Physical Health Functioning Among United Methodist Clergy

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Abstract

United Methodist clergy have been found to have higher than average self-reported rates of obesity, diabetes, asthma, arthritis, and high blood pressure. However, health diagnoses differ from physical health functioning, which indicates how much health problems interfere with activities of daily living. Ninety-five percent (n=1726) of all actively-serving United Methodist clergy in North Carolina completed the SF-12, a measure of physical health functioning that has US norms based on self-administered survey data. 62.2% (n=1074) of our sample completed the SF-12 by self-administered formats. We used mean difference tests among self-administered clergy surveys to compare the clergy SF-12 Physical Composite Scores to US-normed scores. Clergy reported significantly better physical health composite scores than their gender- and age-matched peers, despite above average disease burden in the same sample. Although health interventions tailored to clergy that address chronic disease are urgently needed, it may be difficult to elicit participation given pastors' optimistic view of their physical health functioning.

Keywords: clergy, health functioning, quality of life, SF-12

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Introduction

The number of clergy in the United States (US) is likely somewhere between the US Bureau of Labor's estimate of 404,000 clergy of all faiths in 2006 (Bureau of Labor Statistics, 2009) and the *Yearbook of American and Canadian Churches* estimate of 622,727 clergy serving church traditions (e.g., Catholic, Orthodox, Mainline Protestant, Evangelical, Latter-day Saints, Jehovah's Witnesses) in 2007 (Lindner, 2009). To put these numbers in perspective, in 2006 in the US there were an estimated 633,000 physicians and surgeons, 361,000 fire fighters, and 166,000 psychologists (Bureau of Labor Statistics, 2009). Thus, the number of clergy is substantial. Moreover, these clergy serve an estimated 339,000 churches with more than 152 million confirmed members (Lindner, 2009)—approximately 50.1% of the US population at the end of 2007 (US Census Bureau, 2009).

The clergy vocation is unique in a number of ways. It is well-known that clergy engage in pastoral activities such as prayer, worship, and preaching, as well as visiting sick congregants and performing weddings and funerals. In addition, clergy engage in administrative activities such as budget oversight and staff coordination (Carroll, 2006), and they further serve as mentors, leaders, spokespersons, and liaisons (Kuhne & Donaldson, 1995). Clergy are often at the front line of family deaths and crises, including mental health crises, and these crises put them "on call." Frequently, clergy (e.g., solo pastors) are the only one at their institution able to respond to crisis calls. The workday of clergy is notably busy, fragmented, and varied, with little predictability (Kuhne & Donaldson, 1995). Further, clergy occupy a highly visible role, granting them little privacy (Rowatt, 2001), although also allowing them to advance community goals.

Despite the rather unique combination of clergy roles and experiences, the health of clergy has been under-studied, with the exception of a small but growing literature on clergy stress and a handful of studies on clergy mortality rates. In a review of the literature on clergy stress, Morris and Blanton (1994) cited the following five stressors as the most salient for clergy: mobility, low financial compensation, inadequate social support, high time demands, and intrusions on family boundaries. There is some evidence that burnout and dissatisfaction with ministry, at least among clergy families, is increasing (Rowatt, 2001). Clergy report that these combined stressors decrease their engagement in healthy behaviors and negatively impact their overall health (Proeschold-Bell et al., 2009).

Studies on standardized mortality rates (SMRs) for clergy generally compare specific religious groups of White, male clergy to other geographically similar White males. Using data spanning four centuries and ten countries, King and Bailar (1969) found that uniformly the SMRs for clergy were substantially lower than those for their non-clergy counterparts. Major contributors to the lower mortality rates were less tuberculosis, syphilis, accidents, and suicide. However, not all disease-specific SMRs were lower for clergy. In 1950, coronary disease was high for US clergy, and diabetes also contributed to higher mortality among US clergy aged 20-64. More recently, Flannelly et al. reviewed 12 studies of the SMRs of clergy and found that in all but one study, the SMR was below 90%, in other words, favorable to clergy (Flannelly, Weaver, Larons, & Koenig, 2002). However, they also reported differences in disease-specific SMR by denomination, with Presbyterian (102%) and Episcopal (126%) clergy exhibiting higher SMRs for diabetes than clergy from other churches. Thus, despite impressively low historical overall mortality rates, diseases such as diabetes and coronary disease have been large contributors to mortality for clergy.

The United States has experienced striking changes in overall health status, most notably in obesity and chronic disease. Among adults aged 20 and above, the prevalence of obesity doubled between 1980 and 2002 (Flegal, Carroll, Ogden, & Johnson, 2002; Hedley et al., 2004). The prevalence of diabetes rose by 33% between 1990 and 1998 (Mokdad et al., 2000). Also, after declining for decades, the prevalence of hypertension rose from

20.4% in 1988-1991 to 28.6% in 1999-2002 (Hajjar, Kotchen, & Kotchen, 2006). Cardiovascular disease continues to be the leading cause of death among Americans (Neyer et al., 2007).

