Are Faith and Health Related?

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DukeMedicine

Overview

1. Introduction
2. Research on faith and mental health
3. Physical health consequences
4. Theoretical model explaining effects
5. Conclusions
6. Further resources

Research on Faith and **Mental Health**

Review of the Research

Handbook of Religion and Health, 3rd ed.
(Oxford University Press, December 2022)

Religion and Mental Health: Research & Clinical Applications
(Academic Press, 2018)

Koenig, H. G., Al-Zaben, F., & VanderWeele, T. J. (2020). Religion and psychiatry: Recent developments in research. *British Journal of Psychiatry Advances*, 26(5), 262-272.

Koenig, H. G., Peteet, J. R., & VanderWeele, T. J. (2020). Religion and psychiatry: Clinical applications. *British Journal of Psychiatry Advances*, *26*(5), 273-281.

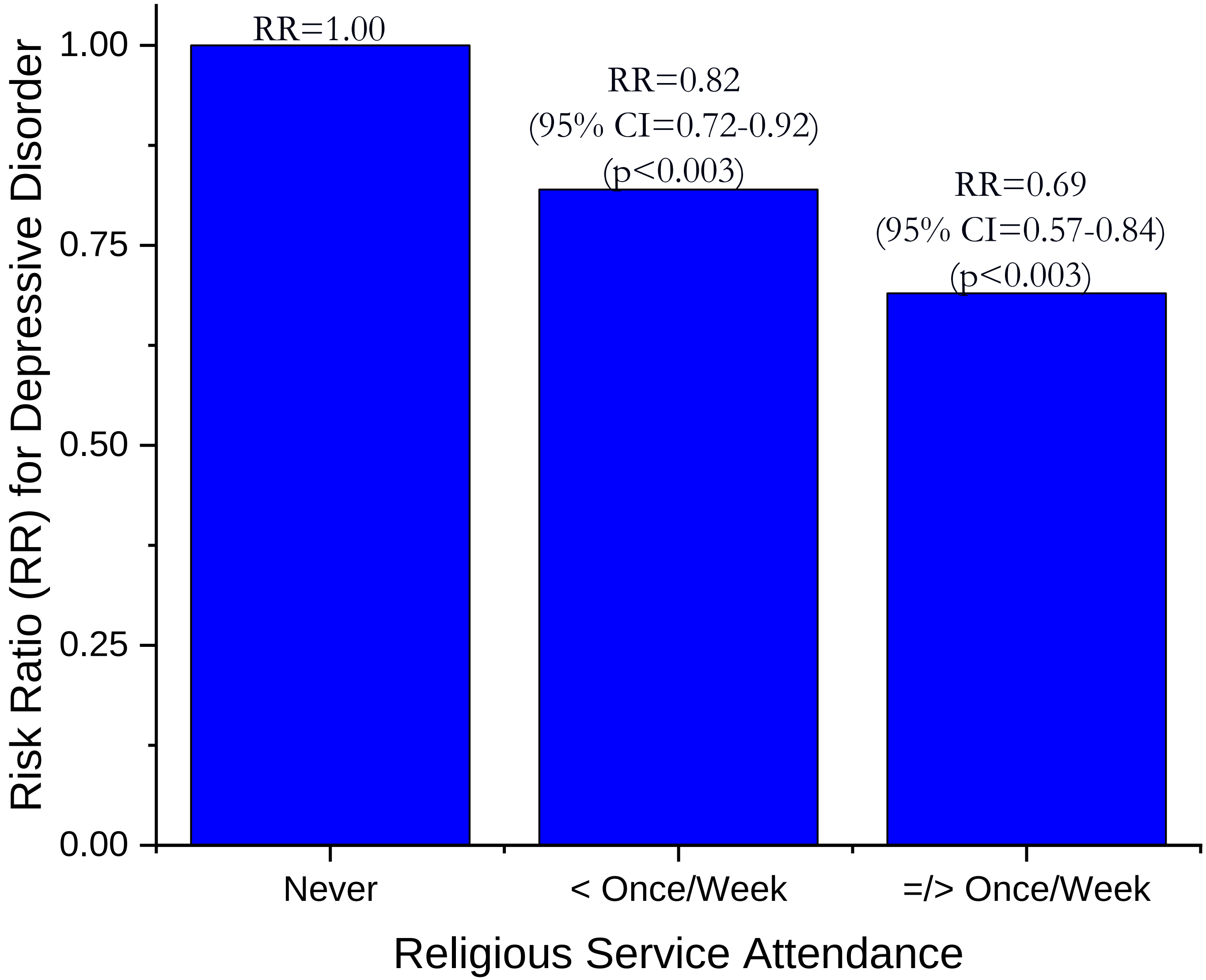
Depression

One of the most common emotional disorders in the world (and disabling), especially among medical patients.

Religious involvement is related to:

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

More depression (6%)



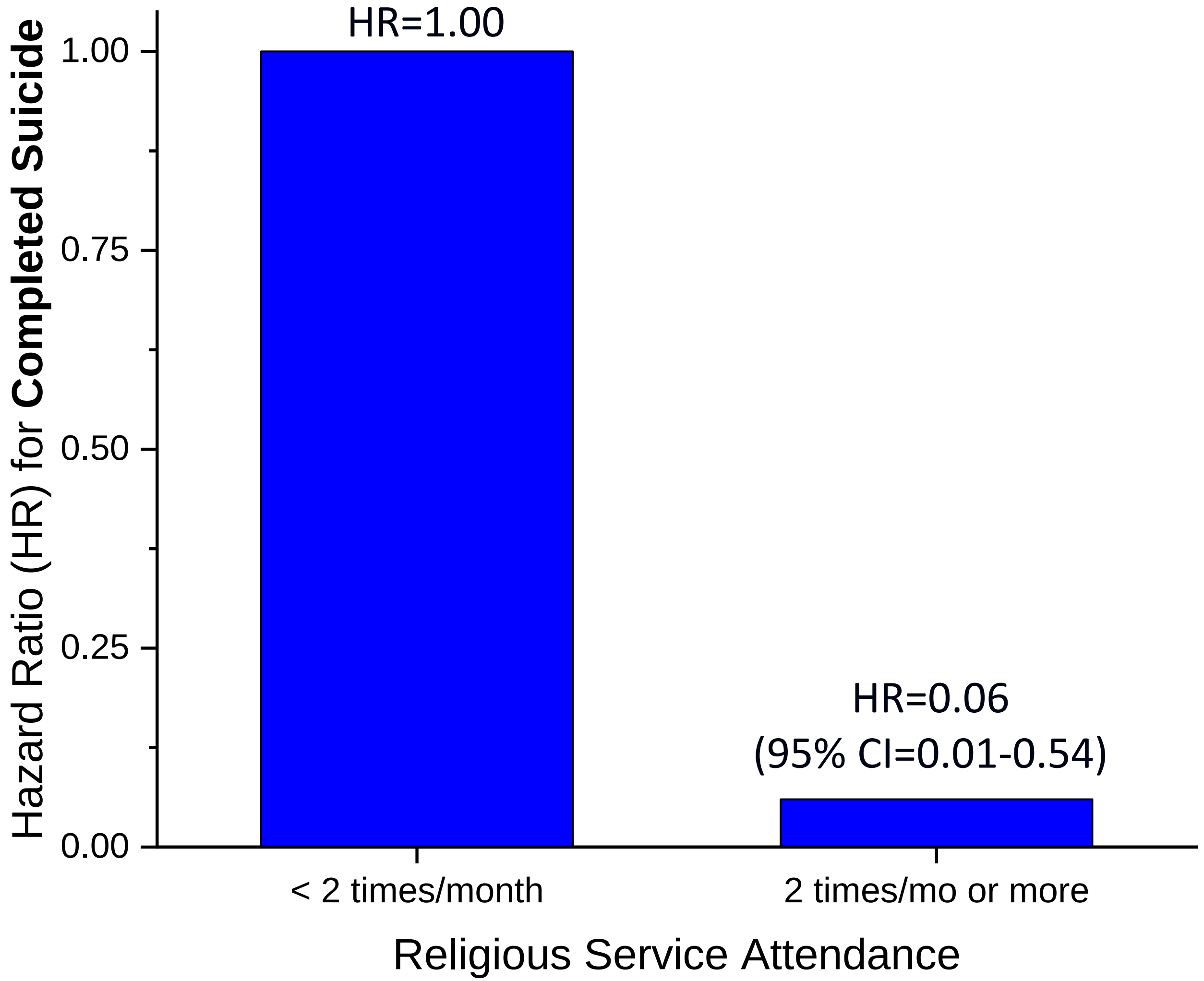
Chen et al. (2020). Religious-service attendance and subsequent health and well-being throughout adulthood: evidence from three prospective cohorts. International Journal of Epidemiology (https://doi.org/10.1093/ije/dyaa120) [**3-6 year prospective study *of* 9,862 young adults (ave. age 23)** followed from 2007 to 2010-2013; two dozen covariates controlled for, along with p values corrected for examination of multiple outcomes using the conservative Bonferroni correction]

Suicide

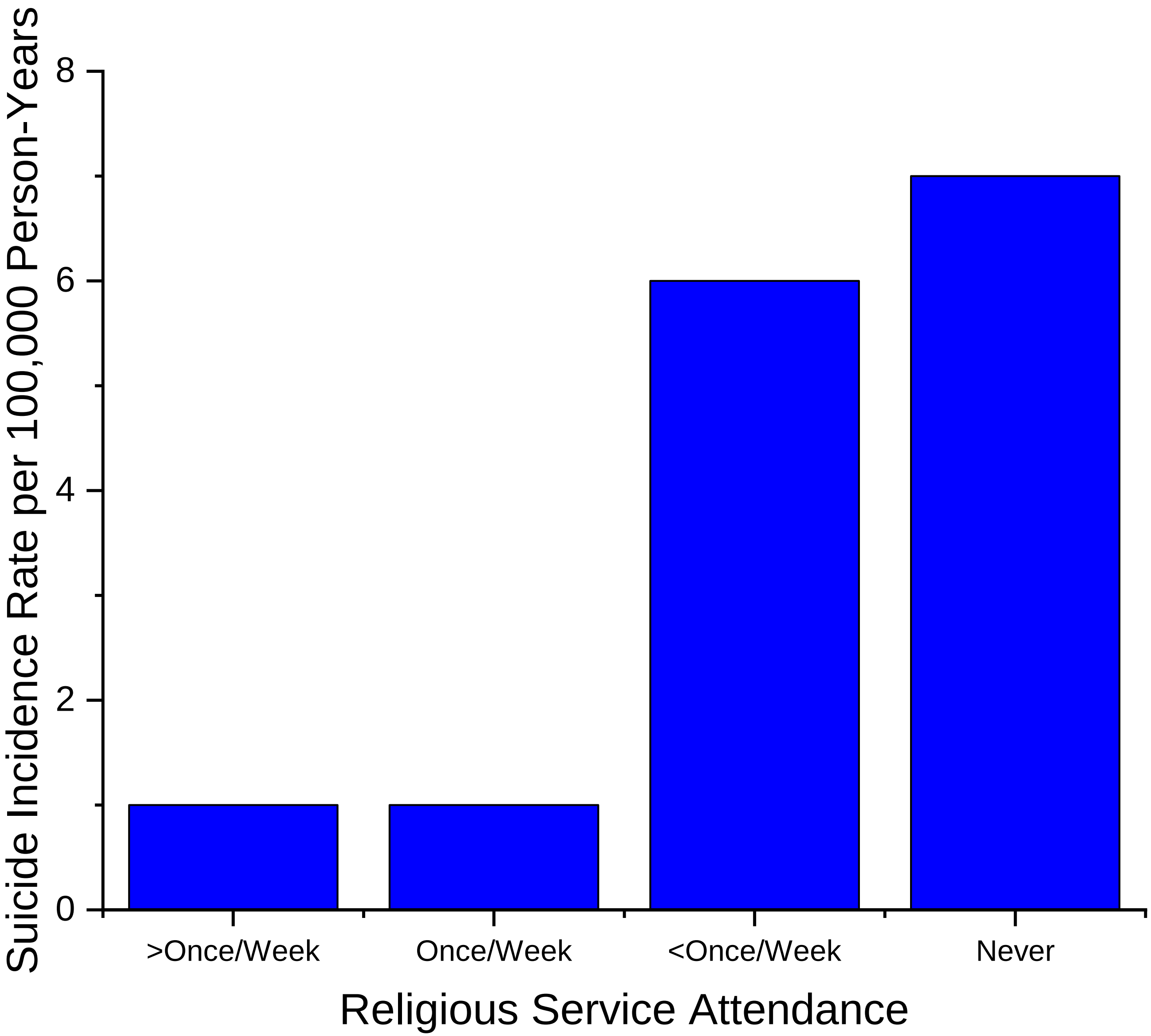
(systematic review)

Religious involvement is related to:

