

Comparison of spiritual intelligence and strategy For coping with stress in women who are suffering from breast cancer and digestive system cancer in Esfahan city

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ABSTRACT

Introduction: The purpose of the present study was to compare spiritual intelligence between women suffering from cancer who mostly use emotion-focusedtechnics, and women suffering from cancer who use problem based strategies.

Methodology: therefore 60 women affected by breast (n=30) and digestive system cancer (n=30) were selected through simple random sampling.

Results: The results showed that the women suffering from breast cancer had used emotion-focused technics more than the women suffering from digestive system cancer.

Conclusion: The women with the higher spiritual intelligence used problem based strategies, more than others.

KEYWORDS: spiritual intelligence, stress coping ways, and breast cancer.

1. INTRODUCTION

Nowadays cancer is one of the most important sanitary problems all over the world. Knowing about cancer is a surprising and worrying experience for every person and in fact cognizing about a virulent, life threatening disease, the person understands of the life changes and s/he will try to adjust to the situation (Akiaz et.al, 2008). The researchers count cancer as the main sanitary problem of the century. The increasing growth of the cancer and its derogatory effects on substantial, spiritual, emotional, social and economic aspects of human life are among factors that have attracted the attention of many experts, more than before (Bolhari, 2012). Cancer is a disease beginning by abnormal division and growth of any part of the cells of the body (American Cancer Society, 2012).Division of abnormal cells is not under control and it is not clear when they stop. A group of abnormal cells is named a tumor. Not all tumors are cancer, there are two types of tumors: benign and malignant (American oncology center, 2011). Some factors which cause cancer include: deficiencies in DNA, irregular propagation of cells, hereditarily, exposing to gamma and sun rays, smoking, and age which is a risk factor (Today's medical news, 2012). Treating and diagnosing cancer accompanies stress and anxiety. The people diagnosed early to have cancer, will face surgery and pharmacotherapyalong with negative side effects like hair falling, nausea and sexual problems. Stress in the long term has a negative effect on patients' self-esteem and also on family functioning (Locke etal, 2002). In the process of the diseases relating to stress, what is more significant than thestress itself and its intensity is the person's type of reflection and coping way against stressful factor.

In encountering stressful situations, not only do people use different coping responses, but also the qualities and traits of the situation especially the possibility to control the stressor provokes different a coping response. Applying various kinds of efficient and inefficient procedures has different consequences for people's bodies and mental health. The results of some researches have shown that in encountering stress, emotional and inefficient copings lead to anguish and agitation, and so result in an increase in cardiovascular reflexes in patients (Strickland et al, 2007). Individual differences against stress are so important, and everyone may perceive stressful factors and oppose to them, in a way rather different from others, according

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to his/her own personality traits, past experiences, beliefs and also the condition in which s/he is located (Hatami and Hemmati, 2010).

Researchers have shown that spiritual health and hope are significant and meaningful factors in life which are related to patients' social-mental health. Spiritual intelligence and spirituality which are sometimes construed by people as spiritual health overlap with each other, in a way that both deliver frameworks through which one can perceive significance, purpose, and sublime values of his/her life (Balboni and Vandroiker, 2007). Spiritual intelligence can be pacified even for patients in their last stages of disease. These people spend this period calmly by reliance to God (Baljani et.al, 1388). For cancer stricken patients in their last stages of disease, spiritual and religious calmness can be even more important than bodily and mental health (Liong et al, 2006).

Bossing et al (2007) in a study titled as the relation between theology and spiritual perseverance, and malignant disease concluded that the more persevere is a person in his faith, the more trust has he in God, and the people who have stronger religion beliefs, have more trust in God, and this trust especially in people suffering from a chronic problem like cancer helps to be more adaptable with their disease condition and construe their illness in a positive way, in other words it helps them to look at their disease as an opportunity to change their life or their point of view toward life.

Mary and Watch on (2008) concluded in their research paper that most of the patients rescued from cancer use their religious and spiritual beliefs as a way to get purporst and significance in the period of disease and to recover from it; they also rely on it as a way to deal and cope with the concept of death.

Sond (2008) studied the challenges and issues related to the patients suffering from cancer and using patients' spirituality and spiritual intelligence showed that teaching and applying these concepts has an important role in relieving from pains and decreasing stress in them. These patients also needed social support and positive feedback from themselves and the disease.

