

RESEARCH REVIEW

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

May, 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 501 articles, 48 articles have been retained from 39 journals. There are 45 pre-publication citations from 31 journals.

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PART 1: ARTICLES IN RELIGION, BRAIN, AND BEHAVIOR

1.1 SCIENTIFIC STUDY OF RELIGION: COGNITIVE NEUROSCIENCE

Greenberg, Jonathan, Keren Reiner & Nachshon Meiran. 2012. "Mind the trap": mindfulness practice reduces cognitive rigidity. *PloS One* 7(5). e36206. doi:10.1371/journal.pone.0036206

Two experiments examined the relation between mindfulness practice and cognitive rigidity by using a variation of the Einstellung water jar task. Participants were required to use three hypothetical jars to obtain a specific amount of water. Initial problems were solvable by the same complex formula, but in later problems ("critical" or "trap" problems) solving was possible by an additional much simpler formula. A rigidity score was compiled through perseverance of the complex formula. In Experiment 1, experienced mindfulness meditators received significantly lower rigidity scores than non-meditators who had registered for their first meditation retreat. Similar results were obtained in randomized controlled Experiment 2 comparing non-meditators who underwent an eight meeting mindfulness program with a waiting list group. The authors conclude that mindfulness meditation reduces cognitive rigidity via the tendency to be "blinded" by experience.

van Leeuwen, Sara, Wolf Singer & Lucia Melloni. 2012. Meditation increases the depth of information processing and improves the allocation of attention in space. *Frontiers in Human Neuroscience* 6. 133.

doi:10.3389/fnhum.2012.00133

During meditation, practitioners are required to center their attention on a specific object for extended periods of time. When their thoughts get diverted, they learn to quickly disengage from the distracter. Researchers hypothesized that learning to respond to the dual demand of engaging attention on specific objects and disengaging quickly from distracters enhances the efficiency by which meditation practitioners can allocate attention. This

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hypothesis was tested in a global-to-local task while measuring electroencephalographic activity from a group of eight highly trained Buddhist monks and nuns and a group of eight age and education matched controls with no previous meditation experience. Specifically, the effect of attentional training on the global precedence effect, i.e., faster detection of targets on a global than on a local level, was investigated. Analysis of reaction times indicated a reduced global precedence effect in meditation practitioners but not in controls, reflecting that meditators can more quickly disengage their attention from the dominant global level. In addition, to investigate the underlying changes in brain activity and their time course, event-related potentials were analyzed. Meditators showed an enhanced ability to select the respective target level, as reflected by enhanced processing of target level information. In contrast with the control group, which showed a local target selection effect only in the P1 and a global target selection effect in the P3 component, meditators showed effects of local information processing in the P1, N2, and P3 and of global processing for the N1, N2, and P3. Thus, meditators seem to display enhanced depth of processing. In addition, meditation altered the uptake of information such that meditators selected target level information earlier in the processing sequence than controls. In a longitudinal experiment, the behavioral effects were replicated, suggesting that meditation modulates attention already after a 4-day meditation retreat. The authors conclude that, taken together, these results suggest that practicing meditation enhances the speed with which attention can be allocated and relocated, thus increasing the depth of information processing and reducing response latency.

Luders, Eileen, Owen R Phillips, Kristi Clark, Florian Kurth, Arthur W Toga & Katherine L Narr. 2012. Bridging the hemispheres in meditation: Thicker callosal regions and enhanced fractional anisotropy (FA) in long-term practitioners. *NeuroImage* 61(1). 181–187. doi:10.1016/j.neuroimage.2012.02.026

Recent findings suggest a close link between long-term meditation practices and the structure of the corpus callosum. Prior analyses, however, have focused on estimating mean fractional anisotropy (FA) within two large pre-defined callosal tracts only. Additional effects might exist in other, non-explored callosal regions and/or with respect to callosal attributes not captured by estimates of FA. To further explore callosal features in the framework of meditation, researchers analyzed 30 meditators and 30 controls, carefully matched for sex, age, and handedness. A multimodal imaging approach was used, utilizing diffusion tensor imaging (DTI) in combination with structural magnetic resonance imaging (MRI). Callosal measures of tract-specific FA were complemented with other global (segment-specific) estimates as well as extremely local (point-wise) measures of callosal micro- and macro-structure. Callosal measures were larger in long-term meditators compared to controls, particularly in anterior callosal sections. However, differences achieved significance only when increasing the regional sensitivity of the measurement (i.e., using point-wise measures versus segment-specific measures) and were more prominent for microscopic than macroscopic characteristics (i.e., callosal FA versus callosal thickness). The authors postulate that thicker callosal regions and enhanced FA in meditators might indicate greater connectivity, possibly reflecting increased hemispheric integration during cerebral processes involving (pre)frontal regions. Such a brain organization might be linked to achieving characteristic mental states and skills as associated with meditation, though this hypothesis requires behavioral confirmation. Moreover, longitudinal studies are required to address whether the observed callosal effects are induced by meditation or constitute an innate prerequisite for the start or successful continuation of meditation.

1.2 SCIENTIFIC STUDY OF RELIGION: EVOLUTION

Atkinson, Q.D. & H. Whitehouse. 2011. The cultural morphospace of ritual form: Examining modes of religiosity cross-culturally. *Evolution and Human Behavior* 32(1). 50–62.

Ethnographic, historical, archaeological and experimental work suggests the existence of two basic clusters of ritual dynamics or "modes of religiosity": a low-frequency, high-arousal cluster linked to the formation of small cohesive communities (imagistic mode), and a high-frequency, low-arousal cluster associated with larger, more centralized social morphology (doctrinal mode). Currently, however, a large-scale survey of ritual variation on which to test

such predictions is lacking. Researchers therefore compiled data on 645 religious rituals from 74 cultures around the globe, extracted from the Human Relations Area Files. Results revealed that the cultural morphospace of ritual form favors rituals that are either low-frequency and highly dysphorically arousing, or high-frequency with lower arousal, and that these ritual dynamics are linked to group size and structure. The authors find that the data also suggest that low dysphoric arousal, high-frequency rituals may have been tied to the advent of agriculture and subsequent emergence of the first large-scale civilizations.

Atran, Scott & Jeremy Ginges. 2012. Religious and sacred imperatives in human conflict. *Science (New York, N.Y.)* 336(6083). 855–857. doi:10.1126/science.1216902

Religion, in promoting outlandish beliefs and costly rituals, increases ingroup trust but also may increase mistrust and conflict with outgroups. Moralizing gods emerged over the last few millennia, enabling large-scale cooperation, and sociopolitical conquest even without war. Whether for cooperation or conflict, sacred values, like devotion to God or a collective cause, signal group identity and operate as moral imperatives that inspire nonrational exertions independent of likely outcomes. In conflict situations, otherwise mundane sociopolitical preferences may become sacred values, acquiring immunity to material incentives. The authors find that sacred values sustain intractable conflicts that defy "business-like" negotiation, but also provide surprising opportunities for resolution.

