

# CROSSROADS...

Exploring research on religion, spirituality and health

Newsletter of the Center for Spirituality, Theology & Health

Volume 5

Issue 2

August 2015

This newsletter provides updates on research, news and events related to spirituality and health, including educational resources and funding opportunities. **Please forward to colleagues or students who might benefit.** Our goal is to create a community of researchers, clinicians, clergy, and laypersons interested in spirituality and health and keep them informed and updated. An EVENTS CALENDAR concludes the newsletter and describes spirituality and health related presentations happening at Duke and around the world. This is your newsletter and we depend on you to let us know about research, news, and events in this area.

All e-newsletters are archived on our website. To view previous editions (July 2007 through July 2015) go to: <http://www.spiritualityandhealth.duke.edu/index.php/publications/crossroads>

## LATEST RESEARCH OUTSIDE DUKE

### Can Religion Improve Your Dental Health?

Investigators in the department of community dentistry at Hebrew University-Haddassah School of Dental Medicine, Jerusalem, and the London School of Medicine and Dentistry, London, surveyed a stratified random sample of 254 Jewish adults in Jerusalem (33% secular, 33% religious, and 34% Orthodox). The goal was to examine the relationship between religiosity and dental caries. Spirituality was assessed using the Hebrew version of the SpREUK Questionnaire for Religiosity, Spirituality and Health (which assesses five dimensions of spirituality – search for meaningful support, trust in higher guidance, positive interpretation of disease, support of external life through spirituality, support of internal life through spirituality). Clinical examinations assessed plaque levels, dental status, and periodontal health using standard measures and WHO criteria, all performed by a single trained dentist. Participants were examined in their homes. Exams were repeated in 22 participants to determine intra-examiner reliability over a two week interval. Response rate was 88% and intra-examiner agreement was high, indicated by kappa values > 0.89.

**Results:** High dental caries (cavities) was more common among secular (78.0%) compared to religious (43.9%) and orthodox (39.3%) ( $p < 0.01$ ) participants. Likewise, high spirituality was associated with significantly lower caries for two of the five spiritual dimensions assessed, with similar beneficial trends found for the other three dimensions. Path models demonstrated that religiosity reduced dental caries by increasing social support and spirituality, which affected health behaviors (lower plaque and lower sugar intake), which influenced dental health. Researchers concluded that: "The present study identified a strong statistical association between caries experience and religiosity. The direction of the association suggested that being religious had a protective effect on caries experience."

*Citation:* Zini A, Sgan-Cohen HD, Marcenes W (2012). Religiosity, spirituality, social support, health behavior and dental caries among 35-44 year-old Jerusalem adults: A proposed conceptual model. *Caries Research* 46:368-375

*Comment:* If you are Jewish, secular, and want good dental health, then perhaps you should reconsider religion. This was a very well done study both in terms of sampling (random with high response rate) and in determination of dental caries (using a standard dental exam with high intra-examiner reliability). The only weakness was the broad measurement of spirituality that likely overlapped with mental health. The 3-category measure of religiosity, however, was unambiguous.

### Religiousness, Personal Vulnerability and Problem Behaviors in Israeli College Students

Investigators in the department of health management in the School of Health Sciences at Ariel University surveyed 1,360 undergraduate students in the Health Sciences, Natural Sciences, and Social Sciences. Response rate was 94%, 65% were female, and mean age was 25 years. The purpose was to test the hypothesis that problem behaviors such as delinquency, cheating, smoking, alcohol/drug use, early sexual intercourse, aggression, and risky driving are a product of the integration between risk factors and protective factors that reduce exposure to risk (Jessor's Problem Behavior Theory). A 17-item scale was developed to measure multiple problem behaviors (the outcome), a 6-item scale measured vulnerability risk factors (stress or pressure due to schoolwork, living situation, family life, personal/social life, and threats to life or life of loved ones), and a 2-item measure assessed opportunity risk factors (accessibility of alcohol, parents living apart). Protective factors were measured using a 4-item scale assessing religious importance and a 4-item scale assessing academic performance importance. **Results:** Hierarchical linear regression indicated that importance of religion was inversely related to high-risk problem behaviors independent of sociodemographic and risk/vulnerability factors ( $b = -0.111$ ,  $p < 0.01$ ). Religiosity also moderated the effect of vulnerability on high-risk problem behaviors in both younger and older students. Among younger students (25 years or younger), vulnerability had almost no effect on problem behaviors when religious levels were high; however, when religiosity levels were low, vulnerability had a substantial effect on high-risk behaviors. Among older students (ages 26 or above), when religiosity was high, vulnerability likewise had no effect on problem behaviors (which actually decreased with increasing vulnerability); when religiosity was low, problem behaviors were high and increased with increasing vulnerability (although less so than in younger students). Researchers concluded that: "Thus, when people are young and religious, personal vulnerability has almost no impact on involvement in risk behaviors."

