011.

Cognitive-behavioral therapy (CBT) is considered an evidence-based psychological intervention for various mental disorders. However, mental health clinicians should be cognizant of the population that was used to validate the intervention and assess its acceptability to a target group that is culturally different. Researchers systematically reviewed published empirical studies of CBT adapted for religious individuals with mental disorder to determine the extent to which religiously modified CBT can be considered an empirically supported treatment following the criteria delineated by the American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures. Overall, nine randomized controlled trials and one quasi-experimental study were included that compared the effectiveness of religiously modified CBT to standard CBT or other treatment modalities for the treatment of depressive disorders, generalized anxiety disorder, and schizophrenia. The majority of these studies either found no difference in effectiveness between religiously modified CBT compared to standard CBT or other treatment modalities, or early effects that were not sustained. Considering the methodological limitations of the reviewed studies, religiously modified CBT cannot be considered a well-established psychological intervention for the treatment of the foregoing mental disorders following the a priori set criteria at this juncture. Nevertheless, melding religious content with CBT may be an acceptable treatment modality for individuals with strong religious convictions.

Lyon, Maureen E., Shana Jacobs, Linda Briggs, Yao Iris Cheng & Jichuan Wang. 2014. A longitudinal, randomized, controlled trial of advance care planning for teens with cancer: Anxiety, depression, quality of life, advance directives, spirituality. *The Journal of Adolescent Health* 54(6). 710–717. doi:10.1016/j.jadohealth.2013.10.206.

This study tested the feasibility, acceptability and safety of a pediatric advance care planning intervention, Family-Centered Advance Care Planning for Teens With Cancer (FACE-TC). Adolescent/family dyads (n=30) with a cancer diagnosis participated in a two-armed, randomized, controlled trial. Exclusion criteria included severe depression and impaired mental status. Intervention families rated FACE-TC worthwhile (100%), whereas adolescents' ratings increased over time (65%-82%). Adolescents' anxiety decreased significantly from baseline to 3 months post-intervention in both groups. Low depressive symptom scores and high quality of life scores were maintained by adolescents in both groups. Advance directives were located easily in medical records (100% of FACE-TC adolescents vs. no controls). Total Spirituality scores were significantly higher among FACE-TC adolescents versus controls. The FACE-TC adolescents endorsed the best time to bring up end-of-life decisions:

19% before being sick, 19% at diagnosis, none when first ill or hospitalized, 25% when dying, and 38% for all of the above.

MacCoon, Donal G., Katherine A. MacLean, Richard J. Davidson, Clifford D. Saron & Antoine Lutz. 2014. No Sustained Attention Differences in a Longitudinal Randomized Trial Comparing Mindfulness Based Stress Reduction versus Active Control. *PloS One* 9(6). e97551. doi:10.1371/journal.pone.0097551.

Researchers used a visual continuous performance task (CPT) to test the effects of eight weeks of mindfulness training on sustained attention by comparing MBSR to the Health Enhancement Program (HEP), a structurally equivalent, active control condition in a randomized, longitudinal design focusing on a non-clinical population typical of MBSR participants. Researchers were blind to group assignment. Participants were randomized to either MBSR (n=31) or HEP (n=32). CPT analyses were conducted on 29 MBSR participants and 25 HEP participants. The authors predicted that MBSR would improve visual discrimination ability and sustained attention over time on the CPT compared to HEP, with more home practice associated with greater improvements. These hypotheses were not confirmed, but some evidence for improved visual discrimination similar to effects in partial replication of other research was found. The study had sufficient power to demonstrate that intervention groups do not differ in their improvement over time in sustained attention performance. One of our primary predictions concerning the effects of intervention on attentional fatigue was significant but not interpretable.

Papazisis, Georgios, Panagiotis Nicolaou, Evangelia Tsiga, Theodora Christoforou & Despina Sapountzi-Krepia. 2014. Religious and spiritual beliefs, self-esteem, anxiety, and depression among nursing students. *Nursing & Health Sciences* 16(2). 232–238. doi:10.1111/nhs.12093.

The purpose of this study was to determine the relationship between religious beliefs, self-esteem, anxiety, and depression in nursing students in Cyprus. One hundred and twenty-three nursing students were asked to complete a survey consisting of four self-report questionnaires (Beck Depression Inventory, State-Trait Anxiety Inventory, The Royal Free Interview for Religious and Spiritual Beliefs, and Rosenberg Self-esteem Scale). The lowest levels of depression were observed in the third and fourth study year. Normal self-esteem levels were found in the majority of the students (71.3%) and most of them perceived current stress at mild levels. No significant differences on the basis of sex were observed. The vast majority (98.2%) of the students stated a strong religious and/or a spiritual belief that was strongly positively correlated with increased self-esteem and negatively correlated with depression, current stress, and stress as personality trait.

Reynolds, Nina, Sylvie Mrug, Molly Hensler, Kimberly Guion & Avi Madan-Swain. 2014. Spiritual coping and adjustment in adolescents with chronic illness: a 2-year prospective study. *Journal of Pediatric Psychology* 39(5). 542–551. doi:10.1093/jpepsy/jsu011.

In this study, adolescents (n=128) with cystic fibrosis or diabetes completed measures of spiritual coping and adjustment at 2 time points approximately 2 years apart; parents also reported on adolescent adjustment. Prospective relationships between spiritual coping and adjustment were evaluated with an autoregressive crosslagged path model. Results indicate that positive spiritual coping predicted fewer symptoms of depression and less negative spiritual coping over time, whereas negative spiritual coping predicted more positive spiritual coping. Depressive symptoms predicted higher levels of negative spiritual coping and conduct problems over time. The results did not vary by disease.

Ripley, Jennifer S., Cynthia Leon, Everett L. Jr. Worthington, Jack W. Berry, Edward B. Davis, Amy Smith, Audrey Atkinson & Tabitha Sierra. 2014. Efficacy of religion-accommodative strategic

hope-focused theory applied to couples therapy. *Couple and Family Psychology: Research and Practice* 3(2). 83–98.

doi:10.1037/cfp0000019.

