


Spirituality as a Social Determinant of Health:

Clinical and Public Health Implications

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 North Dakota State University
 Department of Public Health



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Outline

- Brief review of the historical connection of religion's role in healthcare and background for current issues
- A few definitions
- Discuss current research regarding the association between spirituality and health
 - Review possible explanations for this association
- Review implications for clinicians and public health

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Birth of the Hospice and Modern Hospital Systems Emerged Out of Religious Orders



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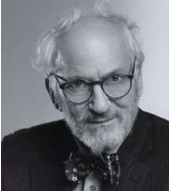

KEN BURNS PRESENTS
THE MAYO CLINIC
 FAITH • HOPE • SCIENCE

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21ST CENTURY MEDICINE:
A New Model for Medical Education and Practice

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"Everyone has a transcendent dimension, a life of the spirit...the quality of being greater and more lasting than an individual life gives this aspect of the person its timeless dimension. The profession of medicine appears to ignore the human spirit."

Ethicist in Dept. of Public Health
 Cornell University Medical College

Eric Cassell

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Concerns That Involve Medicine and Spirituality Frequently Overlap

- Loss
- Mortality
- Dignity
- Hope
- Isolation & Connection
- Existential meaning, purpose
- Closure & legacy
- After-death

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Spirituality and Healthcare: Background

- Religion and spirituality have played a **traditional** role in healthcare
- Science and the biomedical model have largely supplanted and even marginalized or ignored this relationship – *faith is a personal / private matter*
- Re-emerging and growing interest
 - Modern healthcare can be de-humanizing
 - Recognition of possible connection with health and scientific interest in the association
 - Quest for meaning and more holistic care

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Religious Belief in the U.S. - Survey Data

- 2016 Gallup poll - 89% believe in God and 75% consider religion of considerable importance
- More patients than physicians believe in a Higher Being
- Most patients regard their spiritual health as important as their physical health and pray daily
- Ill people want their spiritual needs met
- Spiritual needs are rarely ever discussed or met (e.g. only 28% of cancer patients say addressed at all)

Gallup poll on Religion - 2016
 Am Psych Assn Report 10, 1975
 J Fam Pract 1991; 32:210
 J Fam Pract 1994; 39:349
 Mayo Expectations Survey 1994
 Barboni, J Clin Onc 2007

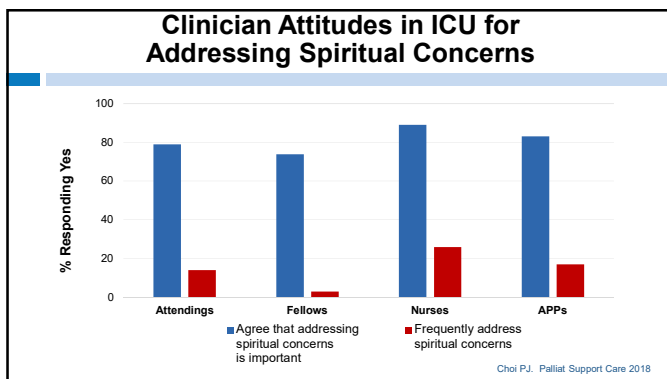
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Patient Preference for Physician Discussion and Practice of Spirituality

- Outpatient survey of 6 academic medical centers across 3 states. N = 456.
 - 2/3 felt physicians should be aware of their spiritual beliefs
 - 1/3 wanted to be asked about religious beliefs during routine office visits
 - Spiritual interaction desired more as acuity increased, i.e. 19% desired prayer with physician during office visit, 29% during hospitalization, 50% in near-death scenarios

MacLean et al. J Gen Intern Med 2003

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Religion and Health - Is There a Link?

What is the Evidence?

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Spirituality vs Religion vs Religiosity: Some Definitions

- **Spirituality** (from the Latin for "breath")
 - Intangible elements of **utmost importance** and related to a person's sense of reality, **transcendent** meaning, and their place or purpose in the universe.
- **Religion** (from the Latin for "to bind fast")
 - A **particular expression** of spiritual beliefs, usually involving a code of ethics, doctrine, dogma, metaphors, stories, and a way of perceiving the world)
- **Religiosity**
 - The level of involvement in **religious practice**.

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Increase in the Number of Scholarly Articles on Religion and Health

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Academic Programs with Dedicated Centers for Spirituality and Medicine

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Oxford Handbook of Religion and Health

Table of Contents

1. Background
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26. Health behaviors
27. Disease prevention
28. Health behaviors
29. Disease prevention
30. Understanding the religion-physical health relationship
31. Psychological, social, and behavioral outcomes
32. Conclusions

Harold G. Koenig, M.D.
 Director, Center for Spirituality, Theology and Health
 Professor of Psychiatry & Behavioral Sciences
 Duke University Medical Center

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R/S and Mental Health - What's the Evidence?

- Systematic review found 256/326 studies (79%) showed religious involvement is associated with greater well being and happiness¹
- Meta-analysis of 147 studies (N=98,975) shows significant inverse ass'n between religiosity and depression²
- Prospective study of adult children at high risk for depression showed subjects placing high importance of religion had **90% reduced risk** of major depression over 10 yrs³
 - Follow up study found thicker brain cortex on MRI over time in the > religious group⁴
- Chance of remission greater and time to remission of depression markedly less in highly religious⁵
- Less anxiety, better marital stability, less delinquency, overcoming substance abuse¹

1. Koenig HG. ISRN Psychiatry, 2012
 2. Smith TB. Psychol Bull, 2003
 3. Miller L. Am J Psychiatry, 2012
 4. Miller L. JAMA Psychiatry, 2014
 5. Koenig HG. J Nev Ment Dis, 2007

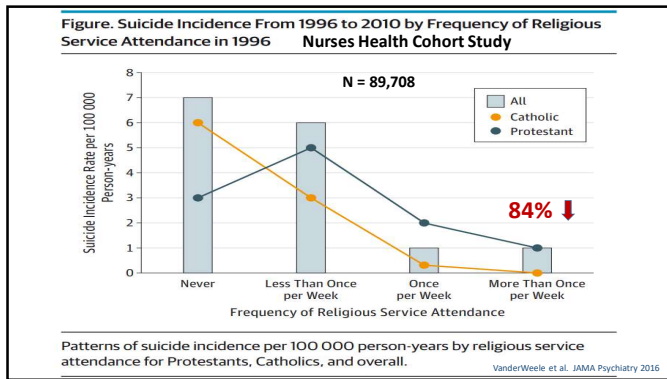
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Suicide Risk in NHANES III by Religious Attendance