*Citation:* Korn L, Shaked Y, Fogel-Grinvald H (2014). Problem behaviors among Israeli undergraduate students: Applying Jessor's problem behavior theory among young adult students.

*Frontiers in Public Health* 2 (December, article 273):1-8

*Comment:* An important finding with regard to Israeli youth, although published in a relatively obscure journal.

### Religious Involvement, Early Trauma and Health

Analyzing cross-sectional data from a survey of 10,283 Seventh-day Adventist adults in North America, researchers from Johns

EXPLORE...in this issue

1-5 LATEST RESEARCH

5-6 SPECIAL EVENTS & RESOURCES

6 FUNDING Opportunities & CALENDAR

Hopkins School of Nursing and Loma Linda University examined the buffering effects of religious involvement on the relationship between early life trauma and mental/physical health. Religious involvement was assessed by (1) the 3-item intrinsic religiosity subscale from the DUREL and (2) the 14-item brief RCOPE that assesses positive and negative religious coping (RC). "Early life trauma" was assessed using a 2-item Risky Family Scale (neglect), 6-item Ryff Relationship Scale (physical and psychological abuse), and a 2-item Trauma Inventory Scale (sexual abuse). Early traumatic stress (ETS) was defined as exposure to one or more of the following: physical abuse, psychological abuse, sexual abuse, neglect, or witnessed parental abuse. Mental and physical health were assessed with the 12-item Short-Form Health Survey (SF12). **Results:** Two three-way interactions were identified: one involving gender, positive RC, and ETS on Physical Health ( $B=1.43$ ,  $p<0.05$ ), and the other involving gender, negative RC, and ETS on Physical Health ( $B=-2.95$ ,  $p<0.01$ ). In men, the negative effect of early trauma on physical health was *greater* among those with high positive RC, and early trauma had *less effect* on physical health in those with high negative RC (finding not expected). Among women with high negative RC, however, the effects of early trauma on physical health were significantly worse.

*Citation:* Reinert KG, Campbell JC, Bandeen-Roche K, Sharps P, Lee J (2015). Gender and race variations in the intersection of religious involvement, early trauma, and adult health. *Journal of Nursing Scholarship*, Jun 15 [Epub ahead of print]

*Comment:* In this study, the moderating effect of religious coping on the influence that early trauma had on physical health was complex and differed by gender. Given the cross-sectional nature of these analyses, and the changes in religious coping that often occur in response to both traumatic life events and physical illness, the interpretation of the findings is difficult. As expected, though, current negative religious coping appeared to exacerbate the adverse effects that early trauma had on physical health in women (but unexpectedly appeared to reduce them in men!). Also surprising was that current intrinsic religiosity appeared to have no buffering effect on early trauma's influence on health.

## A Critique of Research on Religion, Spirituality and Health

British psychiatrist Michael B. King provides a critique of research on religion, spirituality and health in this opinion piece. He challenges the existing research and questions how good the evidence is. He argues that the size of the health benefit of religiosity is "extremely small," and that for those who are spiritual but not religious, mental health is even worse than in those who are completely secular (neither spiritual nor religious). King notes that much of the research has been poorly conducted and that a number of religion-health researchers hold strong personal religious beliefs that bias their interpretation of the findings. He also points out the differences in the findings in the U.S. compared to those in the United Kingdom.

*Citation:* King MB (2014). The challenge of research into religion and spirituality (Keynote 1). *Journal for the Study of Spirituality* 4(2):106-120

*Comment:* Certainly everyone is entitled to their view, and Dr. King (an impeccable psychiatric researcher) is not shy in expressing his. Some of his points are valid and need attending to. Few, however, are unique to the field of religion, spirituality and health, which is often the impression given in the article. Concerns about researcher commitment to a particular research finding, bias in the interpretation of findings, and quality of research methodology are common to all fields of psychological, behavioral and social health research, which rely heavily on subjective measures. In the spirituality and health arena, poor research funding (forcing many studies to be done without support) and use of measures that lack specificity have led to published studies with

less than perfect designs. Nevertheless, there are also a lot of very good studies among the approximately 4000 quantitative reports now published, which seem to have been glossed over in the article. A response to Dr. King is now being prepared – stay tuned!

