ORIGINAL ARTICLE

Received: March 2014
Accepted: August 2014

A comparison of efficacy of two training techniques of self- management and relaxation on the aspects of quality of life in women with cancer

Neda Sepasi[1,*], Abbas Abu-al- Qasemi[1], Muhammad Narimani[1]

ABSTRACT

Introduction: The present study aims at comparing two training methods of self-management and relaxation on the aspects of quality of life in women with cancer.

Methods: This is a pilot study which has been conducted by expanded pre-test and post-test pattern by control group. Community sample of this studywere all women with breast cancer in Ardabil in 1390 (Approximated estimation: N=1000). Samples were 60 women with breast cancer who were randomly selected among cancer patients in Ardabil. The questionnaire of quality of life by Brody et al., 1997 and self- concept scale by Dargotis et al., 1979 were administered on subjects as data collection materials in clinical centers. Multivariate analysisof covariance and Tukey's multiple comparison tests were used for data analysis.

Results: The results showed that applying training methods of self-managementand relaxation improves significantly physical, emotional, social, communicative andfunctional, dimensions of quality of life and self-concept of women with cancer. Also data analysis showed that there is a significant difference between two methods of self- management and relaxation in effect.

Conclusion: We conclude that self-management, and relaxation method by Benson can be used as effective, easy, inexpensive way to promote the quality of life of cancer patients in hospitals.

Keywords: Quality of life, Self- concept, Self- management, Relaxation, Cancer.

1. Mohaqeq University of Ardabil, Ardabil, Iran.

***Corresponding Author:**
Neda Sepasi,
Graduate student of clinical psychology,
Mohaqeq University of Ardabil, Ardabil, Iran.
Email: neda_s780@yahoo.com

BCCR
2014; 6(3): 18-28
www.bccrjournal.com

Introduction

How can you live better? By what kinds of mechanism can you enjoy world? What is the secret of happiness? Humans have long sought to answer these questions. Such goals as happiness, positivistic, job satisfaction, production and finally a prosperous society are realizable in terms of positively oriented human psychology (Selig man, 2000). Quality of life is one of the most fundamental topics in positive psychology perspective. Change of the opinion is one of the primary sources tend to quality of life which leads to life improvement in science, medicine and technology. It is believed that individual, family, social welfare is caused by combination of these advances with individual's values and perception of well- being and life (Brow, 2002). Quality of life and human health issue has been discussed at birth and over the centuries, and whenever it has been discussed its materialaspect was regarded and less had been pointed to its mental health. The world heath organization while emphasizing to officials in order to make a society healthy in physical, mental and socially, has always emphasized of the three dimensions is superior to another (Qanbari, 1385). Some researchers as Brohen and others conducted studies on those who are active and are financially in secure. These researchers found that some disease such as cancer, coronary and diabetes which are major problems in terms of having a long and healthy life are more common in those are not happy and satisfied in their life, but in the other hand it seems much more lesser in those who live well and happily (Mansoori, 1385).

Cancer and its psychological and social function as the second mortality factor in U.S.A and wide studies have been performed since middle 20th centuries. Research results indicate that cancer impedes life, sleep, appetite, physical activities, and social, individualand sexual functions. Patient will undergo some disorders such as sleep, appetite, mental function and weakness since this disease diagnosis to death, and as a result influences quality of (Jones and Bartlet, 2004). Nunes, Rodrigue, Hoffman, Luz, Filho, Muller and Baure (2007) began to study about effects of relaxation and mind guided imagery in patients with breast cancer under radiotherapy. The result showed that relaxation and mind guided imagery reduced anxiety, stress and depression in those patients, however increased quality of life. Also Helson, Steinder and Seltman (2004) showed that adaptability of woman with breast cancer is less than healthy women and their adaptability can be improved by long term psychological training such as self-management.

