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The Relationship between General Self-efficacy and Happiness among Cancer Patients: A Case Study from Some Selected Hospitals of Tehran University of Medical Sciences

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Abstract

Cancer is one of the most important causes of death in the world. Today, in addition to medical interventions, importance towards the probability of other aspects on adaptation and efficacy of therapeutic measures has been raised. Self-efficacy and happiness, are among them. The present descriptive study was conducted to establish the relationship between general self-efficacy and happiness among 200 Cancer Patients by using simple random sampling method including the demographic information, Schwartz general self-efficacy, and Oxford Happiness questionnaires. The results showed a significant and direct relationship between general self-efficacy and happiness among the patients which could be considered as the facilitating factors for their health and happiness.

Introduction:

Cancer is considered a major health problem of the century, and its rate of increase and its harmful effects on all aspects of the physical, emotional, spiritual, social and economic aspects in human life over the last few decades are one of the factors that alert the attention of the specialists more and more (Pourfaraj & Rezazadeh, 2018). Cancer is now the second largest reason for the health disaster in developing countries and in the developing world is the fourth cause of death (Moghimian & Salmani, 2010). Due to the chronic nature the disease, the patient remains under a long-term treatment, often associated with side effects such as lymphatic leukemia, weakness, pain, anesthesia, and psychosocial disorder, resulting in a significant reduction in their ability to cope with the situation. Long-term treatments and high levels of stress exert a long-lasting negative effect on self-belief and ultimately on family function, marital role, and quality of life (Quintard & Lakdja, 2008). One of the concepts of empowerment pattern in such patients is self-efficacy which emphasizes the individual's understanding of his skills and abilities in successfully performing a successful functional. Such concept overlooks the level of effort and level of performance of the individual (Kiaei *et al.*, 2016). The results of many studies show that self-efficacy is an important internal agent for long-term management of chronic diseases, and that individual self-efficacy plays a crucial role in how it adapts to the challenges posed by

cancer as a chronic disease, and scoring high on it improves its ability which can reduce psychological anomalies (Salimian *et al.*, 2016). Self-efficacy in cancer patients leads to better reconciliation with the cancer diagnosis and improve the quality of life and reduces cancer-related symptoms in patients. Also, a high level of self-efficacy improves the mental image of cancer patients and improves their communication with health care personnel (Parsa-Yekta *et al.*, 2016). People who are confident in their ability to work together to overcome obstacles and difficulties, and actively participate in health promotion programs seen to improve their quality of life (Rasooli *et al.*, 2014). The results of the Shoaekazemi & Momeni Javid, (2012) revealed a positive and significant relationship between self-efficacy and its sub-scales, where women with cancer evidenced lower self-efficacy and lower ability than healthy women. In other words, the illness could have an effect on the self-efficacy and ability of each person. Akin *et al.* (2008) pointed towards the need for a psychosocial intervention in view of the negative effects of cancer and chemotherapy on women's self-efficacy. Lev *et al.*, (2001) reported the self-efficacy and low quality of life as a concern for cancer patients and recommended proper interventions. The results of Moris (2002) investigated the relationship between self-efficacy and symptoms of emotional disturbances which showed that low level of self-efficacy with a high level of anxiety traits.

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Cancer patients have high degrees of psychiatric disorders such as depression, anxiety, and disease inconsistency. As a result, attention and enhancement of happiness in such patients becomes important for improving the symptoms of the disease (Karamozan *et al.*, 2012). In a comprehensive definition of Veenhover, happiness is considered to be the degree as per which a person judges the quality of his life as perfectly desired one. Happy people look the things clearly, they seek to solve problems directly and help others in a timely manner. On the other hand, non-adolescents think and act in destructive ways, they fall into the imagination, blame themselves and others, and avoid working to solve the problem (Sobhi-Gharamaleki *et al.*, 2016). The physical and mental health of every relationship is directly related to the one's happiness and, if a physical and mental health gets threatened, the optimism and, consequently, the person's happiness would also be eliminated. In cancer patients, it is natural that happiness can be reduced to some extent because of the complications of the disease and the treatment and disruption of the normal life-cycle of the patient (Pourfaraj & Rezazadeh, 2018). Self-efficacy is always a factor influencing health behaviours, control chronic diseases, treatment strategy, quality of life and also psychological problems associated with cancer. In nutshell, it is important to evaluate the extent of these variables and determine their association with cancer patients. The aim of this study was to determine the relationship between self-efficacy and happiness in patients suffering from cancer.

