ABSTRACT

Religious and Spiritual Struggles and Health Changes: Consequences of the Dark Side of Religion

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The purpose of this work is to examine the relationships between religious and spiritual struggles (r/s struggles) and health. There is research that finds r/s struggles are associated with a variety of health outcomes; however, this work has not examined changes in health over time. I examine the relationship between r/s struggles and health using improved methods by exploring the association longitudinally. Ultimately, longitudinal association provides greater justification for causation between r/s struggles and health. Ordered Logistic regression techniques were implemented to examine the relationship health and r/s struggles. To test my hypotheses, the Portraits of American Life Survey (PALS) dataset is analyzed (N=1314). Results show a modest relationship between self-rated health and r/s struggles, a strong relationship between depression and r/s struggles, and a strong relationship between purpose and r/s struggles. This work provides a greater understanding to factors influencing health, and stronger support for religion as a potential cause of health.

Religious and Spiritual Struggles and Health Changes:
Consequences of the Dark Side of Religion

by

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A Thesis

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CHAPTER ONE

Introduction

There is an abundant amount of research that focuses on religion and spirituality in relation to health. A great deal of research on religion shows that religion is associated with desirable health outcomes. However, there is less work on the deleterious effects religion and spirituality can have on the lives of individuals. Research on the harmful effects of religion and spirituality has grown in recent years with work examining aspects of religion and spirituality such as doubts about one's faith, being angry at God, feelings of abandonment, and how these dispositions have a negative relationship to health. Much of this work however, has used small or cross-sectional datasets to examine these relationships, and changes over time have not been given adequate attention. While a great deal of research examines the relationship between religion, spirituality, and measures of health, one important issue that remains unresolved is: what happens when we examine the links between r/s struggles and health, and how they change overtime.

The current study addresses the gaps in the literature discussed above by outlining major theoretical arguments that link r/s struggles and health. Further, this study tests relevant hypotheses using the Portraits of American Life Survey (P.A.L.S.), a nationally representative dataset from a large sample of U.S. adults. Results are discussed in terms of their implications on future work regarding religion and health.

CHAPTER TWO

Literature Review

Religion, Spirituality, Health, and Measurement

Research as foundational as work from Emile Durkheim finds that religion has a beneficial effect on human life and health, in part because it promotes well-being through its regulation on behavior and integrates individuals into social circles of caring people (Durkheim [1915] 1995). Since the influential work of Durkheim, substantial literature has produced findings which show a positive relationship between various health measures and religion. One way religion influences health, is its positive association with subjective, self-rated health measures (Ferraro & Albrecht-Jensen, 1991; Idler, 1995; Levin & Markides, 1986). Further, research shows that religious individuals are less likely than non-religious to experience depressive symptoms and disorders (Michael McCullough and Larson 1999; Smith, McCullough, and Poll 2003). Moreover, religious individuals have greater hope, optimism, and a greater sense of purpose in life (Idler & Kasl, 1997; Koenig & Larson, 2001, p. 71; Ringdal, 1996; Sethi & Seligman, 1994; Sethi & Seligman, 1993, p. 315).

Religion is a multifaceted term and can be measured in a variety of ways. To date, many studies examine religion and its relationship to health, with religion being studied from a range of measures, such as prayer, biblical literacy, church attendance, religious tradition and more. Bergin (1983) addresses religion as a multidimensional phenomenon in his meta-analysis saying “Better specification of concepts and methods of measuring

religiosity are alleviating this problem, which suggests that ambiguous results reflect a multi-dimensional phenomenon that has mixed positive and negative aspects . . . using specificity promises clearer and more powerful results" (Bergin, 1983, p. 170). Since Bergin's claim, research has addressed the multidimensionality of religiosity and has examined religion-specific variables. Furthermore, when religion is examined with various religion-specific variables, differing associations begin to appear.

Religion does not promote positive outcomes exclusively. As discussed above, religion can be addressed in a number of ways and depending on how religion is examined, determines the outcome of various relationships. For example, one specific distinction that must be made when examining religion is the difference between religion and spirituality, and more specifically, religious and spiritual struggles, or r/s struggles. Spiritual struggles have been defined as ". . . efforts to conserve or transform a spirituality that has been threatened or harmed" (Ellison & Lee, 2009, p. 502; Pargament, Magyar-Russell, & Murray-Swank, 2005, p. 247). Religious struggles, or struggles which center on religion, are struggles in which ". . . beliefs, practices, relationships or experiences seen as sacred are associated with a shared (and sometimes institutional) system"(Paloutzian & Park, 2013, p. 380). Much research centers its focus on both religious and spiritual struggles, however the distinction is imperative because some individuals maintain spirituality, without religion. Drawing from both spiritual and religious struggles incorporates more individuals from a variety of areas, and allows for a thorough analysis. I examine three religious and spiritual struggles to conduct my analysis: a punishing God, being angry with God, and having religious doubts.

