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Spiritual well-being of Iranian patients with acute coronary syndromes: a cross-sectional descriptive study

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Spiritual well-being harmonizes several dimensions of human life and is essential for coping with diseases. Acute coronary syndromes (ACS) cause crisis in physical, psychological aspects and spiritual dimensions of patients' lives. The purpose of this study was to determine the level of spiritual well-being and its dimensions in patients with ACS. **A** cross-sectional descriptive study was conducted. For data collection, Paloutzian and Ellison's Spiritual Well-being self-report questionnaire was filled in by 364 patients with ACS. Patients referred to cardiac wards of five teaching hospitals in Tehran between August 2011 and April 2012 were recruited using the convenient sampling method. The data were analyzed using descriptive and inferential statistics. The findings revealed that the majority of patients (97.9%) benefited from moderate spiritual well-being, although religious well-being was higher than existential well-being in the patients. It is concluded that nurses are required to improve their cultural and contextual knowledge of patients' spiritual well-being to meet patients' needs in nursing care. Spiritual beliefs can influence coping with diseases, help patients to find meaning and purpose in life to deal with problems resulting from physical and mental illnesses. These findings can be used to suggest the incorporation of religious aspects of spirituality into care programs designed to improve the quality of life of patients with ACS.

Keywords: acute coronary syndrome, existential well-being, heart disease, religious well-being, spiritual well-being, spirituality.

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Key points

- Tendency to spirituality increases with age;
- Creating spiritual meaning in life plays an important role in coping with stressful situations caused by diseases;
- It is required to incorporate religion and spirituality into nursing education curricula to prepare nurses to develop care plans designed to improve the quality of life of patients.
- Future studies with a qualitative design are suggested to improve our understanding on how spirituality interventions can be incorporated into nurses' care planning from both nurses and patients' perspectives.

Introduction

Acute coronary syndrome [ACS] is the most prevalent type of cardiovascular disease [CVD] in adults and the single largest cause of death of people in developed countries. ACS refers to a group of symptoms attributed to obstruction of coronary arteries (Yun & Alpert, 1997). It is predicted that by 2030, almost 23.6 million people will die from CVD, and over 80% of death related to CVD take place in low- and middle-income countries. According to Gaziano et al. (2010) about 35% of all incidences of death in the MENA [Middle East and North Africa] and EAP [East Asia and Pacific] regions can be attributed to CVD.

ACS has an unpredictable course with long-term dysfunctions and frequent waxing and waning of symptoms (Bekelman et al. 2007). ACS as a critical life event compels people to confront any change in their lifestyles and try to achieve a way to promote their quality of life. Some ways have been suggested for dealing with issues caused by the disease (Brunner & Suddarth, 2010). While patients may suffer in mind, body and spirit due to confrontation with emotional stress, physical diseases or death (McEwan, 2005), it is known that they try to keep their faith toward their values and beliefs in facing with diseases (Potter & Perry 2005).

Spirituality is a necessary component of life (Wen-Chuan et al. 2011). Spiritual well-being (SWB) has been defined as the affirmation of life in a relationship with God, self, community and environment that nurtures and celebrates wholeness (Arnold et al. 2007). Humans obtain spiritual well-being by finding balance between values, goals, beliefs and relationships with self and others (McSherry et al., 2004; Potter & Perry, 2005; Wu et al., 2012).

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Spirituality including religious faith as well as inner personal strength allows patients to think positively and focus on the goodness of life, while admitting limitations imposed by their illness. Spirituality touches the deepest human level, the world of being, which is beyond words (Santavirta, 2004) and emphasizes two religious and existential dimensions. Religious well-being is the result of being satisfied with having relationship with a superior power, while the existential well-being is interpreted as trying to understand the meaning and purpose of life (Brunner & Suddarth, 2010). SWB has been shown to assist in coping with stressful life events (Bekelman et al. 2009). Previous studies conducted on spirituality in patients with chronic diseases such as multiple sclerosis (McNulty et al., 2004), and AIDS (Litwinczuk & Groh, 2007) shows that it has a significant relationship with health and is useful in adjusting with the disease. Higher concentration on patients' physical needs during illness crisis may lead to less attention paid to patients' psychological and spiritual needs (Timmins, 2008). It is evident that spirituality can be a protective factor against cardiovascular diseases (Morris, 2001). Bekelman (2007) declares that spirituality is emphasized in palliative care and has been advocated in patients with CVD to relieve their suffering and distress. It plays a major role in patients' health status as it helps with adjustment with illness. According to most studies focusing on spirituality and cardiovascular diseases, those patients who are more spiritual have healthier hearts and are less likely to die from heart diseases (Blumenthal, 2007; Morris, 2001; Jahani et al., 2012). This effect can be attributed to the influence of religion and spirituality on physical health through psychosocial and behavioural pathways, and the strong influence that psychosocial and behavioural factors have on risk of developing cardiovascular diseases (Coyle, 2002; George et al., 2000).

