

Spiritual well-being as predictor of health behavior efficacy in older patients of selected Medical University Hospitals

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ABSTRACT

Spiritual health is one of the aspects of health that is necessary to pay attention to this aspect. Spiritual health of the aged is associated with several factors which in particular may affect other aspects of their health; therefore, this study also sought to examine the relationship between spiritual health and self-efficacy of health behaviors in the aged. In this study, statistical population was patients aged 60 years and older who were hospitalized in two hospitals affiliated with Isfahan University of medical sciences. The subjects were recruited through convenience sampling method. The data was collected by a three-part questionnaire consisted of a) demographic and health related characteristics, b) The Self Rated Abilities for Health Practices Scale (SRAHP) and c) Spiritual Well-Being Scale (SWBS) and were analyzed by descriptive and inferential statistics (mainly multiple regression analysis) in SPSS software. The subjects consisted of 210 participants (116 males, 93 females) with mean (SD) age of 72.5 (8.5) years. The results showed significant relationship between health behaviors efficacy and gender ($t=2.44$, $df=207$, $p=.16$), income ($F_{3,208}=5.8$, $P<.001$) and education level ($F_{4,208}=9.25$, $P<.001$). Findings showed that the entered predictor variables were accounted for 27% of total variance (R^2) of the health behaviors efficacy ($P<0.001$, $F_{2,207}=38.4$). Spirituality may be an important explanatory factor of subjective health behavior efficacy in older patients. Therefore, it is worthwhile for the health care professionals to take spiritual care into account as an important factor that may help the aged patients adopt healthy behaviors.

KEY WORDS: OLDER ADULT, SPIRITUAL HEALTH, HEALTH BEHAVIOR

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INTRODUCTION

The growth of the aged population is increasing all over the world (Borji *et al.*, 2015a, Azami *et al.*, 2016 b) and the issue of population aging and its consequences is one of the major issues that the world's population recently been involved with it (Borji *et al.*, 2016a, Borji 2016b). This significant increase in the aged in two decades, is one of the main challenges for the health care system(Borji and Asadollahi, 2016).

The aged are at risk of health change for many reason(Borji *et al.*, 2017a), that the multiple physiological and psychological changes, vulnerability and ultimately different health challenges in the aged(khoukhazade, 2016, Mozafari *et al.*, 2016),makes a large load on the health system. Health behaviors are one of the major criteria that determine health that have been identified as an important underlying factor in the lack of many diseases(O'Donnell *et al.*, 2008); so that health promotion and prevention of diseases directly is associated with these behaviors(Otaghi *et al.*, 2016b, Azami *et al.*, 2016a). One of the most famous theories about how to predict and description of application behavior is Bandura's learning theory which is one of the theories used in changing the behavior and it is one of the most important structures of self-efficacy (MN, 2015). He believes that self-efficacy is a significant predictor in the intention of people for doing health behaviors and accepting health patterns(MN, 2015, Azadbakht *et al.*, 2014). Self-efficacy means the belief in your ability to perform an action and can enable people to adopt health promoting behaviors and leaving harmful behaviors for health(Azadbakht M *et al.*, 2014).Self-efficacy is an important precondition for self-managing in changing the behavior(Larkin L *et al.*, 2016). In particular, studies conducted in the UK suggest that self-efficacy of health promotion behaviors associated directly with the health and quality of life (QOL). (Azadbakht *et al.*, 2014). QOL is an important topic (Borji *et al.*, 2016b).

In different study, social, physical and mental health has been identified as factors associated with self-efficacy of health-related behavior (21). For example, Reblin *et al* have supported in his study from the relationship between social supports with health and its related behaviors (Reblin and Uchino, 2009), Martinez from the relationship between mental health with health promotion behaviors(Martínez and RP, 2014)and Larkin *et al* from the relationship of the aged self-efficacy with physical health and self-care behaviors (Larkin *et al.*, 2016).

The spiritual dimension is a dimension of health which some experts believe that serious attention to this dimension is essential, (Fadardi 2015, Ya'qubi *et al.*, 2014). Search results not found in databases and scien-

tific sites and also a study that examined the relationship between two variables spiritual health and self-care behaviors in the aged. Therefore, this study aimed to investigate the relationship between spiritual health with self-efficacy of health behaviors in the aged patients in selected hospitals in Isfahan University of Medical Sciences.

