CROSSROADS…

Exploring research on religion, spirituality and health

Newsletter of the Center for Spirituality, Theology & Health Volume 1 Issue 2 Aug 2011

The purpose of this newsletter is to provide updates on research related to spirituality and health for those who are interested. Please forward onto any colleagues or students who might benefit. As indicated in our July newsletter, the research in this area is rapidly increasing. The publication of the second edition of the *Handbook of Religion and Health* (Oxford University Press) has been delayed until January 2012. This edition reviews research conducted during the last decade (2000-2010), and summarizes the studies published prior to 2000, reviewing nearly 3,000 quantitative studies of the spirituality-health relationship conducted since 1872. The bad news is that Oxford has priced it at $144 (Amazon.com).

In each newsletter we review some of this research, highlighting new studies coming out in the literature, and discussing the latest research being conducted at Duke. An **EVENTS CALENDAR** concludes the newsletter and describes spirituality and health related conferences, workshops, and presentations that are happening here locally, nationally, and around the world.

Latest Research at Duke

Religious Participation and Mortality in China

Duke researchers analyzed data from a 3-year prospective study (2002-2005) involving 9,017 Chinese adults aged 85+ and 6,956 Chinese adults aged 65-84 years. A single religious question was asked: "At present time, do you participate in religious activities regularly?" For the entire sample, 6.4% participated weekly or more, 11% less than weekly, and 83% did not participate at all. Analyses were stratified by age group and by gender. Among men ages 65-84 (n=3,077), after adjusting for demographic characteristics (age, gender, rural vs. urban residence, ethnicity, education, economic independence) (i.e., confounders), those who participated frequently were 41% more likely to survive the 3-year follow-up than those who did not participate; those who participated less than weekly, were 28% more likely to survive than non-participants. Controlling for explanatory variables including social/family support and connections, leisure activities, and health behaviors (smoking, alcohol use, exercise), did not explain the effects, which remained significant ($p<0.05$). Controlling for baseline physical health factors reduced the effect of infrequent vs. non-participation (28% to 19%, p=NS), but did not change the effect of frequent participation vs. non-participation (increasing from 41% to 47%, $p<0.05$). Among women ages 65-84 (n=2,911), after controlling for demographics, frequent religious participation predicted a 45% reduction in mortality ($p<0.01$), which decreased to 37% after controlling for social factors, health behaviors, and physical health factors but remained significant ($p<0.05$). Among men ages 85+ (n=2,885), after controlling for demographics, frequent participation predicted a 41% reduction in mortality, same as for younger men but more significant an effect ($p<0.001$), which was reduced to 27% when social factors, health behaviors, and physical health factors were controlled, but remained significant ($p<0.05$). Among women ages 85+ (n=5,072), after adjusting for confounders, frequent participation (vs. non-participation) was associated with a 28% reduction in 3-year mortality ($p<0.001$), and was partially explained by social factors (reducing effect to 19%, which remained significant), although controlling for health behaviors and physical health factors, reduced effect to 13% (no longer significant). In the overall sample, after adjusting for confounders and explanatory factors, frequent participation (vs. non-participation) predicted a 21% reduction in mortality ($p<0.001$).
Citation: Yi Z, Danan G, George LK (2011). Religious participation and mortality among older Chinese adults. Research on Aging (in press)
Comment: This is the first study using a nationwide sample of young elderly and oldest-old to examine the effects of religious participation on mortality in Mainland China. Effects were significantly stronger in young elderly vs. oldest-old men, although the force of mortality presented by biological factors likely overwhelmed religious factors in the older sample. There was no such age difference in women nor were there any significant gender differences overall.