## Spiritual Reminiscence in Elders with Mild-Moderate Dementia: A Randomized Controlled Trial

This is one of the few studies (if not only) to examine the effects of a spiritual intervention on the mental health, spiritual well-being, and cognitive functioning of older adults with dementia, using a randomized clinical trial design. The study was carried out by researchers in the department of nursing at the National Taichung University in Taiwan, with help from the Buddhist Tzu Chi Medical Foundation and the University of Toronto's Dalla Lana School of Public Health. A total of 103 Taiwanese ages 65 or older (ave age 74) with mild or moderate dementia were randomized to either a Spiritual Reminiscence group for 6 weeks ( $n=53$ ) or to a no-treatment Control group ( $n=50$ ) that received assessment only. Participants were given a diagnosis of dementia by clinicians in the geriatrics division of a medical center in central Taiwan. The Mini-Mental State Exam (MMSE) was used to divide participants into mild (MMSE 21-24) and moderate (MMSE 13-20) dementia. The Spiritual Reminiscence intervention consisted of six weekly one-hour group sessions. The content of each session followed the spiritual model of dementia described by MacKinlay and Trevitt: Session 1 focused on what gives meaning to life; Session 2 addressed relationships with others and changes with aging; Session 3 addressed hopes, fears and worries; Session 4 discussed the changes associated with growing older and transcendence; and Sessions 5 and 6 focused on spiritual/religious beliefs and practices. Outcomes were hope (Herth Hope Index), life satisfaction (Life Satisfaction Scale), spiritual well-being (Index of Spiritual Well-being), and cognitive functioning (MMSE).

**Results:** The interactions between group and time for each of the four outcomes (hope, life satisfaction, spiritual well-being, and cognitive functioning by MMSE) were all significant at  $p<0.001$ . Thus, the spiritual intervention improved hope, life satisfaction, spiritual well-being, and cognitive function more quickly over time in the Spiritual Reminiscence group compared to the no intervention control group. Authors concluded that the "hope, life satisfaction, and spiritual well-being [and cognitive functioning, we might add] of elderly patients with mild or moderate dementia could significantly be improved with a 6-week spiritual reminiscence intervention."

*Citation:* Wu LF, Koo M (2015). Randomized controlled trial of a six-week spiritual reminiscence intervention on hope, life satisfaction, and spiritual well-being in elderly with mild and moderate dementia. *International Journal of Geriatric Psychiatry*, May 11 [Epub ahead of print]

*Comment:* This is a remarkable study of a relatively simple "cognitive" intervention in patients with mild to moderate dementia. However, since the control group received no treatment or attention other than completing assessments at baseline and six weeks, we don't know if Spiritual Reminiscence is any better than say simply meeting with others in a group weekly for an hour to watch sporting events or play bingo. Also, there is no information about how long these benefits were maintained; all we know is that all four outcomes were better immediately after the groups ended at 6 weeks. Since all participants had significant cognitive impairment and may not be able to retain information, one wonders how long these benefits will last.

## Depression and Religious Involvement in Dementia Family Caregivers

Researchers at the Philadelphia VA Medical Center, Villanova College of Nursing, and John Hopkins University analyzed data

from 1,227 family caregivers of persons with dementia (REACH-I), examining relationships between depressive symptoms and five dimensions of religiosity. Religious measures were frequency of religious attendance, frequency of prayer or meditation, self-rated importance of religion, participation in religious services or meetings as a source of comfort, and extent to which prayer or meditation as a source of comfort. Depressive symptoms were measured using the 20-item CES-D. Average age of participants was 62 years old, 82% were female, 56% were white, and average years of caregiving was 4.3. **Results:** After controlling for multiple sociodemographic variables, all five religious measures were inversely related to depressive symptoms (four of the five at  $p=0.001$ ). After controlling for other religious variables in the model, the strongest inverse predictor of depressive symptoms was "prayer as a source of comfort/help" ( $B=-2.17$ ,  $p=0.001$ ). Interestingly, with all other religious variables in the model, frequent prayer was actually positively associated with depressive symptoms ( $B=+0.80$ ,  $p=0.004$ ). In other words, after controlling for other religious variables, the relationship actually reversed in sign. In the initial model controlled for confounders (not other religious variables), frequency of prayer was inversely related to depressive symptoms ( $B=-0.43$ ,  $p<0.05$ ).

*Citation:* Winter L, Moriarty HJ, Atte F, Gitlin LN (2015). Depressed affect and dimensions of religiosity in family caregivers of individuals with dementia. Journal of Religion and Health 54:1490-1502

*Comment:* Controlling for demographic confounders, every indicator of religious activity was associated with fewer depressive symptoms (indicating better coping with the caregiver role). However, when all religious variables were thrown into a single model, the findings became less clear, and the relationship with frequency of prayer actually reversed in direction. **Researchers take note!** The lesson here is to NOT include multiple religious variables in a single model, but rather to examine each religious characteristic separately in its own model in relationship to outcomes (depressive symptoms in this study). The strong correlation between individual religious variables causes strange things to happen when all are lumped together into a single regression model, making interpretation of results difficult.

