Research Article

The Effect of Training Components of Emotional Intelligence on Reducing Depression

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(Case Study: Cancer Patients Admitted to Chemotherapy Ward in the Shahid Rajai Hospital of Yasuj)

ABSTRACT:
Objective: Cancer is one of the most common chronic diseases which is associated to psychological outcomes such as depression.Today, emotional intelligence as an important role in various aspects of life of individuals as a result, the components of emotional intelligence as a strategy to change the attitudes of cancer patients can be used.Therefore, the present study the effect of teaching emotional intelligence, has been on reducing depression among cancer patients undergoing chemotherapy.
Methods: This study was quasi-experimental clinical internship. 88 patients with cancer chemotherapy referring to the YasujShahidRajai hospitals that met the inclusion criteria participated. Sampling to collect samples was used then randomly into two groups was divided.In two of the Beck depression questionnaire and Bar-One motional intelligence questionnaire was used. Data collected through SPSS statistical software was used.
Results: The mean duration of diabetes in the intervention group than in the control group 6 months and less than six months and about marital status, both groups had the same conditions. Average emotional intelligence and depression before and after treatment in the control group, depression before 25.30, then 24.86 and 179.55 emotional intelligence before180.23 and then in groups before and after the intervention, the depression before 27.84, after 19.73 and 204.82 emotional intelligence before and after the intervention was 259.86. It also depression and emotional intelligence score after intervention in the intervention group than the control group with a significant difference in depression scores 8.114 and this difference was statistically significant and showed emotional intelligence 91.045 and p <0.001. It also depression scores, emotional intelligence interventions to reduce depression and more in the intervention group compared to the control group was created.
Conclusions: A component of emotional intelligence is effective in reducing depression among cancer patients therefore, using this method in health care and the treatment recommended.
Keywords: emotional intelligence, depression, cancer

INTRODUCTION:

Today, chronic diseases such as cancer as a harsh reality and a major stressful life of millions of people are affected [1]. According to the studies and evidence that the cancer patients suffer from psychiatric disorders [2]. According to studies, the most common psychiatric disorders in these patients, compliance with emotional disorders such as adjustment disorder is associated with anxiety subgroups, along with depression and anxiety and depression. The second most common psychiatric diagnosis in these patients was depression. Other studies have shown two symbols and complaints involve cancer patients, depression and anxiety [3]. 70,000 new cases of cancer each year in Iran already happening and each year more than 35,000 people lose their lives due to this disease [4]. Although cancer static shocking and

disturbing, it seems, avoiding exposure to cancer-causing agents, and weaken its presence in the life of the great efficacy in reducing its creation and cope with the disease is among sick people [5]. Among the psychological problems posed by cancer, depression is known as one of the most common psychiatric disorders. Depression is a disorder characterized by loss of energy and interest, guilt, difficulty concentrating, and thoughts of death and suicide is identified and changes in activity level, cognitive abilities, speech, sleep, appetite and other biological rhythms [6]. Average 5% prevalence of depression, the most common psychological reactions in people after receiving the news is cancer [7].

Constitute a class of chemotherapy treatment for cancer, the disease and its cure is that although improved, but severe psychological effects will make the sick person [8]. Therefore, you cannot just treat cancer patient clinical aspects summarized. Cancer and its treatment have several dimensions, so it is necessary that these issues be considered alongside clinical issues [9]. Among the factors influencing mental stress, emotional intelligence is teaching component including the ability of the individual to maintain his motivation, in the face of adversity sustain, their impulse control, prosperity to postpone their mental states regulate and not for his distress, he thought of endangered, empathy with others and hope [10]. EI benefits, social, cognitive, and is biological. Studies have shown that people with high emotional intelligence, lower levels of stress hormones and other indicators of emotional arousal have [11]. Bar-On definition of emotional intelligence, emotional intelligence with 15 components in five areas:

1) Intrapersonal domain includes five components of emotional self-awareness, assertiveness, self-esteem, independence and self-actualization.

2) Intrapersonal domain includes three components empathy, interpersonal relationships and accountability.

3) Adjustment range includes three components, problem solving, reality testing, and flexibility.

4) Stress management area includes two components, pressure and impulse control.

5) The overall creation includes two components of happiness and optimism [12].

