

“The Effect of Religion on Longevity and Disability

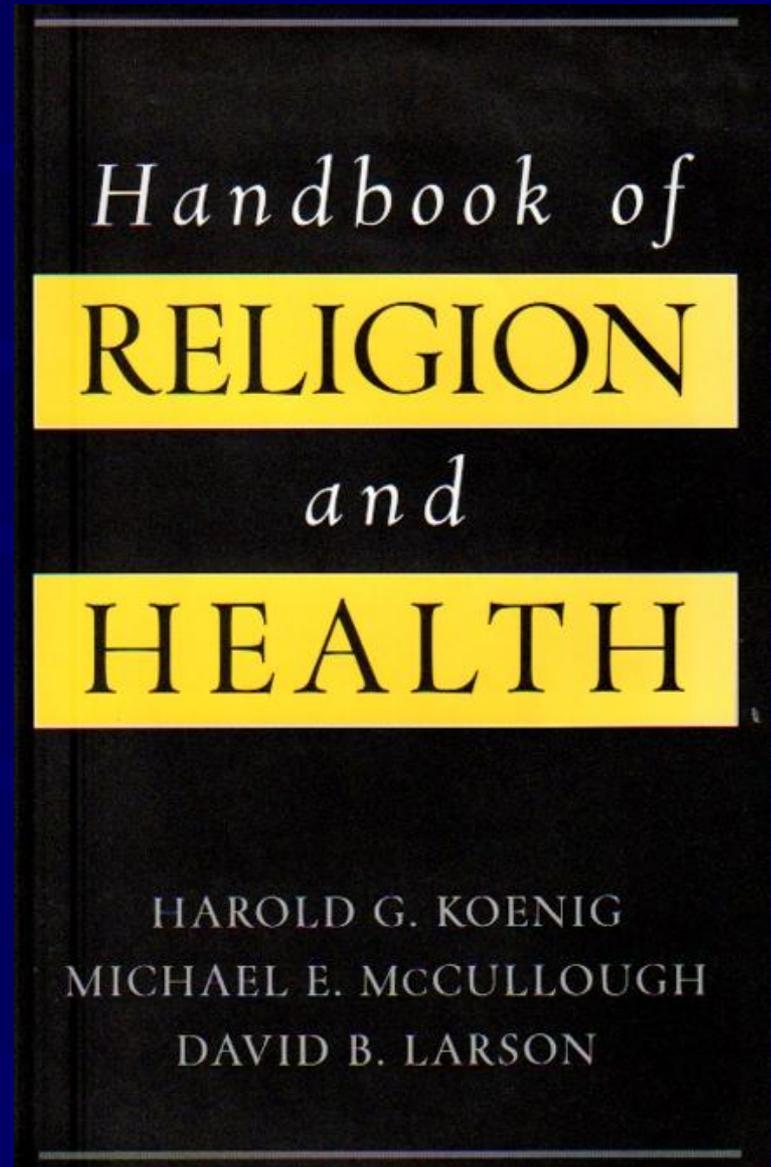
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I. Introduction:

- Today we are looking at Chapters 21 & 22 (p 318-343) of Dr. Harold Koenig, Michael McCullough and David Larson's book,
- ***Handbook of Religion and Health (2001)***
- Published by Oxford University Press, New York.



Thursdays Gone By in 2011

Since January 11 we have studied “Effects of Faith on Health & Medicine” --Review of H. Koenig, et al, *Handbook of religion and Health (HRH)*

- Jan 13: Positive and Negative Effects of Religion on Health and healing (Chapters 3 & 4, HRH)
- Jan 20: Effects of Religious Coping (chapter 5, HRH)
- Jan 27: Effect of Religion on Well Being (chapter 6, HRH)\
- March 3: Effect of Religion on Depression and Suicide, (chapters 7 - 8 HRH)
- March 10: Effect of Religion on Mental Health (chapter 15 HRH)

