Religion and Mental Health

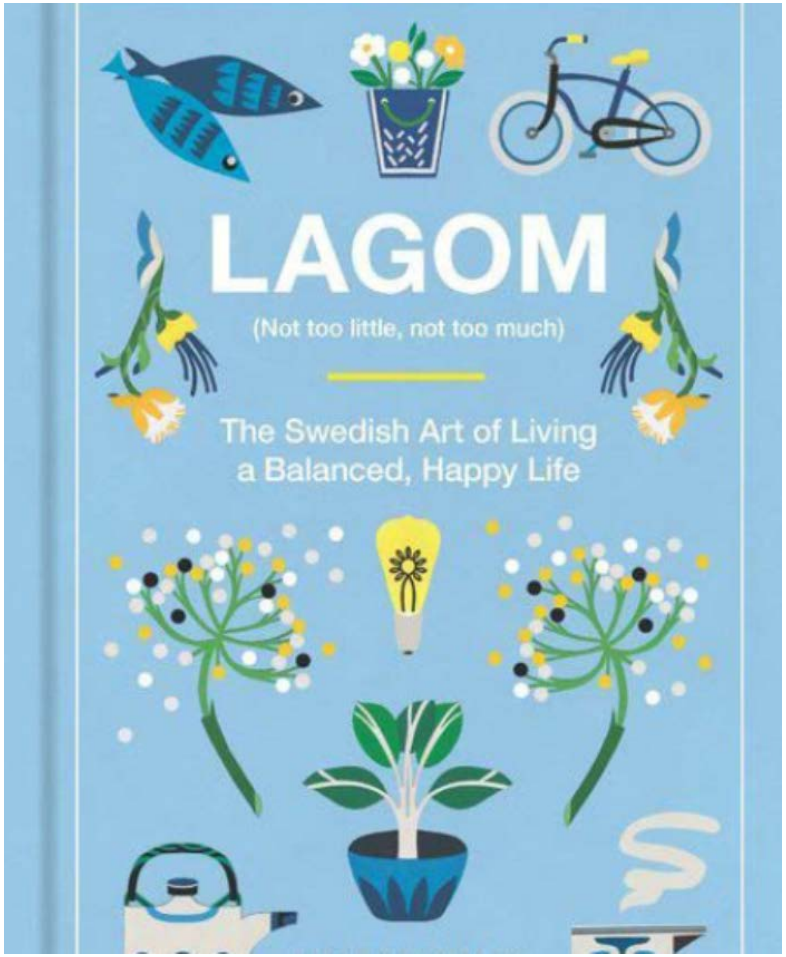
Challenging the Public-Private Divide

Grace Chang, MD, MPH

Harvard Medical School

26 April 2018

I. Background
II. Research Summary
III. Current examples
    I. US military veterans
    II. Clinician burn-out
    III. Substance use
    IV. Cancer
IV. Strategies and Next Steps



I. BACKGROUND

I. Background

- Longstanding historical tension between religion and psychiatry
  - "Universal obsession neurosis" by Freud, 1907
  - Medicalization of mental health alienated clergy
- Last 3 decades
  - American psychiatry more receptive
    - Patient's culture
    - Evidence of benefit in mental health

Weber & Pargament, 2014

Positive Aspects of Religion

- Religion and spirituality have a positive influence on patients' overall quality of life
  - Lower levels of depressive symptoms
  - Fewer symptoms of posttraumatic stress
  - Fewer eating disorder symptoms
  - Fewer negative symptoms in schizophrenia
  - Less stress
  - Lower risk of suicide

Mechanisms

- Positive religious coping
  - Positive means of coping with difficult situations
- Community and support
  - Social modeling
- Positive beliefs
  - Comfort, meaning, a sense of control, hope

Negative Aspects of Religion

- Use religion for nonreligious or antireligious ends
- Incorporation of religious and spiritual themes into delusions may strengthen them, leading to lower functioning, rejection of treatment
- Association of “sacred” with harmful

