# Breaking News from Religion, Spirituality & Health Research

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### Overview

- Brain structure and depression (Columbia University)
- Suicide rates
- Religious vs. Secular CBT in Depression (Duke)
- Religious involvement and mortality
- Biological mechanisms underlying RSH relationship
- Future research at Duke, Harvard, U of Michigan
- Applications Duke Adventist Health System Study
- Further resources

### Depression

The most common emotional disorder found in medical settings 20% with major depression 20% with minor depressive disorders

Religious involvement is related to:

Less depression, faster recovery from depression 272 of 444 studies (61%) (prior to 2010) [67% of best]

More depression (6%)

<u>Source</u>: Handbook of Religion and Health (2012). NY, NY: Oxford University Press

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Original Investigation | February 2014

### **Neuroanatomical Correlates of Religiosity and Spirituality**

### A Study in Adults at High and Low Familial Risk for Depression

Lisa Miller, PhD<sup>1,2</sup>; Ravi Bansal, PhD<sup>2,3</sup>; Priya Wickramaratne, PhD<sup>2,4,5</sup>; Xuejun Hao, PhD<sup>2,3</sup>; Craig E. Tenke, PhD<sup>6</sup>; Myrna M. Weissman, PhD<sup>2,4,5</sup>; Bradley S. Peterson, MD<sup>2,3</sup>

[+] Author Affiliations

*JAMA Psychiatry.* 2014;71(2):128-135. doi:10.1001/jamapsychiatry.2013.3067.

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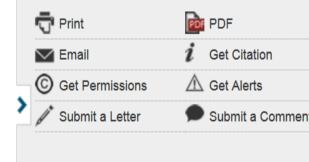
**ABSTRACT** 



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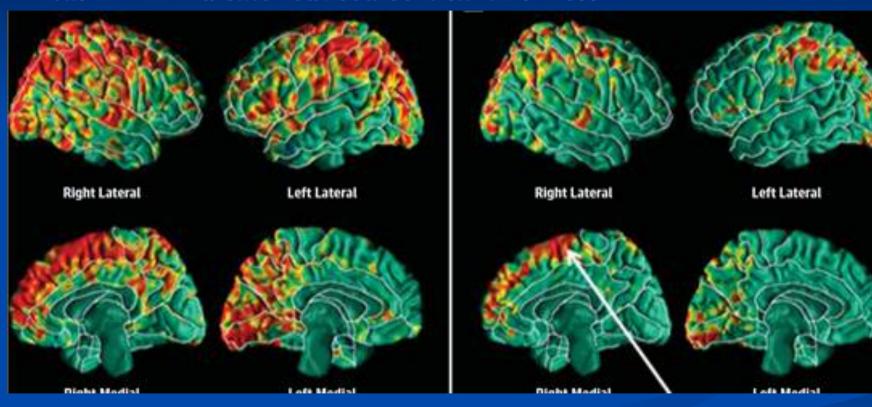
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## Religion/Spirituality and Cortical Thickness: A functional MRI Study

Areas in red indicate reduced cortical thickness



Religion NOT very important

Religion very important

*Citation*: Miller L et al (2014). Neuroanatomical correlates of religiosity and spirituality in adults at high and low familial risk for depression. <u>JAMA Psychiatry</u> 71(2):128-35