Bulbulia, Joseph. 2012. Spreading order: religion, cooperative niche construction, and risky coordination problems. *Biology and Philosophy* 27(1). 1–27. doi:10.1007/s10539-011-9295-x.

Adaptationists explain the evolution of religion from the cooperative effects of religious commitments, but which cooperation problem does religion evolve to solve? I focus on a class of symmetrical coordination problems for which there are two pure Nash equilibriums: (1) "All Cooperate," which is efficient but relies on full cooperation; (2) "All Defect," which is inefficient but pays regardless of what others choose. Formal and experimental studies reveal that for such risky coordination problems, only the defection equilibrium is evolutionarily stable. The following makes sense of otherwise puzzling properties of religious cognition and cultures as features of cooperative designs that evolve to stabilize such risky exchange. The model is interesting because it explains lingering puzzles in the data on religion, and better integrates evolutionary theories of religion with recent, well-motivated models of cooperative niche construction.

Carter, Evan C., Michael E. McCullough, Jungmeen Kim-Spoon, Carolina Corrales & Adam Blake. 2012. Religious people discount the future less. *Evolution and Human Behavior* 33(3). 224–231. doi:10.1016/j.evolhumbehav.2011.09.006.

The propensity for religious belief and behavior is a universal feature of human societies, but religious practice often imposes substantial costs upon its practitioners. This suggests that during human cultural evolution, the costs associated with religiosity might have been traded off for psychological or social benefits that redounded to fitness on average. One possible benefit of religious belief and behavior, which virtually every world religion extols, is delay of gratification—that is, the ability to forego small rewards available immediately in the interest of obtaining larger rewards that are available only after a time delay. In this study, the authors found that religious commitment was associated with a tendency to forgo immediate rewards in order to gain larger, future rewards. This relationship was partially mediated by future time orientation, which is a subjective sense that the future is very close in time and is approaching rapidly. Although the effect sizes of these associations were relatively small in magnitude, they were obtained even when controlling for sex and the Big Five personality traits (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism).

Johnson, Megan K., Wade C. Rowatt & Jordan P. LaBouff. 2012. Religiosity and prejudice revisited: In-group favoritism, out-group derogation, or both? *Psychology of Religion and Spirituality* 4(2). 154–168.

doi:10.1037/a0025107.

Two studies focused on the relationship between religiosity and intergroup bias. In Study 1, participants completed brief measures of religiosity and spirituality and attitudes toward religiously value-consistent in-groups (Christians, heterosexuals) and value-violating out-groups (atheists, Muslims, and gay men). As predicted, self-reported religiosity and spirituality correlated positively with more negative attitudes toward outgroups relative to ingroups. In Study 2, priming methods were used to examine whether activating cognitive representations of religion would affect intergroup bias. Individuals subliminally primed with religious words showed significantly larger increases in negative attitudes toward value-violating outgroups relative to attitudes toward ingroups than those primed with neutral words. This change in relative attitudes was due to simultaneous increases in in-group favoritism and outgroup derogation. These effects remained when statistically controlling for self-reported religiosity and spirituality and preexisting attitudes toward these groups. Furthermore, there were no interaction effects between religious primes and self-reported levels of religiosity, indicating that the religion primes drove the effects. Results are discussed in light of religious priming and its association with increases in attitudes relevant to the social group component of religion.

Norenzayan, Ara, Will M Gervais & Kali H Trzesniewski. 2012. Mentalizing deficits constrain belief in a personal god. *PloS One* 7(5). e36880. doi:10.1371/journal.pone.0036880

Religious believers intuitively conceptualize deities as intentional agents with mental states who anticipate and respond to human beliefs, desires and concerns. It follows that mentalizing deficits, which are associated with the autistic spectrum and more commonly found in men than in women, may undermine this intuitive support and reduce belief in a personal God. Autistic adolescents expressed less belief in God than did matched neuro-typical controls (Study 1). In a Canadian student sample (Study 2), and two American national samples that controlled for demographic characteristics and other correlates of autism and religiosity (Study 3 and 4), the autism spectrum predicted reduced belief in God, and mentalizing mediated this relationship. Systemizing (Studies 2 and 3) and two personality dimensions related to religious belief, Conscientiousness and Agreeableness (Study 3), failed as mediators. Mentalizing also explained the robust and well-known, but theoretically debated, gender gap in religious belief wherein men show reduced religious belief (Studies 2-4).

Rossano, Matt J. 2012. The essential role of ritual in the transmission and reinforcement of social norms. *Psychological Bulletin* 138(3). 529–549. doi:10.1037/a0027038

Social norms are communally agreed upon, morally significant behavioral standards that are, at least in part, responsible for uniquely human forms of cooperation and social organization. This article summarizes evidence demonstrating that ritual and ritualized behaviors are essential to the transmission and reinforcement of social norms. Ritualized behaviors reliably signal an intentional mental state giving credibility to verbal expressions while emotionally binding people to each other and group-based values. Early ritualized infant-caregiver interactions and the family routines and rituals that emerge from them are primary mechanisms for transmitting social norms vertically from parent to offspring, while adult community rituals are a primary mechanism by which norms are reinforced horizontally within the community.

1.3 SCIENTIFIC STUDY OF RELIGION: PSYCHOLOGY AND CULTURE

Dollahite, David C., Alan J. Hawkins & Melissa R. Parr. 2012. "Something More": The Meanings of Marriage for Religious Couples in America. *Marriage & Family Review* 48(4). 339–362.

doi:10.1080/01494929.2012.674480.

This study focused on how couples' beliefs about marriage and religion shape the meanings they find in their marriage. Interviews about connections between religion and marriage were conducted with 57 Christian, Jewish, and Muslim couples in New England and northern California. Qualitative analyses found the major theme, common across faith traditions, was that marriage is a sacred union that is "something more": more than the self, more than the couple, and more than the family unit. To these couples marriage is divine and institutional and a vital support for their relationship. These findings raise an interesting counterpoint to the current scholarly discourse about the deinstitutionalization and individualization of contemporary marriage. Institutionalized features of marriage may retain their strength in contemporary society as many religious couples, and perhaps many other couples as well, believe marriage is something more than the deinstitutionalized, private relationship that many scholars now see.

Exline, Julie J. & Peter C. Hill. 2012. Humility: A consistent and robust predictor of generosity. *The Journal of Positive Psychology* 7(3). 208–218. doi:10.1080/17439760.2012.671348.

Although earlier studies have suggested a positive connection between humility and generous motives and behaviors, it has remained unclear whether another trait might better account for the humility/generosity link. Three studies examined associations between a self-report measure of humility, related traits, and generosity. In Study 1 (197 adults in a community sample), humility predicted greater generosity on two behavioral measures: Charitable donations, and mailing back an extra survey. In Study 2 (286 undergraduates), humility predicted giving more money to an anonymous future participant. In Study 3 (217 undergraduates), humility was associated with greater self-reported motives to be kind to others, including benefactors, close others, strangers, and enemies. Across all three studies, the role of humility was not better explained by the Big Five, self-esteem, entitlement, religiosity, gratitude, or social desirability. These studies complement prior work by demonstrating that the link between humility and generosity is both consistent and robust.

