


Linking Spiritual and Religious Coping With the Quality of Life of Community-Dwelling Older Adults and Nursing Home Residents

Gerontology & Geriatric Medicine
 Volume 2: 1–9
 © The Author(s) 2016
 Reprints and permissions:
sagepub.com/journalsPermissions.nav
 DOI: 10.1177/2333721416658140
ggm.sagepub.com


Luciano Magalhães Vitorino, BSN, MSc¹, Gail Low, RN, BSN, MA, PhD², and Lucila Amaral Carneiro Vianna, PhD¹

Abstract

Objective: This study examined the effect of Positive and Negative Spiritual and Religious Coping (SRC) upon older Brazilian's quality of life (QOL). **Method:** A secondary analysis of data collected from 77 nursing home residents (NHRs; M age = 76.56) and 326 community-dwelling residents (CDRs; M age = 67.22 years) was conducted. Participants had completed the Brief SRC, and the World Health Organization Quality of Life-BREF (WHOQOL-BREF) and World Health Organization Quality of Life-OLD (WHOQOL-OLD). A General Linear Model regression analysis was undertaken to assess the effects of SRC upon 10 aspects of participants' QOL. **Results:** Positive ($F = 6.714$, $df = 10$, $p < .001$) as opposed to Negative ($F = 1.194$, $df = 10$, $p = .294$) SRC was significantly associated with QOL. Positive SRC was more strongly associated with NHR's physical, psychological, and environmental QOL, and their perceived sensory abilities, autonomy, and opportunities for intimacy. **Conclusion:** Positive SRC behaviors per se were significantly associated with QOL ratings across both study samples. The effect size of Positive SRC was much larger among NHRs across six aspects of QOL. Place of residence (POR) in relation to SRC and QOL in older age warrants further study.

Keywords

quality of life, spirituality, religious coping, older adults, place of residence

Manuscript received: April 22, 2016; **final revision received:** May 31, 2016; **accepted:** June 10, 2016

Introduction

Spirituality pertains to seeking meaning in life, and connecting with a higher power or supreme-being and nature (Koenig, King, & Carson, 2012). "Spirituality is the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred" (Puchalski et al., 2009, p. 887). These attributions reflect spiritual behaviors and beliefs (Koenig, George, & Titus, 2004). Spiritual beliefs are highly personal values that become increasingly important with age (Koenig et al., 2004). Religious doctrines or texts prescribe how people ought to live out their lives and treat others (Parker et al., 2003). Spiritual and Religious Coping (SRC) is use of spirituality and religious behaviors to overcome problems and stressful life events (Pargament, Feuille, & Burdzy, 2011; Pargament, Koenig, & Perez, 2000). Nonetheless, SRC can be positive and negative. Examples of positive SRC are solving one's problems in collaboration with God, and searching for help and comfort in the religious literature. Negative

SRC can manifest as a reappraising of God's powers and believing that God is punitive (Pargament et al., 2011).

SRC is an important area of study in older age as aging is associated with multiple physical and social losses (Pargament, Koenig, Tarakeshwar, & Hahn, 2004). People typically experience declines in physical functioning and chronic illnesses with age (Prince et al., 2015). There are a growing number of studies indicating that Positive SRC has health-related benefits in older age (Pargament et al., 2004; Scandrett & Mitchell, 2009; Vitorino & Vianna, 2012). Older people also experience losses of significant others with age (Prince et al., 2015). SRC is an essential component of facing age-related physical and social losses (Pargament et al., 2011; Pargament et al., 2000). When older people face physical and social adversities, they are

¹Paulista School of Nursing, Federal University of São Paulo, Brazil

²University of Alberta, Edmonton, Alberta, Canada

Corresponding Author:

Luciano Magalhães Vitorino, Olegário Maciel Av. Itajubá, Minas Gerais 37504, Brazil.
 Emails: lucianoenf@yahoo.com.br



more likely than are younger people to rely on SRC (Koenig, 2012; Lucchetti, Lucchetti, Peres, Moreira-Almeida, & Koenig, 2012; Pargament et al., 2011).

Spiritual and religious beliefs are important components of quality of life (QOL) at any age (Lee, Nezu, & Nezu, 2014; Skevington, Gunson, & O'Connell, 2013; Vitorino et al., 2015). Positive SRC has enhanced the overall QOL of community-dwelling adults of all ages with dementia (Agli, Bailly, & Ferrand, 2015). Adults with schizophrenia who use more positive than negative SRC report better psychological QOL (Nolan et al., 2012). Adults with the human immunodeficiency virus who use negative SRC report major depressive symptoms and impairments in QOL (Lee et al., 2014). Otherwise religious coping has enhanced QOL among older Muslims in terms of their mental health and social functioning (Heydari-Fard, Bagheri-Nesami, Shirvani, & Mohammadpour, 2014). As people age, where they live becomes an especially important aspect of QOL (Power, Quinn, Schmidt, & WHOQOL Group, 2005; Skevington et al., 2013). Studies of the QOL benefits of SRC among nursing home residents (NHRs) are lacking (Vitorino et al., 2015). There are also no published studies comparing the effects of SRC upon the QOL of NHRs and community-dwelling residents (CDRs).