Methodology:

The present study is a descriptive - analytic correlational one conducted on the cancer patients admitted in some selected hospitals of Tehran University of Medical Sciences. To estimate the required sample size at 95% confidence level and 80% test power, and assuming that the correlation coefficient between communication self-efficacy and happiness is at least $r = 0.2$, the relationship is statistically significant using the formula $n = ((z_{1-\alpha} / 2 + z_{1-\beta})^2) / d^2$ + 3 The sample size was estimated to be 200. The criteria for including the subjects (patients) were, the definitive diagnosis of cancer, informed consent for the completion of the instrument, the absence of any known mental illness, based on the records of the case, age between 15 to 65 years, and minimum one month completed of diagnosis. The criteria for leaving the study did not complete all the items in each of the questionnaires. To conduct a sampling, a researcher from all the targetted hospitals of Tehran University of Medical Sciences randomly selected. Further, from each hospital, we examined 70 selected patients using available sampling. Three questionnaires were used to collect information:

- i) Demographic information including age, sex, marital status, educational level, employment status, economic status, type of

disease, time spent after diagnosis and current status of treatment,

- ii) Schwartz General Self Efficacy -10 questionnaires, which has 20 questions with two separate self-efficacy and social self-efficacy sub-scales which were concise to a 10-point scale in 1981 and has now been translated into 28 other languages (Schwarzer & Jerusalem, 1995). This scale was translated into Persian by Nezami *et al.* (1996). The Cronbach alpha coefficients in this study were 0.81 and in the Rajabi (2006) study was 0.82. The scale consists of 10 points that are rated "at all" to "always" and rated from 1 to 4. The overall score is between 10 and 40. Obtaining a high score on this scale indicates a higher self-efficacy (Torki *et al.*, 2014),
- iii) The Oxford Happiness Questionnaire has 29 sentences that totally disagree with answers based on a 6-point Likert scale, and I totally agree, ranked 1 to 6. Scores range from 29 to 174.

A higher score indicated a high level of happiness and lower score indicated a low level of happiness in the individuals. Reliability of Happiness Scale was already applied earlier successfully by various researchers in this regard (Alipour & Agah Heris, 2007; Argyle *et al.*, 1991)

In this research, content validity method was used to determine the validity of the tool. Ten faculty members of Tehran University of Medical Sciences, Iran, and Teacher Training, were evaluated and updated about the tools for data collection so that they did not face any problem regarding the content of the tool. After obtaining consent from the patients the questionnaires were completed by the researcher through self-report and in the case of illiterate patients. Data were analyzed by SPSS software (version 20). Descriptive statistics (mean, percentage, and standard deviation) were used for descriptive statistics. Pearson correlation coefficient, Spearman correlation coefficient, the independent t-test and ANOVA were used.

Results:

The demographic results of 200 cancer patients who participated in this study are tabulated in Table-1. According to the results, the type of disease was the lowest frequency of laryngeal cancer and the highest frequency of leukemia, which was 70% equivalent to 35% of the population. Results revealed, more than 57.5% of the patients used chemotherapy to treat their illness (Table 1).

In the present study, a significant and inverse association revealed between the overall score of self-efficacy and age, with age, the level of self-efficacy decreased ($p < 0.004$). A significant relationship between self-efficacy and gender i.e., a significant positive correlation between self-efficacy score of men and women ($p < 0.012$), and self-efficacy with employment status ($p < 0.006$) and educational level ($p < 0.004$) was found. However, there was no significant relationship between gender and marital status. Further, among the demographic variables, there was a positive and significant relationship between employment status and happiness ($p < 0.002$) Table-2.

RESEARCH ARTICLE

Table-1: Distribution of the individual characteristics and disease of cancer patients referring to selected hospitals of Tehran University of Medical Sciences

Demographic Characteristics		Frequency
Gender	Female	98 (49)
	Male	102 (51)
Age groups	15-24	27 (13.5)
	25-34	53 (26.5)
	35-44	46 (23)
	45-54	43 (21.5)
	55-65	31 (15.5)
Marital status	Single	47 (23.5)
	Married	149 (74.5)
	Widow and 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)
Economical position	Sufficient	82 (41)
	Not enough	118 (59)
	Radiotherapy	16 (8)
	Chemotherapy	115 (57.5)
Current treatments	Surgery	60 (30)
	Surgery & chemotherapy	9 (4.5)

Table 2: Relationship between some demographic characteristics of cancer patients with self-efficacy and happiness