Due to the wide array of specific measures that can be employed when studying religion and spirituality, both positive and negative associations on health appear in the research. The current study attempts to make the claim that there is a connection between religion and health by taking a closer look at the following three dependent variables regarding health: mental health, specifically depression; self-rated health; and a sense of purpose in life.

Health and the Link to Religion and Spirituality

A prominent work that addresses religion's positive and negative associations with mental health is a meta-analysis of 49 studies examining both positive and negative religious coping strategies. Results from the meta-analysis illustrate positive and negative forms of religious coping are associated with positive and negative psychological adjustments to stress, respectfully (Ano & Vasconcelles, 2005). Also, a meta-analysis examining religious involvement across 147 various investigations found that being involved in a religious group is associated with fewer depressive symptoms (Smith, McCullough, and Poll 2003:614, 626). Other research addressing religious involvement, presents that individuals with greater general and organizational religious involvement, intrinsic religious motivation, and religious salience are less likely to experience depression (McCullough and Larson 1999:126). Conclusively, results from these studies show that when various religious measures are used, religion appears to have both positive and negative associations with mental health.

In regards to self-rated health, previous work finds that religion shares a relationship to physical health or self-rated health. Cross-sectional work finds that negative religious coping is associated with lower levels of well-being (Pargament,

Tarakeshwar, Ellison, & Wulff, 2001). Other evidence from Ferraro and Albert-Jenson (1991) examines religious practice and affiliation across two-waves of data, set three years apart. Their longitudinal findings indicate that religious practice is associated with better health and that a liberal affiliation improves health more than a conservative affiliation. Rather than examining affiliation and other similar measures, Idler (1995) examines religion with a cross-sectional approach, from an individual perspective, investigating the "religious self." Idler (1995) finds that religion improves self-ratings of health because when individuals indicate a stronger religious identity and better self-rating on health, their sense of physical health is deemphasized (Idler, 1995, p. 687). There is evidence to support both claims that religion can hinder or improve assessments of well-being.

Religion has not only been examined in relation to mental and physical health, using a variety of measures, but it has also been examined in relationship to an individual's sense of future and purpose in life. Research from Exline and Bright (2011) finds that religion can lead to problems in the work place because employees will sometimes struggle with decisions about the expression of their beliefs and deal with interpersonal religious disagreements regarding beliefs and values. Facing religious struggles in the workplace can lead to further problems where individuals begin to question their purpose, resulting in higher levels of stress. Although religious struggles in the workplace can lead individuals to question their purpose, it was also found to serve as a catalyst for positive growth and change (Exline & Bright, 2011). Other research from Ardelt (2003) uses a cross-sectional approach to explain why some studies produce contradictory or inconclusive results when examining purpose in life, well-being, and

religion. Ardelt (2003) says that both extrinsic and intrinsic religious measures are not associated with well-being, rather, having a purpose in life, which religion sometimes promotes, improves well-being. Ultimately, the relationship between religion and purpose in life must be explored further in order to understand the impacts they can have on one another.

Religious and Spiritual Struggles and the Connection to Health

As discussed above, one way to explore the relationship between religion and health is to look at religious and spiritual struggles. In order to address r/s struggles I use the dark side of religion as my theoretical basis. Previous studies have examined the r/s struggles addressed in the dark side of religion, and shown that r/s struggles are often associated with negative health outcomes. Specifically, cross-sectional research has shown persons experiencing religious and spiritual struggles may believe that God is punishing them which leads to frustrations towards God (Pargament et al. 1998) and feeling abandoned by God (Julie Juola Exline, Yali, & Lobel, 1999). Furthermore, individuals with doubts experience spiritual and religious struggles (Ellison & Lee, 2009; Julie Juola Exline, 2002; Hunsberger, Pratt, & Pancer, 2002; Krause & Ellison, 2009). Religious and spiritual struggles play an integral role in individual's lives and when more importance is placed on religion and spirituality, struggles make a greater impact (Krause and Wulff 2004). Religion is vital to health, so struggles with religion can also lead to struggles with health (Ano & Vasconcelles, 2005). Overall then, the literature suggests that r/s struggles contain specific measures which often contribute to negative health outcomes.