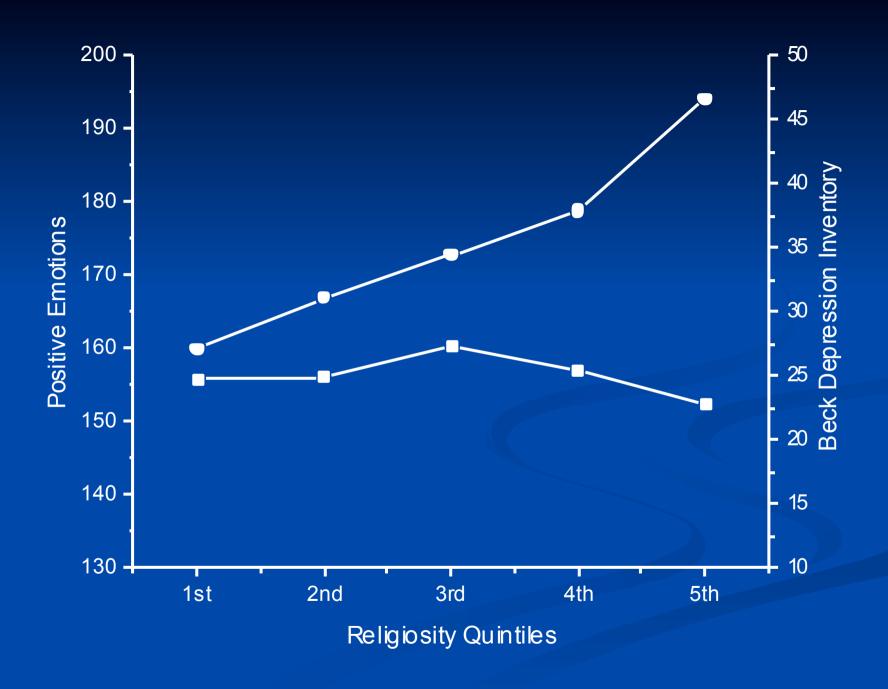
# Is Emotional Disorder Different in the Religious?

Is depression the same in those with deep religious faith?

Even if depressed, research suggests that deeply religious people experience more positive emotions:

- -greater purpose and meaning
- -greater optimism and hope
- -more gratitude and thankfulness
- -more generosity

Koenig HG, Berk LS, Daher N, Pearce MJ, Belinger D, Robins CJ, Nelson B, Shaw SF, Cohen HJ, King MB (2014). Religious involvement, depressive symptoms, and positive emotions in the setting of chronic medical illness and major depression. <u>Journal of Psychosomatic</u> Research 77:135–143



### Suicide

(systematic review)

Religious involvement is related to:

Less suicide and more negative attitudes toward suicide (106 of 141 or 75% of studies)

### Suicide – latest research

British Journal of Psychiatry 2014; 204:254–255 20,014 U.S. adults (NHANES-III Study) Prospective study from 1988 to 2006 > 2/month religious attendance: HR=0.06 (95% CI=0.01-0.54)

British Journal of Psychiatry 2015; 206(6):466-740 1,106,104 adults in Northern Ireland Prot lower risk than Cath (HR=0.71, 95% CI 0.52-0.97) Conserv Prot (ages 35-54) lower risk than Cath (HR=0.50, 95% CI 0.29-0.85)

JAMA Psychiatry (Archives of General Psychiatry) forthcoming 89,708 white U.S. women (Nurse's Health Study) Harvard school of public health Prospective study 1996 to 2014 Death rates from suicide (Catholics vs. Protestants) Religious attendance and suicide incidence

Religious involvement gives life meaning and purpose

## Religious Psychotherapy Study

132 persons with major depressive disorder and chronic medical illness (the majority over age 50) randomized to Religious CBT vs. Conventional Secular CBT

65 from Durham County, North Carolina (Duke University)

67 from Los Angeles County (Glendale Adventist)