Derkson et al (2002) showed that training in research on emotional intelligence training to their specific components of emotional intelligence and empathy set the mood plays a decisive role in reducing stress and increase their adaptability to the environment. Falahati (2007) in a study entitled effect on aggression in girls high school teaching emotional intelligence to achieve these results, reduced aggression is emotional intelligence education students[13]. Bar-ON (1999) in their study showed that there is a significant positive relationship between emotional intelligence and general health[14]. In addition,Nasrabadi (1994) with the implementation of social problem solving training program in the experimental group significantly reduced tendency of emotional exhaustion. Heidari et al (2012) study examined the relationship between emotional intelligence to create confusion, anxiety and depression in male students of Islamic Azad University, Ahvaz, Iran revealed the existence of a significant relationship between emotional intelligence creates uncertainty, anxiety and depression[15].

MousaviSafavi (2007) study the relationship between emotional intelligence and social and emotional adjustment in pre-university students in Tehran. The findings were that the correlation between emotional intelligence and emotional and social adjustment was a direct and significant. The majority of students have good emotional adjustment and social adjustment was moderate. The result showed that the correlation between emotional intelligence to social and emotional adjustment required components of emotional intelligence training to improve students' ability to deal with problems and effective adjustment is necessary[16].

Ebadi and Khademi (2014) study showed that in a stressful situation, such as cancer of emotional intelligence as a result of better health, especially in the use of coping, the patient can stand to increase capacity. Therefore, by providing psychological interventions is besides medical treatment to improve the mental state of these patients. Although the impact of emotional intelligence on reducing stress and anxiety.

Moreover, aggressiveness and increase coping skills and adaptation in individuals and patients have been evaluated in previous studies. However, since the social and psychological consequences of cancer more than other diseases such as depressed mood and positive thinking can bring frustration and loss. The training component of emotional intelligence impact on reducing depression in cancer patients have been evaluated in this study[17].

Mashhadi et al (2010) in this cross between total score of emotional intelligence proved that there was a significant inverse relationship anxiety symptom[18].Tehraniet al (2012) showed that the nursing students did Neyshabur University of Medical Sciences, proved students who achieve a high level of academic skills and future success, in addition to the overall fuel swimming ability, should achieve good growth in aspects such as controlling emotions[19].Saberi et al (2014) study aimed to examine the mediating role of emotional intelligence in the relationship between attachment styles and social adjustment did, it showed insecure attachment styles, ambivalent and avoidance was negatively and significantly predicts social adjustment.In addition, emotional intelligence in the relationship between insecure attachment styles and social adjustment has been mediating role.Therefore, it can be concluded that improving emotional intelligence and informing the families regarding the negative impact of insecure attachment styles, cartridges can be part of students' social adjustment problems[20].Based on this study, the effect of teaching emotional intelligence has been on reducing depression among cancer patients undergoing chemotherapy.

RESEARCH METHODOLOGY:

This study was a clinical trial study. Chemotherapy ward in ShahidRajai Hospital of Yasuj (Iran) in 2014 constituted research environment. The study population included all patients participating in the study inclusion criteria were having in this study, patients in the chemotherapy of Yasuj hospitals that met the inclusion criteria as the study samples were taken. How to determine and sample size: According to the same study was carried out

[21], if the maximum effect of emotional intelligence on Depression 40% to be considered, based on the sample size in the following formula:

$$n = \frac{[z_{1-\alpha/2} + z_{1-\beta}]^2 \times pq \times P^2}{d^2}$$

Where $\alpha = 0.05$, $1-\beta = 0.80$, $p = 0.40$, $P = 0.5$, and $d = 0.05$, respectively Type I error, power of test, assess rates of depression, relative error is the difference between the amount of depression than its actual value, the size of the sample is obtained for a group of 44 people. For both intervention and control groups, 88 patients were enrolled. Data collected in this study, the Beck Depression Inventory, Emotional Intelligence Questionnaire, a demographic questionnaire was used.

MAIN HYPOTHESIS:

Training emotional intelligence factors effect on depression of cancer patients in unit of chemotherapy.

Sub hypothesis:

There are no significant differences in rates of depression in both groups before the intervention.There are significant differences in rates of depression and its subscales individuals in the intervention group before and after the intervention.