In a research study named as the relation between spiritual intelligence and stresscoping ways, Fischer etal (2010) concluded that religious dependences are helpful for people to cope with stressful incidents and problems, and the strongerwas the persons' spiritual intelligence and belief in religion, the more problem based copingstrategies and social support they had used.

Hack and Degner (2004) in his research study titled as coping ways of people suffering from stomach cancer deduced after 3 years that these patients used problem based strategies which caused a reduction of stress in them.

Ingle and Boyle (2006) and Mukwato et al (2010) studied stress and the mechanisms of coping with cancer in a group of women and concluded that in order to minimize the effect of the stressful incident of diagnosing cancer in patients and their families, problem based coping way mechanism is needed and necessary. These patients used both strategies to cope with the disease.

In America Darellet al (2011) in a study titled as stress management and resilience training (SMART) program to decrease stress and enhance resilience among breast cancer survivors, after 12 weeks of instruction, came to the conclusion that the program of instructing stressmanagement plays an important role in decreasing stress in breast cancer stricken women, and these patients could prevent tumor developmentby controlling their stress.

Simonin (2012) in a research study named stress and memory problems in individuals with cancer, in Colombia deduced that stress plays a significant role in memory and cognitive issues of people suffering from breast cancer. He studied on 36 breast cancer stricken women. The patients who had more symptoms of stress and also used emotional ways of copinghad more memory problems.

Patel and porter (2012) noticed in their study that in addition to mind and body, a procedure based on cognition about cancer is our level of spiritual intelligence. Beside genes which can or cannot be carcinogenic, an emotional calmness which can be created through remembering God makes cancer stop or retard development.

Haddad et.al (2010), and Ghaffari and Keihanian (2009) in studding about the relation between rising breast cancer and stressful incidents and people's personality traits came to the conclusion that there is a relation between life events, life dangerous incidents, and the intensity of each of them and rising breast cancer. There also was a relation among the two traits of perseverance and more going beyond self, which is partly representative of persons being persnickety and spiritual or idealism, and breast cancer arising.

Regarding conducted research studies and significance of this disease, the purpose of the present study was to compare spiritual intelligence and stress coping ways in women suffering from breast cancer and those suffering from digestive system cancer.

METHODS

Population, Sample, and Method of Sampling

In this study population included all women suffering from breast cancer and those suffering from digestive system cancer who referred to Seyed-o-shohada and Milad hospitals in Isfahan, in 2012. 30 breast cancer stricken and 30 digestive cancers stricken women referring to Seyedoshohada and Milad hospitals in 1391 were set in each group. The method of sampling was a simple random one.

INSTRUMENTS

Spiritual Intelligence Questionnaire (ssi29)

This questionnaire contains 29 questions. This test was standardized by Abed-o-laced and by collaboration of Mahdie Keshmiry and Fatima Arab, in 2007. The control group included 280 people. The test reliability in the preliminary stage was 0.87 calculated through Cronbach-alpha. In analyzing the question through the method of loop, the 12 phrase was deleted and the questionnaire was written with 29 phrases. In this stage reliability of 0.89 was gained.

To survey validity in addition to content and face validity for which the questions were certified by ideas from experts, factor analysis was also used and the correlation among all questions was over 3.

In varimax rotation, to reduce variable 2 factors were gained; the first factor with 12 questions was named as "perception and relation with the origin of existence", and the second factor with 17 phrases was named as "spiritual life or rely on internal nucleus".

Lazarus's Ways of Coping Questionnaire (WOCQ)

Lazarus's 66 questions questionnaire of ways of coping (wocQ 66) was made by Lazarus and Folkman (1985). Factor analysis of the factors of this questionnaire has shown that all scales of this test set in the two basic clusters of emotion-focused and problem-focused ways. This questionnaire is conducted without any time limit and the examinees are asked to answer the multiple choice items based on four alternatives scale, while remembering the experienced situation in which they have used ways of encountering. Subscales of problem-focused ways include: seeking social support subscale, accepting responsibility subscale, planful problem solving subscale, and positive reappraisal subscale. And the emotion-focused subscales include: escape-avoidance subscale, distancing subscale, confrontive coping subscale, and self-controlling subscale. The test reliability has been standardized on a sample containing 750 middle aged couple. Cronbach-alpha coefficient of subclass is reported as follows: confrontive coping subscale 0.7, distancing subscale 0.61, self-controlling subscale 0.70, seeking social support subscale 0.76, accepting responsibility subscale 0.66, escape-avoidance subscale 0.72, planful problem solving subscale 0.67, positive reappraisal subscale 0.79, which shows optimum reliability in this test. The test validity was gained through calculating correlation between raw scores obtained from the questionnaire and the raw scores obtained from Lionel's stress questionnaire. The results of analyzing method of basic factors and varimax rotation showed that the scale of coping ways is comprised of 10 factors with factor loadings of more than 0.3.