Ten 50-minute psychotherapy sessions by telephone over 12 weeks

## 5 religious-integrated psychotherapies:

Christian

Jewish

Buddhist

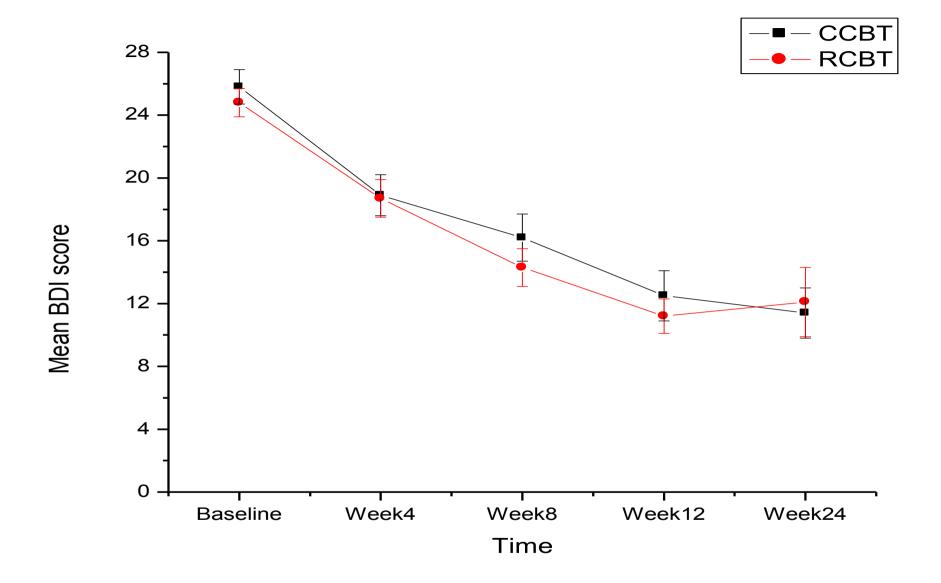
Muslim

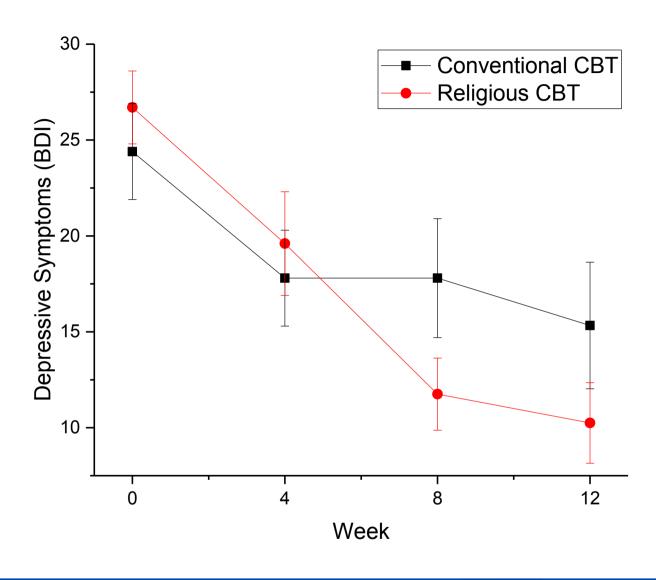
Hindu

Manuals and workbooks now up on our Duke website: <a href="http://www.spiritualityandhealth.duke.edu/index.php/religious-cbt-study/therapy-manuals">http://www.spiritualityandhealth.duke.edu/index.php/religious-cbt-study/therapy-manuals</a>

A training video is now available on website:

http://www.spiritualityandhealth.duke.edu/index.php/religious-cbt-study/training-video