MATERIAL AND METHODS

This study is a cross sectional analysis of correlation. The study population comprised 210 patients aged 60 years and older who admitted in the selected hospitals (Alzahra, and Noor Et Aliasghar) affiliated with IUMS from April- August 2015. Convenience sampling method was used to recruit the subjects from the mentioned hospitals.

The data was collected by a three-part questionnaire consisted of a) demographic and health related characteristics, b) The Self Rated Abilities for Health Practices Scale (SRAHP) and c) Spiritual Well-Being Scale (SWBS). SRAHP is a 28-item, 5-point scale to measure self-perceived ability to perform health-promoting behaviors. It contains four subscales consisted of exercise, nutrition, responsible health practice, and psychological Well Being. Each subscale has seven items. Items are rated from 0 (not at all) to 4 (completely). Ratings for each subscale are summed to get subscale scores. Subscale scores are summed to get a total score. Total scores ranged from 0-112 with higher scores indicating greater self-efficacy for health practices. In a study, Cronbach's alpha was .94 for the total scale, and .92, .81, .90 and .86 for the exercise, nutrition, psychological well-being and responsible health practices subscales, respectively(Ya'qubi *et al.*, 2014).In an Iranian study on elderly people, Cronbach's alpha for total scale and each subscales ranged from .73 to .84(Azadbakht *et al.*, 2014).

To score the SWBS, the numerical values for each response are added for each of the subscales (Existential Well-Being: EWB and Religious Well-Being: RWB). Both values for the subscales are then summed to get the total SWBS value. Scores are ranged from 10 to 60 on the subscales and 20 to 120 on the SWBS. Higher scores indicate a higher perception of well-being. Coefficient alphas have reported as .89 (SWB), .87 (RWB), and .78 (EWB) for each subscale. In an Iranian study on elderly people, Cronbach's alpha for the SWBS, EWB and RWB reported as .93, .91 and .91 respectively (Ya'qubi *et al.*, 2014, Borji *et al.*, 2015b)

After getting ethical and official permission, the research aims and process were described for the subjects. Moreover, they were ensured about the confidentiality of the information. After that, the researcher dis-

tributed the questionnaires, and the subjects filled the questionnaires personally, and or by researcher (in the case of any problem with filling). In addition to descriptive statistics (percentiles, mean and standard deviation) and some other analysis to examine the relationship between demographic/health related characteristics variables and the health behaviors efficacy in the older patients, our key analysis was linear multiple regression. This was used in order to examine the model of the health behaviors efficacy in the older patients based on spiritual well-being subscales.

Before linear multiple regression analysis, the data were checked to ensure meeting the key assumptions of the analysis. For each of the four psychosocial predictor variables, the tolerance statistic was found $>.20$ and the Variance Inflation Factor (VIF) was <10 , indicating absence of multi-collinearity. Moreover, the Durbin-Watson statistic was between 1 and 3, indicating independence of error (TZ., 2014.). Results of this statistical analysis included non-standardized coefficient (B), standard deviation coefficient (β) and R square (R^2) values. SPSS (Statistical Package for the Social Sciences) version 16 was used for all analyses, and all analyses were two-tailed. The study was approved by the IUMS research Committee (295031). Participants signed an informed consent and were given written information and were ensured that their participation would be voluntary. Moreover, they were ensured about the confidentiality of their information.

RESULTS AND DISCUSSION

The means (SD) of quantitative variables and frequency (percent) of qualitative variables are represented in Table 1. The descriptive statistics of SRAHP and SWBS along with their subscales are presented in the table 2.

All variables related to health related characteristics and demographic data (i.e. age, gender, marriage status, income, residency status and education level) were examined to see if they have significant relationship with the health behaviors efficacy. The results showed significant relationship between health behaviors efficacy and gender ($t=2.44$, $df=207$, $p=.16$), income ($F_{3,208}=5.8$, $P<.001$) and education level ($F_{4,208}=9.25$, $P<.001$).