The dark side of religion addresses the r/s struggle of a troubled relationship with God. When negative life events occur that cannot be explained, people often attribute the event to their relationship with God. For example, research using a longitudinal approach shows that parents that have lost a child from sudden infant death syndrome (SIDS) frequently report the belief that God is the reason for their loss (Downey, Silver, and Wortman 1990). These individuals tend to believe in a punishing God, and this belief is further associated with less favorable health outcomes. Specifically, research has shown that attributing events to a punishing God are tied to lower levels of self-esteem and greater anxiety (Pargament et al. 2003:1343). It has also been reported cross-sectionally that negative physical health and greater emotional distress is significantly associated with an appraisal of a punishing God (Pargament, Koenig, & Perez, 2000, p. 534). These negative outcomes are likely due to individuals responding with feelings of anger towards God (Pargament et al. 1998). Moreover, both anger towards God and a belief in a punishing God are significantly correlated with increased depression (Shah, Snow, Kunik 2002).

Belief in a punishing God and feeling anger towards God may lead to feeling disconnected from God, and the belief that one is disconnected from God has a negative relationship on health. Feeling at odds with God or one's religious system in general is correlated with an inability to resolve negative life experiences (Pargament et al. 2003:1345). Also, cross-sectional research which explores the dark side of religion finds that feeling disconnected from God is associated with worse overall subjective well-being (Murray & Ciarrocchi, 2007). Each religious disposition discussed thus far: feeling as though God is punishing the believer, being angry towards God, and feeling as alienated

toward God has been discussed in the literature as troubled relationships with God (Ellison & Lee, 2009).

Troubled relationships with God, or believing in a punishing god are not the only types of r/s struggle associated with negative health. Another type of r/s struggle associated with deleterious health outcomes is religious doubt (Ellison & Lee, 2009; Julie Juola Exline, 2002; Hunsberger et al., 2002; Krause & Ellison, 2009). The link between religious doubt and a decrease in well-being is direct and substantial. Cross-sectional research finds that when individuals have less religious certainty, they report lower levels of life satisfaction, less personal happiness, and more negative psychosocial consequences of traumatic life events (Ellison, 1991). Subsequent cross-sectional research reveals that the link between spiritual struggle with psychological distress and diminished well-being is significant, and is greater for younger people than older persons (Galek, Krause, Ellison, Kudler, & Flannelly, 2008; Krause, Ingersoll-Dayton, Ellison, & Wulff, 1999). However, age is not the only variable which influences the magnitude of deleterious health outcomes from religious doubt. Cross-sectional research finds that people with more religious doubts are less satisfied with their health, experience greater levels of depression, and that these effects are more prevalent amongst individuals who occupy leadership roles within their religious groups (Krause and Wulff 2004). Recent work takes a longitudinal approach when examining religious doubt. Seeking spiritual growth when facing religious doubt was not shown to produce any significant effects on health outcomes, but suppressing religious doubt was associated with less favorable health outcomes (Krause & Ellison, 2009). Undoubtedly, it is safe to assume that religious doubt shares a relationship with less favorable health outcomes.

The final type of r/s struggle discussed in the dark side of religion is interpersonal religious struggles, or being intergraded into a religious community. Furthermore, attending religious services has been shown to be associated feelings of integration into a religious community (Rodriguez & Ouellette, 2000; Strawbridge, Shema, Cohen, & Kaplan, 2001; Welch & Baltzell, 1984). Research that has examined church attendance and geographic mobility found that attendance was significantly associated to ties within a church and feelings of belonging (Welch & Baltzell, 1984). Subsequent cross-sectional research examining Hispanic Seventh-day Adventist found that religious commitment is related to the quality of the relationships these individuals experienced in their religious group (Hernandez & Dudley, 1990, 165-166). Recent longitudinal research from Strawbridge et al. (2001) found that weekly church attendance helped to increase social relationships. Moreover, there has been research done to explore the acceptance of homosexuals into religious communities. Rodriguez and Ouellette (2000) examined homosexual Christians and found that when these individuals attended more worship services, it was related to feelings of integration, and diminished feeling of interpersonal struggle. Other cross-sectional research examining gay and lesbian individuals found that those who attended services less often, experienced greater identity conflict and reported significantly less social support from their religious group (Hamblin & Gross, 2011). Undoubtedly, there is a great deal of research which supports using church attendance as a proxy to examine interpersonal religious relationships.