Brazil is a top-five country for numbers of older adults, particularly those 80 and older (United Nations, Department of Economic and Social Affairs, Population Division, 2013). In 1940, people 60 and older represented 4.1% (1.7 million) of the general population. In 2013, this proportion reached 13% (26.19 million), among which 3.2 million were 80+ years of age (United Nations, Department of Economic and Social Affairs, Population Division, 2013). Brazilians of all ages have a strong faith in God and see themselves as spiritual beings (Neri, 2011). Among those 60+ years of age, nearly all (96%) consider religion a very important aspect of everyday life (Neri, 2011). Little is known about how SRC affects older Brazilians' QOL. Spiritual, religious, and personal beliefs have improved the QOL of well and ill persons below 60 years of age who were living in their own home (Parker et al., 2003). Aspects of QOL were psychological, social, environmental, and global. Positive SRC has also enhanced NHR's autonomy, opportunities for intimacy, and fears about death and dying (Vitorino et al., 2015).

Aim of This Study

The aim of this Brazilian study was to compare the effects of Positive and Negative SRC upon the QOL of older CDRs and NHRs. Our study is the first study to focus on the role of place of residence (POR). Our research questions were as follows:

Research Question 1: Would Positive and Negative SRC significantly affect the same or different aspects of QOL among CDRs and NHRs?

Research Question 2: When Positive and Negative SRC affects the same aspects of QOL, are SRC effect sizes the same or significantly different?

Method

Design and Participants

The study is a secondary analysis of cross-sectional survey data. Data were collected from NHRs in two geographic regions between June and July 2010 (Vitorino & Vianna, 2012). Nursing homes were not under any particular religious ownership, and religious practices were not a criterion for admission. Inclusion criteria were being 60 and older, and a 6-month residency. The exclusion criterion was having significant cognitive impairment. Registered Nurses identified 77 potential participants who met the participation criteria. All 77 consented to participate. Data were collected from the randomly selected CDRs within the same two geographic regions between September 2013 and March 2014. Inclusion criteria were being 60 and older, and a household resident. The exclusion criterion was having a Mini Mental State Examination score of <13 with no formal education, <18 with 1 to 8 years of education, and <26 with 9 or more years of education (Brucki, Nitrini, Caramelli, Bertocci, & Okamoto, 2003). Of the 452 CDRs who were approached, 326 met the participation criteria and consented to participate.

Measures

The following instruments were used for data collection:

- Demographic data were collected: age (Pargament et al., 2004; Vitorino & Vianna, 2012), gender, education, and marital status (Pargament et al., 2011; Vitorino et al., 2015), having a religion (Power et al., 2005), propensities for leisure and physical activities (Sun, Norman, & While, 2013), and comorbidities and perceived health (Power et al., 2005; Vitorino & Vianna, 2012).
- SRC was assessed using the Brief SRC scale (Panzini & Bandeira, 2005). Positive SRC subdimensions are as follows: Transformation of Self, Spiritual Help, Helping Another Person, Positive Position Before God, Other Institutional, Distancing Through God, and Spiritual Knowledge. Negative subdimensions are as follows: Negative Reevaluation of God, Negative Position Before God, and Dissatisfaction and Reassessment of Meaning. All items are measured on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*; Panzini & Bandeira, 2005). Positive SRC Cronbach's alpha coefficients for CDRs and NHRs were $\alpha = .809$ and $\alpha = .952$ and, respectively. Negative SRC coefficients were $\alpha = .785$ and $\alpha = .671$, respectively.

- QOL was assessed using the Brazilian version of the WHOQOL-BREF (Fleck et al., 2000; WHOQOL Group, 1998) and WHOQOL-OLD (Fleck, Chachamovich, & Trentini, 2006; Power et al., 2005). Cronbach's alpha coefficients for CDRs and NHRs, respectively, were as follows: Physical Health ($\alpha = .730$; $\alpha = .859$), Psychological ($\alpha = .706$; $\alpha = .750$), Social Relationships ($\alpha = .723$; $\alpha = .724$), and Environment ($\alpha = .635$; $\alpha = .776$). For the WHOQOL-OLD (Power et al., 2005), these were as follows: Sensory Abilities ($\alpha = .624$; $\alpha = .852$); Autonomy ($\alpha = .702$; $\alpha = .811$); Past, Present, and Future ($\alpha = .740$; $\alpha = .762$); Social Participation ($\alpha = .726$; $\alpha = .845$); Death and Dying ($\alpha = .730$; $\alpha = .712$); and Intimacy ($\alpha = .725$; $\alpha = .863$). All WHOQOL ratings are based on assessments over the past 2 weeks and scored on a 5-point Likert-type scale.

Statistical Analysis

Absolute and relative frequency counts, means, and standard deviations were used to describe the sociodemographic characteristics, and WHOQOL-BREF domains and WHOQOL-OLD facets among the CDR and NHR study samples. In the multivariate analysis, a General Linear Model (GLM; A. Taylor, 2011) was used to compare the effects of Positive and Negative SRC upon the QOL of CDRs and NHRs. Sociodemographic characteristics were entered into the GLM as covariates; doing so permits covariate-adjusted mean scores for the WHOQOL-BREF and WHOQOL-OLD. In the GLM, Positive and Negative SRC was also permitted to interact with POR.

Results

Table 1 shows the sociodemographic characteristics of CDR and NHR participants. In the multivariate GLM, Positive SRC \times POR ($F = 6.714$, $df = 10$, $p < .001$) had a significant effect upon QOL. Negative SRC \times POR did not ($F = 1.204$, $df = 10$, $p = .288$). Positive SRC had significantly greater associations with six aspects of NHRs' QOL (see Table 2). Covariate-adjusted mean scores for the WHOQOL-BREF and WHOQOL-OLD are reported in Table 3.

