



RESEARCH REVIEW

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

FEBRUARY, 2012

INTRODUCTION

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

Articles for this issue were located by searching the following databases: Applied Science and Technology, ATLA Religion Database, General Science, PubMed, EBSCO Psychology and Behavioral Sciences Collection, PsycARTICLES, PsycINFO, ScienceDirect, and Web of Science. The search terms were altruism, god, goddess, meditat*, prayer, relig*, ritual, spiritu*, and yoga, tailored to the database being searched. Books were located on Amazon.com. Articles not directly relevant to the scientific study of religion were excluded, as were correspondence and reviews. From a universe of 365 articles, 68 articles have been retained from 41 journals. There are 34 pre-publication citations from 26 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Brand, Serge, Edith Holsboer-Trachsler, José Raúl Naranjo & Stefan Schmidt. 2012. Influence of Mindfulness Practice on Cortisol and Sleep in Long-Term and Short-Term Meditators. *Neuropsychobiology* 65(3). 109–118.
doi:10.1159/000330362.

The present study explored the impact of long- and short-term meditation experience on hypothalamus-pituitary-adrenocortical system activity and sleep in a sample of 20 participants, 9 of whom had long-term experience in meditation and 11 novices. Novices underwent an 8-week course in Mindfulness-Based Stress Reduction (MBSR), and cortisol samples were taken in the lab at the beginning and end of the course. To assess the cortisol awakening response, 4 morning cortisol samples were collected. Sleep and mindfulness were assessed by self-rating questionnaires. Among participants with long-term meditation experience, morning cortisol decreased with length of experience. For novices, after an 8-week introductory MBSR course, morning cortisol levels had decreased, while both sleep and self-attribution of mindfulness significantly improved. Cortisol levels did not, however, change between the beginning and end of individual MBSR sessions. Researchers conclude that MBSR/meditation has a favorable influence both on biomarkers of stress regulation, such as cortisol secretion, and on sleep.

Howells, Fleur M, Victoria L Ives-Deliperi, Neil R Horn & Dan J Stein. 2012. Mindfulness based cognitive therapy improves frontal control in bipolar disorder: a pilot EEG study. *BMC Psychiatry* 12. 15.
doi:10.1186/1471-244X-12-15.

Twelve euthymic Bipolar Disorder (BD) patients and 9 control participants underwent record of electroencephalography (EEG, band frequency analysis) during resting states (eyes open, eyes closed) and during

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the completion of a continuous performance task (EEG event-related potential (ERP) wave component analysis). The individuals with BD completed an 8-week Mindfulness based cognitive therapy (MBCT) intervention and record of EEG was repeated. Individuals with BD showed significantly decreased theta band power, increased beta band power, and decreased theta/beta ratios during the resting state, eyes closed, for frontal and cingulate cortices. Post-MBCT intervention improvement over the right frontal cortex was seen in the individuals with BD, as beta band power decreased. Further, individuals with BD showed a significant P300-like wave form over the frontal cortex during the cue. Post-MBCT intervention the P300-like waveform was significantly attenuated over the frontal cortex. Researchers conclude that individuals with BD show decreased attentional readiness and activation of non-relevant information processing during attentional processes. These data are the first to show that MBCT in BD improved attentional readiness, and attenuated activation of non-relevant information processing during attentional processes.

Jensen, Christian Gaden, Signe Vangkilde, Vibe Frokjaer & Steen G. Hasselbalch. 2012. Mindfulness training affects attention—Or is it attentional effort? *Journal of Experimental Psychology: General* 141(1). 106–123.
doi:10.1037/a0024931.

In a blinded design, 48 young, healthy meditation novices were randomly assigned to a mindfulness-based stress reduction (MBSR), non-mindfulness stress reduction (NMSR), or inactive control group. At post-test, inactive controls were randomly split into non-incentive and incentive controls, the latter receiving a financial reward to improve attentional performance. Pre- and post-intervention, 5 validated attention paradigms were employed along with self-report scales on mindfulness and perceived stress and saliva cortisol samples to measure physiological stress. Attentional effects of MBSR, NMSR, and the financial incentive were comparable or significantly larger in the incentive group on all reaction-time-based measures. However, selective attention in the MBSR group improved significantly more than in any other group. Similarly, only the MBSR intervention improved the threshold for conscious perception and visual working memory capacity. Furthermore, stress-reducing effects of MBSR were supported because those in the MBSR group showed significantly less perceived and physiological stress while increasing their mindfulness levels significantly. Researchers argue that MBSR may contribute uniquely to attentional improvements, but that further research focusing on non-reaction-time-based measures and outcomes less confounded by test effort is needed. Data from this study demonstrates that previously observed improvements of attention after MBSR may be seriously confounded by test effort and non-mindfulness stress reduction.

Luders, Eileen, Florian Kurth, Emeran A Mayer, Arthur W Toga, Katherine L Narr & Christian Gaser. 2012. The unique brain anatomy of meditation practitioners: alterations in cortical gyrification. *Frontiers in Human Neuroscience* 6. 34.
doi:10.3389/fnhum.2012.00034.

This study examined cortical gyrification in a large sample (n=100) of meditators and controls, matched for sex and age. Cortical gyrification was established by calculating mean curvature across thousands of vertices on individual cortical surface models. Pronounced group differences indicating larger gyrification in meditators were evident within the left precentral gyrus, right fusiform gyrus, right cuneus, as well as left and right anterior dorsal insula (the latter representing the global significance maximum). Positive correlations between gyrification and the number of meditation years were similarly pronounced in the right anterior dorsal insula. Although the exact functional implications of larger cortical gyrification remain to be established, researchers suggest that these findings show the insula to be a key structure involved in aspects of meditation. For example, variations in insular complexity could affect the regulation of well-known distractions in the process of meditation, such as daydreaming, mind-wandering, and projections into past or future. Moreover, given that meditators are masters in introspection, awareness, and emotional control, increased insular gyrification may reflect an integration of autonomic, affective,

and cognitive processes. Due to the cross-sectional nature of this study, further research is necessary to determine the relative contribution of nature and nurture to links between cortical gyrification and meditation.

Lykins, Emily L. B., Ruth A. Baer & Lawrence R. Gottlob. 2010. Performance-Based Tests of Attention and Memory in Long-Term Mindfulness Meditators and Demographically Matched Nonmeditators. *Cognitive Therapy and Research* 36(1). 103–114.

doi:10.1007/s10608-010-9318-y.

In this study, a sample of 33 adults with a long-term mindfulness meditation practice (average duration of 6 years) was compared with a demographically matched sample of non-meditators on several widely used tests of attention and memory functioning, including sustained attention, attention switching, inhibition of elaborative processing, working memory, and short- and long-term memory. Group differences were non-significant for all of the attentional tasks. The only significant group differences were in short-term memory (both free and cued recall) and long-term memory (free recall only). Results suggest that the nature of the attentional and memory processing that is cultivated by mindfulness training requires clarification.