Physical relaxation technique has been used in many studies to relieve pain and reduce mental stress in the patients. Relaxation mainly means tension elimination or releasing from physical and mental stressors which at the end, the person feels anxiety pain or worry reduction. In this method the person does contractile movement, then put the muscles in voluntary and flabby position for 5 to 10 seconds, so increases blood flow and improves blood stream to all parts of body. One of the usability of this technique is to control the pain which is commonly used to reduce the pain from cancer. This method is widely used in training programs of stress management and the person feels improvement and satisfaction after the end of training period (Benestin, Borkovec, and Hazlett, 1980). Bakhshi (1380) showed the efficacy of relaxation on the outcomes from chemotherapy in patients with cancer.

The other method that may influence the quality of life of patients with breast cancer is the training of self- management. Self – management means the ability to manage impulsive modes by prohibiting short-term demands. A person has self- management who can manage his immediate impulses and emotions (Mental Health Seminar, 1383). Self- management is a procedure that by providing the person with active coping strategies helps him to control his inappropriate behavior consciously (workman and Katz, 1995). All of the treatments based on this approach include training of self- management patterns and all of the self-management techniques depend on cognitive modification of clients. Self-management is a method that the person plays the major role in order to control the behavior for implications and certain and pre- planned behavioral changes (Matcerz, noweil, Hallahan, 1986; Mooris, Trans by Farjami, 1373). Self-management training equips people with coping strategies against the problems, and these strategies are often related to behavior. In a study by Schulman, Bradley, Knobf, Prigerson et al., 2011 as »self-management and changes in women with advanced breast cancer«studied self- managing methods related to women health. The results showed that women with breast cancer have lesser self-management than

norm group. Thus researchers evaluated intervention as aself-management training to women with breast cancer to improve efficient physical and mental symptoms. Also in a study by Somranyart (2009) as »efficacy of self- managing training program among cancer patients suffer from headache« studied about efficacy of self-management training program of pain (CPST) on headache, intervention of pain and controlling the pain in patients with cancer in Thai. The results showed that: 1) the intervention group had significantly lower pain than the control group 2) the intervention group had significantly lesser pain than the control group, and 3) the intervention group had significantly more control on pain than the control group. According to several research results and that the ultimate goal of »quality of life« is enabling people to live and making high quality life and promoting life quality level i.e. a life that is meaningful and have content and is rich in benefits. The present study aims at studying the efficacy of two techniques of training self-management and relaxation on the aspects of quality of life in women with breast cancer.

Method

The present study is a pilot research with clinical trial that is conducted by expanded pre-test and post-test design with control group. In this research, the training has been considered with two levels of relaxation and self-management training and lack of training (as independent variable) and aspects of quality of life and self-management as dependent variables. The research method is so that 60 women with cancer bedding in Imam Khomeini Hospital were randomly selected and divided into 3 training groups of relaxation training, self-management and control group (each group consisting of 20 people). First quality of life was analyzed in three groups, then each experimental group received the intervention; however no intervention applied on management group, finally post-test was performed on all three groups. Sample group are all cancer patients in Ardabil in 1390 (approximated estimation: N=1000). This includes 60 patients with breast cancer who were availably selected from breast cancer patients in Ardabil. In thepilot study 15 subjects were considered for each group (Delavar, 1380) which in this study in order to consider the dropping of test 20 subjects were randomly selected in each group and divided into 3 groups: 20 people for relaxation training, 20 people for self-management training and 20 people for management group. Entry criteria for patients are: education less than diploma, 20-40 years old, not suffering from mental disorders and lack of acute illness.

Research Materials

1- Questionnaire of quality of life: questionnaire of quality of life has been designed by Brudy et al., 1997 to measure the quality of life of women with cancer. This questionnaire has 44 items that measure physical, emotional, and social, function and communicative aspects. Internal consistency coefficient is 0.90 (aspects from 0.69 to 0.86) and the final retest coefficient is0.85. The correlation coefficient of this questionnaire has been negatively and significantly obtained by depression and anger questionnaires.

2-self-concept measurement: this has been compiled by Dargotis et al., 1979. This measurement has 15 items which are answered in 5 options (from never to very much). Cronbach's alpha coefficient of this measurement is 0.81.