The current study used a clinical trial design of 92 community couples seeking counseling to determine whether religion-accommodative hope-focused couples psychotherapy would differ from standard hope-focused couples treatment. Results indicate that the 2 types of treatment demonstrated improvement for couples over time but were not different from each other on most comparisons.

Rosmarin, David H., Mary C. Malloy & Brent P. Forester. 2014. Spiritual struggle and affective symptoms among geriatric mood disordered patients. *International Journal of Geriatric Psychiatry* 29(6). 653–660. doi:10.1002/gps.4052.

Researchers explored relationships between general religiousness, positive religious coping, negative religious coping (spiritual struggle), and affective symptoms among geriatric mood disordered outpatients, in the northeastern USA. General religiousness (religious affiliation, belief in God, and private and public religious activity) and positive/negative religious coping was assessed, alongside interview and self-report measures of affective functioning in a diagnostically heterogeneous sample of 34 geriatric mood disordered outpatients (n=16 bipolar and n=18 major depressive) at a psychiatric hospital in eastern Massachusetts. Except for a modest correlation between private prayer and lower Geriatric Depression Scale scores, general religious factors (belief in God, public religious activity, and religious affiliation) as well as positive religious coping were unrelated to affective symptoms after correcting for multiple comparisons and controlling for significant covariates. However, a large effect of spiritual struggle was observed on greater symptom levels (up to 19.4% shared variance). Further, mean levels of spiritual struggle and its observed effects on symptoms were equivalent irrespective of religious affiliation, belief, and private and public religious activity.

Ross, Alyson, Margaret Bevans, Erika Friedmann, Laurie Williams & Sue Thomas. 2014. "I am a nice person when I do yoga!!!" A qualitative analysis of how yoga affects relationships. *Journal of Holistic Nursing* 32(2). 67–77. doi:10.1177/0898010113508466.

Content analysis was used to qualitatively analyze written comments (n=171) made regarding yoga improving interpersonal relationships in a large cross-sectional survey of yoga practitioners (n=1,067). Four themes were identified: Yoga practice leads to personal transformation, increases social interaction, provides coping mechanisms to weather relationship losses and difficulties, and leads to spiritual transcendence. Practitioners believed that their interpersonal relationships improved because their attitude and perspective had changed, making them more patient, kind, mindful, and self-aware. They expressed an aspect of community that was both practical (they met new friends) and spiritual (they felt they belonged). They thought they could better weather difficulties such as divorce and death. A number discussed feeling a sense of purpose and that their practice contributed to a greater good.

Salgado, Hugo, Isa Haviland, Marcella Hernandez, Diana Lozano, Ruby Osoria, David Keyes, Eastern Kang & María Luisa Zúñiga. 2014. Perceived discrimination and religiosity as potential mediating factors between migration and depressive symptoms: a transnational study of an indigenous Mayan population. *Journal of Immigrant and Minority Health* 16(3). 340–347. doi:10.1007/s10903-013-9944-z.

Evidence suggests that in the US perceived discrimination among migrants of Mexican origin is associated with depressive symptoms. Factors that confer resilience, such as religiosity, could serve as a mediating factor in the context of migration stressors. Researchers hypothesized that migration is associated with higher depressive

symptoms and that discrimination and religiosity would mediate this relationship in a hinational (US and Mexican) sample of indigenous Mexican migrants. Researchers applied path analysis modeling to test our hypotheses with a sample of 650 individuals (n=583 in Mexico; n=67 in US). Results indicated that migration experience and current US residence were associated with perceived discrimination, which in turn were associated with a higher risk for depressive symptoms. Among women not living in the US, religiosity was associated with lower perceived discrimination.

Sarubin, Nina, Caroline Nothdurfter, Cornelius Schüle, Martin Lieb, Manfred Uhr, Christoph Born, Ricarda Zimmermannc, et al. 2014. The influence of Hatha yoga as an add-on treatment in major depression on hypothalamic-pituitary-adrenal-axis activity: A randomized trial. *Journal of Psychiatric Research* 53. 76–83. doi:10.1016/j.jpsychires.2014.02.022.

In this study, the impact of Hatha yoga as add-on treatment to quetiapine fumarate extended release (QXR) or escitalopram (ESC) in depressed patients on hypothalamic—pituitary—adrenal (HPA) axis activity was assessed. Sixty inpatients suffering from major depressive disorder (MDD) were randomized for a 5 week treatment with Yoga or not (control group) and with either QXR (300 mg/day) or ESC (10 mg/day). Serial dexamethasone/corticotropin releasing hormone (DEX/CRH) tests were performed to assess HPA axis function. Following intervention, analysis did not detect a more pronounced down regulation of the HPA axis activity due to yoga. The stepwise long term cortisol reduction was seen in both medication groups, irrespectively of yoga add-on treatment. In addition, cortisol improvers in week 1 of therapy (reduction in cortisol peak value within the DEX/CRH test) reached significant greater amelioration of depressive symptoms after 5 weeks. These results suggest that antidepressant agents down regulate HPA axis function to a greater extent than additional Hatha yoga treatment. Moreover, an early reduction of HPA system hyperactivity after one week of pharmacological treatment seems to raise the possibility of a favorable treatment response.

Shonin, Edo, William Van Gordon & Mark D. Griffiths. 2014. Meditation awareness training (MAT) for improved psychological well-being: A qualitative examination of participant experiences. *Journal of Religion and Health* 53(3). 849–863. doi:10.1007/s10943-013-9679-0.

Mindfulness-based interventions are reported as being efficacious treatments for a variety of psychological and somatic conditions. However, concerns have arisen relating to how mindfulness is operationalized in mindfulness-based interventions and whether its 'spiritual essence' and full potential treatment efficacy have remained intact. This qualitative study used interpretative phenomenological analysis to examine participant experiences regarding the acceptability and effectiveness of a newly designed secularized intervention called meditation awareness training (MAT) that follows a more traditional Buddhist approach to meditation. Participants (with issues of stress and low mood) reported experiencing improvements in psychological well-being due to receiving MAT.

