

# The Effectiveness of Training Life Skills (Stress Management, Anger Management, Problem Solving, Self Awareness) on Life Quality of Gastrointestinal Cancer Patients

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## ABSTRACT

**Purpose:** this study aims to determine the effectiveness of training life skills (stress management, anger management, problem solving, self awareness) on life quality of gastrointestinal Cancer patients.

**Method:** this study is experimental and its schema has been pre tests – post test with control group; in which the testees are placed into two experimental and control groups randomly to investigate the effect of independent variable on dependent variable. The statistical community includes all gastrointestinal Cancer patients referring to the hospitals of Rasht city to do chemotherapy in 2012.

Firstly, the patients in Razi hospital of Rasht city have been chosen randomly among all the hospitals in this city ; so that among 150 gastrointestinal Cancer patients referring to Razi hospital , 80 patients had the criteria to participate in the study, such as age range from 20 to 60 years , education from literate to higher degrees, without any other cancers than gastrointestinal Cancer ; among them 40 men and women have been placed randomly into two 20 people control and experimental groups. And they responded to the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORT QLQ\_C30). Then, the experimental group has received life skills training in nine 45 minute sessions once a week for 3 months and the control group didn't involved in it. After finishing the experiment, post test has been conducted for two groups. The statistical community data has been analyzed through MANCOVA by SPSS software.

**Findings :** the results indicate that there is a meaningful deference between control and experimental group averages in all quality aspects of physical, role-playing, emotional, cognitive and social life (P=0/000). And that is, training life skills improves life quality in the patients.

**Conclusion:** training life skills can be used an effective method in improving life quality in cancer patients .

**KEYWORDS:** life skills, life quality, gastrointestinal Cancer

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## 1. INTRODUCTION

Cancer is one the main diseases that dedicated mortality and placed in second level after heart disease, last decades (Ghane Shakouri, 2008). Cancer is recognized by abnormal cell altering and losing cellular differentiation (Mardani Hamouleh, shahraki Vahed, 2009). Gastrointestinal Cancer is more common in Gilan City especially the gastric cancer (Ramezani, 2008). Treating the cancer involves various stresses, some of which decrease life quality and lead to anxiety and depression. Patients often grade mental side effects of treating like anger, anxiety or worry more than physical ones such as losing hair and vomit (Moloudi & Fatahi, 2010).

Life quality is the concept with different philosophical, political and health definitions. Life quality related to health includes physical, practical, social health and personal feeling (Fallowfield, 2009). Totally, life quality is measured in two areas, for the cancer patients: 1) patients' performance, 2) side effects of the cancer itself and side effects of cancer treating (Distefano & Riccardi, 2008). Studies about cancer patients indicate that mental stresses and symptoms severity affect on life quality (Perry & Chang, 2007).

Cancer patients are not able enough in conflict solving with the peers and family and communicating with others and this problem is solvable by training life skills (Rik W.Wilson, 2004). Life skills are the abilities for positive and adaptive behavior that enables people for positive relations with needs, challenges, and stress in daily life (Motshekgga, 2011). Life skills include the abilities proving the basis of positive and useful behavior and compatibility , the abilities make people to adopt social responsibilities (Taremiyan, Mahouji, 2005). The same study indicates the effect of life skills in patients with cancer (Shabani, 2012)

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Stress is related to some diseases like Coronary artery ,cancer, infections, breath disorders, accidents, mental diseases ,directly or indirectly (Monjemi, 2010). In other study on patients with cancer, it is indicated that skill in controlling stress results in improving life quality (Jim H.S Jacobsen,2010).

Anger is a negative mental state related to inimical thought, mental provocation and adverse behaviors. Anger is increased while replying to unwanted actions by other peoples who are inattentive, ill- behaved, threatening or negligent (Kassinove, 2012). Most studies indicate the effect of supportive and psychological involvements on cancer patients (Barbadi, 2004; Khodaparast, 2010, Matud, 2004).

