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ORIGINAL PAPER

Does Religion Predict Health-Promoting Behaviors in Community-Dwelling Elderly People?

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Abstract

As the aging phenomenon gains importance in many societies, regular health-promoting activities by the elderlies become more crucial for disability reduction and their health promotion. Religious viewpoints and perspectives can have an influence on the individuals' assessment of life events. Recent studies show a correlation between religiosity and mental health. However, there is limited number of studies on the relationship between religiosity and health behaviors, especially in elderly. The purpose of this research is to evaluate religion's predictive power in health-improving behaviors of the elderly. This cross-sectional study was conducted on 316 community-dwelling elderly with the mean age of 67.9 ± 6.6 years, who were functionally independent without cognitive or mental impairments. Health-promoting lifestyle profile 2 assessment (HPLP2) and Alport questionnaires were used to assess health behaviors and religious orientation, respectively. Data analysis was performed by independent T test and multiple linear regression models with SPSS version 23. An internal religious orientation was found in 71 elderly; this accounts for 22.5% of the study population. Based on the health behavior scoring 154 individuals, 48.8% of the study population obtained a score of higher or equal to 139. These individuals were placed on third quartile and higher. Among the health behavior components, "the health responsibility" was the only component related to religious orientation [internal 25.1 ± 6.6 ($P < 0.001$, $r = 0.78$) vs. external 22.6 ± 6.5 ($P > 0.05$, $r = 0.22$)]. Based on the multiple linear regression models, no significant relationship was found between total health behavior score and religious orientation. However, a significant relationship existed between the participants' health behaviors and some of their profile. The results indicate that despite good health behaviors in nearly half of the elderlies, no significant relationship was found between health behavior and religious orientation. The results suggest possible impact of other religion-related concepts including private religious behaviors, devotion, spiritual transcendence, religious adaptation, and religious traditions and experiences on the health behaviors. These concepts require further study for better understanding of their impact.

Keywords Religion · Health-promoting behaviors · Community-dwelling · Elderly people

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Introduction

Aging is one of the challenges of the today's world, especially among developing countries because they are not structurally and economically well prepared to face aging problems (Wu et al. 2017). Therefore, looking for solutions to reduce related problems and to improve life quality is a part of researchers concerns. Among solutions for coping with crisis, religion can probably play a fundamental role by creating hope, motivating, positive thinking on life issues and providing an emotional and social support network which eventually helps individuals to adopt with the life crisis (Zimmer et al. 2016).

Some studies indicate health-affecting mechanisms of religion. On the other hand, some studies argue that religion has negative or no effect on mental and physical health. (Turner 2015; Zagozdzon 2012; Krause 2011). Studies considered religion as a wide spectrum with several features. For some individuals, it only acts as a ritual with some cultural aspects also known as external values; while for others, religion acts as the essential incentive of life with internal values (Kuyel et al. 2012). Since human behaviors and lifestyle are shaped around attitudes and thoughts, it is plausible that these thoughts and attitudes are important in affecting human health (Soleimani Khashab et al. 2015).

Many studies have been conducted on the relationship of religion with human health in various contexts including mental health (Jakovljevic 2017), quality of life (Anye et al. 2015), happiness (Diener et al. 2011), and death fears (Jong et al. 2018). This is while there are not many studies on its relationship with physical and behavioral health, especially among elderly population. The results suggest contradictions regarding the relationship between religion and health (Zimmer et al. 2016; Turner 2015; Anye et al. 2015).

Older people tend to have high rates of involvement in religious and/or spiritual activities to cope with their fear of health decline. Hence, this raises the question whether "religion interventions promote health behavior or not."

Iran is an Islamic country, and prayer and religious beliefs are a part of people's everyday life.

Despite the significant role of religion among Iranian elderlies, very few studies have been conducted to investigate the impact of religion on different aspects of their life including their health behavior. Therefore, current study is conducted with the aim of investigating the relationship between religious orientation and promotion of health behavior among elderly. The results of the study can be used for elderly life quality promotion support programs and planning.

Methods

This cross-sectional study is designed to evaluate religion's predictive power on health-improving behaviors of the elderly. Data were collected by the questionnaire in one step in the city of Babol in 2015. Babol is a northern city of Iran with 12 urban health-care centers out of which 6 centers have randomly been selected.