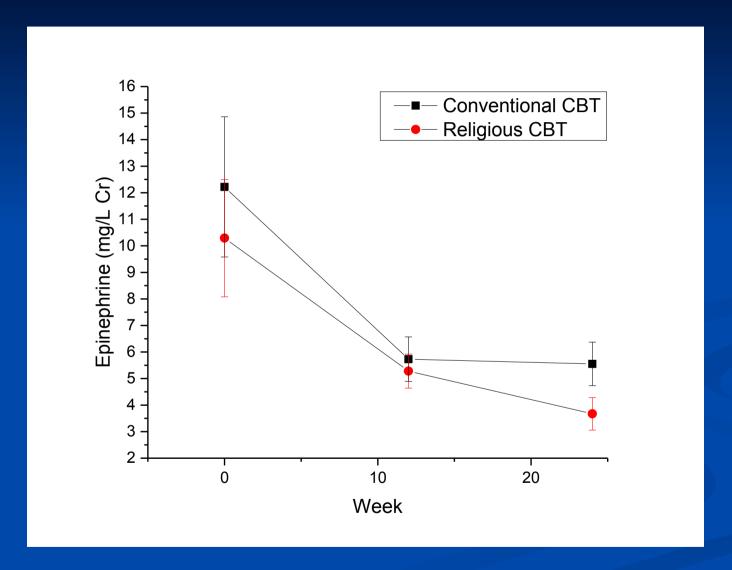




Treatment response in those with HTR1A genotype C/C (serotonin receptor in the brain) (B for group by time interaction=3.33, SE=1.17, df=62, t=2.86, p<0.01, n=28, Cohen's d=0.73, in those with **low religiosity**)

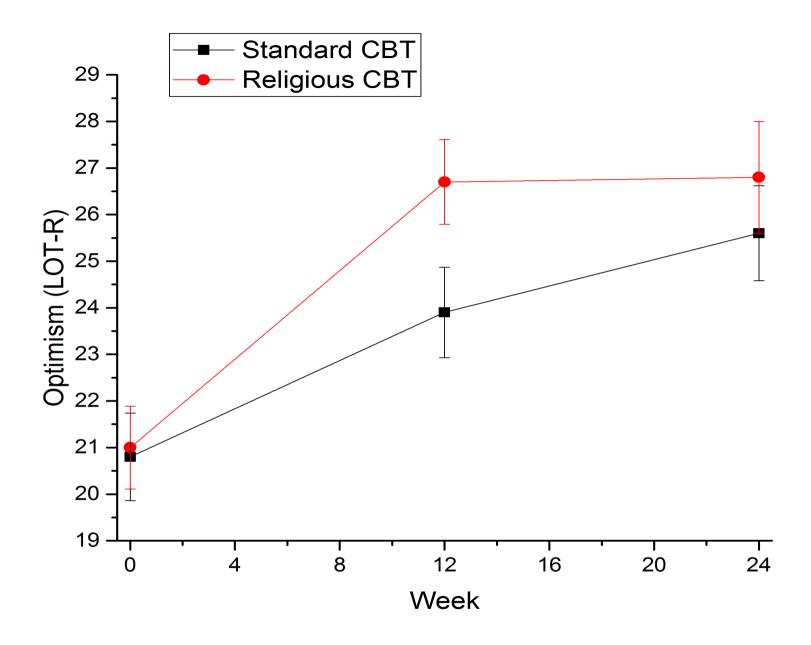
Citation: Koenig et al. Austin Journal of Psychiatry & Behavioral Sciences 2015; 2(1): 1036

### Religious CBT Study – Epinephrine Levels



Mixed model intent-to-treat analysis (log transformed): time B=-0.24, p<0.0001; main effect of group B=-0.19, p=0.156; group x time interaction B=0.13, p=0.063 (favors RCBT)

Citation: Berk, Dellinger, Koenig et al (2015). Open Journal of Psychiatry 5(3): 238-259



Difference significant between RCBT and SCBT at 12 week f/u (t=-2.10, p=0.038) in per-protocol analysis **Citation**: Koenig et al. <u>Depression & Anxiety</u> 2015, in press

### Mortality (all-cause)

(systematic review)