The patients with cancer face mental problems beside physical ones. So that it is important to decrease mental problems along with physical problems and pains as they are in low life quality and it should be tried to improve their life quality level. Therefore this study aims to determine the effectiveness of training life skills (stress management, anger management, problem solving, self awareness) on life quality of gastrointestinal Cancer patients

. So the question is that: is training life skills (stress management, anger management, problem solving, and self awareness) effective on life quality of gastrointestinal Cancer patients? As life skills include physical, role-playing, emotional, cognitive and social aspects, its effectiveness is considerable.

## METHODOLOGY

This study is experimental and its schema has been pre tests – post test with control group ; in which the testees are placed into two experimental and control groups randomly to investigate the effect of independent variable on dependent variable . the statistical community includes all gastrointestinal Cancer patients refereeing to the hospitals of Rasht city to do chemotherapy in 2012. Firstly, the patients in Razi hospital of Rasht city have been chosen randomly among all the hospitals n this city ; so that among 150 gastrointestinal Cancer patients referring to Razi hospital , 80 patients had the criteria to participate in the study, such as age range from 20 to 60 years , education from literate to higher degrees, without any other cancers than gastrointestinal Cancer ; among them 40 men and women have been placed randomly into two 20 people control an experimental groups.

### Research tool

The tool of gathering data in this study includes European Organization for Research and Treatment of Cancer Quality of Life Questionnaire Core 30 (EORT QLQ\_C30) to assess life quality of patients with cancer , provided by Aronson in 1987. Cronbach alpha coefficient reliability was variable in multiple options comparing for measuring life quality in cancer patients (QLQ – C30). And Cronbach alpha has been between 76-93 percent in various aspects. This scale has been translated to Persian language and its reliability and validity was confirmed (Montazeri et al, 2009). Therapy sessions of life skills including 9 sessions in 45 minutes once a week have been set and at the end of each session the homework have been given to the patients including the following subjects:

**First session , stress management:** greeting to the patient, explaining briefly about the session numbers and forming them once a week, session times, stress management emphasizing on diaphragm breath.

**Second session, stress management:** training relaxation and attention diversion techniques

**Third session, thoughts and feelings relation:** training relaxation, being familiar with cognitive model and automatic thoughts and recalling it

**Fourth and fifth session, challenging the thoughts:** challenging the negative thoughts and adjusting them

**Sixth session, anger management:** training the techniques to express and control anger correctly

**Seventh session, problem solving:** contrasts and problem solving

**Eighth session, self awareness:** self awareness skill

**Ninth session:** reviewing the skills

### Findings

The study findings are given in two descriptive and deductive levels.

Table 1: demographic table f frequency distribution and frequency percentage of the patients based on gender, age, education, type and time of cancer diagnosis

gender	Frequency	Frequency percentage
Male	25	62.5
Female	15	37.5
Age		
20-30	3	7.5
31-40	6	15
41-50	8	20

51-60	23	57.5
education		
Literate	17	42.5
Diploma	18	45
Foundation	3	7.5
Bachelor	2	5
Cancer type		
Colon	24	60
Gastric	10	25
Rectum	3	7.5
Esophageal	3	7.5
Diagnosis time		
2009	5	12.5
2010	14	35
2011	21	52.5
total	40	100

The data in above table indicate that total samples include 25 men and 15 women. The most samples are in 51 to 60 years old (almost 58%) and the least ages are 20 to 30 years old (almost 8%). Also, 45% of samples have diploma and the least numbers of them (5%) have bachelor degree. The most type of cancer (60%) is related to Colon and the least one (almost 8%) is related to rectum and Esophageal. The most rate of cancer diagnosing (almost 53%) occurred in 2011 and the least rate (almost 13%) occurred in 2009.

**Main hypothesis:** training life skills (stress management, anger management, problem solving, self awareness) is effective on life quality of gastrointestinal Cancer patients .  
MANOVA has been used to investigate the hypothesis and the results are given in table 2.

Table 2: MANOVA of F ratio to measure compound variable

source	value	F(5,29)	meaningfulness	Eta
Compound variable (life quality)	0.138	36.083 <sup>a</sup>	0.000	0.862

Multiple F ratios is obtained by Wilks' Lambda.

The result of Wilks' Lambda test is meaningful for compound variable. The meaningfulness about new compound variable indicates that the participants are different in two groups and the averages of eth groups are effected by meaningful independent variable (p=0.000). That is training life skills (stress management, anger management, problem solving, self awareness) is effective on life quality of gastrointestinal Cancer patients.