Gervais, Will M. & Ara Norenzayan. 2012. Reminders of secular authority reduce believers' distrust of atheists. *Psychological Science* 23(5). 483–491. doi:10.1177/0956797611429711

Atheists have long been distrusted, in part because they do not believe that a watchful, judging god monitors their behavior. However, in many parts of the world, secular institutions such as police, judges, and courts are also potent sources of social monitoring that encourage prosocial behavior. Reminders of such secular authority could therefore reduce believers' distrust of atheists. In our experiments, participants who watched a video about police effectiveness (Experiment 1) or were subtly primed with secular-authority concepts (Experiments 2-3) expressed less distrust of atheists than did participants who watched a control video, or were not primed, respectively. Researchers tested three distinct alternative explanations for these findings. Compared with control participants, participants primed with secular-authority concepts did not exhibit reduced general prejudice against out-groups (Experiment 1), prejudice reactions associated with functional threats that particular out-groups are perceived to pose (specifically, viewing gays with disgust; Experiment 2), or general distrust of out-groups (Experiment 3). These findings contribute to theory regarding both the psychological bases of prejudices and the psychological functions served by gods and governments.

Mayrl, Damon & Jeremy E Uecker. 2011. Higher Education and Religious Liberalization among Young Adults. *Social Forces: A Scientific Medium of Social Study and Interpretation* 90(1). 181–208. doi:10.1093/sf/90.1.181

Going to college has long been assumed to liberalize students' religious beliefs. Using longitudinal data from the National Survey of Youth and Religion, researchers compare change in the content of religious beliefs of those who

do and do not attend college. It was found that, in general, college students are no more likely to develop liberal religious beliefs than nonstudents. In some cases, collegians actually appear more likely to retain their initial beliefs. Change in religious beliefs appears instead to be more strongly associated with network effects. These findings indicate that college's effect on students' religious beliefs is both weak and fragmented, and suggest that the multiplicity of social worlds on college campuses may help to sustain religious beliefs as well as religious practice and commitment.

Vess, Matthew, Jamie Arndt & Cathy R. Cox. 2012. Faith and nature: The effect of death-relevant cognitions on the relationship between religious fundamentalism and connectedness to nature. *Social Psychological and Personality Science* 3(3). 333–340. doi:10.1177/1948550611420303.

A common theme among many religions, particularly those with Abrahamic roots, is that humans are separate from the rest of nature. Though empirical support is lacking, such themes do suggest that religiosity may play a role in shaping the ways that people relate to the natural world. The present research used terror management theory to address this issue. It was hypothesized that death-relevant concerns would moderate the relationship between religious fundamentalism and feelings of connectedness to nature. Across three studies, religious fundamentalism negatively predicted feelings of connectedness to nature when death-relevant thoughts were activated. No such relationship emerged in the absence of death-relevant thought. The implications of these findings for better understanding the role of religion in human/nature relationships and current ecological issues are discussed.

Waillet, Nastasya van der Straten & Isabelle Roskam. 2012. Developmental and social determinants of religious social categorization. *The Journal of Genetic Psychology* 173(2). 208–220.

The purpose of this study was to assess developmental and social determinants of the age at which children become aware that the social environment can be marked by categorization into religious groups and that those groups are associated with different religious beliefs. The results show that middle childhood is a critical period for this religious social categorization. Moreover, social factors play a role in the development. Religious categorization is likely to appear sooner in children attending heterogeneous schools than in those at homogeneous schools, and children from the minority religious group in the country understand religious categorization earlier than children from the majority group. However, no relation was found between the age at which religious categorization was understood and parents' religious socialization practices. This study is of both theoretical and practical interest: It complements what is already known about gender, race, and ethnic categorization by integrating developmental and social frameworks, and it can serve as a guideline for educational programs.

1.4 SCIENTIFIC STUDY OF RELIGION: METHOD & THEORY

Del Rio, Carlos M. & Lyle J. White. 2012. Separating Spirituality From Religiosity: A Hylomorphic Attitudinal Perspective. *Psychology of Religion and Spirituality* 4(2). 123–142. doi:10.1037/a0027552.

While searching for a definition of spirituality, the authors review important corollaries from dualistic and hylomorphic views of human nature. They argue that in 21st century America spirituality ought to be thought of separately from religiosity for the purposes of conceptual clarity, and define spirituality as an attitude toward life, making sense of life, relating to others, and seeking unity with the transcendent. Asserting that every person is a substance of two coherent principles, a body and a soul—the nature of which is spirituality—they find that spirituality's functions are intellect and volition, and their proper ends are truth and goodness. Further, the authors challenge the codification of spirituality found in the Diagnostic and Statistical Manual of Mental Disorders, and ask that it be reviewed or removed, because spirituality is not equivocal to religiosity, germane to loss of faith, or a factor of cultural diversity. They insist that human individuals are born spiritual, not religious,

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and present distinctions between these notions. They reject current conflations of "religious-spiritual," and conclude that spirituality must be separated from religiosity if effective epistemic endeavors are to be achieved on either construct.

Sanderson, Eleanor Ruth. 2012. Emotional engagement in the context of development and spirituality research. *Emotion, Space and Society* 5(2). 122–130. doi:10.1016/j.emospa.2010.09.006

An awareness of spirituality and religion is increasingly being integrated within development theory and practice in order to recognize the way that many people approach community development. There are significant implications for researchers and their methodological practice that arise in paying attention to this area of development studies, particularly with regard to spiritual aspects of emotional engagement for researchers. This paper explores some of those implications from an analysis of participatory research into geographies of development and spirituality. Two community groups with self-identified Christian spiritualities took part: a Melanesian settlement in Fiji and a women's church-based group in rural Tanzania. The author argues that emotional engagement and spiritual engagement are implicitly connected and demonstrate how attention to emotional knowledge provides valuable insight within this area of research. In particular, it is shown how a relational approach to emotional knowledge, inspired by the philosophic and psychoanalytic work of Luce Irigaray, is particularly suited to approaching human and spiritual relationships, and resonates with key concerns within participatory and community development. Paying particular attention to the concept of fidelity and the spatiality of subjectivity within her work, this paper illustrates the challenge from Luce Irigaray's work regarding the relational framing of emotional knowledge and the transformational potential implicit within all research relationships.

PART 2. ARTICLES IN SPIRITUALITY & HEALTH RESEARCH

2.1 Spirituality & Health: General Health & Well-Being

Barnes, Vernon A, Gaston K Kapuku & Frank A Treiber. 2012. Impact of transcendental meditation on left ventricular mass in African American adolescents. *Evidence-based Complementary and Alternative Medicine: eCAM* 2012. 923153. doi:10.1155/2012/923153

Prehypertensive African American adolescents were randomly assigned to either 4-month Transcendental Meditation (Γ M) (n=30) or health education control (n=32) groups. Following intervention, the TM group exhibited a greater decrease in LVMI at 4-month followup compared to the control group. The TM group exhibited a lesser increase in BMI at 4-month follow-up compared to the CTL group.