Discussion

The aim of this Brazilian study was to compare the effects of Positive and Negative SRC upon the QOL of CDRs and NHRs. Our study is the first study to focus on the role of POR. We investigated whether SRC would significantly affect the same or different aspects of QOL among CDRs and NHRs. Moreover, when the same QOL aspects are affected, are the observed SRC effect sizes the same or significantly different? Positive SRC

significantly enhanced the very same aspects of QOL across both study samples. All observed effect sizes were significantly larger among NHRs.

In this study, Positive SRC was significantly positively associated with physical QOL across both study samples that corroborates others' findings on physical health and SRC (Pargament et al., 2011; Parker et al., 2003; Sturz & Zografos, 2014; Vitorino et al., 2015). Spirituality and religion have been found to buffer older adults' health-related stress (Pargament et al., 2004). Older adults engaging in positive SRC usually see themselves as physically healthy (Vitorino & Vianna, 2012) and have a lower risk of physical illness and disability (Parker et al., 2003). Positive SRC can also simultaneously enhance physical health and QOL (Vitorino et al., 2015). Positive SRC is an important coping strategy for older adults with physical illnesses (Heydari-Fard et al., 2014; Pargament, 2011; Pargament et al., 2004). Positive SRC helps older people better adhere to prescribed medical treatments (Koenig et al., 2004). Spiritual and religious behavior help older people manage physical illnesses (Koenig, 2012; Koenig et al., 2004; Pargament et al., 2004) through, for example, encouraging healthier lifestyles and promoting longevity (Koenig, 2012). For NHRs, Positive SRC carried more weight for physical QOL. NHRs tend to be older and more physically or mentally frail than CDRs, and less able to care for themselves (Europe Union, 2012; Gilleard & Higgs, 2010; Turcotte & Sawaya, 2015). Nursing home admissions have been likened to an "event horizon" marked by advanced age and the lesser ability or inability to act on one's own behalf (Gilleard & Higgs, 2010). NHRs required around-the-clock assistance from health care providers and were, on average, 10 years older and a far larger proportion reported being in poor health than did CDRs. Being able to engage in limited or no physical activity, and functional disability with feeding, bathing, dressing, toileting, continence, and transferring are very strong predictors of long-stay institutionalization in Brazil (Del Duca, Silva, Thumé, Santos, & Hallal, 2012). Ironically NHRs physical QOL ratings were significantly higher among NHRs. These higher ratings may be due to the continuous provision of care by health care professionals (HCPs). Surrendering the overseeing of day-to-day care to long-term care professionals can bring a sense of relief to older people in physically frail circumstances (Golant, 2014). Positive SRC further enhanced NHRs higher ratings. Positive SRC is most beneficial to people in physically fragile (or in our case wholly dependent) circumstances (Pargament et al., 2011; Pargament et al., 2000). Spiritual beliefs per se have also moderated the effects of physical, mental, nutritional, and sensory frailty upon the psychological well-being of older adults in partial-assistance housing estates (Kirby, Coleman, & Daley, 2004).

Positive SRC was significantly associated in psychological QOL across both study samples. Older age

Table 1. Participant Characteristics (*N* = 403).

Variables	Total sample	Community	Nursing home
	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Age (<i>M</i> ± <i>SD</i>)	69.01 ± 7.03	67.22 ± 4.84	76.56 ± 9.46
Gender			
Male	142 (35.2)	104 (31.9)	38 (49.4)
Female	261 (64.8)	222 (68.1)	39 (50.6)
Education			
No education	117(29.04)	77 (23.6)	40 (51.9)
Has education	286 (70.96)	249 (76.4)	37 (48.1)
Marital status			
Never/divorced	232 (57.56)	158 (48.5)	74 (96.1)
Married	171 (42.44)	168 (51.5)	3 (3.9)
Has adult children			
Yes	337 (83.6)	298 (73.9)	39 (50.6)
No	143 (16.4)	105 (26.1)	38 (49.4)
Religion			
Yes	294 (73.10)	222 (68.1)	73 (94.8)
No	109 (26.90)	104 (31.9)	4 (5.2)
Leisure practices			
Yes	210 (52.10)	173 (53.1)	37 (48.1)
No	193 (47.90)	153 (46.9)	40 (51.9)
Physical activity			
Yes	187 (46.40)	167 (51.2)	20 (26.0)
No	216 (53.60)	159 (48.8)	57 (74.0)
Chronically ill			
Yes	261 (64.80)	204 (62.6)	57 (74.0)
No	142 (35.20)	122 (37.4)	20 (26.0)
Perceived health			
Very good	108 (26.8)	74 (22.7)	34 (44.2)
Good	262 (65.0)	236 (72.4)	26 (33.8)
Poor	33 (8.2)	16 (4.9)	17 (22.1)

Table 2. Effect of Positive SRC × Place of Residence^a Upon Quality of Life (*N* = 403).