Theory and Hypothesis

A great deal of research depicts that individuals facing various r/s struggles do not have positive health outcomes. Rather, r/s struggles are associated with negative health

outcomes such as increased rates of depression or depressive symptoms, lower rates of self-rated health, a sense of purpose in life, and less optimism about the future. Furthermore, recent work focusing on the idea of the dark side of religion highlights three types of r/s struggles: 1) divine or troubled relationships with God, 2) interpersonal or negative encounters with other religious adherents of the same faith, and 3) religious doubting (Ellison & Lee, 2009, p. 502). The current study highlights the dark side of religion as its theoretical basis for examining r/s struggles by examining three types of r/s struggles namely:1) a punishing god, 2) being angry at god, and 3) having religious doubts, and how they are connected to health. Ellison and Lee (2009) also discuss interpersonal r/s struggles. Statistical justification did not allow for the incorporation of interpersonal struggles into the r/s struggles measure. Although interpersonal struggles were not incorporated into the r/s struggles measure, previous research shows that interpersonal religious struggles share a strong association with religious attendance. Therefore, interposal struggles are examined separately by controlling for church attendance.

Research has found that spiritual and religious struggles often influence health negatively. However, most research utilizes cross-sectional data. To date, there is little research examining religious struggles and health longitudinally. Moreover, the research which incorporates both cross-sectional and longitudinal analyses produces contradicting findings (Idler, 1995). Because the relationship between r/s struggles and health changes overtime, longitudinal examination is demanded. My research uses longitudinal analysis to address health changes and their association with r/s struggles.

I hypothesize that experiencing r/s struggles at baseline (i.e., feeling like God is punishing you, being angry at God, feeling like God has abandoned you, and having doubts about your religious faith) will be associated with decreases in self-rated health, increases in depressive symptoms, and decreases in a sense of purpose in life and optimism about the future across the two waves of data.

CHAPTER THREE

Methods

Data

To test the hypotheses, data from the Portraits of American Life Study (PALS) merged dataset from the years 2006-2012 was analyzed. PALS is an extensive national-level panel study focused on religion in the U.S., with a particular focus on capturing ethnic and racial diversity. PALS seeks to understand the impact of religion in everyday life, and ultimately the connections between religious change and other forms of change in individuals and families over the course of their lives and across generations. It includes substantive modules on family relationships, deviance, health, civic participation and volunteering, moral and social attitudes, and race and ethnic issues. PALS currently includes two waves, collected in 2006 and 2012. The merged file contains only the respondents who were in both waves (N=1,314) with 1789 variables. Because PALS focuses on religion with substantive modules on health and asks the same questions across time, it was the perfect dataset to conduct the current study.

In order to compensate for known biases, such as non-response, which can vary for different subgroups of the population, the sample data are weighted. The demographic weighting parameters are derived from a special analysis of the Census Bureau's American Community Survey, 2005 and 2011. These analyses produced population parameters for the demographic characteristics of adults 18 or older, which were then compared with the sample characteristics to construct sample weights. The longitudinal

weights are adjusted to account for non-response in Wave 2. The "raking" technique was used, meaning it adjusts the weights to match the population proportions through an iterative process (i.e., it performs the same set of steps multiple times).

The dependent variables self-rated health, depression, and purpose in life were measured at both waves. Wave II measures are utilized as dependent variables, and the measures from wave I are implemented as controls in their respective models so that changes in health are modeled. Self-rated health is a single-item measure in waves I and II. Respondents were asked to categorize their level of health. Respondents were asked: "Would you say your health in general is 5=excellent, 4=very 3=good, 2=fair, or 1=poor?" Better health was coded with higher point values, with each category increasing numerically by one point in the coding scheme.

The depression measures consist of three questions in each wave. Responses to each question that make up the depression measures are coded 0-1, added up to create a count measure, and then divided by three. This division provides a count measure for depression with possible scores ranging from 0-1. Respondents were asked: "For the next few questions, please think about the past 12 months. In the past 12 months, have you ever had two weeks or longer when nearly every day you felt: (a) "sad, empty, or depressed for most of the day;" (b) "worthless;" and (c) "hopeless?" When respondents answered yes, they were coded as 1, no responses were coded 0.

Subjective purpose in life is measured as a two-item mean index. Responses to each question that make up the purpose measures are coded 1-5, with the responses: "1=strongly agree, 2=somewhat agree, 3=neither agree nor disagree, 4=somewhat disagree, and 5=disagree." Responses were reverse coded, so that a greater level of

purpose was identified by a higher count score. Respondents were asked: (a) "I believe there is some real purpose for my life." and (b) "I feel good about my future." These two measures were justifiably combined into one measure and had a standardized alpha score of .607.