The same number of populations is covered by these centers, and the population of areas covered by each health center was identified. Then, by referring to these areas, around 60 elderly people were included in the study, including those attending in public places at the time of the researcher's visit to mosques, parks, and communities. First, participants were assessed whether or not they met the inclusion criteria. Then, after clarifying the purpose of the study to the participating volunteers, they decided if they were willing to participate by

reading and approving the consent form. In this way, 350 eligible individuals over 60 years of age were enrolled from health centers.

Inclusion criteria include being community dwelling, functionally independent, and not being diagnosed with Alzheimer's or intense mental disorders. Some individuals were excluded from the study for the absence of consent or incompletely filled-out questionnaire. Overall, 316 questionnaires out of 350 were analyzed. The questionnaires were completed by participants themselves in the presence of the researcher. For illiterate individuals, however, the researcher has completed the questionnaire on their behalf. The study protocol was approved by ethic committee of Babol University of Medical Sciences, Iran (NO.:MUBABOL.REC.1392.15). All participants signed the written consent form.

Alport religious attitude and health-promoting lifestyle profile 2 (HPLP2) questionnaires along with participants' profile (including marital status, residential address, sex, income, income source, job, education, residential home condition, household members, mental, or chronic disease history), and general health assessment (GHQ) were utilized.

Alport questionnaire created by Alport in 1996 was first implemented in Iran by Johnbozorgi (1998). Alport divided the religious orientation into two kinds: *internal and external*. An externally oriented person tends to use religion as a means of satisfying various needs including the need for security, solace, sociability, social status, and self-justification. In contrast, an internally oriented person considers religion as an ultimate end by itself; religion is the greatest motivation of her/his life.

The questionnaire included 25 yes/no questions. The participants were asked to choose one of the answers depending on whether they agree or disagree with the sentence. Each religious orientation record (internal/external) may have a zero to twenty-five scores. Any higher value indicates the priority of that religious orientation. The odd number of questions led to one of the religious orientations being definitely more than the other. For the test scores less than 12, the participant is considered to be having external religious orientation. The score of 13 and above indicates a participant with an internal religious orientation.

HPLP2 was utilized in order to measure the health-promoting behaviors. This questionnaire was translated by Marvoti-Sharifabad et al. (2003) in Iran. It was presented as a 52-question form in 1995 with four possible answers, aimed to assess the prevalence of health-promoting behaviors in six different aspects. Aspects included health responsibility, nutrition, spiritual growth, interpersonal relationships, physical activity, and stress control. Total score ranges from 52 to 208. 9–36 scores were considered for the first four aspects and 8–32 scores for the last 2 ones.

In order to determine the mean score of health-promoting behaviors in terms of quartiles, the scores were categorized in the following approach: individuals in the first quartile scored less than 121, those of second quartile scored 121–138, those of third quartile scored 139–161, and those of fourth quartile scored equal or more than 162.

GHQ questionnaire is another form containing 28 questions which investigates individuals' general health status during the former month. This form includes 4 aspects including chronic depression, physical, stress, and social performance. Questions in the form of multiple choices with 4 answers were scored from 0 to 3. The total score is between 0 and 84. Lower scores are indicative of better general health condition. The GHQ questionnaire was used to collect basic information on the elderly's health status and to control the general health impact on health behavior. All the three questionnaires of Alport, HPLP2, and GHQ were used over various populations of Iran, and shown to be acceptable in terms of validity and reliability (Hosseini et al. 2014; Basharat 2009; Bazmi and Allahvirdiyani 2011).

SPSS version 23 software (SPSS Inc., Chicago, IL) was used to analyze the data. Normality of the variables was tested by Kolmogorov–Smirnov. Descriptive statistics for the participants' profile, health behaviors, general health, and religiosity were collected by frequency, percentage, and mean ± SD. Independent *T* test was used to compare mean of health behavior components with religious orientation and participants' profile. Religious orientation was categorized as internal and external. Multiple linear regression models were used to evaluate the predictability of healthy behaviors by religiosity and other variables. The two-tailed *P* value less than 0.05 was considered significant.

Results

This study includes 316 elderly, 158 male and 158 female over the age of 60 years. The age span of the participants was from 60 to 90 with a mean age of 67.9 ± 6.6 years. Seventy-one individuals, 22.5% of the total population, illustrated an external religious orientation, while the rest had internal religious orientation. More information regarding the frequency and percentage of the participants' profile is indicated in Table 1.