Quality of life	<i>F</i>	β (<i>SE</i>), <i>p</i> value
WHOQOL-BREF		
Physical health	31.078	1.86 (.334), <.001
Psychological	17.655	1.58 (.376), <.001
Social relationships	0.907	-0.549 (.576), .343
Environment	24.752	1.695 (.341), <.001
WHOQOL-OLD		
Sensory abilities	19.944	0.441 (.099), <.001
Autonomy	9.714	1.341 (.430), <.01
Past, present, future	1.497	0.499 (.408), .224
Social participation	2.967	0.802 (.465), .086
Death and dying	3.669	0.957 (.500), .057
Intimacy	8.204	1.283 (.448), <.01

Note. Covariates: age, gender, education, marital status, perceived health, and having adult children and a religion, being physically active. SRC = Spiritual and Religious Coping.

^aCommunity-dwelling resident = 0; nursing home resident = 1.

is considered a period of life that evokes negativity, loneliness, anxiety, and depression (Lucchetti et al., 2012; World Health Organization, 2013). There can be losses in their independence and autonomy largely

owing to ill health, institutionalization, and economic hardships (Prince et al., 2015; World Health Organization, 2013). The association between Positive SRC and psychological QOL was more pronounced

Table 3. Mean Scores for the WHOQOL-BREF and WHOQOL-OLD^a (N = 403).

Quality of life	Nursing home (n = 77); M ± SD	Own home (n = 326); M ± SD	Mean difference (SD); p value
WHOQOL-BREF			
Physical health	16.97 ± 0.933	13.33 ± 0.17	3.64 (0.96), <.001
Psychological	17.34 ± 0.938	13.26 ± 0.18	4.08 (0.96), <.001
Social relationships	17.46 ± 1.354	15.36 ± 0.26	2.1 (1.39), .132
Environment	17.41 ± 0.833	13.54 ± 0.16	3.87 (0.85), <.001
WHOQOL-OLD			
Sensory abilities	15.82 ± 0.36	14.16 ± 0.15	1.66 (0.42), <.001
Autonomy	12.88 ± 0.37	14.58 ± 0.15	-1.70 (0.43), <.001
PPFA	13.61 ± 0.34	14.62 ± 0.14	-1.01 (0.40), <.05
Social participation	13.34 ± 0.39	14.55 ± 1.5	-1.21 (0.45), <.01
Death and dying	15.27 ± 0.41	14.58 ± 0.17	0.69 (0.49), .152
Intimacy	13.31 ± 0.38	14.69 ± 0.15	-1.37 (0.44), <.01

Note. PPFA = past, present, and future activities.

^aAdjusted for participants' age, gender, education, marital status, perceived health, having adult children and a religion, and being physically active.

among NHRs. This domain of life refers to accepting bodily appearance, self-satisfaction, life enjoyment, memory and concentration, negative feelings such as anxiety and depression, and meaning in life. One third of older Brazilian CDRs (Del Duca et al., 2012) and 49% of NHRs experience depression (Silva, Sousa, Ferreira, & Peixoto, 2012). Positive SRC can protect against social isolation, depression, and anxiety (Pargament, 2011; Pargament et al., 2004). Positive SRC enhances older adults' understanding of the meaning and significance of limitations and losses, and find meaning and purpose in life (Koenig, 2012; Pargament, 2011). Religious practices can improve mental health in older age (Koenig, 2012; Lucchetti et al., 2012). Religiosity and spirituality is an effective treatment for depression and anxiety in older age (Koenig et al., 2012; Lucchetti et al., 2012). Nonetheless, NHRs did have far higher psychological QOL scores to begin with. The majority of older Brazilians move into nursing homes because family members become physically and mentally exhausted, and they cannot afford not to work, and the level and complexity of care becomes unmanageable (Del Duca et al., 2012; Silva et al., 2012). Less than 1% of older Brazilians live in nursing homes (Institute for Applied Economic Research -IPEA, 2011). Surrendering decisions around day-to-day care to family can be a source of emotional relief for NHRs (Golant, 2014).

Positive SRC was associated with environmental QOL across both study samples; however, its effect size was far larger among NHRs. Environmental QOL pertains to money to meet one's needs, access to information and transport, personal safety, healthfulness and quality of a dwelling, and health care services. Radical and permanent changes in living environments in older age evokes feelings of what Atchley (1989) refers to as discontinuity in being and doing in familiar places, practicing familiar skills,

and being with familiar people. Upon admission, there are acute changes in daily life marked by new routines, rules, and schedules that are less flexible and quite different; this can enhance environmental dissatisfaction and difficulty adapting (R. J. Taylor, Chatters, & Jackson, 2007; Vitorino & Vianna, 2012). Older people tend to experience significant decrements as opposed to increments in QOL when they move into a nursing home (Kostka & Jachimowicz, 2010). The average length of residency of NHRs was 9.3 years (Vitorino & Vianna, 2012). Presumably, NHRs had time to adjust and adapt. NHRs' environmental QOL scores were, on average, higher than CDRs' scores. Nonetheless, the very wide (6 months to 42 years) range for duration of residence makes the markedly larger effect size of POR × Positive SRC more provocative. Positive SRC enhances psychologically adjusting to living in an institution in older age (Scandrett & Mitchell, 2009). Religious coping has helped older Americans (Scandrett & Mitchell, 2009) and Brazilians (Vitorino et al., 2015) accept living in an institution.

Golant (2014) also argues that what is most beneficial to QOL are physical, functional, and participatory features or structures residents have everyday access to. Everyday access evokes a shared culture of trust and sense of community, and opportunities for meaningful action. NHRs had access to a chapel and 95% had a religion (vs. only 68.1% of CDRs). Spiritual environments allow NHRs access to continue to engage with their faith community and empowerment in a more restrictive living environment (Anabere & DeLilly, 2013; Tschida, 2012).