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

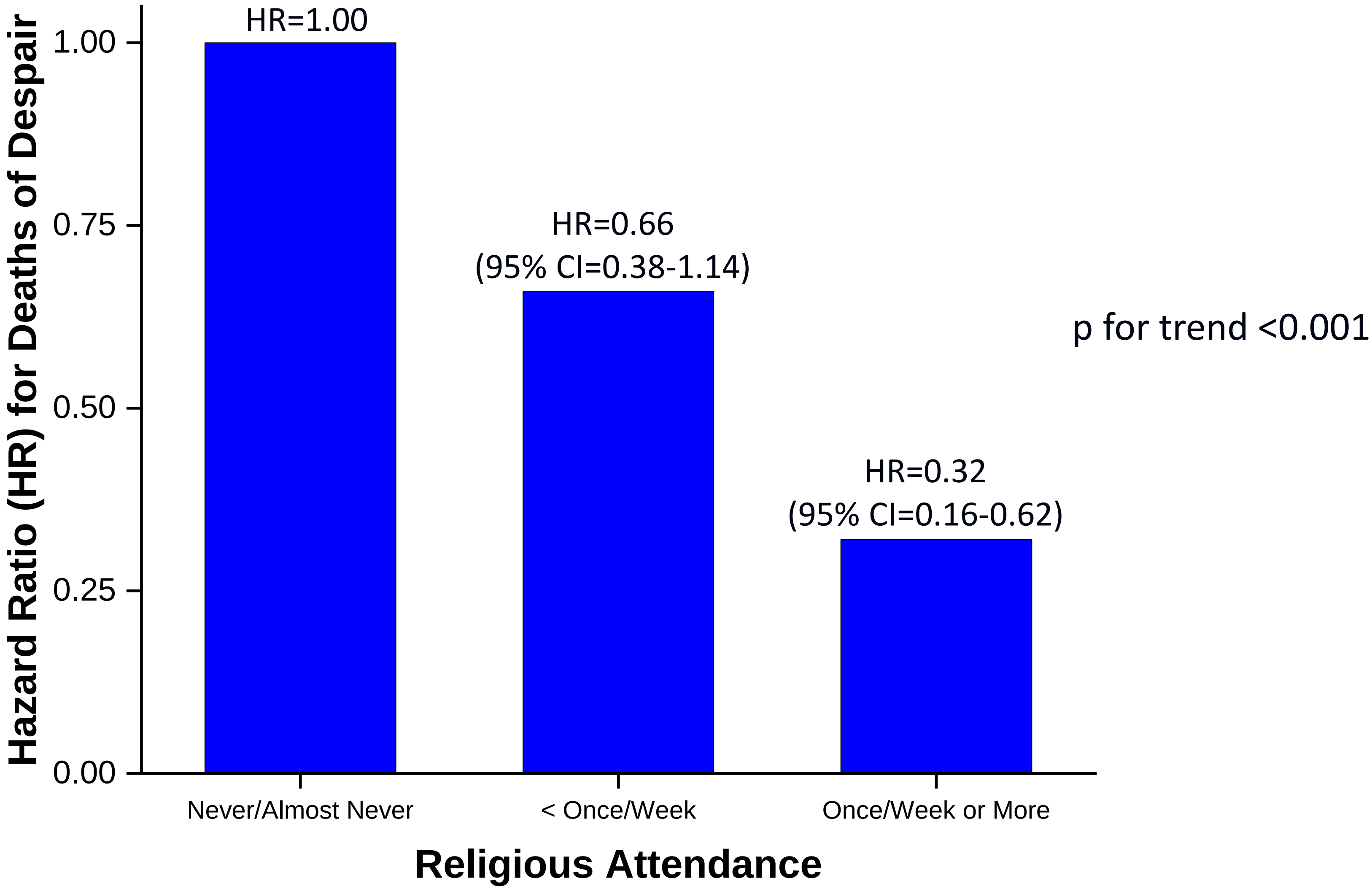


Kleiman, E. M., & Liu, R. T. (2014). Prospective prediction of suicide in a nationally representative sample: religious service attendance as a protective factor. British Journal of Psychiatry, *204*(4), 262-266. [18-year prospective study from 1988/1994 to 2006 involving a random U.S. national sample of **20,014 persons age 18 years or over (NHANES-III)**; findings remained significant after controlling for gender, age, size of household, previous suicide attempt, and marijuana use]



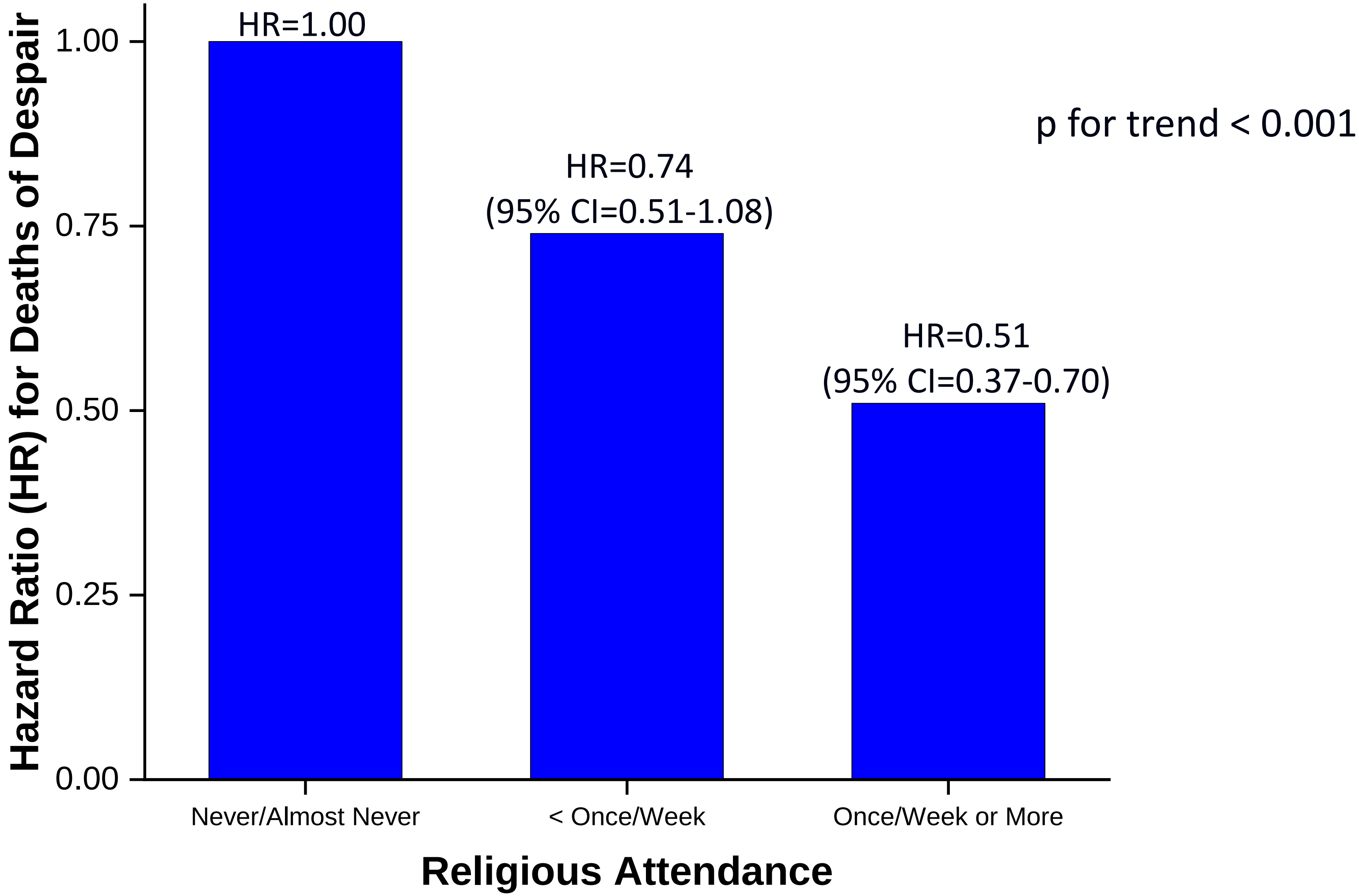
Nurses Health Study: 89,708 women followed from 1996 to 2010 (**HR=0.16**, 95% CI 0.06-0.46)
VanderWeele et al (2016). JAMA Psychiatry (Archives of General Psychiatry) 73(8):845-851

Religious Attendance and Deaths of Despair Among U.S. Health Professionals (Women)



Chen, Y., et al. (2020). Religious service attendance and deaths related to drugs, alcohol, and suicide among US health care professionals. JAMA Psychiatry, *77*(7), 737-744. [**16-year prospective study** (Nurses Health Study-II, 2001-2017) of **66,492 women** examining "deaths of despair" (from **drugs, alcohol, or suicide**); Cox proportional hazards regression models controlling for 25 demographic, psychological, social, and physical health covariates]

Religious Attendance and Deaths of Despair Among U.S. Health Professionals (men)



Chen, Y., Koh, H. K., Kawachi, I., Botticelli, M., & VanderWeele, T. J. (2020). Religious service attendance and deaths related to drugs, alcohol, and suicide among US health care professionals. JAMA Psychiatry, *77*(7), 737-744. [**26-year prospective study** (Health Professionals Follow-up Study, 1988-2014) of **43,141 men** (dentists, pharmacists, optometrists, osteopaths, podiatrists, veterinarians) examining “deaths of despair” (from drugs, alcohol, or suicide); Cox proportional hazards regression models age adjusted]

Alcohol Use/Abuse/Dependence
(systematic review)

Religious involvement is related to:

Less alcohol use / abuse / dependence
240 of 278 studies (86%)

[90% of best designed studies]

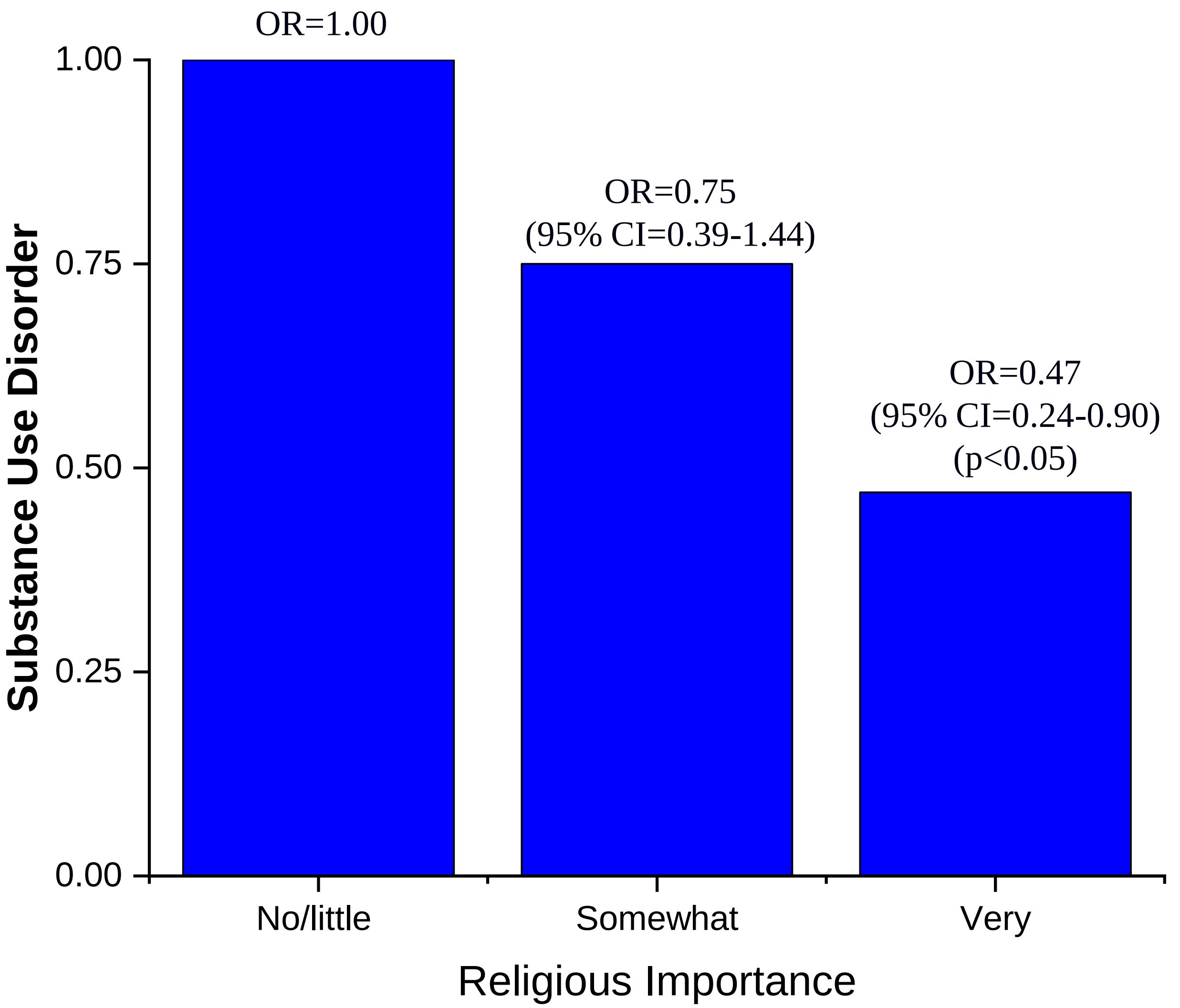
Illicit Drug Use
(systematic review)

Religious involvement is related to:

Less drug use / abuse / dependence
155 of 185 studies (84%)

[86% of best designed studies]

[95% of RCT or experimental studies]



Lalayants, M., Oyo, A., & Prince, J. D. (2020). Religiosity and outcomes among child welfare-involved youth. Child and Adolescent Social Work Journal, *37*(3), 251-261. (**18-month prospective study of a national random sample of 474 U.S. adolescents ages 11-16 after a formal Child Protective Services investigation for child abuse/neglect**; ORs adjusted for gender, age, race/ethnicity, living arrangement, type of abuse, family stress, social support, mental illness and caregiver, parenting skills, inappropriate use of discipline, history of arrest, youth depression, youth trauma)