### **Intrinsic Religiosity, Depression, Resilience and Suicide Risk in Brazilian Psychiatric Patients**

Investigators in the department of psychiatry at the Universidade Federal de Rio Grande do Sul in Porto Alegre, Brazil, prospectively followed 143 depressed patients admitted to an inpatient psychiatric unit in southern Brazil (mean age 46, 59% women, had psychiatric illness for 11 years, average 3 prior admissions). Depressive disorder was established using the MINI Neuropsychiatric Interview within 72 hours of admission. The HAMD, GAF, CGI, and BPRS (measures of mental health status typically used to assess inpatient progress) were administered on admission and within 24 hours of hospital discharge. Also assessed before discharge were social support (Medical Outcomes Study), quality of life (26-item WHOQOL-BREF), resilience (25-item Resilience Scale), physical health (Cumulative Illness Rating Scale), and intrinsic religiosity (IR). IR was assessed using a 3-item subscale of the 5-item DUREL. **Results:** On admission, those with high IR (vs. low IR) had significantly *more* severe depressive symptoms (HAMD) and worse overall psychiatric status by the BPRS, CGI, and GAF. However, they also had significantly higher social support and fewer prior suicide attempts. At discharge, patients with high IR scored higher on quality of life ( $p=0.001$ ) and scored higher on the Resilience Scale ( $p=0.000$ , Cohen's  $d=1.02$ ). After controlling for other covariates in a regression model (social support, education, HAMD at discharge, days in psychiatric unit), IR remained significantly associated with greater resilience (adjusted  $r=0.19$ ,  $p=0.000$ ). Researchers concluded that the findings "support the hypothesis

that resilient psychological characteristics may mediate the positive effect of intrinsic religiosity in depression."

*Citation:* Mosqueiro BP, da Rocha NS, de Almeida Fleck MP (2015). Intrinsic religiosity, resilience, quality of life, and suicide risk in depressed inpatients. Journal of Affective Disorders 179:128-133

*Comment:* Despite having more severe depression on admission and discharge, those with high intrinsic religiosity had a history of fewer suicide attempts and by discharge experienced significantly higher quality of life and displayed substantially greater resilience. The Resilience Scale used here is a measure of adaptation in the face of trauma, stress, and adversity; it assesses the dimensions of personal competence, self-reliance, independence, determination, mastery, resourcefulness, and perseverance, as well as adaptability, flexibility, sense of peace in adversity, balanced perspective of life, and acceptance of life circumstances.

### **Religiosity and Impulsivity in Brazilian Psychiatric Patients**

Researchers in the mood and anxiety disorders program at the Universidade Federal da Bahia in Salvador, Brazil, compared religiosity and impulsivity between 93 psychiatric patients who had attempted suicide and 61 healthy individuals without psychiatric disorder (people who accompanied patients to the hospital, i.e., family members and friends). The MINI Neuropsychiatric Interview was used to establish psychiatric diagnoses in patients (61% major depression, 22% generalized anxiety disorder, 19% alcohol dependence, 10% bipolar disorder, 9% drug dependence, 8% schizophrenia). Religiosity was assessed with the 5-item DUREL, which measures three dimensions (intrinsic religiosity, religious attendance, private religious activity). The Barratt Impulsiveness Scale assesses three dimensions: attentional impulsiveness (AI), motor impulsiveness (MI), and absence of planning (AP), and produces a total impulsivity (TI) score. **Results:** Having a religious affiliation was similar in both groups (55% patients vs. 57% healthy). All three dimensions of religiosity, however, were significantly higher among healthy individuals compared with patients, whereas impulsiveness was significantly higher in patients compared to healthy individuals. In the patient group, intrinsic religiosity was inversely related with two of three impulsivity domains (AI and PI), and with the total impulsivity score (TI). The associations remained significant after controlling for confounding variables. No significant relationships, however, were found between religiosity and impulsivity in healthy individuals.

*Citation:* Caribé AC, Rocha MF, Junior DF, Studart P, Quarantini LC, Guerreiro N, Miranda-Scippa Â (2015). Religiosity and impulsivity in mental health: Is there a relationship? Journal of Nervous & Mental Disease 203(7):551-554.

*Comment:* The findings are not totally surprising, and similar to those reported by others that have linked religious involvement with greater self-control (Psychological Bulletin 2009; 135:69-93). However, to our knowledge, this is the first study to examine impulsiveness and religiosity among psychiatric patients, particularly those who have recently attempted suicide. This helps to explain why those who are more religious have lower risk of attempting and completing suicide, given the often impulsive nature of this action.