Taspinar, Betul, Ummuhan Bas Aslan, Bulent Agbuga & Ferruh Taspinar. 2014. A comparison of the effects of hatha yoga and resistance exercise on mental health and well-being in sedentary adults: A pilot study. *Complementary Therapies in Medicine* 22(3). 433–440. doi:10.1016/j.ctim.2014.03.007.

The aim of this study was to compare the effects of hatha yoga and resistance exercises on mental health and well-being in sedentary adults. Fifty-one participants were randomly divided into three groups: Hatha Yoga Group, Resistance Exercise Group and Control Group. The Hatha Yoga Group and Resistance Exercise Group participated in sessions three days per week for 7 weeks and the Control Group did not participate in any sessions. Following intervention, significant improvements were found in terms of all outcome measures in the Hatha Yoga Group and the resistance exercise group. No improvements were found in the Control Group. Hatha yoga more improved the dimensions fatigue, self-esteem, and quality of life, whilst resistance exercise

training more improved body image. Hatha yoga and resistance exercise decreased depression symptoms at a similar level.

Torgler, Benno & Christoph Schaltegger. 2014. Suicide and Religion: New Evidence on the Differences Between Protestantism and Catholicism. *Journal for the Scientific Study of Religion* 53(2). 316–340. doi:10.1111/jssr.12117.

Suicide has remained a persistent social phenomenon and now accounts for more deaths than motor vehicle accidents. There has been much debate, however, over which religious constructs might best explain the variation in suicide rates. This empirical analysis reveals that even though theological and social differences between Catholicism and Protestantism have decreased, Catholics are still less likely than Protestants to commit or accept suicide. This difference holds even after controlling for such confounding factors as social and religious networks. In addition, although religious networks do mitigate suicides among Protestants, the influence of church attendance is more dominant among Catholics. This analysis also indicates that alternative concepts such as religious commitment and religiosity strongly reduce suicide acceptance.

Zou, Jianxiang, Yangxin Huang, Lizmarie Maldonado, Stephanie Kasen, Patricia Cohen & Henian Chen. 2014. The efficacy of religious service attendance in reducing depressive symptoms. *Social Psychiatry and Psychiatric Epidemiology* 49(6). 911–918. doi:10.1007/s00127-013-0785-9.

Researchers investigated the association between religious service attendance and depressive symptom scores in a community-based 30-year follow-up longitudinal study. The study used data on 754 subjects followed over 30 years and evaluated at four time points. Results indicated that depressive symptom scores were reduced by an average of 0.518 units each year in subjects who attended religious services as compared with subjects who did not. The more frequent the religious service attendance, the stronger the influence on depressive symptoms when compared with non-attendance.

#### 2.3 Spirituality & Health: Method and Theory

Adanikin, Abiodun I., Uche Onwudiegwu & Akinyemi A. Akintayo. 2014. Reshaping maternal services in Nigeria: Any need for spiritual care? *BMC pregnancy and childbirth* 14. 196. doi:10.1186/1471-2393-14-196.

This study seeks to determine the perception of booked antenatal patients in Nigeria (n=397) on spiritual care during pregnancy and their desire for such within hospital setting. Analysis of an administered questionnaire revealed that 301 of the patients (75.8%), believe there is a need for spiritual help during pregnancy and childbirth. About half (48.5%) were currently seeking for help in prayer/mission houses while another 8.6% still intended to. Overwhelmingly, it was felt needful for health professionals to consider their spiritual needs (70.8%). Most respondents (64.7%) desired that their clergy is allowed to pray with them while in labor and sees such collaboration as incentive that will improve hospital patronage. There was association between high family income and desire for collaboration of healthcare providers with one's clergy.

Alimohammadi, Nasrollah, Fariba Taleghani, Esa Mohammadi & Reza Akbarian. 2014. The nursing metaparadigm concept of human being in Islamic thought. *Nursing Inquiry* 21(2). 121–129. doi:10.1111/nin.12040.

The metaparadigm concept of person as a core emphasis for nursing theorizing has attracted considerable attention in western literature, but has received less attention in the context of eastern philosophical contexts. In this philosophical inquiry, researchers sought to clarify the concept of what it is to be a human being according to ideas deriving from Islamic tradition. It was found that Islamic thought is relevant to two distinct understandings of the

holistic concept of human being. Reciprocal interaction worldview organizes the dimensions of being human (cognitive, emotion, social and spiritual) into a whole. Simultaneous action worldview emphasizes that the human is a coherent and unified creature in harmony with the universe. In Islamic thought, these two worldviews are integrated and operate concurrently. Nurse-patient interactions arising from an integrated perspective that aligns both of these worldviews will allow for informed applications of knowledge to practice and enhanced patient care.

Banin, Luciana Burgugi, Nadielle Brandani Suzart, Fernando Augusto Garcia Guimarães, Alessandra L. G. Lucchetti, Marcos Antonio Santos de Jesus & Giancarlo Lucchetti. 2014. Religious beliefs or physicians' behavior: what makes a patient more prone to accept a physician to address his/her spiritual issues? *Journal of Religion and Health* 53(3). 917–928. doi:10.1007/s10943-013-9685-2.

The present study aims to understand the relation between religious beliefs, physicians' behavior and patients' opinions regarding "Spirituality, religiosity and health (S/R)" issues, and what makes a patient more prone to accept a physician to address his/her spiritual issues. A cross-sectional study was carried out in outpatients from a tertiary hospital, and a path analysis was used to examine the direct and indirect relationships between the variables. For the final analysis, 300 outpatients were evaluated. Most patients would like their doctors to address S/R issues but did not feel comfortable to ask them. In contrast, they reported most doctors have never addressed S/R issues, and they believe doctors are not prepared to address these issues. The path analysis revealed that patients' previous experiences with their doctors may be as important as their religious/spiritual beliefs in proneness to accept a physician to address his/her spiritual issues.