Latest Research from Outside Duke

Attention to Hospitalized Patients' Spiritual Concerns

Researchers at University of Chicago questioned a systematic sample of hospitalized patients about their religious and spiritual concerns, whether or not those concerns had been addressed, and to what extent addressing those concerns was related to satisfaction with overall care received. Patients were asked to fill out a questionnaire within 24 h of admission and then again by telephone 30 days after discharge. Between 2006 and 2009, a total of 11,620 patients were approached, 1,671 refused and 6,808 were enrolled but did not complete the post-discharge questionnaire. This study focused on the remaining 3,141 patients, of whom 2,768 answered all questions related to spiritual needs. Results indicated that 41% of patients (n=1,135) indicated they would have liked to discuss religious or spiritual concerns with someone while in the hospital, whereas 59% did not. Of those who wished this, some type of discussion did occur in 51% (n=574). Among those who did not desire such discussions (n=1,633), such discussions occurred in 19% (n=315) anyway. Among those who had such discussions (n=889), 8% of patients spoke with a physician (n=70), 61% spoke with a chaplain (n=541), 12% spoke with someone from their own religious community, and 12% spoke with someone else. Those who wished to have religious/spiritual discussions were more likely to be ages 61-70 (vs. <age 40), had less education, had experienced severe pain, and were more religious or spiritual. Predictors of those who actually had such discussions were age (over age 50 vs. < age 40), race (African-Americans vs. Whites), less education, experience of severe pain, more medical illnesses, and more religious. Predictors of those who had a desire to discuss religious/spiritual issues, but did not have that need met, were those who were more religious or spiritual (only predictor). Researchers also found a relationship between patients' satisfaction with care overall and whether or not patients reported having had discussions of religious or spiritual needs with someone. Those who had such discussions were significantly more likely to give superior ratings on all four patient satisfaction

measures. This was even true for those who said they didn't want to discuss religious or spiritual concerns. The person with whom the patient discussed religious/spiritual concerns did not predict ratings of patient satisfaction on any of the four measures.
Citation: Williams JA, Meltzer D, Arora V, Chung G, Curlin FA (2011). Attention to inpatients' religious and spiritual concerns: Predictors and association with patient satisfaction. Journal of General Internal Medicine Jul 1. [Epub ahead of print]
Comment: This is one of the largest published studies (if not the largest) that has collected such detail on patients' desires to have religious/spiritual concerns addressed, whether those concerns were addressed, by whom, and the impact addressing those concerns had on patient satisfaction with overall care. The most remarkable finding was that "having religious/spiritual concerns addressed" predicted greater satisfaction with overall care – even among those who didn't want those concerns addressed! It is also interesting that nearly half of those who wished such discussions didn't get them.

Role of Religion/Spirituality in Rehabilitation Outcomes

Waldron-Perrine and colleagues at Wayne State University surveyed 88 adults with traumatic brain injury and their significant others. Participants were ages 20 to 70 years and enrolled in the Southeastern Michigan Traumatic Brain Injury System; all had severe enough injury to warrant inpatient hospitalization and rehabilitation at some point (time since injury was 2 to 20 years, average 10 years). The sample was 76% men, 75% African American, and 59% married; only 14% were employed. Participants were administered the 20-item Spiritual Well-being Scale (SWB), with 10 items measuring religious well-being (RWB) (i.e., quality of relationship with God) and 10 items assessing existential well-being (EWB) (i.e., psychological well-being more generally). Public religious practices (religious attendance and other activities at a place of worship) were also assessed. Outcomes were satisfaction with life, mental distress, and physical functioning. For satisfaction with life, RWB was the only significant predictor ($p<0.001$) after controlling for all other measures. For the mental distress, RWB was again the only significantly predictor of this outcome ($p<0.001$). Finally, RWB was also significantly related to better physical functioning ($p<0.05$), second only to cognitive functioning, which was the only other significant predictor. No relationship was found with public religious practices. The investigators concluded that, "self-reported individual connection to a higher power was an extremely robust predictor of both subjective and objective outcome."
Citation: Waldron-Perrine B, Rapport LJ, Hanks RA, Lumley M, Meachen SJ, Hubbarth P (2011). Religion and spirituality in rehabilitation outcomes among individuals with traumatic brain injury. Rehabilitation Psychology 56 (2): 107-116
Comment: Since the EWB subscale of the SWB scale is so highly confounded by items measuring good mental health, it is surprising that the RWB subscale was even more strongly associated with life satisfaction and mental well-being than the EWB subscale was. It is also surprising that public religious practices appeared to have no effect once RWB was controlled.