Materials and Methods

First 60 women with breast cancer were identified in Imam Khomeini Hospital for chemotherapy. They were asked to take part in the experiment after interview and informed written consent. The subjects were randomly selected and divided into 3 groups. After selection, first all three groups were pre- tested. The first and second experimental groups were trained for 6 sessions. However, the control group received no training. Then 2 weeks after training (each week 3 training sessions) all 3 groups were tested by the questionnaire in quality of life and self- concept measurement. Finally the collected data were analysed using multivariable covariance analysis and Turkey's multiple comparison test.

Results

First Levine test was used to study the assumptions of homogeneity of variances. This test was significant for

none of the variables, so parametric test is permitted. Also Box test was used to study the assumption of homogeneity of covariance and the results showed that the test is not significant and as a result there is a difference between the covariance by default. (**Table 1**)

As it can be seen in Table 14-4 mean (and standard deviation) the post- test of control group is in physical welfare 46.00 (5.55), emotional welfare 16.20 (2.39), social welfare 26.05 (3.06) functional welfare 24.55 (2.66), communicative welfare 16.05 (1.78) and self- concept is 24.00 (3.04). Mean (and standard deviation) of relaxation group post-test is 34.25 (4.37) in physical welfare, 19.40 (2.41) in emotional welfare, 60.32 (2.76) in social welfare, 31.65 (4.48) in functional welfare, 22.55 (4.14) in communicative welfare and 18.60 (2.60) in self- concept. Mean (and standard deviation) of control group post-test is 33.05 (2.25) in physical welfare, 11.90 (2.40) in emotional welfare, 16.90 (3.74) in social welfare, 17.75 (4.52) in functional welfare, 10.90 (2.48) in communicative welfare and 18.20 (3.60) in self-concept.

The results of table 2 show that significance level for all tests does not allow the use of multivariate variance analysis. (**Table 2**)

These results show that there is a significant difference among self-management, relaxation and control group in at least one of the dependent variables. The Eta square (which in fact is the correlation squared coefficient between dependent variable and group membership) shows that the relationship of groups according to dependent variables is significant and the value is 79% based on Lambda wilks test is the variance related to the difference between three groups comes from interaction of dependent variables. (**Table 3**)

The results from covariance analysis with scores of pre-test control showed that there was no significant relationship in physical welfare of subjects among three groups before conducting the research. In fact the effect of pre- test scores on that of post- test was not signifi-

Table 1. mean and standard deviation of control group, relaxation and control in quality of life and its components in pre-test and post- test.

Position	Pre- test						Post- test					
Group	Control		Relaxation training		Self- management training		Control		Relaxation training		Self- management training	
Variables / statistics	X	SD	X	SD	X	SD	X	SD	X	SD	X	SD
Physical welfare	32/80	2/06	33/50	1/67	33/80	1/93	46/00	5/55	34/25	4/37	33/05	2/25
Emotional welfare	11/20	2/39	9/90	3/68	10/75	2/75	16/20	2/39	19/40	2/41	11/90	2/40
social welfare	18/20	2/85	18/10	3/21	16/70	3/55	26/05	3/06	32/60	2/76	16/90	3/14
Functional welfare	20/65	3/23	20/40	3/84	21/70	3/84	24/55	2/66	31/65	4/48	17/75	4/52
Communicate welfare	10/35	1/84	9/70	2/27	9/85	2/32	16/65	1/78	22/55	4/14	10/90	2/48
Self- welfare	17/25	2/98	17/20	3/65	18/90	4/37	24/00	3/04	18/60	2/60	18/20	3/60

Table 2. the results of significant test of multivariable variance analysis on aspects of quality of life and self- concept in control, relaxation and control group.

	test	value	F	Assumption df	errordf	P	Eta square
group	Pylayy effect	1/52	20/73	14/00	90/00	0/000	0/736
	Lambda vilkz	0/041	24/91	14/00	88/00	0/000	0/799
	Hoteling effect	9/66	29/69	14/00	86/00	0/000	0/829
	The largest root of the error	7/89	50/76	7/00	45/00	0/000	0/888

cant. The mean difference of physical welfare of these three groups will be significant statistically (P<0.001) by controlling this non- significant relation and with regards to calculated F coefficient. It can be concluded that self-management and relaxation can increase physical welfare of subjects in experimental group compared to control group in the post- test stage. Eta square or effect coefficient indicates that studied interventions cause 75% improvement in physical welfare of subjects of experiment groups compared to control group. Statistical Square of 99.5% also indicates a higher statistical accuracy in post-test. (**Table 4**)

