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Research Article

**COMPARATIVE STUDY OF THE LEVEL OF ANXIETY,  
DEPRESSION AND QUALITY OF LIFE IN PATIENTS WITH  
AND WITHOUT HYPERTENSION IN AMIRALMOMENIN ALI  
HOSPITAL IN ZABOL**Leila salari<sup>1</sup>, Mohammad Reza Saravani<sup>2\*</sup><sup>1</sup>MSc in Clinical Psychology, Zabol University of Medical Science, Zabol, Iran.<sup>2</sup>Faculty of Medicine, Clinical Psychology, Zahedan University of Medical Sciences, Zahedan, Iran**Abstract:**

*Hypertension is one of the major issues of public health in the today world that is one of the main risk factors of cardiovascular diseases. Current study was conducted aiming at comparative investigation of level of depression, anxiety, and quality of life in patients with hypertension and healthy individuals. In a case-control study, 60 patients with hypertension were randomly selected based on inclusion and exclusion criteria, and they were compared with 60 of their first-degree relatives without hypertension in terms of depression symptoms. Research data were collected using demographic questionnaire, Beck depression inventory, Beck anxiety inventory, and WHO quality of life survey, and they were analyzed using descriptive statistical methods in SPSS 16 software. Independent t test was also used. Depression and anxiety symptoms are more in patients with hypertension compared to those without hypertension, and quality of life in patients with hypertension is lower than the other group. Results of this study showed high prevalence of anxiety and depression and low quality of life in patients with hypertension.*

**Keywords:** *Depression, anxiety, hypertension, quality of life***\*Corresponding author:****Mohammad Reza Saravani,**

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**INTRODUCTION:**

Anxiety is the most common reaction to stressor. Anxiety means unpleasant emotions that all of us have experienced degrees of it in such moods as concern, tension and fear. Anxiety in patients with hypertension (HTN) has different psychological and physiological effects [1].

Anxiety-related diseases are among the most common diseases in modern societies. These diseases in the advanced countries constitute 15 – 20 percent of clients to clinics. Anxiety can increase the risk of coronary artery disease(CAD) in healthy people and the harmful consequences in people with CAD [2]. Depression is the most common psychiatric disorder that has increased in recent years. In almost everyone's life, there are times when feelings of frustration, sadness, disappointment, loneliness and dissatisfaction are overwhelming, all of which are common experiences of depression [3]. This disorder may become underlying cause of other chronic diseases by changes in the life styles as reduction of physical activity, increasing smoking, increasing appetite, and increasing weight, and other chronic diseases making problem for optimal control of them may accompany it [4].

Anxiety and depression are factors for predicting and increasing harmful cardiac consequences in patients with HTN, and negligence to them may reduce chance for improvement of other cardiac risk factors [5]. HTN is one of the most common and major health threats, and almost one fourth of all mortalities in the old people results from HTN or its resulting consequences. Chronic HTN is a kind of common and asymptomatic disease that is caused by general or functional disorders and is called primary HTN[6]. Diagnosis of CAD, including HTN, in addition to raising physical problems, causes a significant disorder in patients' psychological state. Anxiety, depression, and uncertainty about the future are among these disorders [5]. HTN in addition to undesirable physical effects, such as atherosclerosis, myocardial infarction (MI), stroke, and renal failure(RF), can have adverse effects on the mental health and quality of life(QOL) of the affected patients [7].

Rabines et al. maintain HTN changes QOL in old people due to developing complications of depression, socioeconomic deficiencies [8]. Various studies have shown that QOL of patients with HTN is low [9].

Considering increasing number of patients with HTN in Iran and in the world, as well as adverse impacts of QOL on chronic diseases such as HTN, QOL in this group of patients is especially important. Since most psychological treatments pay less attention to improving QOL as the main medical goal, current research aims at indicating effect of QOL on HTN. It conducts a comparative study of level of anxiety, depression, and QOL in patients with and without HTN in Amiralmomenin Ali Hospital in Zabol.

**MATERIALS AND METHODS:**

This is a causal-comparative research. Research statistical population included patients with HTN who were transferred to the Cardiac Care Unit(CCU) following reference to the clinic or emergency unit. Samples were selected using simple random sampling. Sample size in this research was 120. Firstly, research objectives were described to the participants, so that they completed the questionnaire with consent and voluntarily. In addition, they were ensured that the answers would keep confidential and merely would be used for research purpose. Measurement tool in this research was Beck anxiety inventory and Beck depression inventory and WHO quality of life survey. Sixty patients with HTN (30 females and 30 males) were asked to complete the questionnaire, and 60 ones of the patients' family members and relatives were matched in terms of gender. Descriptive and analytical statistics in SPSS version 16.0 were used for data analysis.

Beck depression inventory has been used in over 1,400 research studies, and many comprehensive studies have been conducted on psychometric properties and application of this questionnaire. It is used as the depression scale in most countries at a wide level. The questionnaire consists of 21 groups of depression symptoms, each of which consists of 5-4 options. Beck test is for people over 13 years old and has at least six appropriate literacy classes.

Beck Anxiety Inventory was designed for measuring anxiety level and includes 21 items. Each item reflects one of anxiety symptoms, which are often experienced by those who are clinically anxious or are at anxious situation. Respondent should read the list of symptoms and scale the severity of symptom within last week, and mark his evaluation in the columns of "At all", "mild", "moderate," and "severe."

