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Exploring the Relationship of Religiosity, Religious Support, and Social Support Among African American Women in a Physical Activity Intervention Program

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Abstract

Religious belief has been linked to a variety of positive mental and physical health outcomes. This exploratory study will address the relationship between religious involvement and social connectedness among African American women. Results from a physical activity intervention research project ($N = 465$) found that total religious support and social support were significantly negatively correlated with total religiosity, while total general social support was significantly positively correlated with total religious support. Overall, the study indicates that more research is needed on ways to encourage interaction between the positive dimensions of both religiosity and social support to bring about healthy behaviors.

Keywords

Religious social support; Physical activity; Women's health

Introduction

An increasing number of researchers point to a broad range of positive health outcomes associated with participation in religion (Koenig et al. 2012). One of the primary factors believed to mediate the health benefits of religious involvement is social support. Thus, a

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great deal of research has been done to establish a relationship between religiosity and health, with social support conceptualized as a conduit between the two (Ellison and Levin 1998; Hill and Pargament 2008; Kanu et al. 2008; Oman and Thoresen 2002). This is of particular interest among African American women who have higher rates of church attendance, along with significantly chronic conditions relative to the general US population (Eyler et al. 1999; Whitt-Glover et al. 2007). Chronic conditions, such as diabetes, are higher among African Americans, as compared to the general population. Specifically, 25 % of African Americans 65 years of age and older and 25 % of African American women over 55 years of age were diagnosed with type 2 diabetes (Flegal et al. 2012). In addition, African American women have the highest rate of being overweight or obese compared to the general population (Flegal et al. 2012; Whitt-Glover et al. 2007).

Health, religion, and social support are each multifactorial constructs that are difficult to define, and, when studied together, they raise a myriad of difficulties for researchers (Ellison and Levin 1998; Holt et al. 2013a; Levin 1994; Oman and Thoresen 2002). These challenges are further magnified by the widely held assumption that religious expression is uniform regardless of denomination, gender, age, race, and/or ethnicity (Chatters et al. 1998; Hill and Pargament 2008; Strawbridge et al. 2001). Inferences about the uniformity of religiosity as populations are particularly problematic when they lead to the application of results from research with white congregants to black churches (Caldwell et al. 1992; Ellison and Levin 1998; Hill and Pargament 2008; Kahn et al. 2002; Lincoln and Mamiya 1990). At present, data exploring the relationship between religious involvement and health in black churches is limited, inspiring a variety of researchers in the field to call for community-based, quantitative studies in black churches (Hill and Pargament 2008; Yanek et al. 2001).

If approached with clearly delineated terms and factors, research-based explorations of the function of religiosity in the black church could facilitate increased health within African American communities (Whitt-Glover and Kumanyika 2009). To this end, we will focus on religiosity and social support among African American women in black churches within established operational parameters in this study.

Religiosity in Black Churches

African American populations participate in religious communities at significantly higher rates than the general US population (Sahgal and Smith 2009) with 79 % of African Americans reporting church being “very important” in their lives, as compared with 56 % of the general population US adults. Researchers have found that high attendance rates among African American parishioners were correlated with high level of religiosity and social and religious support (Holt et al. 2009, 2013a; Lincoln and Mamiya 1990). Nevertheless, higher rates of attendance may not be related to increased religiosity and/or social/religious support (Taylor and Chatters 1988).

Oman and Thoresen (2002) posited that there are diverse definitions for spirituality and religiosity. They also argued for a standardized, operational approach for assessing religiosity. Both religiosity and spirituality are associated with a deity or holiness (Otto 1958), but these terms reference distinctly different phenomena (Oman and Thoresen 2002;