The results from LSD test for mean scores analysis of physical welfare show that the mean scores of physical welfare is significantly higher in «self- management group than control group» (P< 0.001). But there was no significant difference between «relaxation and control groups» in mean scores of physical welfare. (**Table 5**)

The results from covariance analysis by controlling pre-test scores showed that there was no significant relation in emotional welfare of subjects of 3 groups before test. In fact the effect of pre- test scores on that of post-test was not significant. The mean difference of emotional welfare of 3 groups in significant statistically (P< 0.001) by controlling this non- significant relation and with regards to calculated coefficient F. It can be concluded that self- management and relaxation training increase emotional welfare of subjects of experiment group compared to control in post-test. Eta square or effect coefficient indicates that studied interventions caused a 64% improvement of emotional welfare of subjects in experiment groups compared to control groups. 99.9% of the statistical square indicates a higher statistical accuracy of post-test. (**Table 6**)

The results from LSD test to compare mean scores of emotional welfare show that mean scores of emotional welfare in «relaxation group is significantly higher than that of self- management group» and «relaxation group is higher than control group»and «self-management group is higher than control group»(P< 0.001) (**Table 7**)

Table 3. the results from covariance to analysis to determine the efficacy of self- control and relaxation training on physical welfare.

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	9/55	1	9/55	0/516	0/476	0/72	0/131
Difference between groups	1894/14	2	947/07	51/13	0/000	0/754	0/995
error	1037/14	56	18/52				

Table 4. comparison of mean scores of physical welfare in control training, relaxation and control group by LSD test.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	11/75* (0/000)	12/95* (0/000)
	relaxation group	-11/75* (0/000)	-	1/20 (0/652)
	control group	12/95* (0/000)	1/20 (0/652)	-

Table 5. the results from covariance analysis to determine the efficacy of self- management and relaxation training on emotional welfare.

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	7/40	1	7/40	1/28	0/262	0/022	0/112
Difference between groups	573/90	2	286/95	49/84	0/000	0/640	0/999
error	322/39	56	5/75				

The results from covariance analysis with control scores of pretest showed that there was no significant difference in social welfare of subjects of three groups before test in fact the effects of pre- test on that of post- test was not significant. The mean difference of social welfare of three groups was significant statistically (P< 0001) by controlling this non- significant relation and with regards to calculated coefficient F. It can be concluded that self-management and relaxation training increases social welfare of subjects of experiment group compared to control group in post- test. Eta square or effect coefficient indicates that the studied interventions cause 84% improvement in social welfare of subjects of experiment groups to control group. The 100% statistical square indicates a higher statistical accuracy in post- test (**Table 8**)

The results from LSD test to compare mean scores of social welfare show that mean scores of social welfare in «relaxation group is significantly higher than self- management group», and «relaxation group is higher than control group» and «self- management group is higher than control group» (P<0.001) (**Table 9**)

The results from covariance analysis by controlling scores of pre- test showed that there was no significant relation in functional welfare of subjects of 3 groups before best. In fact the effect of pre- test scores was not significant on that of post- test. The mean difference of functional welfare of groups will be significant statistically (P< 0.001) if the non- significant relation is controlled and with regards to calculated coefficient F,as well. It can be concluded that self- management and relaxation training increases functional welfare of subjects of experiment group to control group in post- test. Eta square or effect coefficient indicates that studied interventions cause 73% improvement in functional welfare of subjects in experi-

Table 6. Comparison of mean scores of emotional welfare in self-management, relaxation and control groups with LSD test.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	-3/20* (0/000)	4/30* (0/000)
	relaxation group	3/20* (0/000)	-	7/50* (0/000)
	control group	4/30* (0/000)	7/50* (0/000)	-

Table 7. the results from covariance analysis to determine efficacy of self- management and relaxation training on social welfare.

