Original Article

The effect of spiritual care on spiritual health of patients with cardiac ischemia

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Abstract

Background: Spiritual well-being (SWB) of patients with cardiovascular diseases particularly in those admitted in coronary care unit (CCU) is threatened due to disease crisis. Therefore, implementing spiritual care is necessary for them. This study aimed to determine the effect of spiritual care program on SWB of patients with cardiac ischemia admitted in CCU in Al-Zahra Hospital, Isfahan, Iran.

Materials and Methods: In a single blind randomized clinical trial, 64 ischemic patients in CCU were randomly divided into test and control groups. Spiritual care program included supportive presence, rituals and using supportive systems for 3 days. Spiritual Well-being Questionnaire were completed before and after the intervention for the both groups.

Findings: Mean scores of SWB had no significant difference between the two groups before the intervention ($p = 0.84$). Mean score of existence dimension ($p < 0.001$) and mean total score of SWB ($p < 0.001$) in the test group showed a significant difference comparing before and after the intervention; however, it was not significant in the control group ($p = 0.17$). Mean existence dimension ($p = 0.01$) and mean total score SWB ($p = 0.01$) had a significant difference between test and control groups after the intervention; however, there was no significant difference in mean score of religious dimension between the two groups after the intervention ($p = 0.25$).

Conclusions: The spiritual care program promoted the SWB of ischemic patients in existence dimension and overall score, and nurses can use these programs to promote patients' SWB.

Key words: Coronary artery disease, nursing, spirituality

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Introduction

Human being as the most surprising creature of God[1,2] possesses physical, mental, emotional, cultural, social, spiritual and environmental dimensions.[3] However, the concept of health have always concentrated on special dimensions of physical, psychological and social health during decades and in recent years spiritual well-being has been considered as an important dimension of individual and group life by health experts.[2] Humans obtain spiritual well-being by finding balance among values, goals, beliefs and relationships with self and others.[4,5] Various studies often describe concept of spiritual well-being (SWB) in two vertical and horizontal dimensions. Vertical dimension which is relationship of human with God which is higher and horizontal dimension which is defined as positive relationship of individual with others.[6] Spiritual well-being has a positive impact on health and those experiencing SWB have better relationship with others and can find their life's goal.[5]

Some studies indicated with absence of SWB, other dimensions of biological, psychological and social health cannot have a proper functioning or reach to their maximum capacity; and therefore, the highest level of

quality of life (QOL) would not be achievable.[2] Nevertheless, it seems SWB is associated with mental and physical health.[7] However evidences indicate that spiritual needs of patients and their SWB are given less attention.[8] While people experience lack of coordination in mind, body and spirit in confronting with emotional stress, physical diseases or death[9] and they would try to keep their faith toward their values and beliefs in facing with disease.[5] Therefore, providing spiritual needs of admitted patients is very important in recovery speed and achieving to SWB and promoting QOL.[10] This issue is of high importance in ICUs and CCUs due to disease crisis leading to discouragement, increased vulnerability, isolation and alienation. Those admitted in intensive care units may experiences decreased relationship with self, others and overwhelming sense of loss and horror in CCU.[11]

Clinical experiences have shown that fear of sudden death among cardiovascular patients admitted in CCUs is a common phenomenon. Besides, spiritual distress can exacerbate their problems and manifests as an uncontrollable pain or anxiety.[12] Therefore, it is necessary to recognize spiritual care as a nursing component and nurses should help them with a holistic approach to acquire and maintain health and physical, mental and spiritual recovery[8,9] and combining spirituality with care in cardiovascular patients has remained a need for research.[8] The results of Delaney and Barrer aiming to review the impact of spiritual care (music/guided visualization) on mental/spiritual results of cardiac patients showed that there was a positive significant correlation between spiritual care and SWB.[8] Study results of Warber et al. which was also on impact of spiritual retreat on mental health of patients with acute coronary syndrome in Michigan showed that there was a significant difference in SWB of test and control groups after the intervention.[13]