Spiritual Psychotherapy via the Internet

Rosmarin and colleagues conducted a randomized clinical trial to examine the efficacy of spiritually integrated treatment (SIT) for a sample of Jewish patients with elevated levels of stress and worry. A total of 126 adults were randomized to either SIT (n=36), progressive muscle relaxation (PMR, n=42), or a waitlist control group (WLC, n=47). Participants in the SIT and PMR groups underwent Internet-based treatment on a daily basis for 2 weeks. All participants were assessed at baseline, after treatment, and 6-8 weeks of follow-up. Results indicated that those receiving SIT experienced large improvements in primary symptoms (stress and worry) as well as in secondary outcomes (depression, intolerance of uncertainty). SIT participants also reported greater treatment satisfaction than those in the PMR group. Both primary and secondary outcomes were better for those in the SIT group than those in the WLC group, whereas both PMR and WLC groups were similar on most outcomes. Investigators concluded that, "it is important to incorporate spiritual content into treatment to help facilitate the delivery of psychotherapy to religious individuals."
Citation: Rosmarin DH, Pargament KI, Pirutinsky S, Mahoney A (2010). A randomized controlled evaluation of a spiritually integrated treatment for subclinical anxiety in the Jewish community, delivered via the Internet. *Journal of Anxiety Disorders* 24(&):799-808
Comment: This is one of the first studies to show that a spiritual psychotherapy administered via the Internet is effective for treating anxiety and depressive symptoms.

Religious Involvement and Susceptibility to Infection

Gillum and Holt from the Department of Public and Community Health at the University of Maryland examined relationships between religious attendance and positive serologic testing for six pathogenic infections: herpes simplex virus type 2 (HSV-2), hepatitis C virus (HCV), hepatitis B virus (HBV), hepatitis A virus (HAV), Toxoplasma gondii (cause of toxoplasmosis), and Helicobacter pylori (stomach ulcers and chronic gastritis). Several of these infections are transmitted by risky sexual activity and illegal drug use. Investigators used data from the Third National Health and Nutrition Examination Survey (NHANES III) conducted between 1988 and 1994 that involved a random sample of 33,994 participants. Of those, 20,022 were adults, 16,668 had serum antibody measurements, and 11,507 (final sample) had data on all relevant variables. Analyses were stratified by race: non-Hispanic white, non-Hispanic black, and Mexican American. Results for the overall sample (adjusted for age, education, region, residence, marital status, and health status) revealed that weekly or more religious attendance was associated with a significantly lower likelihood of HSV-2 infection ($p=0.001$), HCV infection ($p<0.001$), and HBV infection ($p=0.06$ overall; $p=0.02$ in Mexican-Americans). Controlling for sexual activity and illegal drug use reduced most of these associations to non-significance. No significant associations were found between religious attendance and HAV or T. gondii infection; H. pylori was somewhat more common (35%) among Mexican-Americans who attended religious services weekly vs. non-attendees ($p=0.05$).
Citation: Gillum RF, Holt CL (2010). Religious involvement and sero-prevalence of six infectious diseases in US adults. Southern Medical Journal 103:403-408
Comment: Bottom line is that infections commonly associated with promiscuous sexual activity and drug use are less common among U.S. adults who attend religious services more frequently.

Effects of Palliative Care on Quality of Life and Survival

Investigators at Massachusetts General Hospital and several other major medical centers conducted a clinical trial where 151 patients with metastatic lung cancer were randomized to receive either early palliative care integrated with standard oncology care or standard oncology care alone. Palliative care followed the guidelines for palliative care visits from the National Consensus Project for Quality Palliative Care. Outcomes were quality of life, anxiety and depressive symptoms, and length of survival. Results indicated that those receiving the additional palliative care had fewer depressive symptoms and higher quality of life. Despite receiving less aggressive end-of-life care, palliative care patients lived significantly longer than those receiving standard oncology care alone (living an average of 11.6 months vs. 8.9 months, respectively). Investigators attributed the significantly longer survival to the improved quality of life and reduced depressive symptoms, which they note has been associated with longer survival in cancer patients.

Citation: Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, Dahlin CM, Blinderman CD et al (2010). Early palliative care for patients with metastatic non-small-cell lung cancer. New England Journal of Medicine 353:733-742
Comment: Palliative care often includes the addressing of spiritual as well as social and psychological needs of patients with terminal illness. When such needs are addressed, despite less aggressive and expensive end-of-life interventions, it appears that length of survival is increased not decreased.