94% reduced risk – univariate analysis
 68% reduced risk – multivariate analysis

Kleinman EM. BJPsych 2014

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R/S and Physical Health – What's The Evidence (Systematic Review of > 3000 Studies Through 2010)

- Coronary Heart Dz: 19 studies, 63% showed inverse relationship. 11/13 studies showed improved cardiac reactivity or lowered inflammatory markers after cardiac surgery
- Hypertension: 39 high quality studies – 62% report lowered BP
- Cerebrovascular dz: 4/9 high quality studies showed lower risk
- Alzheimers dz and dementia: 8/14 high quality studies (57%) reported better cognitive fn, 21% reported worse
- Cancer: 12/20 high quality studies (60%) showed lower risk or better outcomes

Koenig HG. ISRN Psychiatry, 2012

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Diabetes Management and Religious Belief

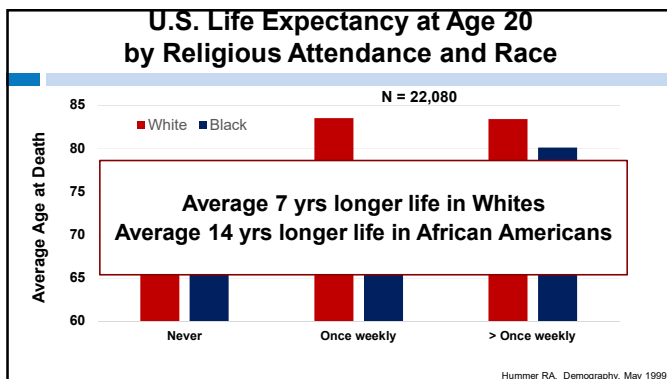
- African-American females with T2DM who are religious have better coping skills and managed their disease better.^{1,2}
- Religious belief correlated strongly with better glycemic control.³
- Problems with religious belief correlated strongly with poor physical and mental health.⁴

1. Newlin K. *International J Psychiatry in Medicine*, 2010.
2. Polzer R. *J Holistic Nursing*, 2007.
3. Newlin K. *Nursing Research*, 2008.
4. Filchett G. *International J Psychiatry in Medicine*, 2004.

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All-Cause Mortality

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Religion and Mortality - What's the Evidence?

- At least 121 studies through 2010, most prospective cohort
- 68% of the studies found that religious practice was associated with decreased mortality
- 63 studies were methodologically rigorous (adjusted well for confounders)
 - 75% found a reduced trend in mortality
- **Average mortality reduction - 37%**

Koenig HG. ISRN Psychiatry, 2012

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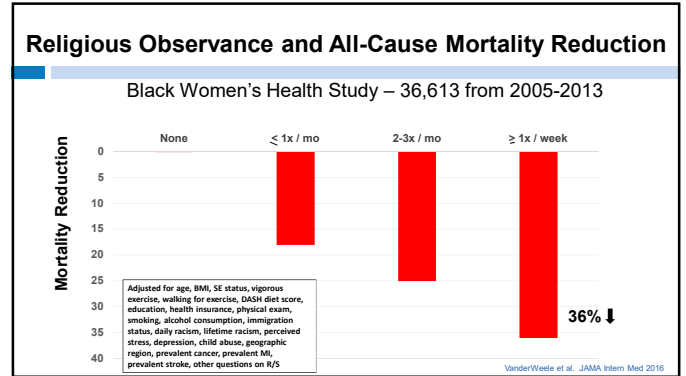


HARVARD UNIVERSITY

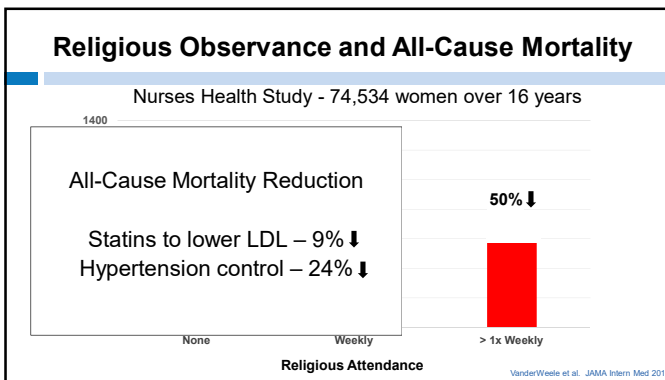
The Human Flourishing Program
at Harvard's Institute for Quantitative Social Science

Tyler VanderWeele PhD
Harvard T.H. Chan School of Public Health

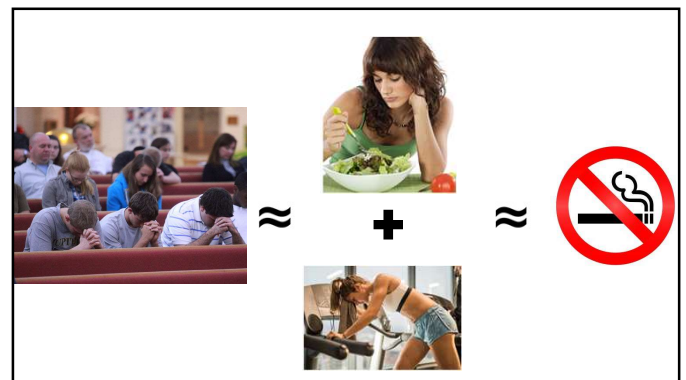
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How Do We Explain This?