Furthermore, in study of Kennedy et al.,[7] 87% of participants reported increased SWB after participating in caring programs such as discussion and opportunities for experiencing healthy lifestyle, exercise, nutrition, stress management techniques, communicational skills and spiritual principals of recovery and also practical exercises including yoga, meditation, visualization/imagination and praying. This increased spirituality has been associated with sense of well-being, a meaningful life and decreased tendency for anger. Study of Morris showed that scores of spirituality significantly were correlated with intensity or recurrence of coronary artery stenosis during four years and it seems level of SWB is an important factor in exacerbation of coronary artery disease.[14] On the contrary, Blumenthal et al. reported few evidences that spirituality, frequency of going to church or praying is correlated with cardiac complications or mortality following acute Myocardial Infraction (MI) in depressed patients or those with little support.[15]

Despite increase of knowledge about necessity of spiritual care, there is no unique agreed method about using for admitted patients in CCUs. Higher concentration on physical parameters of patients in physiologic crisis has led to pay lower importance to spiritual needs.[11] While patient requires spiritual needs and meet them at the time of hospitalization,[16,17] and nurses can help them with a holistic approach to acquire and maintain health and physical, mental and spiritual recovery.[8,16] Hence, the researcher decided to use the results of the study obtained from Iranian cultural, religious and social backgrounds, various results from all over the world regarding spiritual cares, comprehensive library search and comments of experts and professionals for developing a spiritual care program and review the impact of its implementation on SWB of cardiac ischemic patients in CCUs. This study aimed to determined effect of spiritual care program on SWB of patients with cardiac ischemia admitted in CCU of Al-Zahra Hospital, Isfahan, Iran.

Materials And Methods

This was a two-group double-phase single blind clinical trial with pre and posttest design in which spiritual care was the dependent variable and SWB was the independent variable. The subjects were those who had inclusive criteria with cardiac ischemia admitted in CCU of Al-Zahra Hospital, Iran.

The inclusive criteria were diagnosed as cardiac ischemia approved by a cardiologist, willingness to participate, Iranian Shiite and Persian language speaker, conscious and aware of the disease, no mental retardation, blindness and deafness and active mental disease, no other underlying diseases except hypertension, diabetes and hyperlipidemia.

A two-part questionnaire was used for data collection; the first part included demographic characteristics (e.g. age, sex, education, marital status, history of cardiac disease and current disease) and information of their records and the second part included the questions of Palutzian and Ellison Spiritual Well-being Questionnaire. It was designed in 1982 by Palutzian and Ellison to assess existence and religious dimensions of SWB using Likert scale.[6] In this 20-item questionnaire for spiritual well-being, there were 10 questions related to religious health and 10 questions related to existence health. The range of scores for each of

religious and existence subgroups separately was 10-60. Higher score indicated higher religious and existence health. SWB score was total of these two subgroups with a range of 20-120. The answers were as 6-degree Likert scale from "completely disagree" to "completely agree". Inverse scoring was used in negative questions. Its Cronbach's alpha coefficient in Iran is 0.82.[18]

After obtaining an introduction letter from School of Nursing and Midwifery, the researcher referred to the management of Al-Zahra Hospital and started sampling after explanation about the study objectives to the authorities. Following the informed consent from the subjects, the researcher or her partner (for male patients) presented to the patients' bedside and implemented the spiritual care program based on patient's needs. The research fellow was briefed by the researcher and implementation and planning the spiritual care was done by him/her under the supervisor of the researcher. The patients in test group received spiritual care for 3 days (mean hospitalized days in CCU was 3 days) from 17:00' to 21:00' based on a developed program and their tendency.