RESULTS

To compare measures of spiritual intelligence in problem-focused and emotion-focused cancer stricken patients, at first using Levine's test the postulate of homogeneity of variances was surveyed and the conclusion confirmed that this postulate is established through the data (Table 1).

Table1: Levine's test, homogeneity of a subclass of problem focused and emotion focused way (of coping) and spiritual intelligence.

Variables	Ratio of F	First df	Second df	Significance level
Seeking social support	0/043	1	58	0/836
Accepting responsibility	4/168	1	58	0/046
Positive reappraisal subscale	1/174	1	58	0/283
Painful problem solving	0/195	1	58	0/660
Confrontive coping	0/028	1	58	0/867
Solitariness (eschewing)	2/288	1	58	0/136
Continence (self-controlling)	1/214	1	58	0/275
Escape-avoidance	10/101	1	58	0/002
Perception of and relation to the origin of the existence	0/797	1	58	0/378
Spiritual life or relying on internal nucleus	0/537	1	58	0/467

Then the ANOVA test was used to signify the difference between the mean score of spiritual intelligence scores in two groups of cancer stricken people (Table2).

Table 2: ANOVA for spiritual intelligence scores in women suffering from breast cancer and women suffering from digestive system cancer

Source of variance	Sum of squares	df	Mean square (MS)	F	Significance level
Intergroup	1612/017	1	1612/017	4/986	0/029
Intra group	18750/967	58	323/293		

As you can see there is a significant difference between the mean score of spiritual intelligence scores in women suffering from breast cancer and women suffering from digestive system cancer ($P=0.029$) and the mean score of spiritual intelligence scores in women suffering from digestive cancer is more than the mean score of women suffering from breast cancer. Multivariate analysis of variance (MANOVA) showed that of coping ways is significantly different between the two groups (Table3).

Table3: MANOVA for a subclass of problem focused and emotion focused way (of coping) in women suffering from breast cancer and women suffering from digestive system cancer.

Source	Sum of squares	df	Mean square	F	Significance level	Eta value	Statistical power
Problem focused coping ways	365/067	1	365/067	4/451	0/039	0/071	0/546
Emotion focused coping ways	1288/067	1	1288/067	21/988	0/001	0/275	0/996

As it can be inferred from the results of Table3, there is a significant difference between the two groups in scores of problem focused and emotion focused ways of coping at $p<0.01$, and since the mean score of problem focused coping ways scores in women suffering from digestive system cancer is more than the mean score of women suffering from breast cancer, we can conclude that the women affected by digestive system cancer use problem focused coping ways, more than the other group. Furthermore, the mean score of emotion focused coping ways scores in women suffering from digestive system cancer is less than the mean score of women suffering from breast cancer, so we may deduce that women affected by breast cancer use emotion focused coping ways, more than the other group.

DISCUSSION AND CONCLUSION

Cancer as an abstruse, debilitating, and prevalent disease is the second cause of mortality after cardiovascular disease. Cancer stricken people will encounter many psychological problems. The researches show that stress is so prevalent among these patients and danger of death is higher among cancer afflicted disease who report symptoms of severe stress. One of the factors which is effective on the psychological state of cancer stricken people, is the way of dealing and getting along with the disease and coping with the stress and anxiety generated in the result of being affected by cancer, and also enjoying a high spiritual intelligence. This study was conducted in order to compare measures of spiritual intelligence in two groups of patients suffering from cancer, according to their use of (emotion focused and problem focused) ways of coping with

stress, and also to compare ways of coping with stress in two groups of (breast cancer and women suffering from the digestive system) cancer stricken people. The results showed that the mean score of spiritual intelligence for patients suffering from digestive system cancer, who used problem base ways of coping, was more than that of breast cancer patients. This information supports the results gained by Bossing et.al (2007), Sand (2008), and Fischer et al (2010) which proved that high spiritual intelligence and using problem based ways of coping are necessary for mental health and stress reduction.

Acknowledgements

The writers would like to deeply thank all patients who participated in this research study, and also the staff in Seyed-o-shohada and Milad hospitals in Isfahan.

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