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	55/41	1	55/41	6/80	0/172	0/108	0/135
Difference between groups	2265/21	2	1132/60	139/05	0/000	0/832	1/00
error	456/13	56	8/14				

Table 8. comparison of mean scores of social welfare in self-management, relaxation and control groups with LSD.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	-6/55* (0/000)	9/15* (0/000)
	relaxation group	-6/55* (0/000)	-	15/70* (0/000)
	control group	-9/15* (0/000)	-15/70* (0/000)	-

ment groups to control group. 99.3% statistical square indicates a higher statistical accuracy in post- test.(**Table 10**)

The results from LSD test for comparison of mean scores of functional welfare show that mean scores of functional welfare is significantly higher in «self-management group than relaxation group» and «self- management training group is higher than control group» (P<0.001).(**Table 11**)

The results from covariance analysis by controlling pre- test scores showed that there was no significant relation in communicative welfare of subjects in three groups before test. In fact, the effect of pre-test scores was not significant on that of post- test. The mean difference of communicative welfare of 3 groups is significantly statistically by controlling the non- significantly by and with regards to calculated coefficient F (P< 0.001). It can be concluded that self- management and relaxation training increases a communicative welfare of subjects in 3 groups to control groups to control group in past-test. Eta square or effect coefficient indicates that studied intervention cause a 69% improvement in communicative welfare of subject in experiment groups to control. 99.7% statistical square indicates a higher statistical accuracy in post test. (**Table 12**)

The results from LSD test for comparing mean scores of communicative welfare shows that mean scores of communicative welfare is significantly higher in «relaxation group than self-management group» and «relaxation group is higher than control group» and «self-management group higher than control group» (P<0.001). (**Table 13**)

The results from covariance analysis by controlling by pre- test scores showed that there was no significant relation in self- concept of subjects in 3 groups before test. In fact, the effect of pre-test scores was not significant on that post-test.

The mean difference of self- concept welfare in three groups will be significant statistically by controlling this non-significant relation and with regards to calculated co-

Table 9. the results from covariance analysis to determine efficacy of self- management and relaxation on functional welfare.

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	120/83	1	120/83	8/60	0/295	0/133	0/162
Difference between groups	2033/93	2	96/101	41/72	0/000	0/721	0/993
error	786/41	56	14/04				

Table 10. comparison of mean scores of functional welfare in self- management, relaxation and control group with LSD test.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	-7/10* (0/000)	6/80* (0/000)
	relaxation group	7/10* (0/000)	-	13/90* (0/000)
	control group	-6/80* (0/000)	-13/90* (0/000)	-

Table 11. the results from covariance analysis relaxation training group on communicative welfare .

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	36/53	1	36/53	4/36	0/161	0/27	0/153
Difference between groups	1369/88	2	94/684	81/82	0/000	0/685	0/997
error	468/76	56	8/37				

efficient F (P<0.001). It can be concluded that self-management and relaxation training increases self- concept of subjects in experiment group to control groupin post-test. Eta square or effect coefficient indicates that studied interventions causes a 65% improvement in self- concept of subject of experiment groups to control group. 98.9% statistical square indicates a higher statistical accuracy in post-test. (**Table 14**)

The results from LSD test for comparing mean scores of self-concept show that mean scores of self- concept is significantly higher in «self- management group than relaxation group» and «is higher in self- management group than control group» and «is higher in relaxation group than control group» (P<0.001).

Discussion and conclusion

The result from this study showed that post-test mean scores of physical welfare are higher in self- management group than relaxation and control group. Also the results from LSD test for comparing mean scores of physical welfare show that mean scores of physical welfare is significantly higher in «self- management group than relaxation and control group» (P<0.001). These results are in consistent with results from students by Schulman, Bradly, Knobf, Prigerson et al., (2011), Summrarniyrat (2009), Parter, Kaf, Gaursette, Guilen and Bookam (2008) and Kotol, Fooster, Prigerson et al (2011) in a study as «self- management and changes in woman with advanced breast cancer» studied about self-management methods related with women healthy and showed that women with breast cancer are of lower self-management than norm group and the intervention measured as a self-management training for women with breast cancer to improve effective physical and mental symptoms. Also Summrarniyarat (2009) in a study as «efficacy of self-

Table 12. Comparison of mean scores of communicative welfare in self-management, relaxation and control group with LSD test.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	-5/90* (0/000)	5/75* (0/000)
	relaxation group	5/90* (0/000)	-	11/65* (0/000)
	control group	-5/75* (0/000)	-11/65* (0/000)	-

Table 13. the results from covariance analysis to determine efficacy of self managementand relaxation group on self- concept .