Independent Variables

Religious and spiritual struggles (r/s struggles) is the key independent measure. Variables used to create the r/s struggles variable come from wave I exclusively. Examining r/s struggles from wave I depicts associations between r/s struggles and changes in health across time. R/s struggles is measured with a four-item mean index. Responses to each question that make up the r/s struggles measure are coded 1-5, with the responses: "1=never, 2=rarely, 3 sometimes, 4=very often, 5=every day or almost every day." Respondents were asked (a) "In the last few years, how often have you felt that God is punishing you for your sins or lack of spirituality?" (b) "In the last three years, how often have you felt angry at God?" (c) "In the last three years, how often have you wondered whether God had abandoned you?" and (d) "In the last three years, how often have you had doubts about your faith?" Higher scores from the r/s struggles variable represents greater levels of struggle. These four measures were combined into one measure and had a standardized alpha score of .17. Although combining the four measures resulted in a low alpha score, the scores these measures received from the factor pattern procedure were strong. The factor pattern procedure shows the least common factor score is .678 and the highest factor score of .841 when these four variables are ran. It was not statistically justifiable to include interpersonal religious struggles into the r/s struggles measure from the alpha score, nor from the scores of the

factor pattern procedure, therefore interpersonal religious struggles were measured separately by measuring religious attendance.

Religious attendance is a single-item measure coded 1-8 which asks "How often do you attend worship services, not including weddings or funerals?" Responses range from "1= Never, 2= Once or twice a year, 3=Several times a year (but less than once a month), 4=once a month, 5= two or three times a month, 6=once a week, 7= twice a week, 8=three times a week or more." Prayer was also included and is a single-item measure coded 1-9 which asks "In the past 12 months, how often have you typically prayed, not including before meals and at religious services?" Responses range from: "1= Never, 2= A few times, 3=once a month, 4= two or three times a month, 5=once a week, 6= a few times a week, 7=once a day, 8=two-three times a day, 9=more than three times a day."

The stressful life events variable is constructed by combining 11 measures from the original dataset. The questions are a series of dummy variables. The questions cover a wide array of areas where stress can occur in individuals lives. The questions that were used to construct the stressful life events measure are as follows (a) "In the past three years, have you had any of the following life events or problems happened to you: You yourself suffered a serious illness, injury, or an assault?" (b) "In the past three years, have you had any of the following life events or problems happened to you: A serious illness, injury or assault happened to a close relative or spouse/partner?" (c) "In the past three years, have you had any of the following life events or problems happened to you: Your parent, child, or spouse died?" (d) "In the past three years, have you had any of the following life events or problems happened to you: A close family friend or another

relative (aunt, cousin, grandparent) died?" (e) "In the past three years, have you had any of the following life events or problems happened to you: You had a separation due to marital difficulties?" (f) "In the past three years, have you had any of the following life events or problems happened to you: You broke off a steady, romantic relationship?" (g) "In the past three years, have you had any of the following life events or problems happened to you: You had a serious problem with a close friend, neighbor, or relative?" (h) "In the past three years, have you had any of the following life events or problems happened to you: You had a serious problem with someone in your congregation?" (i) "In the past three years, have you had any of the following life events or problems happened to you: You became unemployed or you were seeking work unsuccessfully for more than one month?" (j) "In the past three years, have you had any of the following life events or problems happened to you: You were fired from your job?" (l) "In the past three years, have you had any of the following life events or problems happened to you: You had a major financial crisis?" (m) "In the past three years, have you had any of the following life events or problems happened to you: You had problems with the police or you had to make a court appearance?" Responses were coded where yes=1 and no=0, so that more stressful life events resulted in higher stress scores. The combination of these measures into one single, unified measure showed resulted with a standardized alpha score of .544.

Other control measures were incorporated. Age is a continuous variable which asks "Respondent's age based on birth year." Gender was utilized from the question which asks "Respondent's gender." Respondents gender was coded as a dummy variable, where females=1 and males=0. Race was coded into dummy variables for Black, Asian, and Hispanic, and the remaining respondents reported being White. Education is a single-

item measure which asks “What is the highest level of schooling you have completed, or what is the highest degree that you have earned?” Income is a single item measure coded 1-19 which asks “Total household income.” Each control measure was included in the models to adjust for factors that may be related to independent and dependent variables employed.

CHAPTER FOUR

Results

The findings of the study are presented below in five separate sections. The descriptive statistics are presented first, followed by correlations which shows the relationships of each variable, followed by three sections where health measures and their relationship to r/s struggles are examined.