Table 3: balanced mean of standard deviation and the results of covariance analysis of dependant variables

Variable	Experimental group		Control group		Covariance		
	mean	Standard deviation	Mean	Standard deviation	F(1,33)	P	ETA
Physical performance	10.838 <sup>a</sup>	.266	8.062 <sup>a</sup>	.266	43.556	.000	.569
Role playing	6.381 <sup>a</sup>	.266	2.769 <sup>a</sup>	.266	102.034	.000	.756
Emotional	8.172 <sup>a</sup>	.184	6.978 <sup>a</sup>	.184	16.888	.000	.339
Cognitive	5.585 <sup>a</sup>	.206	3.315 <sup>a</sup>	.206	48.558	.000	.595
Social	5.262 <sup>a</sup>	.226	3.438 <sup>a</sup>	.226	26.018	.000	.441

ETA indicates that almost 57% of physical performance variance, almost 76% of role playing variance and 34% of emotional variable variance, almost 60% of cognitive variable variance and almost 44% of social variable variance are included for group variable.

**Sub-hypothesis 1:** training life skills (stress management, anger management, problem solving, self awareness) is effective on physical performance in life quality of gastrointestinal Cancer patients,(F (1, 33) = 43.556; P=0.000; ETA= 0.569).there is a meaningful difference between balanced means of two groups in physical performance.

**Sub-hypothesis 2:** training life skills (stress management, anger management, problem solving, self awareness) is effective on role playing in life quality of gastrointestinal Cancer patients) ,F (1, 31) =

102.034;  $P=0.000$ ;  $ETA= 0.756$ ). Covariance analysis results indicate that there is a meaningful difference between two groups in role playing variable.

**Sub-hypothesis 3:** training life skills (stress management, anger management, problem solving, self awareness) is effective on emotional performance in life quality of gastrointestinal Cancer patients),  $F(1, 33) = 16.888$ ;  $P=0.000$ ;  $ETA= 0.339$ ). Covariance analysis results indicate that there is a meaningful difference between two groups in emotional performance variable.

**Sub-hypothesis 4:** training life skills (stress management, anger management, problem solving, self awareness) is effective on cognitive performance in life quality of gastrointestinal Cancer patients),  $F(1, 31) = 48.558$ ;  $P=0.000$ ;  $ETA= 0.595$ ). Covariance analysis results indicate that there is a meaningful difference between two groups in cognitive performance variable.

**Sub-hypothesis 5:** training life skills (stress management, anger management, problem solving, self awareness) is effective on social performance in life quality of gastrointestinal Cancer patients),  $F(1, 31) = 26.018$ ;  $P=0.000$ ;  $ETA= 0.441$ ). Covariance analysis results indicate that there is a meaningful difference between two groups in social performance variable.

Covariance analysis results in table 3 indicates that there is a meaningful difference between means of control and experimental groups in all physical, role-playing, emotional, cognitive and social aspects of life quality ( $P=0.000$ ). Also the results state that training life skills (stress management, anger management, problem solving, self awareness) is effective on improving life quality of gastrointestinal Cancer patients

## DISCUSSION AND CONCLUSION

**Main hypothesis:** the results indicate that training life is effective on life quality of gastrointestinal Cancer patients .The results of the means in control and experimental groups indicated a meaningful difference. Authors mentioned that training security against stress and skills of controlling stress is effective on life quality of cancer patients (Penedo & Molton, 2003; Pakdaman, 2011). Also, Abolghasemi et al (2012), Antoni et al (2012), Bonnie & McGregor (2002) concluded that training stress management is effective in improving cancer patients. Therefore in confirming the conclusion it can be said that increasing life quality can result in better physical and mental situation of patients. On the other hand, training life skills can help patients to control on negative emotions. Training life skills allows patients to think positively along with weaknesses and diseases, so that it can be stated that changing in ideas and thoughts and knowing the emotions, and controlling it on right time enhances life quality of cancer patients.