Source of change	SS	df	MS	F	P	Eta square	Statistical power
Pre- test	11/56	1	11/56	1/19	0/278	0/09	0/189
Difference between groups	430/63	2	215/31	22/31	0/000	0/646	0/989
error	540/43	56	9/65				

Table 14. comparison of mean score of self- concept in self-management relaxation and control group with LSD test.

variable	group	Self-management group	Relaxation group	control
Physical welfare	self-management	-	5/40* (0/000)	5/80* (0/000)
	relaxation group	-5/40* (0/000)	-	0/40 (0/913)
	control group	-5/80* (0/000)	-0/40 (0/913)	-

management training program among cancer patients suffer from physical pain» showed that:

Intervention group has a significantly lower pain than control group. 2) The relation of pain in intervention group is significantly less than control group. 3) The intervention group had significantly more than control group. In explaining the results from present study it can be said that series of thoughts and tendencies damages ideas and beliefs system and makes the person not to be serous about physical aspects of breast cancer. Naturally, in such a position, sensitivity to this issues is reduced and is ignored due to different threats and physical side effects and as a result there is no understanding and perception about physical situation and in practice, there is negligence and neglect. In the other hands, such an attitude impedes functionality felling for research and move forward healthy and weakens self-management felling, so it reduces the motivation and stimulus, individual readiness level and causes the person not to follow prevention advices and finally results in a reduction in qualityof life in physical. Also the results from the study showed that mean scores of post-test for emotional well- being is higher in relation group than in self- management and control group. And the results of LSD test for comparing the mean scores of emotional well-being showed that mean scores of emotional well-being in «relaxation group id significantly higher than in self- management group» and «in relation group in higher than control group» and «in self- management group is higher than control group» ($P<0.001$) so the second assumption is accepted.

The results from this study is in consistent with results from studies by Benette, Phillips, Brayan, Hood and Geri (2007), Nones et al., (2007), Lewenpizzaro et al., (2007), Antoni, Vimbberly, LochenesKazi and Owersi (2006), Chiones, Fladman, Gaum, Mike and Steindler (2005), williames and Scherier (2004), Fkoyi, Kokayi, Okmora, Quicke and Nakanishi (2000), Waker, Angusston Hiss, Ahesi and Miller (1999), AswadiKermani et al., (1389) Aqebati et al., (1389).Nones et al., 2007 began a study on the effects of relaxation in patients with cancer under radiotherapy and found that relaxation method could reduce anxiety, stress and depression in patients. Also, Lewnpizzaro et al., (2007) showed that relaxation of patients with breast cancer has a significant effect on anxiety ($P= 0.008$), depression ($P=0.03$) and mental disorders ($P=0.06$) and results of this study can be said that experiencing different disease such as cancer can lead to emotional disorders in addition to physical problems as well, and that patients can be helped by psychological interventions besides medical treatments to improve the quality of their life. In the other side, in the relaxation method the emphasis lies on the anxiety-making conditions instead of reaction or anxiety behavior, however self- management method aims at training to identify and cope with threatening ideas.