Variable	Statistical indications	
	Public self-efficacy	Happiness
Age	$r = 0.203$; $p < 0.004$	$r = 0.050$; $p \geq 0.481$
Sex	$t = 2.535$; $p < 0.012$	$t = 1.217$; $p \geq 0.225$
Marital status	$F = 0.304$; $p > 0.738$	$F = 2.689$; $p > 0.070$
Job	$F = 4.212$; $p < 0.006$	$F = 5.100$; $p < 0.002$
Education level	$r = 0.203$; $p < 0.004$	$r = 0.123$; $p > 0.082$

Table-3: Correlation between two variables of Happiness and GSE in cancer patients (Kolmogorov-Smirnov amount

Mean+SD	p value	KS amount*	Max	Min	p value
Variable: general self-efficacy					
27.16+0.4	<0.05	0.391	40	13	≥ 0.23
Variable: Happiness					
120.2+0.65	<0.05	0.7	157	69	≥ 0.700

Pearson Correlation Coefficient: 0.568; p value <0.0001

The results showed that the highest and lowest score towards general self-efficacy was 40 and 13, respectively with Mean SE given below. In addition, the lowest total happiness score was 69 and the highest score was 157, the Mean SE of which are given below. Correlation between general self-efficacy variables with happiness of patients participating in the study was used by Pearson correlation

test. There was a correlation between these two variables ($p < 0.000$ and $r = 0.568$). (Table -3)

Discussion:

The results showed that the self-efficacy among the cancer patients for managing their illness was moderate and the happiness score of these patients was low. There was also a positive and significant relationship revealed between general self-efficacy and happiness in cancer patients indicating that their happiness increased with increasing self-efficacy. The results of Heckman *et al.* (2011) while examining the role of self-efficacy in the quality of life of men among prostate cancer patients, revealed that with the progress in time and the concomitant progression in the disease, decreased their self-efficacy, and patients with poor self-efficacy had experienced the lowest level of satisfaction while treatment was the increased incidence of anxiety and depression symptoms and decreased self-esteem. Following the results of Akin *et al.* (2008) and Shoaekazemi *et al.* (2012), already discussed in the previous section and the results of several other studies, it could be argued that the development of a cancer disease reduced ability to perform daily activities, increases the frequent and long-term hospitalization, reduced life expectancy, and finally, the causes depression. Baldwin & Falciglia (1995) affirmed that self-efficacy is an important internal agent for the long-term management of chronic illness. Rogers *et al.* (2008) emphasized that if cancer patients are self-efficacious, tolerance would be easier for them, and subsequently, they would be better off and less likely get a relapse. Our results showed that there was a positive and significant relationship between happiness and self-efficacy and self-efficacy could predict altering happiness effectively. The experiences of stress, stress and emotions and negative emotions such as fatigue, pain, stress, and anxiety while the onset of cancer could reduce the sense of self-efficacy of patients, as the physiological states of individuals or self-assessment of physical conditions and their emotions are themselves one of the sources of self-efficacy (Rafii *et al.*, 2013). Noushari *et al.* (2013) reported that the emotional concerns and worries in cancer patients were more prevalent than other patients, and those with less physical and psychological strength had poor self-efficacy.

Conclusion:

The overall results indicated that the human beings have two basic needs, if those are not satisfied, it may cause disorder and illness. One of these needs is the need to be loved and loved, and the other one needs to feel worthwhile for themselves and others. In this regard, self-efficacy could be considered as the force on which people choose the right behaviors to meet their needs. Man chooses his desires, expectations, thoughts, beliefs, and deeds so that he can create the most important and most pleasant state of his

own, and behavior is the result of the choice of man, which results in this choice to increase happiness. Happiness is the time when people's activities of life will be most convergent or fit with their deep values and ability and efficiency in different fields, and they would commit themselves to these values and abilities. Under such conditions, feelings of vitality and confidence arise. Since cancer affects all aspects of a person's life, it causes many problems in all aspects of the physical, psychological, social, economic and family life of the individual. In addition, long admissions, frequent visits to the doctor, various treatments, complications and high treatment costs increase anxiety, reduce motivation and ease the patients. Therefore, attention and enhancement of self-efficacy and its related factors, such as happiness, could be the basis for measures related to health and psychological behaviors in cancer and facilitate the improvement of health in patients. It also seems to be effective in improving self-efficacy and, consequently, the happiness of these patients, such as conducting workshops for patients, the presence of psychologists in cancer-related areas and the creation of health facilities. This study could be as an basic research is to be used for further studies.

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