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- ### Potential Mediators Between Improved Health, Well-Being, and Spirituality
- Healthy habits
 - Social Connections
 - Forgiveness
 - Purpose and Meaning
 - Gratitude
 - Altruism/volunteering
 - Humility
 - Hopefulness

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Potential Mediators Between Improved Health, Well-Being, and Spirituality

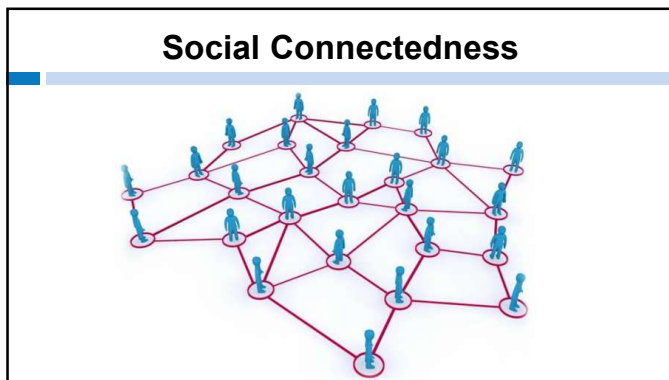
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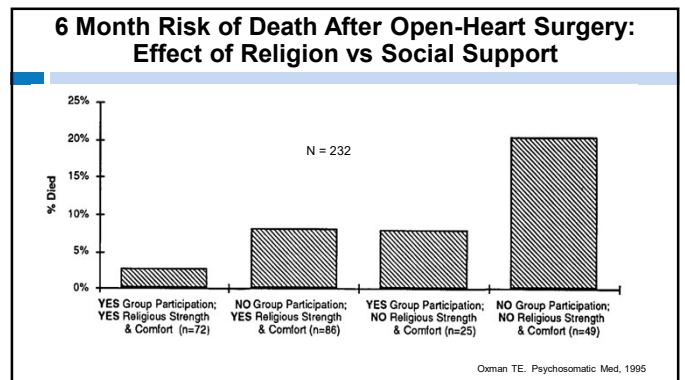
Potential Mediators Between Improved Health, Well-Being, and Spirituality

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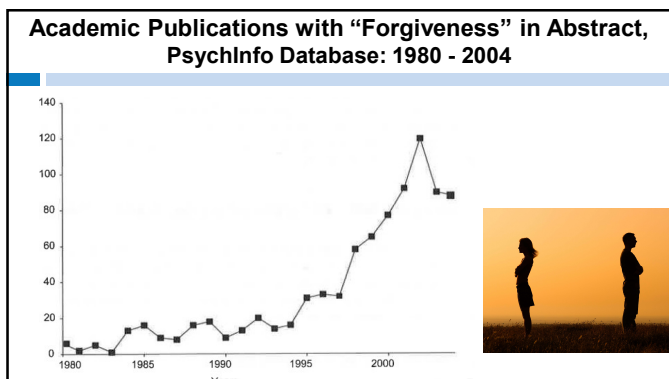
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Forgiveness

A collage of images related to forgiveness. On the left, there is a news headline from CNN: "BREAKING NEWS VICTIM'S RELATIVE: 'I FORGIVE YOU'". In the center, there are several small portraits of people. On the right, there is a photograph of a woman holding a framed picture of a child. Below the portraits, there is a quote: "Her son shot their daughters 10 years ago. Then, these Amish families embraced her as a friend."

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Effects of Forgiveness on Health

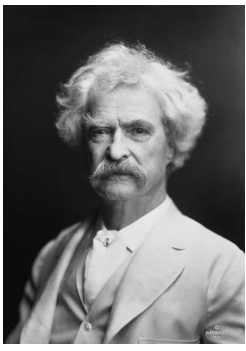
- Religious practice and belief correlates strongly with propensity to forgive.¹⁻³
- People who are more forgiving suffer less depression, anxiety, problems managing their diabetes and have higher quality of life measures.¹
- Vanderweele et al found lowered depression, lowered anxiety, and higher likelihood of multiple measures of psychosocial well-being in 2 prospective groups (Nurses Health Study and Growing Up Today study) in subjects.⁴
- Psychotherapeutic interventions designed to promote forgiveness result in improved depression and anxiety in victims.⁵

1. Yazla E. J Relig Health, 2017. 4. Chen Y. J of Posit Psychology, 2019.
 2. Mullet E. J of Personality, 2003. 5. Wade NG. J Consulting and Clinical Psych, 2013
 3. Gorsuch R. Rev of Religious Research, 1993.

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"The two most important days in your life are the day you are born and the day you find out why."