Moore, Adam, Thomas Gruber, Jennifer Derose & Peter Malinowski. 2012. Regular, brief mindfulness meditation practice improves electrophysiological markers of attentional control. *Frontiers in Human Neuroscience* 6. 18.

doi:10.3389/fnhum.2012.00018.

Researchers hypothesized that regular, brief mindfulness training would result in improvements in the self-regulation of attention and foster changes in neuronal activity related to attentional control. A longitudinal randomized control group EEG study was conducted. At baseline (T1), 40 meditation naïve participants were randomized into a wait list group and a meditation group, who received three hours mindfulness meditation training. Twenty-eight participants remained in the final analysis. At T1, after eight weeks (T2) and after 16 weeks (T3), all participants performed a computerized Stroop task (a measure of attentional control) while the 64-channel EEG was recorded. Between T1 and T3 the meditators were requested to meditate daily for 10 min. Event-related potential (ERP) analysis highlighted two between group effects that developed over the course of the 16-week mindfulness training. An early effect at left and right posterior sites 160-240 ms post-stimulus indicated that meditation practice improved the focusing of attentional resources. A second effect at central posterior sites 310-380 ms post-stimulus reflects that meditation practice reduced the recruitment of resources during object recognition processes, especially for incongruent stimuli. Scalp topographies and source analyses indicate relevant changes in neural sources, pertaining to left medial and lateral occipitotemporal areas for the early effect and right lateral occipitotemporal and inferior temporal areas for the later effect. The results suggest that mindfulness meditation may alter the efficiency of allocating cognitive resources, leading to improved self-regulation of attention.

Roberts-Wolfe, Douglas, Matthew Sacchet, Elizabeth Hastings, Harold Roth & Willoughby Britton. 2012. Mindfulness training alters emotional memory recall compared to active controls: support for an emotional information processing model of mindfulness. *Frontiers in Human Neuroscience* 6. 15.

doi:10.3389/fnhum.2012.00015.

The aim of this study was to investigate the effects of mindfulness training on emotional information processing (i.e., memory) biases in relation to both clinical symptomatology and well-being in comparison to active control conditions. Fifty-eight university students (28 female) participated in either a 12-week course containing a “meditation laboratory” or an active control course with similar content or experiential practice laboratory format (music). Participants completed an emotional word recall task and self-report questionnaires of well-being and clinical symptoms before and after the 12-week course. Following intervention, meditators showed greater increases in positive word recall compared to controls, and the meditation group increased significantly more on measures of well-being, with a marginal decrease in depression and anxiety compared to controls. Increased positive word recall

was associated with increased psychological well-being and decreased clinical symptoms. Researchers conclude that mindfulness training was associated with greater improvements in processing efficiency for positively valenced stimuli than active control conditions. This change in emotional information processing was associated with improvements in psychological well-being and less depression and anxiety. These data suggest that mindfulness training may improve well-being via changes in emotional information processing.

Simmons, Alan N, Rachel E Thayer, Andrea D Spadoni, Scott C Matthews, Irina A Strigo & Susan F Tapert. 2012. The parametric, psychological, neuropsychological, and neuroanatomical properties of self and world evaluation. *PloS One* 7(2). e31509.
doi:10.1371/journal.pone.0031509.

Research created a new measurement, the Self and World Evaluation Expressions Test(SWEET), of how individuals are adapting to, and conceptualizing, their role in new structures as they move from adolescence to adulthood. Sixty-five young adults, 36 with a history of drug use, completed the SWEET. A factor analysis was performed on the SWEET and the resultant factors were correlated with psychological, neuropsychological, and neuroanatomical battery that included both T1-weighted and diffusion tensor magnetic resonance imaging scans. The authors derived four factors: Self, Social-Emotional, Financial-Intellectual, and Spirituality. While showing limited relationships to psychological and neuropsychological measures, both white matter integrity and gray matter density showed significant relationships with SWEET factors. These findings suggest that while individual responses may not be indicative of psychological or cognitive processes they may relate to changes in brain structure. Several of these structures, such as the negative correlation of the affective impact of world with the dorsal anterior corpus callosum white matter integrity have been observed in psychiatric conditions (e.g., obsessive-compulsive disorder).

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Ge, Zehui, Zi-Ke Zhang, Linyuan Lü, Tao Zhou & Ning Xi. 2012. How altruism works: An evolutionary model of supply networks. *Physica A: Statistical Mechanics and its Applications* 391(3). 647–655.
doi:10.1016/j.physa.2011.08.063.

The authors develop an evolutionary decision-making model to characterize the effects of suppliers' altruism in supply networks, and find that the performances of both suppliers and supply chains are improved by introducing the role of altruism. Furthermore, an interesting and reasonable phenomenon is discovered that the suppliers' and whole network's profits do not change monotonously with suppliers' altruistic preference, η , but reach the best at $\eta=0.6$ and $\eta=0.4$, respectively. The authors expect that this work may shed some light on the in-depth understanding of the effects of altruism for both research and commercial applications.

Tamborini, Ron, Allison Eden, Nicholas David Bowman, Matthew Grizzard & Kenneth A. Lachlan. 2012. The influence of morality subcultures on the acceptance and appeal of violence. *Journal of Communication* 62(1). 136–157.
doi:10.1111/j.1460-2466.2011.01620.x.

Two studies examined how disposition theory-based morality subcultures predict the acceptance and appeal of violence. Study 1 used groups formed by median splits of individual difference variables (religiosity, aggression, and sex) thought to be trait correlates of morality subcultures in three $2 \times 2 \times 2$ designs varying trait, perpetrator disposition (positive, negative), and motive (justified, unjustified) to predict the acceptance of violence in story resolutions for a scenario. Study 2 extended this design using domain-specific dimensions of morality from moral foundations theory (MFT) to predict perceptions of violent content and its appeal. The results suggest that morality subcultures predict response to violent drama and that dimensions of morality based on MFT offer a framework for defining morality subcultures.

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Ferruz, Luis, Fernando Muñoz & María Vargas. 2012. Managerial abilities: Evidence from religious mutual fund managers. *Journal of Business Ethics* 105(4). 503–517.
doi:10.1007/s10551-011-0982-y.

The authors analyzed the financial performance and the managerial abilities of religious mutual fund managers, implementing a comparative analysis with conventional mutual funds using a broad sample, free of survivorship bias, of religious equity mutual funds from the US market (January 1994 to September 2010). Results indicate that religious mutual fund managers underperform both the market and their conventional counterparts. This result is driven by negative stock-picking ability which could be generated by excluding “Sin” stocks from their portfolios. Moreover, they are not able to time the market or any of the following styles: size, book-to-market, and momentum.

Ghaffar-Kucher, Ameena. 2012. The religification of Pakistani-American Youth. *American Educational Research Journal* 49(1). 30–52.
doi:10.3102/0002831211414858.

This article describes a cultural production process called “religification,” in which religious affiliation, rather than race or ethnicity, has become the core category of identity for working-class Pakistani-American youth in the United States. In this dialectical process, triggered by political changes following the September 11 terrorist attacks, the Muslim identity is both thrust upon Pakistani-American youth by those who question their citizenship and embraced by the youth themselves. The article examines the ways in which schools are sites where citizenship is both constructed and contested and the roles that peers, school personnel, families, and the youth themselves play in this construction/contestation of citizenship.

