

# The effectiveness of cognitive behavioral therapy on subjective well-being of patients with chronic tension-type headache

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**ABSTRACT:** **Background:** The most common type of headache is the tension headache that caused a sharp drop in the daily operation. Because drug therapy alone in the treatment of these patients is not good enough, so this study was to investigate the effectiveness of cognitive behavioral therapy on subjective well-being of patients with chronic tension headaches were women. **Methods:** Among all patients with chronic tension headaches, which were referred to the hospital Millad Tehran, 32 people volunteered sampling and randomly divided into control and experimental groups. The intervention consisted of 10 weekly sessions (1.5-hour sessions), cognitive-behavioral therapy for the treatment group, while the control group received routine medical care. For data collection tool life satisfaction and positive and negative affect were used. Results were analyzed by covariance (ANCOVA). **Results:** The life satisfaction and positive affect were significantly increased in the experimental group. The negative sentiment also significantly reduced in the groups ( $p < 0.05$ ).

**Keywords:** cognitive-behavioral therapy, subjective well-being, headaches, positive affect, negative affect.

## INTRODUCTION

Headache One from Common Most Complaint of Case Check a door Clinic of Neurology Is. Most This Headaches from Type Migraine or Tension type headache Are (Kurt, Kaplan, 2008). The most common type of headache is the tension headache (Fumal A, Schoenen, 2008), with bilateral pain, non-throbbing (pressure or tightness, pain, like a bandage or hat), mild or moderate pain that can hinder daily activities specified is (Holroyd, 2002). With the increasing frequency and intensity of headaches impact on daily function as well as more (Schwartz, Stewart, Simon, Lipton, 1998).

Tension headaches are substantially influences the patient's mind and their behavior and lifestyle. Negative affect on the overall meaning, low socio-economic status and low social support, meaningful relationship with any of these psychological factors, and some researchers believe that the current characteristics of the psychological risks are more appropriate indicators (Kaplan, Sadook, 2007). All of these signs and symptoms, and significantly different effects on performance and affect quality of life. Find the symptoms and ability to bring to these people that it is the addition of disability due to physical symptoms (Atarimoghadam, 2005).

Rasmussen using the International Headache Society diagnostic criteria, the prevalence of lifetime for 78% reported headache. This study shows that the incidence and prevalence of tension-type headache is much more than was previously thought (Rasmussen, 1999). Biological factors alone can analyze vulnerability to headache disorder, and full time during the attack, as well as explain. As well as biological factors cannot fully accelerating and intensifying attacks of headache and headache-related disability and quality of life of the individual or explain. One important concept in quality of life, subjective well-being is a concept that is associated with happiness (Eid, Larson, 2008; Diener, Lucas, Oishi, 2002). Some of investigation, subjective well-being of the individual evaluation of their lives, in terms of present and past. This evaluation includes emotional reaction to events and judgments that He

offers life satisfaction (Kakabrayee & et al, 2012). Subjective well-being has both emotional and cognitive components. Welfare emotional aspect of having the most positive and least negative emotional and cognitive aspects of the assessment of the level of life satisfaction. Today, researchers believe that the creation of subjective well-being and life satisfaction people to greater success in life, better health, social relationships and ultimately healthier protectionist directive makes better physical and mental health (Diener, 2002; Ostir, 2005). As well as the positive and negative emotions, different mental mechanisms that have an impact on mental health to launch (Ostir, 2005). That is why today's treatment should focus on the quality of life of modification, expansion capabilities, make life satisfaction, and ultimately enhance subjective well-being in people.