Benito, Enric, Amparo Oliver, Laura Galiana, Pilar Barreto, Antonio Pascual, Clara Gomis & Javier Barbero. 2014. Development and validation of a new tool for the assessment and spiritual care of palliative care patients. *Journal of Pain and Symptom Management* 47(6). 1008–1018.e1. doi:10.1016/j.jpainsymman.2013.06.018.

Researchers developed and validated a new brief measure of spiritual assessment, simultaneously featuring clinical applicability and adequate psychometric properties. The tool uses six initial questions to establish a climate of trust with patients before they complete an eight-item, five-point Likert scale. The questionnaire is based on a model of spirituality generated by the Spanish Society of Palliative Care (SECPAL) Task Force on Spiritual Care (Grupo de Espiritualidad de la SECPAL), which aims to recognize, share, and assess the spiritual resources and needs of palliative care patients. Multidisciplinary professionals from 15 palliative care teams across Spain interviewed 108 patients using the Grupo de Espiritualidad de la SECPAL questionnaire. Confirmatory factor analysis techniques were used to study the new tool factor structure and reliability. Additionally, concurrent criterion validity coefficients were estimated considering spiritual well-being, anxiety, depression, resilience, and symptoms. Descriptive statistics on questionnaire applicability were reported. Analyses thus supported a three-factor structure (intrapersonal, interpersonal, transpersonal) with an underlying second-order factor representing a spirituality construct. Adequate reliability results and evidence for construct validity were obtained.

Bentur, Netta, Daphna Yaira Stark, Shirli Resnizky & Zvi Symon. 2014. Coping strategies for existential and spiritual suffering in Israeli patients with advanced cancer. *Israel Journal of Health Policy Research* 3. 21. doi:10.1186/2045-4015-3-21.

This pilot study focused on identifying the strategies for coping with existential and spiritual suffering at the end of life of secular Jews with advanced-stage cancer. In-depth interviews were conducted with 22 patients receiving symptom relief care at a daycare oncology clinic. The interviews were recorded and transcribed verbatim, and the content was analyzed. The themes emerging from the interviews present five dimensions of coping strategies: openness and choosing to face reality; connectedness and the significance of family; pursuit of meaning; the connection of body, mind and spirit; and, humor and a positive outlook.

Bickerton, Grant R., Maureen H. Miner, Martin Dowson & Barbara Griffin. 2014. Spiritual resources and work engagement among religious workers: A three-wave longitudinal study. *Journal of Occupational and Organizational Psychology* 87(2). 370–391. doi:10.1111/joop.12052.

This study explores relationships between spiritual resources, job resources, and work engagement among 496 Australian religious workers at three time points over a period of 18 months. Drawing on the Conservation of Resources theory and Job Demands-Resources model, spiritual resources are conceptualized as a distinct category of personal resources significant for this occupational cohort. Results of structural equation modelling analysis did not support the hypothesis of reciprocal relationships between spiritual and job resources and work engagement. Instead, spiritual resources had a positive cross-lagged effect on work engagement, and work engagement had a positive cross-lagged effect on job resources. When the high stability of spiritual resources over time was accounted for, work engagement had a negative indirect effect on spiritual resources over time mediated by a negative effect of job resources on spiritual resources (suppression effect). Spiritual resources emerge as an important category of antecedent resources for work engagement among religious workers. However, it appears that motivated religious workers may prioritize energy investments into increasing job resources at the expense of maintaining and developing spiritual resources. This research provides evidence for the promotion of initiatives to foster spiritual resources that enhance resilience and well-being among religious workers.

Bryant, Keneshia, Tiffany Haynes, Nancy Greer-Williams & Mary S. Hartwig. 2014. "Too blessed to be stressed": a rural faith community's views of African-American males and depression. *Journal of Religion and Health* 53(3). 796–808. doi:10.1007/s10943-012-9672-z.

The aim of this study was to determine how a rural African-American faith community describes and perceives experiences of depression among African-American males. A convenience sample of 24 men and women participated in focus groups and interview. Four themes were identified: defining depression; etiology of depression: denial of depression; and, effect of masculine roles on depression experience.

Carlson, Thomas Stone, Christi R. McGeorge & Russell B. Toomey. 2014. Establishing the Validity of the Spirituality in Clinical Training Scale: Measuring the Level of Integration of Spirituality and Religion in Family Therapy Training. *Contemporary Family Therapy* 36(2). 310–325. doi:10.1007/s10591-013-9278-y.

This study sought to validate the Spirituality in Clinical Training Scale (SCTS) as a measure of the level of integration of spirituality and/or religion in family therapy training. A sample of 341 master's and doctoral family therapy students completed an on-line survey for this study. The results suggest that the SCTS is a reliable and valid measure for assessing integration of spirituality into family therapy training. The results also suggest that spiritual self-exploration is associated with increased use of interventions that integrate spirituality into therapy.

Cummings, Jeremy P., Mihaela C. Ivan, Cody S. Carson, Melinda A. Stanley & Kenneth I. Pargament. 2014. A systematic review of relations between psychotherapist religiousness/spirituality and therapy-related variables. *Spirituality in Clinical Practice* 1(2). 116–132. doi:10.1037/scp0000014.

Although psychotherapy is a value-laden undertaking, the ways in which therapists' values affect their work are not well understood. Religion and spirituality (R/S) are potentially powerful influences on therapy that need to be studied in greater depth. To summarize existing research and encourage additional work, the authors conducted a systematic review of studies examining the relations between psychotherapists' religion and spirituality (R/S) and therapy attitudes and behaviors, the therapeutic relationship, and treatment outcomes. A total of 29 articles met inclusion criteria and were reviewed. On the basis of the studies reviewed, therapist R/S is positively correlated

with favorable attitudes toward integrating R/S into therapy and confidence in one's ability to do so. Relatively few studies addressed other topics; thus, the following conclusions are more tentative. There is some evidence that therapists high in R/S tend to hold conservative social values and not to be supportive of unconventional sexual behavior. Therapists appear to prefer clients who share their R/S beliefs and values. However, therapist R/S and client-therapist R/S similarity are not consistently related to the therapeutic relationship or treatment outcomes.