Mark Twain

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Christianity



Union with the Divine through faith in Christ




Hinduism




Dharma, Artha, Kama, Moksha

Islam



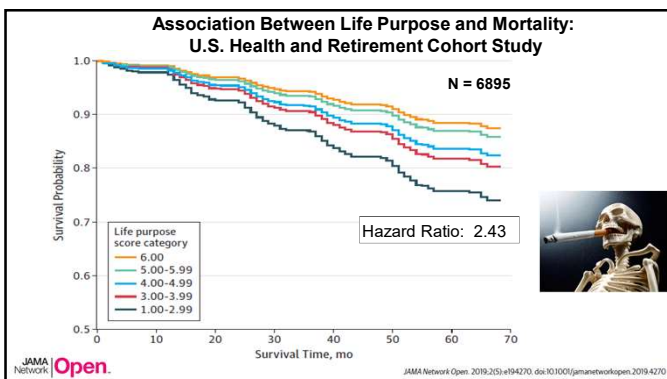
True Worship of the One God

Judaism

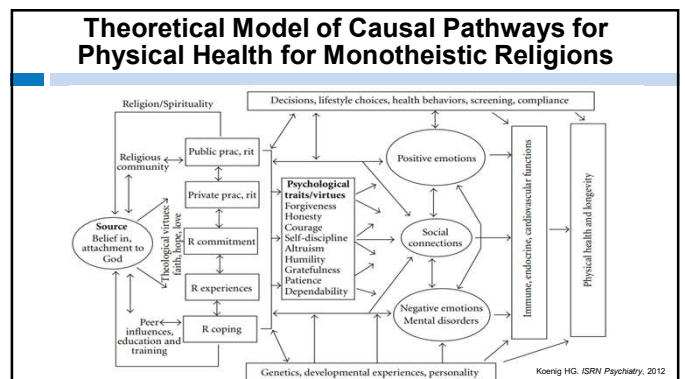


Fulfill the mission God gave through His Torah, tikkun olam

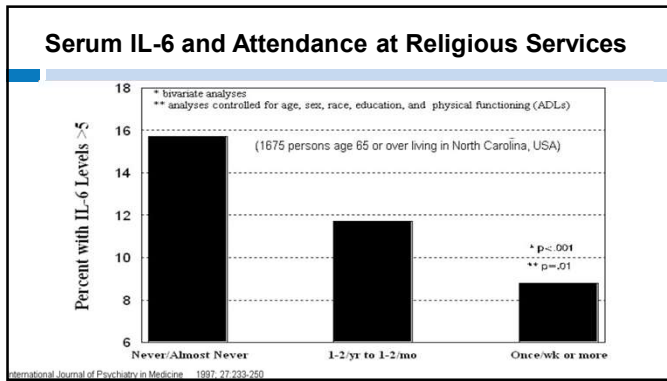
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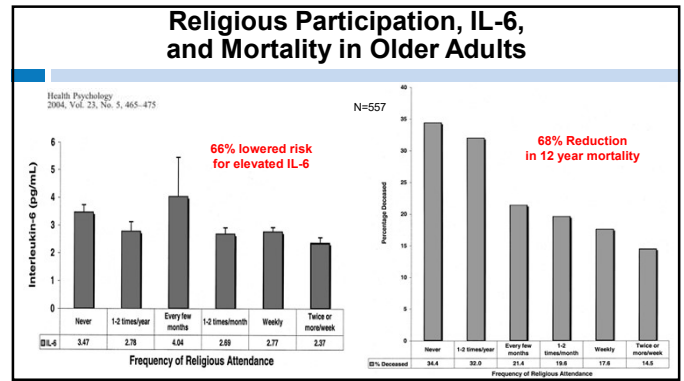
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CRP Levels in Stressed Elderly as a Function of Religious Service Attendance

- Analysis of the U of MI "Landmark Study of Spirituality and Health"
 - 643 older adults (age ≥ 50) with higher than median life stressors
- 38% lower likelihood** of having an elevated CRP in subjects attending religious service ≥ 1x / mo
- Decreased likelihood remained after adjusting for: age, gender, education, BMI, smoking, alcohol use, and social support
- Only religious attendance predicted lowered CRP, not private prayer, religious meaning, religious hope, general meaning, general hope, or sense of peace

Korson G. J. Relig and Health, 2018

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NHANES III: Religious Participation, Allostatic Load, and Subsequent Mortality

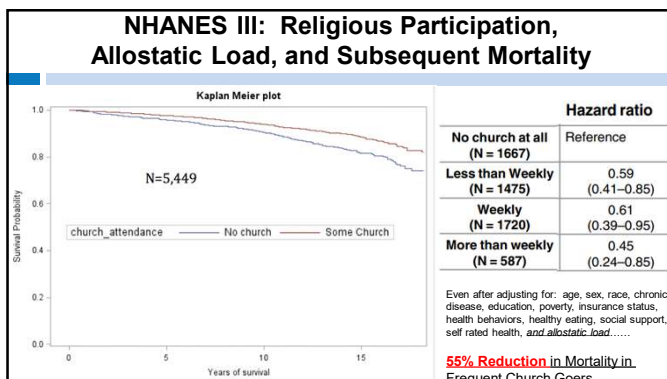
Allostatic Load Components

| Allostatic Load Score | Odds Ratio of Higher Allostatic Load in No Church vs Some Church |
|-----------------------|--|
| 2-3 vs 0-1 | 1.24 (95% CI: 1.01-1.5) |
| > 4 vs 0-1 | 1.38 (95% CI: 1.11-1.71) |

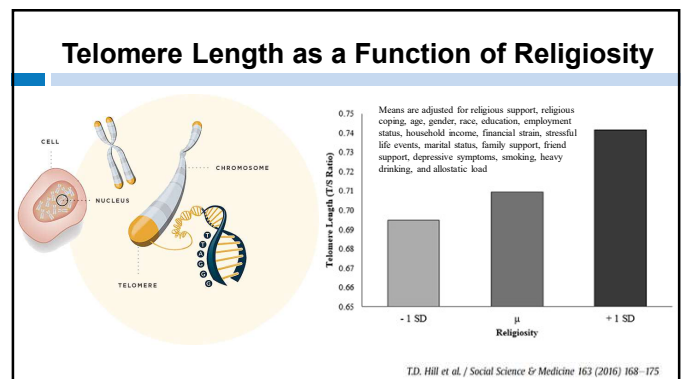
Mean (SE) allostatic load score [range 0-10]

PLOS ONE | <https://doi.org/10.1371/journal.pone.0177618> May 16, 2017

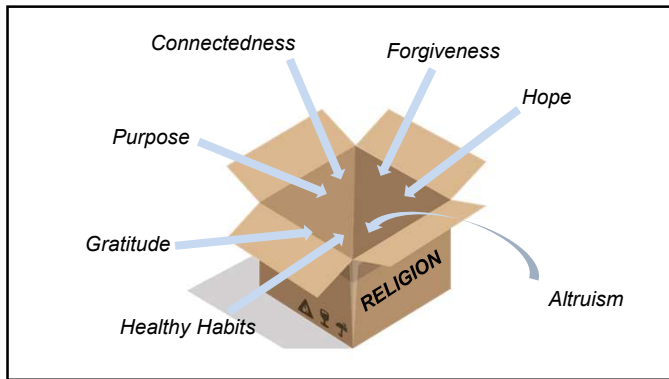
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Religious Involvement and Mediating Attributes Associated with Greater Health – Systematic Review

| Attribute | Number of Studies Showing Positive Association |
|---|--|
| Social Support | 61/74 (82%) |
| Positive emotions (sense of well-being and happiness) | 256/326 (79%) |
| Greater purpose and meaning in life | 42/45 (93%) |
| Greater sense of hope | 29/40 (73%) |
| Forgiveness | 34/40 (85%) |
| Altruism/Volunteering | 33/47 (70%) |
| Gratitude | 5/5 (100%) |

Koenig HG. ISRN Psychiatry, 2012

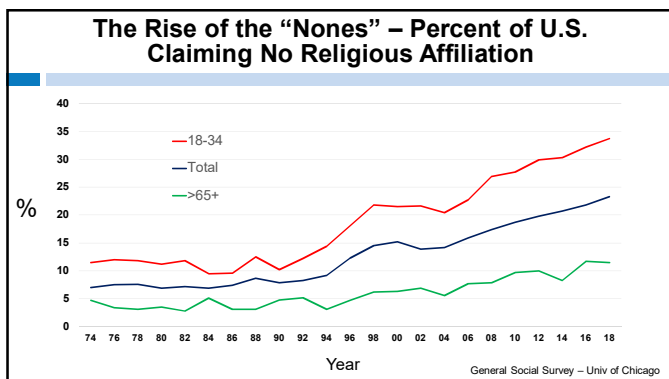
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- ### Religion and Negative Correlations with Health
- Extrinsic Religiosity
 - “Spiritual but not religious”
 - Spiritual struggle
 - More fundamentalist religions and some mental health measures
 - Religions that eschew healthcare (only rely on prayer or faith)
 - Petitionary prayer