Mechanisms

- Negative religious coping
  - Divine (e.g., anger with God)
  - Interpersonal (e.g., encounters with other believers)
  - Intrapsychic (e.g., internal guilt and doubt)
- Miscommunication and misunderstanding
  - Delays in treatment seeking
  - Conflicting advice from a physician and a spiritual leader
- Negative beliefs
  - Negative or punitive images of God can lead to more symptoms of depression, anxiety, paranoia

II. RESEARCH SUMMARY

II. Research Summary

- Systematic review of peer reviewed literature
- Definitions
  - Religion
    - Involves beliefs and practices related to the transcendent
    - Powerful coping behavior
  - Spirituality
    - Self-defined but is the core of what it means to be religious

HG Koenig, 2009 and 2015

Review

- Systematic examination of peer-reviewed literature
  - Databases: 7 searched (MEDLINE, PsychInfo, SocLit, CancerLit, HealthStart,Cinahl, Current Contents)
  - Search terms: religion, religiosity, religiousness, spirituality
- Each study was scored from 0 to 10
  - Quality of research design, methods, measures, statistical analysis, interpretation
  - 3300 studies reviewed

	All Studies			Higher-quality Studies[d]		
	Negative[a]	No Assoc[b]	Positive[c]	Negative[a]	No Assoc[b]	Positive[c]
Positive Mental Health						
Well-being	1% (3)	20% (67)	79% (256)	1% (1)	18% (21)	82% (98)
Meaning & Purpose	0% (0)	7% (3)	93% (42)	0% (0)	0% (0)	100% (10)
Hope	0% (0)	28% (11)	73% (29)	0% (0)	50% (3)	50% (3)
Optimism	0% (0)	19% (6)	81% (26)	0% (0)	27% (3)	73% (8)
Self-esteem	3% (2)	36% (25)	61% (42)	8% (2)	24% (6)	68% (17)
Negative Mental Health						
Depression	6% (28)	32% (144)	61% (272)	7% (13)	26% (46)	67% (119)
Suicide	3% (4)	22% (31)	75% (106)	4% (2)	16% (8)	80% (39)
Anxiety	11% (33)	40% (119)	49% (147)	10% (7)	33% (22)	57% (38)
Substance Abuse						
Alcohol	1% (4)	12% (34)	86% (240)	1% (1)	9% (13)	90% (131)
Drugs	1% (2)	15% (28)	84% (155)	1% (1)	13% (15)	86% (96)

Health Behaviors						
Exercise	16% (6)	16% (6)	68% (25)	10% (2)	14% (3)	76% (16)
Diet	5% (1)	33% (7)	62% (13)	0% (0)	30% (3)	70% (7)
Cholesterol	13% (3)	35% (8)	52% (12)	11% (1)	33% (9)	56% (5)
Cigarette Smoking	0% (0)	10% (14)	90% (123)	0% (0)	10% (8)	90% (75)
Sexual Behavior	1% (1)	13% (12)	86% (82)	0% (0)	16% (8)	84% (42)
Physical Health						
Coronary Disease	5% (1)	32% (6)	63% (12)	8% (1)	23% (3)	69% (9)
CV Functioning	6% (1)	25% (4)	69% (11)	8% (1)	23% (3)	69% (9)
Cancer	12% (3)	32% (8)	56% (14)	6% (1)	29% (5)	65% (11)
Mortality	6% (7)	26% (32)	68% (82)	4% (4)	29% (27)	66% (61)

I. US military veterans
II. Clinician burn-out
III. Substance use
IV. Cancer

III. SOME CURRENT AREAS OF INVESTIGATION

Religion, spirituality and mental health of US military veterans

- Cross sectional study , snapshot of the link between religion/spirituality and mental health
- 3151 US military veterans completed the Duke University Religion Index measures 3 major dimensions of religiosity [DUREL]
  - Organizational religiosity
  - Non organizational religiosity [e.g. engagement in private religious activities]
  - Intrinsic religiosity