The mean of the health-promoting behavior was 140.5 ± 24.6, ranging from 74 to 193. 25.9% of individuals were placed in the first quartile because they scored less than 121. 23.7% of individuals scored between 121 and 138 and was placed in second quartile. 26.3% of individuals scored between 139 and 161 and was placed in third quartile. 22.5% of individuals who were placed in fourth quartile scored equal or more than 162. This means that 48.8% of individuals had good health behavior. The best performance was in the interpersonal relationships aspect, while the worst one was related to the physical activity. The mean ± SD of health-promoting behavior components is depicted in Table 2.

The relationship between health-promoting behaviors, religious orientation, and participants' profile is depicted in Table 3. Among the health-promoting behavior components, the only significant relationship was between the human responsibility and individuals' religious orientation ($P < 0.001$). That is, people with internal religious orientation show more health responsibility than those with external religious orientation, 25.1 ± 6.6 compared to 22.6 ± 6.5, respectively.

Moreover, the two aspects of physical activity and spiritual growth showed significant relationship with all participants' profile. Married individuals under the age of 70 years, urban residents with a decent income source, employed individuals with a diploma or higher educational degree, and also individuals with better general health conditions generally achieved higher scores in physical activity and spiritual growth. Furthermore, among the participants' profile, education level followed by general health conditions showed the most significant relationship with all other health-promoting behavior aspects.

Multiple linear regression models show no relationship between religion and health behaviors; however, a significant relationship was found between health behavior and some of the participants' profile. The regression stability was examined by adjusting other variables listed in Table 4, including residence, age, job, home, and the status of life. Out of the total health behavior score, an increase of 7.65 for married individuals compared to single ones ($P < 0.01$(and 10.65 for high school diploma and higher education compared to lower education level ($P < 0.001$) were achieved. This is while a decrease of 12.35 for addition of each offspring ($P < 0.001$), 12.14 for addition of each family member ($P < 0.001$), 8.28 for comorbidity ($P < 0.01$), and 16.2 for each one score added to GHQ ($P < 0.001$) were obtained according to Table 4.

Table 1 The personnel characteristics profile of elderly people

Variables	*N* (%)
Marital status	
married	253 (80.57)
single	61 (19.43)
Residence	
Urban	241 (79.01)
Rural	64 (20.98)
Sex	
Female	158 (50.00)
Male	158 (50.00)
Income[a]	
Adequate	141 (45.93)
Inadequate	166 (54.07)
Income source	
Self-sufficient	275 (93.22)
Financial aid	20 (6.78)
Job	
Employed	111 (36.87)
Unemployed	190 (63.13)
Education	
Less than diploma	156 (50.32)
Diploma and higher	154 (49.68)
The house	
Rent	25 (7.96)
Own	289 (92.04)
Live with	
Spouse/children	255 (81.47)
Alone	58 (18.53)
Chronic disease	
Yes	214 (68.81)
No	97 (31.19)
Mental problems	
Yes	13 (4.17)
No	299 (95.83)
Religiosity	
Internal	245 (77.53)
External	71 (22.47)

[a]Adequate income, to the individual point of view, means having the amount of money making the individuals taking over the general life expenses on their own

Table 2 Health-promoting behavior components in elderly people

HPLP2 components	Mean ± SD	Min–max
Nutrition status	25.00 ± 4.91	8–36
Physical activity	16.51 ± 6.32	6–32
Spiritual growth	25.62 ± 5.00	10–36
Interpersonal relationships	26.70 ± 4.72	6–35
Stress control	21.53 ± 4.71	2–32
Health responsibility	24.60 ± 6.72	4–36

HPLP2 health-promoting lifestyle profile 2 assessment

Discussion

Health-promoting behaviors are the key determinants of being healthy. This is mainly because individuals can protect themselves from many diseases by these behaviors (Hosseini et al. 2014). These behaviors, especially in older aged people, can play a significant role in improving their health conditions and life quality (Marvoti-Sharifabad et al. 2003). The spiritual and religious coping approach over a crisis as a lifestyle has recently been growing. This kind of coping strategy is a source of both emotional support and a means of positive interpretation of life events. This can facilitate subsequent confrontations, thereby rendering a person with peace of mind (Wu et al. 2017).