Other resources for NHRs included around-the-clock HCPs, security doors for physical safety, hosted leisure activities, and meal preparation. Ready-driven cars for professional appointments are also available for NHRs. Horelli (2006) describes these features or structures as a means to provide collective fit for locally dependent

groups. The fit between the person and their environment means considering QOL in terms of residential satisfaction; the environmental conditions should not impede what the resident considers essential or needs for their well-being (Moser et al., 2009). This would be particularly important when families cannot manage elder care, physically or financially, as is the case for NHRs in Brazil (Del Duca et al., 2012; Instituto Pesquisa Economica Aplicada, 2011).

Despite sensory abilities being deemed a key aspect for QOL in older age across 20 countries (Power et al., 2005), our study is the first study to link Positive SRC with sensory abilities in older age. Positive SRC had a stronger positive association with NHR's sensory abilities. NHRs also more favorably appraised how sensory losses affected participation in activities, social interactions, and general sensory functioning (hearing, touch, taste, smell, sight). These higher scores may be explained by having continuous access to HCPs that offer compensatory supports through sensory aides, group activities, and palatable food. There is some evidence indicating that religious practices improve people's compliance with health-promoting treatments and activities (United Nations, Department of Economic and Social Affairs, Population Division, 2013). Positive SRC could have done the same for NHRs. Spirituality can reduce the negative effects of frailty, including sensory problems, upon psychological well-being (Sturz & Zografos, 2014).

Autonomy has been defined by others as an enhancer of dignity and of perceptions of still being able to exercise one's mental capacities in older age (Kirby et al., 2004). Religious and spiritual practices have enhanced the sense of effectiveness, credibility, and dignity among older people (Lucchetti et al., 2012; Pargament et al., 2011; Scandrett & Mitchell, 2009). Religious and faith practices improve feelings of control in everyday life (Heydari-Fard et al., 2014; Lucchetti et al., 2012). Positive SRC has been associated with hope and optimism, and the ability to plan one's life in older age (Pargament et al., 2004). Autonomy enhances older people's dignity and perceptions of still being able to exercise their mental capacities (Andresen & Puggaard, 2008).

Positive SRC per se also had a stronger positive association with NHRs' autonomy. Autonomy as it pertained to QOL had to do being able to do what one likes, making decisions on one's own part, and having people around who respect one's freedom. Living in a nursing home can limit one's autonomy and perceived control (Scandrett & Mitchell, 2009). For example, in the NHs where we recruited participants, there were ready-driven cars for professional appointments but NHRs needed permission from managers to leave their POR at any time. NHRs also had to ask NH staff if they were able to go for a walk outside of their POR with a

relative or have a television in their living quarters. Main meals, that is, lunch, also occur at set times. This lends credence to our finding that autonomy scores were significantly lower among NHRs. Presumably CDRs do not face the same constraints on their day-to-day freedom. Positive SRC behaviors are not a panacea for not being free to do what one likes at one's own convenience. Positive SRC behaviors may have helped NHRs accept that choosing to engage in activities of interest also meant asking others' permission to do so. Positive SRC engaged the NHRs to participate in their choices. Religious and spiritual practices bring a heightened sense of effectiveness, credibility, and dignity in older age (Pargament et al., 2000). Religiosity has improved older people's decisiveness around seeking out meaningful and satisfying activities (Low & Molzahn, 2007; Sturz & Zografos, 2014). Perhaps this is why Positive SRC was most strongly associated with NHRs' autonomy.

Positive SRC enhanced the QOL of both groups with respect to opportunities for intimacy. As people age, they tend to invest more energy into close and meaningful relationships (Carstensen, Fung, & Charles, 2009). Engaging in positive SRC with significant others reinforces older people's sense of fellowship and belonging (Pargament et al., 2011). Spirituality and religiousness are an especially significant and meaningful source of support for older people (Atchley, 1989). Religious practices such as going to a place of worship can provide significant opportunities for meaningful social interaction in older age (Agli et al., 2015). For NHRs, opportunities for socialization are limited; thus, close and meaningful connections become especially important (Anabere & DeLilly, 2013; Andresen & Puggaard, 2008). In this study, NHRs had significantly lower intimacy (opportunities to show love and to feel loved) scores than did CDRs. The vast majority of NHRs had either never been married or were divorced, and only half had adult children. However, neither marital status nor having adult children significantly affected NHRs intimacy scores. There is still some degree of stigma for family when they institutionalize a parent as NHs are associated with loneliness, contempt, and abandonment in Brazilian society (Freitas & Noronha, 2010). Fortunately, positive SRC was most strongly associated with NHRs scores and they had an accessible place of worship (churches and chapels) where they could practice positive SRC. Lawton (1991) deems the tendency among frail to find ways to enhance relational aspects of their QOL in the immediate surrounding environment. Having a relationship with God and nurturing this relationship through Positive SRC was a more important way to experience intimacy for NHRs. Positive SRC partly pertained to having a partnership with, trusting and turning over one's troubles to God. There was a significant relationship between a higher power and NHRs.