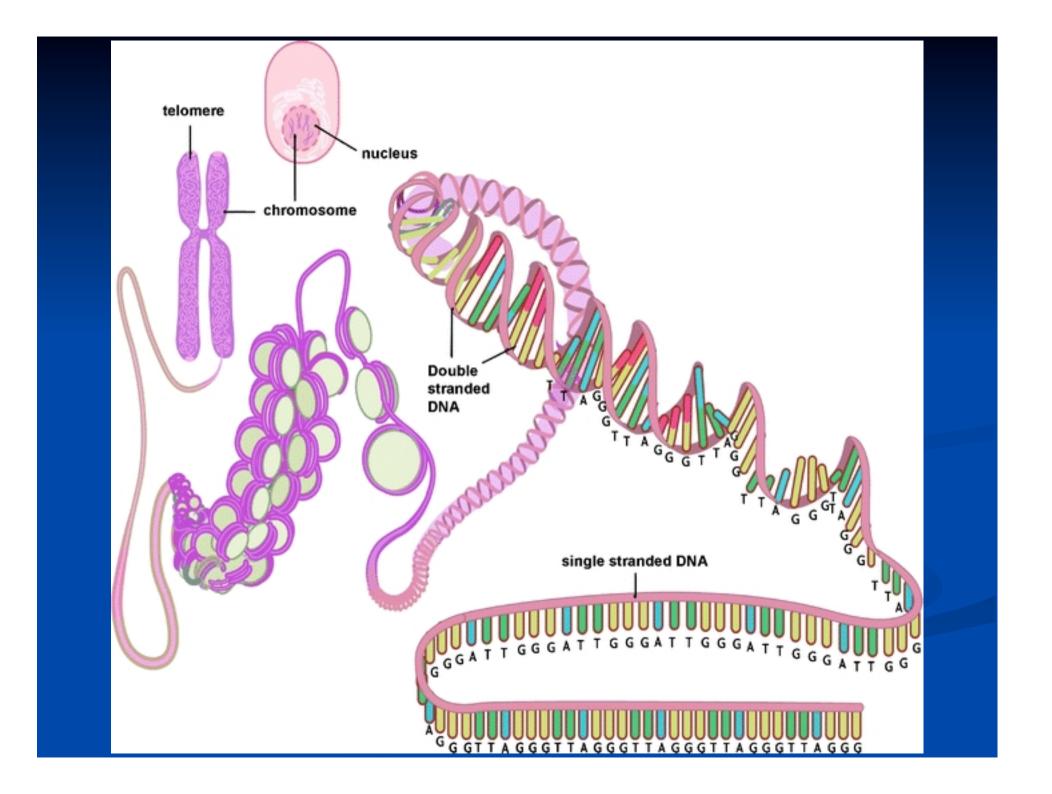
Religious involvement related to:

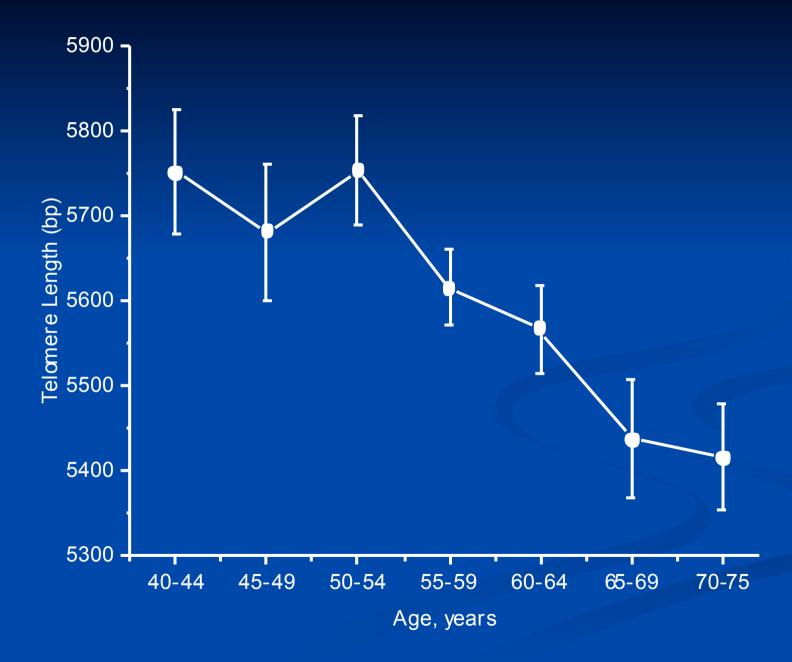
- Greater longevity in 82 of 120 studies (68%)
- Shorter longevity in 7 of 120 studies (6%)
- Higher quality studies, 47 of 63 greater longevity (75%)