Elderly people tend to use religion as an alternative to pharmaceutical treatment approach to cope with their health decline (Marvoti-Sharifabad et al. 2003). Therefore, it was supposed that discovering individuals' religious potential may be valuable for elderly individuals' health behaviors. The current study sheds light on the predictive power of religion on health-promoting behaviors during individuals' old ages.

The results indicate that despite good health behavior in nearly half of the participants, no significant correlation was found between health behavior and religious orientation. The study conducted by Assari et al. (2015) revealed that cortisol and hypothalamic–pituitary–adrenal axis (HPA) may interfere with the protective effect of religion against the risk of hypertension and cardiovascular diseases (CVD), and some other undesirable conditions including stroke, immune dysfunction, and dyslipidemia. Their study illustrated a negative correlation between participation in religious activities and mean cortisol levels in men, but not in women (Assari et al. 2015). Tobin and Slatcher (2016) also concluded that the participation in religious activities predicts diurnal cortisol profile 10 years later among middle-aged individuals. Religion may reduce cortisol and improve health, through its effect on psycho-neuro-endocrine-immune pathways.

In addition to physiological mechanism, behavioral and social mechanisms have also been reviewed for discussing the effects of religiosity on mental and physical health (Alves et al. 2010; Johnstone et al. 2012). Baneshi et al. (2017) found religious beliefs as an independent factor to predict the risk of suicidal behavior. Some reports showed that increase in religiosity, especially intrinsic religiosity defined as personal commitment to religious beliefs, would reduce depression scores in elderly individuals with depression (Bazmi and Allahvirdiyani 2011; Hayward et al. 2012; Lucchetti et al. 2012). Spiritual health and prayer, but not the frequency of participation in religious rituals and ceremonies, were the predictors of psychological health in elderly individuals (Zimmer et al. 2016). Additional studies conducted on elderly people depicted the relationship between

Table 3 The compare means of health-promoting behaviors with religion and participants' profile

Variables	9–36* Nutrition status	8–32 Physical activity	9–36 Spiritual growth	9–36 Interpersonal relationships	8–32 Stress control	9–36 Health responsibility
Religiosity						
Internal	25.12 ± 4.90	16.02 ± 6.21	25.67 ± 4.87	26.85 ± 4.72	21.63 ± 4.71	25.14 ± 6.60[2]
External	24.58 ± 4.81	16.51 ± 6.42	25.24 ± 5.12	26.04 ± 4.86	21.02 ± 4.83	22.56 ± 6.50
Marital status						
Married	25.02 ± 4.91	16.79 ± 6.20[2]	26.08 ± 4.87[2]	26.68 ± 4.93	21.92 ± 4.67[2]	24.76 ± 6.71
Single	24.78 ± 5.21	13.47 ± 6.12	23.77 ± 4.80	26.53 ± 4.12	19.65 ± 4.51	23.44 ± 6.68
Residence						
Urban	25.54 ± 5.00[2]	16.82 ± 6.46[2]	26.02 ± 4.87[1]	26.95 ± 5.02	21.54 ± 4.76	25.44 ± 6.56[2]
Rural	22.86 ± 4.14	13.20 ± 4.31	24.10 ± 5.11	25.84 ± 3.88	21.51 ± 4.34	20.65 ± 4.91
Age (year)						
60–70	24.88 ± 4.73	17.20 ± 6.22[2]	26.23 ± 4.68[2]	26.80 ± 4.56	22.14 ± 4.62[2]	24.44 ± 6.52
< 70 years	25.21 ± 5.30	13.78 ± 5.61	24.29 ± 5.33	26.44 ± 5.13	20.23 ± 4.70	24.89 ± 7.02
Income						
Enough	25.43 ± 4.85[2]	16.54 ± 6.20[2]	26.00 ± 4.87[2]	26.76 ± 4.78	21.65 ± 4.66	24.90 ± 6.71[2]
Inadequate	21.62 ± 2.84	10.84 ± 2.74	21.9 ± 3.84	25.24 ± 3.60	19.94 ± 3.20	20.00 ± 4.62
Income source						
Self-sufficient	25.44 ± 4.87[2]	16.53 ± 5.02[2]	26.00 ± 4.9[2]	26.78 ± 4.76	21.68 ± 4.70	24.93 ± 6.65[2]
Financial aid	21.63 ± 2.84	11.75 ± 2.68	21.9 ± 3.8	25.24 ± 3.65	19.93 ± 3.22	20.02 ± 4.61
Job						
Employed	25.67 ± 4.68	18.00 ± 5.77[2]	27.54 ± 4.22[2]	27.41 ± 4.50[2]	22.54 ± 3.91	25.01 ± 5.92
Unemployed	24.63 ± 4.85	15.09 ± 6.30	24.43 ± 5.13	26.27 ± 4.89	20.90 ± 4.88	24.43 ± 7.10
Education						
> Diploma	23.54 ± 4.43[2]	13.45 ± 5.10[2]	24.11 ± 4.78[2]	25.83 ± 4.44[2]	20.50 ± 4.39[2]	22.68 ± 6.19[2]
≤ Diploma	26.64 ± 4.86	18.90 ± 6.22	27.24 ± 4.68	27.54 ± 4.90	22.52 ± 4.82	26.63 ± 6.45
GHQ						