Davis, Terri M. 2014. Psychology education can foster exploration and knowledge of religion, spirituality, sexual orientation, and gender diversity. *Psychology of Sexual Orientation and Gender Diversity* 1(2). 106–108. doi:10.1037/sgd0000039.

Hancock (2014) recently examined how graduate students' religious values can conflict with providing clinical services to potential and actual lesbian, gay, and bisexual clients. Students' beliefs, when opposed to multicultural training and provision of culturally competent clinical services, are being argued in the American judicial system. The author agrees that there is a need for academic training programs to address both the graduate students' and clients' religious and/or spiritual beliefs and practices, sexual orientation, and gender diversity.

Drobin, Frederick. 2014. Recovery, spirituality and psychotherapy. *Journal of Religion and Health* 53(3). 789–795.

doi:10.1007/s10943-013-9800-4.

This article concerns the relationship between addiction recovery, spirituality and psychotherapy. Since its founding, members of AA have been encouraged to pursue a spiritual life. They have also sought psychotherapy. A paradox obtains, because 51% of therapists are atheists. Others have little awareness of the dynamics of the spiritual life. The developmental process of the spiritual life is discussed, and suggestions are made regarding how a therapist might be helpful in this process.

Duijl, Marjolein van, Wim Kleijn & Joop de Jong. 2014. Unravelling the spirits' message: a study of help-seeking steps and explanatory models among patients suffering from spirit possession in Uganda. *International Journal of Mental Health Systems* 8. 24. doi:10.1186/1752-4458-8-24.

The aim of this study is to explore how the development of symptoms concomitant help-seeking steps, and explanatory models (EM) eventually contributed to healing of patients with spirit possession in SW Uganda. Illness narratives of 119 patients with spirit possession referred by traditional healers were analyzed using a mixed-method approach. Treatments of two-thirds of the patients were unsuccessful when first seeking help in the medical sector. Their initially physical symptoms subsequently developed into dissociative possession symptoms. After an average of two help-seeking steps, patients reached a healing place where 99% of them found satisfactory EM and effective healing. During healing sessions, possessing agents were summoned to identify themselves and underlying problems were addressed. Often-mentioned explanations were the following: neglect of rituals and of responsibilities towards relatives and inheritance; the call to become a healer; witchcraft; grief; and, land conflicts. The results demonstrate that traditional healing processes of spirit possession can play a role in restoring connections with the supra-, inter-, intra-, and extra-human worlds. It does not always seem necessary to address individual traumatic experiences per se, which is in line with other research in this field. The study leads to additional perspectives on treatment of trauma-related dissociation in Western countries and on developing effective mental health services in low -and middle-income countries.

Abu-El-Noor, Mysoon Khalil & Nasser Ibrahim Abu-El-Noor. 2014. Importance of spiritual care for cardiac patients admitted to coronary care units in the Gaza Strip: Patients' perception. *Journal of Holistic Nursing* 32(2). 104–115. doi:10.1177/0898010113503905. This study aimed to assess the perception of 275 hospitalized cardiac patients in coronary care units (CCUs) in the Gaza Strip about the importance of assessing and providing spiritual care to them. Results revealed that both assessing spiritual needs (69.69%) and providing spiritual care (76.97%) were very important to cardiac patients, with spiritual care intervention being rated as more important than spiritual assessment.

Frederick, Thomas V. 2014. Spiritual transformation: Honoring spiritual traditions in psychotherapy. *Spirituality in Clinical Practice* 1(2). 109–115. doi:10.1037/scp0000020.

Spirituality is becoming an increasingly important therapeutic resource for practitioners. Spirituality considers how an individual lives and practices transcendent beliefs at its most basic and generic form. Spiritually oriented psychotherapy is an important and critical way to address the sacred in psychotherapy. Therapists are encouraged to take a client centered perspective by incorporating the clients' desires for using spirituality in treatment. Sperry (2012) and colleagues (Sperry & Mansager, 2007) provide a useful taxonomy containing 5 ways of understanding the relationships between psychology and spirituality using the domains of overlap and primacy. This taxonomy should also incorporate the dimensions of telos (goals), tactics (interventions and theory of change), and target in order to more completely understanding the clients' perspectives and honor their own spiritual and religious traditions in spiritually oriented psychotherapy. Christianity was used to demonstrate these domains.

Goh, Anita M. Y., Tamara Eagleton, Rosemary Kelleher, Olga Yastrubetskaya, Michael Taylor, Edmond A. M. Chiu, Bridget Hamilton, Tom Trauer & Nicola T. Lautenschlager. 2014. Pastoral care in old age psychiatry: addressing the spiritual needs of inpatients in an acute aged mental health unit. *Asia-Pacific Psychiatry* 6(2). 127–134. doi:10.1111/appy.12018.

For this study, a retrospective medical record file audit was undertaken of patients admitted over a 16-month period from 1 February 2009 to 30 June 30 2010 (n=202). Sixty-eight percent were seen by pastoral care (PC) practitioners during their admission. Sixty-six percent received PC assessments, 32% received PC ministry, and 10% received PC ritual or worship interventions. Other interventions (counseling/education, crisis situation, grief/bereavement counseling) occurred infrequently. Seventy-five percent of Roman Catholic patients received PC compared to 57% of those patients with no religious affiliation. However, the overall association between religious grouping and receiving PC was not significant. Gender, religion, marital status, legal status, country of birth, language spoken, living situation, carer needs, or educational level were not related to PC contact. Whether or not an inpatient received PC assessment was unrelated to diagnostic category. Patients seen by PC were significantly more likely to engage in religious practice, have longer length of stay, and have neuropsychological, social work and occupational therapy assessments.