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Public Health Implications

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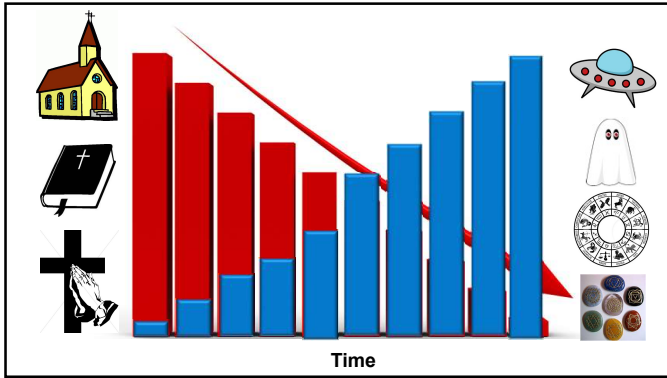


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Man is homo religiosus, by 'nature' religious: as much as he needs food to eat or air to breathe, he needs a faith for living.

Will Herberg
American Jewish writer,
sociologist, and intellectual

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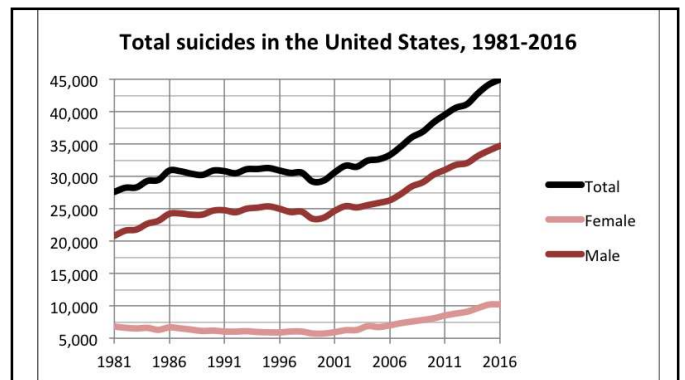
It isn't enough to make life longer, easier, or even more pleasurable. People need to feel that they matter, that they are meaningful members of a meaningful social world. Not all beliefs in the supernatural or paranormal help to fulfill this need equally.

Dr. Clay Routledge
Social Psychologist, NDSU

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Modernity and Increasing Isolation

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The Centers for Disease Control and Prevention recently reported an increase in the suicide rate from 10.5 per 100 000 in 1999 to 13.0 in 2014.⁴ During this period, the Gallup Poll indicates a decline in weekly service attendance from 43% in 1999 to 36% in 2014.⁵ If we were to extrapolate our study estimate to the general population, this would indicate *that nearly 40% of the increase in the suicide rate could be attributed to the decline in religious service attendance.*

Tyler VanderWeele PhD
Harvard T.H. Chan School of Public Health

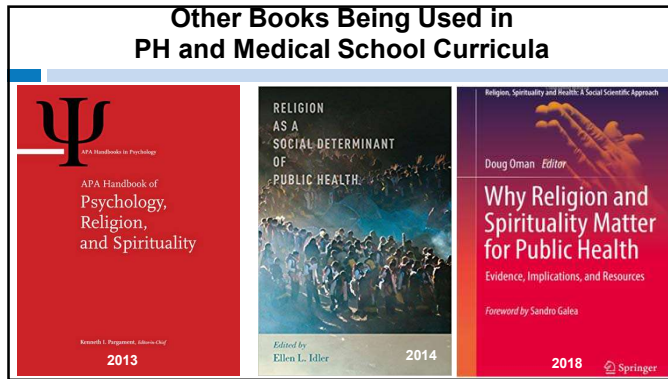
JAMA Psychiatry. 2017;74(2):197-198

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Recommendations from a PH Perspective (Oman)

- "Stop ignoring the elephant in the room"
- Fostering of PH and faith community collaborations
- Developing educational materials and curricula for teaching in the health professions
- More longitudinal studies that better assess the mediating factors
- More studies from non-Abrahamic faith traditions and non-Western countries
 - Comparative studies?

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How Should This Affect Our Practice?

➤ Everyone:

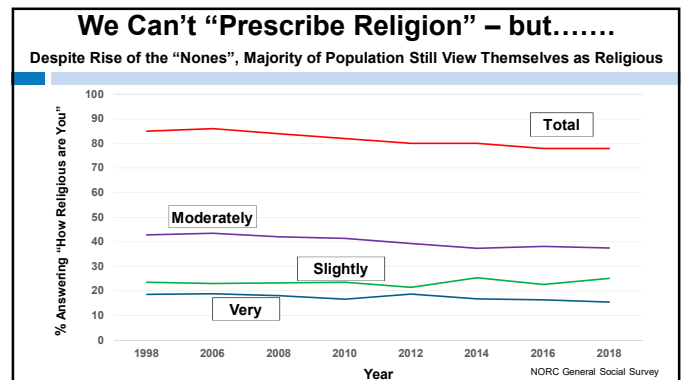
- Recognize that the majority of your patients have a spiritual life that they want to be addressed and integrated with their health care
- Take a spiritual history - probe connections with significant social history
- Ask if the patient would like involvement of their clergy or hospital chaplain
- Encourage your patient to engage their spiritual resources in the management of their illness

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Table 1. FICA Spiritual History Tool

| Category | Sample questions |
|------------------|--|
| Faith and belief | Do you have spiritual beliefs that help you cope with stress? If the patient responds "no," consider asking: what gives your life meaning? |
| Importance | Have your beliefs influenced how you take care of yourself in this illness? |
| Community | Are you part of a spiritual or religious community? Is this of support to you, and how? |
| Address in care | How would you like me to address these issues in your health care? |

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Other Potential Implications for Clinical Practice

- Encouragement of religiously inclined to engage in their faith community
- Spiritual struggle and "medically unexplained symptoms"
- For patients who are non-spiritual, exploring and encouraging the development of mediating factors where appropriate
 - What gives their life meaning, social connections, forgiveness, gratitude, humility, mindfulness
- Praying for and with patients?