### **Religiosity and Life Satisfaction in Hispanics vs. non-Hispanic Whites**

Investigators in the department of psychiatry at the University of California, San Diego, examined differences in life satisfaction between 126 community-dwelling Hispanics age 50 or older and 126 non-Hispanic Whites matched for age, gender, and education. Average age of participants was 73 years, 58% were male, and 66% had at least some college. Life satisfaction was measured using the 5-item Satisfaction with Life Scale (Diener). Also

assessed were physical functioning, cognitive functioning, emotional functioning, social functioning, positive psychological traits, and religion/spirituality. Religion/spirituality was assessed by daily spiritual experiences and private religious practices. **Results:** Daily spiritual experiences and private religious practices were significantly higher among Hispanic respondents compared to White respondents (both  $p < 0.001$ ). Satisfaction with life was also significantly higher in Hispanics than in Whites (also  $p < 0.001$ ). Satisfaction with life, in turn, was associated with more daily spiritual experiences ( $p < 0.001$ ) and with more private religious practices ( $p < 0.05$ ) in the overall sample. Using a path model to examine all relationships together, more frequent daily spiritual experiences was the primary factor that explained why Hispanics had greater life satisfaction compared to non-Hispanic Whites. *Citation:* Marquine MJ, Maldonado Y, Zlata Z, Moore RC, Martin AS, Palmer BW, Jeste DV (2014). Differences in life satisfaction among older community-dwelling Hispanics and non-Hispanic Whites. *Aging and Mental Health*, Nov 17 [Epub ahead of print] *Comment:* The findings are of particular note given the well-educated nature of both samples (44% with some college up to a bachelor's degree and 22% with post-graduate education), and the careful matching on age and gender. Daily spiritual experiences appeared to be a key factor explaining the greater life satisfaction among older Hispanics compared to older Whites in this southern California study.

### Religion and Medication Adherence in Malaysia

There are concerns that religious beliefs may interfere with compliance to life saving medication (i.e., that religion encourages dependence of faith for healing, not medicine). This study involved 300 patients attending outpatient HIV, chronic kidney disease, or hypertension clinics at tertiary care hospitals in Selangor, Malaysia. Mean age of participants was 58, 59% were women, and average number of medications prescribed was 5.1. The religious affiliation of participants was diverse: 44% Muslim, 26% Buddhist, 12% Christian, and 5% Atheists. Religiosity was measured by the 5-item DUREL. Medication adherence was assessed using the 8-item Morsky Medication Adherence Scale. Based on this scale, only 29% of participants were adherent to their medications, and 71% were non-adherent. Social support was assessed with a standard 12-item scale (MSPSS). **Results:** Controlling for demographics, number of medication prescribed, and other factors, predictors of better compliance were older age, shorter duration of treatment, disease type (HIV), and frequency of religious attendance (OR=1.19, 95% CI 1.06-1.41,  $p=0.01$ ). Social support had no effect on adherence (OR=0.97, 95% CI 0.90-1.04,  $p=0.43$ ).

*Citation:* Hatah E, Lim KP, Ali AM, Shah NM, Islahudin F (2015). The influence of cultural and religious orientations on social support and its potential impact on medication adherence. *Patient Preference and Adherence* 9:589-596

*Comment:* Contrary to expectation, those who attended religious services more often were nearly 20% more likely to comply with their medications. Surprisingly, social support from family and friends had no effect. Religious involvement in this area of the world may encourage medication compliance through beliefs that promote respect for the body, and/or by faith-based social interactions that involve greater monitoring and encouragement to adhere to doctor-recommended treatments.

### When is Praying with Patients Appropriate?

Researchers at Harvard's Dana-Farber Cancer Institute conducted a multi-site survey of cancer patients ( $n=70$ ), oncology physicians ( $n=206$ ), and oncology nurses ( $n=115$ ) at Beth Israel Deaconess Medical Center, Boston Medical Center, Brigham and Women's Hospital, and the Dana-Farber Cancer Institute (all Boston hospitals), asking questions about the appropriateness of patient-clinician prayer. The study considered both *patient-initiated prayer*