Table 3 continued

Variables	9–36* Nutrition status	8–32 Physical activity	9–36 Spiritual growth	9–36 Interpersonal relationships	8–32 Stress control	9–36 Health responsibility
Desirable	25.78 ± 4.60	18.33 ± 6.16[2]	27.89 ± 4.58[2]	27.71 ± 4.73[2]	23.14 ± 4.88[2]	25.74 ± 6.14[3]
Undesirable	24.84 ± 4.80	15.02 ± 6.00	24.28 ± 4.61	26.24 ± 4.34	20.38 ± 4.23	24.03 ± 6.90
Comorbidity[a]						
Yes	24.60 ± 3.43	13.84 ± 2.33	27.33 ± 3.41[2]	24.90 ± 2.44	23.54 ± 3.76[1]	22.83 ± 2.14
No	25.39 ± 3.14	14.32 ± 2.57	23.74 ± 3.80	25.69 ± 3.56	20.94 ± 3.23	24.12 ± 2.62

GHQ general health assessment

*The numbers represent the rating range of each aspect of health-promoting lifestyle profile 2 assessment (HPLP2)

[a]Coexistence ≥ 4 chronic disease

Values are mean ± SD

[1]$P < 0.01$

[2]$P < 0.001$

[3]$P < 0.05$

Table 4 The regression coefficient of healthy behaviors on religion and participants' profile

Variables	Crude			Adjusted		
	B (SE)	β	*P* value	B (SE)	β	*P* value
Religiosity (internal vs. external)	− 6.66 (3.41)	0.17	0.34	3.23 (0.06)	0.01	0.42
Marital status (single vs. married)	9.19 (3.50)	0.35	0.01	7.65 (3.90)	0.39	0.01
Residence (rural vs. urban)	14.80 (3.32)	0.14	0.65	5.42 (1.20)	0.09	0.72
Age (year)	− 0.38 (0.21)	− 0.10	0.70	0.07 (0.22)	0.02	0.78
Income source (self-sufficient vs. financial aid)	−22.71(5.55)	− 0.08	0.82	− 5.02 (2.35)	0.05	0.80
Job (unemployed vs. employed)	8.70 (2.90)	0.37	0.09	1.69 (0.74)	0.03	0.18
Education (> diploma vs. ≤ diploma)	19.34 (2.60)	0.49	0.001	10.57 (3.22)	0.41	0.001
Home (rent vs. own)	10.56 (5.10)	0.32	0.26	− 2.14 (0.33)	− 0.02	0.24
Live with (spouse/children vs. alone)	− 3.62 (0.97)	− 0.04	0.54	− 3.60 (0.45)	− 0.05	0.53
Comorbidity[a] (yes vs. no)	− 9.32 (3.01)	− 0.45	0.01	− 8.28 (0.95)	0.43	0.01
GHQ (score)	− 14.12 (1.68)	− 0.61	0.001	− 16.2 (0.45)	0.45	0.001
Number of children	− 5.44 (0.71)	− 0.40	0.001	− 12.35 (0.91)	−0.36	0.001
Number of family	− 8.19 (1.14)	− 0.35	0.001	− 12.14 (1.32)	0.43	0.001

GHQ general health assessment

[a]Coexistence ≥ 4 chronic diseases

$P < 0.05$ multiple regression analysis significant, B standardized regression coefficient; β unstandardized regression coefficient

religiosity and lower hypertension (Charlemagne-Badal and Lee 2016) and CVD risk (Lucchese and Koenig 2013).