Brotto, Lori A, Yvonne Erskine, Mark Carey, Tom Ehlen, Sarah Finlayson, Mark Heywood, Janice Kwon, et al. 2012. A brief mindfulness-based cognitive behavioral intervention improves sexual functioning versus wait-list control in women treated for gynecologic cancer. *Gynecologic Oncology* 125(2). 320–325.

doi:10.1016/j.ygyno.2012.01.035

To evaluate a mindfulness-based cognitive behavioral intervention for sexual dysfunction in gynecologic cancer survivors, 31 survivors of endometrial or cervical cancer (mean age 54.0, range 31-64) who self-reported significant and distressing sexual desire and/or sexual arousal concerns, were assigned either to three, 90-minute mindfulness-based cognitive behavior therapy sessions, or two months of wait-list control, prior to entering the treatment arm. Treatment led to significant improvements in all domains of sexual response, and a trend towards significance for reducing sexual distress. Perception of genital arousal during an erotic film was also significantly increased following the intervention despite no change in physiologically-measured sexual arousal. There were no significant effects of the wait-list condition on any measure.

Candy, Bridget, Louise Jones, Mira Varagunam, Peter Speck, Adrian Tookman & Michael King. 2012. Spiritual and religious interventions for well-being of adults in the terminal phase of disease. *Cochrane Database of Systematic Reviews (Online)* 5. CD007544. doi:10.1002/14651858.CD007544.pub2.

This review aimed to describe spiritual and religious interventions for adults in the terminal phase of a disease and to evaluate their effectiveness on well-being. Five randomized control trials (1130 participants) were included. The authors found inconclusive evidence that interventions with spiritual or religious components for adults in the terminal phase of a disease may or may not enhance well-being. All five studies identified were undertaken in the same country, and in the multi-disciplinary palliative care interventions it was unclear if all participants received support from a chaplain or a spiritual counselor. Moreover, it is unclear in all the studies whether the participants in the comparative groups received spiritual or religious support, or both, as part of routine care or from elsewhere.

Clements, Andrea D. & Anna V. Ermakova. 2012. Surrender to God and stress: A possible link between religiosity and health. *Psychology of Religion and Spirituality* 4(2). 93–107. doi:10.1037/a0025109.

Two samples were studied in order to investigate the relationship between one characterization of religiosity (Surrender) and stress. In Study 1, Southern Appalachian undergraduate university students (n=460; 306 female) completed the Surrender Scale and the State—Trait Anxiety Inventory (STAI) online during spring 2009. Study 2 utilized a high-risk (low income and/or high pregnancy risk) sample of 230 pregnant women involved in a longitudinal study who completed the Surrender Scale and the Prenatal Psychosocial Profile (PPP) during their first research contact early in pregnancy. Analysis revealed that Surrender was consistently inversely

related to stress on both the STAI and the PPP. These findings offer support for Surrender and its associated lower stress levels to be explored as a mechanism by which religiosity influences health. Second, findings support the exploration of the potential for stress reduction through increasing Surrender in reportedly religious individuals.

Ford, Jason A. & Terrence D. Hill. 2012. Religiosity and Adolescent Substance Use: Evidence From the National Survey on Drug Use and Health. *Substance Use & Misuse* 47(7). 787–798. doi:10.3109/10826084.2012.667489.

Analyzing data from the National Survey on Drug Use and Health, researchers found that religiosity reduces the odds for adolescents of tobacco use, heavy drinking, prescription drug misuse, marijuana use, and other illicit drug use. These associations are partially explained by respondent and peer attitudes toward substance use and, to a lesser extent, respondent psychological well-being. The influence of respondent substance use attitude is especially pronounced, explaining between 41% (marijuana) and 53% (tobacco) of the association between religiosity and substance use.

Lo, Celia C., Kimberly A. Tenorio & Tyrone C. Cheng. 2012. Racial differences in co-occurring substance use and serious psychological distress: the roles of marriage and religiosity. *Substance Use & Misuse* 47(6). 734–744.

doi:10.3109/10826084.2012.666312

Analyzing data from the national dataset 2007 National Survey on Drug Use and Health, the authors found support for the hypothesis that religiosity elevates the mental health of racial/ethnic minority individuals more than that of Whites. It was also found, however, that race/ethnicity moderates effects of education and poverty on the co-occurring behaviors, with Whites' mental health benefiting more from wealth and education than Blacks' or Hispanics' mental health did.

Lucchetti, Giancarlo, Mario F. P. Peres, Alessandra L. G. Lucchetti & Harold G. Koenig. 2012. Religiosity and Tobacco and Alcohol Use in a Brazilian Shantytown. *Substance Use & Misuse* 47(7). 837–846.

doi:10.3109/10826084.2012.673142.

In door-to-door interviews with 383 people, aged 18 years or more, randomly selected from the "Paraisopolis" shantytown in São Paulo, Brazil, it was found that high religious attendance was associated with less alcohol use, alcohol abuse, tobacco use, and combined alcohol/tobacco use, as well as less days consuming alcoholic beverages per week, controlling for confounding factors. Additionally, high nonorganizational religious behavior was associated with less tobacco and combined alcohol/tobacco use.

Lynch, Cheryl P, Melba A Hernandez-Tejada, Joni L Strom & Leonard E Egede. 2012. Association between spirituality and depression in adults with type 2 diabetes. *The Diabetes Educator* 38(3). 427–435.

doi:10.1177/0145721712440335

In a surveys of 201 people with diabetes at an academic medical center, greater spirituality was reported among females, non-Hispanic blacks, those with lower educational levels, and those with lower income. The unadjusted regression model showed greater spirituality was associated with less depression. This association was mildly diminished but still significant in the final adjusted model. Depression scores also increased (greater depression risk) with females and those who were unemployed but decreased with older age and non-Hispanic black race/ethnicity.

Manocha, Ramesh, Deborah Black & Leigh Wilson. 2012. Quality of life and functional health status of long-term meditators. *Evidence-based Complementary and Alternative Medicine: eCAM* 2012. 350674. doi:10.1155/2012/350674

Researchers collected information from 343 long-term Australian Sahaja Yoga meditation practitioners and compared it to those of the normative Australian population. It was found that reports of bodily pain, general health, mental health, role limitation-emotional, social functioning, and vitality, were significantly better in meditators compared to the national norms, whereas two of the subscales (role limitation-physical and physical functioning) were not significantly different. A substantial correlation between frequency of mental silence experience and the vitality, general health, and especially mental health subscales was found.

Monshat, Kaveh & David J Castle. 2012. Mindfulness training: an adjunctive role in the management of chronic illness? *The Medical Journal of Australia* 196(9). 569–571.

The author reviews evidence which suggests that mindfulness training, when used as part of an integrated approach to chronic disease management, may help alleviate associated psychological distress and improve patients' quality of life.

Pirutinsky, Steven, David H. Rosmarin & Cheryl L. Holt. 2012. Religious coping moderates the relationship between emotional functioning and obesity. *Health Psychology* 31(3). 394–397. doi:10.1037/a0026665.