Validate and reliable questionnaire:

Beck Depression Inventory: this questionnaire contains 21 questions, to assess depressive symptoms feedback and made, its provisions are essentially based on the view tabloid attitudes, and symptoms common among depressed psychiatric patients have been developed. In other words, these materials have been selected and their weights are reasonable. The content of this questionnaire is to comprehensively signs of depression. However, focuses more on the cognitive content.Beck Depression Inventory is a self-assessment tests in five to ten minuteswill be completed.Test material consists of a total of 21 articles related to various signs that subjects must be on a four-point scale from zero to three respond to it.It is in areas such as sadness, pessimism, sense of failure, guilt, sleeping disturbances, loss of appetite, self-loathing and so on.In this way the

two of them to affect matter, 11 of the understanding, 2 of overt behavior, physical symptoms and 1 of Article 5 of the interpersonal dedicated to semiotics.Thus this scale, varying degrees from mild to severe depression and determines the range of scores from zero to 3. In a study by Keith et al. (2007) was performed on patients with major depression Cronbach's alpha coefficient was calculated for patients 0.92 and test-retest reliability coefficient at an interval of three weeks from the first test were 0.93 and the coefficient at p <0.001was significant.To check the reliability questionnaires, correlation coefficient obtained from the questionnaire valid with other questionnaires calculated that represents an acceptable validity of the questionnaire [22].

Bar-On Emotional intelligence questionnaire: the final version of the questionnaire emotional intelligence (EQ-i) that its English equivalent is emotional inventory, in 2002was presented. The questionnaire contained 133 questions that point it was produced in 90 versions and internal consistency coefficient have been reported where appropriate.The questionnaire has 15 subscales that in five general areasplaced.The five areas and its subscales include:

•Intrapersonal factors: emotional self-awareness, assertiveness, self-esteem, self-actualization, independence

•Interpersonal factors: empathy, social responsibility, interpersonal relations

•Component compatibility problem solving, realism, flexibility

•Component stress management: stress tolerance, impulse control

•Component General People: optimism, happiness

For scoring Bar-on emotional intelligence (EQ-i) First to score 5 option strongly agree, agree a score of 4,3 score somewhat disagree or strongly disagree score 2 score one manager. Note: These questions are reversed scored: 261 - 17-77 - 18 - 33-48 - 63 - 37-22 - 81 - 36-21 - 80 - 50-35 - 20 - 79-64 - 34-19 - 78 - 90-75 - 45 - 15-58 - 87-72 - 27 - 12-86 - 71 - 56-41 - 26 - 11-40 - 84-82 - 67-52. In this Bar-on (1999) validated scales fifteen questionnaire through Cronbach's alpha coefficient between 0.69 to 0.086 to0.076 determined   mean

and then re-test after a month through the 0.085 and after four months has reported 0.75 to check the reliability of the questionnaire. Correlation coefficient obtained from the questionnaire to other reputable emotional intelligence questionnaire calculated which indicates the validity of the questionnaire [23].

Procedure of the study:

This study is quasi-experimental, clinical internship.The study was population chemotherapy cancer patients referred to the ShahidRajaihospital of Yasujformed. All samples were then seeks to select the desired condition and willingness to participate in training program and obtaining informed consent from participants of 88 patients under chemotherapy were randomly divided into two equal groups were divided.Subjects in both groups before the training program participated in the pilot. To collect data, Beck Depression Inventory and Bar-on emotional intelligence questionnaire has 90 questions and the five factor interpersonal communication, interpersonal communication, stress management, adaptability and general mood is formed, which includes 15 subscales: emotional self-awareness, assertiveness, self-esteem, self-fulfillment, independence, interpersonal relationships, empathy, social responsibility, problem solving, reality testing, flexibility, stress tolerance, impulse control, happiness and optimism were used.Training programs in this study consisted of eight sessions a week, each session was conducted during the first hours of the patients are not bored.The training sessions are a group training including methods of altering perceptions, ways of judging was given to clients about their beliefs finally, after 8 weeks [24].

Emotional intelligence training and post-test questionnaires for the second time was at the disposal of the participants.It should be noted that the Beck Depression Inventory and Bar-on emotional intelligence universal standards in Iran and its validity and reliability have been confirmed in several studies.

It should be noted that the education component by the researcher (Psychiatric Nursing graduate student) is covered by a teachers' training

sessions its executive protocol is taught to the patients.Protocols in Appendices are presented.

DATA ANALYSIS METHOD:

The first data by Excel software were processed.Then to the analysis of parametric and non-parametric analyzes including methods of linear models and Generalized Linear such as ANOVA, logistic model and t, F, chi-square and Mann-Whitney tests were used.SPSS statistical software for analysis, tests and get results, was used.