A recent study compared self-reported chronic disease prevalence rates between United Methodist clergy in North Carolina (NC) and their fair comparison North Carolinian counterparts (people ages 35-64, White, insured, and employed in the past year) (Proeschold-Bell & LeGrand, 2010). Over 41% of United Methodist clergy in NC reported height and weight data that would qualify them for obesity, 36% reported having high blood pressure, 34% reported having arthritis, 14% reported having asthma, and 13% reported having diabetes. These rates were significantly higher for NC clergy than for North Carolinians in general. The prevalence rates for clergy were higher by 10.3% for obesity, 4.3% for high blood pressure, 4.1% for asthma, 3.3% for diabetes, and 2.5% for arthritis. We could find only one other study on clergy chronic disease rates. The Evangelical Lutheran Church in America reported a 34% obesity rate for their clergy compared to a US national average of 22% (Halaas, 2002). Unlike the study by Proeschold-Bell and LeGrand, they did not adjust for gender (74% male) and age (mean=50), which may have inflated rates. Nevertheless, there is evidence that clergy are experiencing chronic disease at alarming rates.

The high chronic disease burden experienced by clergy raises the question of whether health problems are disrupting the ability of clergy to perform their unique leadership roles. Health functioning (also known as health-related quality of life) is a commonly measured construct assessing how health affects one's work activities, socialization activities, and ability to care for oneself. We were unable to find any studies on clergy health functioning. This study used health functioning data from the United Methodist clergy study (described above) that reported high chronic disease rates, thereby enabling us to examine physical health functioning in the context of high disease rates. Assessing the degree of physical health functioning among clergy is a first step in understanding the possible repercussions of the high rates of chronic disease among clergy.

Methods

Data Collection

Data were collected as part of the Duke Divinity School Clergy Health Initiative. Through the United Methodist Church (UMC) conference directories, we obtained the names of UMC clergy in the North Carolina and the Western North Carolina Annual Conferences. All currently-serving UMC clergy in NC were offered study participation. This census included all full-time and part-time pastors (elders, local, and student pastors) appointed to churches, district superintendents, bishops, extension ministers, currently-serving deacons, and retired pastors who had come out of retirement for a church appointment (n=1,820).

Westat, a contract research organization to the Duke Divinity School, collected data between July and November 2008. We desired a mix of data collection modes (phone, web, paper) in order to consider mode effects when comparing clergy data with that of other studies. Westat randomized clergy in advance to telephone (33%) or self-administered (67%) web conditions.

Westat sent all eligible clergy an advance letter introducing the survey along with a prepaid incentive of $25. Clergy assigned to the web condition were emailed a web link and password to access the survey securely online. Web surveys took approximately 61 minutes. Westat prompted clergy four times before mailing a paper copy of the survey. If the survey still was not completed, staff contacted clergy and offered to conduct a telephone interview.

Of the clergy first assigned to the self-administered web version, 83% completed the survey by web, 6% by mail, and 6% by telephone, for a response rate of 95%. The telephone interview response rate was also 95%. Thus, the overall study response rate was 95% with a total of 1,726 participants. Combined, telephone interviews

composed 38% (n=652), web surveys 58% (n=999), and paper surveys 4% (n=75). To control for mode effects, this study uses the self-administered data only (n=1,074).

All procedures were approved by the Duke University and Westat Institutional Review Boards.

Measures

Medical Outcomes Study (MOS) Short Form (SF)-12. The MOS SF-12 is a 12-item health functioning measure that generates scores including a Physical Health Composite Score. Subscales are scored on a 0-100 scale with 50 indicating average health and standard deviations of 10, with norms for the US population and specific subgroups available for the SF-12 version 1 (John E. Ware, Kosinski, & Keller, 1998), used in this study, as well as the slightly newer SF-12 version 2 (J. E. Ware, Kosinski, Turner-Bowker, & Gandek, 2002). Higher scores indicate better functioning. The SF-12 has been shown to provide good reliability, internal consistency and construct validity (J. E. Ware et al., 2002), with its summary scales discriminating between symptomatic and non-symptomatic groups (Andrews, Henderson, & Hall, 2001; Ciechanowski, Katon, & Russo, 2000; Sanderson, Andrews, & Jelsma, 2001).