Using measurements of self-reported health and emotional functioning, as well as results from the Jewish Religious Coping scale, from 212 Jewish participants, researchers found that poor emotional functioning predicted increased obesity among those with low, but not high, positive religious coping. The authors conclude that these findings support the maladaptive coping hypothesis, indicating that religious coping may provide an alternative strategy to maladaptive eating. They also illustrate a possible mechanism by which religiosity correlates with better health and support the relevance of religious coping to the Jewish context.

Smith, Amy Rex, Susan DeSanto-Madeya, John E Pérez, Elizabeth F Tracey, Susan DeCristofaro, Rebecca L Norris & Shruti L Mukkamala. 2012. How women with advanced cancer pray: a report from two focus groups. *Oncology Nursing Forum* 39(3). E310–316. doi:10.1188/12.ONF.E310-E316

Analysis of interviews with 13 adult, female outpatients receiving active treatment for ovarian or lung cancer found evidence for prayer as a positive coping mechanism for women with advanced ovarian or lung cancer. Four themes emerged from the interviews: finding one's own way, renewed appreciation for life, provision of strength and courage, and gaining a stronger spiritual connection. In addition, praying for others, conversational prayer, petitionary prayer, ritual prayer, and thanksgiving prayer were used most often by participants to cope.

Streeter, C.C., P.L. Gerbarg, R.B. Saper, D.A. Ciraulo & R.P. Brown. 2012. Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *Medical Hypotheses* 78(5). 571–579. doi:10.1016/j.mehy.2012.01.021

The authors propose a theory to explain the benefits of yoga practices in diverse, frequently comorbid medical conditions, based on the concept that yoga practices reduce allostatic load in stress response systems such that optimal homeostasis is restored. It is hypothesized that stress induces (1) imbalance of the autonomic nervous system with decreased parasympathetic nervous system (PNS) and increased sympathetic nervous system activity, (2) underactivity of the gamma amino-butyric acid (GABA) system, the primary inhibitory neurotransmitter system, and (3) increased allostatic load. It is further hypothesized that yoga-based practices (4) correct underactivity of the PNS and GABA systems in part through stimulation of the vagus nerves, the main peripheral pathway of the PNS, and (5) reduce allostatic load.

2.2 SPIRITUALITY & HEALTH: MENTAL HEALTH

Assari, Shervin, Maryam Moghani Lankarani & Babak Moazen. 2012. Religious Beliefs May Reduce the Negative Effect of Psychiatric Disorders on Age of Onset of Suicidal Ideation among Blacks in the United States. *International Journal of Preventive Medicine* 3(5). 358–364.

Analysis of data from 5,181 adult Black Americans who had participated in National Survey of American Life suggested that religious beliefs may buffer the effect of psychiatric disorders on suicidal thought. Blacks who are less religious and suffer psychiatric disorders are at the highest risk for early suicidal ideation. Psychiatric disorders had a higher impact on age of suicidal ideation among those with low self-reported religiosity.

Barrera, Terri L., Darrell Zeno, Amber L. Bush, Catherine R. Barber & Melinda A. Stanley. 2012. Integrating Religion and Spirituality Into Treatment for Late-Life Anxiety: Three Case Studies. *Cognitive and Behavioral Practice* 19(2). 346–358. doi:10.1016/j.cbpra.2011.05.007

Cases are presented to illustrate the use of a 12-week modular cognitive behavioral therapy (CBT) intervention for late-life anxiety, designed to allow incorporation of religious/spiritual (R/S) elements in accordance with patient preferences. The three women treated using this protocol chose different levels and methods of R/S integration into therapy, and all three women showed substantial improvement in worry symptoms, as well as a variety of secondary outcomes following treatment; these gains were maintained at 6-month follow-up. These preliminary results suggest that the incorporation of R/S into CBT might be beneficial for older adults with generalized anxiety disorder.

Boelens, Peter A., Roy R. Reeves, William H. Replogle & Harold G. Koenig. 2012. The effect of prayer on depression and anxiety: Maintenance of positive influence one year after prayer intervention. *International Journal of Psychiatry in Medicine* 43(1). 85–98.

Researchers performed a one-year follow-up of 44 subjects with depression and anxiety who had undergone prayer intervention consisting of six weekly 1-hour prayer sessions conducted in an office setting. Subjects had maintained significant improvements. Evaluations at 1 month and 1 year showed significantly less depression and anxiety, more optimism, and greater levels of spiritual experience than did the baseline (pre-prayer) measures.

Himle, Joseph A., Robert Joseph Taylor & Linda M. Chatters. 2012. Religious involvement and obsessive compulsive disorder among African Americans and Black Caribbeans. *Journal of Anxiety Disorders* 26(4). 502–510. doi:10.1016/j.janxdis.2012.02.003

This study examines obsessive-compulsive disorder (OCD) in relation to diverse measures of religious involvement within the National Survey of American Life, a nationally representative sample of African American and Black Caribbean adults. Frequent religious service attendance was negatively associated with OCD, whereas Catholic affiliation (as compared to Baptist) and religious coping (prayer when dealing with stressful situations) were both positively associated with OCD. Persons of older age and higher education levels were significantly less likely to have OCD.

Kuyel, Nilay, Sevim Cesur & Christopher G. Ellison. 2012. Religious orientation and mental health: A study with Turkish university students. *Psychological Reports* 110(2). 535–546.

This study examined the relationship between religious orientation and mental health symptoms among 341 Turkish students. Extrinsic orientation was found to be correlated positively with symptoms of anxiety and depression. There were also significant correlations between hostility scores and both intrinsic and extrinsic religious orientations. In multiple-regression models, extrinsic orientation emerged as the only significant predictor for hostility, anxiety, and depression; however, only 2% of the variance was explained.

Li, Amber W & Carroll-Ann W Goldsmith. 2012. The effects of yoga on anxiety and stress. Alternative Medicine Review: A Journal of Clinical Therapeutic 17(1). 21–35.

This literature study reviews results of human trials assessing the role of yoga in improving the signs and symptoms of stress and anxiety. Of 35 trials addressing the effects of yoga on anxiety and stress, 25 noted a significant decrease in stress and/or anxiety symptoms when a yoga regimen was implemented; however, many of the studies were also hindered by limitations, such as small study populations, lack of randomization, and lack of a control group. Fourteen of the 35 studies reported biochemical and physiological markers of stress and anxiety, but yielded inconsistent support of yoga for relief of stress and anxiety. Evaluation of the current primary literature is suggestive of benefits of yoga in relieving stress and anxiety, but further investigation is needed.

Music, Graham. 2012. Selfless genes, altruism and trauma: Research and clinical implications. *British Journal of Psychotherapy* 28(2). 154–171. doi:10.1111/j.1752-0118.2012.01276.x.

The paper integrates psychoanalytic thinking with neuroscience, attachment and developmental research and describes research which suggests that altruism and helpfulness are maybe more 'normally' present from an earlier age than might have been thought. It is argued that there are a range of 'co-emerging' capacities, such as empathy and understanding other minds, that lead to altruism and that in response to abuse and neglect such capacities often do not develop. Clinical example are used which describe patients who had suffered from adverse circumstances and who lacked empathy and altruistic tendencies, and some changes in them are illustrated.