The provided spiritual care program in CCU consisted of supportive presence, support from patient's rituals, and using supportive systems. Supportive presence conducted through presence of the researcher or her partner on bedsides,[3] verbal and nonverbal communication,[16,19] taking patient's hand and talking with him/her,[19] actively listening to his/her speech,[17] and answering to patient's questions and explaining the treatment procedure.[16]

Supporting patient's rituals[5] also provided by providing required facilities for worship and prayer such as prayer-stone, prayer rug, beads and prayer Chador, Koran Book, Al-Mafatih, audio player and cassettes for Quranic prayers for each of the study subjects in the test group[17] and also helping patients in doing the prayers such as ablution and reading the prayers and Quran. Moreover, required coordination for presence of a clergy was done; thus, a 50-minute session, a clergy presented on patient's bedside and they could ask their questions.[20,21]

The other component of spiritual care was providing the presence of one of the family members on bedside for an hour with the coordination of CCU staff.[5]

Data analysis conducted through Software SPSS version 17 and descriptive and inferential statistical methods (Chi-square, paired and independent t-tests).

Findings

Mean and SD of the age in the test and control groups were 57.28 (12.55) and 63.94 (13.05) years respectively. 75% of the test group and 71.9% of the control group were married. Cardiac muscle damage status in the test and control groups was 78.1% and 87.5% unstable angina respectively. Most of the subjects in both group had the history of hospitalization. 40.6% of the subjects in the test and 43.8% in the control group had the history of diabetes. 46.9% in the test and 53.1% in the control group suffered from hypertension. 28.1% and 25% in the test and control group had hyperlipidemia; respectively.

The results showed that the two groups had no significant difference (statistically both of them were identical) in terms of age ($p = 0.15$), marital status ($p = 0.60$), education ($p = 0.92$), cardiac muscle damage status ($p = 0.32$), history of hospitalization ($p = 0.5$), having diabetes ($p = 0.80$), hypertension ($p = 0.62$), hyperlipidemia ($p = 0.78$) and smoking ($p = 0.52$).

The results of independent t-test in the test and control group before the study showed that they had no significant difference in terms of mean scores of existence dimension of spiritual well-being ($p = 0.918$), religious dimension of spiritual well-being ($p = 0.44$) and total score of SWB ($p = 0.84$). The score of existence dimension of spiritual well-being before the intervention in the test and control groups was 44.91 (9.8) and 44.66 (9.44); respectively. The results of independent t-test showed that mean existence dimension of spiritual well-being in the test and control group had no significant difference before the intervention ($p = 0.92$; $t = 0.1$). The score of religious dimension of spiritual well-being before the intervention in the test and control groups was 58.13 (3.77) and 57.25 (5.07); respectively. The results of independent t-test showed that mean religious dimension of spiritual well-being in the test and control group had no significant difference before the intervention ($p = 0.44$; $t = 0.78$). Overall spiritual well-being score before the intervention in the test and control groups was 102.78 (11.89) and 102.16 (12.07); respectively. The results of independent t-test showed that overall spiritual well-being score in the test and control group had no significant difference before the intervention ($p = 0.84$; $t = 0.21$).

In order to compare the mean score of the existence and religious dimensions in the test and control group after the intervention, please see the Table 1 designed using independent t-test.

In order to compare the mean score of the existence and religious dimensions in the test group before and after the intervention, please see the Table 1 designed using paired t-test.

Discussion

The obtained results showed that using random allocation method, statistically there was no significant difference between the two groups in terms of demographic characteristics, cardiovascular risk factors, cardiac muscle damage status, and history of hospitalization; and in fact the statistical test also confirmed the random allocation of the study subjects.

Independent t-test was used to compare the mean score of spiritual well-being in the test and control groups before the intervention. Its results showed that mean total score of spiritual well-being had no significant difference in the two groups. Study of Warber et al. which was also on impact of spiritual retreat on mental health of patients with acute coronary syndrome in Michigan showed that there was no significant difference in SWB of test and control groups before the intervention ($p = 0.16$).[13] In the present study, given to random allocation of subjects, it was expected not to find a significant difference in the two groups before the intervention in terms of spiritual well-being.