Also the results showed that the mean scores of post-test for social, communicative and functional well-being is higher in relaxation group than in self-management and control group. So that the results from LSD test for comparing meant scores of social, communicative and functional well-being shows that meant scores of social, communicative and functional well-being «in relaxation group is significantly higher than self- management and control group» ($P<0.001$). the results from present study is in consistent with results from Sterous, Ekmasiyoglou, Holdschick and Charectel (2005),Pasik et al., (2004), You, Ahan, Kim and Haun (2005) and Shariaty et al., (1389). Sterous, ekmaksiyoglou, Holdschik and charectel showed in a study that two weeks and 6 month after relaxation and rehab interventions the quality of life of patients improved especially in emotional, social and communicative areas and the result were statistically significant after 6 months. Also, You, Ahen, Kim and Haun (2005) showed that progressive relaxation in patients with breast cancer made a significant difference statistically ($P=0.01$) in negative feelings about anxiety, depression, anger and ability to make a social communication after 3 months, and in terms of emotional aspect there was a significant difference in the quality of life between relaxation group and control group ($P<0.05$). Also the results from present study is in consistent with results from Shariaty et al., (1389) showing that relaxation program by Benson promotes functional and physical measurement ($P<0.001$), role ($P<0.001$) mind ($P<0.001$), emotion ($P<0.001$) and social ($P<0.001$), self-concept ($P<0.001$) and sexual pleasure ($P<0.01$) future-imagery ($P<0.001$). Based on the from the present study can be said that relaxation technique can indirectly improve the quality of social- communicative well-being and make supporting nets for cancer patients by reducing emotional disorders,

so relaxation training can promote self- esteem mode and naturally can improve Immune system of body through reducing stressors and increase the quality of life in social and communicative aspects.

Also the results of the study showed that the mean scores of post-test for self-concept in self-management group is higher than relaxation and control group. The results from LSD for comparing mean scores of self-concept shows that mean scores of self-concept «in self- management group is significantly higher than of relaxation and control group» and «in relaxation group is higher the control group» ($P<0.001$). The results from present study is in consistent with results from Lee, Scowen, edgarDeliznez (2006), Grauze (2003) Holegson, Kouhen, Scholes and Yasco (1999) and Shariaty et al., 1389.

Grauze (2003) in a study as «cognitive theory of social and quality of life of cancer patients: meta-analysis of psychological interventions»

began to study about efficacy of self-management in cancer patients. Meta-analysis of social cognitive including efficacy, expectations and self-adjustment showed thatpsychological interventions including 3 mentioned components had higher effects on improvement of self-imagery and reducing nervous stressful thoughts of cancer patients compared to control group. Based on the results from the present study can be said that body and physical appearance especially in women with breast cancer is the important part of the body, because it is the first source of information that people use for social interactions. Thus, this factor plays a fundamental role in determining beliefs and behaviors of the person's body Image is the internal reflection of physical appearance of person which contains the physical and perception aspects and attitudes toward them. The self-management technique can modify beliefs and behavior of women with breast cancer about self- concept especially those who were undergone surgery operations by training distress tolerance, interpersonal relationships, problem-solving skillsand assertiveness and so on.

Generally, according to the results from the present study it seems that patients with breast cancer are facing various mental disorders and problems depending on the type of their disease. They may have more problems in emotion and social function. Some patients may feel loneliness. These problems make patients to face different kinds of stress every day. Also patients with breast cancer may involved in problems from interpersonal relationships disorders such as felling guilty, anxiety, low mood due to their life style and nature of the disease. Finally all of this factor will lead to reduction in the quality of life of patients with cancer. Greer, Prill, Park, Lynch and Temel (2008) believe that cancer and treatments such as chemotherapy and radiotherapy lead to psychological and behavior disorders in patients with cancer. Thus it seems that patients with cancer are under mental pressures from the disease and side effects of its treatment and this can make their social- mental disorders. Since adaptive methods for the disease can affect the strength or weakness of symptoms, intervention therapy help for improving coping approaches with disease will be valuable. So the results from the mentioned study show that self-management, and relaxation method by Benson can be used as effective, easy, inexpensive methods to promote the quality of life of cancer patients in hospitals.

References

1. Antoni M.H, Wimberly S.R, Lechner S.C, Kazi A, Sifre T, Urcuyo K.R, et al. Reduction of cancer– specific thout intrusions and anxiety symptoms with a stress management intervention among women undergoing treatment for breast cancer. Am.J, Psychiatry 2006; 163: 1791-7.

2. Brown. S.A.(2002). Psychological text and scales. In: Spiker B, editor. Quality of life assessment in clinical trials. New York: Raven press; vol.4 p: 234.

3. Bennet, P., Pheleps, C., Brain, K., Hood, K., Gary, J. 2007. A randomized trial of a brief self- help coping intervention designed to reduce distress when awaiting genetic risk information. Journal of psychosomatic research. 63:59-64.