Hall, M. Elizabeth Lewis, Kerris L. M. Oates, Tamara L. Anderson & Michele M. Willingham. 2012. Calling and conflict: The sanctification of work in working mothers. *Psychology of Religion and Spirituality* 4(1). 71–83.
doi:10.1037/a0023191.

Women (n=200) who had completed a master’s, doctoral, or professional degree and were employed with at least one child under the age of 18 years residing in the home, completed an online survey investigating their sanctification of work, intrinsic religiosity, religious commitment, positive and negative affect, inter-role conflict, and satisfaction with work. The results indicated that greater levels of sanctification of work show incremental validity over intrinsic religiosity and religious commitment in predicting higher positive affect, lower inter-role conflict, and higher satisfaction with work.

Kern, Leslie. 2012. Connecting embodiment, emotion and gentrification: An exploration through the practice of yoga in Toronto. *Emotion, Space and Society* 5(1). 27–35.
doi:10.1016/j.emospa.2011.01.003.

The author argues that the body and its emotions are critical sites for the study of gentrification as a complex social and economic process. Embodied practices define the landscape of reproduction; bodies form a symbolic terrain over which struggles for urban space are fought; and the dynamics of emotional, embodied contact produce geographies of social and spatial exclusion. The author reflects on the experience of yoga as a practice that calls explicit attention to the body and its feelings in place in Toronto, a city that is no stranger to gentrification. The paper suggests that as an increasingly popular embodied practice tied into middle-class consumption patterns and present in landscapes of urban revitalization, yoga practice affords relevant moments of reflection through which the embodied and emotional dimensions of gentrification can be clarified and/or problematized.

Kidwell, Julia E. Wade. 2012. Understanding forgiveness in the lives of religious people: the role of sacred and secular elements. *Mental Health, Religion & Culture* 15(2). 121–140.
doi:10.1080/13674676.2011.560598.

Through interviews with 10 religious individuals, researchers explored the ways religious people think about forgiveness and make use of forgiveness to deal with hurtful experiences. Results indicated that for all participants their motivations and strategies to forgive could be classified as both secular and sacred. The results also highlight the specific motivations to forgive and strategies used by religious individuals to achieve forgiveness, even for some terrible injustices. The results highlight the fact that religious individuals are able to make use of the resources that their religious traditions have to offer while integrating these with secular motivations and strategies.

Kor, Ariel, Mario Mikulincer & Steven Pirutinsky. 2012. Family functioning among returnees to Orthodox Judaism in Israel. *Journal of Family Psychology* 26(1). 149–158.
doi:10.1037/a0025936.

The current study examined family functioning and parenting stress among returnees to Orthodox Judaism with adolescent children. Randomly selected samples of returnee and non-returnee Orthodox Jews with adolescent children (n=1,632) completed measures of attachment, community integration, marital functioning, and parenting stress. Results indicate that returnees report greater family disengagement (lack of warmth), family chaos (lack of control), and parenting stress. They also reported higher religious discord, higher attachment insecurity, and poorer community integration, which all correlated with higher parenting stress, family disengagement (lack of warmth), and family chaos (lack of control). Moreover, differences between returnees and non-returnees on family functioning and parenting stress were largely mediated by differences in the explanatory factors.

Krause, Neal, Lindsey A. Evans, Gregory Powers & R. David Hayward. 2012. Feeling grateful to God: A qualitative inquiry. *The Journal of Positive Psychology* 7(2). 119–130.
doi:10.1080/17439760.2012.656691.

Four themes emerged from qualitative interviews regarding feelings of gratitude. The first has to do with the interface between feelings of gratitude to God and stress, the second involves the ways in which feelings of gratitude to God are expressed, the third theme is concerned with whether God rewards the grateful and punishes the ungrateful, and the fourth theme deals with the perceived benefits of feeling grateful to God.

Lambert, Nathaniel M., Frank D. Fincham, Dana C. LaVallee & Cicely W. Brantley. 2012. Praying together and staying together: Couple prayer and trust. *Psychology of Religion and Spirituality* 4(1). 1–9.
doi:10.1037/a0023060.

Three studies examine the relationship between prayer, unity, and trust. Study 1 (n=29) showed that praying for one's partner predicted objective ratings of trust. Study 2 (n=210) found a significant relationship between prayer with a partner and relationship trust. This relationship was mediated by couple unity. Study 3 (n=80) investigated the relationship documented in a 4-week, experimental study. Participants either prayed with and for their partner twice a week for 4 weeks, or were assigned to a positive interaction condition, in which they discussed positive news stories for the same time span. Prayer condition participants reported significantly more unity and trust for their partner than those in the positive interaction control group. Relational unity was again found to mediate the relationship between prayer and trust.

LaMothe, Ryan. 2012. Varieties of Political-religious Experiences. *Pastoral Psychology* 61(1). 47–61.
doi:10.1007/s11089-011-0383-2.

The author considers the intersection of and interplay between religious and political experience and conversion. He identifies and describes five types of political-religious experiences, which are represented in the lives of five public figures.

- Li, Yexin Jessica, Kathryn A. Johnson, Adam B. Cohen, Melissa J. Williams, Eric D. Knowles & Zhansheng Chen. 2012. Fundamental(ist) attribution error: Protestants are dispositionally focused. *Journal of Personality and Social Psychology* 102(2). 281–290.
doi:10.1037/a0026294.

Researchers tested the hypothesis that Protestants would endorse internal attributions to a greater extent than would Catholics, because Protestantism focuses on the inward condition of the soul. In Study 1, Protestants made more internal, but not external, attributions than did Catholics. This effect survived controlling for Protestant work ethic, need for structure, and intrinsic and extrinsic religiosity. Study 2 showed that the Protestant-Catholic difference in internal attributions was significantly mediated by Protestants' greater belief in a soul. In Study 3, priming religion increased belief in a soul for Protestants but not for Catholics. Finally, Study 4 found that experimentally strengthening belief in a soul increased dispositional attributions among Protestants but did not change situational attributions.

- Schramm, David G., James P. Marshall, Victor W. Harris & Thomas R. Lee. 2012. Religiosity, homogamy, and marital adjustment: An examination of newlyweds in first marriages and remarriages. *Journal of Family Issues* 33(2). 246–268.
doi:10.1177/0192513X11420370.

Using a statewide sample of spouses in first marriages (n=1,394) and remarriages (n=601), the authors find that within-group differences in religiosity, denominational homogamy, and religiosity homogamy are not as prevalent for spouses in remarriages. Overall, husbands and wives in first marriages who are very religious have significantly higher marital adjustment scores than spouses who are less religious. Similarly, husbands and wives in first marriages who share the same religious denomination report higher marital adjustment scores than spouses who report different denominations. For spouses in both first marriages and remarriages, those who report that they are "both religious" have higher marital adjustment scores than spouses where both partners are not religious, or where only the wife is religious. Possible reasons for the within-group similarities and differences are explored, particularly for spouses in remarriages.