Olson, Michael M., Dorothy B. Trevino, Jenenne A. Geske & Harold Vanderpool. 2012. Religious Coping and Mental Health Outcomes: An Exploratory Study of Socioeconomically Disadvantaged Patients. *EXPLORE: The Journal of Science and Healing* 8(3). 172–176. doi:10.1016/j.explore.2012.02.005.

Participants (n=123) from socioeconomically disadvantaged populations were selected as they presented for mental healthcare at a community health center for patients with little, if any, financial resources or insurance. Positive religious coping (PRC) was significantly associated with, and predictive of, better mental health. Conversely, negative religious coping (NRC) was found to be significantly associated with poorer mental health scores. The relationship between NRC and inferior mental health outcomes was more robust than the relationship between PRC and improved mental health scores.

Smith, Sharon & Melinda J Suto. 2012. Religious and/or spiritual practices: extending spiritual freedom to people with schizophrenia. *Canadian Journal of Occupational Therapy*. Revue Canadianne d'ergothérapie 79(2). 77–85.

To explore the meaning of religion and/or spirituality for people living with a diagnosis of schizophrenia, 9 community-based individuals with schizophrenia engaged in interviews about the meaning of religion and/or spirituality and demonstrated self-defined spiritual practices. Participants employed religious and/or spiritual practices to cope with schizophrenia symptoms and make meaning of their lives. Individuals used multiple systems of meaning to explain their experiences. Religious and/or spiritual agency, an individual's sense of freedom to choose among the spiritual options, renewed their sense of empowerment.

Sørensen, Torgeir, Lars J. Danbolt, Jostein Holmen, Harold G Koenig & Lars Lien. 2012. Does Death of a Family Member Moderate the Relationship between Religious Attendance and Depressive Symptoms? The HUNT Study, Norway. *Depression Research and Treatment* 2012. 396347.

doi:10.1155/2012/396347

Analysis of results from a Norwegian health study (n=37,981) indicated attendance at church/prayer house was associated with lower depressive symptoms, and the death of a close relative and gender moderated this relationship. Religious attendees had lower scores on depressive symptoms than non-attendees; death of a close family member moderated this relationship. The inverse relationships between attendance at church/prayer house and depressive symptoms were greater among those experiencing the death of an immediate family member in the last twelve months compared to those without such an experience, with men's decrease of depressive symptoms more pronounced than women's.

Toussaint, Loren L, Justin C Marschall & David R Williams. 2012. Prospective Associations between Religiousness/Spirituality and Depression and Mediating Effects of Forgiveness in a Nationally Representative Sample of United States Adults. *Depression Research and Treatment* 2012. 267820. doi:10.1155/2012/267820

This investigation showed that religiousness/spirituality, forgiveness of oneself and others, and feeling forgiven by God were associated, both cross-sectionally and longitudinally, with depressive status. After controlling for initial depressive status, only forgiveness of oneself and others remained statistically significant predictors of depression. Path analyses revealed that religiousness/spirituality conveyed protective effects, prospectively, on depression by way of an indirect path through forgiveness of others but not forgiveness of oneself. Hence, forgiveness of others acts as a mechanism of the salutary effect of religiousness/spirituality, but forgiveness of oneself is an independent predictor.

2.3 SPIRITUALITY & HEALTH: METHOD AND THEORY

Cameron, Miriam E, Carolyn Torkelson, Susan Haddow, Tenzin Namdul, Aimee Prasek & Cynthia R Gross. 2012. Tibetan medicine and integrative health: validity testing and refinement of the constitutional self-assessment tool and lifestyle guidelines tool. *Explore (New York, N.Y.)* 8(3). 158–171.

doi:10.1016/j.explore.2012.02.002

Researchers used a mixed methods pilot study, conducted in three phases, to test the validity of and refine the Constitutional Self-Assessment Tool (CSAT) and Lifestyle Guidelines Tool (LGT). Results indicate that the refined CSAT and LGT demonstrate the potential for additional research and use in integrated care.

Cook, Christopher C H, Joan Breckon, Colin Jay, Liz Renwick & Paul Walker. 2012. Pathway to accommodate patients' spiritual needs. *Nursing management (Harrow, London, England: 1994)* 19(2). 33–37.

This article describes the development of a spirituality care pathway as part of a wider organizational initiative to offer spiritual support in mental health services. The process highlighted the importance of developing awareness and ownership of the need for spiritual care in all service areas and among service users. A range of spiritual interventions were identified and a process of monitoring and review introduced. The approach was appreciated by service users and staff, and was developed within existing professional and management processes.

Hall, Ronald E. 2012. Spirituality vis-à-vis Muslim Filipino families: Implications for social work intervention. *Journal of Social Work* 12(3). 320–330. doi:10.1177/1468017310388688.

The author describes an individual case of an Islamic support system applied by the social worker to a Filipino Muslim, who was a student at a Christian college and suffering from extreme stress. The Islamic support system resulted in a therapeutic experience which significantly reduced the client's level of stress.

Puchalski, C M. 2012. Spirituality in the cancer trajectory. *Annals of Oncology: Official Journal of the European Society for Medical Oncology / ESMO* 23 Suppl 3. 49–55.

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doi:10.1093/annonc/mds088

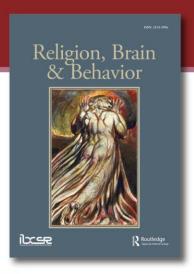
The author presents a model of spiritual care that describes the role of each member of the healthcare team in addressing patients' spirituality, since spiritual distress requires attention and treatment just as any other clinical symptom. Integrating spirituality as an essential domain of care will result in better health outcomes, particularly quality of life for patients across the trajectory of cancer care.

Reddy, M S. 2012. Psychotherapy - insights from Bhagavad Gita. *Indian Journal of Psychological Medicine* 34(1). 100–104.

This paper discusses the therapy process involved in Bhagavad Gita, in which Lord Krishna helped the griefstricken Arjuna through dialogue and discussion. This case study suggests that therapeutic attention should be on the conflict and diagnosis of patient, the hackground setting of the situation, the personality of patient, the technique of therapy, underlying psychological concepts/ principles/ theories, and the Guru-Sishya concept.

Sahu, Biswamitra & Inge Hutter. 2012. "Lived Islam" in India and Bangladesh: Negotiating religion to realize reproductive aspirations. *Culture, Health & Sexuality* 14(5). 521–535. doi:10.1080/13691058.2012.672652.

This paper seeks to answer the question of how Muslim women (n=32) in India and Bangladesh interpret and negotiate religion in order to realize their reproductive aspirations. Muslim women in India exercise their agency in planning their families by adopting sterilization—a method proscribed by Islam—without the knowledge of their significant others. Muslim women in Bangladesh use their agency by making a flexible interpretation of Islam in reproductive matters.