Powell et al. 2003). In addition, Hill et al. (2000) suggested that religiosity is referenced as the collective and institutionalized expressions of faith, while spirituality commonly indicates more individualized, independent forms of devotion. Thus, measuring religiosity, as a distinct construct, involved the analysis of an individual's self-reported participation in communal, structured religious networks and rituals. Religiosity is generally measured in several domains, such as frequency of church attendance to self-reporting measures of religious participation (Hill and Pargament 2008). Approaching churches as cultivators of religious expression (e.g., collective and private) ground the measure of religiosity in black churches as a composite of three domains: organizational (e.g., frequency of attendance and participation), private (e.g., frequency of prayer and bible reading), and self-reported (Hill and Pargament 2008; Lincoln and Mamiya 1990; Oman and Thoresen 2002). Within the context of African American communities, Lincoln and Mamiya (1990) characterized religiosity as a social construct related to communally shaped identity and observance of historically black Christian rituals.

General Social Support

Social support researchers have identified a variety of categories of aid or assistance, including emotional, informational, and instrumental support (Fischer and Corcoran 2007; House 1981). Each of these categories addressed diverse supportive mechanisms within certain contextual factors (e.g., at church, home, school, or work). Israel (1982) defined social support as "aid and assistance exchanged through social relationships and interpersonal transactions" (p. 65), which may be tangible (e.g., gifts, food) or intangible (e.g., emotional) (Kanu et al. 2008). Under this broad definition, approaches to defining and measuring social support vary widely and have sparked debate over the various models that should be employed, and over which core factors should be assessed (Callaghan and Morrissey 1993; Winemiller et al. 1993). Social support has been studied as a mediating role between religious involvement and physical health (Ellison and George 1994; Ellison and Levin 1998; Holt et al. 2013b; Levin 1996; Strawbridge et al. 1997), and social support is multifactorial and complex. Similar to religious constructs, social support has been equally diverse and ambiguous in the literature; social support has been measured with brief scales and has utilized brief measures (Strawbridge et al. 2001).

Religious Support

Religiosity and social support are generally analyzed by researchers due to their positive impact on health outcomes (Nieminen et al. 2013; Uchino 2006). Studies spanning the last 30 years have indicated a broad range of positive health benefits and behaviors associated with religious involvement, such as a reduction in smoking and an increase in cardiac health (Chatters et al. 1998; Cochran et al. 1988; McCullough et al. 2000; Williams et al. 1991). Projects assessing the relationships between religiosity and social support hold promise for health promotion efforts since social support is thought to be a mediator between religion and health (Kahn et al. 2002).

The importance of establishing definitions of religiosity and social/religious support cannot be underemphasized. The inferences about the function of religious communities may have

resulted in possible miscalculations within current research agendas. One primary assumption is that frequency of attendance shares a positive relationship with social support given and received (Strawbridge et al. 2001). The assumption may be due to the assessment of religiosity based on frequency of attendance only, with the presumption that respondents who attend church must also be socially connected and must actively participate in religious activities (Ellison and George 1994).

Researchers have suggested that religiosity fosters a unique form of social support that is a distinctive construct (Holt et al. 2013a). Religious support focused on the emotional and tangible interpersonal relationships in churches that emphasize communally shared beliefs and social justice (Kanu et al. 2008). This is apparent in black churches where social outreach programs and communal history are particularly pronounced (Chaves and Higgins 1992; Lincoln and Mamiya 1990). Researchers who point to this unique form of social support have adopted the terminology “religious support” to distinguish secular social support from church-based communal involvement.

Apart from general social support, religious support measurements take into account context-specific characteristics, and these measurements allow for a more descriptive and accurate measures of support among religious populations. For example, religious communities operate within specialized social rubrics (e.g., minister as leader, congregants as sheep) that may have an impact on congregants’ perceptions of support received. Additionally, intangible support may be spiritual as well as emotional. Using the terminology of religious support allows for additional comparison between general support and religious support within congregations. Identifying the difference between the two may allow for more direct and accurate comparison to religiosity and eventually to more effective health promotion interventions.