Should Physicians Pray With Patients?
Batya Swift Yosgur, MA, LMSW
DISCLOSURES | March 21, 2018

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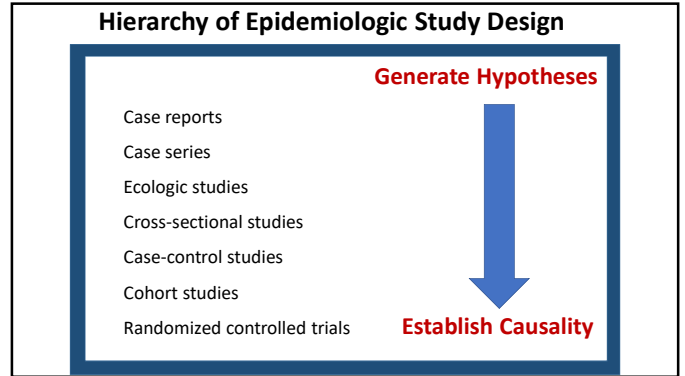
"Nothing in life is more wonderful than faith--the one great moving force which we can neither weigh in the balance nor test in the crucible."

Sir William Osler, MD

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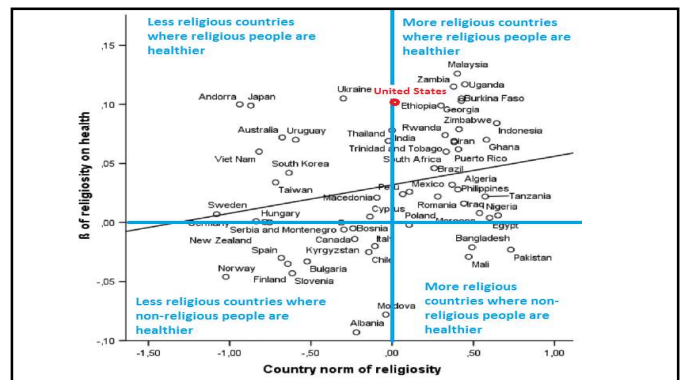


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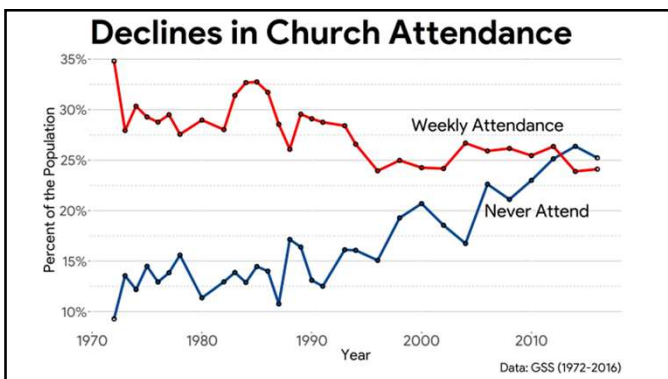
Table 2. 10-Item Hoge intrinsic religiosity scale.

| | |
|-----|---|
| 1. | My faith involves all of my life |
| 2. | In my life, I experience the presence of the Divine (<i>i.e.</i> , God) |
| 3. | Although I am a religious person, I refuse to let religious considerations influence my everyday affairs (reverse score) |
| 4. | Nothing is as important to me as serving God as best as I know how |
| 5. | My faith sometimes restricts my actions |
| 6. | My religious beliefs are what really lie behind my whole approach to life |
| 7. | I try hard to carry my religion over into all my other dealings in life |
| 8. | One should seek God's guidance when making every important decision |
| 9. | Although I believe in religion, I feel there are many more important things in life (reverse score) |
| 10. | It does not matter so much what I believe as long as I lead a moral life (reverse score) |

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Jacques Monod "Chance and Necessity"


"... man at last knows that he is alone in the unfeeling immensity of the universe, out of which he emerged only by chance. Neither his destiny nor his duty have been written down."

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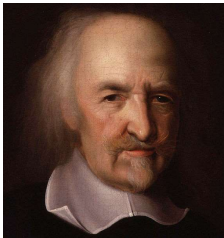
Sartre: French Existentialist Philosopher

"Life has no meaning the moment you lose the illusion of being eternal."

"everything that exists is born for no reason, carries on living through weakness, and dies by accident."



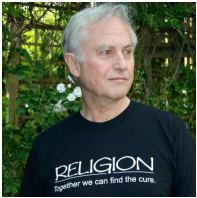
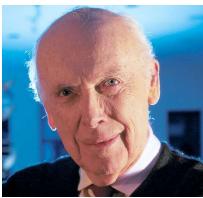
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"Life is solitary, poor, nasty, brutish and short"

Thomas Hobbes

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Richard Dawkins

James Watson

In my interview with Watson at Clare, I conscientiously put it to him that, unlike him and Crick, some people see no conflict between science and religion, because they claim science is about how things work and religion is about what it is all for. Watson retorted: 'Well I don't think we're for anything. We're just products of evolution. You can say, "Gee, your life must be pretty bleak if you don't think there's a purpose." But I'm anticipating having a good lunch.' We did have a good lunch, too.

Richard Dawkins, *The God Delusion*

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NATIONAL CATHOLIC REPORTER
THE INDEPENDENT NEWS SOURCE

Catholic hospitals serve one in six patients in the United States

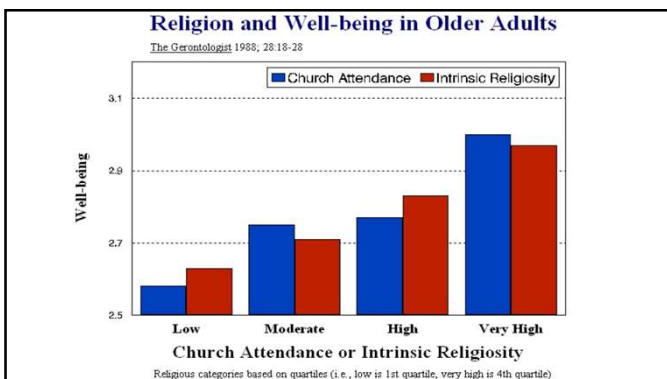
Oct 20, 2010
by Jerry Filteau

Distinct enough? A national examination of Catholic hospital affiliation and patient perceptions of care