Thursdays Past, Present, and future

- March 17: Effect of Religion on Anxiety Disorders, Schizophrenia, and other Psychoses (chapters 9 - 10, HRH)
- March 24: Effect of Religion on Alcohol and Drug Use, Delinquency (chapters 11 - 12, HRH)
- March 31: Effect of Religion on Heart Disease & Hypertension (chapters 16-17, HRH)
- April 7: Effect of Religion on Immune System Dysfunction and Cancer (chapter 19-20, HRH)
- **April 14: Effect of Religion on Longevity and Disability** (Chap. 21-22, HRH)

Effect of Religion on Longevity and Disability

I. Religion and Longevity

A. Longevity of Religious Leaders

B. Religious Affiliation & Longevity

C. Degree of Religious Involvement & Longevity

II. Religion and Disability

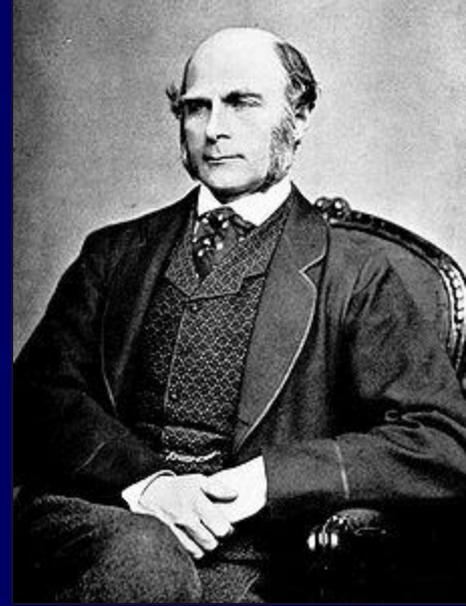
A. Religion & Prevention of Disability

B. Religion & Prevention of Disability in the Medically Ill

C. Impact of Religion on Perceptions of Disability

D. Religion and Adaptation in Caregivers

I. Religion and Longevity



- The first scientific study of the effect of religion on longevity actually took place in 1872 when Francis Galton, cousin of Charles Darwin, reasoned that if prayer was efficacious, then those who received the most prayer would live longer than others.
- He hypothesized members of the Royal family would live longer since they were mentioned frequently in people's prayers ("God save the Queen").
- Studying actuarial tables he determined members of the royal houses actually had lower life expectancies than other affluent members of English society. And, concluded there was no statistical evidence for the efficacy of prayer.

I A. Longevity of Religious Leaders

- The hypothesis: If religion confers health benefits that translates into longer life, then the people who are more involved with religion – religious leaders – should have, on average, longer lives than people who do not follow religious pursuits as a vocation.
- The concept has weaknesses, because many religious leaders are martyrs and have sacrificed their lives for their faith and some religious offices have been quite stressful.
- Despite Galton's initial report, studies suggest that clergy from a variety of faith backgrounds (Western and Eastern) do indeed experience a lower risk of early death.

I A. Protestant clergy

- Haitung King et al (1970), investigated predominantly white protestant denominations – Episcopal, Baptist, Lutheran, and Presbyterian churches.
- In general, these studies found that Protestant clergymen had lower overall mortality ratios than did other white males of the general population.
- The standardized mortality ratio (SMR = number of observed deaths/number of expected deaths) for Protestant clergy was only 70 % (range 69-83%) of the expected deaths for other white males in the U.S. population.

I A. Roman Catholic clergy

- Madigan (1957) and Taylor & Carol et al (1959) calculated death rates for male and female Catholic religious in the US between 1900 and 1950.
- Throughout that period, Catholic religious had lower mortality than did the general population (SMRs = 0.84 for men and 0.66 for women).
- Taylor, Carroll and Lloyd (1959) examined the cancer mortality of women in religious orders and again found they had lower total cancer mortality than women in the general population.
- De Gouw et al (1995) examined mortality of contemplative monks in monasteries in the Netherlands between 1900 – 1994. The monks had 12% lower mortality (SMR = 0.88).