Likewise, the lack of a clear distinction between social and religious types of support could obscure the unique role that social connections play in black churches (Chaves and Higgins 1992; Lincoln and Mamiya 1990). In other words, increased levels of social involvement and social outreach in black churches assume an indication of higher rates of religious involvement and support among African American church-goers. On the contrary, Lincoln and Mamiya (1990) warned against attempts to impose homogeneity on the black church. They argued that individual churches generally fall along a spectrum that ranges from being internally focused to being externally oriented (Lincoln and Mamiya 1990). Thus, support given and received within a religious community may be very distinct from more general social exchanges.

In order to establish a relationship between religious involvement and health, research would need to demonstrate a positive relationship between religious involvement and social support. As previously noted, a strong relationship between religious involvement and social support has not been demonstrated in the literature, though the relationship often forms the basis of support theories in regard to black churches. The present study builds upon prior research by investigating the potential relationships among religiosity, religious social support, and general social support among African American women enrolling in a physical activity intervention. We hypothesized that religiosity will be positively associated with

religious social support, while religious social support will be more strongly associated with religiosity than with general social support. Furthermore, we hypothesized that general social support will be positively associated with religious social support.

Methods

Details of the Learning and Developing Individuals Exercise Skills (LADIES) study have been described elsewhere (Whitt-Glover et al. 2012). The LADIES study was designed to identify ways to increase physical activity among underactive African American women. Thirty-one churches were recruited to participate in a cluster randomized, controlled trial. Cluster 1 received a faith-based (FB) intervention curriculum that combined behavior change and social learning theories with spiritual tenets of the involved churches to increase physical activity. Cluster 2 received a traditional non-faith-based (NFB) intervention curriculum based on principles of behavior change and social learning theories to increase physical activity. Cluster 3 received standard written materials to increase physical activity. Within each church, 15 underactive (i.e., achieving 150 min per week of moderate-to-vigorous physical activity) African American women were recruited to participate in the study. Faith and NFB intervention groups met 25 times with other women from their church during a 10-month period. The FB intervention group received information about physical activity, which incorporated faith tenets and used biblical scriptures to illustrate session content. The NFB intervention group received information about physical activity from a secular perspective, and the group used NFB readings to illustrate session content. Control group participants received NFB standard education materials promoting physical activity (National Institute on Aging 2009). All participants were followed for an additional 12 months after the end of the intervention phase to assess physical activity maintenance. Churches and study participants were enrolled in the study for a total of 22 months. The Copernicus Group Independent Review Board approved the study. Participants provided individual informed consent prior to enrolling in the study.

Theoretical Framework

The LADIES study is guided by a conceptual model that integrates key concepts from social ecological theory, which posits that interventions need to build upon or target “leverage points” for adult behavior (Stokols 1996). Social cognitive theory argues that cognitions results from individuals’ interactions with their physical and social environment contribute to their behavior patterns (Bandura 1997; Baranowski et al. 1997). Leverage points are features of the environment, particularly the social environment. These leverage points exert a disproportionate influence on an individual’s behavior and, ultimately, health. In the African American community, the church, as the institutional embodiment of religion and faith, is a key leverage point. Interventions, which are focused on African Americans and make use of the “natural” supportive role of the church, have substantial potential for promoting regular physical activity in the African American community. Interventions, which are specifically incorporate core religious principles (i.e., faith-based), may have even greater potential for influencing health.

Measures

In order to assess general social support, we utilized the Social Provision Scale (SPS) (Cutrona and Russell 1987). To measure religious support, we used criteria developed by the Fetzer Institute National Institute on Aging Working Group (1999).