Sharma et al., 2017

Duke University Religion Index

1. How often do you attend church or other religious meetings? (ORA=organized religious activity)

1= never
2=once a year or less
3=a few times a year
4=a few times a month
5=once a week
6=more than once a week

2. How often do you spend time in private religious activities, such as prayer, meditation, or Bible study? (NORA=non-organizational religious activity)

1=rarely or never
2=a few times a month
3=once a week
4=two or more times a week
5=daily
6=more than once a day

The following section contains 3 statements about religious belief or experience. Please mark the extent to which each statement is true or not true for you.

3. In my life, I experience the presence of the Divine (i.e., God) (IR=intrinsic religiosity)

1=definitely not true
2=tends not to be true
3=unsure
4=tends to be true
5=definitely true of me

4. My religious beliefs are what really lie behind my whole approach to life (IR)

1=definitely not true
2=tends not to be true
3=unsure
4=tends to be true
5=definitely true of me

5. I try hard to carry my religion over into all other dealings in life (IR)

1=definitely not true
2=tends not to be true
3=unsure
4=tends to be true
5=definitely true of me

Three classifications of R/S

- High, 11.6%
  - at least weekly or daily engagement in ORA and NORA, & scored 15 on IR scale, total score of 27
- Moderate, 79.7% [everyone else]
- Low, 8.7%
  - never to ORA and NORA items, not true for IR items, score=5

Dose Response Relationship

- Protective association between R/S groups and mental health outcomes even after adjustment for socio-demographic and military variables

  High R/S

  Lifetime PTSD (OR=.46), MDD (OR=.50) and AUD (OR=.66)

  Moderate R/S

  Lifetime MDD (OR=.66), current SI (OR=.63), and AUD (OR=.76)

Higher levels of R/S strongly linked to dispositional gratitude, purpose in life, post traumatic growth

An exploration of the role of religion/spirituality in the promotion of physicians' wellbeing in Emergency Medicine (Salmoirago-Blotcher et al., 2016)

- Cross-sectional survey of 683 physicians randomly selected from the Massachusetts College of Emergency Physicians mailing list
- Confidential survey, either on paper or on-line

  -Consent

  -$20 gift card

  -422 (62%) received the survey

Survey

- Maslach Burnout Inventory, 2 items
- Fetzer Institute Multidimensional Measurement of R/S for use in health practice

  Organized religiosity

  Religious affiliation

  Private religious/spiritual practice

  Self-rated spirituality

  Religious commitment

  Religious rest

  Spiritual counsel

- Demographic variables: age, race, gender, marital status, children, income
- Work variables: environment, years working in EM, average number of hours dedicated to direct patient care per week, average number of hours on call per week, number of shifts per month

Results

- 138 of 422 (32.7%) completed the survey
- Demographic profile
  - 48 years
  - 70% male
  - 90% married
  - 84% with at least one child
  - 88% white
- Work
  - Average tenure, 16 years
  - 73% low or average burnout
  - 27% high burnout

Religious/Spiritual background

- 50% never prayed
- 70% never meditated
- 56% attended religious services < 1 time per year
- 80% never observed a day of rest for religious reasons
- 40% moderately or very spiritual
- 0 % consulted a chaplain or other spiritual counselor