Patients' Preferences for Religion/Spirituality in Treatment

Stanley and her research group at the Houston VA Medical Center surveyed 66 medical patients aged 55 years or older with depression or anxiety to determine what their preferences were for integrating religious and spiritual beliefs into psychotherapy. Results indicated that 77-83% said they preferred including religion and/or spirituality in therapy for depression/anxiety. The investigators concluded that "incorporating spirituality/religion into counseling for anxiety and depression was desirable."
Citation: Sanley MA, Bush AL, Camp ME, jameson JP, Phillips LL, Barber CR, Zeno D, Lomas JW, Cully JA (2011). Older adults' preferences for religion/spirituality in treatment for anxiety and depression. Aging and Mental Health 15:334-343.
Comment: This study documents that patients would often prefer to have religious/spiritual issues addressed in their therapy, providing rationale for testing psychotherapeutic approaches that do that to see if they are more beneficial than secular therapies in religious patients (as the psychotherapy study described in our July newsletter is doing).

Depression and Survival in Breast Cancer

Researchers from Calgary, Canada, conducted a secondary analysis of randomized trial data on 125 women with metastatic breast cancer. Of the 125 women, 101 completed the CES-D depression scale at baseline and three follow-up points during the three months of supportive-expressive group therapy (the intervention in the trial). Rather than examine the results of the intervention, investigators were more interested in seeing whether "decreasing depression symptoms" would be associated with longer survival. Results indicated that the median survival time for women whose depression scores were decreasing was 53.6 months, compared to 25.1 months survival for women with increasing depression scores. Using Cox proportional hazards regression to analyze survival over a 14-year period, researchers showed that women with decreasing depressive symptoms during the first year survived significantly longer (p=0.007).
Citation: Giese-Davis J, collie K, Rancourt KMS, Neri E, Kraemer HC, Spiegel D (2011). Decrease in depression symptoms is associated with longer survival in patients with metastatic breast cancer: A secondary analysis. Journal of Clinical Oncology 29: 413-420
Comment: This study, and the earlier study on the effects of palliative care on survival, both suggest that depression negatively impacts survival in cancer patients. Given that nearly two-thirds of studies show that religion/spirituality is associated with less depression, and several studies show religious involvement predicts faster remission of depression in medical patients, the former studies provide a rationale by which religious involvement could affect survival in these patients.

NOTE: If readers become aware of any new research on religion/spirituality and health, we encourage them to notify us about those studies so that we can report them in our newsletter.

FUNDING OPPORTUNITIES…

Templeton Foundation Online Funding Inquiry (OFI)

The Templeton Foundation is now accepting letters of intent for research on spirituality and health (August 1- October 14). If the funding inquiry is approved (applicant notified by November 23), then the Foundation will ask for a full proposal that will be due December 1-March 1, 2012, with a decision on the proposal reached by June 22, 2012. **More information**: http://www.templeton.org/what-we-fund/our-grantmaking-process

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The Center needs your support to continue its mission and outreach. From July 1, 2011 through December 31, 2011, the Templeton Foundation will match 1:1 all gifts to the Center to help support research, teaching, and other academic activities at the Center.

Website:
http://www.spiritualityandhealth.duke.edu/about/giving.html

CALENDAR OF EVENTS…

August 2011

15-19 Research Workshop on Spirituality and Health
Duke University Medical Center
Spots still available; scholarships still available
Contact koenig@geri.duke.edu

24 Research seminar (3:30-4:30 Aging Center)
Analyzing longitudinal data
Carl Pieper, Dr.P.H.
Contact koenig@geri.duke.edu

September 2011

15-18 25th Annual Westberg Parish Nurse Symposium
St. Louis, Mo
Contact: mslutz@eden.edu

26 Helmut Schumann Lecture, Dartmouth University
Lebanon, NH
Contact: Janice.R.Montgomery@hitchcock.org

27 Spirituality, Prayer and the Healing of Souls
AACC Annual Conference
Nashville, TN
Contact: djenkins@liberty.edu

28 Research seminar (3:30-4:30 Aging Center)
Defrosting the Refrigerator Mother: A New Interpretation of Autism's Most Notorious Myth
Jeffrey Baker, M.D., Associate Professor of Pediatrics and Director, History of Medicine Program, Trent Center for Bioethics, Humanities, and History of Medicine
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