WHO Quality of Life Survey evaluates perception of people toward value and cultural systems as well as personal goals, standards, and worries. These are tools that have been used in some centers in the

world, and thus have been widely tested and examined [10]. This survey includes 26 items, which derived from 100-item version of this survey. It investigates QOL at four areas of physical health, mental health, social relations, and environmental health.

### RESULTS:

Findings show that there is significant difference between two groups in terms of anxiety level ( $p = 0.001$ ,  $df = 58$ ,  $t = 9.04$ ), and patients with HTN suffers from more anxiety.

In addition, results showed there is significant difference between two groups in terms of depression level ( $p = 0.001$ ,  $df = 58$ ,  $t = 11.39$ ), and patients with HTN suffers from more depression.

Findings indicated that there is significant difference between two groups in terms of QOL ( $p = 0.001$ ,  $df = 58$ ,  $t = 9.04$ ), and patients with HTN suffered from lower QOL.

### DISCUSSION AND CONCLUSION:

There is significant difference between anxiety scores of men and women with HTN and without HTN in Zabol, which is consistent with findings in the following studies.

In a study by Goldestein *et al.* (2007) it was found that HTN was higher in children of families with stressful parents, which did not express their anger or were aggressive and anxious, and the highest level was during working days [11].

In the study by Tiemin *et al.* (2006) on 432 women with HTN in a local community, anxiety symptoms in clinical conditions of 103 patients, with raw score above 40, were diagnosed. In all individuals, mean score in women was higher than men. Finally, it was found that almost 12% of patients with HTN suffered from symptoms of anxiety [12].

In the study by Jula *et al.* (1999), the mean arterial pressure in conditions such as expression of anger and disability in reading was high. In general, the results of this study showed a significant relationship between anxiety and anger with chronic HTN, which is consistent with previous findings. In the physical anxiety index, the results of the study by Tiemin *et al.* [12] and ArashzadeShoorideh (1996) suggested that systolic and diastolic blood pressure decreases by relaxing and reducing physical anxiety [14].

According to the above results, patients with HTN are at risk of anxiety and there is a possibility that these two diseases will occur simultaneously in their lifetime. Considering the high frequency of anxiety in this study and other studies, it seems that screening of anxiety and psychiatric counseling should be considered more seriously in people with HTN. There is a significant difference between mean scores of depression in males and females in patients with and without HTN in Zabol. The results of this study are consistent with the following findings.

In this study, significant relationship was reported between duration of suffering from HTN and incidence of depression, which denotes that fact that increasing years of disease increases risk for incidence of depression in varying degrees. Fear of the disease complications or real incidence of these complications, more consumption of anti-hypertensive drugs and side effects of these drugs and weakness of the patient due to gradual complications of HTN can be considered as possible factors of depression incidence over the time. Relative frequency of depression in patients with hypertension was 63%. Depression at all its three levels (mild, moderate, and severe) was significantly higher in the hHTN group compared to the control group.

Rabkin *et al.* showed that relative frequency of depression in patients with HTN under treatment was three times of individuals without HTN. Patients with depression show less cooperation in using anti-hypertensive drug [8]. Eraghchian *et al.* reported frequency of depression in this group of patients as 48.6 percent [15]. There are other studies which also support relationship between HTN and depression [16].

In the current study, using more than one anti-hypertensive drug was accompanied by significant increase in relative frequency of depression. In a study, it has been shown that the frequency of depression in consumers of more than one antihypertensive drug was significantly higher than that of those who received single anti-hypertensive medication, regardless of the type of drug [17]. A group of researchers reported that depression itself causes a decrease in blood pressure, but antidepressants increase HTN [18]. On the other hand, it has been shown in a study that some antihypertensive drugs, such as beta-blockers, are responsible for depression [19].

These findings reapprove necessity for attention to psychological conditions in patients with HTN.

Given above findings, patients with HTN are also susceptible to depression, and there is a possibility that these two diseases will occur simultaneously in their lifetime. Given high frequency of depression in this study and other studies, it seems that screening of anxiety and psychiatric counseling should be considered more seriously in people with HTN.

There is a significant difference between mean scores of QOL in males and females in patients with and without HTN in Zabol. The results of this study are consistent with the following findings. According to the research findings, there is significant difference in terms of QOL between healthy group and HTN group, so that quality of life was in lower level in patients with HTN.

Kitler in his studies stated that HTN is a factor for reducing QOL due to influence on the patient's physical aspects, and quality of life of patient will be improved if it is properly controlled [20]. Mikami et al. believed that HTN caused reducing QOL due to different reasons such as social, psychological (depression), and financial deficiencies, and even sometimes side effects of anti-hypertensive drugs may also reduce QOL because of their complications [21].

Based on this research, anti-hypertensive drugs not only have significant impact on well-being, but also have positive impacts on different aspects of QOL, and even type of drug influences changes in quality of life [22]. Fogari in his study reported that HTN has negative impacts on quality of life in old people, control of which promotes their QOL. Our findings in this work support negative impacts of HTN on QOL. Thus, investigation of HTN in old people is necessary and it should be taken seriously.

Findings of current research suggest that healthy individuals are at higher levels of QOL. Lower QOL in old patients with HTN compared to healthy group can be justified in this way that HTN in these people not only reduces physiological and physical capacities, but also plays considerable role in developing complication's as a risk factor and developing cardiovascular and psychological problems such as depression, reducing other abilities such as cognitive abilities, high dependence on drugs, and economic costs, and it may have adverse impacts if it is not properly controlled or treated.

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