- Scourfield, Jonathan, Chris Taylor, Graham Moore & Sophie Gilliat-Ray. 2012. The intergenerational transmission of Islam in England and Wales: Evidence from the Citizenship Survey. *Sociology* 46(1). 91–108.
doi:10.1177/0038038511419189.

If secularization is increasing over time, this should be observable in patterns of religiosity across the generations. The Home Office Citizenship Survey (of adults in England and Wales) and its accompanying Young People's Survey provide a relatively rare example of individual-level and intergenerational British data on religious transmission, with indications of religious affiliation or practice across three generations. Secondary analysis was conducted on the 2003 data, looking at religious transmission in four groups: Christians, Muslims, those from non-Christian non-Muslim religions and those with no religion. Associations between religious transmission and a range of social factors are presented, with these including ethnicity, gender, country of birth and socio-economic characteristics. The data suggest a complex pattern of religious transmission over the three generations and a higher transmission of Islam than any of the other religious categories.

- Stillman, Tyler F., Frank D. Fincham, Kathleen D. Vohs, Nathaniel M. Lambert & Christa A. Phillips. 2012. The material and immaterial in conflict: Spirituality reduces conspicuous consumption. *Journal of Economic Psychology* 33(1). 1–7.
doi:10.1016/j.joep.2011.08.012.

The authors of this paper found that higher levels of spirituality correspond to a decreased desire to consume material goods in a conspicuous manner. Study 1 was correlational, and found that people who reported having

spiritual experiences reported a decreased desire to spend lavishly for visible consumer goods, such as a cell phone. Study 2 was experimental, and found that participants assigned to recall a spiritual event also demonstrated a decreased desire to consume conspicuously, relative to participants assigned to recall an enjoyable event.

Stroope, Samuel. 2012. Caste, class, and urbanization: The shaping of religious community in contemporary India. *Social Indicators Research* 105(3). 499–518.
doi:10.1007/s11205-011-9784-y.

Results from a survey of 1,417 Hindu respondents in India indicate that religious bonding is fostered by urbanism and that this association is stronger for upper castes, though there is little evidence that social class similarly moderates the association between urbanism and religious bonding. In light of these findings, religious bonding might be better understood as rooted in the interaction of caste dynamics and changes in the urban environment, rather than as a result of greater affluence. The data are also consistent with work underscoring the importance of disentangling social class and caste among Hindus in contemporary India.

Todd, Nathan R. & Katherine S. Ong. 2012. Political and theological orientation as moderators for the association between religious attendance and attitudes toward gay marriage for White Christians. *Psychology of Religion and Spirituality* 4(1). 56–70.
doi:10.1037/a0025142.

Researchers used national random samples drawn from 2001 through 2008 (n=6,212) to examine how religious attendance, theological orientation, and political orientation independently predict support for gay marriage, and how theological and political orientation moderate the association between religious attendance and support for gay marriage. Findings indicated that greater religious attendance, theological conservatism, and political conservatism predict less support for gay marriage. Also, theological and political orientation moderated the association between religious attendance and support for gay marriage, with stronger associations present for theological and political conservatives than for theological and political liberals. These findings provide important insights into how religious and political variables work independently and interactively in predicting attitudes toward gay marriage.

Tsang, Jo-Ann, Ashleigh Schulwitz & Robert D. Carlisle. 2012. An experimental test of the relationship between religion and gratitude. *Psychology of Religion and Spirituality* 4(1). 40–55.
doi:10.1037/a0025632.

Researchers examined the relationship between religion and two forms of gratitude: (a) grateful reactions to a specific, standardized favor, and (b) self-reported grateful personality. Eighty-one female undergraduate students received a religious or neutral prime, and then received a positive outcome ostensibly from another participant or from random chance. Results demonstrated that intrinsic religiousness was positively associated with grateful disposition but not with self-report or behavioral gratitude for the specific favor. Intrinsic religion was also positively associated with self-reported motivation to express appreciation, but only in the presence of a religious prime and in the absence of a favor. The religious prime had a marginal main effect, facilitating prosocial behaviors but not gratitude. These results provide important qualifications for the positive relationship between religion and gratitude reported in previous research.

Zulfikar, Yavuz Fahir. 2012. Do Muslims believe more in Protestant work ethic than Christians? Comparison of people with different religious background living in the US. *Journal of Business Ethics* 105(4). 489–502.
doi:10.1007/s10551-011-0981-z.

In this study of 803 persons (313 Protestants, 180 “none”, 96 Muslims, 86 Catholics, and 128 other), the author found that Muslim Turks reported greater scores on four of the five Protestant work ethic characteristics. Protestants scored higher than Catholics on all characteristics, but there was no significant difference.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

Gebauer, Jochen E., Constantine Sedikides & Wiebke Neberich. 2012. Religiosity, social self-esteem, and psychological adjustment: On the cross-cultural specificity of the psychological benefits of religiosity. *Psychological Science* 23(2). 158–160.
doi:10.1177/0956797611427045.

The authors report on a study testing the religiosity-as-social-value hypothesis. This hypothesis posits that religiosity receives high social valuation in most societies and that, consequently, religious believers are highly valued members of most societies. Being socially valued is associated with psychological benefits. The hypothesis predicts, then, that believers will enjoy more psychological benefits in cultures that tend to value religiosity more; alternatively, the less a culture values religiosity, the more likely it is that believers and nonbelievers will enjoy equivalent psychological benefits.

Lindeman, Marjaana, Sandra Blomqvist & Mikito Takada. 2012. Distinguishing spirituality from other constructs: not a matter of well-being but of belief in supernatural spirits. *The Journal of Nervous and Mental Disease* 200(2). 167–173.
doi:10.1097/NMD.0b013e3182439719.

Researchers developed a new Spirituality Scale and tested the argument that the defining attribute of spirituality is belief in supernatural spirits. Study 1 (n=1,931) showed that religiosity and beliefs pertinent to supernatural spirits predicted most of the variation in spirituality. Study 2 (n=848) showed that the stronger belief in supernatural spirits, the more the person experienced subjective spirituality; that belief in supernatural spirits had higher predictive value of spirituality than religiosity, paranormal beliefs, or values; and that most of the relationship between religiosity and spirituality could be explained through belief in supernatural spirits. Study 3 (n=972) showed that mental or physical health, social relationships, or satisfaction in marriage or work were not associated with spirituality. In turn, finding life purposeful and inner peace in dealing with spiritual experiences correlated with spirituality. The results highlight the importance of differentiating spirituality from other psychological constructs.

Mir, T.A. 2012. The law of the leading digits and the world religions. *Physica A: Statistical Mechanics and its Applications* 391(3). 792–798.
doi:10.1016/j.physa.2011.09.001.

The author investigates numerical data on the country-wise adherent distribution of seven major world religions, i.e., Christianity, Islam, Buddhism, Hinduism, Sikhism, Judaism and Baha'ism, to see if the proportion of the leading digits occurring in the distribution conforms to Benford's law (which states that the occurrence of significant digits in many data sets is not uniform but tends to follow a logarithmic distribution such that the smaller digits appear as first significant digits more frequently than the larger ones). Analysis shows that adherent data of all the religions, except Christianity, conforms to Benford's law. Further, the significant digit distribution of the three major Christian denominations, i.e., Catholicism, Protestantism and Orthodoxy, obeys the law. The author concludes that in spite of their complexity general laws can be established for the evolution of religious groups.

PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 SPIRITUALITY & HEALTH: GENERAL HEALTH & WELL-BEING

Benavides, Linda E. 2011. A Phenomenological Study of Spirituality as a Protective Factor for Adolescents Exposed to Domestic Violence. *Journal of Social Service Research* 38(2). 165–174.
doi:10.1080/01488376.2011.615274.

This phenomenological qualitative study was designed to understand how spirituality serves as a protective factor, mediating adverse developmental outcomes, for adolescents exposed to domestic violence. Semi-structured interviews were conducted with 14 adolescents, recruited through an agency for domestic violence survivors. Four significant themes (learning from experiences, self-expression, beliefs, and feelings), through which participants' spirituality manifested as a strength, emerged. This study adds to the growing support spirituality has received as a protective factor for at-risk adolescents and provides several practice implications. Future research is also suggested to better understand the developmental process by which spirituality serves as a protective factor.

Bock, Beth C., Joseph L. Fava, Ronnesia Gaskins, Kathleen M. Morrow, David M. Williams, Ernestine Jennings, Bruce M. Becker, Geoffrey Tremont & Bess H. Marcus. 2012. Yoga as a Complementary Treatment for Smoking Cessation in Women. *Journal of Women's Health* 21(2). 240–248.
doi:10.1089/jwh.2011.2963.

This pilot study examines the feasibility and initial efficacy of yoga as a complementary therapy for smoking cessation. Fifty-five women were given 8-week group-based cognitive behavioral therapy for smoking cessation and were randomized to a twice-weekly program of Vinyasa yoga or a general health and wellness program (contact control). At end of treatment, women in the yoga group had a greater 7-day point-prevalence abstinence rate than controls. Abstinence remained higher among yoga participants through the six month assessment, although differences were no longer statistically significant. Women participating in the yoga program also showed reduced anxiety and improvements in perceived health and well-being when compared with controls.

Cole, Brenda S., Clare M. Hopkins, Jon Spiegel, John Tisak, Sanjiv Agarwala & John M. Kirkwood. 2012. A randomised clinical trial of the effects of spiritually focused meditation for people with metastatic melanoma. *Mental Health, Religion & Culture* 15(2). 161–174.
doi:10.1080/13674676.2011.562492.

This randomized clinical study assessed the effects of spiritually focused meditation (SpM) and secularly focused meditation on adjustment to illness, relative to a control condition for people in treatment for metastatic melanoma (n=83). Physical and psychological well-being was assessed at baseline, post-intervention, two, and four months later. Averaged across time, SpM reduced depression and increased positive affect relative to the other two conditions. Rates of home practice were not associated with adjustment for any condition. Unexpectedly, practicing SpM was associated with a decrease in perceived support. Additionally, program evaluations indicated that most participants preferred programs that included spiritually based material, across all three group conditions.

Cotton, Sian, Daniel Grossoehme & Meghan E McGrady. 2012. Religious coping and the use of prayer in children with sickle cell disease. *Pediatric Blood & Cancer* 58(2). 244–249.
doi:10.1002/pbc.23038.

Researchers interviewed 19 children with sickle cell disease, and found that they used religion to gain control, make meaning, and find comfort. Most children reported praying to get well, to keep from getting sick, and to get out of the hospital. Children described a functional God who made them take their medicine or took them to the hospital and an emotional God who made them happy and comforted them when they were sad or scared.

Feinstein, Matthew, Kiang Liu, Hongyan Ning, George Fitchett & Donald M Lloyd-Jones. 2012. Incident obesity and cardiovascular risk factors between young adulthood and middle age by religious involvement: the Coronary Artery Risk Development in Young Adults (CARDIA) study. *Preventive Medicine* 54(2). 117–121.
doi:10.1016/j.ypmed.2011.11.004.

The CARDIA study followed 2,433 participants for 18 years, beginning in 1987 when participants were aged 20 to 32. The high frequency of religious participation was associated with a significantly greater incidence of obesity in unadjusted models and demographic-adjusted models but not after additional adjustment for baseline cardiovascular risk factors. When religious participation was treated dichotomously, any religious participation, compared with none, was associated with significantly lower subclinical disease.

Galantino, Mary Lou, Laurie Greene, Benjamin Archetto, Melissa Baumgartner, Paula Hassall, Joanna Kluz Murphy, Jamie Umstetter & Krupali Desai. 2012. A Qualitative Exploration of the Impact of Yoga on Breast Cancer Survivors with Aromatase Inhibitor-Associated Arthralgias. *EXPLORE: The Journal of Science and Healing* 8(1). 40–47.
doi:10.1016/j.explore.2011.10.002.

Ten postmenopausal women with stage I-III breast cancer and aromatase inhibitors associated arthralgia received yoga twice a week for eight weeks for 90 minutes and were instructed to continue in a home-based yoga program. Results of the study revealed benefits from alternative forms of exercise such as yoga to provide a structure, which is transferable in other situations. Information, structured physical guidance in yoga postures, support, and feedback are necessary to foster physical activity for breast cancer survivors experiencing pain.

Ramirez, Susana P., Danielle S. Macêdo, Paulo Marcelo G. Sales, Saharoff M. Figueiredo, Elizabeth F. Daher, Sônia M. Araújo, Kenneth I. Pargament, Thomas N. Hyphantis & André F. Carvalho. 2012. The relationship between religious coping, psychological distress and quality of life in hemodialysis patients. *Journal of Psychosomatic Research* 72(2). 129–135.
doi:10.1016/j.jpsychores.2011.11.012.

This study recruited a random sample of 170 patients who had End stage renal disease (ESRD) from three outpatient hemodialysis units. Researchers found that positive or negative religious coping strategies were frequently adopted by hemodialysis patients to deal with ESRD. Religious struggle was independently associated with greater psychological distress and impaired health-related quality of life, while positive religious coping was associated with improved health-related quality of life. Positive religious coping was associated with better overall, mental and social relations health-related quality of life while religious struggle was an independent correlate of worse overall, physical, mental, social relations and environment health-related quality of life.

Sherr, Michael E., David Pooler, James Stamey, Preston Dyer, Everett Smith & Ashley Summers. 2011. The Influence of Religious Participation on Sexual Activity in a Randomized Effectiveness Trial for Minority Youth. *Journal of Social Service Research* 38(2). 156–164.
doi:10.1080/01488376.2011.615270.

In a study of 973 minority youth, researchers found that religious participation had some influence on predicting teen sexual activity at pretest but did not contribute to teen responses at 3- or 6-month follow-up. Gender and use of alcohol also significantly predicted responses from teens at pretest and at 3-month and 6-month follow-up.