Findings from multiple regression analysis showed that of two out of three of the predicting variables (i.e. EWB and SWB) entered in the model have significant relationship with the health behaviors efficacy. However, the RWB has not significantly predicted the criterion variable (Table 3). The model of predicting health behaviors efficacy was significant ($P<0.001$, $F_{2,207}=38.4$) and entered predicting variables were accounted for 27% of total variance (R^2) of the health behaviors efficacy.

Table 1. Demographic characteristics of the patients

Variable	Mean (SD) or n (%)	
Age, mean (SE)	72.5(8.5)	
Sex, n (%)	Female	12 (37.5)
	Male	20(62.5)
Marriagestatus, n (%)	Single	13(6.2)
	Married	151(71.9)
	Widowed	45(21.4)
	Divorced	1(.5)
Income, n (%)	Without income	65(31)
	Less than expenses	71(33.8)
	Equals expenses	72(34.3)
	More than expenses	2(1)
Residency, n (%)	Home	177(84.3)
	Family	30 (14.3)
	Nursing home	3(1.4)
Education, n (%)	Illiterate	105(50)
	Primary education	59(28.1)
	Middle school	20(9.5)
	diploma	16 (7.6)
	Academic studies	9(4.3)
	Missing	1(.5)

Table 2. Demographic characteristics of the SWBS and SRAHPS as well as their subscales

Main variables	Mean	Std. Deviation
RWB	48.43	7.24
EWB	36.67	11.41
Total SWB	85.07	17.29
Nutrition	12.39	6.72
Psychological well being	11.88	6.42
Exercise	6.88	6.87
Responsible health practice	13.40	6.36
Total SRAHPS	44.54	22.86

The findings of the study that was done to investigate the relationship between spiritual health and self-efficacy of health behaviors in the aged patients in selected hospitals of Isfahan University of Medical Sciences stating that spiritual health is generally predicts self-efficacy of health behaviors of the aged. Although similar studies have not been conducted in the aged, some previous studies that have examined the relationship between spiritual health and health-related variables and health-related behaviors in the aged have emphasized the importance of spiritual health. For example, positive and significant relationship between spiritual

Table 3. Results of multiple regression analysis to predict the health behaviors efficacy based on RWB, EWB and SWB

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	β		
	RWB	.328	.265	.104	1.241	.216
	EWB	.881	.168	.443	5.259	.000
	SWB	.677	.078	.516	8.636	.000

Note: the model of predicting the health behaviors efficacy based on SWB is examined through a separate analysis

health with life satisfaction (Ya'qubi et al., 2014, Anand et al., 2017), quality of life (Fadardi 2015, Chaves and CA, 2015), reducing perceived stress (Martínez and RP, 2014), physical health (Boswell G et al., 2006) have been supported. The study of the predictive role of spiritual health dimensions showed that although existential health is a more decisive role in the self-efficacy of health-related behaviors; which implies the aged trying to achieve the purpose and meaning in life (Takkinen and I., 2001), which directs them to higher compatibility and more logical confrontation with the disease (Anand V et al., 2017). Evidence emphasized the decisive role of spirituality in shaping human behavior. For example, the findings of Musgrave et al showed that spirituality and religiosity leads to prevention, health promotion behaviors and deal with the health problems (HG, 2012). The results of Mills et al in patients with heart failure also showed that spirituality leads to more self-efficacy (Mills et al., 2015) and results of Fadardi et al showed that there is a significant relationship between self-efficacy and trust in God (Fadardi 2015).

The findings of this study consistent with the view of some experts emphasize that more attention to the technical aspects of care and treatment, it is necessary to emphasize the spiritual care (Min J-Ah et al., 2013). It also stressed that spirituality is an important source of strength and support in all stages of life but it is more important in the aged (Jadidi et al., 2011).

CONCLUSION

Spirituality may be an important explanatory factor of subjective health behavior efficacy in older patients. Therefore, it is worthwhile for the health care professionals to take spiritual care into account as an important factor that may help the aged patients adopt healthy behaviors. Future studies are needed to examine effect of improving spiritual care on health behavior efficacy in older patients. Nurses can improve people's health, therefore it is recommended that interventions be performed by nurses for health promotion.

CONFLICT OF INTEREST

There is no conflict of interest between authors.

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