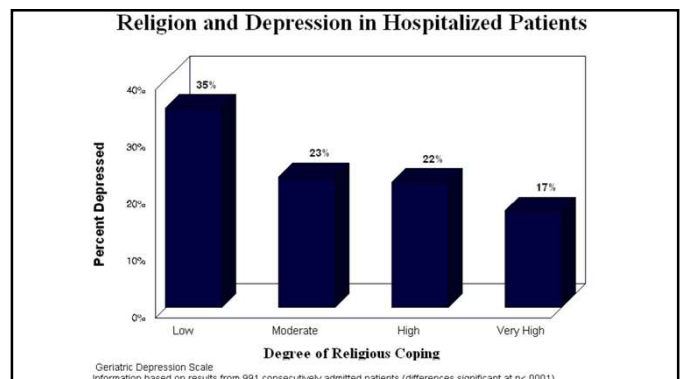
[Ann Kutney-Lee, PhD, RN, G.J. Melendez-Torres, RN, Matthew D. McHugh, PhD, JD, MPH, RN, FAAN, and Barbara Mann Wall, PhD, RN, FAAN](#)

[Health Care Manage Rev. 2014 Apr-Jun; 39\(2\): 134-144.](#)

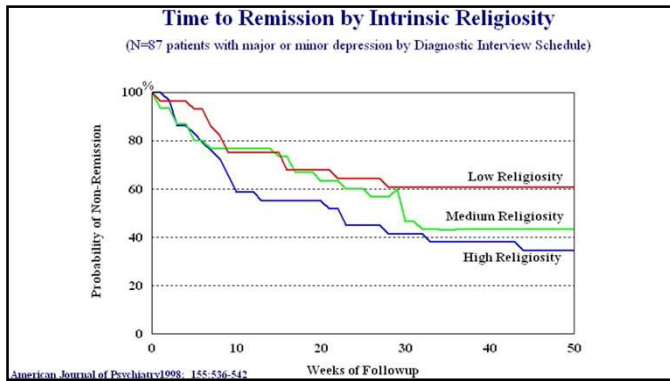
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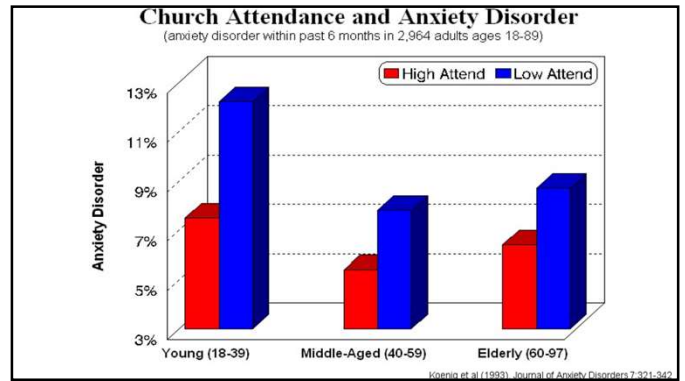
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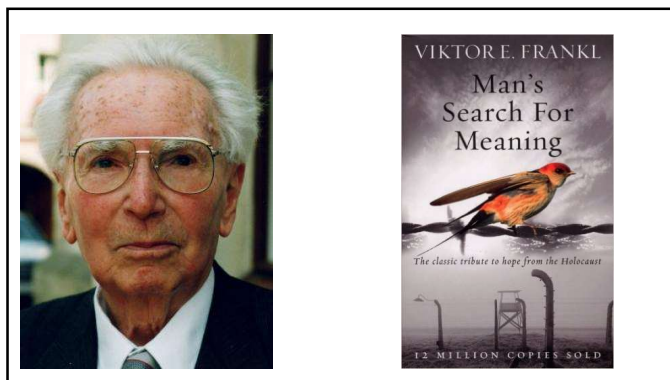
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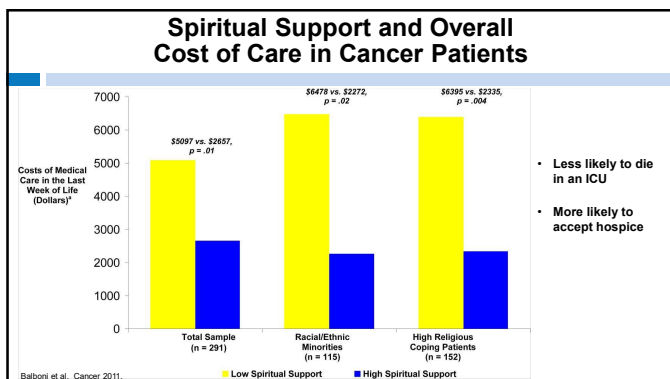
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Satisfaction With Care


Patients whose spiritual needs were not met reported lower ratings of quality and satisfaction with care.

Astrow et al. Is Failure to Meet Spiritual Needs Associated with Cancer Patients' Perception of Quality of Care and Their Satisfaction with Care? J. of Clinical Oncology Vol. 25 (26) December, 2007

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Satisfaction With Care

Discussions about the patient's wishes for end-of-life care and a greater number of spiritual care activities performed were both associated with increased overall family satisfaction with ICU care ($p < 0.05$).




Johnson, et al *Crit Care Med* 2014; 42:1991-2000

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Patient Experience and Outcomes

Chaplaincy intervention leaves patients feeling more peaceful, hopeful and able to discuss their situation with medical staff.




Snowdon A., Teifer I, Kelly E, Bunniss S, Mowat H. (2013) "I was able to talk about what was on my mind." The operationalisation of person centred care. *The Scottish J of Health Care Chaplaincy*. 16(Special), 16-22.