The results showed that after the intervention, there was a significant difference in existence dimension score and total score of spiritual well-being in patients with ischemia in the test and control group; however, mean score of religious dimension had no significant difference after the intervention. The study results of Warber et al. indicated a significant difference between spiritual well-being of the two groups after the intervention ($p = 0.025$).[13] Study results of Wachholtz and Pargament which aimed to review the impact of spiritual meditation, secular medication and relaxation on spiritual, psychological, cardiac and pain outcomes in the U.S. showed that after the intervention, there was a significant difference between the three groups in existence dimension of SWB ($p = 0.01$; $f = 2.4$); however, there was no significant difference between the three groups in terms of religious dimension ($p > 0.05$; $f = 2.08$).[22] Perhaps one of the probable reasons for non-significant results in religious dimension of SWB has been high score of religious dimension of SWB with mean of 58.13 out of 60 in the study subjects before the intervention which can be due to religious nature of Iranian people and our cultural condition which normally caused patients became more religious in critical conditions than before.

Moreover, the results showed that score of existence dimension and total score of SWB had a significant difference in the test group before and after the intervention; although it was not significant for the religious dimension. In this regard, the researcher in his research found no study which reviewed and compared mean score of SWB subscales i.e. existence and religious dimensions before and after the intervention in a test group; however, the study of Kennedy et al.,[7] Delaney and Barrer,[8] and Jorna et al.[23] have generally studied and compared mean score of SWB. Study results of Delaney and Barrer aiming to review the impact of spiritual care (music/guided visualization) on mental/spiritual (anxiety) results of cardiac patients showed that mean scores of SWB before and after the intervention were 114.23 and 119.08 respectively which they had a significant difference statistically ($p < 0.05$).[8]

In the study of Kennedy et al. which aimed to review a spiritual care program on spirituality and health of cardiac patients, there was a significant difference in SWB of patient before and after the intervention in the test group ($p < 0.05$).[7] In addition, in the study of Jorna et al. aiming to review the impact of a holistic health program on women's physical activity and mental and spiritual well-being, the results indicated a significant difference in SWB of the test group before and after the intervention ($p = 0.009$).[23]

Table 1. Comparing the mean score of spiritual health in the test and control groups

Group	Control		Test		Statistical test	
Spiritual Well-being	Mean	SD	Mean	SD	t- test	P
Existence dimension	44.91	9.44	49.72	6.94	t = 2.45	0.01
Religious dimension	57.25	5.07	58.72	2.64	t = 1.17	0.25
Total score	102.13	10.71	108.44	8.68	t = 2.59	0.01

Table 2. Comparing the mean score of spiritual health in the test group before and after the intervention

Time	Pre-intervention		Post-intervention		Statistical test	
Spiritual Well-being	Mean	SD	Mean	SD	t- test	P
Existence dimension	44.66	9.80	49.8	6.93	t = 3.75	0.001
Religious dimension	58.13	3.77	58.72	2.64	t = 1.40	0.17
Total score	102.78	1.89	108.44	8.68	t = 4.06	< 0.001

Therefore, implementing this spiritual care program by nurses can be effective for SWB of patients with cardiac ischemia and can be an appropriate method to improve their SWB.

Suggestions

According to the findings of this study, it is suggested to evaluate the impact of spiritual care program on SWB and spiritual distress of patients admitted in other wards and units. Furthermore, experiences of patients from spiritual care and barriers of providing them in CCUs should be studied.