Gostečnik, Christian, Tanja Repič Slavič, Saša Poljak Lukek & Robert Cvetek. 2014. Trauma and religiousness. *Journal of Religion and Health* 53(3). 690–701. doi:10.1007/s10943-012-9665-y.

Victims of traumatic events who experience re-traumatization often develop a highly ambivalent relationship to God and experience all religiosity as extremely conflictual. On the one hand, they may choose to blame God for not having protected them, for having left them to feel so alone, for having been indifferent to them or they may even turn their wrath upon God, as the source of cruelty. Other times, the traumas experienced by individuals prompt them to turn to God and religion in search of help. This explains the need for new and up-to-date research that can help elucidate why some people choose to seek help in religion and others choose to turn away from it.

Honiball, George, Dirk Geldenhuys & Claude-Hélène Mayer. 2014. Acknowledging others as "whole beings". Managers' perceptions of spirituality and health in the South African workplace. *International Review of Psychiatry* 26(3). 289–301.

doi:10.3109/09540261.2014.881331.

This article explores the concept of spirituality within selected South African managerial work contexts. The aim of the study was to determine managers' perceptions of spirituality and health-related aspects in various South African workplaces. A phenomenological research paradigm was used, applying an in-depth qualitative research approach. The sample consisted of 12 senior managers from different organizations, including, for example, an international healthcare provider, an international auditing and consulting firm, a manufacturer of paint supplies and decorations and an ecclesiastical organization. Research methods included semi-structured interviews and observation. Data was analyzed through content analysis, identifying themes, categories and codes. The findings indicate that spirituality promotes the development of health-related aspects of individuals, such as self-awareness, inner peace and the management of stress and depression. Managers emphasize that spirituality also has an impact on managing teams and teamwork, engaging in competitive behavior, encouraging honesty and reducing selfishness. Based on the findings, a conclusion is given and practical as well as scientific recommendations are emphasized.

Kizilhan, Jan Ilhan. 2014. Religious and cultural aspects of psychotherapy in Muslim patients from tradition-oriented societies. *International Review of Psychiatry* 26(3). 335–343. doi:10.3109/09540261.2014.899203.

Patients from collective cultures with a tradition-bound Islamic cultural background (e.g., people from the Middle East and some Far East countries such Pakistan and Indonesia) have a different perception of disease and different conceptions of healing, which until now have not been sufficiently appreciated in modern multimodal therapeutic approaches and health management. Taking patients' value systems into consideration in a culture-sensitive way, with reference to their notions of magic, healing ceremonies and religious rituals, and especially patterns of relations and experience, in the treatment of psychological disease, with due regard to scientific psychotherapeutic standards, can be used as an intercultural resource and lead to establishing partnership-like relationships between patients and therapists.

Lillis, Bonnie S. 2014. Understanding the complex role of a hospice spiritual counselor. *The American Journal of Hospice & Palliative Care* 31(4). 353–355. doi:10.1177/1049909113494746.

Hospice's professional roles in end-of-life care can be widely misunderstood by physicians, patients, and family members as well as others who do not work directly with them. The role of the spiritual counselor may be the most misunderstood due to the nature of this professional title. Hospice care at the end of life is holistic in that it is important to meet physical, emotional, and spiritual needs of the patient and their family. In order to provide the most complete and beneficial end-of-life care, it is important to understand the complexity and the importance of the role of the spiritual counselor.

Lucchetti, G., A. L. G. Lucchetti, G. R. Oliveira, D. Crispim, S. L. Pires, M. L. Gorzoni, C. R. G. Panicio & H. G. Koenig. 2014. Nursing home care: exploring the role of religiousness in the mental health, quality of life and stress of formal caregivers. *Journal of Psychiatric and Mental Health Nursing* 21(5). 403–413. doi:10.1111/jpm.12092.

Despite the high number of studies on family caregivers, there is little research on the impact of religiosity on formal caregiving (paid providers). Researchers examine the role of religiousness in the mental health, quality of life and stress of nurse aides (NA) who provide care for patients in a nursing home. NA in a Brazilian nursing home were invited to participate. Because of its coping function, researchers hypothesized that religiousness was related to better mental health and quality of life. Linear regression was used to test this hypothesis and control for confounders. Compared with the Brazilian general population, NA scored higher on measures of religious

involvement. Intrinsic religiosity was associated with better mental health and quality of life. Organizational religiosity was associated with better social functioning, better general mental health and fewer anxiety symptoms. Non-organizational religiosity (prayer), however, was associated with negative outcomes, such as higher stress, poorer general health perceptions and more anxiety symptoms. Most NA indicated that they had prayed for and with their patients. In conclusion, paid caregivers (NA) have a strong sense of religiousness, which plays an important role in many ways, including the type of care they provide, their mental health and their quality of life.

Lukoff, David. 2014. From personal experience to clinical practice to research: A career path leading to public policy changes in integrating spirituality into mental health. *Spirituality in Clinical Practice* 1(2). 145–152. doi:10.1037/scp0000016.

This article is a reflection on the author's 35 years focusing on integrating spirituality into public mental health. Woven into this account is the story behind a recently developed spiritual assessment interview that he developed for use in many California county mental health agencies, and have presented at American Psychological Association skills building sessions and workshops. The article traces the interplay of personal experience, clinical work, research, and public policy that illustrates core dynamic interactions of psychological science and praxis.

Mayer, Claude-Hélène & Rian Viviers. 2014. "Following the word of God": Empirical insights into managerial perceptions on spirituality, culture and health. *International Review of Psychiatry* 26(3). 302–314. doi:10.3109/09540261.2014.914473.

This article focuses on managers in a selected South African organization and the connections they draw between mental health, culture and spirituality within the workplace. The aim is to gain a deeper understanding of the interrelationships in this complex and growing scientific discourse and to respond to the research question of how mental health, culture and spirituality are interrelated from a managerial perspective. The study follows an inductive single case study approach within the phenomenological paradigm. Qualitative research methods using indepth interviews and observation were used. The sample comprised 27 managers within the international South African automotive organization. The findings show that not only culture, but also spirituality and religion in particular, influence mental health and well-being of managers at work. Conclusions are drawn and recommendations made.

