Spirituality & Health: Current Trends in the Literature and Research

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The Rise of Spirituality & Health as a Recent Stream of Thought & Research in Health Care
Number of Medline-Indexed English Articles by Year (1980-2007), with Keywords RELIGION, RELIGIOSITY, RELIGIOUS or RELIGIOUSNESS

John Ehman, 6/30/09
Number of Medline-Indexed English Articles by Year (1980-2007), with Keywords SPIRITUAL or SPIRITUALITY
Number of Medline-Indexed English Articles by Year (1980-2007), with TITLES Using the Terms *Religion/Religiosity/Religious/Religiousness* and *Spiritual/Spirituality*
What’s behind the surge of activity since the mid-1990s?

A short answer:
Health Care providers and researchers have become interested in spirituality/religion as a proper subject for scientific investigation, and (to a lesser extent) chaplains have become interested in scientific investigation as an important “way of knowing” for pastoral work.
Religion & *Mental* Health Research up to 2000: Quantitative Studies Showing Positive Effects

- Purpose and meaning in life 15 of 16
- Well-being, hope, and optimism 91 of 114
- Social support 19 of 20
- Marital satisfaction and stability 35 of 38
- Depression and its recovery 60 of 93
- Suicide 57 of 68
- Anxiety and fear 35 of 69
- Substance abuse 98 of 120
- Delinquency 28 of 36

**TOTAL 478 of 724**

--Koenig, et al., Handbook of Religion and Health, 2001
Religion & *Physical* Health Research up to 2000: Quantitative Studies Showing Positive Effects

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Count of Favorable Studies</th>
<th>Total Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better immune/endocrine function</td>
<td>5 of 5</td>
<td></td>
</tr>
<tr>
<td>Lower mortality from cancer</td>
<td>5 of 7</td>
<td></td>
</tr>
<tr>
<td>Lower blood pressure</td>
<td>14 of 23</td>
<td></td>
</tr>
<tr>
<td>Less heart disease</td>
<td>7 of 11</td>
<td></td>
</tr>
<tr>
<td>Less stroke</td>
<td>1 of 1</td>
<td></td>
</tr>
<tr>
<td>Lower cholesterol</td>
<td>3 of 3</td>
<td></td>
</tr>
<tr>
<td>Less cigarette smoking</td>
<td>23 of 25</td>
<td></td>
</tr>
<tr>
<td>More likely to exercise</td>
<td>3 of 5</td>
<td></td>
</tr>
<tr>
<td>Lower mortality</td>
<td>11 of 14</td>
<td></td>
</tr>
<tr>
<td>Clergy mortality</td>
<td>12 of 13</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>84 of 107</strong></td>
<td></td>
</tr>
</tbody>
</table>

--Koenig, et al., Handbook of Religion and Health, 2001
Religion & Mortality in Cardiac Patients

1995 study of 232 elective heart surgery patients

Those who did not find "strength and comfort" in religious faith were almost 3 times more likely to die within 6 months than those who indicated at least some "strength and comfort."
(This was a consistent predictor of mortality in multivariate analyses.)

None of the 37 patients who said they were "deeply" religious had died 6 months post-op.

Early Intervention Study Using Chaplains

Orthopedic surgery patients divided into 3 groups: "support," "support + information," and a control.

- The "support" group had shorter LOS, lower post-op anxiety, used less pain medication, and made fewer calls for service. (Effects were slightly greater for the "support + information" group.)

- Patients receiving pre-op emotional support had higher pre-op anxiety than did members of the control group—but lower post-op anxiety

Ways of Knowing
The Emerging Conceptualization of *Spirituality* in the Health Care Literature
Streams of Thought about Spirituality

Theologians

Dogmatists

Philosophers

“Folk Tradition”

Social Scientists

Clinicians
The Potentially Significant Influence of Clinicians’ Thinking about Spirituality

• It can be rapidly institutionalized (directly in health care systems and in cooperation with government systems)
• It can quickly develop a tradition, establishing its own “canon” through the health care journal literature
• It can affect people at crucial times in their lives (during health care crises)
• It carries the authority of science and the integrity of medicine (and can be conveyed personally in the physician-patient relationship)
• It can be relatively independent of other traditional streams of thought about spirituality
Spirituality is often defined vis-à-vis religion.

Note the etymologies:

**SPIRITUALITY**  
...from the Latin meaning “to breathe”

**RELIGION**  
...from the Latin meaning “to bind”  
(likely connected with a context of piety or consecration)
The Two Most Common Views of the Relationship of *Spirituality* to *Religion* in the Current Health Care Literature
From the Author of the FICA Assessment:

“I see spirituality as that which allows a person to experience transcendent meaning in life. This is often expressed as a relationship with God, but it can also be about nature, art, music, family, or community—whatever beliefs and values give a person a sense of meaning and purpose in life. ...Patients learn to cope with and understand their suffering through their spiritual belief, or the spiritual dimension of their lives”

The emerging character of *spirituality* as a concept in the health care literature:

- interest in inclusivity and diversity
- interest in going beyond the “limits” of religion
- focus on the here-and-now, individual, human experience (---concept not essentially theistic)
- focus on pragmatic value (e.g., coping)
- concept largely influenced by the health care context (especially regarding serious illness)
- concept accepted as somewhat ambiguous
Key Problems in Spirituality & Health Research
Ambiguity of Terms and Concepts

Spiritual/religious terms and concepts are loosely defined and have various meanings within different theological and cultural traditions.
Working Across Cultural Contexts

Because spirituality/religion is deeply rooted in cultural contexts, it is hard to standardize studies or generalize findings across the different contexts.
Qualitative vs. Quantitative
Descriptive vs. Interventional

Funding and publication favors quantitative-interventional studies, but qualitative-descriptive studies are still needed to lay a foundation for this young field of inquiry.
Measures: Trait vs. State; How to Capture Change

Most measures in the field capture spiritual traits and thus do not measure spiritual change.
Size of Effect

The effect of spirituality on health, or of health on spirituality, may be significant but not dramatic (and thus hard to capture).
Mechanism of Cause and Effect

The way that spirituality affects health, or health affects spirituality, appears to be complex.
Theoretical Model of How Religion Affects Physical Health
--adapted from Koenig, et al., Handbook of Religion and Health, 2001

Religion also affects Childhood Training, Adult Decisions, and Values & Character; which then in turn affect mental health, social support, and health behaviors.
NOTE:

All measures/studies of spirituality & health involve *theologically relevant* assumptions.
Cooperation of Subjects

Cooperation of subjects is especially problematic, since religion/spirituality is not only a deeply personal issue but a socially and politically powerful one.
Three General Approaches in Spirituality & Health Research
Recent studies have tended to focus on spirituality as:

1) a ground for “religious” social support

2) a value basis for personal meaning-making [and therefore understanding illness and *coping* with crises] and decision-making

3) a context for behavior that can influence the way the body works (e.g., meditation that can affect physiological reactions to stress)
Religious Attendance & Healthy Behavior

In a large sample of adults living in Alameda, CA, followed from 1965-1994:

Those attending religious services weekly were more likely than those who attended less or not at all to develop healthy behaviors (e.g., quit smoking, become often physically active, or increase the number of personal relationships) and to keep from developing unhealthy behaviors (e.g., stop medical checkups or reduce individual relationships).

## Treatment Decision Factors

Ranking of the importance of treatment decision factors by oncology patients and oncologists:

<table>
<thead>
<tr>
<th>PATIENTS</th>
<th>ONCOLOGISTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Cancer Dr’s recommend.</td>
<td>1) Cancer Dr’s recommend.</td>
</tr>
<tr>
<td>2) Faith in God</td>
<td>2) Ability to cure</td>
</tr>
<tr>
<td>3) Ability to cure</td>
<td>3) Side effects</td>
</tr>
<tr>
<td>4) Side effects</td>
<td>4) Spouses’ input</td>
</tr>
<tr>
<td>5) Family Dr’s recommend.</td>
<td>5) Family Dr’s recommend.</td>
</tr>
<tr>
<td>6) Spouse’s input</td>
<td>6) Children’s input</td>
</tr>
<tr>
<td>7) Children’s input</td>
<td>7) Faith in God</td>
</tr>
</tbody>
</table>

--Silvestri, et al., “Importance of faith on medical decisions…,” *J of Clinical Oncology* 21, no. 7 (April 1, 2003): 1379-1382
Physician Inquiry re: Patients’ Spiritual Beliefs

A Penn study of 177 pulmonary outpatients indicated:

- Nearly half of patients may have spiritual/religious beliefs that would influence their health care decision-making if they became gravely ill.

- Two-thirds of patients would welcome a carefully worded exploratory question about spiritual or religious beliefs. (E.g., “Do you have spiritual or religious beliefs that may affect your medical decisions?”)

- Two-thirds of patients think that such an inquiry by a physician would make them trust the physician more.

Religious Dietary Laws & Medication Usage

Small British study of Muslim patients who are observant of Islamic dietary laws

- Only 26% said they'd take medication if they were unsure whether it was halaal
- 42% said they'd not take medication if they were unsure whether it was halaal
- 58% said they'd stop taking medication if they found out it was haraam
- Only 8% thought it was acceptable to take haraam medications for minor illnesses, but 36% thought it acceptable to take haraam medications for major illnesses.

--Bashir, et al., "Concordance in Muslim patients…," *Int'l J of Pharmacy Practice* 9, no. 3 Suppl (September 2001): R78.
Spirituality & the Brain

Brain scans of Buddhist monks who practiced meditation in the scanner showed significant changes in cerebral blood flow during meditation.

- There was a significant increase in activity in the frontal lobes (involved in focusing attention and concentration)

- The increase in activity in the frontal lobes was significantly correlated with a decrease in activity in the left superior parietal lobe (involved in orientation in time and space)

Frontal Lobe Activity of Buddhists Meditating

Parietal Lobe Activity of Buddhists Meditating

SPECT Images at Baseline and During Meditation

Meditation and Cellular Longevity

In 2009, an article co-authored by a recipient that year of the Nobel Prize in Medicine (Elizabeth Blackburn) argued that research suggested some kinds of meditation may control the body’s response to stress in such a way as to affect the longevity of cells. They proposed that forms of mindfulness meditation, practiced over time, controlled cognitive stress reactions like threat appraisal and rumination to such a degree as to protect against the cellular process of the deterioration of telomeres --the protective “caps” at the end of chromosomes.