4. Cotterell. P., Foster. C., Roffe. E., Scott. I. 2008. Exploring self management following active treatment for cancer. Nursing oncology. 71 (2008) 169–190.

5. Cheavens, J.S.؛ Feldman, D.B.؛ Gum, A.؛ Michael, S.T. & Snyder, C.R. (2005). Hope therapy in a community sample: A pilot investigation. Social Indicators Research, 77.

6. Nunes, D.F., Rodrigue Z, A., Hoffman, F. S., Luz, C., Filho, A P., Muller, M. C., Baure. M. E, 2007. Relaxation and guided imagery program in patient with breast cancer undergoing radiotherapy is not associated with neuroimmunomodulatory effects. Journal of Psychosomatic research 63: 647- 655.

7. Greer J, Prill WF. Park ER, Lync T.J, TemeL JS. Behavioral and

Psychological predictors of chemethenpy adherence in patients with advanced non- small cell lung cancer jornal of Psychosamatic research 2008;23:1-4.

8. Graves KD. Social cognitive theory and cancer patients' quality of life: ameta-analysis of psychosocial intervention components. Health Psychol2003;22:210–9.

9. Helgeson V.S, Cohen SH, Schulz R, Yasko J.Education and peer discussion groupinterventions and adjustment to breast cancer.Arch, Gen, Psychiatry 1999; 56(4): 340-7.

10. Fukui S, Kugaya A, Okamura H, Kamiya M,Koike M, Nakanishi T, et al. A psychosocialgroup intervention for Japanese women withprimary breast carcinoma: a randomized trial.Cancer 2000; 89: 1026-36.

11. León-Pizarro C, Gich I, Barthe E, Rovirosa A, Farrús B, Casas F. et al. A randomized trial of the effect oftraining in relaxation and guided imagery techniques in improving psychological and quality-of-life indices forgynecologic and breast brachytherapy patients. psychooncology.2007;16(11):971-9.

12. Lee v,schoen R, EdgarL, Laizner A (2006) meaning – making intervention during brest or colorectal cancer treatment imptovessdf- esteem, optimism, and self- efficdy. Social science medicine, 62 (1), 112-124.

13. Porter. L. S., Keefe, f, J., Garst, J., Gillen, M, M., Baucom, D. 2008. The efficacy of arts therapies to enhance emotional expression, spirituality and psychological well-bing of newly diagnosed stage 1 and stage 2 breast cancer patients: a preliminary study. The arts in psychotherapy: 33, 218-228.

14. Schulman-Green, D., Bradley, E. H., M. Knobf, T.,Prigerson. H., Michael P. DiGiovanna, MD.,and Ruth McCorkle.(2011). Self-Management and Transitions in Womenwith Advanced Breast Cancer.FAAN. Journal of Pain and Symptom Management. J Pain Symptom Manage 2011;-:-e-. _ 2011 U.S. Cancer. Nursing oncology 257.

15. Somrarnyart, M. 2009.Effectiveness of self-management training programamong Thai cancer patients with pain; Nursing oncology. 76(2009) 821-815.

16. Strauss G, Ekmekcioglu C, Hladschik C, MarktlW. Combined inpatient rehabilitation and spa therapyfor breast cancer patient. Cancer Nursing 2005; 28:390-97.

17. Williams S.A, Schreier A.M. The effect ofeducation in managing side effects in womenreceiving chemotherapy for treatment of breastcancer. Oncol, Nurs, Forum 2004; 3(1): E16-22.

18. Workman A. Edward and katz . Alan. M. (1995/ 1982). Teaching behavioral self- control to students. Second edition/ by pro- ED- Inc.

19. Walker LG, Walker MB, Ogston K, Heys SD,Ah-see AK, Miller ID, et al. Psychosocial,clinical and pathological effects of relaxationtraining and guided imagery during primarychemotherapy. BJC 1999; 80(1-2): 262-8.

20. Yoo HJ, Ahn SH, Kim SB, Kim WK, Han OS. Efficacy of progressive muscle relaxation training and guidedimagery in reducing chemotherapy side effects in patients with breast cancer and in improving their quality oflife. Support Care Cancer. 2005;13(10):826-33.