I A. Japanese Religious Leaders

- Ogata et al (1984) examined the mortality in 4,352 male Japanese Zen priests between 1955 – 1978.
- The all-cause SMR for Zen priests was 0.82 (18% lower mortality rate).
- Zen priests were particularly less likely to die from cerebrovascular diseases, pneumonia or bronchitis, peptic ulcers, liver cirrhosis, and cancers of the respiratory system.
- Simonton (1997) studied 1,632 Japanese men and women comparing religious leaders to eminent leaders in Japanese society. He found religious figures lived substantially longer than did the average eminent person.

Simonton speculated that the longevity of Zen religious leaders was caused either by the benefits of a contemplative life or by protection from life's risks that they enjoyed and that other leaders did not have.

Research consistently indicates that persons involved in full-time religious life experience a reduced risk of early death.

I B. Religious Affiliation and Longevity

- Morality among Jews: In a study of 10,000 Jewish families conducted over a century ago, Billings (1891) discovered that Jews had a lower death rate.
- Years, later, Bolduan and Weiner (1933) studied the death rate among New York Jews and reported lower death rates from tuberculosis, pneumonia, and uterine cancer but higher mortality from cancers of the breast and digestive organs.
- More recently, MacMahon (1960) found that Jews had a higher death rate from cancers of the stomach, colon, pancreas, ovary, kidney, melanoma, glioma, sarcoma, Hodgkin's disease and Leukemia; but, there were fewer deaths from cancers of the tongue, pharynx, larynx, lung, prostate, bladder and cervix.

I. B. Mortality rates among Christians

- Some Christian groups have strict proscriptions against the consumption of tobacco, certain foods and alcohol or caffeinated beverages (Mormons, SDA, Amish, Hutterites)
- Latter-Day Saints have statistically about four additional years of life compared to the general population (Jarvis, 1977).
- This protection from early death is largely a result of lower mortality from cancer and cardiovascular disease.
- Many studies indicate that SDAs live longer than persons in the general population. Largely the result of healthy behaviors, healthy diet, safe sexual practices, high community cohesion and protection from psychological stress (Verkel & deWaard, 1983)

I. B. Amish and Hutterites.

- The Amish are almost completely rural, live in tight-knit communities, eschew modern conveniences, and discourage alcohol and tobacco use.
- All-cause mortality is lower among Amish young women than among non-Amish. However, mortality rates are higher for women age 70 and older.
- Amish men age 40 and older have lower all-cause mortality rates than non-Amish men, largely due to lower death rates from cardiovascular, digestive, and respiratory disorders.
- Hutterites have lower death rate from cancer of the lung but higher incidence of Leukemia (inbreeding). Hutterite women have lower incidence of cervical cancer (fewer partners).

I C. Degree of Religious Involvement and Longevity

- Seeman et al (1987) examined the effects of religious involvement (frequency of religious attendance, prayer, and other private religious activities) as a predictor of survival.
- Lack of church membership predicted greater mortality for persons age 60 and over, and for persons aged 38-49.
- The authors felt variable such as smoking, physical activity, weight, depression and perceived health status accounted for the effects in persons over age 60, but had no explanation for the 38-49 age group who lacked religious attendance.

I C. Involvement in Religious Community

- Goldman et al (1995) examined predictors of mortality between 1984- 1990 in a national sample of 7,500 persons aged 70 and over.
- Lack of religious attendance significantly predicted a greater probably of dying during the six-year followup when variables were controlled.
- Strawbridge, Cohen, et al (1997) examined 5,286 participants over 28 year follow-up assessing church attendance, rather than church membership.
- Investigation revealed frequent church attendance was associated with a 36% reduction in mortality compared to infrequent attenders.