**Sub-hypothesis 1:** through comparing mean differences in two groups it is clear that there is meaningful difference between two control and experimental groups in life quality. Considering the meaningfulness of mean difference with 0.99 certainty it can be said that training life skills (stress management, anger management, problem solving, self awareness) is effective on physical performance in life quality of gastrointestinal Cancer patients. Fallowfield & Ballinger findings state that cognitive therapeutic behavior is effective on improving life quality and increasing performance and decreasing the symptoms and improving physical, role playing , emotional a, and cognitive aspects (Fallowfield & Ballinger, 2009). Tavli mentioned that patients unaware of cancer displayed better emotional, physical, and social life quality than aware patients (Tavli, 2007). In other study, psychological involvements decreases stress and depression in patients (Mardani Hamouleh, 2009). In confirming the result it can be stated that life quality is a dynamic concept that is , changes by the time and depends on personal and environmental changes . one of the issues to outshine it is human health. Life quality is low in gastrointestinal cancer patients as they are in bad physical conditions therefore training life skills can affect on increasing their life quality to come next at hard situations.

**Sub-hypothesis 2:** there is a meaningful difference between balanced means of two groups in role playing. According to the meaningfulness of means difference with 0.99 certainty it can be said that training life skills (stress management, anger management, problem solving, self awareness) is effective on role playing in life quality of gastrointestinal Cancer patients. Chronic disease like cancer result in occupational, economical and social disorders and affect on various mental, emotional, social, and economical qualities (Vedat et al, 2001) . In a study the cancer patients displayed good physical, role playing, emotional, cognitive and social performances (Kobayeshi, 2008). In confirming the result it can be stated that cancer patients may have problems in role playing as they are in special situations and their special diseases, due to that, training life skills helps patients in their growth to be responsible for their life and it can be mentioned that life skills training correct ways of living m help patients to role play long with their hard satiations and through earn skills.

**Sub-hypothesis 3:** there is a meaningful difference between balanced means of two groups in emotional performance. According to the meaningfulness of means difference with 0.99 certainty it can be said that

training life skills (stress management, anger management, problem solving, self awareness) is effective on emotional performance in life quality of gastrointestinal Cancer patients. The results of Blazeby et al (2005) indicated desirable results in all aspects of life quality. Also in others study the determinant of various life quality aspects in patients has been investigated (Safaie, 2007). In confirming the result it can be stated that emotion severity in different people is different as they are in a special situation , so knowing feelings and emotions in various situations can help patients to be aware of their emotions and control them on time. According to intense of disease , the patients face various emotions every day and may experience more intense emotions, so training life skills like stress management and anger management can decrease negative emotions and control them effectively and finally improve life quality , that emotion is one of its subsets.

**Sub-hypothesis 4:** there is a meaningful difference between balanced means of two groups in cognitive performance. According to the meaningfulness of means difference with 0.99 certainty it can be said that training life skills (stress management, anger management, problem solving, self awareness) is effective on cognitive performance in life quality of gastrointestinal Cancer patients. In a study, training life skills is effective on mental health and decreases some irrational variables (Ramzankhani, 2007). Also in other research it is concluded that cognitive- therapeutic behavior improves life quality and performance in cancer patients (Kahrazei, 2011). In confirming the result it can be stated that cognitive dimension is the forth aspect of life quality in cancer patients and cognitive performance is occurred along with understanding and recognizing the problems and problem solving. People process cognitive issues differently and cancer patients can be affected by the changes memory, thought, reminding and ...so it can be mentioned that training life skills through cognitive – behavioral involvement can change opinions and cognition in patients and improve life quality.

**Sub-hypothesis 5:** there is a meaningful difference between balanced means of two groups in social performance. according to the meaningfulness of means difference with 0.99 certainty it can be said that training life skills (stress management, anger management, problem solving, self awareness) is effective on social performance in life quality of gastrointestinal Cancer patients. Training life skilled is effective on social communication of patients (Safarzadeh, 2007). The results indicated that patients had desirable performance in all aspects of life quality (Pakpur, 2009). In confirming the result it can be stated human is a social creature and live in community. People relation is done by communication with others. Cancer patients may have problems in social performance as their disease and drug treatment. They may cloister, seclude. So, training life skills can enhance social performance life quality in cancer patients by showing better living methods. It can be concluded that training life skills can be effective on life quality of gastrointestinal cancer patients.

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