Religious Coping and Religious Struggle
Terminology pairings in Medline articles, 1998-2008

- Pain
- Distress
- Suffering
- Struggle
- Crisis
- Problem
- Coping
- Strength
- Growth
- Resources

- Spiritual
- Religious
- Existential
Religion & Mental Health

Study of 406 mental health patients in Los Angeles

- 80% reported using some type of religious activity or belief to cope with symptoms or daily difficulties
- 30% said their religious beliefs or activities “were the most important things that kept them going”
- Both the number of years that patients had used religious coping and the proportion of coping devoted to religious coping beliefs or practices were correlated with less severe symptoms and better overall functioning.

Spirituality & PMV Survivors

Seven survivors of prolonged mechanical ventilation were asked, "What is it like to experience survival from prolonged mechanical ventilation?"

Six themes emerged by qualitative analysis:
- endures a traumatic experience
- relies on self-determination
- credits family support and devotion
- finds comfort through religion and prayer
- praises health care professionals
- derives reassurance from angelic encounters

Patients’ Use of Prayer for Pain Control

A cross-sectional sample of 157 inpatients were asked:

“Which of the following pain control methods (if any) have you used since you were admitted?”

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain Pills</td>
<td>67%</td>
</tr>
<tr>
<td>Prayer</td>
<td>62%</td>
</tr>
<tr>
<td>Pain Meds in IV</td>
<td>54%</td>
</tr>
<tr>
<td>Pain Injections</td>
<td>51%</td>
</tr>
<tr>
<td>Relaxation</td>
<td>27%</td>
</tr>
<tr>
<td>Distraction</td>
<td>24%</td>
</tr>
<tr>
<td>PCA Pump</td>
<td>21%</td>
</tr>
<tr>
<td>Heat Application</td>
<td>18%</td>
</tr>
<tr>
<td>Touch</td>
<td>16%</td>
</tr>
<tr>
<td>Cold Application</td>
<td>13%</td>
</tr>
</tbody>
</table>

[top 10 answers from 17 choices]

Spirituality & Pain

A study of college-age students who were taught either a spiritual meditation, secular meditation, or relaxation technique; which they practiced for 20-minutes a day for 2 weeks.

The spiritual meditation group was able to tolerate an induced pain experience* almost twice as long as did the other two groups, though pain perception was reportedly not altered.


* Holding one’s hand in a cold water bath of 2°C
Meditation Intervention with Migraine Sufferers

83 participants in 4 groups: Spiritual Meditation, Internal Secular Meditation, External Secular Meditation, and Relaxation; with each group practicing for one month.

The Spiritual Meditation group showed the greatest reduction in headache frequency, increase in pain tolerance, drop in negative affect, decrease in trait anxiety, increase in headache self-efficacy, and increase in daily spiritual experiences.

No differences in positive affect, depression, migraine-specific quality-of-life, or Spiritual Well-Being/Religious Well-Being.

Religious Struggle & Mortality

2-year longitudinal study of 596 patients; 176 died

Brief RCOPE items significantly associated with an increased risk of dying:
- Wondered whether God had abandoned me (28%)
- Questioned God’s love for me (22%)
- Decided the devil made this happen (19%)

Overall, Brief RCOPE indicators of “religious struggle” were associated with only a 6%-10% increased risk of mortality, but the effects remained significant even after controlling for a number of confounding variables.

Religious Coping & Mortality

[Further analysis of the Pargament, et al. 2-year data]

When the sample was broken down into four groups:

- chronic negative religious copers: yes yes
- transitory negative religious copers: yes no
- acute negative religious copers: no yes
- non-negative religious copers: no no

Only chronic negative religious copers showed greater risk for poorer health outcomes: they declined in indices of quality of life and became somewhat more depressed and physically dependent. [--see p. 724]

Prevalence & Correlates of Spiritual Struggle

Studies of diabetic, congestive heart failure, and oncology patients, using the Brief RCOPE.

- 15% indicated a level of spiritual struggle that might risk of poor mental or physical outcomes
- Age was *inversely* related to negative religious coping scores
- Higher levels of positive religious coping were associated with higher levels of negative religious coping, except for those with mid-range positive religious coping scores.

Where do we go from here?
Continue to use the scientific process as a *Way of Knowing*...

...recognizing that it is a Way of Knowing that 1) builds knowledge slowly -- bits at a time -- and that 2) requires patience, attention to fine details, and caution about drawing conclusions.
The Association for Clinical Pastoral Education (ACPE) Research Network offers a variety of bibliographic and other resources:

www.ACPEResearch.net

The University of Pennsylvania Health System Department of Pastoral Care publishes annual bibliographies of Medline-indexed articles relating to spirituality & health:

www.uphs.upenn.edu/pastoral

(See the section on Research & Staff Education.)