Means and standard deviations of all variables are presented in Table 1. Several patterns are noteworthy. We can see that levels of depression from the sample are low, with the mean less than .2 on a scale ranging from 0-1. Unlike depression, when addressing the other outcome variables, higher numbers indicate positive health outcomes. Levels of self-rated health average at 3.38 and 3.56 on a scale of 1-5. Further, levels of belief in a future purpose were high with a mean of 4.36 and 4.51 on a scale of 1-5. Our controls tell us that our sample had more females than males, with 62 % being female. Also, our sample had a specific concentration on capturing responses from racial minority groups, with (20%) Black, (16%) Hispanic, and (8%) Asian. Stressful life events were also controlled for, with a low average of 2.56 on a scale ranging from 1-10. The key dependent variable was the r/s struggles scale, ranging from 1-5, r/s struggles had a mean of 1.70.

Table 1
Descriptive Statistics on all Variables

Variable	Mean	SD	Min	Max
Self-rated health wave 2	3.38	1.07	1	5
Self-rated health wave 1	3.56	1.11	1	5
Depression wave 2	0.17	-	0	1
Depression wave 1	0.19	-	0	1
Belief of purpose wave 2	4.36	0.81	1	5
Belief of purpose wave 1	4.51	0.67	1	5
Religious Struggle	1.70	0.67	1	5
Age	49.44	15.24	24	80
Female	0.62	-	0	1
Black	0.2	-	0	1
Hispanic	0.16	-	0	1
Asian	.080	-	0	1
Education	4.71	2.45	1	12
Household Income	9.12	4.64	1	19
Attend Worship	3.71	2.23	1	8
Prayer	4.97	2.71	1	9
Stressful life events wave 1	2.56	1.88	0	10

Table 2 addresses the correlations between the variables. Several relationships are worth noting. First, there is a strong correlation between purpose in life and depression. This makes sense because when individuals do not seem to have a purpose it could lead to depressive thoughts and feelings. There is also a strong correlation between r/s struggle and depression. This relationship also makes sense because when persons are depressed it could lead to feelings of depression religiously and spiritually, which could also result in religious and spiritual struggles. Where there are lower levels of correlation, it suggests that biased estimates, multicollinearity, and other statistical and interpretive problems are minor. Furthermore, our levels of correlation suggest that our dependent measures are not redundant nor overlapping, and examine various facets of health, unlikely to emanate from a single, causal source. The highest correlations present are measures which ask the same questions across time, from time 1 to time 2. The strength of the correlations

measuring the same phenomena across time is moderate, suggesting that individuals have significant changes across time.

Table 2
Correlations among religious variables

Keys: v1 Self-rated health wave 2, v2 Self-rated health wave 1, v3 Depression wave 2, v4 Depression wave 1, v5 Cigarettes per day wave 2, v6 Cigarettes per day wave 1, v7 Drinks per day wave 2, v8 Drinks per day wave 1, v9 Belief there is purpose in life wave 2, v10 Belief there is purpose in life wave 1, v11 Religious Struggle

Variables	v1	v2	v3	v4	v5	v6	v7	v8	v9	v10
v1	-									
v2	0.59	-								
v3	-.23	-.18	-							
v4	-.23	-.25	.39	-						
v5	-.12	-.14	.07	.07	-					
v6	-.14	-.18	.12	.16	.72	-				
v7	.14	.15	.01	-.02	.05	.09	-			
v8	.08	.07	.03	.01	.14	.15	.57	-		
v9	.24	.16	-.33	-.19	-.02	-.05	-.09	-.07	-	
v10	.16	.28	-.24	-.24	-0.08	-.12	-.06	.07	.40	-
v11	-.09	-.11	.24	.26	.08	.10	.08	.04	-.16	-.18

Table 3 contains findings from the analyses that were conducted to see if r/s struggles are associated with self-rated health. Because the wave I measure of self-rated health is included as an independent variable in this model, this analysis shows the effects of other wave 1 independent variables on change in self-rated health over time. Three significant findings emerged from the estimation of Table 3. When examining our key dependent variable, we find that for every unit increase in religious struggle, self-rated health decreases by .19 units, but this relationship is only marginally significant. Age and education also appear significant. For every unit increase in age, self-rated health decreases by .19 units, suggesting that as individuals' age, their self-ratings of health drop. The data suggests that education has the opposite effect from age and religious struggles when examining self-rated health. For every unit increase in education, self-

rated health increases by .103 units. Ultimately the hypothesis is not supported here, it is only marginally significant, however it is worth noting.