Artisan's social life stress is a factor that is generally recognized as a major factor in headache (Nash, Thebarger, 2006). It is widely accepted that psychological factors are among the factors headache and some people are prone to headaches. Progress of research, the foundations for the concept of headache as a mental disorder physiological (physical disorder that affects psychosocial and environmental stress) is provided, and eventually causes and development of contemporary behavioral treatments for headache is. Such treatments, physiological responses associated with headache in a patient (relaxation training and biofeedback) or behavioral, emotional and cognitive (cognitive behavioral therapy or stress management) the target. During the past three decades, substantial evidence to support the behavioral treatment of headache is presented. Meta-analytic review of the literature showed that behavioral intervention, 35 to 55% improvement in migraine and tension headache brought on, and the results are significantly better than the control. The strength of this evidence has led many professional organizations in the field, use of behavior therapy in the treatment of headache medication for major headache recommend (Rains, Penzien, Mccrory, Gray, 2005). In addition, drug therapies for many patients with tension headaches are not useful enough. Today, understanding and change attitudes and behavior, a key component in the care of those who suffer from headaches. In contrast, because of the neglect of these aspects is important in headache treatment failure (Maizels, 2005). Cognitive-behavioral programs to patient education, self-regulation skills (such as relaxation training) and skills to deal with stress and pain, deals can be added to standard medical therapy and conventional psychological needs, behavior and lifestyle of patients with headache to meet (Holroyd, Lipchik, 1999; Holroyd & et al, 1996; Headache, 2004). Given that chronic tension headache pain and loss of function due to the person as well as decreased job productivity and increased use of health services to the individual and society imposes a huge cost, it seems that tension headache and a major health problem Find ways to control and cure the disease can be very important. Due to the effectiveness of this treatment on most psychological problems and constant review and to determine the effect on subjective well-being in the population of patients with tension headaches, have not been studied. Therefore, this study aims to examine the issue.

## MATERIALS AND METHODS

Methods and practices it used a quasi-experimental study with pretest and posttest control group. The study population included all patients with tension-type headache who were referred to hospital Millad Tehran. Diagnostic criteria for headache disorders, diagnosed by a physician in the medical record of the patient's neurologist. In this study, 26 patients with tension headaches, which were selected to participate in the study and randomly assigned to two experimental and control groups, respectively. The sample was selected in such a way that in eligible patients in the hospital brief information about the project, its goals and methods of treatment were run. Finally those who are eligible, as an example, the study appeared. Patients in the experimental group received the usual medical care, 10 sessions of 1.5 hours weekly cognitive behavioral therapy were included. However, patients in the control group received only routine medical care. Of 13 subjects in the experimental group, 3 patients because of a lack of cooperation and frequent absences and disabilities to participate in therapy sessions were excluded. Patients in both groups at baseline and after the intervention responded to the questionnaire, subjective well-being. Inclusion criteria included a maximum age of 80 years, at least literate, ability to listen and informed consent to participate in therapy sessions was normal. Exclusion criteria included the treatment of mental disorders requires immediate treatment, disrupting the normal process of treatment, lack of cooperation and severe physical disability. Subjective well-being questionnaire was used to measure subjective well-being of patients. The questionnaire consists of three parts as follows:

Satisfaction with Life Scale (swls): Diener & et al (1985) to measure the cognitive aspects of mental well-being, life satisfaction scale version developed five questions. In this scale, participants each question on a whole eight-point Likert response. Cronbach's alpha coefficient was 0.84 in the Iranian sample (Kakabrayee, 2005).

Positive and Negative Affect Schedule (PANAS): In this study, the positive and negative aspects of emotional well-being based on the popular adjectives were used. Iranian sample Cronbach's alpha for the scale of positive and negative effects, respectively, 0.80 and 0.77, respectively. The program first meeting as a group and with the

neurologist was held. Each meeting certain objectives pursued. In the case of structured cognitive-behavioral therapy was used and the structure of each session includes a review of homework (about 15 minutes), review the previous session (about 10 minutes), presented the main theme of the meeting (about 45 minutes), summary and conclusions (about 10 min) and explain the homework sessions later (about 10 minutes). Data on the level of descriptive and inferential statistics were used.

### **Findings**

Of the 23 patients with tension headache participating in the study, most patients were female (60.9%), married (82.6%), under diploma (34.8%) and a bachelor's or higher (34.8 percent).

**Table 1. Descriptive elements of subjective well-being indicators between the two groups**

	Variable	Test group		Control group		P Value	
		M	SD	M	SD		
pre-exam	Life satisfaction	20.5	6.31	18.90	4.32	0.402	
	Positive Affect	33.20	2.39	32.78	2.86	0.701	
	Negative affect	27.10	3.74	26.54	4.55	0.705	
	After the test	Life satisfaction	27	4.62	20.62	3.30	0.001
	Positive affect	37.60	2.01	34.08	2.95	0.012	
	Negative affect	19.70	2.79	25.08	5.2	0.001	

The evaluation results of the Satisfaction with Life Scale scores at pre-test and post-test in both groups are different, so that the life satisfaction of the pre-test and post-test experimental group and the control group, the increase is acceptable. The component scores on the Positive and Negative Affect, pre-test and post-test in both groups are different, so that the positive affect of the pre-test and post-test experimental group and the control group had increased and negative emotional group of test the pre-test and control group decreased. The results of this study showed normality and equal variance. Analysis of covariance was used to compare mean scores for life satisfaction in post-test, after adjusting for the effect of pre-test, suggesting that the effect is significant between-group. The studies also showed that the life satisfaction scale scores in the experimental group after the test is different. The results of multivariate analysis of covariance components of positive and negative affect, shows the effect statistically significant. The scores on the Positive and Negative Affect scale experimental group after the test is different.