Religious affiliation

- 25% none
- 26% Catholic
- 21% Jewish
- 14% Protestant
- 15% other

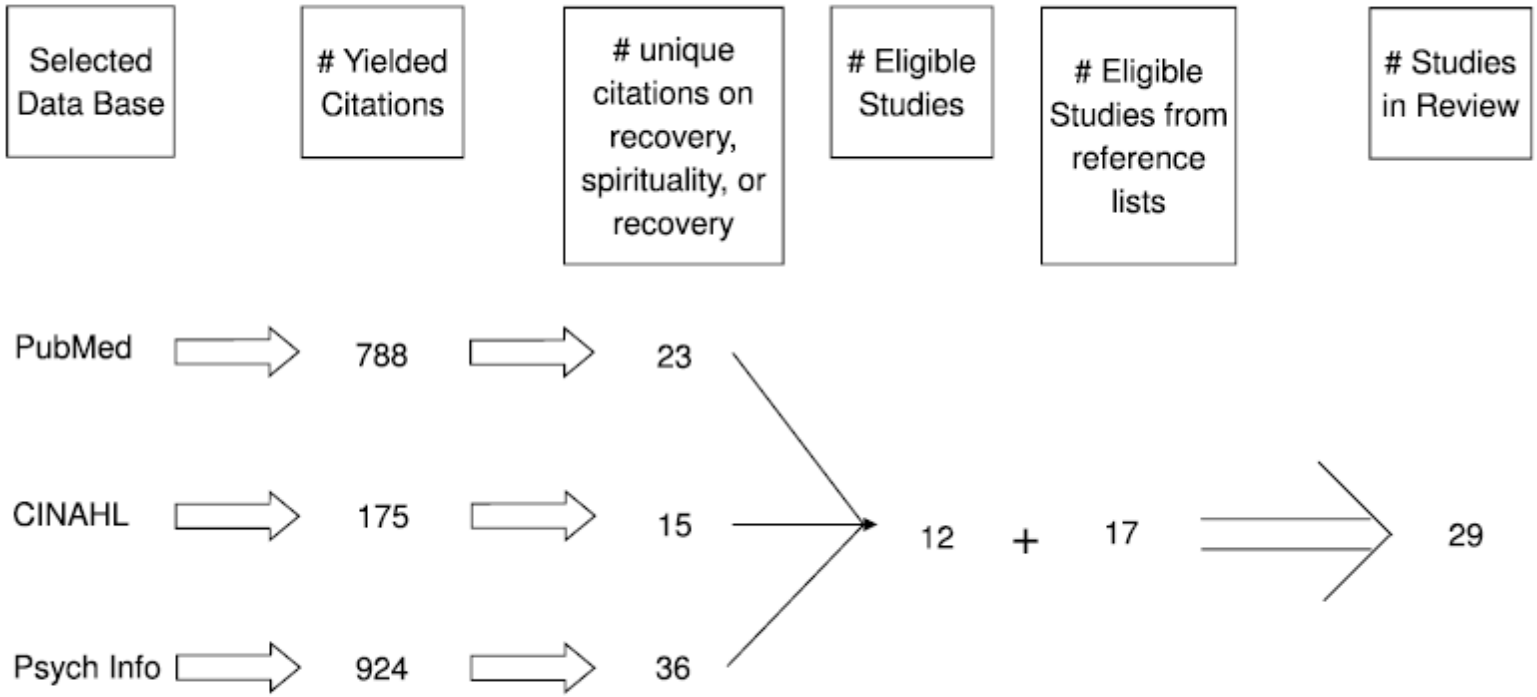
Burn-out

- No association with:
  - Age
  - Gender
  - Race/ethnicity
  - Family income
  - Type of institution
  - Years in EM
  - Any of the R/S predictors
- Among doctors who were involved in organized religious activity and observed a day of rest for religious reasons were less likely to have:
  - Maladaptive behavior
    - P=.04
  - History of malpractice
    - P=.04

Religion and Spirituality: Recovery from Substance Abuse (Walton-Moss et al., 2013)

- Religion and spirituality are frequently acknowledged as significant contributors to recovery
- Systematic review
  - Quantitative research with statistics
  - Recovery as an outcome
  - S/R examined either as an influence on recovery or part of the intervention

Search Strategy



Results

- Most studies – evidence some support for a beneficial relationship between S/R and recovery