The present study has some weaknesses. Our findings are findings of association based on cross-sectional data. There were also significantly fewer NHRs than CDRs in our study. Less than 1% of older people reside in NHs in Brazil (Institute for Applied Economic Research – IPEA, 2011). This tiny proportion also meant recruiting NHRs by convenience. Our use of secondary data did not permit us to explain why only 68% CDRs reported having a religion despite 96% of Brazilians reporting that religion is an important aspect of life. Positive SRC was not significantly associated with participants' social relationships and social participation. In non-Brazilian studies, older adult's religious behaviors (attendance, temple meetings, group meditation/prayer) have enhanced their social participation with peer groups (Charlemagne-Badal & Lee, 2016; Koenig et al., 2014; Krause, Shaw, & Liang, 2011; Pargament et al., 2000). The positive link between Positive religious coping and older Muslim's social functioning was attributed to the valuing of communicating and engaging in activities with social ties in Islamic culture and religion (Heydari-Fard et al., 2014). Our study focuses on spiritual and religious behaviors. The nonsignificance of Positive SRC to social aspects of older Brazilian's QOL in this study may be partly due to the private or solitary nature of spiritual behaviors. Examples from the Brief SRC include looking for a total spiritual reawakening, seeking protection from spiritual entities, and receiving counseling from a superior spiritual guide. Baker and Nussbaum (1998) describe spirituality as an internal individual resource and as the individual questioning the meaning and purpose of life. Others refer to spirituality as the individual's own way of seeking and expressing meaning and purpose, and how people experience their own connectedness also to the sacred, the self, and nature (Puchalski et al., 2009). Spirituality is a personal process of search and discovery that is intimately connectedness to the sacred, and begins before and extends beyond organized religion (Koenig, 2012). With longitudinal data, we could have examined whether the association between Positive SRC and social QOL differed over time. Although we statistically controlled for age in this study, NHRs were, on average, 9 years older than CDRs. Examining the effects of age over time would be equally prudent.

Conclusion

This Brazilian study addresses a significant gap in understanding the links between SRC and QOL in older age. Positive SRC enhanced the same aspects of QOL for NHRs and CDRs. Positive SRC was most strongly associated with NHRs' physical, psychological, and environmental QOL, and perceptions of their sensory abilities, autonomy, and opportunities for intimacy. We encourage other researchers to examine the role of POR in group comparison studies of SRC and QOL.

Human and Animal Rights and Informed Consent

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) with the Helsinki Declaration of 1975, as revised in 2000. Informed consent was obtained from all participants for being included in the study. Ethical approval was given by Federal University of São Paulo Committee for Ethics in Research (#16176513.6.0000.5505).

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The study was funded by Brazilian Federal Agency for Support and Evaluation of Graduate Education; National Counsel of Technological and Scientific Development; São Paulo Research Foundation, Process Number:231370/2013-0.

References

- Agli, O., Bailly, N., & Ferrand, C. (2015). Spirituality and religion in older adults with dementia: A systematic review. *International Psychogeriatrics*, *27*, 715-725. doi:10.1017/S1041610214001665
- Anabere, A. K., & DeLilly, C. R. (2013). Faith community nursing: Supporting mental health during life transitions. *Issues in Mental Health Nursing*, *33*, 337-339.
- Andresen, M., & Puggaard, L. (2008). Autonomy among physically frail older people in nursing home settings: A study protocol for an intervention study. *BMC Geriatrics*, *8*, Article 32. doi:10.1186/1471-2318-8-32
- Atchley, R. C. (1989). The continuity theory of normal aging. *The Gerontologist*, *29*, 183-190. doi:10.1093/geront/29.2.183
- Baker, D. C., & Nussbaum, P. D. (1998). Religious practice and spirituality—Then and now: A retrospective study of spiritual dimensions of residents residing at a continuing care retirement community. *Journal of Religious Gerontology*, *10*(3), 33-51. doi:10.1300/J078V10N03_03
- Brucki, S. M. D., Nitrini, R., Caramelli, P., Bertocci, P. H. F., & Okamoto, I. H. (2003). Suggestions for utilization of the mini-mental state examination in Brazil. *Arquivos de Neuro-Psiquiatria*, *61*, 777-781. doi:10.1590/S0004-282X2003000500014 (in Portuguese)
- Carstensen, L. L., Fung, H. H., & Charles, S. T. (2009). Socioemotional selectivity theory and the regulation of emotion in the second half of life. *Motivation and Emotion*, *27*, 103-123.
- Charlemagne-Badal, S. J., & Lee, J. W. (2016). Religious social support and hypertension among older North American Seventh-Day Adventists. *Journal of Religion & Health*, *55*, 709-728. doi:10.1007/s10943-015-0104-8
- Del Duca, G. F., Silva, S. G., Thumé, E., Santos, I. S., & Hallal, P. C. (2012). Predictive factors for institutionalization of the elderly: A case-control study. *Revista de Saúde Pública*, *46*(1), 147-153. doi:10.1590/S0034-89102012000100018
- Europe Union. (2012). *Long-term care for the elderly: Provisions and providers in 33 European countries*. Retrieved from