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3.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Arnold, Dan. 2012. Brains, Buddhas, and Believing: The Problem of Intentionality in Classical Buddhist and Cognitive-Scientific Philosophy of Mind. Columbia University Press.
- Bender, Courtney, & Ann Taves (eds.). 2012. What Matters?: Ethnographies of Value in a Not So Secular Age. (Religion, Culture, and Public Life). Columbia University Press.
- Boehm, Christopher. 2012. Moral origins: The Evolution of Virtue, Altruism, and Shame. New York: Basic Books.
- Gothoni, Rene. 2012. Religious Experience: North and South. Peter Lang Pub Inc.
- Kraft, James. 2012. The Epistemology of Religious Disagreement: A Better Understanding. Palgrave Macmillan.
- Musacchio, José M. 2012. Contradictions: Neuroscience and Religion. Springer.
- Parker, Stephen. 2012. Winnicott and Religion. Jason Aronson, Inc.
- Rountree, Kathryn, Christine Morris, & Alan A. D. Peatfield (eds.). 2012. *Archaeology of Spiritualities*. Springer.
- Schouten, Maurice, & Huib Looren de Jong (eds.). 2012. The Matter of the Mind: Philosophical Essays on Psychology, Neuroscience and Reduction. Wiley-Blackwell.
- Stafford, Barbara Maria (ed.). 2011. A Field Guide to a New Meta-Field: Bridging the Humanities--Neurosciences Divide. Chicago: University of Chicago Press.
- Williams, David. 2012. The Trickster Brain: Neuroscience, Evolution, and Narrative. Lexington Books.
- Zak, Paul J. 2012. The Moral Molecule: The Source of Love and Prosperity. Dutton Adult.

3.2 Spirituality & Health Research

Scrimali, Tullio. 2012. Neuroscience-based Cognitive Therapy: New Methods for Assessment, Treatment and Self-Regulation. Wiley-Blackwell.

PART 4. ARTICLES IN PRESS

4.1 SCIENTIFIC STUDY OF RELIGION, BRAIN, AND BEHAVIOR

- Asp, Erik, Kanchna Ramchandran & Daniel Tranel. 2012. Authoritarianism, Religious Fundamentalism, and the Human Prefrontal Cortex. *Neuropsychology*. doi:10.1037/a0028526.
- Cahn, B Rael, Arnaud Delorme & John Polich. 2012. Event-related delta, theta, alpha, and gamma correlates to auditory oddball processing during Vipassana meditation. *Social Cognitive and Affective Neuroscience*. doi:10.1093/scan/nss060.
- Clavien, Christine & Michel Chapuisat. Altruism across disciplines: one word, multiple meanings. *Biology and Philosophy*. 1–16. doi:10.1007/s10539-012-9317-3
- Faber, Pascal L, Dietrich Lehmann, Shisei Tei, Takuya Tsujiuchi, Hiroaki Kumano, Roberto D Pascual-Marqui & Kieko Kochi. 2012. EEG source imaging during two Qigong meditations. *Cognitive Processing*. doi:10.1007/s10339-012-0441-4.
- Flannelly, Kevin J, Christopher G Ellison, Kathleen Galek & Nava R Silton. 2012. Belief in Life-After-Death, Beliefs About the World, and Psychiatric Symptoms. *Journal of Religion and Health*. doi:10.1007/s10943-012-9608-7.
- Jaspal, Rusi. 2012. "I never faced up to being gay": sexual, religious and ethnic identities among British Indian and British Pakistani gay men. *Culture, Health & Sexuality*. doi:10.1080/13691058.2012.693626.
- Laurin, Kristin, Azim F Shariff, Joseph Henrich & Aaron C Kay. 2012. Outsourcing punishment to God: beliefs in divine control reduce earthly punishment. *Proceedings. Biological Sciences / The Royal Society*. doi:10.1098/rspb.2012.0615.
- Matthews, Luke J. 2012. The Recognition Signal Hypothesis for the Adaptive Evolution of Religion: A Phylogenetic Test with Christian Denominations. *Human Nature (Hawthorne, N.Y.)*. doi:10.1007/s12110-012-9138-8.
- Teper, Rimma & Michael Inzlicht. 2012. Meditation, mindfulness and executive control: the importance of emotional acceptance and brain-based performance monitoring. *Social Cognitive and Affective Neuroscience*. doi:10.1093/scan/nss045.
- Verkuyten, Maykel & Borja Martinovic. 2012. Social Identity Complexity and Immigrants' Attitude Toward the Host Nation: The Intersection of Ethnic and Religious Group Identification. Personality & Social Psychology Bulletin. doi:10.1177/0146167212446164.
- Watterson, Kaylyn & R. Brian Giesler. 2012. Religiosity and Self-Control: When the Going Gets Tough, the Religious Get Self-Regulating. *Psychology of Religion and Spirituality*. doi:10.1037/a0027644.

4.2 Spirituality & Health Research

- Agger, Inger, Victor Igreja, Rachel Kiehle & Peter Polatin. 2012. Testimony ceremonies in Asia: Integrating spirituality in testimonial therapy for torture survivors in India, Sri Lanka, Cambodia, and the Philippines. *Transcultural Psychiatry*. doi:10.1177/1363461512447138.
- Allen, Jennifer D, John E Pérez, Claudia R Pischke, Laura S Tom, Alan Juarez, Hosffman Ospino & Elizabeth Gonzalez-Suarez. 2012. Dimensions of Religiousness and Cancer Screening Behaviors Among Church-Going Latinas. *Journal of Religion and Health*. doi:10.1007/s10943-012-9606-9.
- Baldacchino, Donia R, Josette Borg, Charlene Muscat & Cassandra Sturgeon. 2012. Psychology and Theology Meet: Illness Appraisal and Spiritual Coping. *Western Journal of Nursing Research*. doi:10.1177/0193945912441265.
- Banerjee, Ananya Tina, Michael H Boyle, Sonia S Anand, Patricia H Strachan & Mark Oremus. 2012. The Relationship Between Religious Service Attendance and Coronary Heart Disease and Related Risk Factors in Saskatchewan, Canada. *Journal of Religion and Health*. doi:10.1007/s10943-012-9609-6.
- Chang, Bei-Hung, Nathan R Stein, Kelly Trevino, Max Stewart, Ann Hendricks & Lara M Skarf. 2012. End-of-life spiritual care at a VA medical center: Chaplains' perspectives. *Palliative & Supportive Care*. 1–6. doi:10.1017/S1478951511001003
- Cooper, Katherine L, Esther Chang, Athena Sheehan & Amanda Johnson. 2012. The impact of spiritual care education upon preparing undergraduate nursing students to provide spiritual care. *Nurse Education Today*. doi:10.1016/j.nedt.2012.04.005.
- Cox, Susie S, Rebecca J Bennett, Thomas M Tripp & Karl Aquino. 2012. An Empirical Test of Forgiveness Motives' Effects on Employees' Health and Well-Being. *Journal of Occupational Health Psychology*. doi:10.1037/a0028314
- Cragun, Carrie L & Myrna L Friedlander. 2012. Experiences of Christian Clients in Secular Psychotherapy: A Mixed-Methods Investigation. *Journal of Counseling Psychology*. doi:10.1037/a0028283.
- Dalmida, Safiya George, Marcia McDonnell Holstad, Colleen Diiorio & Gary Laderman. 2012. The Meaning and Use of Spirituality Among African American Women Living With HIV/AIDS. Western Journal of Nursing Research. doi:10.1177/0193945912443740.
- Elkonin, Diane, Ottilia Brown & Samantha Naicker. 2012. Religion, Spirituality and Therapy: Implications for Training. *Journal of Religion and Health*. doi:10.1007/s10943-012-9607-8.
- Greene, Paul B, Errol J Philip, Shannon R Poppito & Julie B Schnur. 2012. Mindfulness and psychosocial care in cancer: Historical context and review of current and potential applications. *Palliative & Supportive Care.* 1–8. doi:10.1017/S1478951511001015