ANALYSIS OF THE DATA:

The first question –there is not significant differences in rates of depression in both groups before the intervention.

Table 1. Comparison of depression and its subscales people before the intervention and control groups

Variable compared	Group	Average	Standard deviation	T-test	**P**	Mean difference
Depression	Intervention	27.84	10.334	1.211	0.229	2.545
	Control	25.30	9.357			
Emotional symptoms	Intervention	11.52	5.073	1.099	0.275	1.113
	Control	10.40	4.405			
Cognitive symptoms	Intervention	10.22	4.108	0.736	0.464	0.613
	Control	9.61	3.399			
Physical symptoms	Intervention	6.09	3.934	1.003	0.319	0.818
	Control	5.27	3.712			

The results set forth in Table 1, show that between intervention and control groups in the rates of depression and its subscales (symptoms of emotional, cognitive and physical) there is no significant difference given that a significant level of 0.05 is obtained in this case (P>0.05). 2. There are significant differences in rates of depression and its subscales in the cases before and after the intervention.

Table 2 Comparison of Depression and its subscales in the intervention group before and after intervention

Variable compared	Step	Average	Standard deviation	T-test	P	Mean difference
Depression	Before intervention	27.84	10.334	4.769	0.001	8.114
	After intervention	19.73	8.679			
Emotional symptoms	Before intervention	11.52	5.073	3.909	0.001	2.772
	After intervention	8.75	4.035			
Cognitive symptoms	Before intervention	10.22	4.108	3.592	0.001	2.136
	After intervention	8.09	3.381			
Physical symptoms	Before intervention	6.09	3.934	5.079	0.001	3.204
	After intervention	2.88	3.699			

According to the results obtained from testing, the hypothesis can be said that the average depression score and the scale of those in the intervention group than the mean score before the intervention;

The average difference between the intervention group before and after the intervention in people with depression score is 8.114 and a significant level achieved (sig = 0.001) of less 0.05 and show the mean difference between is significant; thus, we can conclude with 95% confidence that the rate of depression and its subscales decreased after the intervention.

DISCUSSION AND CONCLUSION:

A total of 88 cancer patients participating in the study (44 patients in the intervention group and 44 in control group), everyone stayed until the end of the study.The result is headache in this section are as follows:In the first hypothesis to experimental results showed that the intervention group and control the amount of depression and its subscales according to the mean emotional cues, 1.11, 0.613 cognitive symptom and physical symptoms 0.818 achieved no significant difference.In the second hypothesis, results showed a significant difference in rates of depression and its subscales in the cases before.Then there are the results of the second hypothesis with research intervention Heidari et al (2012), Nasrabadi (1994), Bar-ON (1999),Derkson et al (2002), Fallahati (2007), Mousavi and Safavi (2007), Saberi et al (2014), Mashhadiet al (2010), Tehraniet al (2012), Ebadi and Khademi (2014) is consistent.

Look to continually challenge the cancer of life. The challenges that can have psychological

consequences are huge.Including depression seems that today is an integral part of human life and a variety of different methods people use to deal with this phenomenon.Current treatments valuable is in cancer control and prevention of disease progression.It not devoid of stress.Treatment of cancer patients cannot be summed up with the clinical management of cancer and its treatment has several dimensions so it is necessary in addition to clinical treatment, these issues also be considered.

It seems that psychological assessment and psychological patients is essential for treatment progress need help cancer patients effectively and to adapt to life with their disease. In justifying the reduction of depression as a result of the implementation of the components of emotional intelligence education in this study appears to be the reason for this. In this study, it was determined at baseline according to the preliminary assessment was that cancer patients because of low education and reducing information and knowledge about cancerand problems of chemotherapy, supportive and non-drug therapies lack of awareness of mental high tension and great mental suffering that all causes of depression has been studied in the unit.Accordingly, emotional intelligence education in line with other studies to meet the educational needs was conducted in the intervention caused the depression in these patients is reduced.

REFERENCES:

1. Barnes J, k.L., lee J, et al, Factors predicting communication about the diagnosis of maternal breast cancer to children. J Psychosom Res Apr, 2002. **52**(4): p. 14-209.

2. Zabora J, H.B., Szok K, The prevalence of psychological distress by cancer site. Psycho Oncology, 2001. **10**(n.d): p. 19-28.