Mayer, Claude-Hélène & Rian Viviers. 2014. "I still believe..." Reconstructing spirituality, culture and mental health across cultural divides. *International Review of Psychiatry* 26(3). 265–278. doi:10.3109/09540261.2013.866076.

This article focuses on the long-term development of spiritual and cultural concepts within a selected individual in Cape Town, South Africa, during 11 years of field work. It also explores the impact of spirituality and culture on the researcher-researched relationship. A mixed-method approach was used, including various qualitative methods of data collection as well as content analysis to analyze the data and intersubjective validation to interpret them. Findings show a strong intrapersonal linkage of spirituality, culture and mental health and the researcher-researched relationship having an impact on spiritual, cultural and mental health constructions.

McGee, Michael D. 2014. Authenticity and healing. *Journal of Religion and Health* 53(3). 725–730. doi:10.1007/s10943-014-9835-1.

Caring and compassion cannot be faked. These are not actions people perform mechanically but states of heing that flow from within to make healing connection with others in need. To be authentically healing requires that people live authentic lives. This paper describes what it means to be authentic from a psychospiritual perspective, discusses the components of authentic caring and ends with an exploration of ways to cultivate the authenticity of our lives in general and in our efforts to heal others.

Modell, Stephen M., Toby Citrin, Susan B. King & Sharon L. R. Kardia. 2014. The role of religious values in decisions about genetics and the public's health. *Journal of Religion and Health* 53(3). 702–714.

doi:10.1007/s10943-013-9814-y.

The latest health care legislation, which promotes prevention and health screening, ultimately depends for its success on recognition of people's values concerning the technologies being employed, not just the interventions' technical virtues. V alues concerning the deterministic nature of a condition and what groups should be targeted rest on a sense of what is morally, often religiously right in a given health circumstance. This paper looks at a number of leading-edge case examples—breast cancer genetic screening and family decision-making, and newborn screening and biobanks—in examining how the choices made at the individual, family, and societal levels rest on faith in a higher source of efficacy and moral perspectives on the measures that can be taken. Qualitative responses expressing people's attitudes toward these technologies underscore the importance of considering faith-based values in individual decisions and collective policies on their use. These examples are considered in the context of the historic interplay between science and religion and recent definitions and models of health which incorporate physical, emotional, and social elements, and most importantly, are expanding to incorporate the religious and spiritual values domains.

Paal, Piret, Traugott Roser & Eckhard Frick. 2014. Developments in spiritual care education in German-speaking countries. *BMC Medical W ducation* 14. 112. doi:10.1186/1472-6920-14-112.

This article examines spiritual care training provided to healthcare professionals in Germany, Austria and Switzerland using a survey administered to 33 participants. The paper reveals the current extent of available training while defining the target group(s) and teaching aims. In addition to those, the authors provide an analysis of delivered competencies, applied teaching and performance assessment methods. It was found that spiritual care is often approached as an integral part of grief management, communication/interaction training, palliative care, (medical) ethics, psychological or religious counselling or cultural competencies. Respondents point out the importance of competency based spiritual care education, practical training and maintaining the link between spiritual care education and clinical practice.

Petersen, Cheryl L. 2014. Spiritual care of the child with cancer at the end of life: a concept analysis. *Journal of Advanced Nursing* 70(6). 1243–1253. doi:10.1111/jan.12257.

The aim of this paper is to report an analysis of the concept of spiritual care of a child with cancer at the end of life, based on peer-reviewed literature. The analysis identified six attributes: assessing spiritual needs; assisting the child to express feelings; guiding the child in strengthening relationships; helping the child to be remembered; assisting the child to find meaning; and aiding the child to find hope. Antecedents include existential questions and spiritual distress. Consequences include a peaceful death, spiritual growth, a relationship of trust and enhanced end-of-life care.

Proeschold-Bell, Rae Jean, Chongming Yang, Matthew Toth, Monica Corbitt Rivers & Kenneth Carder. 2014. Closeness to God among those doing God's work: a spiritual well-being measure for clergy. *Journal of Religion and Health* 53(3). 878–894. doi:10.1007/s10943-013-9682-5.

Measuring spiritual well-being among clergy is particularly important given the high relevance of God to their lives, and yet its measurement is prone to problems such as ceiling effects and conflating religious behaviors with spiritual well-being. To create a measure of closeness to God for Christian clergy, researchers tested survey items at two time points with 1,513 United Methodist Church clergy. The confirmatory factor analysis indicated support for two,

six-item factors: Presence and Power of God in Daily Life, and Presence and Power of God in Ministry. The data supported the predictive and concurrent validity of the two factors and evidenced high reliabilities without ceiling effects. The Clergy Spiritual Well-being Scale may therefore be useful to elucidate the relationship among dimensions of health and well-being in clergy populations.

Schwartz, Gary E. 2014. God, synchronicity, and postmaterialist psychology: Proof-of-concept real-life evidence. *Spirituality in Clinical Practice* 1(2). 153–162. doi:10.1037/scp0000017.

This article presents proof-of-concept real-life evidence consisting of a sequence of 11 increasingly improbable events that support possible connections between a universal G.O.D. ("guiding, organizing, designing") process, synchronicity, and spirituality in clinical practice. It highlights both the challenges and the opportunities in carefully examining apparently nonrandom patterns of events in real life (termed self-science) as valid and meaningful evidence of the presence of higher spiritual forces playing an orchestrating role, not only in the lives of patients and practitioners, but in the lives of scientists who investigate these phenomena as well. The article includes a discussion of the integration of contemporary field theory and quantum physics, psychology, and general systems theory that point to the evolution of a post-materialist psychology, and the challenge of determining the potential meaning of spiritually based synchronicities.