Nurses can help patients with a holistic approach to acquire and maintain health and physical, mental and spiritual recovery (Delaney & Barrere, 2008). Therefore, assessment of SWB in hospitalized patients can accelerate recovery and promote patients' quality of life (Moeini, 2012).

Background in Iran

According to Persian people's culture and religious doctrine, the human being, as the God's creature, possesses physical, mental, emotional, cultural, social, spiritual and environmental dimensions (Farahaninia, 2005; Omidvari, 2008). Praying is considered by Iranian's Muslims to

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be one of the main ways of communication with God, through which they seek justice, submit petition and compliance, and strengthen their compatibility for dealing with stressful incidents. Iranian people practice their religious rituals to achieve a higher level of spirituality. Avowing, almsgiving, attending spiritual events, respecting other religions such as Christianity and Judaism so on, practicing religious activities such as repeating a word or a phrase in prayer, and attendance to holy shrines especially mosques are tools used by people to reach satisfaction with life, promote their spiritual health, create better relaxation and achieve compatibility with diseases and life issues (Akhbardeh, 2011).

Although the nursing profession has already begun to view prayer and meditation practices as emergent forms of the field of patient care, only a few studies have been conducted on spirituality in patients with disease such as multiple sclerosis (Allahbakhshian, Jafarpour,& Parvizi, 2011), breast cancer (Olver & Dutney , 2012), diabetes (Akhbardeh, 2011), rheumatoid arthritis (Lin et al., 2011), and war disaster (Ebadi et al., 2009). However, no study has explored this phenomenon in patients with ACS. Therefore, the aim of this study was to determine the level of spiritual well-being and its dimensions in Iranian patients with ACS.

Methods

Design

This study used a cross-sectional descriptive design. Cross-sectional designs as collection of data at one point in time involve the description of characteristics that exist in a population. They are non-causal in nature and are known as descriptive that often are used to suggest and initiate further research (Polit & Beck, 2010).

Sample and setting

The sample included 367 patients referred to cardiac wards of five teaching hospitals in Tehran, Iran between August 2011 and April 2012 that were recruited using the convenient sampling method. Of these, three patients refused to participate in this study. Therefore, 364 patients with the following inclusion criteria agreed to participate in this study:

- Having been diagnosed with ACS;
- Aged 18 years or older;
- Being a resident of Tehran city;

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- Being aware of the disease;
- Having willingness to participate in this study.

They were excluded from the study if they were diagnosed with myocardial infarction, cancer, renal failure (RF), cerebrovascular accident (CVA), and any sort of psychiatric diseases.

Measurements and data collection

The Paloutzian Ellison's Spiritual Well-being questionnaire (1982) was filled in by the patients at their bedsides. It was a self-report questionnaire, however if a patient was illiterate and unable to complete it, the primary investigator as an independent person read the questions to the patients and wrote their responses into the answer sheets.

The questionnaire was consisted of two parts: the first part included demographic characteristics such as age, gender, educational level, marital status, history of CVD; the second part included Palutzian and Ellison's Spiritual Well-being questions. It is noted that this questionnaire was designed in 1982 by Palutzian and Ellison to assess the existence and religious dimensions of SWB using the 6-degree Likert scale from completely disagree to completely agree. In this 20-item questionnaire of spiritual wellbeing, 10 questions were related to religious well-being (RWB) and 10 questions were related to existential well-being (EWB). The range of scores for each of the religious and existential subgroups was between 10 and 60. The higher score indicated higher religious and existential health. Inverse scoring was used in negative questions (Kor et al., 2013; McSherry, Cash, & Ross, 2004). The SWB score was the summation of the two subgroups with a range between 20 and 120. The SWB score was classified into three levels as low (20-40), medium (41-99) and high (100-120).