- http://ec.europa.eu/justice/gender-equality/files/elderly_care_en.pdf
- Fleck, M. P. A., Louzada, S., Xavier, M., Chachamovich, E., Vieira, G., Santos, L., . . . Pinzon, V. (2000). Application of the Portuguese version of the abbreviated instrument of quality life WHOQOL-bref. *Revista de Saúde Pública, 34*(2), 178-183. doi.org/10.1590/S0034-89102000000200012
- Fleck, M. P., Chachamovich, E., & Trentini, C. (2006). Development and validation of the Portuguese version of the WHOQOL-OLD module. *Revista de Saúde Pública, 40*, 785-791. doi:10.1590/S0034-89102006000600007
- Fleck, M. P., Louzada, S., Xavier, M., Chachamovich, G. V., Santos, L., & Pinzon, V. (2000). [Application of the Portuguese version of the abbreviated instrument of quality life WHOQOL-BREF]. *Revista de Saúde Pública, 34*, 178-183. doi:10.1590/S0034-89102000000200012
- Freitas, A. V. S., & Noronha, C. V. (2010). Idosos em instituições de longa permanência: Falando de cuidado [Elderly people in long-term institutions: Speaking about care]. *Interface Comunicação, Saúde, Educação, 14*, 359-369. doi:10.1590/S1414-32832010000200010 (in Portuguese)
- Gilleard, C., & Higgs, P. (2010). Aging without agency: Theorizing the fourth age. *Aging & Mental Health, 14*, 121-128. doi:10.1080/13607860903228762
- Golant, S. M. (2014). Residential normalcy and the enriched coping repertoires of successfully aging older adults. *The Gerontologist, 55*, 70-82. doi:10.1093/geront/gnu036
- Heydari-Fard, J., Bagheri-Nesami, M., Shirvani, M. A., & Mohammadpour, R. A. (2014). Association between quality of life and religious coping in older people. *Nursing Older People, 26*(3), 24-29. doi:10.7748/nop2014.03.26.3.24.e496
- Horelli, L. (2006). Environmental human-friendliness as a contextual determinant for quality of life. *European Review of Applied Psychology, 56*, 15-22. doi:10.1016/j.erap.2005.02.012
- Institute for Applied Economic Research – IPEA. (2011). *Operating conditions and infrastructure for long-term care facilities for the elderly in Brazil*. Retrieved from http://www.ipea.gov.br/portal/index.php?option=com_content&view=frontpage&Itemid=61
- Kirby, S. E., Coleman, P. G., & Daley, D. (2004). Spirituality and well-being in frail and nonfrail older adults. *Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 59*, 123-129.
- Koenig, H. G. (2012). Religion, spirituality, and health: the research and clinical implications. *ISRN Psychiatry, 33* pages. doi: <http://dx.doi.org/10.5402/2012/278730>
- Koenig, H. G., Berk, L. S., Daher, N. S., Pearce, M. J., Bellinger, D. L., Robins, C. J., . . . King, M. B. (2014). Religious involvement is associated with greater purpose, optimism, generosity and gratitude in persons with major depression and chronic medical illness. *Journal Psychosomatic Research, 77*, 135-143. doi:10.1016/j.jpsychores.2014.05.002
- Koenig, H. G., George, L. K., & Titus, P. (2004). Religion, spirituality, and health in medically ill hospitalized older patients. *Journal of the American Geriatrics Society, 52*, 554-562. doi:10.1111/j.1532-5415.2004.52161.x
- Koenig, H. G., King, D. E., & Carson, V. B. (Eds.). (2012). *Handbook of religion and health* (2nd ed.). Oxford, UK: Oxford University Press.
- Kostka, T., & Jachimowicz, V. (2010). Relationship of quality of life to dispositional optimism, health locus of control and self-efficacy in older subjects living in different environments. *Quality of Life Research, 19*, 351-361. doi:10.1007/s11136-010-9601-0
- Krause, N., Shaw, B., & Liang, J. (2011). Social relationships in religious institutions and healthy lifestyles. *Health Education & Behavior, 38*, 25-38. doi:10.1177/1090198110370281
- Lawton, M. P. (1991). A multidimensional view of quality of life. In J. E. Birren, J. E., Lubben, J. C., Rowe, & D. E. Deutchman (Eds.), *The concept and measurement of quality of life in the frail elderly* (pp. 3-27). New York, NY: Academic Press.
- Lee, M., Nezu, A. M., & Nezu, C. M. (2014). Positive and negative religious coping, depressive symptoms, and quality of life in people with HIV. *Journal Behavior Medicine, 37*, 921-930. doi:10.1007/s10865-014-9552-y
- Low, G., & Molzahn, A. E. (2007). Predictors of quality of life in old age: A cross-validation study. *Research in Nursing & Health, 30*, 141-150. doi:10.1002/nur.20178
- Lucchetti, G., Lucchetti, A. L. G., Peres, M. F. P., Moreira-Almeida, A., & Koenig H. G. (2012). Religiousness, health, and depression in older adults from a Brazilian military setting. *International Scholarly Research Network, 2012*, 1-7. doi:10.5402/2012/940747
- Moser, D. K., Yamokoski, L., Sun, J. L., Conway, G. A., Hartman, K. A., Graziano, . . . Stevenson, L. W. (2009). Improvement in health-related quality of life after hospitalization predicts event-free survival in patients with advanced heart failure. *Journal of Cardiac Failure, 15*, 763-769. doi:10.1016/j.cardfail.2009.05.003
- Neri, M. (2011). *Novo mapa das religiões* [New map of religions]. Portuguese. Fundação Getúlio Vargas: Rio de Janeiro. Retrieved from: http://www.cps.fgv.br/cps/bd/re3/REN_texto_FGV_CPS_Neri.pdf
- Nolan, J. A., McEvoy, J. P., Koenig, H. G., Hooten, E. G., Whetten, K., & Pieper, C. F. (2012). Religious coping and quality of life among individuals living with schizophrenia. *Psychiatric Services, 63*, 1051-1054. doi:10.1176/appi.ps.1012
- Panzini, R. G., & Bandeira, D. R. (2005). Spiritual/Religious Coping Scale (SRC Scale): Elaboration and construct validation. *Psicologia em Estudo, 10*, 507-516. doi:10.1590/S1413-73722005000300019 (in Portuguese)
- Pargament, K., Feuille, M., Burdzy, D. (2011). The brief RCOPE: Current psychometric status of a short measure of religious coping. *Religious, 2*, 51-76. doi:10.3390/rel2010051
- Pargament, K. I., Koenig, H. G., & Perez, L. M. (2000). The many methods of religious coping: Development and initial validation of the RCOPE. *Journal Clinical Psychology, 56*, 519-543. doi:10.1590/S1413-73722005000300019
- Pargament, K. I., Koenig, H. G., Tarakeshwar, N., & Hahn, J. (2004). Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology, 9*, 713-730. doi:10.1177/1359105304045366

