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Spiritual Intelligence and Self-efficacy: An attempt to Establish a Relationship among Hospitalized Patients Suffering from Cancer in Tehran University of Medical Sciences' Hospitals of Iran

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Introduction:

Today, universally cancer diseases is one of the major causes of death (Kiaei *et al.*, 2016). It is one of the disorders that affect all the aspects of a person's life, such as occupation, economic, social, family status, and various aspects of the quality of life, including mental status, mental health, self-efficacy and sexual function (Dehkordi & Shaban, 2004). To take care of the patient in a comprehensive way, the total size of such dimensions must be considered (Rezaei *et al.*, 2009). The spiritual dimension of man as in biological, psychological, and social values keeps a particular importance (Rahnama *et al.*, 2012). The importance of spirituality and spiritual growth in humans over the past decades have attracted the attention of psychologists and mental health professionals (Hoseindokh *et al.*, 2013). World Health Organization, and other relevant organizations have also reviewed their definitions in relation to the existential dimensions of mankind, and in addition to the physical, psychological, and social ones, the fourth dimension *i.e.*, the spiritual dimension in human development and evolution (Sharafi *et al.*, 2008). In stressful situations, especially due to health-related issues, spirituality acts a major role for relief (Koenig, 2004). Patients whose spiritual wellbeing is strengthened can effectively adapt to their illness and even successfully

Abstract

Spiritual intelligence is considered as a higher dimension of intelligence that activates the qualities and capabilities of individual beliefs in various fields, especially the individuals' capacity to deal with the difficulties and adapting to changes. However, self-efficacy facilitates the improvement of health in cancer patients. This study was carried out to identify the spiritual intelligence relationship with self-efficacy on 200 cancer patients by using simple random sampling method. The study was based on a series of a questionnaire on demographic information, the spiritual intelligence. The results showed that there is a statistically significant and direct relationship between spiritual intelligence and self-efficacy in patients with cancer exist. It suggests that by paying attention towards spiritual intelligence and augmentation of such factors in those patients an improvement in health could be expected.

recover from their illness (Lin & Bauer-Wu, 2003). For cancer patients who are at the end of their illness, spiritual and religious calm may even be even more important than physical and psychological well-being (Rezaei *et al.*, 2009). Because, spiritual intelligence can give people peace, especially in stressful situations (Bayrami *et al.*, 2014). Spiritual intelligence combines the structures of spirituality and intelligence into a new structure and represents a set of capabilities especially of spiritual resources that their application in daily life can increase the adaptability of the individual and enable the person to alter and evolve (Hamid *et al.*, 2012). The results of most researches have pointed out the role of spiritual intelligence and spirituality in health related psychological issues, including self-efficacy. Self-efficacy is an important internal agent for long-term control of chronic diseases. Strengthening and paying attention to the self-efficacy feature in cancer patients is very important (Shoakazemi & Momeni, 2010). Among the mechanisms of influence on oneself, none is more important and more comprehensive than the belief in self-efficacy (Esmaeli *et al.*, 2012). Individuals who believe in their efficiency are struggling to overcome obstacles and difficulties (Abdollahi, 2006). Bandura (1986) states that self-efficacy creates a person's confidence for successful

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performance. A person with low self-efficacy in a given position is likely to avoid hard-working, and has less desire and commitment for goals. While someone with high self-efficacy in a given position does things that are more challenging. He tries to overcome difficult situations and has more commitment for goals (Zimmerman, 2000). The results of Muris (2002) examined the relationship between the self-efficacy of emotional disturbance symptoms. The results showed that low level of self-efficacy were associated with a high level of anxiety/psychosis, anxiety disorder and depression symptoms. The overall score of autoimmunity has a negative relationship with anxiety/psychosis and depression symptoms (Fahimi, 2009). According to Arnstein *et al.*, (1999), self-efficacy in pain relief plays a moderating role and affects the outcome of treatment (Pecukonis, 2009).