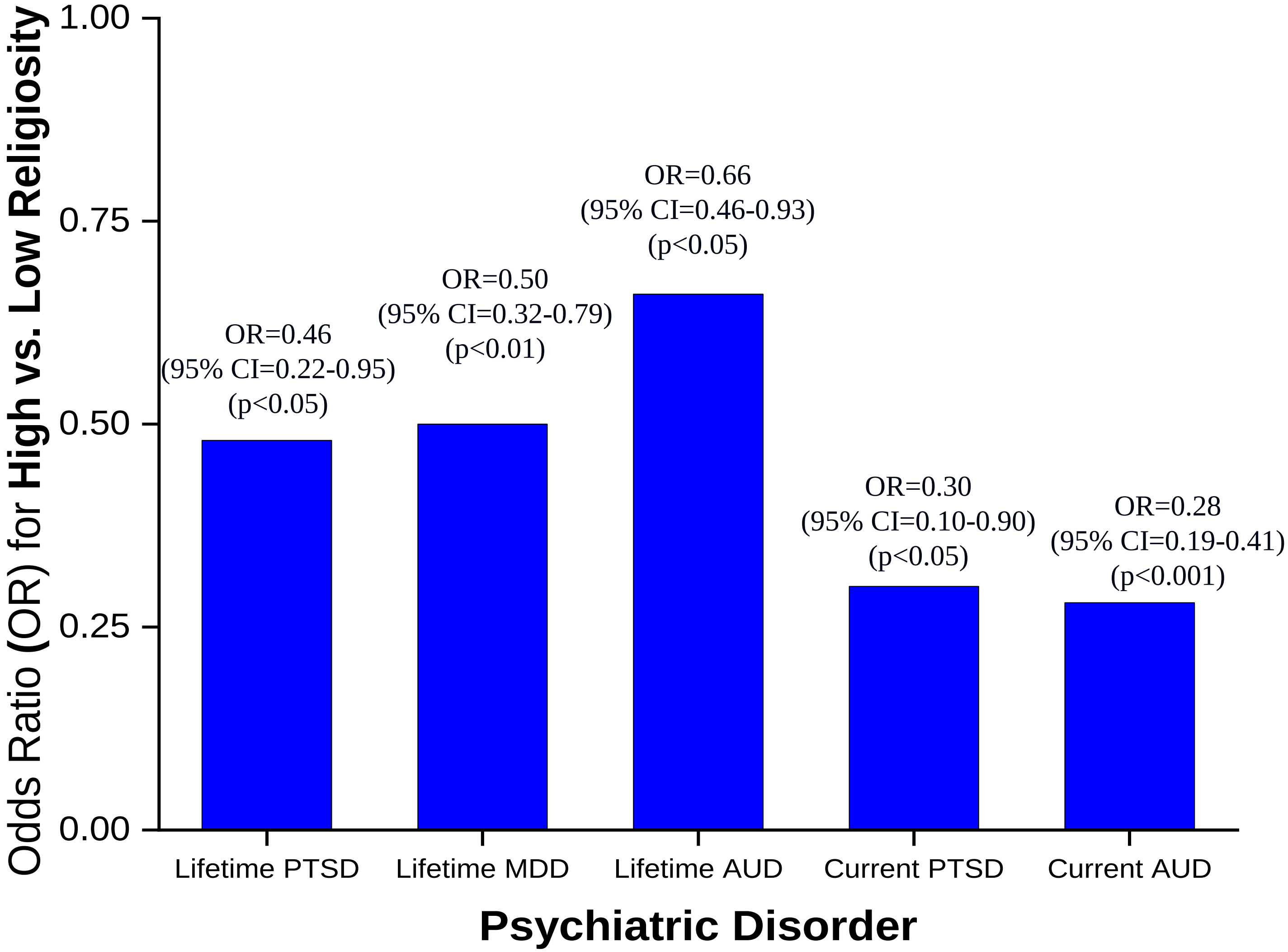
Anxiety and PTSD

Religious involvement is related to:

Less anxiety in 147 of 299 studies (49%)

More anxiety in 33 of 299 studies (11%)
(31 of 33 being cross-sectional)

Of 40 experimental studies or clinical trials, 29 (73%) reported significant reduction in anxiety with religious or spiritual interventions.



Sharma, V., Marin, D. B., Koenig, H. G., Feder, A., Iacoviello, B. M., Southwick, S. M., & Pietrzak, R. H. (2017). Religion, spirituality, and mental health of US military veterans: Results from the National Health and Resilience in Veterans Study. Journal of Affective Disorders, *217*, 197-204. [cross-sectional study of **nationally representative sample of 3,151 U.S. Veterans**; religiosity assessed by Duke University Religion Index (DUREL)]

Well-being and Happiness
(systematic review)

Religious involvement is related to:

Greater well-being and happiness
256 of 326 studies (79%)

[82% of best]

Lower well-being or happiness (3 of 326 studies, <1%)

Meaning, Purpose, Hope, Optimism

(systematic review)

Religious involvement is related to:

Greater meaning and purpose
42 of 45 studies (93%)
[100% of best]

Greater hope
29 of 40 studies (73%)

Great optimism
26 of 32 studies (81%)

All of the above have consequences for patients' motivation for self-care and efforts toward recovery

Social Support
(systematic review)

Religious involvement is related to:

- Great social support
  (61 of 74 studies) (82%)

Delinquency and Crime
(systematic review)

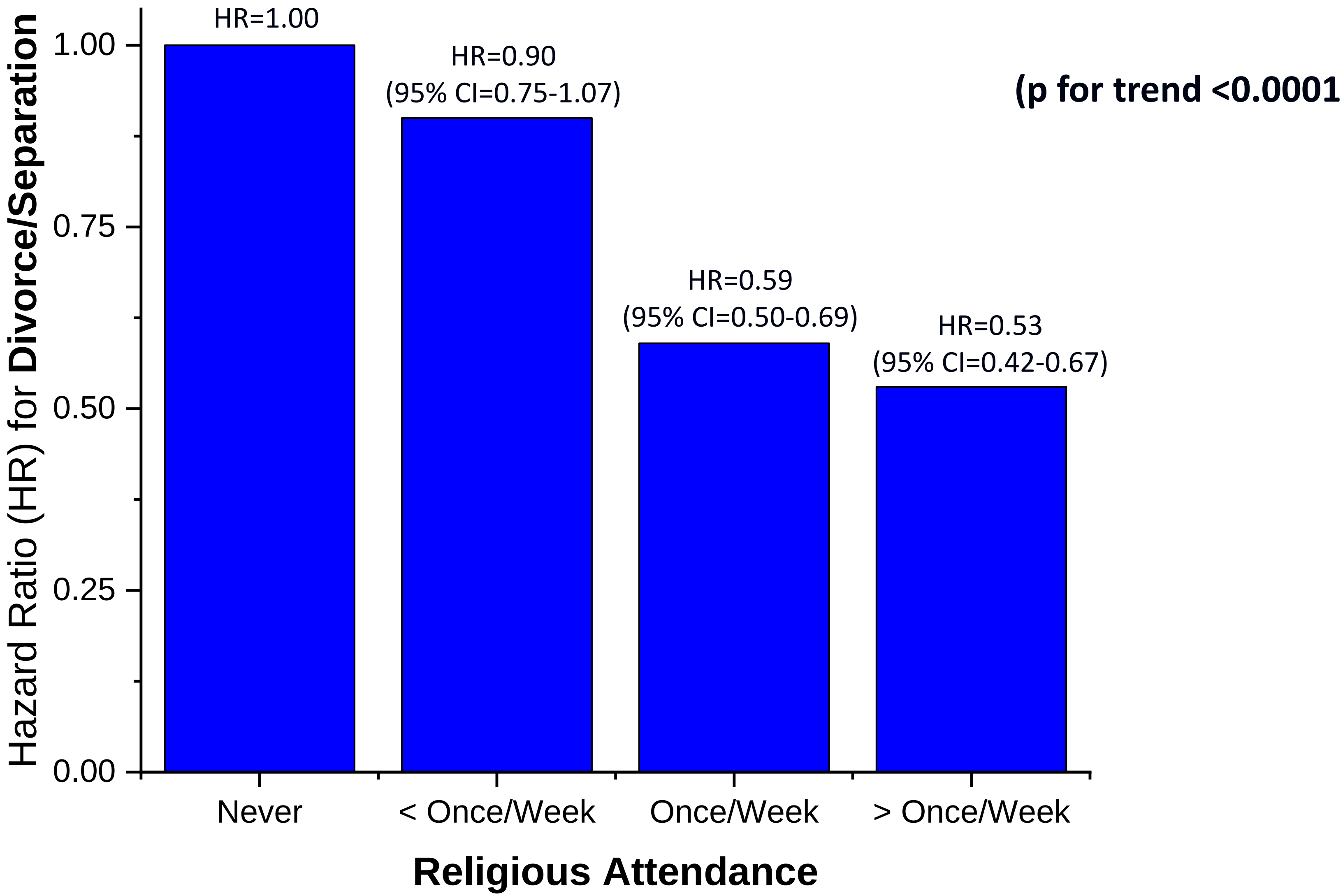
At least 104 quantitative peer-reviewed studies have now been published that have examined the spirituality-delinquency/crime relationship. Of those, 82 (79%) reported inverse relationships between spiritual involvement and delinquency or crime.

Of the 60 best studies, 82% found significant inverse relationships.

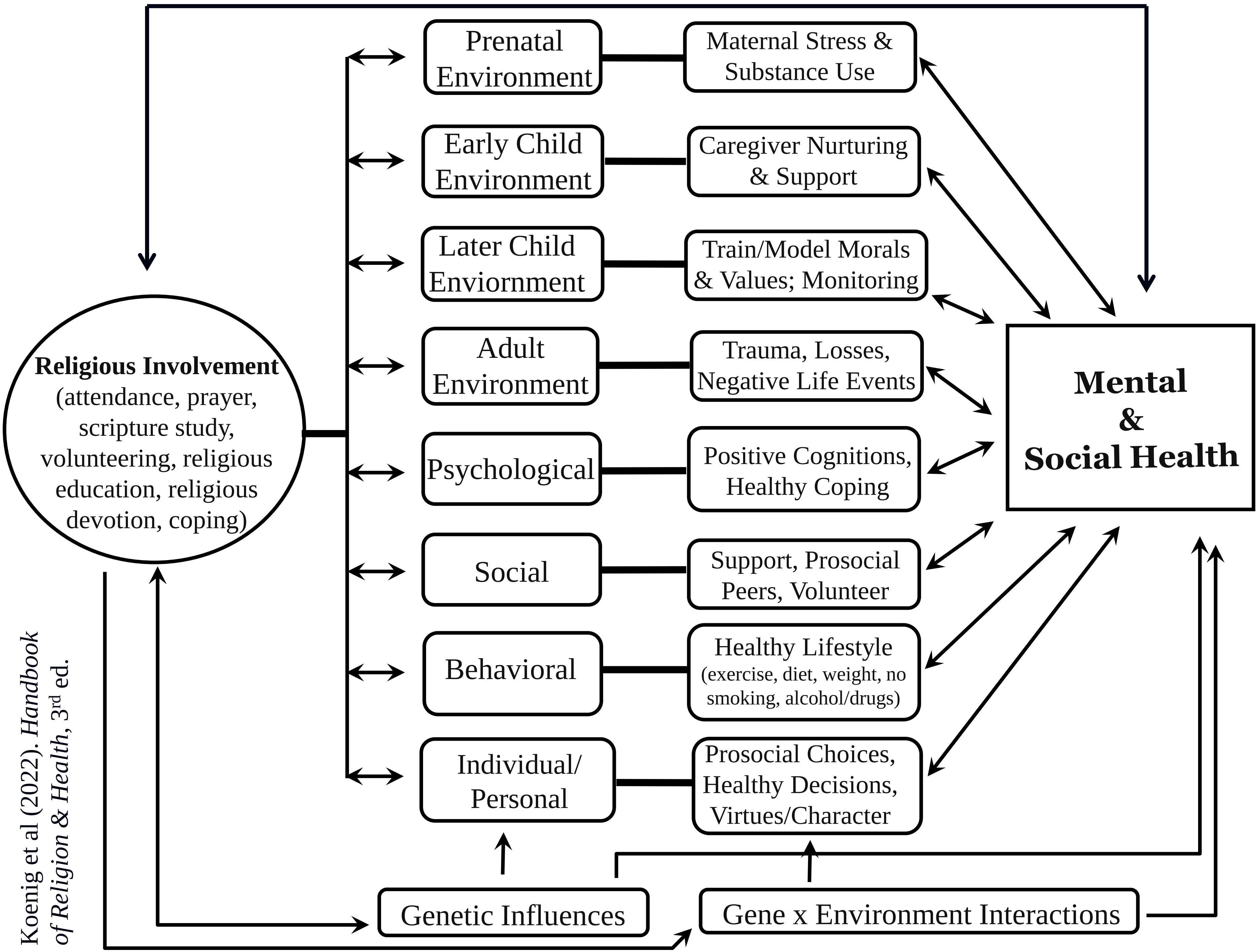
Marital Stability and Satisfaction

Religious involvement is related to:

Great marital stability - less divorce, greater satisfaction, less spousal abuse, less cheating on spouse, more likely to have intact family with two parents in home (68 of 79 studies or 86% of all quantitative studies)



Li, S., Kubzansky, L. D., & VanderWeele, T. J. (2018). Religious service attendance, divorce, and remarriage among US nurses in mid and late life. <u>PloS One</u>, *13*(12), e0207778. [**14-year follow-up** (1996-2010) of **66,444 initially married women**; Cox proportional hazard model and multivariate logistic regression used to control for 24 sociodemographic and health covariates, including 1992 religious attendance]


Prenatal Environment
Maternal Stress & Substance Use
Early Child Environment
Caregiver Nurturing & Support
Later Child Enviornment
Train/Model Morals & Values; Monitoring
Adult Environment
Trauma, Losses, Negative Life Events
Psychological
Positive Cognitions, Healthy Coping
Social
Support, Prosocial Peers, Volunteer
Behavioral
Healthy Lifestyle (exercise, diet, weight, no smoking, alcohol/drugs)
Individual/ Personal
Prosocial Choices, Healthy Decisions, Virtues/Character
Religious Involvement (attendance, prayer, scripture study, volunteering, religious education, religious devotion, coping)
Mental & Social Health
Genetic Influences
Gene x Environment Interactions
Koenig et al (2022). Handbook of Religion & Health, 3rd ed.