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References

1. Farahaninia M, Abbasi M, Givari A, Haghani H. Nursing Students' Spiritual Well-Being and Their Perspectives Towards Spirituality and Spiritual Care Perspectives. Iran J Nurs 2006; 18(44): 7-14.
2. Omidvari S. piritual Health; Concepts and Challenges. Journal of interdisciplinary Quranic researches 2008; 1(1): 5-17. [In Persian].
3. Taylor C, Boyer MJ, Shives LR, Lynn P. Fundamentals of Nursing. 6th ed. Philadelphia: Lippincott Williams & Wilkins; 2008.
4. McSherry W, Cash K, Ross L. Meaning of spirituality: implications for nursing practice. J Clin Nurs 2004; 13(8): 934-41.
5. Potter PA, Perry AG. Fundamentals of Nursing. 7th ed. Philadelphia: Mosby Elsevier; 2009.
6. Mauk KL, Schmidt NA. Spiritual Care in Nursing Practice. Philadelphia: Lippincott Williams & Wilkins; 2003.
7. Kennedy JE, Abbott RA, Rosenberg BS. Changes in spirituality and well-being in a retreat program for cardiac patients. Altern Ther Health Med 2002; 8(4): 64-70, 72.
8. Delaney C, Barrere C. Blessings: the influence of a spirituality-based intervention on psychospiritual outcomes in a cardiac population. Holist Nurs Pract 2008; 22(4): 210-9.
9. McEwen M. Spiritual nursing care: state of the art. Holist Nurs Pract 2005; 19(4): 161-8.
10. Safari Fard F. Reviewing the barriers of religious cares to patients admitted in hospitals affiliated to Isfahan University of Medical Sciences [MSc Thesis]. Isfahan: School of Nursing, Isfahan University of Medical Sciences; 1999. [In Persian].
11. Timmins F, Kelly J. Spiritual assessment in intensive and cardiac care nursing. Nurs Crit Care 2008; 13(3): 124-31.
12. Libby P, Bonow RO, Zipes DP, Mann DL, Braunwald E. Braunwald's Heart Disease: A Textbook of Cardiovascular Medicine. 8th ed. Philadelphia: Saunders/Elsevier; 2008.
13. Warber SL, Ingerman S, Moura VL, Wunder J, Northrop A, Gillespie BW, et al. Healing the heart: a randomized pilot study of a spiritual retreat for depression in acute coronary syndrome patients. Explore (NY) 2011; 7(4): 222-33.
14. Morris EL. The relationship of spirituality to coronary heart disease. Altern Ther Health Med 2001; 7(5): 96-8.
15. Blumenthal JA, Babyak MA, Ironson G, Thoresen C, Powell L, Czajkowski S, et al. Spirituality, religion, and clinical outcomes in patients recovering from an acute myocardial infarction. Psychosom Med 2007; 69(6): 501-8.
16. Yousefi H. Needs of admitted patients in an interpretive phenomenology study [PhD Thesis]. Isfahan: School of Nursing, Isfahan University of Medical Sciences; 2009. [In Persian].
17. Karimollahi M. Designing a spiritual care model in Iran's nursing [PhD Thesis]. Isfahan, Iran: School of Nursing and Midwifery,Isfahan University of Medical Sciences; 2007.
18. Sayyed Fatemi N, Rezai M, Givari A, Hosseini F. Impact of prayer on spiritual health of patients with cancer. Payesh 2006; 5(4): 295-304. [In Persian].
19. Halm MA, Myers RN, Bennetts P. Providing spiritual care to cardiac patients: assessment and implications for practice. Crit Care Nurse 2000; 20(4): 54-64, 66.
20. Berman A, Snyder S, Kozier BJ, Erb G. Kozier & Erb's Fundamentals of Nursing: Concepts, Process, and Practice. 8th ed. New York: Pearson Prentice Hall; 2008.
21. Koszycki D, Raab K, Aldosary F, Bradwejn J. A multifaith spiritually based intervention for generalized anxiety disorder: a pilot randomized trial. J Clin Psychol 2010; 66(4): 430-41.
22. Wachholtz AB, Pargament KI. Is spirituality a critical ingredient of meditation? Comparing the effects of spiritual meditation, secular meditation, and relaxation on spiritual, psychological, cardiac, and pain outcomes. J Behav Med 2005; 28(4): 369-84.
23. Jorna M, Ball K, Salmon J. Effects of a holistic health program on women's physical activity and mental and spiritual health. J Sci Med Sport 2006; 9(5): 395-401.

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