- Hamilton, Jill B, Margarete Sandelowski, Ltc Angelo D Moore, Mansi Agarwal & Harold G Koenig. 2012. "You Need a Song to Bring You Through": The Use of Religious Songs to Manage Stressful Life Events. *The Gerontologist*. doi:10.1093/geront/gns064.
- Hayward, R David & Neal Krause. 2012. Trajectories of disability in older adulthood and social support from a religious congregation: a growth curve analysis. *Journal of Behavioral Medicine*. doi:10.1007/s10865-012-9430-4.
- Johnstone, Brick, Dong Pil Yoon, Daniel Cohen, Laura H Schopp, Guy McCormack, James Campbell & Marian Smith. 2012. Relationships Among Spirituality, Religious Practices, Personality Factors, and Health for Five Different Faith Traditions. *Journal of Religion and Health*. doi:10.1007/s10943-012-9615-8.
- Konopack, James F & Edward McAuley. 2012. Efficacy-mediated effects of spirituality and physical activity on quality of life: A path analysis. *Health and Quality of Life Outcomes* 10(1). 57. doi:10.1186/1477-7525-10-57
- Kulis, Stephen, David R Hodge, Stephanie L Ayers, Eddie F Brown & Flavio F Marsiglia. 2012. Spirituality and Religion: Intertwined Protective Factors for Substance Use among Urban American Indian Youth. *The American Journal of Drug and Alcohol Abuse*. doi:10.3109/00952990.2012.670338.
- Langman, Louise & Man Cheung Chung. 2012. The Relationship Between Forgiveness, Spirituality, Traumatic Guilt and Posttraumatic Stress Disorder (PTSD) Among People with Addiction. *The Psychiatric Quarterly*. doi:10.1007/s11126-012-9223-5.
- Levin, Jeff. 2012. Jewish Ethical Themes That Should Inform the National Healthcare Discussion: A Prolegomenon. *Journal of Religion and Health*. doi:10.1007/s10943-012-9617-6.
- Lord, Benjamin D & Sandra E Gramling. 2012. Patterns of Religious Coping among Bereaved College Students. *Journal of Religion and Health*. doi:10.1007/s10943-012-9610-0.
- McMahon-Parkes, Kate. 2012. Rationality, religion and refusal of treatment in an ambulance revisited. *Journal of Medical Ethics*. doi:10.1136/medethics-2011-100079.
- Mouch, Charles Adam & Amanda J Sonnega. 2012. Spirituality and Recovery from Cardiac Surgery: A Review. *Journal of Religion and Health*. doi:10.1007/s10943-012-9612-y.
- Peng, Philip W H. 2012. Tai Chi and Chronic Pain. Regional Anesthesia and Pain Medicine. doi:10.1097/AAP.0b013e31824f6629.
- Phelps, Andrea C, Katharine E Lauderdale, Sara Alcorn, Jennifer Dillinger, Michael T Balboni, Michael Van Wert, Tyler J Vanderweele & Tracy A Balboni. 2012. Addressing Spirituality Within the Care of Patients at the End of Life: Perspectives of Patients With Advanced Cancer, Oncologists, and Oncology Nurses. *Journal of Clinical Oncology: Official Journal of the American Society of Clinical Oncology*. doi:10.1200/JCO.2011.40.3766.

- Pitel, Lukas, Andrea Madarasova Geckova, Peter Kolarcik, Peter Halama, Sijmen A Reijneveld & Jitse P van Dijk. 2012. Gender differences in the relationship between religiosity and health-related behaviour among adolescents. *Journal of Epidemiology and Community Health*. doi:10.1136/jech-2011-200914.
- Randall, G Kevin & Alex J Bishop. 2012. Direct and Indirect Effects of Religiosity on Valuation of Life Through Forgiveness and Social Provisions Among Older Incarcerated Males. *The Gerontologist*. doi:10.1093/geront/gns070.
- Rote, Sunshine, Terrence D Hill & Christopher G Ellison. 2012. Religious Attendance and Loneliness in Later Life. *The Gerontologist*. doi:10.1093/geront/gns063.
- Sebena, Rene, Walid El Ansari, Christiane Stock, Olga Orosova & Rafael T Mikolajczyk. 2012. Are perceived stress, depressive symptoms and religiosity associated with alcohol consumption? A survey of freshmen university students across five European countries. *Substance Abuse Treatment, Prevention, and Policy* 7(1). 21. doi:10.1186/1747-597X-7-21
- Sedlmeier, Peter, Juliane Eberth, Marcus Schwarz, Doreen Zimmermann, Frederik Haarig, Sonia Jaeger & Sonja Kunze. 2012. The Psychological Effects of Meditation: A Meta-Analysis. *Psychological Bulletin*. doi:10.1037/a0028168.
- Sendhilkumar, Ragupathy, Anupam Gupta, Raghuram Nagarathna & Arun B Taly. 2012. Effect of pranayama and meditation as an add-on therapy in rehabilitation of patients with Guillain-Barré syndrome-a randomized control pilot study. *Disability and Rehabilitation*. doi:10.3109/09638288.2012.687031.
- Sirois, Ml, M Darby & S Tolle. 2012. Understanding Muslim patients: cross-cultural dental hygiene care. *International Journal of Dental Hygiene*. doi:10.1111/j.1601-5037.2012.00559.x.
- Stoltzfus, Kenneth M & Kathleen J Farkas. 2012. Alcohol Use, Daily Hassles, and Religious Coping Among Students at a Religiously Affiliated College. *Substance Use & Misuse*. doi:10.3109/10826084.2011.644843.
- Wiener, Lori, Denice Grady McConnell, Lauren Latella & Erica Ludi. 2012. Cultural and religious considerations in pediatric palliative care. *Palliative & Supportive Care*. 1–21. doi:10.1017/S1478951511001027
- Zernicke, Kristin A, Tavis S Campbell, Philip K Blustein, Tak S Fung, Jillian A Johnson, Simon L Bacon & Linda E Carlson. 2012. Mindfulness-Based Stress Reduction for the Treatment of Irritable Bowel Syndrome Symptoms: A Randomized Wait-list Controlled Trial. *International Journal of Behavioral Medicine*. doi:10.1007/s12529-012-9241-6.