Religion & Health Behaviors

Exercise, Weight, & Sexual Risk Behaviors

(systematic review)

Religion is related to:

- More exercise/physical activity
  (25 of 37 studies) (68%)

- Lower weight
  (7 of 36 studies) (19%)
  Heavier weight
  (14 of 36 studies) (39%) ☹

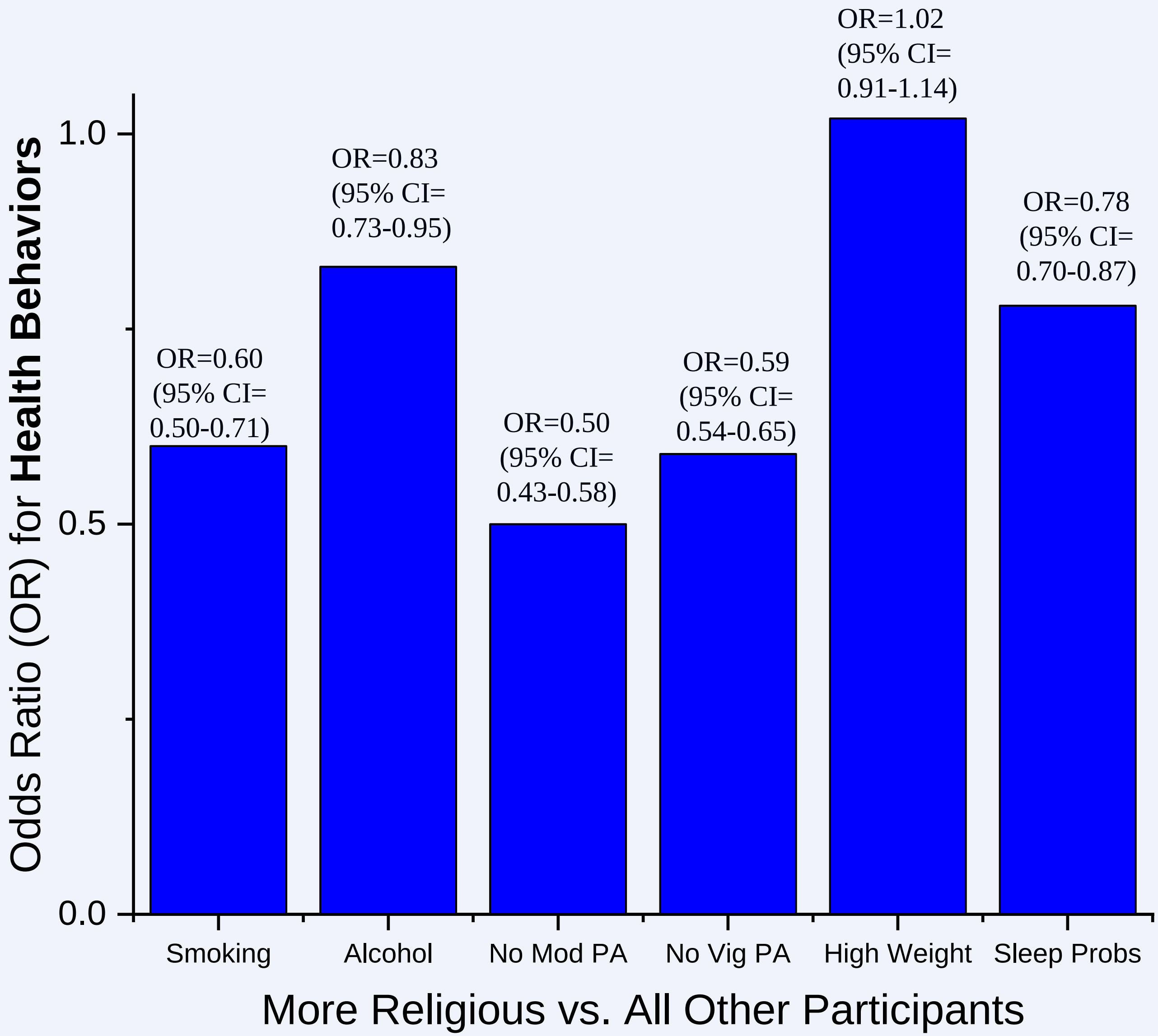
- Less extra-marital sex, safer sexual practices (fewer partners) (82 of 95 studies) (86%)

Cigarette smoking

(systematic review)

Religious involvement is related to:

Less cigarette smoking, especially among **the young** (122 of 135 studies) (90%)



Ahrenfeldt et al.(2018). Public Health 165, 74-81 [**10 year prospective study of 23,864 adults age 50 or over** (ave. age 65) followed from 2004/2005 to 2015; “more religious” were those who people who prayed, had taken part in a religious organization during the previous month, and were religiously educated by their parents; “less religious” were all others; analyses adjusted for country, gender, age, educ, marital status, employment (**Survey of Health, Aging and Retirement in Europe**)

Physical Health Consequences

Immune and Endocrine Functions

(systematic review)

Religious involvement is related to:

Better immune functions
(14 of 25 studies) (56%)

Better endocrine functions
(23 of 31 studies) (74%) (majority involving meditation)

Cardiovascular Functions

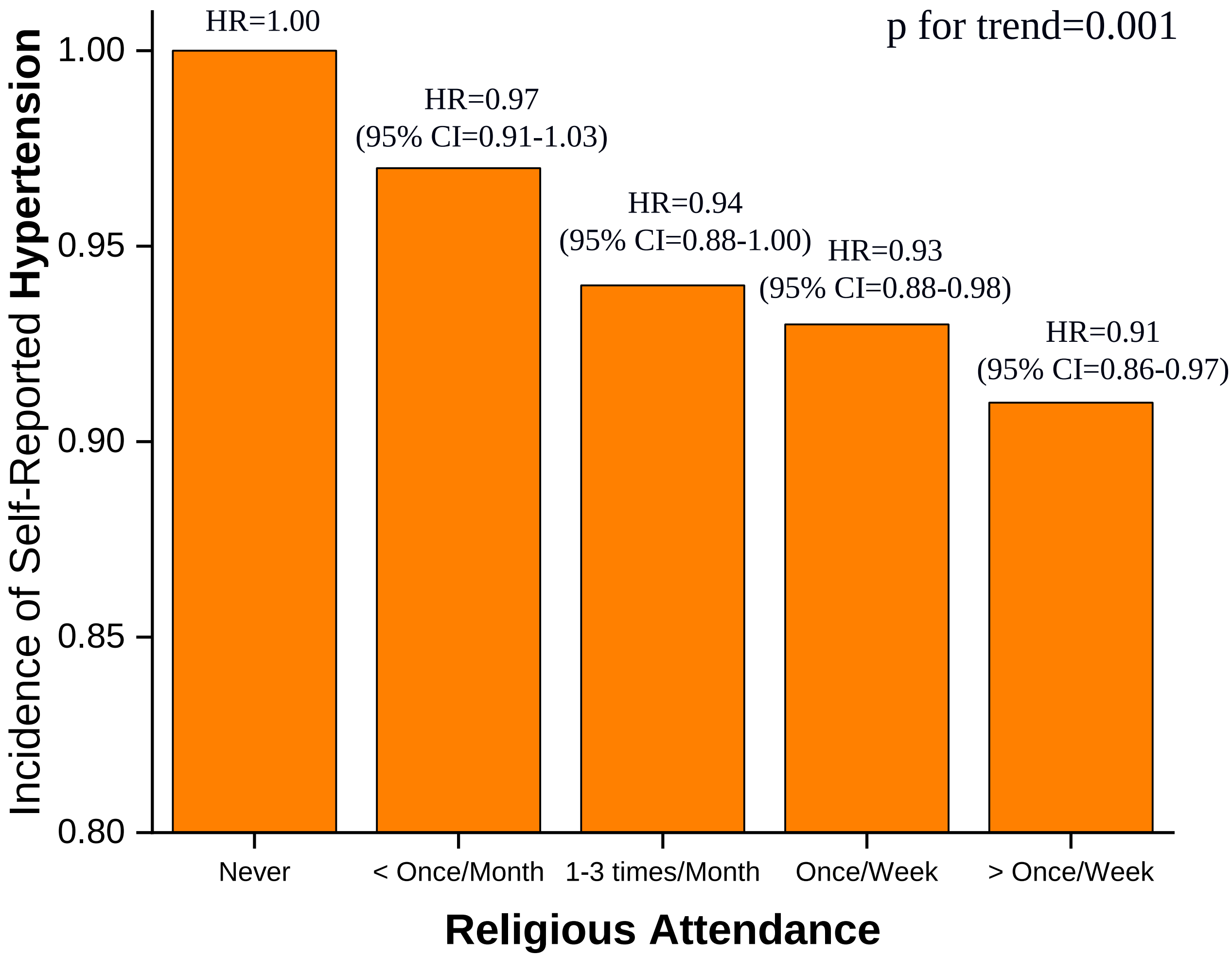
(systematic review)

Religious involvement is related to:

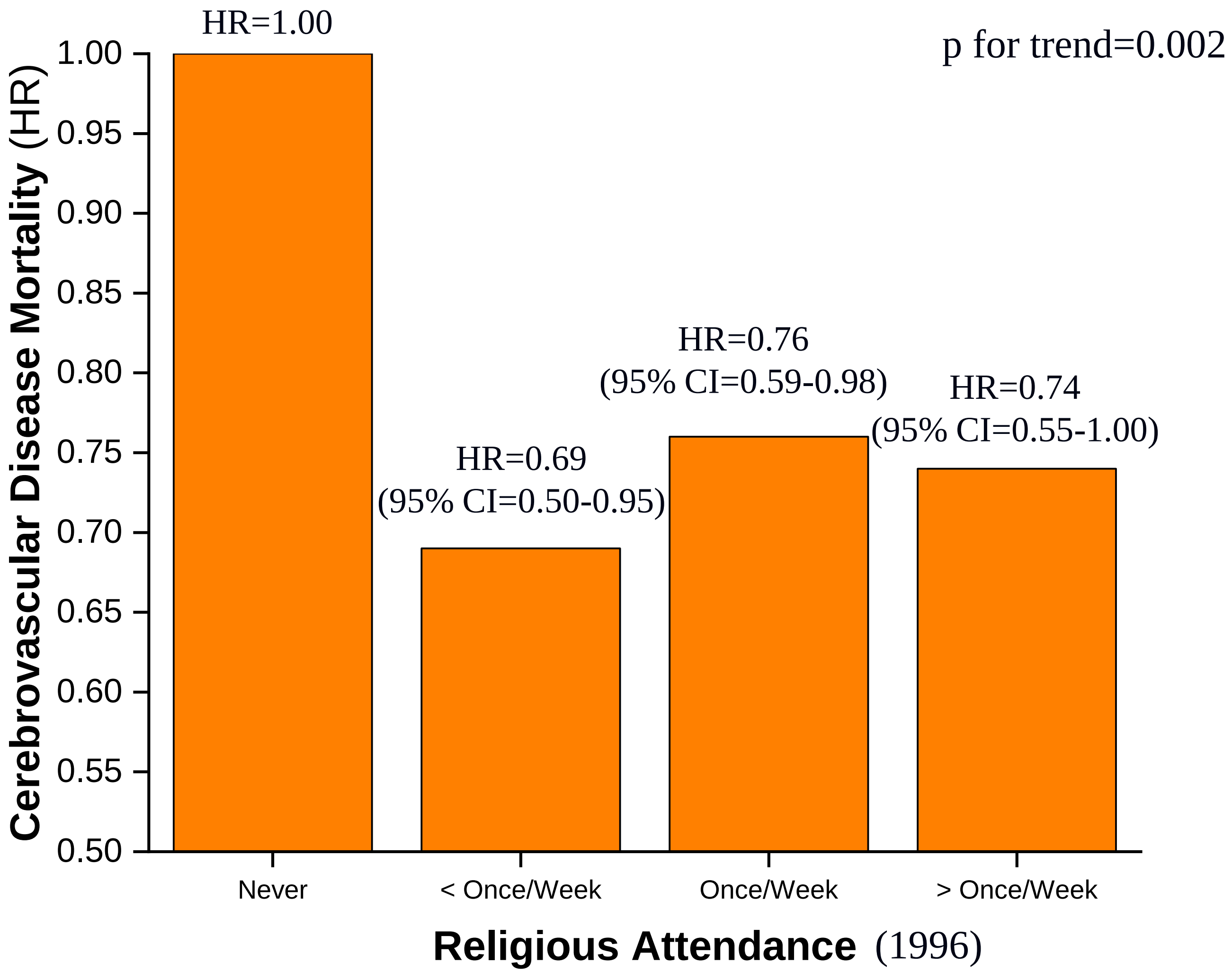
Lower blood pressure
(36 of 63 studies) (57%)

Better cardiovascular functions (CVR, HRV, CRP)
(10 of 16 studies overall) (63%)

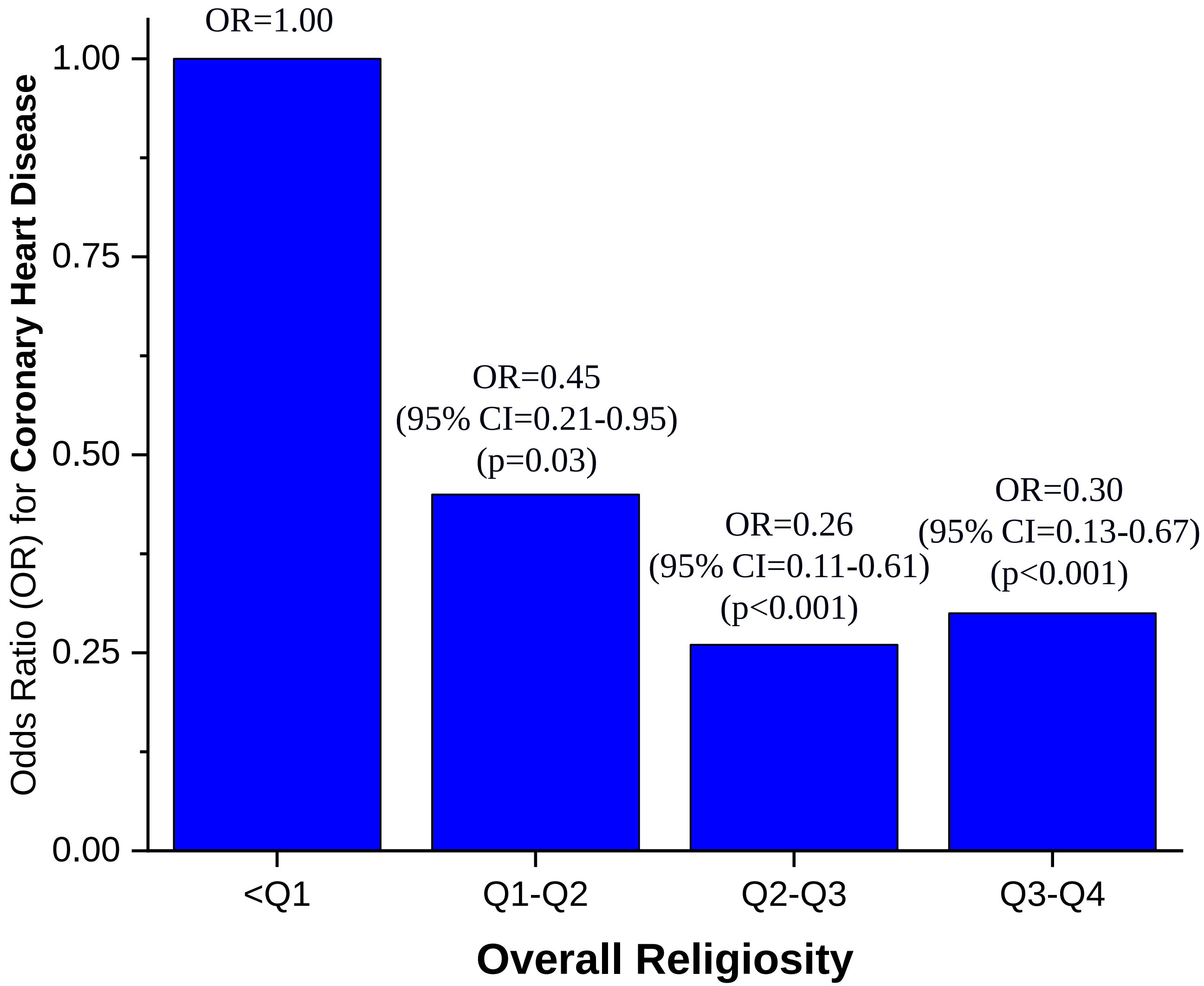
Less coronary artery disease
(12 of 19 studies overall) (63%)