- Seven studies looked at S/R in AA or 12 step programs
  - Mixed findings between R/S and length of sobriety
  - + relationships between S/R and abstinence
  - 3 studies with gender differences
    - S of spouse of alcoholic husband + related to her report of husband's sobriety

Non AA/12 Step programs, 22 studies

Alcohol Only, 9 studies

- Different treatment outcomes (Abstinence, Length of treatment, Retention)
- Mixed Findings
- R/S related to sobriety depending on how R/S measured
  - Gender and racial differences
    - Regular R/faith practice was statistically significant for A-A women (Stewart et al., 2008)
    - Race a significant moderator for S but not R (Krentzman et al, 2010, secondary analysis of Project Match

Polysubstance Use, 13 studies

- More support for the relationship between S/R and outcomes
- Among those that supported such a relationship
  - Cross-sectional
  - S/R measured as faith practices or as a total score for a combined S/R measure
  - Small sample sizes, max of 63
  - Statistical analyses were limited to bivariate tests, except for one
- No significant relationships in 2 studies between S/R and drug use or retention

Religion/Spirituality and Health in the Context of Cancer

- Series of 3 meta-analyses about 1341 effects among 44,000+ patients
- Most comprehensive review of R/S in the oncology setting
- Results suggest that each of the evaluated patient-reported health domains was significantly but modestly related to overall R/S

Park et al., 2015

Trio of Meta-Analyses

- Religion, spirituality, and physical health in cancer patients: a meta-analysis, Jim et al., 2015
- A meta-analytic approach to examining the correlation between religion/spirituality and mental health and cancer, Salsman et al., 2015
- A meta-analytic review of religious or spiritual involvement and social health among cancer patients, Sherman et al., 2015

Estimated Associations between R/A and Health

TABLE 1. Estimated Associations Between R/S and Health

	Physical Health			Mental Health			Social Health		
R/S Dimension	Estimate (SE)	Studies	Effect Sizes	Estimate (SE)	Studies	Effect Sizes	Estimate (SE)	Studies	Effect Sizes
Overall R/S	0.15 (0.02)[a]	101	497	0.19 (0.02)[a,b]	148	617	0.20 (0.02)[a]	78	227
Affective	0.26 (0.02)[a]	55	223	0.38 (0.03)[a,c]	68	234	0.32 (0.03)[a]	39	112
Behavioral	0.01 (0.02)	29	96	0.03 (0.03)	43	133	0.08 (0.03)[d]	17	38
Cognitive	0.07 (0.02)[a]	22	90	0.10 (0.02)[a]	41	160	0.10 (0.03)[e]	18	45
Other	0.08 (0.03)[d]	23	88	0.08 (0.02)[e]	43	90	0.13 (0.03)[a]	22	32

Abbreviations: R/S, religion/spirituality; SE, standard error.

A positive relation between R/S and health outcomes reflects more R/S and better health. Estimates are *z*-scale effect sizes.

[a] $P < .001$.

[b] After the exclusion of spiritual well-being and on the basis of 108 studies and 433 effect sizes, the estimated association between overall R/S and mental health was 0.09 (0.01).

[c] After the exclusion of spiritual well-being and on the basis of 20 studies and 50 effect sizes, the estimated association between affective R/S and mental health was 0.29 (0.06).

[d] $P < .05$.

[e] $P < .01$.

Caveats

- Use of problematic R/S measures
- Variable quality of studies
- Limitations of cross-sectional research
- Homogeneity of samples/heterogeneity within samples
- Confounding factors
  - Bivariate relations do not take into account third variables

IV. STRATEGIES AND NEXT STEPS

- “Within western secular societies, everything has to be substantiated by empirical evidence; this means that it has to be quantifiable and measurable…
- Quantitative research is the criterion by which everything, including religion, is either accepted or rejected.”