Shoakazemi & Momeni (2010) compared and concluded the efficacy and empowerment of healthy and breast cancer women a positive and significant relationship between self-efficacy and empowerment and there was a significant difference between the two groups based on self-efficacy and level of ability. There was. Parsa-Yekta *et al.* (2017), in a study on the relationship between emotional needs and self-efficacy in cancer patients reported a significant negative correlation between the overall score of self-efficacy and emotional needs. Thus by increasing the emotional needs of the patients, it reduces their self-efficacy and, consequently, increases the incidence and recurrence of the symptoms of the disease. Therefore, in order to reduce emotional needs and improve self-efficacy, more precise planning of educational and support interventions is needed (Parsa-Yekta *et al.*, 2017). Considering that in our society the concept of quality of life and the factors affecting it including self-employment has decreased, recognizing these factors helps the health and community health community to organize their activities to improve the quality of life and improve the quality of life, especially nurses who have close links with these patients. By identifying these factors, they can take steps to correct these problems (Dehkordi & Shaban, 2004). Self-efficacy in cancer patients is of paramount importance in helping them to cope effectively with the disease and control symptoms, treatments, physical consequences, and psychosocial effects. It is important to examine the factors which are associated with this variable and improve it for such patients. On the other hand, spiritual intelligence is considered as one of the known types of intelligence and the foundation of individual beliefs in various fields, especially the provision and elevation of mental, individual and social health, which gives the person a capacity to deal with the difficulties and adapt to changes. . But as one can evaluate from the above mentioned several studies, which have been done on autoimmunity and its

impact on improving health and improving the quality of life of patients with health. Also, there was some research on spiritual intelligence and its impact on life expectancy and quality of life in cancer patients, but they didn't compare the relationship between these two factors. Therefore, we aimed to establish the relationship between spiritual intelligence and Self-efficacy in patients suffering from cancer diseases.

Methodology:

The present study is a descriptive-analytic correlation study conducted in some selected hospitals of Tehran University of Medical Sciences, year 2014. Systematically the sample size was estimated to be 200 who were the cancer patients referred to Shariati Hospitals, Valiasr Hospital and Cancer Institute of Imam Khomeini Hospital affiliated to Tehran University of Medical Sciences. The patients were well-diagnosed cancer disease (at least one month after) aged between 15 to 65 years. The subjects were informed and consent taken for the completion of the study. The patients with mental illness (as per records), leaving the study, given incomplete answers were excluded. From each hospital, we examined 70 patients using available sampling. The data gathering tool was three sets of questionnaires; i) demographic information which included age, sex, marital status, educational level, employment status, economic status, type of disease, duration of diagnosis and current treatment, ii) Spiritual Intelligence Questionnaire, King. This set of the questionnaire was having 24 items with the options of "totally disagree" to "totally agree" and ranked 1 to 5. The scale is based on the Likert five-point spectrum. The overall scale score (spiritual intelligence), was ranged from 24 to 120. A higher score indicated a high level of spiritual intelligence and lower score indicated a low level of spiritual intelligence in the individuals. Reliability of Spiritual Intelligence Scale was already applied earlier successfully by various researchers in this regard (Esmaeli *et al.*, 2012; Abdollahi & Ebrahim, 2007; Zimmerman, 2000). In our study, content validity method was used to determine the validity of the tool which was evaluated and updated from the relevant academicians so that no one should not face any problem while handling the content of the tool. The questionnaires were completed through self-report or by the researcher (for illiterate patients). Data were analyzed by SPSS software (version-20). Descriptive statistics (mean, percentage, and standard error) were used for descriptive statistics. Pearson correlation coefficient, Spearman correlation coefficient, and the independent "t-test" were used.

Results:

Among the 200 cancer patients, who had participated in our study, the majority of them are in the age group of 25-34 years, male (51%), married (74.5%), and diploma education

(35.5%). The majority of them reported in terms of employment status as a housekeeper and in terms of economic status as inadequate (59%). According to our results, the type of disease was the lowest frequency towards laryngeal cancer and the highest frequency was of leukemia, (70%) equivalent to 35% of the population. Based on the results, more than 57.5% of the patients were using chemotherapy to treat their illness (Table-1).

Table-1: Distribution of the characteristics of individual cancer patients under treatment from some selected hospitals (2014)

Demographic characteristics	Frequency
Sex	
Women	(49)98
Men	(51)102
Age	
15-24	27(13.5)
25-34	53(26.5)
35-44	23(46)
45-54	21.5(43)
55-65	15.5(31)
Marital Status	
Single	23.5(47)
Married	149(74.5)
Widow/divorced	4(2)
Education level	
Illiterate	18(9)
Guide	65(32.5)
Diploma	71(35.5)
Academic	46(23)
Job	
Housewife	78(39)
Employed	66(33)
Unemployed	41(20.5)
Retired	15(7.5)
Economic situation	
Sufficient	82(41)
Not enough	118(59)
Current treatments Status	
Radiotherapy	16(8)
Chemotherapy	115(57.5)
Surgery	60(30)
Surgery & chemotherapy	9(4.5)

The results of our study showed that out of the total 200 respondents, 44.5% are the most spiritual intelligence, 18.5% had the least spiritual intelligence, and the rest 37% did not respond in this regard. Further, 12% had the highest self-efficacy and 10% had the lowest self-efficacy and the rest had a moderate overall self-efficacy (Table 2).