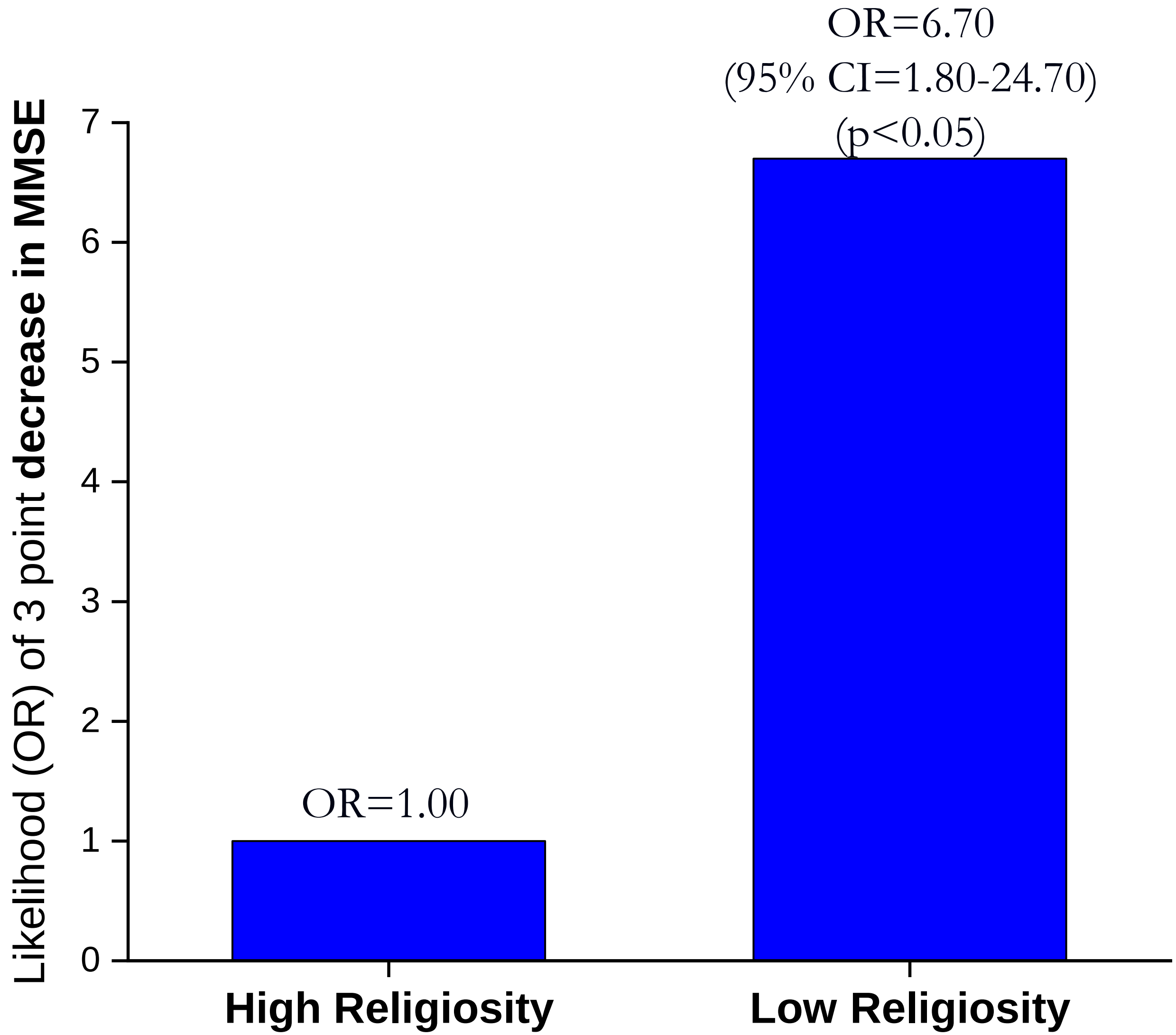
Spence, N. D., Farvid, M. S., Warner, E. T., VanderWeele, T. J., Tworoger, S. S., Argentieri, M. A., & Shields, A. E. (2020). Religious service attendance, religious coping, and risk of hypertension in women participating in the Nurses' Health Study II. American Journal of Epidemiology, *189*(3), 193-203. [**12-year prospective study of 44,281 women without hypertension**; Cox proportional hazards models controlled for 25 sociodemographic, psychological, and physical health covariates]



Li, S., Stampfer, M. J., Williams, D. R., & VanderWeele, T. J. (2016). Association of religious service attendance with mortality among women. JAMA Internal Medicine, *176*(6), 777-785. [**16-year prospective study** of **74,534 nurses** (1996-2012), during which there were 13,537 deaths; controlled for in Cox proportional hazard regression models were 19 sociodemographic, psychological, and physical health covariates, **including 1992 attendance at religious services** and psychological, social, and behavioral mediators assessed in 1998-2004.]

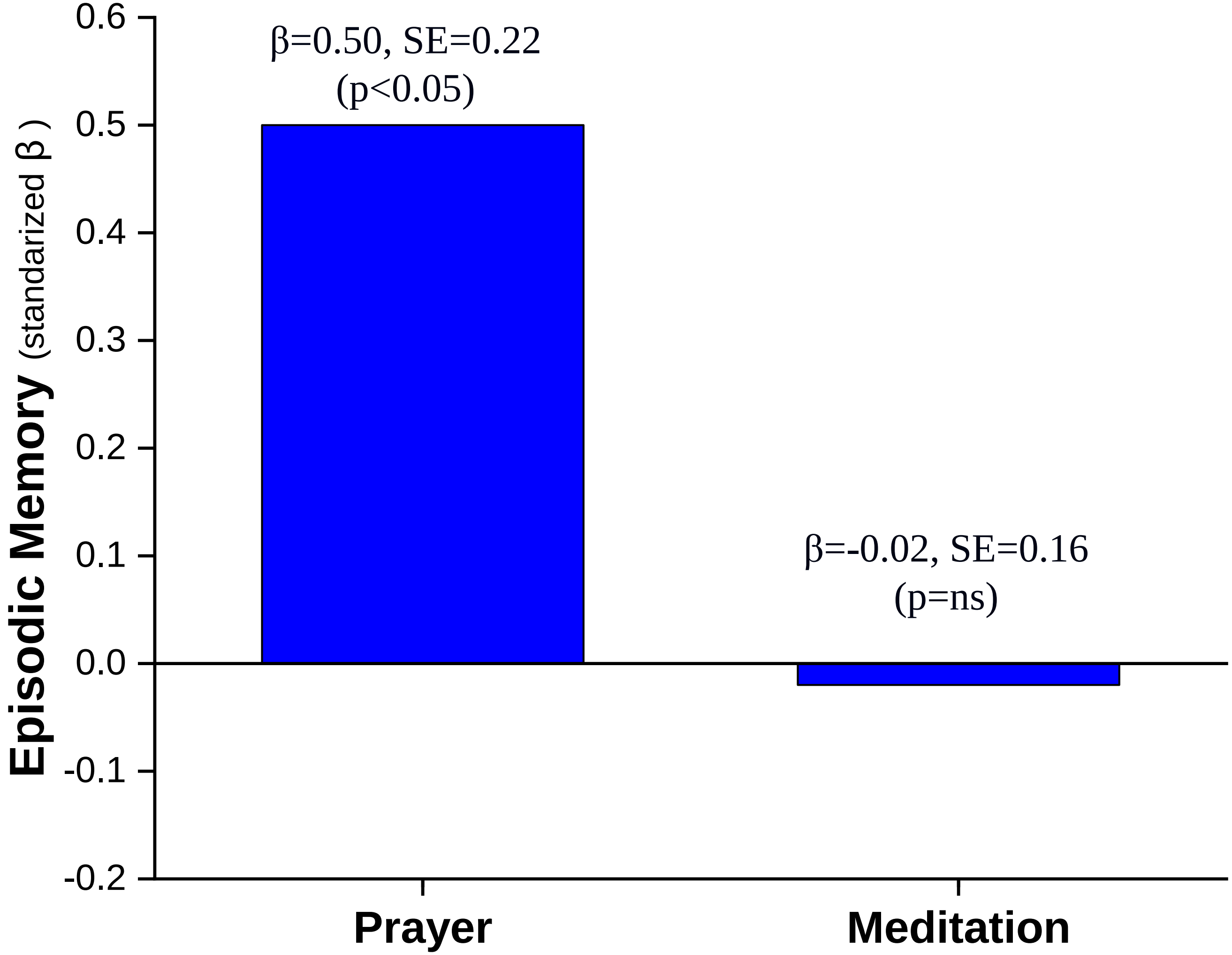


Hemmati, R., et al. (2019). Religion, spirituality and risk of coronary heart disease: A matched case–control study and meta-analysis. Journal of Religion and Health, *58*(4), 1203-1216. [Case-control study in Iran involving 190 hospitalized patients with non-fatal CHD (cases) matched on age and gender with 383 controls without CHD; logistic regression controlled for family history of CVD, smoking, passive exposure to smoke, birthplace, marital status, education, job category, past medical history, fasting blood sugar, high-density lipoprotein, triglyceride, total cholesterol, low-density lipoprotein, systolic & diastolic blood pressure]

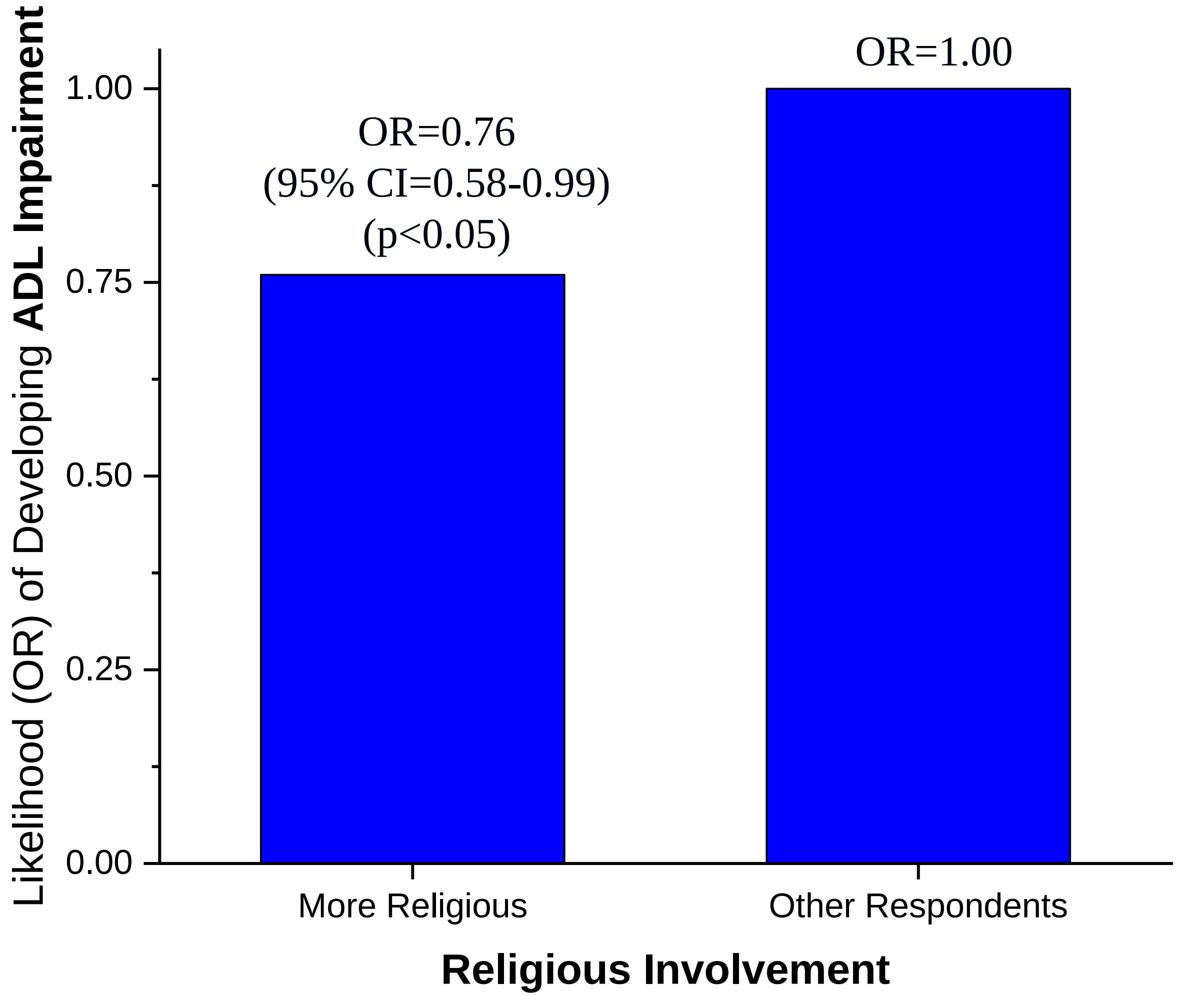


Coin, A., Perissinotto, E., Najjar, M., Girardi, A., Inelmen, E. M., Enzi, G., ... & Sergi, G. (2010). Does religiosity protect against cognitive and behavioral decline in Alzheimer's dementia? Current Alzheimer Research, *7*(5), 445-452.