3. Stark D, K.M., Smith A Anxiety disorders in cancer patients: their nature, association and relation to quality of life. J Clin Oncol, 2002. **20**(14): p. 48-137.

4. Young RC, W.C., Cancer prevention: past,present,and future. Clin Cancer Res, 2002. **8**(1): p. 11-16.

5. Brunswick N, W.J.J.M., Public awareness of warning signs for cancer in Britain. Cancer Causes. Control, 2001. **12**(1): p. 33-37..

6. Akiskal, H., Mood disorder. In: Kaplan HI. ; Sadock BJ. Comprehensive text book of psychiatry. From Williams &Wilkins. Baltimore: USA, 7th ed, 2001. **1**(n.d): p. 431-1284.

7. HS, J.P.J., Psychosocial interventions for anxiety and depression in adult cancer patients: achievements and challenges. CA Cancer J Clin, 2008. **58**(4): p. 30-214.

8. M, L., Cancer fatigue: A review for psychiatrists. Gen Hosp Psychiatry, 2008. **30**(3): p. 233-244.

9. JM, M.J.G., The role of executive functioning in CBT: A pilot study with anxious older adults. Behav Res Ther, 2005. **43**(4): p. 65-477.

10. Ranjbar, S., Darhvsh ways to increase emotional and psychological Magazine. n.d, 2010. **5**(3): p. 23-33.

11. Mayer JD, S.P.C.D., Models of Emotional Intelligence in "Handbook of Intelligence", 2001, England: Cambridge University Press. : Cambridge. p. 369-420.

12. Bar-On, R., Emotional and social intelligence: Insights from the Emotional Quotient Inventory. In R. Bar-On & J. D. A. Parker (Eds.),The handbook of emotional intelligence. San Francisco: Jossey-Bass, 2000. **n.d**(n.d): p. 88-363.

13. Falahati, s., the impact of teaching of emotional intelligence on agression reduction among high school girls in Ahvaz city. . n.d, 2007. **1**(6): p. 3-8.

14. Bar-On, R., The Emotional Quotient Inventory (EQI): A measure of emotional intelligence. . 1999, Toronto: Canada: Multi_ Health systems.

15. Heydari A, A.P., Najariyan B & Yiylagh M, The Relation Between Alexithymia with Emotional Intelligence, Anxiety and Depression in boys students of Islamic Azad University, Ahvaz Branch. Knowledge & Research in Applied Psychology, 2012. **13**(1): p. 82-87.

16. Safavi, M.M., M, Correlation between emotional intelligence and emotional and social adjustment of female students in

Tehran Journal of Shahid Beheshti University of Medical Sciences, 2007. **4**(5): p. 26-255.

17. Ebadi M, H.H., Ebadi Z,Shirazi M, comparative study of the relationship of emotional intelligence and coping styles in patients Cancer woman, male, single, married, referred to medical centers in Tehran Journal Health Psychology, 2014. **3**(2): p. 65-89.

18. Mashhadi A, S.E.H.S., The relationship between emotional intelligence and its components with anxiety. n.d, 2010. **12**(4): p. 61-652.

19. Tehrani t, k.N., Cheraghi F, Bakaiyan M, Yaghobi Y, Evaluate the relationship between emotional intelligence and mental health and academic achievement Student nurses at the College of Nishabur. Journal of Nursing and Midwifery, Hamadan, 2012. **20**(3): p. 35-41.

20. Sabri M, k.F., Golzar H, Relationship between attachment styles and social adjustment. the mediating role of emotional intelligence, 2014. **11**(42): p. 181-191.

21. Esazadegan A, S.S., Hafezniya M & Khademi A, Examine the relationship between emotional intelligence and interpersonal problems n.d, 2013. **2**(4): p. 11-24.

22. Scogin, F., Beutler, L., Corbishley, A., & Hamblin, D, Reliability and validity of the short form beck depression inventory with older adults. Journal of Clinical Psychology, 2006. **44**(6): p. 853 – 857.

23. Kazemi SH, E.A., Ezadi A, Alavi M, The relationship between emotional intelligence and recurrence in women taking the glass in Tehran. Journal of Social Research, 2011. **4**(10): p. 137-151.

24. Esazadegan A, S.S., Hafezniya M & Khademi A, Examine the relationship between emotional intelligence and interpersonal problems. n.d, 2008. **2**(4): p. 11-24.