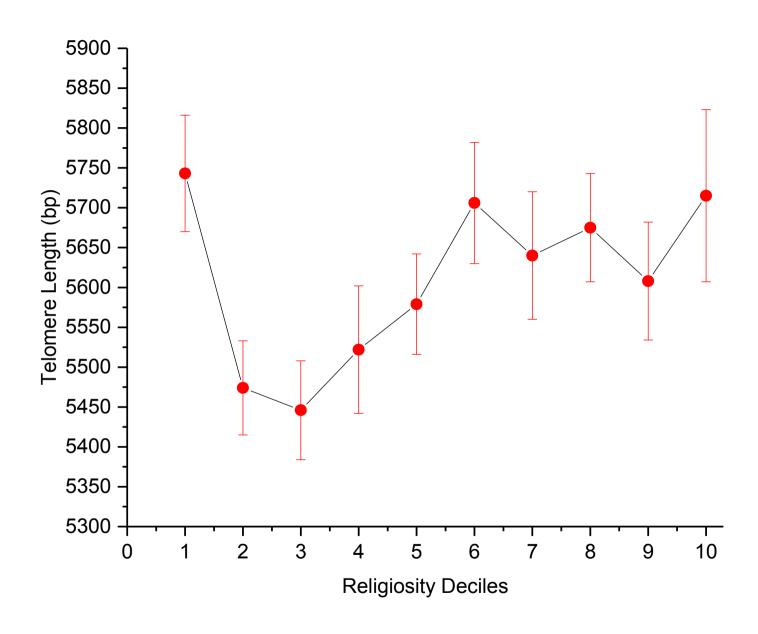
Research now being done to understand the underlying biological mechanism that may help explain WHY religious involvement is related to better physical health in later life and greater longevity

# Religious Involvement and Telomere Length in Women Caregivers

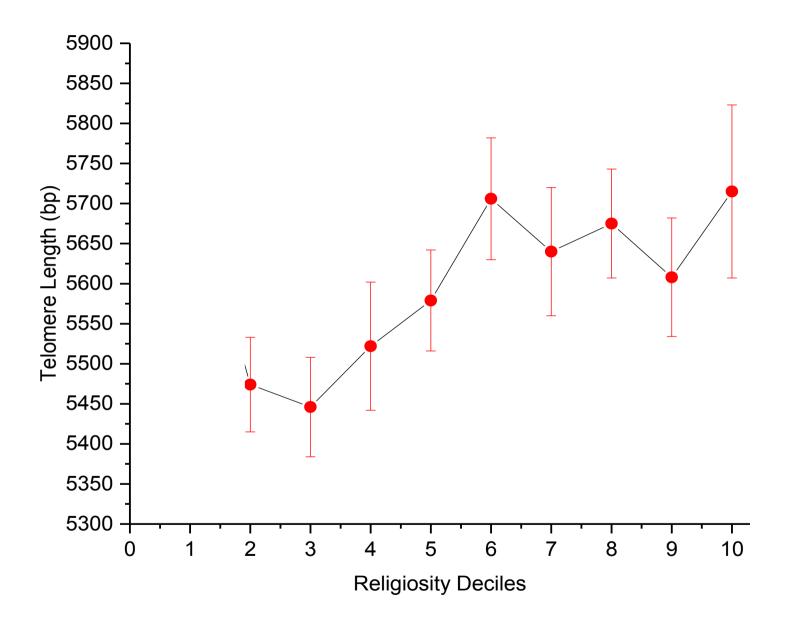
Koenig HG, Nelson B, Shaw SF, Saxena S, Cohen HJ (2015). Religious involvement and telomere length in women family caregivers. <u>Journal of Nervous & Mental Disease</u> 204(1):36-42







Citation: Koenig et al. (2016). <u>Journal of Nervous and Mental Disease</u> 204(1):36-42