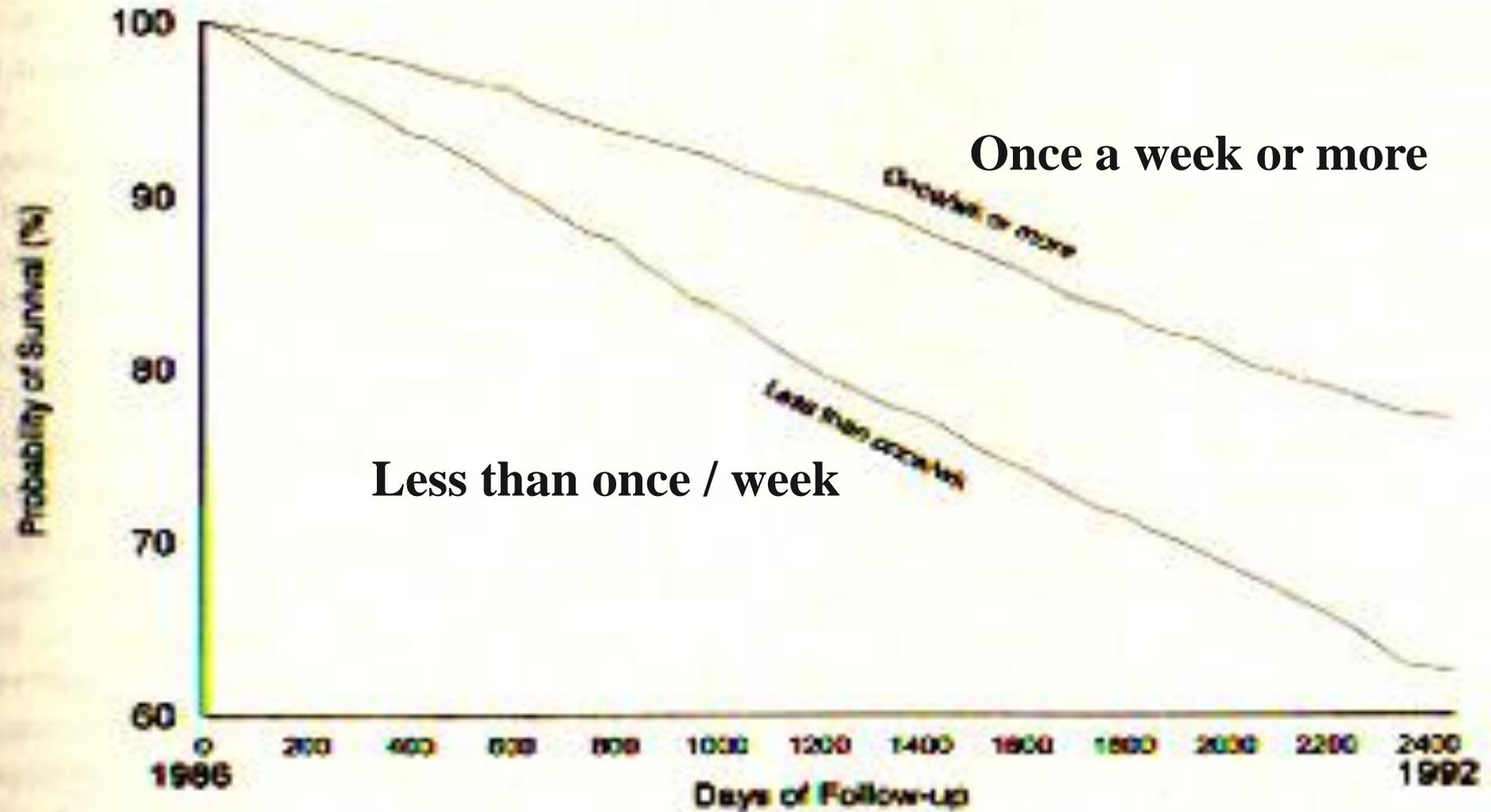
I C. Understanding Effect of Church attendance