[12-month prospective study of 64 patients with Alzheimer's disease]



Lekhak, N., Bhatta, T. R., & Zauszniewski, J. A. (2020). Episodic memory in later life: Benefits of prayer and meditation. Journal of Holistic Nursing, *38*(1), 30-40. ("episodic memory" assessed by immediate and delayed word recall) [Random subsample of *U.S. Health and Retirement Study*: **12-year prospective study of 1,160 adults aged 50 years and over**; generalized estimating equation regression modeling was used to examine **change in episodic memory over time** controlling for age, gender, race, education, marital status, and multi-morbidity]



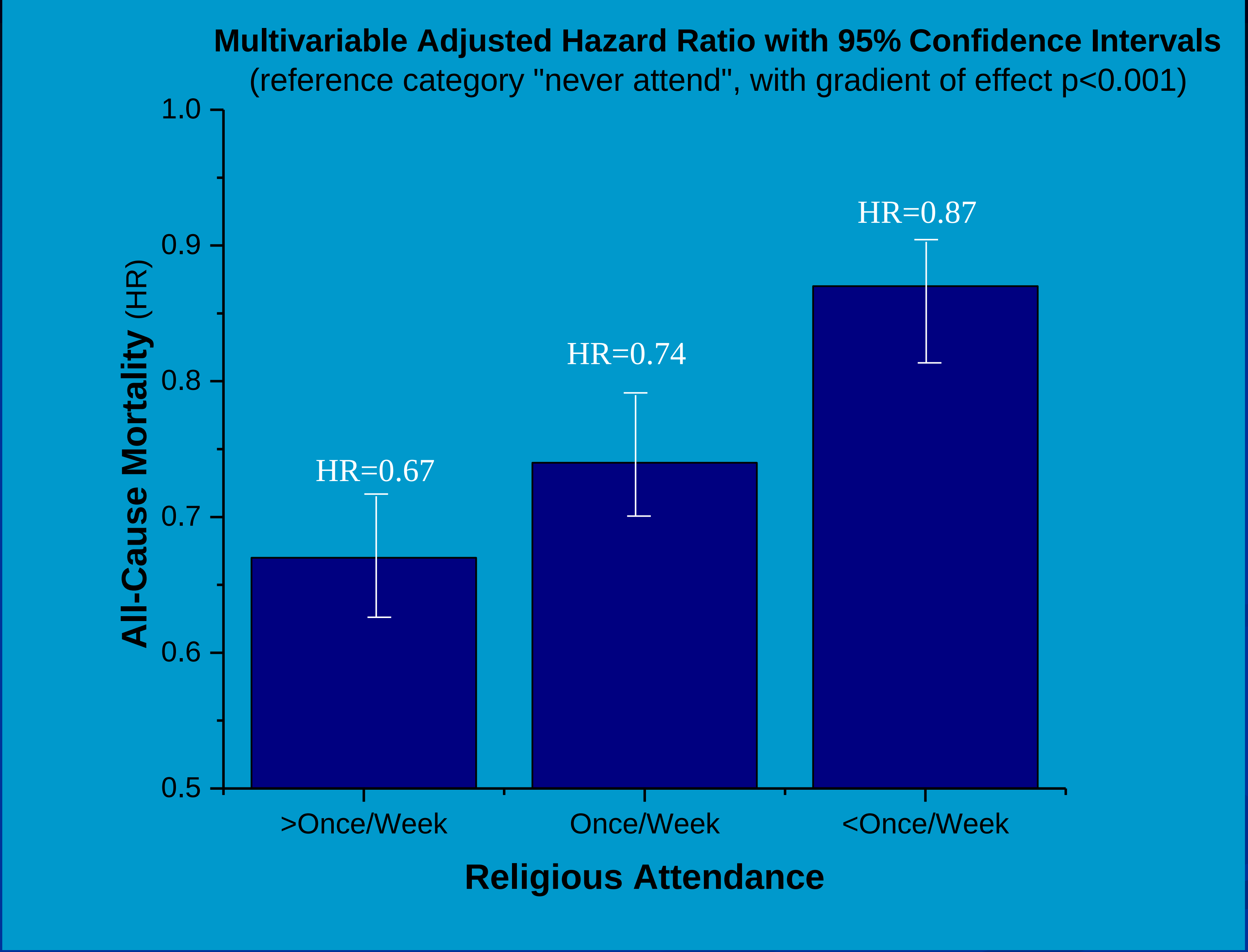
[There was also a similar weak trend for IADL limitations (OR=0.85, CI=0.68-1.05) and global activity limitations (OR=0.88, CI=0.75-1.03)]

Ahrenfeldt et al. (2017). Religiousness and health in Europe. European Journal of Epidemiology, *32*(10), 921-929. [**9-year prospective study of 14,255 adults age 50 or older** from across **Europe**; analyses controlled for baseline health, European region, gender, age, education, marital status, and employment; "**more religious**" participants (6.3%) reported praying, taking part in a religious organization, and being religiously educated]

Mortality (all-cause)
(systematic review)

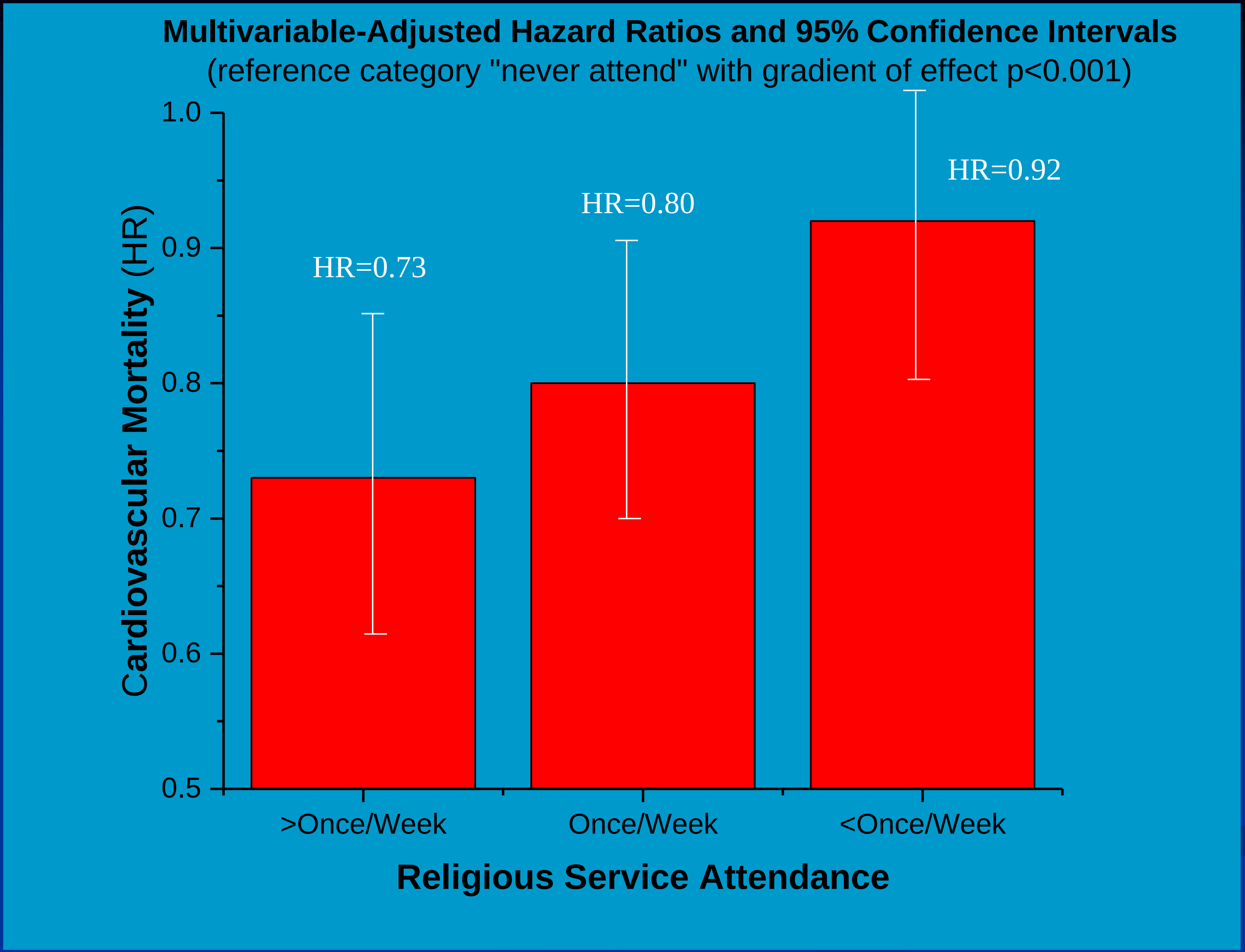
Religious involvement related to:

- Greater longevity in 82 of 120 studies (68%)
- Shorter longevity in 7 of 120 studies (6%)

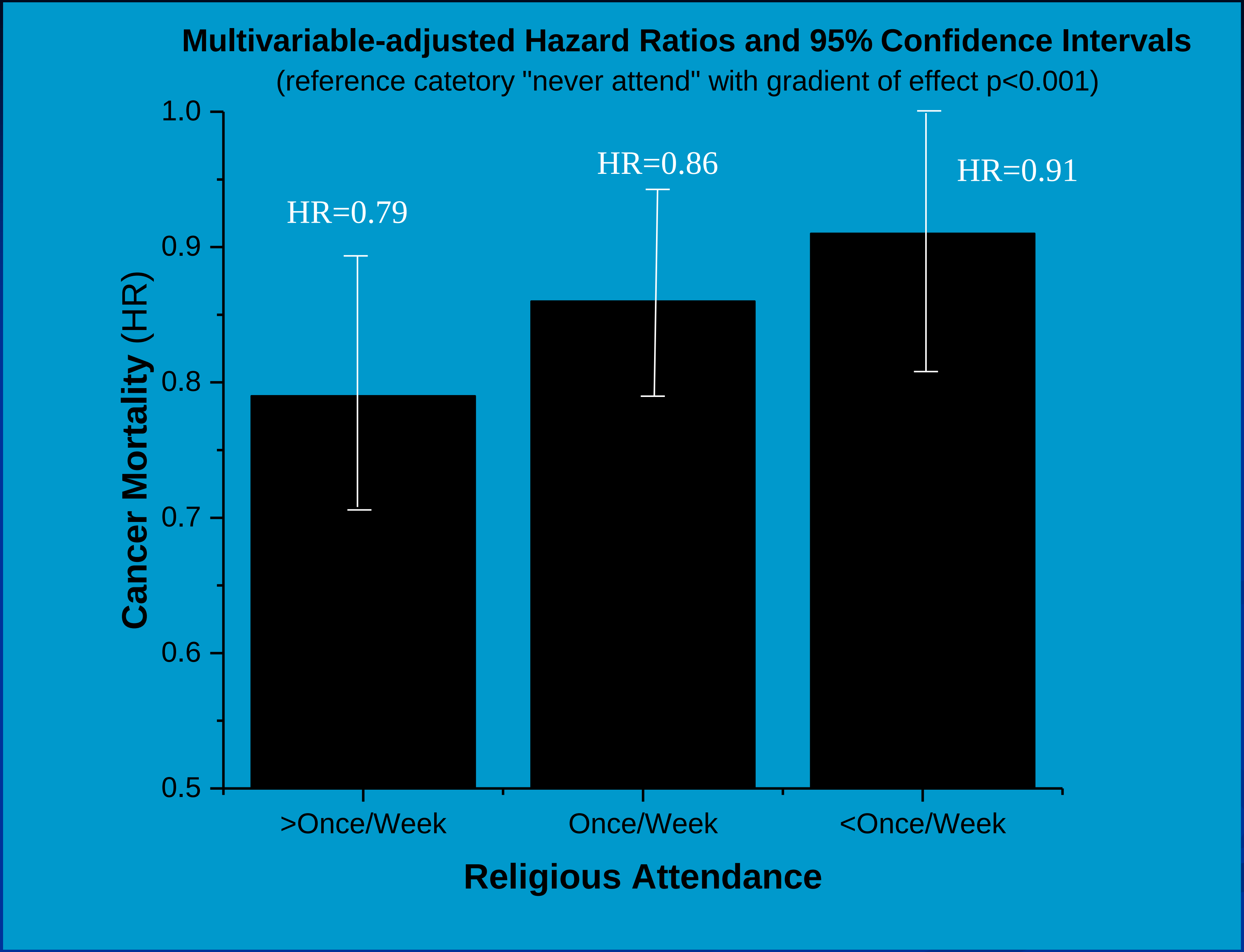


Nurses Health Study: 74,534 women followed from 1996-2012

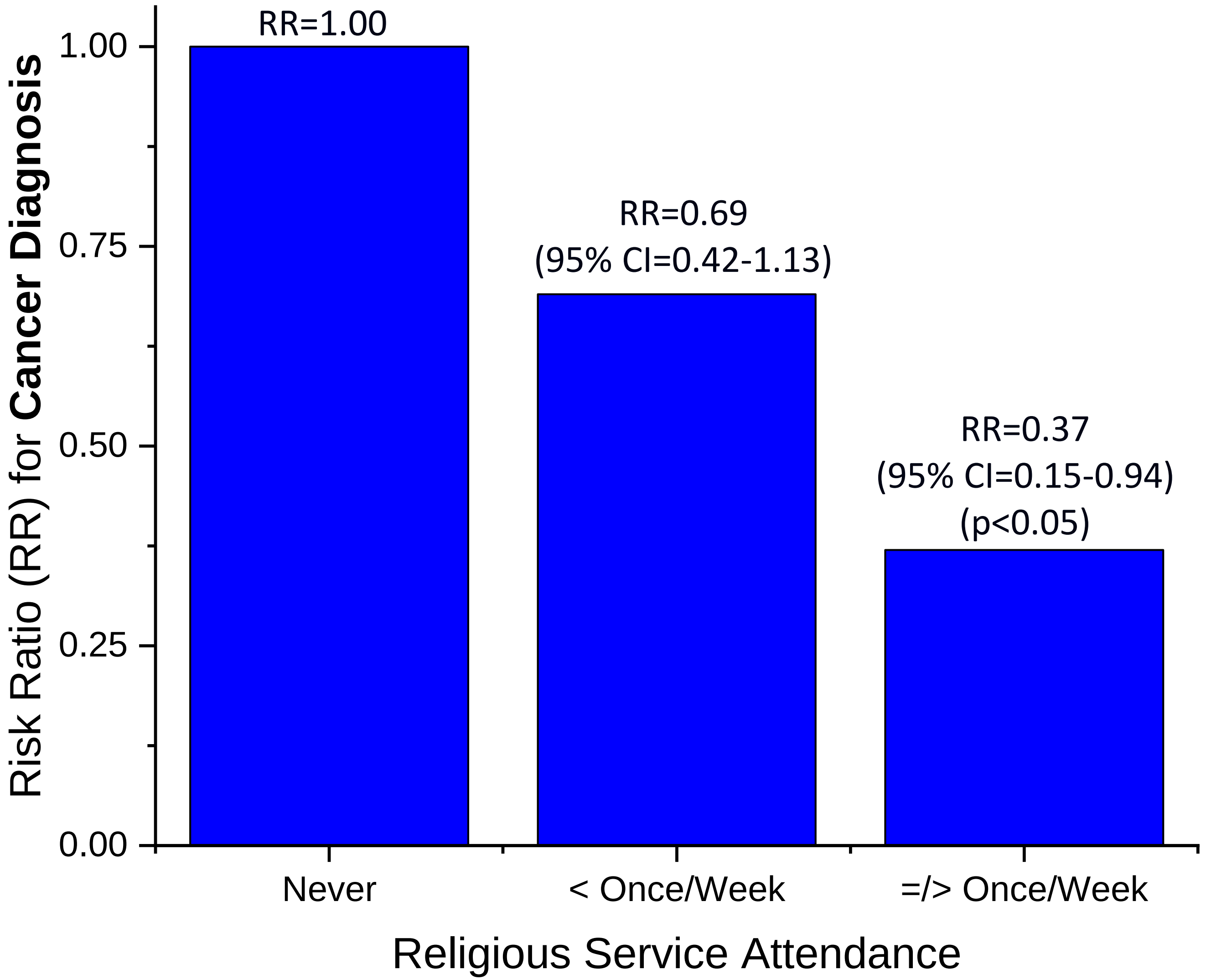
Li et al (2016). JAMA Internal Medicine 176(6):777-785