Demographics. Demographic items from the survey included gender, age, ethnicity, education level, marital status, and health insurance status. Ministry salary (not including housing allowance or other household income) was ascertained from the conference directories. Because both age and gender relate strongly to health, SF-12 scores were calculated in aggregate and separately for males and females and by age group. We selected three age groups corresponding to national norm data for the SF-12: ages 35-44 (n=252); 45-54 (n=602); and 55-64 (n=561).

Statistical Analyses

SF-12 Physical Composite Scores were calculated and compared with US-normed scores published in the SF-12 manuals (John E. Ware et al., 1998; J. E. Ware et al., 2002). Because this study used version 1, scores are most comparable to the SF-12 version 1 norms. We include comparison of the clergy scores to US-normed scores for the SF-12 version 2 because those norms are more recent and stratify age and gender together. The differences between versions of the SF-12 are small, with minor changes in wording and the winnowing of six response options to five on some items. Mean difference tests were conducted for clergy means versus US means.

Results

Table 1 depicts the demographic characteristics of the clergy sample which provided data via web or paper surveys. The sample is 76.5% male, 91.1% White, highly-educated with 77.8% holding either a masters or doctoral degree, and older (mean age=52.3).

Table 2 displays physical health functioning scores of the clergy sample compared with the available US norms for the SF-12 by age and gender. For 7 of the 11 comparisons, clergy reported significantly better physical health functioning. The largest differences occurred in the age group 55-64. Using version 1 of the SF-12, clergy scores were 3.60 higher than those of their US peers. Using version 2 of the SF-12, clergy scores for men were 3.14 higher, and for women were 4.28 higher, than their US peers. Higher scores indicate better physical health functioning.

Discussion

This study is the first to rigorously compare clergy health functioning status to that of their population counterparts. We used the same data from a census of United Methodist clergy, in which clergy reported high rates of obesity, arthritis, diabetes, asthma, and high blood pressure. Thus, one would expect these clergy to have worse physical health functioning than their general population counterparts. However, despite simultaneously reporting higher rates of chronic disease, clergy reported better physical health functioning than their US peers.

One might wonder whether SF-12 scores that are 2 to 4 points higher indicate an experience of better health functioning, as opposed to being statistically significant but not clinically meaningful. Hundreds of studies have utilized the SF-12 and have found differences in physical health functioning by health condition. For example, studies have found that those with musculoskeletal complaints report physical health functioning scores that are 2.0 points lower than those that do not have these difficulties (Ware, 2002). Similarly, asthmatic groups and those with irritable bowel syndrome both average 2.7 points lower than those who do suffer from these conditions (Ware, 2002). An example of a health condition averaging 4.2 points lower than people who do not have the condition is osteoarthritis (Ware, 2002). Thus, these higher physical health functioning scores reported by clergy likely indicate less disruption of work and socialization activities and the ability to care for themselves, despite reports of higher than average prevalence rates of chronic disease.

We can only speculate as to why this is. First, it may be the work itself. It is possible that the sedentary nature of clergy tasks mitigates the impact on physical health functioning in a way that is not experienced by gender- and age-matched peers who have lower rates of chronic disease but more physically demanding vocations. If clergy had to dig ditches or mine coal, their responses may indicate worse physical health functioning. Likewise, it is possible that sedentary work activities allow clergy to focus on their spiritual well-being. Such focus may actually lead clergy to ignore physical health limitations, which may be of lesser concern to them, as well.

Alternatively, it may be that the calling to their vocation is so strong that clergy overcome physical impediments to answer their call, and that their physical functioning scores reflect an extreme dedication to work. In other words, clergy may persist in their work activities even in the face of arthritic pain or exhaustion from diabetes and high blood pressure. This explanation is consistent with literature indicating that clergy put the needs of others before their own.(Proeschold-Bell et al., 2009) In fact, this self-sacrificing mindset may play a role in causing poor clergy health in the first place. In their work to serve God, clergy may prioritize the daily needs and also crises of their congregants, and fail to engage in exercise and healthy eating habits. Clergy may also postpone seeking preventative and acute health care in the process of attending to their calling. Further research in this area is needed.

Clergy may also experience better physical health functioning due to abstaining from tobacco use. In previously unreported data, a strikingly low proportion--4.2%--of United Methodist clergy in NC aged 35-64 reported current smoking, in comparison with 18.3% of North Carolinians the same age. This finding is consistent with other studies that have also documented less alcohol, tobacco, and drug use among clergy (Chatters, 2000; Ellison & Levin, 1998; Koenig, 2001). Smoking and other substance use would likely take a toll on physical health functioning.