# Replication Study: Religion and Telomere Length

Nashville Stress and Health Study 1,252 random sample of adults ages 22-69 in Davidson County, TN

Religiosity (attendance, prayer, self-rated religiosity)
Telomere length (monochrome multiplex quantitative PCR method)

Analyses controlled for depressive symptoms, smoking, drinking, allostatic load, SES, stressful life events, age, gender, employment status, financial strain, marital status, family support, friend support

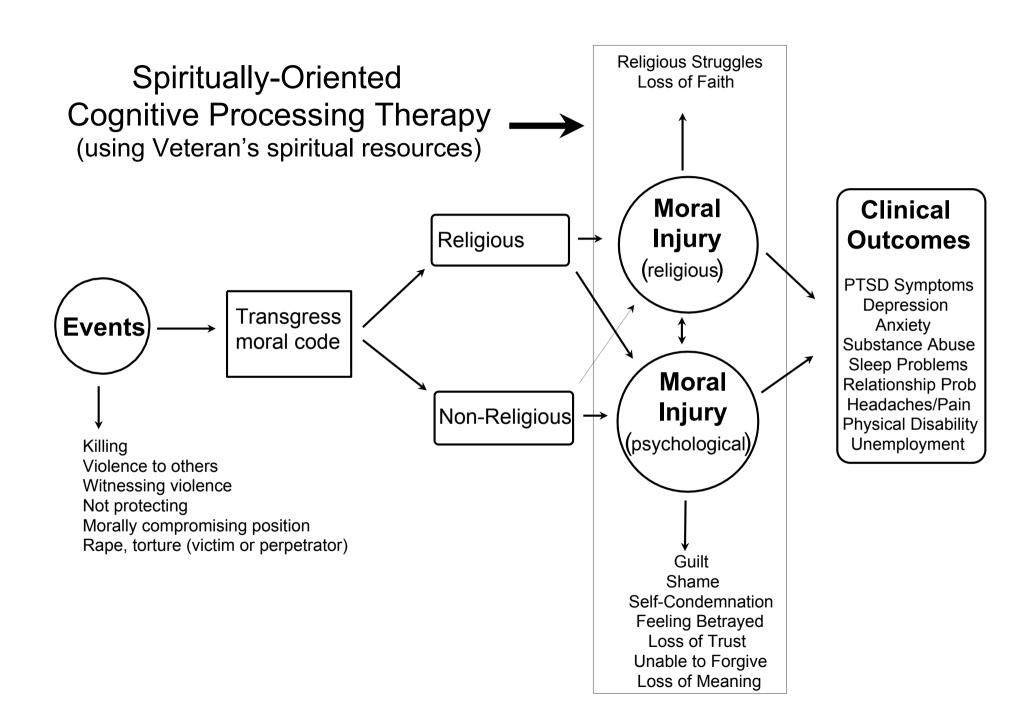
Model 5 (all controls, including religious support and religious coping) B=0.037 (SE 0.011), p<0.05

Hill TD, Ellison CG, Burdette AM, Taylor J, Friedman FL (forthcoming). Dimensions of religious involvement and leukocyte telomere length. <u>Social Science and Medicine</u>, in press

## Developing New Spiritually-Integrated Treatments

Spiritually-Oriented
Cognitive Processing Therapy
for

"Moral Injury" in Veterans with PTSD



### New Book: You Are My Beloved, Really?

- 1. You are my beloved
- 2. When nothing makes sense
- 3. Does God exist?
- 4. What is God like?
- 5. Why does God allow evil?
- 6. The cause of evil
- 7. Does God love Christians?
- 8. Does God love Jews?
- 9. Does God love Muslims?
- 10. Does God love Buddhists?
- 11. Does God love Hindus?
- 12. Does God love Veterans?
- 13. How does God love us?
- 14. I don't feel God's love
- 15. Change your mind
- 16. Accept, be grateful, & love back
- 17. The relationship forms
- 18. The relationship deepens
- 19. Loving others
- 20. God's favor
- 21. The way forward for Christians
- 22. The way forward for non-Christians
- 23. A personal note
- 24. Final thoughts