Travis, Dnika J., Joy A. Learman, Drew Brooks, Trish Merrill & Richard T. Spence. 2012. The Faith Community, Substance Abuse, and Readiness for Change: A National Study. *Journal of Social Service Research* 38(2). 231–247.
doi:10.1080/01488376.2011.647988.

This study examines a model of congregational readiness to support recovery from substance use using a national study of 45 faith communities composed of 3,649 members. Findings revealed that addiction and recovery attitudes and perceptions of self-efficacy, rather than one's experiences, were determinants.

2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Beagan, Brenda Lorraine, Josephine Etowa & Wanda Thomas Bernard. 2012. "With God in our lives he gives us the strength to carry on": African Nova Scotian women, spirituality, and racism-related stress. *Mental Health, Religion & Culture* 15(2). 103–120.
doi:10.1080/13674676.2011.560145.

This mixed-methods study explored the racism-related experiences of 50 mid-life African-heritage women living in Nova Scotia, Canada, along with their use of spirituality as a coping strategy for dealing with racism-related stress. Spirituality provided a key coping mechanism for racism-related stress, providing church community, spiritual community, faith, guidance, a personal relationship with God, and a source of meaning-making. For some women, spiritual belief provided a means of cognitive reinterpretation, allowing them to make sense of racism and other life challenges, recasting these as tests and trials which they were capable of surmounting with God's blessing and protection.

Carpenter, Thomas P., Tyler Laney & Amy Mezulis. 2012. Religious coping, stress, and depressive symptoms among adolescents: A prospective study. *Psychology of Religion and Spirituality* 4(1). 19–30.
doi:10.1037/a0023155.

In a study of 111 adolescents, researchers found that negative religious coping significantly moderated the effects of stress on depressive symptoms, with depressive symptoms being highest among youth with high stress exposure and high negative religious coping. The exacerbating effects of negative religious coping on the stress-depression relationship were strongest for youth with high personal religious commitment. Positive religious coping only marginally buffered the effects of stress on depressive symptoms.

Hayward, R. David, Amy D. Owen, Harold G. Koenig, David C. Steffens & Martha E. Payne. 2012. Religion and the presence and severity of depression in older adults. *The American Journal of Geriatric Psychiatry* 20(2). 188–192.
doi:10.1097/JGP.0b013e31822ccd51.

Utilizing data from 476 psychiatric patients with a current episode of unipolar major depression, and 167 non-depressed comparison subjects, ages 58 years or older, researchers found that presence of depression was related to less frequent worship attendance, more frequent private religious practice, and moderate subjective religiosity. Among the depressed group, less severe depression was related to more frequent worship attendance, less religiousness, and having had a born-again experience.

Jacobs, Martha, Lisa Miller, Priya Wickramaratne, Marc Gameroff & Myrna M. Weissman. 2012. Family religion and psychopathology in children of depressed mothers: Ten-year follow-up. *Journal of Affective Disorders* 136(3). 320–327.
doi:10.1016/j.jad.2011.11.030.

The authors of the study studied the transmission of religion from mother (n=45) to adult offspring (n=78) across a ten-year interval. Results partially replicate previous findings that maternal depression hinders the transmission of importance but not attendance or denomination to offspring. Concordance of denomination is protective, decreasing by 91% the likelihood of childhood anxiety or depression, independent of maternal depression.

Seirmarco, Gretchen, Yuval Neria, Beverly Insel, Dasha Kiper, Ali Doruk, Raz Gross & Brett Litz. 2012. Religiosity and mental health: Changes in religious beliefs, complicated grief, posttraumatic stress disorder, and major depression following the September 11, 2001 attacks. *Psychology of Religion and Spirituality* 4(1). 10–18.
doi:10.1037/a0023479.

Analyzing data from 608 participants gathered two to three years after the attacks of September 11, 2001, researchers found that whereas the majority of the participants reported no change in importance of religious beliefs (RBs) since then, 11% reported increased importance and 10% reported decreased importance of RBs after 9/11. Decreased, but not increased, importance of RBs was found to be associated with severity of loss and trauma (i.e., loss of a child, direct exposure to the attacks, watching the attacks unfold live on TV). In addition, decreased RBs after 9/11, as compared with no change, was significantly associated with all mental health outcomes.

Stratta, Paolo, Cristina Capanna, Ilaria Riccardi, Claudia Carmassi, Armando Piccinni, Liliana Dell’osso & Alessandro Rossi. 2012. Suicidal intention and negative spiritual coping one year after the earthquake of L’Aquila (Italy). *Journal of Affective Disorders* 136(3). 1227–1231.
doi:10.1016/j.jad.2011.10.006.

The study population was composed of 426 people who had experienced a devastating earthquake. For comparison, 522 people were recruited from nearby unaffected areas. Following the disaster, a higher proportion of females showed suicidal ideation. Analysis showed that negative spiritual coping was significantly different. No differences were observed for Impact of Event Scale scores between the two groups, but correlations with negative spiritual coping were found.

Vandenberg, Brian. 2012. Hypnosis and the pathologising of religious beliefs. *Mental Health, Religion & Culture* 15(2). 175–189.
doi:10.1080/13674676.2011.566262.

This paper examines the prehistory of “religion and psychopathology”, tracing the emergence of “psycho” as an entity distinct from religious encumbrances and, equally important, its scientific legitimization. It is only after both have been accomplished that psychopathology becomes possible. The history of hypnosis offers unique insight into how this happened.

White, Laura Santangelo. 2012. Reducing Stress in School-age Girls Through Mindful Yoga. *Journal of Pediatric Health Care* 26(1). 45–56.
doi:10.1016/j.pedhc.2011.01.002.

Fourth- and fifth-grade girls were recruited from two public schools and randomly assigned to intervention and wait-list control groups. The intervention group underwent a program of Mindfulness-based Stress Reduction, meeting 1 hour a week for 8 weeks and completing 10 minutes of daily homework. Self-esteem and self-regulation increased in both groups. The intervention group was more likely to report greater appraisal of stress and greater frequency of coping. Homework accounted for 7% of the variance in reported stress.

Whitley, Rob. 2012. “Thank you God”: Religion and recovery from dual diagnosis among low-income African Americans. *Transcultural Psychiatry* 49(1). 87–104.
doi:10.1177/1363461511425099.

After a 6-year ethnographic study with poor African Americans with lived experience of dual diagnosis in Washington, DC, the author found high levels of Christian religiosity among participants. Participants perceived their ongoing recovery as a process reliant upon an intimate and personal relationship with God, and an engagement in certain core private religious activities, most notably prayer, reading of scripture, and listening to religiously inspired radio, television, or music. Participants’ religiosity was underpinned by a Pauline theology of

transformation and reconciliation. Psychiatric services serving an African American clientele with lived experience of dual diagnosis may increase effectiveness by better harnessing client religiosity to assist recovery.

Yang, Chun-Tien, Aru Narayanasamy & Sung-Ling Chang. 2012. Transcultural spirituality: the spiritual journey of hospitalized patients with schizophrenia in Taiwan. *Journal of Advanced Nursing* 68(2). 358–367.

doi:10.1111/j.1365-2648.2011.05747.x.