It is also possible that the difference in physical health functioning scores could be explained by the higher than average levels of education and income that clergy possess. Both income and education are related to better health (Pappas, Queen, Hadden, & Fisher, 1993). Because we were comparing to national SF-12 norm data, we were not able to adjust for education and income. This lack of adjustment was also true of the Proeschold-Bell and LeGrand (2010) study, however, in which they found worse rates of chronic disease. One might expect even greater disparities in chronic disease if these factors were taken into account.

One strength of this study is the sample itself. All currently-serving UMC clergy in NC were offered participation, and 95% completed the survey. However, an important limitation of this study is that its sample is limited to UMC clergy in NC. One must be cautious in generalizing to clergy of other faiths, denominations, and geographic locations. Future health studies among clergy of other faiths and denominations are needed. Another limitation is the use of version 1 of the SF-12, on which the national norm data are 14 years older than our data. Given the increase in chronic disease rates in the last two decades, however, one would expect the general population to indicate worse physical health functioning over time, thereby increasing the gap between clergy and the general population. Unfortunately, age and gender stratified norms are not available for version 1. Based on version 2 norms, it appears that older clergy, ages 55-64, experience the greatest benefit in physical health functioning, despite the highest rates of chronic disease in the Proeschold-Bell and LeGrand article (2010). Additional understanding of clergy health by age group is needed.

In conclusion, this study suggests that, despite an urgent need for health interventions for clergy, it may be difficult to entice clergy to participate in health interventions given their optimistic view of their physical health functioning. Increased understanding of the discrepancy between high clergy disease rates and better perceived clergy physical health functioning is needed. Such understanding may assist in targeting health interventions to clergy while providing insight into how deeply religious individuals attend to their physical health, or, indeed, function in spite of experiencing chronic diseases.

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Table 1. Participant demographic characteristics

		% (n)
Gender (n=1074)		
Female		23.5% (252)
Male		76.5% (822)
Race / Ethnicity (n=1047)		
White		91.1% (954)
African-American/Black		6.5% (68)
American Indian		0.3% (3)
Latino/Hispanic		1.2% (13)
Asian-American		1.2% (12)
Other		1.0% (10)
Insured with any public or private insurance (n=1073)		
Yes		99.1% (1063)
No		.9% (10)
Age (n= 1072; Mean=52.3 yrs; SD=10.9 yrs)		
23-34		7.4% (79)
35-44		14.7% (158)
45-54		32.4% (347)
55-64		35.5% (380)
65-74		8.0% (86)
75-90		2.1% (22)
Education (n=1074)		
High school graduate or less		2.3% (25)
Some college		8.4% (90)
College graduate		11.5% (123)
Master's degree		65.6% (705)
Doctoral degree		12.2% (131)
Marital status (n=1073)		
Currently married		87.3% (937)
Not currently married		12.7% (136)
Ministry salary (964)	Mean	$43,800
	SD	$26,820
	Median	$40,010
	Range	$0 - $110,760

Table 2. Comparison of Clergy and US norm data for the SF-12 Physical Composite Score by age and gender

Gender and age group	Physical Composite Score			
	Clergy SF-12v1, 2008 (SD, n)	U.S. norms, SF-12v1, 1994 (SD, n)	U.S. norms, SF-12v2, 1998 (SD, n)	Difference (95% CI)
Males and females combined				
35-44	53.74 (6.74, 158)	52.18 (7.30, 487)	--	1.56 (.33, 2.79)
45-54	51.78 (6.74, 158)	49.71 (9.50, 324)	--	2.07 (.73, 3.41)
55-64	50.15 (9.05, 379)	46.55 (10.63, 250)	--	3.60 (2.00, 5.20)
Males, 18-75+	51.71 (8.35, 820)	51.22 (8.80, 997)	--	.49 (-.30, 1.28)
Females, 18-75+	50.22 (9.36, 251)	49.11 (9.92, 1332)	--	1.11 (-.16, 2.38)
Males				
35-44	53.93 (6.23, 116)	--	52.76 (7.74, 718)	.91 (-.19, 2.01)
45-54	52.32 (7.68, 250)	--	50.65 (10.29, 560)	1.62 (.51, 2.73)
55-64	50.71 (8.72, 304)	--	47.57 (9.91, 408)	2.94 (1.65, 4.23)
Females				
35-44	53.21 (8.04, 42)	--	51.26 (8.61, 839)	1.95 (-.55, 4.45)
45-54	50.37 (8.86, 95)	--	46.28 (8.68, 887)	4.09 (2.22, 5.96)
55-64	47.88 (10.03, 75)	--	43.60 (9.26, 663)	4.28 (1.90, 6.66)

Note: U.S. norms for the SF-12 version 2 are from Ware et al., 2002.(J. E. Ware et al., 2002) U.S. norms for the SF-12 version 1 are from Ware et al., 1998.(John E. Ware et al., 1998)

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