(where patient requests prayer) and *practitioner-initiated prayer* (where clinician asks patient if he/she would like to pray). The appropriateness of these two types of prayer (with the health practitioner saying the prayer aloud) was asked of all three groups. Response options were never, rarely, occasionally, frequently, almost always, and always. **Results:** With regard to patient-initiated prayer, 71% of patients said that asking the clinician to pray with them was at least occasionally appropriate (and 38% said always or almost always appropriate). Note that patients were half Catholic, half female, and average age was 60 years. Even more nurses agreed (83%) that patient-initiated prayer was at least occasionally appropriate (and 26% said always or almost always appropriate). Nurses were 63% Catholic, 98% female, and average age was 46 years. Physicians were less likely to say that patient-initiated prayer was at least occasionally appropriate (65%) and even fewer said it was always or almost always appropriate (18%). Physicians were 24% Catholic and 26% Jewish, 58% male, and average age was 41 years. With regard to practitioner-initiated prayer, 64% of patients said it was at least occasionally appropriate (30% said always or almost always appropriate). These responses were quite similar to patient's responses for patient-initiated prayer. Similarly, 76% of nurses said it was at least occasionally appropriate (18% always or almost always appropriate). Finally, 59% of physicians said it was at least occasionally appropriate and 15% indicated it was always or almost always appropriate. However, over 40% said it was never or rarely appropriate for the clinician to ask a patient if he/she wanted to pray. "Importance of religion" to the patient, to the nurse, and to the physician was a strong predictor of feeling that prayer was appropriate (regardless of whether it was initiated by the patient or the practitioner).

*Citation:* Balboni MJ, Babar A, Dillinger J, Phelps AC, George E, Block SD, Kachnic L, Hunt J, Petet J, Prigerson HG, VanderWeele TJ, Balboni TA (2011). "It depends": Viewpoints of patients, physicians, and nurses on patient-practitioner prayer in the setting of advanced cancer. *Journal of Pain and Symptom Management* 41(5):836-847

*Comment:* Although this is an older study (2011) and was initially reported in our Feb 2012 e-newsletter, the importance and controversial nature of the topic bears summarizing and commenting on again. The Northeast US tends to be less religious than other parts of the U.S., so the bias in this study was probably against prayer (given that importance of religion was a strong predictor of response). With regard to *practitioner-initiated prayer*, we agree with Harvard theologian Michael Balboni regarding the conditions that should be present before such a practice: (a) take a brief spiritual history and get to know the patient; (b) prayer must be based on consent and is influenced by the "concordance" of faith between practitioner and patient; (c) patient should have an easy out to avoid social pressure or coercion (perhaps say, "if you ever want to pray, just ask and I'm happy to pray with you"); (d) make prayer short and supportive; (e) check your motives for asking if patient wants prayer and be sure they are the right ones (compassion, care, desire to help); (f) ask patient/family afterwards "Was that OK?", which gives opportunity for feedback; and (g) immediately apologize if there is any indication of offense (treat like a medical error).

### Chaplain Visits and Patient Satisfaction

Researchers in the department of psychiatry at the Icahn School of Medicine at Mount Sinai (New York City) examined data on chaplain visits and patient satisfaction from HCAHPS and Press Ganey surveys involving 8,978 patients discharged from Mount Sinai Hospital over an 18 month period [12/14/11 through 5/1/13]. Chaplain encounters were recorded in the electronic medical record. The two questions on the HCAHPS survey that assessed patient satisfaction were: (1) "What number would you use to rate this hospital during your stay?" (ranging from 0 to 10, where 0 was

worst hospital possible and 10 was best hospital possible); and (2) "Would you recommend the hospital to your friends and family?" (ranging from 1 to 4, where 1 was definitely no and 4 was definitely yes). The two questions on the Press Ganey survey related to satisfaction were: (1) "Overall rating of care given at hospital" and (2) "Likelihood of your recommending this hospital to others." Two additional questions on the Press Ganey survey asked (1) "Degree to which hospital staff addressed your spiritual needs" and (2) "Degree to which hospital staff addressed your emotional needs." The four Press Ganey questions were rated on a 5-point scale from "very poor" (1) to "very good" (5). Also assessed were age, gender, race, and ethnicity, as well as education, religious affiliation, language spoken at home, and self-rated health.

**Results:** Patients visited by a chaplain (n=498), compared to those not visited (n=8,480), were more likely to be Christian (76% vs. 47%), older (61.3 vs. 55.9 years), Black (15.3% vs. 11.0%), have poor health status (6.2% vs. 3.0%), and less likely to have excellent health status (13.7% vs 24.5%). In bivariate analyses, overall care given at the hospital (p<0.01), patient's rating of hospital during stay (p<0.05), likelihood of recommending hospital to friends and family (p<0.05), and degree to which spiritual needs were met (p<0.01) were all significantly greater among chaplain-visited patients. When other patient characteristics were controlled for in regression models, all six indicators of patient satisfaction remained significantly higher among chaplain-visited patients.

*Citation:* Marin DB, Sharma V, Sosunov E, Egorova N, Goldstein R, Handzo GF (2015). Relationship between chaplain visits and patient satisfaction. *Journal of Health Care Chaplaincy* 21:14-24

*Comment:* This is a remarkable study involving a large systematically identified sample and asking important questions that hospitals are now being graded on. Even though chaplain-visited patients were physically sicker, they were more likely to be satisfied with the care received and to recommend the hospital to others. These findings underscore the important role that chaplains play in hospital settings from the patient's perspective, and should be of considerable interest to hospital administrators who may be searching for ways to cut hospital costs and attract new patients to their facilities. Reducing chaplain staff will certainly not help their case.