**Table 2. The results of analysis of variance to compare average grades in-group**

	SS	Df	MS	F	P	Eta
pre-exam	68.53	1	68.53	5.26	0.03	0.20
Intergroup	188.42	1	188.42	14.46	0.001	0.42
Error	260.54	20	13.02			
Total	13144	23				

**Table 3. Average adjusted to remove the effect of pre-test groups**

Variable	Group	M	P value
Life satisfaction	Test	4.13±27	0.0001
	Control	4.12±20.62	

**Table 4. Multivariate analysis of covariance**

Effects Group	sum of squares	df	Mean square	F	p	Eta
Positive affect	70.15	1	70.15	10.42	0.004	0.33
Negative affect	164.41	1	163.41	8.68	0.008	0.29

**Table 5. Average adjusted to remove the effect of pre-test groups**

Variable	P value	
	Test group	Control group
Positive affect	4.32±37.60	34.08±4.56
Negative affect	19.70±6.31	5.13±25.08

## RESULTS AND DISCUSSION

### Discuss

Based on the results of cognitive-behavioral therapy appears to increase the satisfaction of patients with tension-type headache. Patients with information about the amount and how psychological factors (such as anxiety, depression, stress, anger, etc.), the risk of recurrence of headaches, may have tried your lifestyle and coping skills and change control these factors to prevent recurrence of headaches. The content of the treatment, including techniques that it helps people to work thinking and perceptions of events to understand the sense of satisfaction, inefficient methods of identifying negative thoughts and learn more realistic your questions review. It seems that teach these techniques to an increase in life satisfaction in the group have been tested. The results of several studies, including Kakabrayee (2012), Aghayousefi (2010), Abedi (2010) on the importance of consistent increase component life satisfaction. The results showed that cognitive behavioral therapy can increase positive emotion and negative emotion in these patients is reduced. Patients' awareness of the effects of negative emotion on mental health and the benefits of having a happy life can make to reduce negative emotions and positive emotions, thus increasing self-motivated and work. It also raises awareness of their willingness to do homework and practice the techniques learned in therapy sessions. Cognitive behavior therapy focuses on anger management and problem-solving skills, which in turn reduce the hostility, irritability, anger and guilt caused by aggressive approach, the components of negative affect and increases the feeling of strength, pride and a sense of control components for positive emotion. In addition, the use of technology, according to other possible realities, inner speech is a positive and cost-benefit analysis, to increase positive emotions such as alertness, motivation to use these techniques in the life and decrease the negative emotions such as anxiety and restlessness be. Thus, this therapy was increased positive affect and lower negative affect. Studies such as Rezaei (2011), Faramarzi (2011), Abedi (2010) is consistent with the findings of this research. Research also Golchini (2011), that the effectiveness of cognitive behavioral therapy in the use of coping strategies and pain among women with chronic low back pain and is in line with the findings of the present study indicate that cognitive behavioral therapy is effective . The findings also Sotodeh (2010), Sanjuan (2011), based on the effectiveness of cognitive behavioral therapy on life satisfaction, positive affect and quality of life of patients is consistent.

The research findings suggest that cognitive behavioral therapy can be effective on subjective well-being of patients with tension headache and increased life satisfaction and positive affect and lower negative affect on the patients. Due to the subjective well-being is one of the components of quality of life, thereby enhancing the increase in mental health and a happier life in patients with tension headache is.

One of the main limitations of this study was the lack of cooperation from patients to attend regular therapy sessions. Also according to the study conducted on patients with tension headache, so do not generalize to other groups. On the other hand, the study due to time constraints did not follow-up sessions. A hospital, clinics and mental health services for people with tension headaches is suggested that the results of this study and similar studies, to improve mental well-being of patients, intervention with cognitive behavioral approach apply. It is also recommended that the effectiveness of cognitive behavioral therapy on subjective well-being in people with chronic illnesses also be monitored and, if possible, it is recommended that future study course to be followed.

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