Table-2: Frequency distribution based on variables of spiritual intelligence and general self-efficacy

Variable	points%	Percentage of people
Spiritual Intelligence		
Completely opposed	20	6
Against	40	12.5
No comments	60	37
agreed little	80	29
Completely agree	100	15.5
Public self-efficacy		
Not at all	25	10
Sometimes	50	31.5
Most of the time	75	46.5
Always	100	12

The results showed that the highest and lowest score towards spiritual intelligence was 117 and 71, respectively with Mean $\pm$ SE given below. In addition, the lowest total self-efficacy score was 13 and the highest score was 40, the Mean $\pm$ SE of which are given below. Correlation between spiritual intelligence variables with general self-efficacy of patients participating in the study was used by Pearson correlation test. There was a correlation between these two variables ($p < 0.000$ and $r = 0.681$). (Table-3)

Table-3: Mean $\pm$ SE and correlation between two variables

Mean	SE	p value	Sig.(p)	Max	Min	K-S amount
Public self-efficacy						
27.16	0.4	<0.05	0.23	40	13	0.391
Spiritual Intelligence						
97.22	0.67	<0.05	0.356	117	71	0.356

The relationship of two variables: Pearson Correlation Coefficient = 0.681; p-value < 0.0001

Discussion:

Our research showed that there was no relationship between demographic characteristics and spiritual intelligence in relation to the relationship between demographic characteristics and each of the studied variables like spiritual intelligence and self-efficacy. But there was a correlation between sex, employment, and education with the positivity and self-efficacy and age-related relationship, and it strengthens Kiaei *et al.* (2016), which reported that self-efficacy score in higher educated and economic groups was better. Further, as per our results, there was a direct relationship between spiritual intelligence and general self-efficacy in the patients suffering from cancer, so that self-efficacy increases with increasing spiritual intelligence of respondents. Esmaeli *et al.* (2012) reported a significant correlation existing between self-efficacy and spiritual intelligence and with increasing spiritual intelligence, self-efficacy also increases, and our results support their reports. As per Golchin & Sanjar (2012)'s report on Golestan province employees and managers, a positive and significant relationship existed between spiritual intelligence and self-efficacy. Adegbola (2011) employed the same in the sickle cell disease patients and reported almost the same results. Spiritual intelligence can be considered as the highest existential intelligence that creates a new and positive attitude towards oneself, others, and the world around it. Considering the fact that self-efficacy refers to one's own abilities and skills, it can be said that the high spiritual intelligence in a person causes a person to have a positive look at himself and can do it while it's good to use your skills and thus high spiritual intelligence would have high self-efficacy.

According to Woby *et al.* (2007) the self-efficacy towards the pain relief with experience of pain and pain-related disability plays a moderating role and affects the

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outcome of the treatment, resulting in self-efficacy that never leave the person losing mobility and dynamism. Individuals with poor self-efficacy do not exert any effort to cope with the problems, they fail to feel immediately when they encounter barriers, but those with high self-efficacy believe that they can deal with barriers of life effectively. As a result, it can be stated that in cases of illness, patients have the most ability to consider critical situations as less threatening and, consequently, this causes gives success in recovery.

In general, the findings of our study showed that there was a positive and significant relationship between spiritual intelligence and self-efficacy. As self-efficacy increased, with increasing spiritual intelligence. Infact cancer disease itself harm the physical, psychological, social, economic and family life of the patient. In addition, long admissions, frequent visits to the doctor, various treatments, complications and high treatment costs increase anxiety, reduce motivation and ease the patients. Thus, the use of spiritual intelligence and other factors that enhance self-efficacy could be beneficial for the health-related issues in cancer patients and facilitates health improvement in them. Nurses can also increase the self-efficacy and other variables that affect the disease through spiritual intelligence training as a growth factor in cancer and other related serious patients. However, our study could be used as a baseline research for the further relevant studies in the coming future.

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