Table 3
Estimated Effects of Religious Variables and Covariates on Self-Rated Health Wave 2

Variable	b	se
Self-rated health wave 1	1.127***	0.073
R/S Struggle	-0.191+	0.101
Age	-0.196***	0.005
Female	0.165	0.134
Black	0.012	0.171
Hispanic	-0.282	0.189
Asian	-0.223	0.231
Education	0.103***	0.029
Household Income	0.029	0.018
Attend Worship	0.014	0.033
Prayer	0.008	0.008
Stressful life events wave 1	-0.065	-.065

Notes:+p<.1;*p<.05;**p<.01;***p<.001; N=896

Table 4 contains findings from the analyses that were conducted to examine if religious struggles that individuals faced are associated with levels of depression. This model includes a measure of depression from wave I as an independent variable, and shows the effects of r/s struggles and the association with a change in depression overtime alongside other independent measures. Four significant findings emerged from the estimation of Table 4. When examining our key dependent variable, we find that for every unit increase in religious struggle, depression increases by .44 units. Ultimately, levels of depression are associated with r/s struggles and this relationship is highly significant.

Table 4
Estimated Effects of Religious Variables and Covariates on Depression Wave 2

Variable	b	se
Depression wave 1	1.797***	0.228
R/S Struggle	0.444***	0.124
Age	-0.006	0.006
Female	0.026	0.178
Black	-0.014	0.235
Hispanic	0.259	0.300
Asian	0.770**	0.296
Education	-0.029	0.039
Household Income	-0.017	0.022
Attend Worship	-0.137***	0.043
Prayer	-0.001	0.040
Stressful life events wave 1	0.142**	0.047

Notes:+p<.1;*p<.05;**p<.01;***p<.001; N=895

Table 5 contains findings from the analyses that examine religious struggles and an association with subjective belief of purpose in life. The wave I measure of purpose in life is included as an independent variable in this model. The analysis from table 5 shows the effects of the change in purpose in life overtime and its association to r/s spiritual struggles alongside other independent measures. Five significant findings emerged from the estimation of Table 5. When examining our key dependent variable, we find that for every unit increase in religious struggle, purpose in life decreases by .62 units. Ultimately, the hypothesis is supported and there is a strong relationship between r/s struggles and belief of purpose in life.

Table 5
Estimated Effects of Religious Variables and Covariates on Belief of Purpose in Life Wave 2

Variable	b	se
Purpose in life wave 1	0.412***	0.033
R/S Struggle	-0.615**	0.238
Age	-0.005	0.011
Female	0.155	0.323
Black	1.150**	0.417
Hispanic	-0.183	0.439
Asian	-1.098**	0.571
Education	0.009	0.072
Household Income	-0.058	0.042
Attend Worship	0.281***	.080
Prayer	0.216**	0.071
Stressful life events wave 1	-0.160	0.088

Notes:+p<.1;*p<.05;**p<.01;***p<.001; N=1155

CHAPTER FIVE

Discussion

The purpose of this study was to explore the relationship between spiritual struggles self-rated health, depression, and a sense of purpose in life. I controlled for age, education, household income, individuals from a variety of ethnic backgrounds, stressful life events, and situational factors related to personal and communal religiosity and spirituality. To my knowledge, the current study is the first to document how r/s struggles impact measures of self-rated health, depression, and a sense of purpose longitudinally. Furthermore, the findings corroborate or extend core tenants of research on the dark side of religion. With regard to perceptions of struggles with the divine or God, interpersonal or social struggles in religious settings, or religious doubting, I find associations with self-rated health, depression and a sense of purpose in life.

There is a burgeoning body of research which shows the positive impacts of religion on health, such as its positive influence on self-rated health (Ferraro & Albrecht-Jensen, 1991; Idler, 1995; Levin & Markides, 1986), religions inverse relationship to depression (McCullough and Larson 1999; Smith, McCullough, and Poll 2003), and its positive connection to optimism and sense of purpose in life (Ardelt 2003; Idler and Kasl 1997; Koenig and Larson 2001:71; Ringdal 1996; Sethi and Seligman 1993:315; Sethi and Seligman 1994). However, fewer studies address religious or spiritual struggles and the negative relationship they have with health. Some studies examine emotional health and its relationship to spiritual struggles while finding a significant association (Exline et al. 1999; Murray and Ciarrocchi 2007; Pargament et al. 2000; Pargament et al. 2003;

Shah, Snow, and Kunik 2002). From the studies which have been conducted, less research examines depression specifically (Krause and Wulff 2004). Other previous research finds spiritual struggles are associated with overall subjective well-being (Ellison 1991; Murray and Ciarrocchi 2007). Finally, there is also research which suggests r/s struggles are associated with not having hope for future, or a decrease of a sense of purpose in life. (Downey, Silver, and Wortman 1990; Pargament et al. 2003:1345). The findings presented in this study are consistent with what has been reported in the literature regarding depression, self-rated health, and purpose. There is a significant relationship between r/s struggles and depression; a modest association between r/s struggles and subjective health measures; and a significant relationship between r/s struggles and purpose.