Turner 2015

Measurement of Religiosity and Spirituality (Baumsteiger & Chenneville, 2015)

- 18 spirituality measures characterized along 7 dimensions
  - 1) strength of spirituality
  - 2) specific spiritual beliefs
  - 3) spiritual development
  - 4) spirituality's role in daily life
  - 5) spirituality's influence on mental health
  - 6) mental health
  - 7) irrelevant information
- 20% of items assessed for good mental health and 29% of items assessed spirituality's influence on those positive qualities
  - Inflated correlations between spirituality and positive mental health

Recommendations for future research

Park et al., 2015

- Identify processes and mechanisms
  - Complex and interactive process
- Address conceptual concerns
  - Use psychometrically sound measures
- Use more sophisticated research designs
  - Longitudinal studies, sample selection, specification of endpoints, adjustment for clinical characteristics
- Identify moderating variables
  - Variation at the patient level may be concealed

Religion, Forgiveness, Hostility, and Health: A Structural Equation Analysis

Lutjen, Silton, Flannelly, 2012

Religion was significantly related to health indirectly via the pathway of increased forgiveness and reduced hostility

- People who were more religious were more forgiving (b=.59)
- Greater forgiveness was associated with less hostility (b=-.10)
- Lower hostility was associated with greater subjective physical health (b=-.22)

Religion had only a small indirect effect on health (b=.013)

Small effects may have substantial consequences

The final sample of 1,629 participants was composed of 816 men (50.1%) and 813 women (49.9%). The vast majority of participants were Caucasian (90.4%). The average age of the sample was 49.1 years (SD = 17.76).

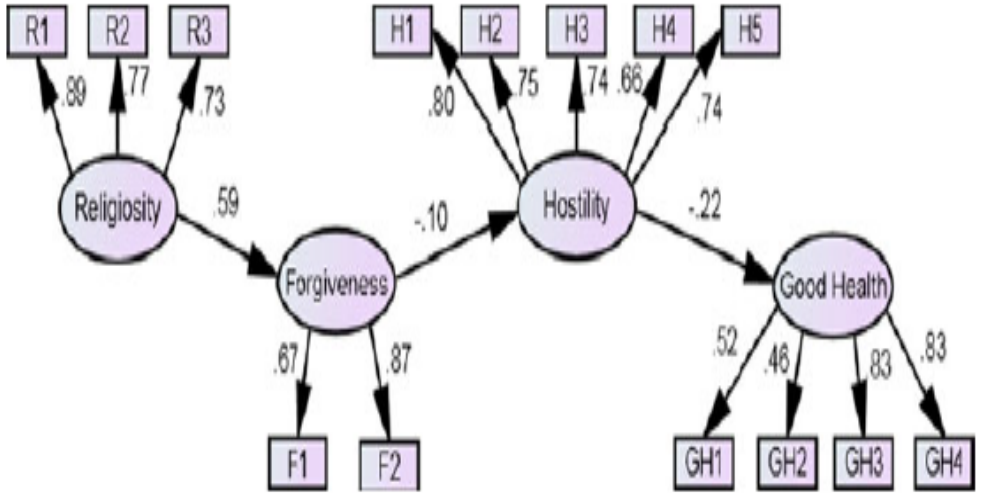
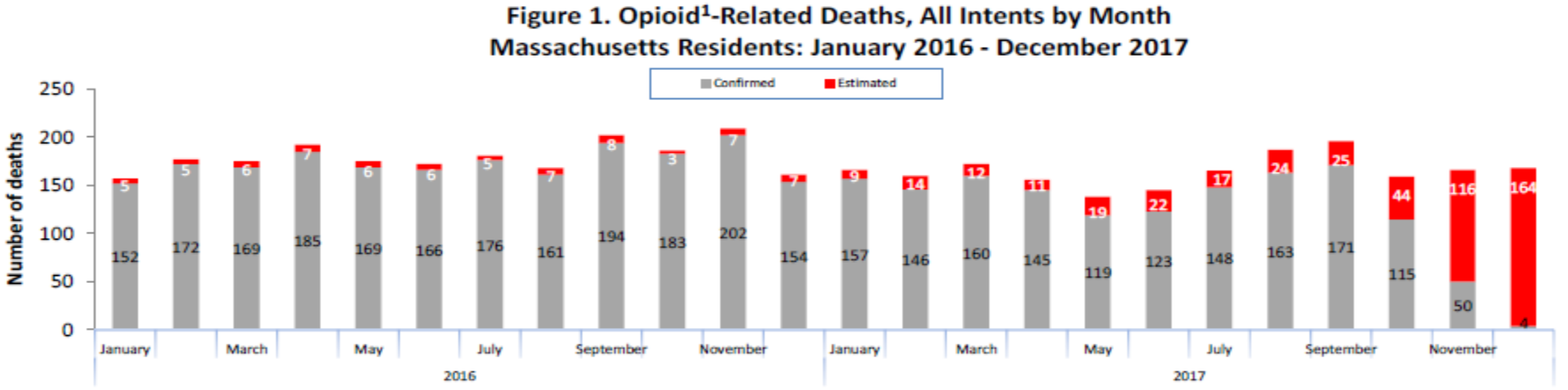