Li et al…VanderWeele (2016). JAMA Internal Medicine 176(6):777-785

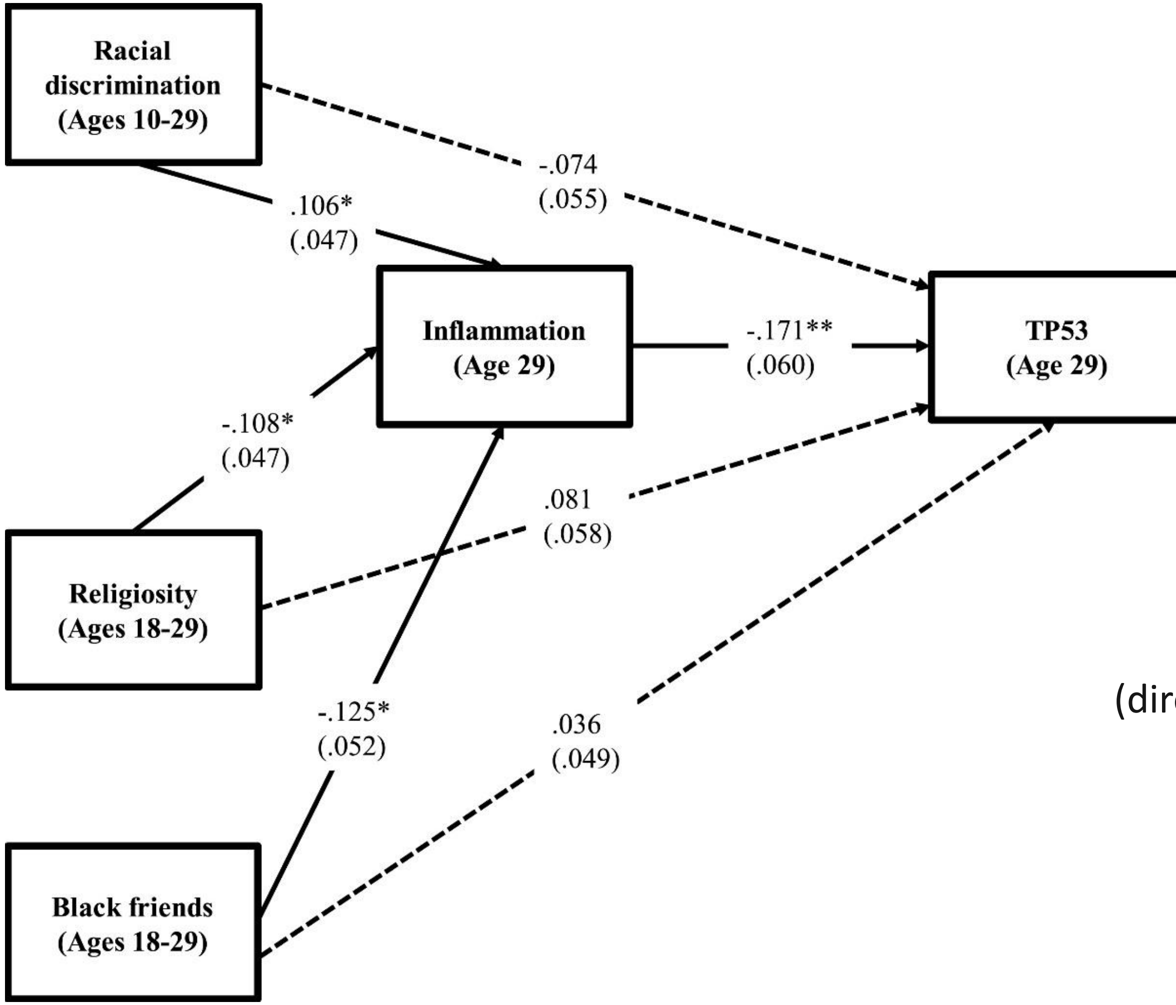


Li et al…VanderWeele (2016). JAMA Internal Medicine 176(6):777-785



Chen, Y., Kim, E. S., & VanderWeele, T. J. (2020). Religious-service attendance and subsequent health and well-being throughout adulthood: evidence from three prospective cohorts. International Journal of Epidemiology (https://doi.org/10.1093/ije/dyaa120) [**3-6 year prospective study** *of* 9,862 young adults (ave. age 23) followed from 2007 to 2010-2013; two dozen covariates controlled for, along with p values corrected for examination of multiple outcomes using the conservative Bonferroni correction]

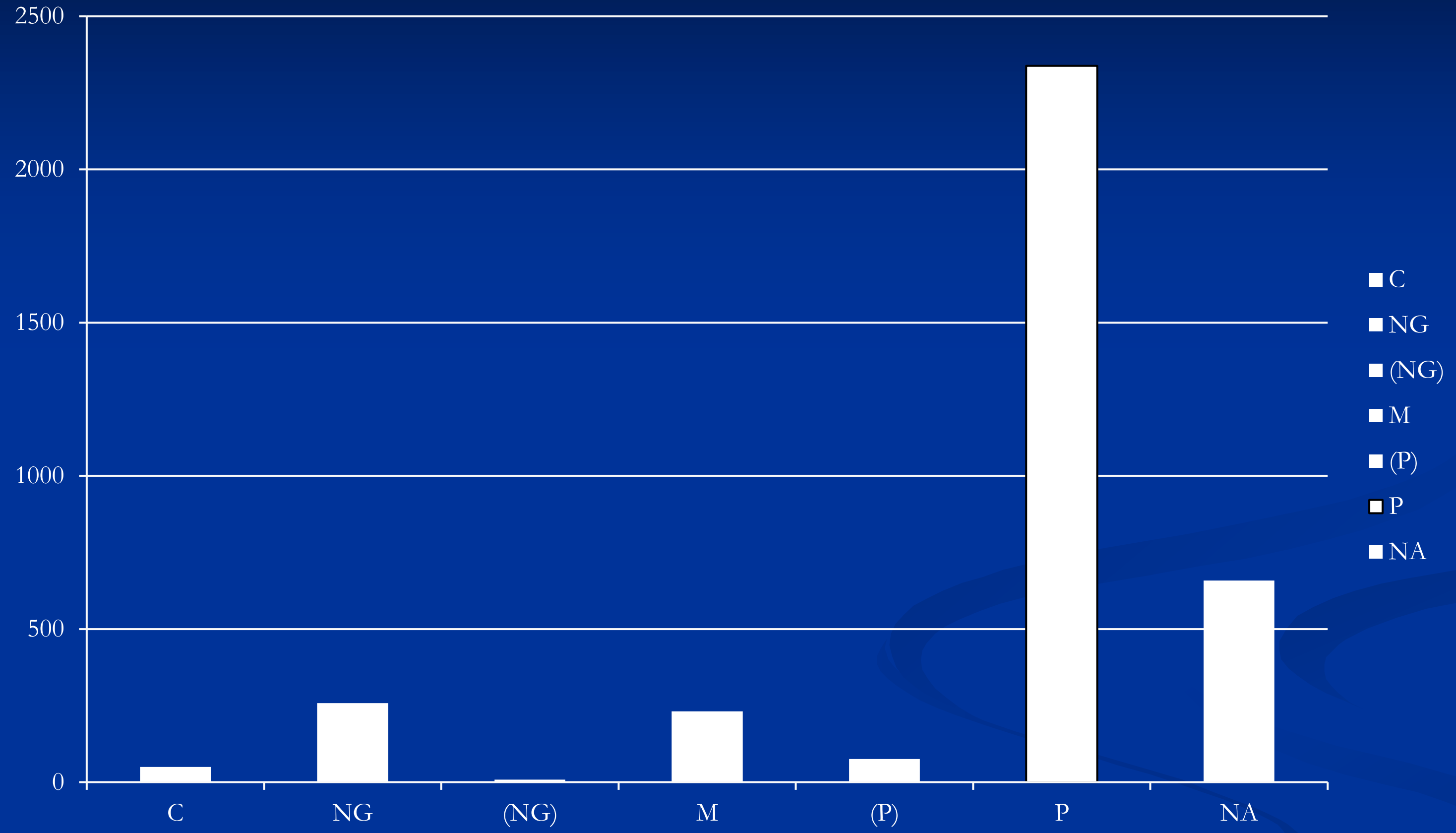
Religiosity and Cancer Suppressor Gene



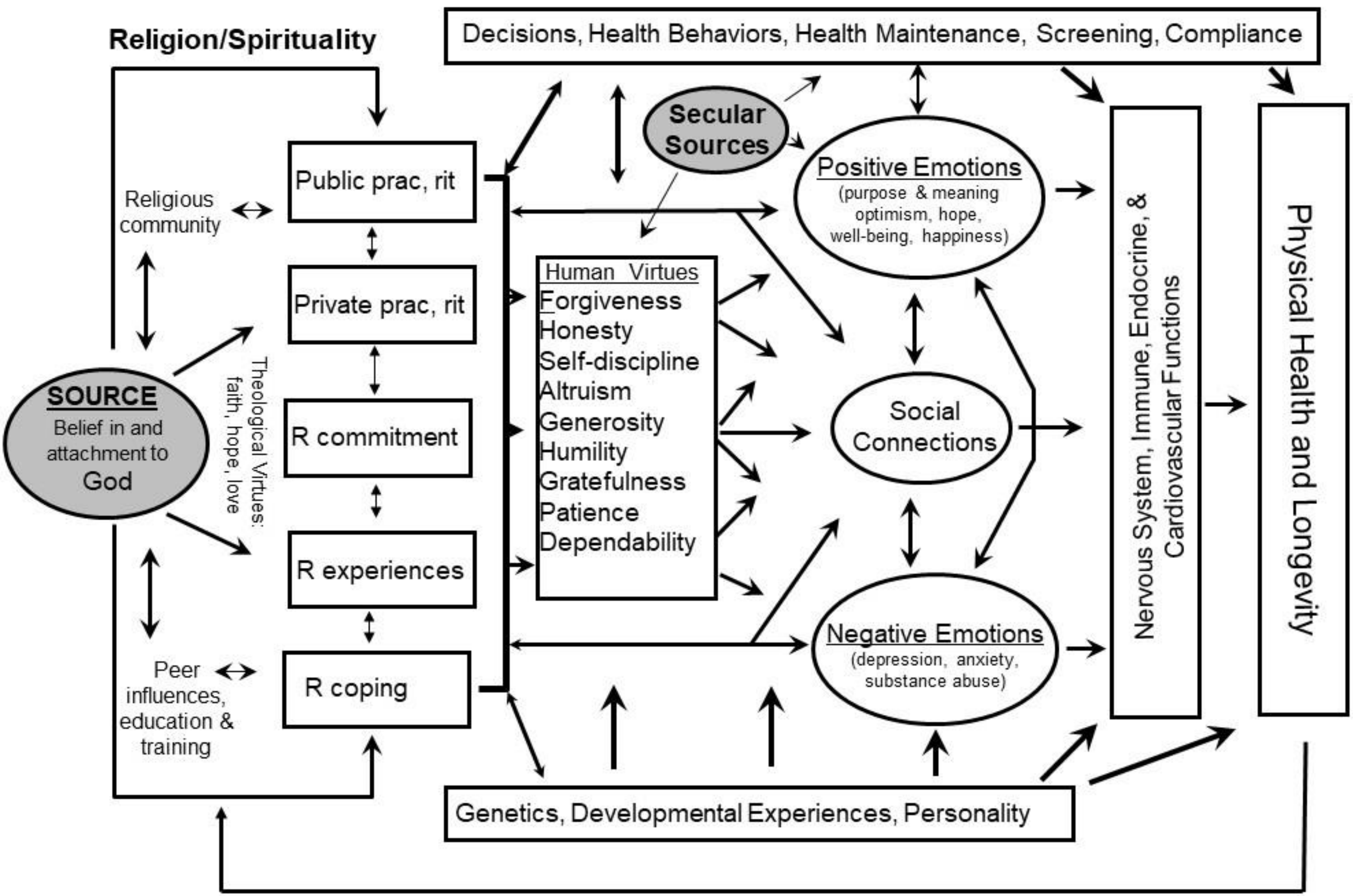
B=0.10
(direct + indirect effects)
($p \leq 0.05$)

Simons, R. L., Lei, M. K., Carter, S., Beach, S. R., Gibbons, F. X., Gerrard, M., & Philibert, R. A. (2019). Inflammation mediates the effect of discrimination, religiosity, and friendship network on expression of the Tp53 cancer suppressor gene. Social Sciences and Medicine (SSM)-Population Health, *7*, 100389: 1-6 [cross-sectional survey of 385 African Americans average age 29 years; SEM used to analyze the data controlling for gender, education, marital status, health insurance, healthy diet, exercise, alcohol use, smoking, physical illnesses, and other covariates in model]

The Relationship between Religion and Health: All Studies



Number of studies includes some studies counted more than once (see Appendices of 1st and 2nd editions). Prepared by Dr. Wolfgang v. Ungern-Sternberg