In a previous study, the questionnaire's content validity was assessed after translation to Persian language. It showed that the Paloutzian and Ellison's Spiritual Well-being questionnaire was a valid and reliable instrument. Its Cronbach's alpha coefficient was reported to be 0.82 (Seyedfatemi, 2006).

Data analysis

The data was analysed via the SPSS software for Windows version 16 (SPSS, Chicago, IL, USA). Descriptive and inferential statistics were used to analyse the collected data.

Ethical considerations

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This study was approved by the Ethics Committee of Shahed University. All participants signed a written consent form and were assured regarding the confidentiality of their data. The first researcher gave information about the topic of the research and invited the patients to fill in the spiritual well-being questionnaire. They were assured that participation in the study was voluntary and they could withdraw from it at any time without any impact on their care. Lastly, they signed written informed consent.

Results

Characteristics of the sample

The participants' mean age was 58.95 years (SD = 1.23 years). The majority of the participants were men (54.40%). The duration of ACS in the patients was 21.6 years (SD = 1.08 years). They were mainly (89.60%) married. Regarding educational level, 28.80% of them studied high school, and, 16.20% of them were illiterate. 87.90% of the patients suffered from other chronic diseases at the same time. A summary of the participants' demographic data are presented in Table 1

Spiritual well-being

Among the expressions related to religious health, the following items obtained the highest mean scores: "I believe that God loves me and cares about me" (Mean = 5.59, SD= 0.76) and "My relationship with God helps me not to feel lonely (Mean = 4.21, SD= 1.82)". With regard to existential health, the item "I believe there is some real purpose for my life" (Mean= 4.20, SD= 1.81) obtained the highest mean score. Spiritual well-being mean score was 82.11 (SD = 2.90) out of a total score of 120 related to existential and religious well-being scores. Therefore, based on the three levels of SWB, 53.3% of the patients were in moderate level and 44.2% were in the group of high SWB level.

It also was found that RWB (Mean = 41.67, SD= 14.90) was higher than EWB (Mean = 40.61, SD = 15.19, p = 0.002) in the patients. A summary of the participants' scores in both acceptable and captured ranges of spiritual well-being data are presented in Table 2.

Women's mean scores for SWB (Mean = 83.99, SD=29.25), RWB (Mean = 42.36 SD=14.59) and EWB (Mean = 41.62 SD= 15.17) were higher than men's mean scores for SWB (Mean = 80.54 SD=28.78), RWB (Mean = 41.08 SD= 15.17) and EWB (mean = 39.76 SD= 15.20). It was

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also shown that there was no statistically significant relationship between total SWB and its related dimensions, and the gender of patients (p = 0.25).

Mean score of SWB in the age range of the group > 60 years old (Mean = 83.12, SD= 1.18) was higher than other age groups. Moreover, there was no statistically significant relationship between SWB and the patients' age (r = .014, p = 0.78).

It was shown that there was no statistically significant relationship between SWB and marital status (p = 0.39). However, the SWB mean score for divorced and widowed patients (mean = 86.21, SD = 2.18) was higher than other groups.

In addition, no statistically significant relationships were found between patients' employment condition, economic status and education status, and SWP and its aspects (p = 0.41) Nevertheless, the mean score of SWB (87.18) was higher in the patients who studied up to high school diploma.

Discussion

According to the findings, a moderate level of SWB in the participants was reported. Additionally, the score of RWB was higher in comparison with EWB. These parallel the findings of Allahbakhshian et al. (2011) in Iran, in which patients suffering from multiple sclerosis (MS) showed a moderate level of SWB. The results of Dalmida et al.'s (2011) study in the U.S. with patients with HIV/AIDS were the same as our study findings stating that spirituality is a factor in patients' wellbeing in different religions. While, the results of the study by Bussing, Ostermann, and Matthiessen (2007) in Germany showed low spirituality scores in patients with cancer, Rezaei et al.'s (2006) in Iran reported high scores of SWB in patients with cancer. This difference can be attributed to participants' cultural and contextual backgrounds in different societies.