Notes



(available on Amazon.com for UK, France, Italy, Netherlands, Germany)

### Future Research at Major U.S. Universities

University of Michigan at Ann Arbor

Neal Krause and the Religious Landmark Study (cross-sectional study of 3,500 national U.S. sample)

Harvard School of Medicine, School of Public Health, and Divinity School

Tracy Balboni, M.D. and Michael Balboni, Ph.D. Radiation Oncology, Dana Farber Cancer Center

Tyler VanderWeele, Ph.D. (biostatistics)

Alexandra Shields, Ph.D.
Harvard/MGH Center on Genomics, Vulnerable Populations, and Health Disparities

### **Applications in Clinical Practice**

Duke-Adventist Health System Study

Adventist Health System (AHS) is the largest Protestant healthcare system in the U.S. (and Catholic Health Care has also demonstrated interest in partnering with us in a similar venture)

What is unique about a faith-based health system?

Integrating spirituality into patient care in outpatient physician offices Formation of "spiritual care teams" to address spiritual needs

Physician does "screening" spiritual history (3 questions)
If spiritual needs come up, refers to "spiritual care coordinator"
Spiritual care coordinator addresses issue or refers to chaplain

Assessment at baseline, 1-month, and 12-month follow-up

# 5 CME-qualified 45-60 min Training Videos on How to Integrate Spirituality into Patient Care

Go to the following Duke University website:

http://www.spiritualityandhealth.duke.edu/index.php/cme-videos

### **Conclusions**

- 1. Research is rapidly advancing on RSH, some of it coming out of mainstream well-known research groups (Harvard, Columbia, Duke, etc.)
- 2. Observational studies involving prospectively followed large random samples are discovering more and more links between religious involvement and health, particularly in the West, Middle-East, Africa, & South America (but also in many other regions as well).
- 3. Treatments are now being developed and tested in clinical trails, and faith-based health systems are now integrating spirituality in ways that are sensible and highly patient-centered (and respectful of those who are not R/S)
- 4. The research is exciting and growing in many parts of the world, especially those parts where religious faith is important to a significant proportion of the population (but also in secular countries as well, such as China)

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#### Welcome

Home

The Center was founded in 1998, and is focused on conducting research, training others to conduct research, and promoting scholarly field-building activities related to religion, spirituality, and health. The Center serves as a clearinghouse for information on this topic, and seeks to support and encourage dialogue between researchers, clinicians, theologians, clergy, and others interested in the intersection.



#### Mission

The five main goals of the Center are to:

- Conduct research on religion, spirituality and health
- Train those wishing to do research on this topic
- Interpret the research for clinical and societal applications
- Explore the meaning of the research for pastors and theologians
- Discuss how theological input can advance the research



#### **Upcoming Events**

Current, Past and Future Seminars

2015 Spirituality and Health Research Workshop

#### Recent News

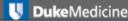
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### **Summer Research Workshop**

August 15-19, 2016 Durham, North Carolina

5-day intensive research workshop focus on what we know about the relationship between spirituality and health, applications, how to conduct research and develop an academic career in this area. Leading spirituality-health researchers at Duke, Yale University, Johns Hopkins, and elsewhere to give presentations:

- -Strengths and weaknesses of previous research
- -Theological considerations and concerns
- -Highest priority studies for future research
- -Strengths and weaknesses of measures of religion/spirituality
- -Designing different types of research projects
- Primer on statistical analysis of religious/spiritual variables
- -Carrying out and managing a research project
- -Writing a grant to NIH or private foundations
- -Where to obtain funding for research in this area
- -Writing a research paper for publication; getting it published
- -Presenting research to professional and public audiences; working with the media

Partial tuition Scholarships are available

If interested, contact Dr. Koenig: Harold.Koenig@duke.edu