Twenty-two long-term hospitalized patients diagnosed with schizophrenia were interviewed. Patients revealed spiritual distress as a consequence of prolonged hospitalization. They used referents consistent with traditional Chinese philosophical perspectives derived from Taoism and Confucianism to describe various features of their spiritual distress and their longing for spiritual revival, transcendence and to be accepted as normal persons.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Akechi, Tatsuo, Mitsunori Miyashita, Tatsuya Morita, Toru Okuyama, Masaki Sakamoto, Ryuichi Sagawa & Yosuke Uchitomi. 2012. Good Death in Elderly Adults with Cancer in Japan Based on Perspectives of the General Population. *Journal of the American Geriatrics Society* 60(2). 271–276.

doi:10.1111/j.1532-5415.2012.03895.x.

In this study of 2,595 adults in Japan, utilizing an anonymous questionnaire, the authors found that only a few differences in the concept of good death existed between elderly and younger adults. Clinically significant differences in the concept of good death were observed for two domains and one component: not being a burden to others, role accomplishment and contribution to others, and omakase (leaving the decisions to a medical expert).

Andreescu, Adrian. 2011. Rethinking Prayer and Health Research: An Exploratory Inquiry on Prayer's Psychological Dimension. *International Journal of Transpersonal Studies* 30(1-2). 23–47.

A brief literature review of cancer survival trials is employed by the author to raise questions on their design and to bring speculatively into discussion concepts such as “worldview,” “intentional normative dissociation,” and “psychosomatic plasticity-proneness.” Using prayer’s psychological dimension as a way to unite such elements opens new fertile perspectives on the academic study of prayer and health. The author suggests that a consistent interdisciplinary research agenda is required in order to understand the biopsychosocial factors interconnected within the process and outcome of prayer before attempting to decipher the big answers lying dormant probably within the transpersonal and spiritual layers of human experience.

Bedford, Felice L. 2012. A perception theory in mind-body medicine: guided imagery and mindful meditation as cross-modal adaptation. *Psychonomic Bulletin & Review* 19(1). 24–45.

doi:10.3758/s13423-011-0166-x.

A new theory of mind-body interaction in healing is proposed based on considerations from the field of perception. This paper argues that psychological interventions produce a conflict between the perceptual modalities of the immune system and vision (or touch), which leads to change in the immune system in order to realign the modalities. The theory helps explain why certain illnesses may be more amenable to mind-body interaction, such as autoimmune conditions in which a sensory system (the immune system) has made an error.

Broom, Alex. 2012. On euthanasia, resistance, and redemption: The moralities and politics of a hospice. *Qualitative Health Research* 22(2). 226–237.

doi:10.1177/1049732311421181.

The author documents the presence, articulation and significance of issues regarding assisted dying, religiosity, and “good deaths” for 20 hospice inpatients in the last 4 weeks of their lives. Key themes to emerge included polarization in desire for hastened death and assisted dying in the hospice; the hospice as a morally bound space

situated within particular notions of “dying well”; and the divisive character of religion as part of formalized hospice care. The participants’ perspectives on euthanasia/assisted dying and religiosity in the hospice provide a means of unpacking and revealing the moral economy of modern dying practices and the institutional governance and production of “timely deaths.”

- Buckey, Julia W. 2012. Empirically Based Spirituality Education: Implications for Social Work Research and Practice. *Journal of Social Service Research* 38(2). 260–271.
doi:10.1080/01488376.2011.647979.

This review of 493 articles supporting development of a graduate social work course in spirituality indicated that undergraduate and graduate social work students and social work practitioners often reported little to no training in this specialty area, although students requested this content be provided. With limited studies to support spirituality course development and efficacy, the review found a supporting course structure should include student self-awareness and student exposure to spirituality theory.

- Bush, Amber L., John P. Jameson, Terri Barrera, Laura L. Phillips, Natascha Lachner, Gina Evans, Ajani D. Jackson & Melinda A. Stanley. 2012. An evaluation of the brief multidimensional measure of religiousness/spirituality in older patients with prior depression or anxiety. *Mental Health, Religion & Culture* 15(2). 191–203.
doi:10.1080/13674676.2011.566263.

This study examined the psychometric properties of the Brief Multidimensional Measure of Religiousness and Spirituality (BMMRS) in older adults. Older adults (n=66) completed a survey in-person or over the phone. Most BMMRS domains were reliable and valid. Collectively, they explained 26% to 68% of the variance in well-being and psychological symptoms. Daily spiritual experiences uniquely predicted spiritual well-being, satisfaction with life, and depressive symptoms.

- Callahan, Ann M. 2011. A Qualitative Exploration of Spiritually Sensitive Hospice Care. *Journal of Social Service Research* 38(2). 144–155.
doi:10.1080/01488376.2011.619425.

A qualitative study was conducted to define the relationship factors associated with spiritual care in an effort to further delineate the concept of “spiritually sensitive hospice care.” A purposive, snowball sample of six hospice workers was interviewed about how they identified spiritual needs, provided spiritual care, and determined their effectiveness. The results suggested a variety of factors influenced the delivery of spiritually sensitive hospice care. One relationship factor was the degree of interpersonal intimacy cultivated through the helping relationship.

- Crosby, James William & Natasha Bossley. 2012. The religiosity gap: preferences for seeking help from religious advisors. *Mental Health, Religion & Culture* 15(2). 141–159.
doi:10.1080/13674676.2011.561485.

In a sample of 235 college students, the current study focused on variables associated with preferences for seeking help from a religious advisor (for psychological distress), rather than the help of a psychological professional. Results indicated that religiosity accounted for the most variance in preferences for religious help-seeking (PReHS). Additionally, the perceived benefits of self-disclosure, religious involvement, mental illness stigma, and attachment anxiety all accounted for much smaller amounts of unique variance in PReHS. Practitioners are encouraged to consider internal aspects of religiosity (e.g., thoughts and beliefs) at intake and throughout treatment, in addition to more external aspects such as religious affiliation and church attendance.

- Hirsbrunner, Laura E., Diane N. Loeffler & Elizabeth L. Rompf. 2012. Spirituality and Religiosity: Their Effects on Undergraduate Social Work Career Choice. *Journal of Social Service Research* 38(2). 199–211.
doi:10.1080/01488376.2011.645411.

Findings from this exploratory study indicate that more than 80% of undergraduate students studying social work considered their spirituality to be influential in their career choice, and significant relationships were found between students' perception of their career as a "calling," the degree of spiritual influence on career choice, and their additional motivations for choosing social work as a career. This article discusses the research findings, explores theoretical and practical implications for social work practice and education at both secular and nonsecular schools, and encourages further study of the role spirituality plays in the careers of current and future social work practitioners.

- Hodge, David R. & Robert J. Wolosin. 2012. Addressing Older Adults' Spiritual Needs in Health Care Settings: An Analysis of Inpatient Hospital Satisfaction Data. *Journal of Social Service Research* 38(2). 187–198.
doi:10.1080/01488376.2011.640242.