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Satisfaction With Care

- 41% of inpatients desired a discussion of R/S concerns while hospitalized, but only half of those reported having such a discussion.
- Overall, 32% of inpatients reported having a discussion of their R/S concerns.
- Religious patients and those experiencing more severe pain were more likely both to desire and to have discussions of spiritual concerns.
- **Patients who had discussions of R/S concerns were more likely to rate their care at the highest level on four different measures of patient satisfaction, regardless of whether or not they said they had desired such a discussion**



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*. PMID: 21720904

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Adolescent Health in Longitudinal "Growing Up Today" Study


- Prospective cohort study of 5,681 – 7,458 adolescents (depending on outcome)
- All models controlled for sociodemographic characteristics, maternal health, prior values of outcomes where available
- Weekly religious attendance and frequency of prayer/meditation were associated with greater life satisfaction, positive affect, lower marijuana use, lower early sexual initiation, and fewer lifetime sexual partners.
- *"Although decisions about religion are not shaped principally by health, encouraging service attendance and private practices in adolescents who already hold religious beliefs may be meaningful avenues of development and support, possibly leading to better health and well-being"*

Am J Epidemiol. 2018;187(11):2355-2364

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Satisfaction With Care

- Chaplain visits increased the willingness of patients to recommend the hospital, as measured by both the HCAHPS survey and the Press Ganey survey.
- On the Press Ganey survey, patients visited by chaplains were also more likely to endorse that staff met their spiritual needs and their emotional needs.
- In terms of overall patient satisfaction, patients visited by a chaplain were more satisfied on both the Press Ganey survey and on the HCAHPS survey.
- Chaplains' integration into the healthcare team improves patients' satisfaction with their hospital stay.

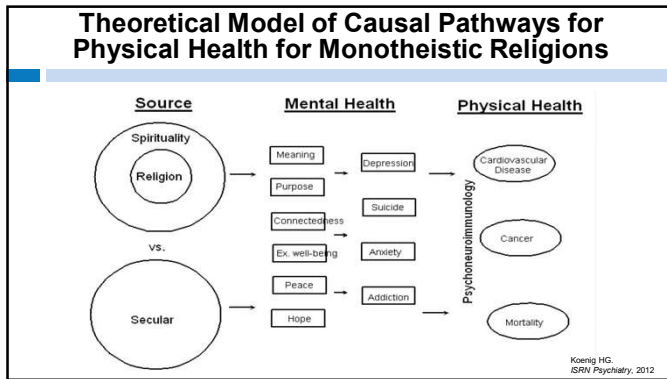


Marin DB, Sharma V, Sosunov E, Egorova N, Goldstein R, Handzo G. 2015. The relationship between chaplain visits and patient satisfaction. *Journal of Health Care Chaplaincy*. 21 (1):14-24.

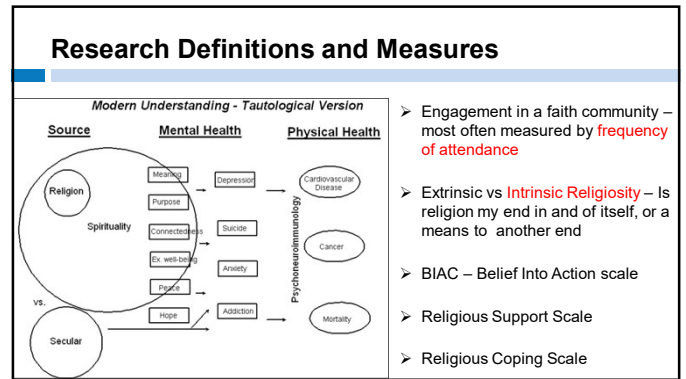
89



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Spiritual Support in Cancer Patients

In a large study of advanced cancer patients:

- 88% said religion was at least somewhat important
- 72% said their spiritual needs were minimally or not at all supported by the medical system
- 42% said their spiritual needs were minimally or not at all supported by their faith community
- Spiritual support was highly associated with QOL (P=.0003)

Balboni, et al. (2007). Religiousness and Spiritual Support Among Advanced Cancer Patients and Associations with End-of-Life Treatment Preferences and Quality of Life. *Journal of Clinical Oncology*, 25(5): 555-560.

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What Is Suffering?

- "Suffering... is a distressing, psychological state that includes feelings of helplessness, fear, panic, loss of control, and aloneness."
- "Pain happens. Suffering is the story that we layer on top of what happens".
- "A disintegration of the parts of the self" (Eric Cassell)
- "What ought to be whole is being split apart", (Howard Brody)

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Religion and Healthcare in the 19th and 20th Centuries

Elizabeth Catherine Ferard, first deaconess of the Church of England.

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Are We Losing Something in our High-Tech Health Care?

HEALTH

These doctors think electronic health records are hurting their relationships with patients

BY DAVID GOAN, KQED FUTURE OF YOU (July 21, 2017 at 11:01 AM EDT)

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What Do Physicians Think?

- 2010 U.S. national survey of 1878 physicians, 62% response rate
- 65% believe it is essential to good practice to address spiritual concerns at end of life
- If physician was more religious, odds ratio 2.76 for belief that it is good medical practice to address patient's spiritual concerns and 5.71 that it is appropriate to always encourage patients to talk to a chaplain
- 55% agreed that if asked, they would join the family and patient in prayer (67% if concordance between physician's and patient's religious affiliation, 51% if not)

Smyre CL, et al. J Pain Symptom Manage 2018

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Religious Observance and Cause-Specific Mortality

Nurses Health Study - 74,534 women – '96-2012

| Mortality | Religious service attendance | | | | P for trend |
|---|------------------------------|---------------------|------------------|---------------------|-------------|
| | Never | Less than once/week | Once/week | More than once/week | |
| All cardiovascular disease (2,721) | | | | | |
| Cases No. | 670 | 378 | 1116 | 557 | |
| Age-adjusted HR (95% CI) | 1.00 (ref) | 0.86(0.74, 0.99) | 0.74(0.66, 0.82) | 0.62(0.54, 0.71) | <0.0001 |
| Multivariable HR (95% CI) | 1.00 (ref) | 0.92(0.79, 1.07) | 0.79(0.71, 0.91) | 0.73(0.62, 0.85) | <0.0001 |
| All cancer (4,479) | | | | | |
| Cases No. | 1255 | 692 | 1916 | 780 | |
| Age-adjusted HR (95% CI) | 1.00 (ref) | 0.78(0.70, 0.87) | 0.71(0.66, 0.77) | 0.59(0.54, 0.66) | <0.0001 |
| Multivariable HR (95% CI) | 1.00 (ref) | 0.91(0.81, 1.01) | 0.86(0.78, 0.95) | 0.79(0.70, 0.89) | <0.0001 |

21 - 41% Risk Reduction

VanderWeele et al. JAMA Intern Med 2018

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Spiritual Care

- 1) Tending to the spiritual issues of another
 - 2) Discovering
 - 3) Reverencing
- Clergy are **religious leaders**
 - Chaplains are **health care professionals**
 - Doctors, nurses, aids, therapists, administrators are.....?

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