- Strawbridge noted that frequent church attenders at baseline were less likely to smoke or drink heavily and also had a greater number of social connections than did infrequent attenders.
- More important, frequent church attenders were more likely to change their health behaviors for the better during the 28-year followup. (i.e., stay married, increase number of social contacts and non church community group memberships, stop smoking and increase exercise).
- Other studies have consistently replicated this finding. Oman and Reed (1998) in a five year study found attenders experienced a SMR of 0.64. I.e., they were 36% less likely to die during followup (identical to Strawbridge's findings).

I C. Involvement in Religious Community

- Koenig, Hays Larson, et al (1999) conducted a six-year study of 3,968 community-dwelling adults aged 64-101 in Piedmont area of North Carolina.
- Of those who attended religious services once per week or more , 22.9% died, compared to 37.4 % of those attending less than once a week (infrequent attenders).
- I.e., the hazard of dying was reduced by 46% for frequent attenders when compared to the infrequent group.
- The effect was strongest for women and approximates the reduced mortality associated with wearing seat belts. The effect was only slightly less robust in men.

I C. Degree of Religious Involvement and Mortality



From Koenig, Hays, Larson, et al. (1999), J of Gerontology, Medical Sciences 54A (7) M370-M377. (Koenig, et al, HRH, p. 325)

I C. Involvement in Religious Community

- Hummer et al (1999) followed a random national sample of 21,204 adults from 1987 to 1995, during which time 2,016 deaths occurred.
- Religious attendance was measured and non-attenders lived to an average age of 75.3 years, compared with 81.9 years for those who attend services once a week and 82.9 for those who attended more than once a week (*an additional 7 and 8 years, respectively*).
- Among African Americans, average life expectancy for those who attended services more than once a week was 80.9 years compared to 66.4 years for those who never attended services (*a difference of 14 years*).

Thus, involvement in religious community activity has a sizable and consistent relationship with greater longevity.

I C. Private Religious Activities

- Zuckermann et al (1984) conducted a two-year prospective study of 398 persons age 62 or over living in urban areas of Connecticut.
- A three-item index of religiousness was administered at baseline that measured religious attendance, self-rated religiosity and religion as a source of strength and comfort.
- During follow up there was a significant interaction between severity of illness and religiousness in predicting mortality. When all three factors were considered, religious were associated with less mortality. Religious attendance was related weakly; strength and support from religious practices was related more strongly.

I C. Private Religious Activities, cont...

- Helm and Colleagues (2000) conducted a 6-year study of 3,851 community dwelling adults 64 – 101 who lived in Peidmont region of N.C.
- Private religious activities and a wide variety of variables were assessed. Time to death was analyzed.
- Lack of private religious activity (meditation, prayer, or Bible study) was a significant predictor of mortality in healthy but not disabled subjected.
- After correcting for health factors, persons with no disability and little or no private religious activity in 1986 were significantly more likely to die during follow up (SMR 1.47, 95% more likely than those with private religious activity).

I C. Not all studies ...

- Not all investigators of the relationship between religious involvement and mortality find a significant association.
- Idler and Kasl (1992) found that religious attendance had no effect on survival in an 8-year followup of 2,8121 participants in the Yale Health and Aging study of men and women (separately).
- In a later report (a 12-year followup), they did find a significant correlation between religious attendance and survival when men and women were combined.

I C. Summary of Religion & Longevity

Research reveals religion is associated with greater longevity:

1. Religious leaders live longer than people of the general population.
2. Members of certain religious groups (Mormons, SDA) live longer than persons in the general population.
3. Involvement in religious community is consistently related to lower mortality and longer survival – weekly attendance adds 7 years to one's life and 14 years if you are African American.
4. Frequent attendance is associated with a 25-33% reduction in the risk of dying during follow up periods of 5 -28 years.