This study employed a secondary data analysis to determine the relationship between addressing spiritual needs and overall perceptions of satisfaction with care. The sample consisted of 4,112 adults aged 65 years and older who were consecutively discharged during a 12-month period (July 2007 through June 2008) from hospitals in three geographically diverse regions of the United States: California, Texas, and New England. Higher levels of satisfaction with the degree to which clients' spiritual needs were addressed predicted higher levels of overall client satisfaction.

- Hong, Young Joon. 2011. Identifying Spirituality in Workers: A Strategy for Retention of Community Mental Health Professionals. *Journal of Social Service Research* 38(2). 175–186.
doi:10.1080/01488376.2011.615275.

This study examines the relationship between workplace spirituality and intention to leave employment among community mental health workers using a survey of 403 direct service workers. Results support the effect of perceived workplace spirituality on intention to leave and how intention to leave is moderated by degree of spirituality. Study results highlight how workplace spirituality can be viewed as a crucial factor that human service organizations can use to empower their workers.

- Marlett, Keith, Lee Wetherbee & Anthony Donofrio. 2011. Normative MMPI-2 Profiles of Christian Counseling Students: An Investigation of Subculture in Standardized Testing. *Pastoral Psychology* 61(1). 71–83.
doi:10.1007/s11089-011-0373-4.

This research sought to explore whether a normative profile on the MMPI-2 emerged for counseling students in a counselor training program at a seminary in the Midwest and the extent to which this profile compares to those proposed for counseling students or those preparing for pastoral ministry. Normative profiles of master's level counseling students were compared to profiles of similar samples. Findings indicated that profiles of the current student sample are similar to those of other religious students.

- Noort, Annemarie, Arjan Braam, Arthur van Gool & Aartjan Beekman. 2012. Recognition of psychopathology with religious content by clergy members: a case vignette study. *Mental Health, Religion & Culture* 15(2). 205–215.
doi:10.1080/13674676.2011.569705.

The current study aims to obtain insight into the ability among clergy members (CMs) to recognize psychopathology and need for psychiatric treatment. A random sample of CMs (n=143) and a control sample of mental health professionals (MHPs, n=73), were compared as to their evaluations of four vignettes. CMs considered the psychiatric states to be related to religious or spiritual problems to a similar degree as they did for the non-psychiatric states. Sensitivity of CMs with regard to the need of psychiatric care for the psychiatric states was modest (66%) and differed significantly from MHPs (96%). Specificity of the CMs was 89%, which was

significantly lower than the MHPs (97%). The CMs did recognize psychopathology with religious content but clearly to a lower extent than MHPs.

- Peres, Julio F P. 2012. Should psychotherapy consider reincarnation? *The Journal of Nervous and Mental Disease* 200(2). 174–179.
doi:10.1097/NMD.0b013e3182439836.

The author offers guidelines for psychotherapy professionals to develop collaborative models that help patients mobilize their intrinsic intelligence to find solutions to their complaints. Currently accepted psychotherapeutic approaches take no account of the belief in life after death held by most of the world's population. The World Values Survey (<http://www.worldvaluessurvey.org>) showed that there are large numbers of reincarnationists around the world, and whatever the reasons for believing in reincarnation, psychotherapeutic approaches should not ignore this significant group of people.

- Perkins, Henry S, Josie D Cortez & Helen P Hazuda. 2012. Patients' diverse beliefs about what happens at the time of death. *Journal of Hospital Medicine: An Official Publication of the Society of Hospital Medicine* 7(2). 110–116.
doi:10.1002/jhm.947.

Researchers interviewed 26 Mexican-American (MA), 18 Euro-American (EA), and 14 African-American (AA) inpatients about their beliefs concerning what happens at the time of death. One belief, that death separates the dead from the living, was widespread. Majorities of all 3 ethnic group samples and of 5 of the 6 gender subsamples expressed this belief, saying the dead "go" or "leave" from this life. Other beliefs differed by ethnic group or gender. For example, more EAs (50%) than others said death is a momentary event, and more MAs (35%) than others said death involves "being taken" by an external force (always God or Jesus). Furthermore, considerably more EA women (45%) than others said some senses persist after death. In contrast, the physiologic signs that participants cited as defining the exact time of death varied from individual to individual with no ethnic or gender pattern, and no one sign predominated.

- Schneider, Dana A. 2012. The Miracle Bearers: Narratives of Birthing Women and Implications for Spiritually Informed Social Work Practice. *Journal of Social Service Research* 38(2). 212–230.
doi:10.1080/01488376.2011.647983.

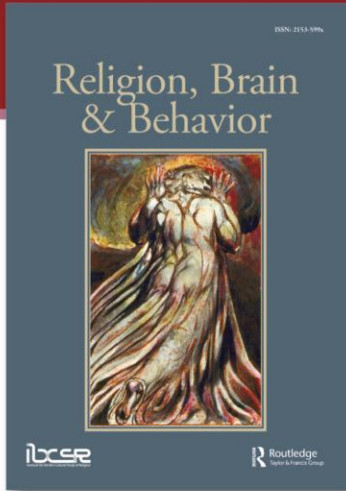
Written narratives of 119 women were analyzed using a grounded theory approach. Themes regarding the spiritual dimensions of childbirth emerged from the data and support current research demonstrating the importance of spirituality in women's lives and the meaningful and transformative nature of childbirth experiences.

- Scott-Joynt, Michael. 2012. Withdrawal of life-sustaining treatment for newborn infants from a Christian perspective. *Early Human Development* 88(2). 89–90.
doi:10.1016/j.earlhumdev.2011.12.011.

The author describes Christian principles for making ethical healthcare decisions: the more vulnerable a person, of whatever age, therefore, the more there must be a presumption in favor of life; and care must be offered with particular respect and dignity, and in the best interests of the infant her/himself, not in those of others. These principles are derived from two core Christian beliefs: that all human beings, of whatever age, are "made in the image of God." The article then notes and explores three areas in which it may not be in the infant's best interests for life-sustaining treatment to continue or to be initiated, noting the complexity of "quality of life" questions, and the danger of considering others' quality of life over that of the infant, concluding that the threshold for acceptable "quality of life" needs to be set at a "low" level; and a distinction should be drawn, in considering withdrawing life-sustaining treatment, between medical intervention and "assisted-care."

Vachon, Mélanie, Lise Fillion & Marie Achille. 2012. Death Confrontation, Spiritual-Existential Experience and Caring Attitudes in Palliative Care Nurses: An Interpretative Phenomenological Analysis. *Qualitative Research in Psychology* 9(2). 151–172.
doi:10.1080/14780881003663424.

This study aims to better understand how palliative care nurses handle death proximity; to describe their subjective spiritual-existential experience; and to explore the potential links between death confrontation and spiritual-existential experience in 11 nurses. Interview data were analyzed using interpretative phenomenological analysis. The first level analysis allowed for a description of the emerging themes of nurses' experience of death confrontation, spiritual-existential experience, and caring attitudes. The second level analysis allowed for the emergence of a typology, identifying a higher meaning for the nurses' mechanisms of subjective regulation of death proximity, integrating death, fighting death, and suffering death. Results were interpreted within a humanist-existential perspective.



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