## LATEST RESEARCH FROM DUKE

### Genes, Religion, and Response to Religious vs. Conventional Psychotherapy for Depression

In a sample of 132 patients with major depressive disorder, researchers at Duke University and an international research team examined relationships between religiosity and genetic polymorphisms that convey high risk for depression, and explored how the latter influenced response to ten 50-minute sessions of religious (RCBT) vs. conventional (CCBT) cognitive behavioral therapy delivered over 12 weeks. Major depression was diagnosed with the MINI Neuropsychiatric Inventory, and depression outcomes were assessed using the Beck Depression Inventory. Measures of religiosity included daily spiritual experiences, religious attendance, private religious activities, importance of religion, intrinsic religiosity, and both negative and positive religious coping. Four functional high-risk polymorphisms were assessed: 5-HTTLPR and rs25531 at the serotonin transporter gene (SLC6A4), rs6295 at 5-HT1A receptor gene (HTR1A), and uMAOA-VNTR at the monoamine oxidase A gene (MAOA). **Results:** While there were few findings regarding the relationship between religious measures and high-risk polymorphisms, they were at least consistent. High-risk polymorphisms were less common in those who were more religious, especially for men and Blacks. The presence of high-risk genotype had no effect on response to RCBT vs. CCBT in the overall sample. However, low religiosity subjects with the C/G

genotype of HTR1A were more likely to respond to CCBT compared to RCBT. Given the many statistical comparisons made, researchers concluded that "Whether high risk genotypes in certain subgroups of depressed persons may be associated with religious involvement or affect treatment response remains unclear." They encouraged future studies to determine if the findings reported here could be replicated in different populations by other researchers.

*Citation:* Koenig HG, Gutiérrez B, Cervilla J, Pearce MJ, Daher N, Nelson B, Shaw SF, Cohen HJ, King MB (2015). Genes, religion, and response to religious vs. conventional psychotherapy: A randomized clinical trial in medically ill patients with major depression. *Austin Journal of Psychiatry* 2(1):1036

*Comment:* This is one of the first studies to examine relationships between religiosity and genetic polymorphisms that are known to increase risk of depression, and is the first study to examine the moderating effect of high-risk polymorphisms on response to a religious intervention for major depression.

## NEWS

### New Documentary: *Chaplains*

A new documentary from filmmaker Martin Doblmeier will soon be released on DVD and Public Television: "This groundbreaking documentary unveils the challenging and inspiring world of Chaplains. A largely untold story – the film profiles eight different Chaplains across various faith traditions and work professions – highlighting both the diversity and necessity of their work." To watch the trailer for the film, go to: <https://vimeo.com/120434392>.

## SPECIAL EVENTS

### 12<sup>th</sup> Annual Duke Spirituality & Health Research Workshop (Durham, NC) (August 10-14, 2015)

**Still a few spots left** in our 2015 summer research workshop on spirituality & health. The workshop is designed for those interested in conducting research in this area or learning more about the research that is now being done. Those with any level of training or exposure to the topic will benefit from this workshop, from laypersons to graduate students to seasoned researchers and professors at leading academic institutions. Over 700 persons from all over the world have attended this workshop since 2004. Individual mentorship is being provided to those who need help with their research or desire career guidance. Partial **tuition scholarships** are still available for those with strong academic potential and serious financial hardships. For more info, see website: <http://www.spiritualityhealthworkshops.org/>.

### National Association of Jewish Chaplains (NAJC) 2016 Conference (Baltimore, Jan 17-20, 2016)

"Voice of the voiceless: Experiential and research-based advocacy as a form of spiritual care" is the theme of this year's conference. According to organizers, the primary goal of this 27<sup>th</sup> annual conference is to examine -- through experiential and research-based methods-- chaplaincy and pastoral care models related to the chaplain's role as advocate for vulnerable individuals who have lost their voice. They emphasize that chaplains help bring forth people's voices through their presence, both through silence and through words. Another goal of the conference is to foster an understanding of how the chaplain's Jewish heritage can help conceptualize tools that are needed in order to fulfill the chaplain's obligation to repair the world. For more information, go to: [http://www.najc.org/events/Conference\\_2016/call\\_for\\_papers](http://www.najc.org/events/Conference_2016/call_for_papers)

## RESOURCES

### CME/CE Videos

Five professionally produced 45-minute videos on **why and how** to “integrate spirituality into patient care” are now available for viewing on our website (*for free*, unless CME/CE is desired) due to the generous support of the Templeton Foundation and Adventist Health System. These videos are specifically targeted at physicians, nurses, chaplains, and social workers to help them form spiritual care teams that will enable them to provide whole person medical care that includes the identifying and addressing of spiritual needs. No other resource like this currently exists. Go to: <http://www.spiritualityandhealth.duke.edu/index.php/cme-videos>.