In this study, the score of RWB was higher than the score of EWB that is similar to the findings of Rezaei et al.'s study (2006) on patients with cancer and Dalmida et al.'s study on patients with HIV in the U.S (2011) due to the nature of chronic of diseases. On the other hand, the authors of this study believe that creating spiritual meaning in life plays an important role in coping with stressful situations caused by diseases that appears to justify such findings. Livneh et al. (2004)

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in the U.S stated that religious belief has an important role in coping with stressful situations induced by diseases.

Although there was no statistically significant difference between genders in the SWB, mean scores in both religious and existential aspects were shown to be higher in women. Similarly, Allahbakhshian et al.'s study (2011) on patients with MS, Bekelman, et al.'s (2007) study on patients with heart failure in the U.S., and Rezaei et al.'s (2006), in patients with cancer did not find a significant relationship between SWB and gender. Similar to our findings, Bussing et al. (2007) in Germany and Sawatzky et al. (2005) in the U.S. reported that EBW and RBW were higher in women with cancer than men, respectively.

It was found that the tendency to spirituality increased with age, contrary to findings of Allahbakhshian, et al.'s (2011) study that the SWB mean score in middle age patients was higher than other age groups. Rowe and Allen (2004) in the U.S. indicated that spirituality helped adjust to losses. This might be that aging was accompanied with losing some abilities and functions in life such as health and facilitated facing and adapting with the reality of death.

Schwarzer et al. (2004) declared that older widowed, divorced, or single patients with cancer received less emotional support than their younger counterparts. It is possible that the same pattern is present in our study's patients as they received less emotional support. Karren (2006) believes that divorced people and those who are unhappy with their life lose the source of social support besides to the stress of the disease imposed on them. Thus, the tendency to higher levels of spirituality can be an effective adjustment for this difficult condition.

The results showed that there was no significant relationship between SWB and marital status. However, a significant relationship was observed between EWB and being divorced and widowed rather than being married and single. Similarly, Riley et al. (1998) in the U.S. showed that EWB in married people were higher than single people.

No statistically significant relationship was found between spiritual well-being and educational level. Momeni et al. (2012) in Iran reported that the mean score of SWB was higher in patients with breast cancer who studied up to middle school. Although Rezaei et al. (2006), Musgrave and McFarlane (2003) in patients with cancer, declared that a significant relationship was present between SWB and the education level. The older group had a stronger connection between prayer

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and importance of religion, and this variable plus higher education predicted the role of prayer on wellbeing in the older group patients.

Conclusions

Both existential and religious aspects of spirituality were found to be significant contributors to wellbeing in patients with ACS. It is believed that religious and existential wellbeing are central to coping and living with ACS. Spiritual beliefs can influence coping with diseases, help patients to find meaning and purpose in life to deal with problems resulting from physical and mental illnesses. These findings can be used to suggest the incorporation of religious aspects of spirituality into care plans designed to improve the quality of life of patients with ACS.

Limitations and suggestions for future studies

This study only used a descriptive approach and was did not explore the perspectives of nurses and the mechanism by which spirituality could enhance patients' wellbeing. Therefore, future studies with a qualitative design are suggested to improve nurses' understanding on how spirituality interventions can be incorporated into nurses' care planning from both nurses and patients' perspectives.

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Table 1. The demographic characteristics of the patients (N= 364)

Characteristics		n	%
Gender	Male	198	54.40
	Female	166	45.60
Material status	Widow & divorced	16	4.3
	Single	22	6.70
	Married	326	89.60
Occupation	Employed	190	52.19
	Unemployed	174	47.81
Economic status	Favorable	62	17.00
	Unfavorable	302	83.00

Table 2. Spiritual well-being of the study patients (N= 364)

Spiritual well-being	Mean (±SD)	Acceptable range	Capture rang
Existential well-being	40.61, SD = 15.19	10-60	10-53
Religious well-being	41.67, SD= 14.90	10-60	15-60
Total	82.11 (SD = 2.90)	20-120	41-120

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