General Social Support

Cutrona and Russell (1987) developed the SPS to measure the assistance-related function (e.g., reassurance of worth, reliable alliance, and guidance) and non-assistance-related functions (i.e., attachment, social integration, and opportunity for nurturance) of social ties. The total scores were computed along with six subscales scores: (1) reassurance of worth (recognition of one's competence), (2) reliable alliance (assurance that others can be counted on in times of stress), (3) guidance (advice or information), (4) attachment (emotional closeness), (5) social integration (a sense of belonging to a group of friends), and (6) opportunity for nurturance (providing assistance to others). The SPS was scored at four levels of intensity from 1 = "not at all" to 4 = "always." This results in a sum score between 24 and 96 and a sum score for each subscale of 6–24. A high score indicated stronger social relationships, while a low score indicated loneliness (Cutrona et al. 1986). A shortened version of the SPS has also been validated among African American samples. In a sample of more than 600 African American adults, reliability was 0.81, and test–retest reliability was 0.48 over 2 years. Validity was evidenced by significant correlations with relationship quality and stability (Gottlieb and Bergen 2010). General social support measures were based on self-reported perceptions of interpersonal support (e.g., given or received) within an identified population (Uchino 2013). In order to assess support, the measure used items related to relational attachment, guidance, and social integration or connectivity (Fischer and Corcoran 2007). The more connections a respondent endorsed, the more socially supported the respondent was likely to be.

Religious Support

Religious support was assessed to measure selected aspects of the social relationships between study participants and others in their shared place of worship (Fetzer Institute Publication 1999; Krause 1999). The instrument contained items to measure emotional support received, emotional support provided, anticipated support, and negative interaction. The measure of emotional support received and emotional support provided to others were adapted from the work of Liang (1990). The indicators of negative interaction, as well as anticipated support, were modified versions of the items devised by Liang (1990), and these indicators were evaluated in a nationwide survey of older adults by Krause (1995, 1997). Religious support measured the degree to which individuals perceive that their local congregations provide help, support, and comfort (e.g., "If you had a problem or were faced with a difficult situation, how much comfort would the people in your congregation be willing to give you?"). Items were rated on a 4-point Likert scale from "never" to "very often" for emotional support and negative interaction, and "none" to "a great deal" for anticipated support. Higher scores indicated higher levels of support. The internal consistency reliability was 0.63.

Religiosity

These items are designed to assess private religious and spiritual practices, a conceptual domain or dimension of religious involvement often characterized by terms such as “non-organizational,” “informal,” and “non-institutional religiosity” (Levin 1996). Private religious practices represent a subset of behaviors constituting the larger construct of religious involvement. The domain of private religious practices is distinct from the domain of public (i.e., organizational, formal, institutional) religious behavior. Private practices are non-organizational, that is they occur outside the context of organized religion. They are informal, that is they may not always occur at fixed times or in fixed places, or necessarily involve fixed liturgical formulae. Finally, they are non-institutional, that is they are private behaviors that occur at home—individually or in a family setting—rather than as collective experiences in a formal place of worship.

Private Religious Practices measures religious behaviors (e.g., “Within your religious or spiritual tradition, how often do you meditate?” “How often do you watch or listen to religious programs on TV or radio?”). This subscale is composed of five items with a 5-point response format, ranging from 1 (“more than once a day”) to 5 (“never”). The internal consistency reliability was 0.81.

Organizational Religiousness measures the frequency of involvement in formal public religious institutions (e.g., “How often do you go to religious service?” “Besides religious service, how often do you take part in other activities at a place of worship?”). This subscale consists of two items with a 6-point response format, ranging from 1 (“more than once a week”) to 6 (“never”).

Data Analysis

Study sample characteristics, religiosity, and religious and general social support measures were summarized using descriptive statistics such as mean, median, proportions, and 95 % confidence intervals. Bivariate relations between religiosity and religious and general social support measures were assessed using Pearson correlations.

Results

Descriptive Statistics

The sample consisted of 466 African American women who were randomized to the FB group ($N = 155$), the NFB group ($N = 143$), and the control group ($N = 168$). Final sample size ranged from 361 to 458 due to missing data. The mean age for the total sample was 51.2 years, and the average BMI for the total sample of the mean obesity rate was 35.9 kg/m². No statistically significant differences occurred at baseline between individuals who participated in the FB group, the NFB group, and the control group in terms of age, BMI, percentage married, percentage education, income, familial relationship within the intervention and within church, and health status (see Table 1).