On the other hand, Behere et al. (2013) found that participation in religious rituals has no correlation with psychological health. However, positive mental feelings from religious beliefs would act as a source of power to comfort and help individuals during hardship, and therefore is related to mental health (Behere et al. 2013).

Some studies have also rejected the relationship of religiosity with psychological health (Roh et al. 2014; Boey 2003), while others related its effects on psychological health and some specific diseases like depression. However, the results were contradictory (Koenig 2007). On the other hand, some studies introduced spirituality, but not religiosity as a factor related to health condition. Roh et al. (2014) showed that elderly individuals with higher spirituality levels, but not higher religiosity, had better understanding of their own health conditions.

The studies on the area of religiosity and health are usually conducted over patients with specific conditions including diabetes (Amadi et al. 2016), cancers (Fehring et al. 1997), bipolar disorders (Stroppa and Moreira-Almeida 2013), hospitalized patients (Koenig 2007), or those referring to intermediate care units (Yohannes et al. 2008). Therefore, there is very small number of similar studies conducted over the large population of functionally independent elderlies in the society. To the best of the authors' knowledge, this is the first

study conducted to find a correlation between religiosity and health-promoting behavior among elderly population of Iran.

The relationship of religion with health is a controversial subject; even for younger individuals, contradictions exist about the effects of religiosity on health (Turner 2015; Anye et al. 2015; Krageloh et al. 2012). The controversial concept of religion might be rooted in various factors including age, general health conditions, and participants' life condition. Religion is a complicated sociocultural phenomenon in which its effect on psychosomatic condition is controversial. Therefore, depression, infections, and hypertension often along with the aging process can create an intrinsic desire toward religiosity at old ages. Contradictions among the results of aforementioned researches may partly be explained by different tools used for religiosity evaluation. In addition, participants' health conditions and other health determining factors other than religiosity may have caused such results contradictions. Some examples of those factors include demographic characteristics like income, education, and receiving social, and familial support. Adoption models for confronting stress and also variations in religiosity and spirituality in different populations are among the reasons for study results' variations.

In some recent studies, the multiple analysis regression results demonstrated some correlation between personal characteristics and health behaviors. Cherry et al. (2015) showed that the individuals with lower income, less social support, and higher levels of non-organizational religiosity were at higher risk of post-disaster and psychological reactions. Some other studies indicated that individuals with worse health conditions and hospitalized patients are less likely to turn to religious individuals when compared to healthier individuals (Koenig 2007). This indicates that in order to meet socio-functional needs of the elderlies willing to continue their past religious activities, supportive programs must be provided.

The study conducted by Lucas et al. (2000) showed that age, marital status, race, education, and self-esteem are correlated with health behaviors in elderly women. Internal barriers against health behaviors include physical problems, and external barriers include activity and lack of social support (Lucas et al. 2000).

Religiosity and spirituality are two different concepts that are considered together in most studies, while their effect on human behavior can be different. In the present study, these two concepts were considered separate to determine the pure impact of religious orientation. This study was also conducted on a homogeneous sample of community-dwelling elderlies who were independent in terms of functional status and were able to perform health behaviors. Some of the limitations include large number of questions and inconsistency of some of Alport generalized questions with religious and cultural beliefs of Iranian society. Therefore, there must be future studies to reconsider religious orientation questionnaire that is consistent with the beliefs of the Iranian senior population.

It should be noted that along with the human's life longevity, the importance of health-promoting behaviors become more evident when considering the individuals' independence and life quality increase. Health-promoting behaviors among elderly individuals have potential impacts on health promotion and life quality and will reduce the costs related to health care.

Conclusion

The current study results indicate that investigating the role of religiosity in human's health requires more complicated approaches in order to take into account other related factors including defense mechanisms to cope with daily life. Moreover, variations among the results of the past studies on religiosity adoptive performances may be, to some extent, due to the present variations in the samples' religiosity and spirituality. The results also indicate that demographic characteristics and physical and mental health should not be overlooked when investigating the correlation between religiosity and health. Further research is required to investigate other possible relationships between religion and health behaviors such as behavioral sources, possible health risks, and age-sensitive health-promoting considerations.

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Compliance with Ethical Standards

Conflict of interest Authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and 1964 Declaration of Helsinki

Informed Consent Informed consent was obtained from all participants included in the study.

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