Snodgrass, Jill. 2014. Spirituality and Homelessness: Implications for Pastoral Counseling. *Pastoral Psychology* 63(3). 307–317. doi:10.1007/s11089-013-0550-8.

This article presents a limited number of findings from a larger research project that explores spiritual themes related to the experience of homelessness as reported by 16 research participants following their residence in a 90-day emergency shelter program in Los Angeles County, California. By utilizing interpretive phenomenological analysis, the study focuses solely on three spiritual themes present in the experience of homelessness. Participants noted experiencing the presence of hope and motivation while homeless, the challenges of coping with the homeless stigma, and times in which they felt (and did not feel) "human."

Sperry, Len. 2014. Spirituality in clinical practice: Practice considerations. *Spirituality in Clinical Practice* 1(2). 80–81. doi:10.1037/scp0000024.

The author reports on being asked three common questions about spirituality-oriented psychotherapy. The first is, What is it? Researchers addressed this question by defining spirituality and describing spirituality oriented psychotherapy in the first issue of this journal. The second question is, What are the main concerns come up in such therapy? Another way this question is asked is, What are the indications for spiritually oriented psychotherapy? The third question is, Are spiritual issues the same during the various phases of life or are they different? If they do differ does it mean that the practice of spirituality oriented psychotherapy differs during those phases? This article is a brief response to the second and third questions.

Wade, Nathaniel G., Brian C. Post, Marilyn A. Cornish, David L. Vogel & Desirae Runyon-Weaver. 2014. Religion and spirituality in group psychotherapy: Clinical application and case example. *Spirituality in Clinical Practice* 1(2). 133–144. doi:10.1037/scp0000013.

This article explores the issues involved in addressing religion and spirituality (R/S) in nonthematic group psychotherapy through a case study of a process-oriented group for adults. The group, which occurred within a psychology-department-affiliated clinic, consisted of 7 community members, 2 co-leaders, and 1 process observer. Videos from the first 28 sessions of the group, from initial group formation to the departure of the first group member, were reviewed. When a client brought up religion or spirituality issues in a session (n=10; 36%), those

sections were transcribed and then reviewed at greater depth. Three examples from those transcripts illustrate 3 important issues when dealing with R/S in group psychotherapy: (a) how to decide when to address and when not to address R/S in session (i.e., choice points), (b) how to manage potential conflict that could arise among group members from the discussion of R/S issues, and (c) how to effectively process R/S issues in a general process group. Guidelines are provided based on the case study and existing literature for dealing with R/S in group psychotherapy, specifically for groups where R/S is not the main theme.

Walt, Freda van der & Jeremias J. de Klerk. 2014. Measuring spirituality in South Africa: Validation of instruments developed in the USA. *International Review of Psychiatry* 26(3). 368–378. doi:10.3109/09540261.2014.907129.

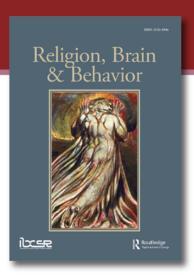
In the current study, the transferability of two spiritual measures developed in the USA, namely the Human Spirituality Scale (HSS) and the Organizational Spirituality Values Scale (OSVS) are considered for a sample from South Africa. The results confirm the construct validity of the HSS and the OSVS, but indicate that the factor structures of the HSS and the OSVS should be analyzed and reconfirmed when used, particularly in a South African sample. The study provides evidence that the HSS and the OSVS cannot be transferred indiscriminately to a South African sample. This insight contributes to the quality of future research studies in South Africa, not only on the important aspect of spirituality, but also when applying instruments developed elsewhere in the world.

Williams, Matthew J., Tim Dalgleish, Anke Karl & Willem Kuyken. 2014. Examining the factor structures of the five facet mindfulness questionnaire and the self-compassion scale. *Psychological Assessment* 26(2). 407–418. doi:10.1037/a0035566.

The five facet mindfulness questionnaire (FFMQ) and the self-compassion scale (SCS) are widely used measures of mindfulness and self-compassion in mindfulness-based intervention research. The psychometric properties of the FFMQ and the SCS need to be independently replicated in community samples and relevant clinical samples to support their use. The primary aim for this project was to establish the factor structures of the FFMQ and SCS in individuals with recurrent depression in remission, since mindfulness-based cognitive therapy (MBCT) was developed as a treatment for preventing depressive relapse. In order to determine the consistency across populations, researchers examined the factor structures of the FFMQ and SCS in 3 samples: (1) a convenience sample of adults; (2) a sample of adults who practice meditation; and, (3) a sample of adults who suffer from recurrent depression and were recruited to take part in a trial of MBCT. Confirmatory factor analyses (CFAs) showed that a 4-factor hierarchical model of the FFMQ best fits the community sample and the clinical sample but that a 5-factor hierarchical model of the FFMQ best fits the meditator sample. CFA did not endorse the SCS 6-factor hierarchical structure in any of the 3 samples. Clinicians and researchers should be aware of the psychometric properties of the FFMQ to measure mindfulness when comparing meditators and non-meditators.

Xie, Jian-Fei, Jian-Da Zhou, Li-Na Gong, Joanne DeSanto Iennaco & Si-Qing Ding. 2014. Mindfulness-based cognitive therapy in the intervention of psychiatric disorders: A review. *International Journal of Nursing Sciences* 1(2). 232–239. doi:10.1016/j.ijnss.2014.05.015.

Mindfulness-based cognitive therapy (MBCT) is frequently used for psychiatric disorders. Despite MBCT's considerable potential for improving psychological health for patients, there is little empirical evidence to support its practical application in Chinese. This review will define meditation and mindfulness, provide an overview of the development of MBCT, identify the evidence for the effectiveness of MBCT, and offer recommendations to medical personnel on how to provide support for patients receiving mindfulness intervention.



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### PART 3: BOOKS

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

Altglas, Veronique. 2014. From Yoga to Kabbalah: Religious Exoticism and the Logics of Bricolage. New York: Oxford University Press.

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#### PART 4: ARTICLES IN PRESS

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