Fig. 1 Structural equation model representing relationship between religion and health as mediated by forgiveness and hostility

Massachusetts

- Opioid crisis



- Massachusetts Council of Churches
  - Train religious leaders about addiction
  - Help family members who suffer as well

References

- Baumsteiger R, Chenneville T. Challenges to the conceptualization and measurement of religiosity and spirituality in mental health research. **J Relig Health** 2015; 54: 2344-2354.
- Jim HSL, Putejovsky JE, Park CL, et al. Religion, spirituality, and physical health in cancer patients: a meta-analysis. **Cancer** 2015; 121: 3760-8.
- Koenig HG. Research on religion, spirituality, and mental health: a review. **Can J Psychiatry** 2009; 54: 283-291.
- Koenig HG. Religion, spirituality, and health: a review and update. **Adv Mind Body Med** 2015; 29: 19-26.

- Lutjen LJ, Silton NR, Flannelly KJ. Religion, forgiveness, hostility, and health: a structural equation analysis. **J Relig Health** 2012; 51: 468-478.
- Park CL, Sherman AC, Jim HSL, Salsman JM. Religion/spirituality and health in the context of cancer: cross-domain integration, unresolved issues, and future directions. **Cancer** 2015; 3789-3794.
- Salmoirago-Blotcher E, Fitchett G, Leung K, et al. An exploration of the role of religion/spirituality in the promotion of physicians' wellbeing in emergency medicine. **Prev Med Rep** 2016; 3: 189-195.
- Salsman JM, Pustejovsky JE, Jim HSL, et al., A meta-analytic approach to examining the correlation between religion/spirituality and mental health in cancer. **Cancer** 2015; 121: 3769-78.
- Sharma V, Marin DB, Koenig HG, et al., Religion, spirituality, and mental health of US military veterans: results from the National Health and Resilience in Veterans Study. **J Affect Disorders** 2017; 217: 197-204.9-88.

- Sherman AC, Merluzzi TV, Pustejovsky JE et al. A meta-analytic review of religious or spiritual involvement and social health among cancer patients. **Cancer** 2015; 121: 3779-88.
- Turner M. Can the effects of religion and spirituality on both physical and mental health be scientifically measured? An overview of the key sources, with particular reference to the teachings of Said Nursi. **J Relig Health** 2015; 54: 2045-2051.
- Walton-Moss B, Ray EM, Woodruff K. Relationship of spirituality or religion from substance abuse. **J Addict Nurs**. 2013; 24: 217-226.
- Weber SR, Pargament KI. The role of religion and spirituality in mental health. **Curr Opin Psychiatry** 2014; 27: 358-363