### Health and Well-being in Islamic Societies (Springer International, 2014)

As ISIS marches across the Middle East, conducting ethnic cleansing, beheading Westerners, and rewarding their soldiers with women they've captured along the way –justifying these activities by pointing to the Qur'an – what exactly do Muslims believe? What is contained in and emphasized in the Qur'an? In this volume, Muslim beliefs and practices based on the Qu'ran and Hadith are outlined in detail, as are health-related Islamic practices and moral standards. Differences and similarities between Christian and Muslim beliefs and practices are examined. Much of this information will be a real eye-opener to readers. The core of the book, though, focuses on research on religiosity and health in Muslim populations and compares the health of Muslims with that of other religious groups. Available for \$53 at: <http://www.amazon.com/Health-Well-Being-Islamic-Societies-Applications/dp/331905872X>

### Spirituality in Patient Care, 3rd Ed (Templeton Press, 2013)

The 3rd edition provides the latest information on how health professionals can integrate spirituality into patient care by identifying and addressing the spiritual needs of patients. Chapters are targeted to the needs of physicians, nurses, chaplains and pastoral counselors, mental health professionals, social workers, and occupational and physical therapists. Available for \$21 (used) at: <http://www.amazon.com/Spirituality-Patient-Care-When-What/dp/1599474255/>.

### Handbook of Religion and Health (2nd Ed) (Oxford University Press, 2012)

This Second Edition covers the latest original quantitative research on religion, spirituality and health. Spirituality and health researchers, educators, health professionals, and religious professionals will find this resource invaluable. Available for \$132 (used) at: <http://www.amazon.com/Handbook-Religion-Health-Harold-Koenig/dp/0195335953>

### Spirituality & Health Research: Methods, Measurement, Statistics, & Resources (Templeton Press, 2011)

This book summarizes and expands the content presented in the Duke University's Summer Research Workshop on Spirituality and Health (see above), and is packed full of information helpful in performing and publishing research on this topic. Available for \$38 (used) at: <http://www.amazon.com/Spirituality-Health-Research-Measurements-Statistics/dp/1599473496/>

## FUNDING OPPORTUNITIES

### Templeton Foundation Online Funding Inquiry (OFI)

Templeton Foundation will be accepting letters of intent (OFI) for research on spirituality and health in early 2016. They have not yet announced the window for the new OFI window. The Aug 1-Oct 1, 2015, window will be skipped this year. The three main areas in religion, spirituality and health that the Foundation funds are: (1) research on causal mechanisms (basic psychosocial, behavioral, and physiological pathways), (2) increasing competencies of health care professionals in working with religious patients (physicians, but also psychologists and experts in public health), and (3) research involving the development of religious-integrated interventions that lead to improved health. More information: <http://www.templeton.org/what-we-fund/our-grantmaking-process>.

## 2015 Csth Calendar of Events...

### August

- 10-14 **Spirituality and Health Research Workshop**  
Speakers: Blazer, Oliver, Kinghorn, Carson, Williams, Koenig  
Durham, North Carolina (see website for location)  
Contact: Harold G. Koenig ([Harold.Koenig@duke.edu](mailto:Harold.Koenig@duke.edu))
- 26 **Religion, Spirituality and Health in the Christian Science Tradition**  
Speaker: Virginia Harris and Cynthia Barnett  
Center for Aging, 3rd floor, Duke South, 3:30-4:30  
Contact: Harold G. Koenig ([Harold.Koenig@duke.edu](mailto:Harold.Koenig@duke.edu))

### September

- 24 **Religion, Spirituality and Health**  
Southport Congregational Church  
Southport, CT, and Fairfield, CT  
Speaker: Harold G. Koenig  
Contact: Rev Paul Whitmore ([pwhitmore@southportucc.org](mailto:pwhitmore@southportucc.org))
- 30 **Religion and medical ethics: Empirical and theoretical relationships**  
Speaker: Farr Curlin, M.D.  
Josiah C Trent Professor of Medical Humanities, Duke U.  
Co-Director, Theology, Medicine, & Culture Initiative, Duke U  
Center for Aging, 3rd floor, Duke South, 3:30-4:30  
Contact: Harold G. Koenig ([Harold.Koenig@duke.edu](mailto:Harold.Koenig@duke.edu))

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<http://www.spiritualityandhealth.duke.edu/about/giving.html>