II. Religion and Disability

II. Religion and Disability (chapter 22)

- Throughout the world, care for the ill and disabled has historically been the primary responsibility of religious communities – Christian, Jewish, Muslim, Buddhist & Hindu.
- The Poor Law (1601) enacted during reign of Queen Elizabeth I put the care of the disabled into the hands of the local parishes. The policy was carried to distant colonies and protectorates (Australia, America).
- According to the 2006 US census, 15.1 percent of the civilian non-institutionalized population 5 years and over in the United States, or about 41.3 million people reported a disability, including 41% of those over 65 years of age (ever-increasing).
<<http://www.census.gov/hhes/www/disability/GQdisability.pdf>>

II A. Religion and Prevention of Disability in Community-dwelling Adults

- Does religion ward off disability among healthy people who live in community?
- These studies are compromised because attendance at religious services becomes difficult for many who are disabled especially as they get older and physical functioning declines.
- Some have tried to solve this by including private activities (prayer, etc). However, private practices may increase while religious attendance decreases due to disability (cancel out).
- Still, we must not ignore the fact that attendance at religious services may play a major role in preventing the onset and/or progression of disability.

II A. Effect of Religion on disability

- Guy (1982) surveyed 1,170 community-dwelling adults living in Memphis, TN.
- Persons who attended services once a week or more and those whose church activities had increased compared to its level 15 years earlier reported higher life satisfaction.
- Guy found a significant inverse relationship between physical disability and church attendance.
- And, she found a trend for infrequent attenders who were physically disabled and yet still maintained contact with church to have higher life satisfaction.

II A. Attendance at religious services & disability

- Attendance at religious services were associated with better health practices – higher levels of exercise, lower rates of alcohol consumption, and lifelong abstention from smoking. (all of which would likely affect future health and level of functioning)
- Higher levels of subjective religiousness were associated with never having smoked and, as others have found, with a higher weight-to-height ratio (obesity).
- More important, there was evidence that religious attendance and disability interacted in such a way that people with high levels of disability appeared to “benefit” more from religious involvement than did people with lower levels of disability.

II A. Attendance & disability . . .

- The most disabled participants who frequently attended religious services displayed more positive affect and optimism than did disabled infrequent attenders.
- **Attending religious services was also associated with:**
 - fewer depressive symptoms
 - fewer complaints of physical illness
 - fewer interpersonal conflicts.
- Involvement in religious community activities – but not private religiousness – was related to better physical functioning and less disability.

II A. Attendance and disability . . .

- Idler and Kasl (1997) assessed functional disability, public and private religious involvement, health status, health practices, social activities, and well-being over a 12-year period.
- They found that public religious involvement predicted lower functional disability.
- While disability level affected future religious attendance to some degree, the effect was only short-term. Participants decreased their attendance at religious services during the period immediately following a decline in physical functioning, but this decrease was undetectable three years later.

II A. Attendance & disability . . .

- Krause (1998) studied 511 persons aged 65 and over, examining the relationship among religious involvement, disability level, and self-rated health.
- Poor self-rated health was inversely related to involvement in religious community activities but was unrelated to private religious activities or religious coping.
- There was also a significant interaction among religious coping and neighborhood deterioration, suggesting that the negative impact of living in a dilapidated neighborhood on changes in self-rated health over time was completely offset for older adults who relied heavily on religious coping strategies.

II B. Religion and Prevention of Disability in the Medically Ill

- Other studies have examined the relationship between religion and disability in people who are at high risk for disability as a result of physical health problems, such as medical inpatients and individuals undergoing physical rehabilitation.
- Examining the relationship between religious coping and health, Koenig, Pargament and Nielsen (1998) surveyed 577 older adults who were hospitalized with acute medical illness.
- As studies of community-dwelling adults found, this study revealed that frequent church attendance was associated with better subjective health and fewer impairments to physical functioning.