Table 2 provides a comparison of the mean sum scores for social support, religious support, and religiosity, as well as the subscales for each variable by the FB, the NFB, and the

control groups. Study participants had strong social relationships and religious support, as well as strong religious beliefs. The mean overall score for general social support was 75.0 (95 % CI 74.0–76.0), religious support was 22.5 (95 % CI 22.1–23.0), and religiosity was 29.7 (95 % CI 29.0–30.4).

Correlations

Pearson correlations were conducted among religiosity, religious social support, and general social support. Tables 3, 4, and 5 show bivariate correlations between religiosity, religious support, and general social support. Religiosity, religious support, and social support variables demonstrated significant associations within the variables. Total religious support and social support were significantly negatively correlated with total religiosity ($r = -.13$, $p < .01$ and $r = -.10$, $p < .05$, respectively), while total general social support was significantly positively correlated with total religious support ($r = .46$, $p < .001$).

Discussion

The purpose of this study was to explore the relationship among religiosity, general social support, and religious support among African American women. Demographic characteristics were generally homogenous across groups. Consequently, extreme outliers did not likely skew the results. Nevertheless, the participants were self-selected, which may indicate shared religious and social characteristics within and between groups.

Overall, among the religious population in the USA, increased religiosity has been theoretically linked with increased social support among parishioners (Ellison and Levin 1998; Kahn et al. 2002; Kanu et al. 2008; Lincoln and Mamiya 1990; Lincoln et al. 2003; Oman and Thoresen 2002; Whitt-Glover and Kumanyika 2009). However, this study showed negative associations between religiosity and both social support and religious support. Nevertheless, the limitation within the study is that the precise nature of the impact of religiosity on social support has not been clearly demonstrated in past research and cannot be definitively illustrated in the present study. On the surface, the two measures of social support used appear to ask fundamentally different questions and assess distinctly dissimilar constructs. Researchers indicated that while some measures of social support share considerable overlap, each specialized social support measure assesses some distinctly different factors within the social support construct (Gottlieb and Bergen 2010; Pierce et al. 1991; Sarason et al. 1987).

Based on our hypothesis, results from this study further confirm that religiosity, general social support, and religious social support are separate constructs. The findings are consistent with our argument that religious social support should be measured separately in order to establish its unique relationship with religiosity. Additional research may be needed to further clarify the relationship among these measures; especially true in light of the surprisingly negative relationship with religiosity.

Researchers have found that spiritual support and social support are entirely different phenomena, and they relate to religious coping in distinctly different ways (Krause et al. 2001). On the other hand, measures of general and religious support may assess common

domains. Early literature in the field of social support has indicated the possibility of using a broad definition of social support as the resources provided by other persons (Cohen and Syme 1985). Furthermore, distinctions between contextualized measures of support may prove to be illusory since most measures are believed to overlap (Gottlieb and Bergen 2010). Sarason et al. (1987) pointed to a common core of social support constructs (e.g., acceptance, love, and involvement) that are generally assessed in social support questionnaires. Commonality between measures could provide one way to explain why religiosity was negatively correlated with both general social support and religious social support.

Assuming that religious social support and general social support are distinct in the parishioners' relationship to religiosity, other factors may still account for their common negative relationship with religiosity. The study found that African American parishioners shared unique network configurations and nuanced responses to social support as found in other studies (Lincoln and Mamiya 1990; Lincoln et al. 2003). In the present study, increased private religious practices showed a negative relationship with religiosity, while organizational religiousness was positively correlated with religiosity. Negative trends of social support among various communities have been noted in a variety of research. Behaviors leading to isolation from society and/or private religiosity may be encouraged within communities that distance them from broader society (Malka et al. 2011; Welch et al. 2004).

Subsequently, results of this study seem to support arguments that attendance frequency is not an adequate measure of social support received in religious communities. While parishioners may be committed to attend a place of worship, their value-directed behaviors may occur independent of their social connectedness (i.e., social behaviors). Increased religiosity may relate to increased value orientation, which could actually share an inverse relationship with social support. The more religious a church member becomes (especially in regard to private religious practices), the more that person may be isolated from other members of her congregation.