Religion/Spirituality
Decisions, Health Behaviors, Health Maintenance, Screening, Compliance
Secular Sources
Public prac, rit
Religious community
Private prac, rit
R commitment
R experiences
R coping
SOURCE
Belief in and attachment to God
Theological Virtues: faith, hope, love
Peer influences, education & training
Human Virtues
Forgiveness
Honesty
Self-discipline
Altruism
Generosity
Humility
Gratefulness
Patience
Dependability
Positive Emotions
(purpose & meaning optimism, hope, well-being, happiness)
Social Connections
Negative Emotions
(depression, anxiety, substance abuse)
Nervous System, Immune, Endocrine, & Cardiovascular Functions
Physical Health and Longevity
Genetics, Developmental Experiences, Personality

Applications in the Clinic

- Healthcare professionals should take a spiritual history -- talk with patients about these issues
- Respect, value, support beliefs and practices of **the patient**
- Identify the spiritual needs of the patient
- Ensure that someone meets patients' spiritual needs (pastoral care)
- Pray with patients if **patient requests**
- Work with the faith community, if patient consents

From: Spirituality in Patient Care (Templeton Foundation Press, 2013)

The Spiritual History[1]

1. Do your beliefs provide comfort?

2. Are your beliefs a source of stress?

3. Do you have beliefs that might influence your medical decisions?

4. Are you a member of a faith community, such as a church, synagogue, or mosque? If yes, is it supportive?

5. Do you have any other spiritual concerns that you'd like someone to address?

[1]Adapted from Koenig HG (2002). <u>Journal of the American Medical Association</u> (JAMA) 288 (4): 487-493

Activities Besides Taking a Spiritual History

1. Support the religious/spiritual beliefs of the patient (verbally, non-verbally)

2. Ensure patient has resources to support their spirituality

3. Accommodate environment to meet spiritual needs of patient

5 CME-qualified 45-60 min Training Videos on How to Integrate Spirituality into Patient Care (using the "Spiritual Care Team" approach)

Go to the following Duke University website:

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

Conclusions

1. Religious involvement (RI) is related to better mental, social, and behavioral health, and improves these aspects of health over time

2. RI is also related to better physical health, less functional disability, and less cognitive decline with aging

3. These findings have huge implications for public health and healthcare costs as RI becomes less common with each younger cohort

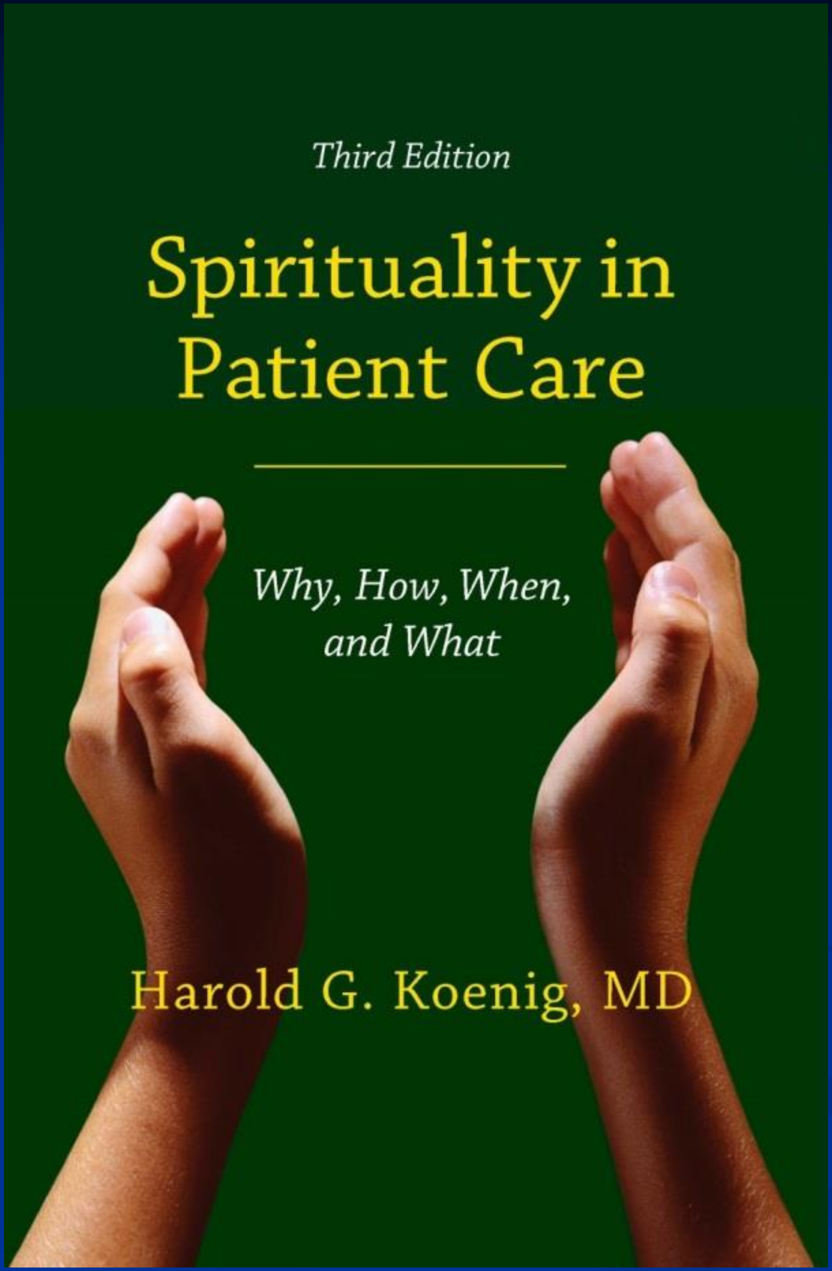
Further Resources

Monthly FREE e-Newsletter

CROSSROADS…
Exploring Research on Religion, Spirituality & Health

- Summarizes latest research
- Latest news
- Resources
- Events (lectures and conferences)
- Funding opportunities

To sign up, go to website: http://www.spiritualityandhealth.duke.edu/


Third Edition
Spirituality in Patient Care
Why, How, When, and What
Harold G. Koenig, MD

Summer Research Workshop

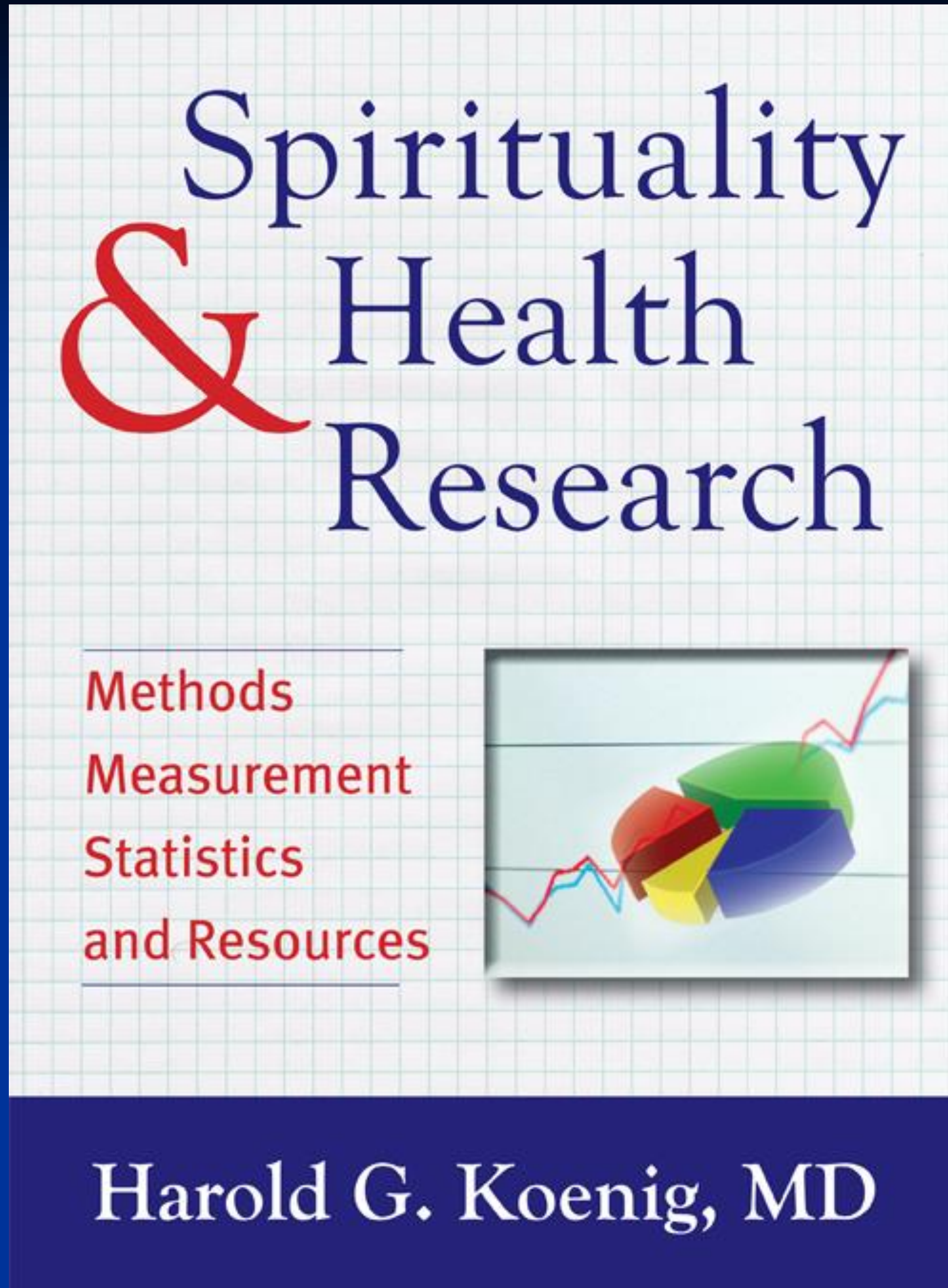
August 15-19, 2022
Durham, North Carolina

5-day intensive research workshop focus on what we know about the relationship between spirituality and health, clinical applications, how to conduct research, and how to develop an academic career in this area. Faculty includes leading spirituality-health researchers at Duke, Yale University, Emory, and elsewhere.

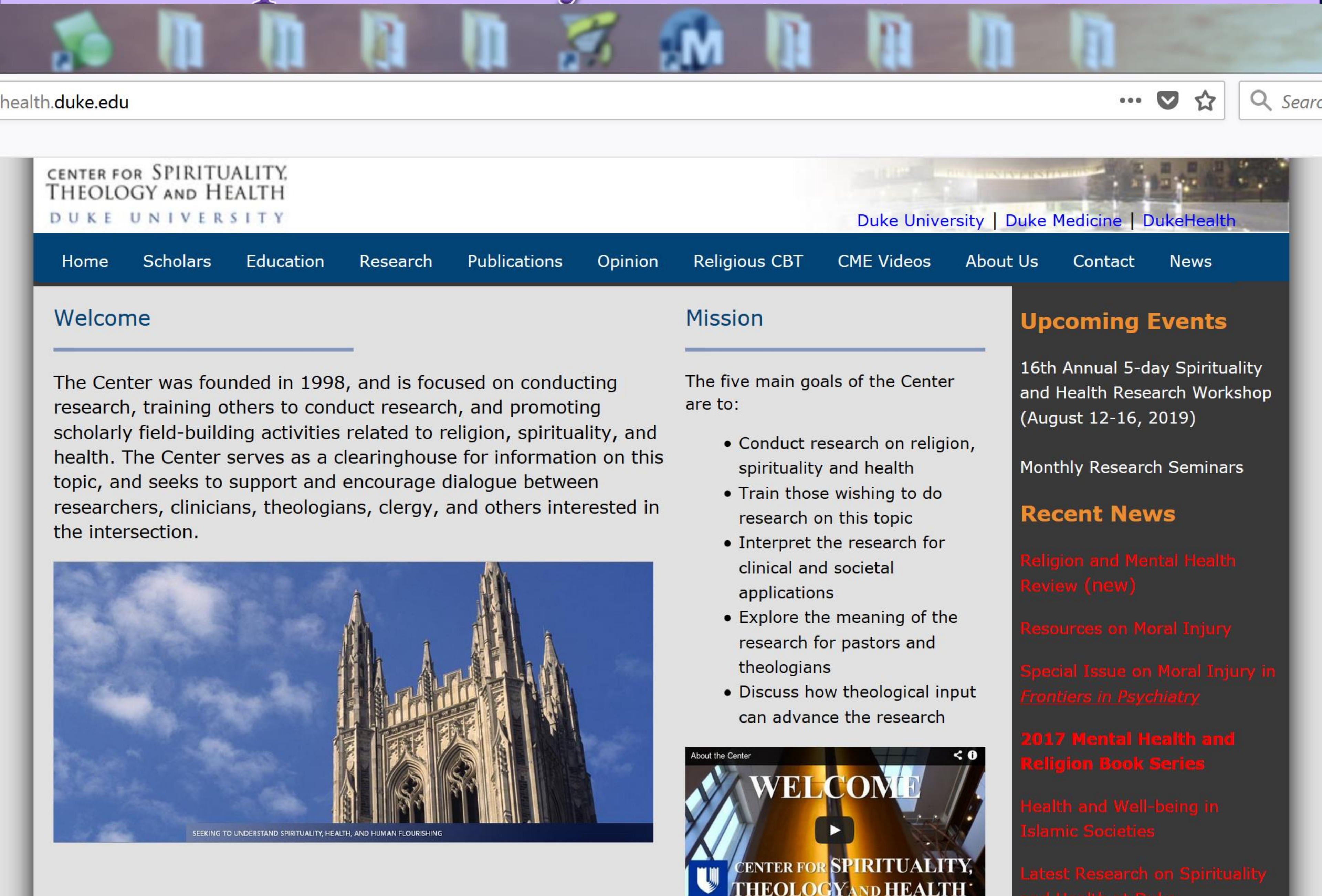
-Strengths and weaknesses of previous research
-Theological considerations and concerns
-Highest priority studies for future research
-Strengths and weaknesses of measures of religion/spirituality
-Designing different types of research projects
- Primer on statistical analysis of religious/spiritual 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


Spirituality
&
Health
Research
Methods
Measurement
Statistics
and Resources
Harold G. Koenig, MD

www.spiritualityandhealth.duke.edu



Questions and Discussion