II B. Religion and Coping

- Of particular interest was how persons used religion to cope.
- Those who coped by:
 - (a) Understanding their illness to be a punishment or test from God
 - (b) Understanding their health problems to be afflictions caused by demonic forces
 - (c) Pleading for direct intercession
- These individuals tended to have greater impairments in physical functioning and worse subjective health.

II B. Religion and 3-item religiousness scale

- Pressman et al (1990) examined the relationships among religious belief, depression, and ambulation status in 30 elderly women admitted for surgery with hip fracture.
- They used a three-item scale to measure: attendance at religious services, perceived religiousness, and reliance on religion (and/or God) as a source of strength.
- Religiousness was negatively related to depression, and positively correlated to the meters walked after discharge.
- Religious attendance had the strongest association with ambulation status at discharge.

II C. Impact of Religion on Perceptions of Disability and Health

- There is evidence that devout religious involvement may impact the perception of disability in persons with chronic health problems (i.e., how physically limited and restricted they perceive themselves to be).
- Idler (1987) examined this relationship in a sample of 2,811 elderly residents in New Haven, CN (Yale).
- Among men (but not women), those who received a great deal of comfort from religion reported less disability than those who did not.
- Religiousness appears to have affected the perception of their disability by providing a more positive outlook on their chronic health condition.

II D. Religion and Adaptation in Caregivers

- Rabbins et al (1990) studied predictors of successful adaptation among family caregivers of patients with Alzheimer's disease or cancer.
- Caregivers who had strong religious faith reported less emotional distress and more positive emotions. Attendance at religious services, however, was unrelated to these mental health variables.
- The subjective aspects of religious involvement, then, might be particularly important for coping among caregivers.
- Vinyon (1995) studied transplant patients & caregivers, and found that reliance on God and religion were the most common coping resources for both patients and spouses.

II D. Religion and Adaptation in Caregivers

- Richards and Folkman (1997) studied the spiritual aspects of the grief process for HIV-positive and HIV-negative partners of persons who died with AIDS.
- Caregivers were classified as spiritual or non-spiritual depending on reports of spiritual beliefs, spiritual experiences, spiritual rituals, and self-created rituals.
- When the two groups were compared, those who made spiritual references had more positive appraisal, problem solving and their coping was healthier.

II D. Religiousness & Immune Function in HIV patients

- Woods et al (1999) surveyed 106 HIV-seropositive gay men to determine whether religiosity is associated with less depression or better immune function in this population.
- Religious activities, such as prayer, religious attendance, spiritual discussions, and reading religious/spiritual literature were associated with significantly higher CD4+ counts and percentages (T-helper-inducer cells).
- Religious coping (putting trust in God, seeking God's help, increasing praying) was related to lower scores in the Beck Depression Inventory scale and on the Spielberger Standard Trait Anxiety Inventory (STAI) but not to specific immune markers.

II D. Summary and Conclusions

1. Studies consistently show an inverse relationship between community religious activity and physical disability.
2. The best investigation to date (Idler, 1997) suggests that public religious involvement may help to prevent the development and progression of disability in older adults.
3. Evidence for a relationship between physical disability and private religious activities, however, is less consistent.
4. People who develop a despairing, pleading stance towards God, who see God as punishing, or illness as demonic, experience greater disability.

II D. Summary and Conclusions

5. Religious involvement may help disabled people and their caregivers avoid the negative mental health consequences associated with physical disability.
6. Religious involvement may also help them recover more quickly from depression and poor adjustment should these occur.
7. Of particular importance, is evidence that religious involvement may affect perception of disability among those with chronic health problems.
8. Religious people may perceive their physical restrictions with greater optimism and experience greater hope and motivation for physical recovery.

Next Class – After Holy Week

- Thursday, May 5, 2011: Nathan Carlin, Ph.D., "Evil and the Dialogue between Psychology and Theology: The Case of Jeffrey Dahmer."



Nathan Carlin, Ph.D.