Overall, the LADIES study indicated that more research is needed on ways to encourage interaction between the positive dimensions of both religiosity and social support to bring about healthy behaviors. At baseline, participants in the LADIES study did not appear to access these positive dimensions of their participation in religious communities by default. Longitudinal studies are needed to indicate whether this baseline phenomenon can be actively changed with targeted interventions (Hill and Pargament 2008).

More research is needed to clarify the interplay of religiosity and social support with longitudinal studies more likely to yield greater insight into this process. Furthermore, additional studies are needed to investigate the impact of targeted interventions (e.g., FB group health promotion interventions) on the relationship between social support and religiosity. Future findings may show—within group-focused programs—that positive dimensions of religiosity (e.g., attendance and commitment), and social support can be assessed to promote and sustain weight loss and other positive health outcomes.

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Table 1Sociodemographic characteristics ($N = 466$)

Characteristics	Total sample $N = 466$	Faith-based $N = 155$	Non-faith-based $N = 143$	Control $N = 168$
Age (years) μ (CI)	51.2 (48.9–53.4)	51.8 (47.7–55.9)	51.9 (48.9–54.9)	49.7 (45.2–54.1)
BMI μ (CI)	35.9 (35.0–36.8)	35.4 (33.9–37.0)	36.5 (35.3–37.6)	35.9 (34.0–37.9)
Marital status (%)				
Married	45.0	47.7	44.1	42.9
Not married	53.3	50.2	53.7	56.4
Cohabitation	0.5	0.7	0.7	0.0
Missing	1.2	1.3	0.7	0.8
Education (%)				
High school	78.3	82.1	77.5	75.0
Missing	21.7	17.9	22.5	25.0
Income (%)				
\$14,999	13.1	13.6	15.6	9.7
\$15,000–\$34,999	21.5	19.8	21.3	23.6
\$35,000	31.1	34.0	31.3	27.8
Missing	34.3	32.7	31.9	38.9
Familial relationship within the program (Yes)	34.3	33.6	36.7	33.0
Familial relationship with another church (Yes)	1.4	0.9	1.3	2.1
Health status (%)				
Excellent	4.6	4.8	5.2	3.6
Very good	27.5	30.8	18.5	33.9
Good	48.1	45.2	57.8	40.2
Fair	18.3	16.4	17.8	21.4
Poor	1.5	2.7	0.7	0.9

Table 2Descriptive statistics for independent variables ($N = 414$)

Variables	Total sample μ (SD)	Faith based μ (CI)	Non-faith-based μ (CI)	Control μ (CI)
Total social support	75.0 (8.8)	75.7 (74.3–77.0)	73.9 (72.5–75.3)	75.4 (73.1–77.8)
Guidance	13.1 (2.0)	13.3 (13.1–13.5)	13.0 (12.7–13.2)	13.2 (12.6–13.7)
Reassurance of worth	12.5 (1.6)	12.4 (12.1–12.7)	12.5 (12.2–12.7)	12.9 (12.6–13.1)
Social integration	12.7 (1.6)	12.7 (12.4–13.0)	12.4 (12.2–12.7)	12.8 (12.5–13.1)
Attachment	12.5 (2.1)	12.6 (12.3–12.9)	12.5 (12.1–12.8)	12.6 (12.1–13.1)
Nurturance	10.5 (2.1)	10.8 (10.5–11.0)	10.4 (10.0–10.8)	10.4 (10.0–10.8)
Reliance alliance	13.5 (1.9)	13.7 (13.3–14.0)	13.2 (12.9–13.5)	13.5 (13.0–14.0)
Total religious support	22.5 (3.6)	22.5 (21.9–23.2)	22.6 (21.7–23.4)	22.5 (21.7–23.3)
Emotional Support Received from others	5.9 (1.4)	5.9 (5.6–6.2)	5.8 (5.6–6.1)	5.9 (5.6–6.2)
Emotional support Provided to others	6.4 (1.4)	6.5 (6.3–6.7)	6.3 (6.1–6.6)	6.3 (6.1–6.6)
Negative interaction	3.2 (1.3)	3.2 (2.9–3.4)	3.3 (3.0–3.6)	3.1 (2.8–3.4)
Anticipated support	7.1 (1.3)	7.0 (6.6–7.4)	7.1 (6.8–7.3)	7.2 (7.0–7.3)
Total religiosity	29.7 (5.9)	29.7 (28.4–31.0)	29.6 (28.7–30.5)	29.9 (28.4–31.4)
Organizational Religiousness	14.0 (2.9)	13.8 (13.4–14.2)	14.3 (13.8–14.7)	14.0 (13.4–14.7)
Private religious Practices	12.4 (5.4)	12.6 (11.5–13.8)	12.0 (11.4–12.7)	12.5 (11.0–13.9)
Overall self-ranking	3.3 (1.1)	3.3 (3.12–3.45)	3.3 (3.1–3.5)	3.4 (3.2–3.6)