There are reasons regarding the relationships between health and r/s struggles that should be discussed. When each of the models of this study were ran without the inclusion of stressful life events as a control measure, the effects of r/s struggles on individual's health became stronger. In particular, one substantial finding is that the relationship between r/s struggles and self-rated health becomes stronger, and they share a significant relationship, when stressful life events are not controlled for. This suggests that part of the effects from the relationships of this study are due to r/s struggles arising from stressful life events that threaten religious and spiritual beliefs. My findings regarding the inclusion and removal of stressful life events is consistent with what has been discussed in the literature. One previous key finding suggests that a negative life event will occur, and an r/s struggle will follow. Examples of this phenomena can be seen in previous research which has looked at the dark side of religion (Ellison & Lee, 2009).

Previous work finds that individuals will often blame God for struggles present in their lives, thus concluding that religious struggles follow after stressful life events. More research should examine why r/s struggles are present for some individuals facing stressful life events, whereas other individuals do not struggle with religion and spirituality when faced with stress.

The policy implications of the results from this study are straightforward. Religious and spiritual struggles are an area of concern that should be addressed when individuals face an array of health problems. However, the findings from this study do not imply anything about the regulatory procedures in place to deal with health concerns this study addresses. For example, medications and counseling are often employed for concerns of depression. For medications, concerns arise about side-effects, the potential of addiction, the possibility of becoming dependent on medications, effectiveness, and the length of time concerning treatment. In regards to counseling, concerns arise regarding its effectiveness, appointment frequency, and how long it takes to complete treatment. Although both of these treatment practices attack depression, they fail to address the underlying concern that r/s struggles can have a lasting impact on depression. Furthermore, the treatment practices in place do not specifically examine the r/s struggles individuals face. Because r/s struggles play a significant role in depression, and more specifically ongoing depression, closer examination into the religious and spiritual lives of individuals facing health concerns is warranted. In sum, practices instantiated to help individuals cope with the r/s struggles could help mitigate continual health concerns.

Several limitations of this study should be noted. R/s struggles were measured as a conglomerate, rather than identifying the numerous types of r/s struggles and examining

them independently. Furthermore, the measure of r/s struggles did not address interpersonal religious struggles. The measure r/s struggles received a low alpha score but strong scores from the factor pattern procedure on every variable except interpersonal religious struggles. Therefore, it was not statistically justifiable to include interpersonal religious struggles into the r/s struggles measure. The best possible form of measurement was implemented to address religious struggles, given what the data depicted, although future studies could address better measurement procedures to examine r/s struggles

Moreover, additional waves could be implemented to cover a greater span of time. I would suggest that subsequent research following this study explores what the relationship looks like between religion, spirituality, and health, when explored across individual's life-spans. This research could explore if individuals maintain their beliefs and convictions, in the midst of continuous struggles. Research could explore the impact struggles have across individuals lives, while implementing a questionnaire that is asked once a year and discovers who remains faithful, who loses faith, who returns after losing faith, and how each position influences health.

Religion is a complex phenomenon, which has shown to provide an array of both positive and negative effects on individuals. Much of the research on health and religion has emphasized the salutary impacts of religious practices, congregational support, prayer, spiritual experiences and more. However, literature also suggests there are damaging effects as well. This study contributes to the religion health connection by augmenting existing literature in the area, focusing on a large, nationally representative sample, and exploring different areas of health. Personally, I find this research to be of particular importance and interest because it provides evidence of the ways that

subjective beliefs of the metaphysical and transcendent can permeate and influence objective reality. Empirically, it is shown time and time again that changes in religion and spirituality can transform health, and change lives. Ultimately, these changes and transformations gives undeniable credence and power to sacred that cannot be ignored. Much more work remains to be done, such as exploring the relationship of stressful life events, r/s struggles and health in greater detail. It is anticipated that future analyses will cast additional light on the complex link of the dark side of religion.

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