- Parker, M., Lee Roff, L., Klemmack, D. L., Koenig, H. G., Baker, P., & Allman, R. M. (2003). Religiosity and mental health in southern, community-dwelling older adults. *Aging Mental Health, 7*, 390-397. doi:10.1080/1360786031000150667
- Power, M., Quinn, K., Schmidt, S., & WHOQOL-Group. (2005). Development of the WHOQOL-old module. *Quality of Life Research, 14*, 2197-2214. doi:10.1007/s11136-005-7380-9
- Prince, M. J., Wu, F., Guo, Y., Robledo, L. M. G., O'Donnell, M., Sullivan, R., & Yusuf, S. (2015). The burden of disease in older people and implications for health policy and practice. *The Lancet, 385*, 549-562. doi:10.1016/S0140-6736(14)61347-7
- Puchalski, C., Ferrell, B., Virani, R., Otis-Green, S., Baird, P., Bull, J., . . . Sulmasy, D. (2009). Improving the quality of spiritual care as a dimension of palliative care: The report of the Consensus Conference. *Journal of Palliative Medicine, 12*, 885-904. doi:10.1089/jpm.2009.0142
- Scandrett, K. G., & Mitchell, S. L. (2009). Religiousness, religious coping, and psychological well-being in nursing home residents. *Journal of the American Medical Directors Association, 10*, 581-586. doi:10.1016/j.jamda.2009.06.001
- Silva, E. R., Sousa, A. R. P., Ferreira, L. B., & Peixoto, H. M. (2012). Prevalence and factors associated with depression among institutionalized elderly individuals: Nursing care support. *Revista da Escola de Enfermagem USP, 46*, 1388-1394. doi: 10.1590/S0080-62342012000600015
- Skevington, S. M., Gunson, K. S., & O'Connell, K. A. (2013). Introducing the WHOQOL-SRPB BREF: Developing a short-form instrument for assessing spiritual, religious and personal beliefs within quality of life. *Quality of Life Research, 22*, 1073-1083. doi:10.1007/s11136-012-0237-0
- Sturz, D. L., & Zografos, K. N. (2014). Religious coping and working past retirement age: A review of the literature. *Journal of Religion, Spirituality & Aging, 26*, 231-244. doi:10.1080/15528030.2013.855967
- Sun, F., Norman, I. J., & While, A. E. (2013). Physical activity in older people: A systematic review. *BMC Public Health, 13*, Article 449. doi:10.1186/1471-2458-13-449.
- Taylor, A. (2011). *2002-2011: Using the GLM Procedure in SPSS*. Retrieved from www.psy.mq.edu.au/psystat/documents/GLMSPSS
- Taylor, R. J., Chatters, L. M., & Jackson, J. S. (2007). Religious and spiritual involvement among older African Americans, Caribbean Blacks, and non-Hispanic Whites: Findings from the national survey of American life. *Journals of Gerontology, Series B: Psychological Sciences & Social Sciences, 62*, 238-250.
- Tschida, C. A. (2012). *Spirituality in nursing homes: A social work perspective*. Retrieved from http://sophia.stkate.edu/cgi/viewcontent.cgi?article=1096&context=msw_papers
- Turcotte, M., & Sawaya, C. (2015). *Senior care: Differences in type of housing*. Retrieved from <http://www.statcan.gc.ca/pub/75-006-x/2015001/article/14142-eng.htm>
- United Nations, Department of Economic and Social Affairs, Population Division. (2013). *World Population Ageing (ST/ESA/SER.A/348)*. Retrieved from <http://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2013.pdf>
- Vitorino, L. M., Lucchetti, G., Santos, A. E. O., Lucchetti, A. L. G., Ferreira, E. B., Adami, N. P., & Vianna, L. A. C. (2015). Spiritual religious coping is associated with quality of life in institutionalized older adults. *Journal of Religion & Health, 55*, 549-559. doi:10.1007/s10943-015-0148-9
- Vitorino, L. M., & Vianna, L. A. C. (2012). Religious/spiritual coping in institutionalized elderly. *Acta Paulista de Enfermagem, 25*(Spe1), 136-142. doi:10.1590/S0103-21002012000800021
- World Health Organization. (2013). *Mental health and older adults* (Fact Sheet No. 381). Available from <http://www.who.int/>
- The WHOQOL Group. (1998). Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychological Medicine, 28*, 551-558.