Sample size ranges from 361 to 414 due to missing data

Table 3

Religiosity and religious support variables ($N = 414$)

Variables	OR	PRP	OSR	TR	ESR	ESP	NI	AS	TRS
Organizational religiousness (OR)	–								
Private religious practices (PRP)	–0.22***	–							
Overall self-ranking (OSR)	–0.16***	0.34***	–						
Total religiosity (TR)	0.26***	0.87***	0.42***	–					
Emotional support received (ESR)	0.25***	–0.18***	–0.15**	–0.08	–				
Emotional support provide (ESP)	–0.15***	–0.28***	–0.24***	–0.17***	0.60***	–			
Negative interaction (NI)	0.09	–0.07	–0.12**	–0.05	0.02	0.22***	–		
Anticipated support (AS)	0.17***	–0.12**	–0.14**	–0.05	0.52***	0.41***	–0.03	–	
Total religious support (TRS)	0.28***	–0.25***	–0.24***	–0.13**	0.79***	0.82***	0.44***	0.69***	–

*
 $p < .05$;**
 $p < .01$;***
 $p < .001$

Table 4

Religiosity and general social support variables ($N = 414$)

Variables	OR	PRP	OSR	TR	G	RW	SI	A	N	RA	TSS
Organizational religiousness (OR)	–										
Private religious practices (PRP)	–0.22***	–									
Overall self-ranking (OSR)	–0.16**	0.34***	–								
Total religiosity (TR)	0.26***	0.87***	0.42***	–							
Guidance (G)	0.13**	–0.13**	–0.22***	–0.10	–						
Reassurance of worth (RW)	0.15**	–0.10*	–0.15*	–0.05	0.47***	–					
Social integration (SI)	0.18***	–0.11*	–0.13**	–0.03	0.61***	0.55***	–				
Attachment (A)	0.08	–0.12*	–0.19***	–0.11*	0.70***	0.43***	0.58***	–			
Nurturance (N)	0.01	–0.13**	–0.16**	–0.14**	0.39***	0.32***	0.42***	0.46***	–		
Reliable alliance (RA)	0.15**	–0.10*	–0.18***	–0.05	0.72***	0.52***	0.61***	0.59***	0.29***	–	
Total social support (TSS)	0.14**	–0.15***	–0.22***	–0.10*	0.85***	0.69***	0.80***	0.83***	0.65***	0.80***	–

*
 $p < .05$;**
 $p < .01$;***
 $p < .001$

Table 5Total religiosity, religious social support, and general social support variables ($N = 414$)

Variables	Total religiosity	Total religious support	Total social support
Total religiosity	–		
Total religious social support	–0.13**	–	
Total general social support	–0.10*	0.46***	–

*
 $p < .05$;**
 $p < .01$;***
 $p < .001$