T.C.
ABANT IZZET BAYSAL UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

FACTORS AFFECTING DEPRESSION AND ANXIETY IN PATIENTS WITH BEHÇET'S DISEASE: PERCEIVED SOCIAL SUPPORT, THE NATURE OF DISEASE, POSITIVE AND NEGATIVE EMOTIONAL EXPERIENCES

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MASTER THESIS

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To Institute of Social Sciences,

The study titled **"Factors Affecting Depression and Anxiety in Patients with Behçet's Disease: Perceived Social Support, The Nature of Disease, Positive and Negative Emotional Experiences",** which belongs to **Feride Özlem ELAGÖZ**, was certified as fully adequate in scope and quality, and as a **thesis for the degree of Master of Science** by the examining committee members.

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ETHICAL APPROPRIATENESS DECLARATION

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Feride Özlem ELAGÖZ

06. 25. 2015

PREFACE

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ABSTRACT

FACTORS AFFECTING DEPRESSION AND ANXIETY IN PATIENTS WITH BEHÇET'S DISEASE: PERCEIVED SOCIAL SUPPORT, THE NATURE OF DISEASE, POSITIVE AND NEGATIVE EMOTIONAL EXPERIENCES

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Behçet's Disease is a chronic and inflammatory disorder which includes unpredictable exacerbation and remission periods. Behçet's Disease not only physically but also psychologically affects the patients. However, few studies have been made to assess the possible bond among Behçet's Disease, depression and anxiety. In this respect, the present study aims to explore factors affecting depression and anxiety in patients with Behçet's Disease, in respect to nature of the disease, perceived social support, health related quality of life, and positive and negative emotional experiences. Three hundred patients with Behçet's Disease were participated in this study. Demographical Information Form, Beck Depression Inventory (BDI), State–Trait Anxiety Inventory (STAI), Multidimensional Scale of Perceived Social Support, The Scale of Positive and Negative Emotional Experience (SPANE), and Nottingham Health Profile (NHP) were used. Correlation analyses, independent samples t-tests, One-Way ANOVAs, and multiple hierarchical regression analyses were performed through the aim of the present study. The importance of the results of the present study and their

shortcomings were discussed within the earlier findings on patient with Behçet's Disease literature.

Key words: Behçet's Disease, Depression, Anxiety, Multidimensional Perceived Social Support, Positive and Negative Emotional Experience

ÖZET

BEHÇET HASTALIĞINDA ANKSİYETE VE DEPRESYONU ETKİLEYEN FAKTÖRLER: ALGILANAN SOSYAL DESTEK, HASTALIĞIN DOĞASI, OLUMLU VE OLUMSUZ DUYGUSAL DENEYİMLER

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Behçet Hastalığı beklenmedik alevlenme ve remisyon dönemleri içeren kronik ve iltihaplı bir hastalıktır. Behçet Hastalığı hastaları yalnızca fiziksel olarak değil, aynı zamanda psikolojik olarak da etkiler. Ancak, Behçet Hastalığı, depresyon ve anksiyete arasındaki bağı inceleyen çok az çalışma bulunmaktadır. Bu bağlamda, bu çalışma Behçet hastalarında depresyon ve anksiyeteyi etkileyen hastalığın doğası, algılanan sosyal destek, sağlıkla ilgili yaşam kalitesi, olumlu ve olumsuz duygusal deneyimleri incelemektir. Çalışmaya 300 Behçet hastası katılmıştır. Katılımcılara Demografik Bilgi Formu, Beck Depresyon Envanteri II, Durumluluk-Süreklilik Kaygı Envanteri, Çok Boyutlu Algılanan Sosyal Destek Ölçeği, Olumlu ve Olumsuz Duygusal Deneyim Ölçeği ve Nottingham Sağlık Profili uygulanmıştır. Çalışmanın amacı doğrultusunda korelasyon analizleri, bağımsız gruplar t-testi, tek yönlü ANOVA ve çoklu hiyerarşik regresyon analizleri gerçekleştirilmiştir. Bu çalışmanın bulgularının önemi ve

sınırlılıkları Behçet Hastalığı'na ilişkin alanyazındaki geçmiş bulgularla birlikte tartışılmıştır.

Anahtar kelimeler: Behçet Hastalığı, Depresyon, Anksiyete, Çok Boyutlu Algılanan Sosyal Destek, Olumlu ve Olumsuz Duygusal Deneyimler

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ABBREVIATION LIST

ANOVA **:** Analysis of Variance

BD **:** Behçet's Disease

BDI **:** Beck Depression Inventory

M **:** Mean

Max **:** Maximum

Min **:** Minimum

MSPSS **:** Multidimensional Scale of Perceived Social Support

NHP **:** Nottingham Health Profile

SD **:** Standard Deviation

SI **:** Social Isolation

SPANE **:** Scale of Positive and Negative Emotional Experience

SPSS **:** Statistical Package for the Social Sciences programs

SSfa **:** Perceived Social Support from Family

SSfr **:** Perceived Social Support from Friends

SSso **:** Perceived Social Support from Significant Others

STAI **:** State–Trait Anxiety Inventory

Std. **:** Standard

INTRODUCTION

Depression and anxiety are affected by a variety of experiences. Considering that underlying mechanism of depression is loss experiences, and underlying mechanism of anxiety is threat perception, it can be said that loss of health and threat perception due to nature of illness are inevitably associated with depression and anxiety. In recent years, chronic diseases and their psychological effects have received a great deal of attention in the literature. In this respect, primarily, cancer, heart disease and diabetes have been examined. Nevertheless, few studies have been made to assess the possible bond among Behçet's Disease, depression and anxiety. Although the amount of research into health-related quality of life of people with Behçet’s Disease has grown substantially in recent years (Bodur et al. 2006; Gur et al. 2006; Uguz et al. 2007), research on the factors that affect anxiety and depression in Behçet’s Disease, and its association with the nature of the disease is still limited. Therefore, it is hoped that this study, aimed to understand the nature of Behçet’s Disease, will be crucial as well as beneficial since the bridge between physical and psychological aspects shed light on psychotherapeutic methods. Considering Behçet’s Disease including its multisystemic nature (Taner et al. 2007), it is aimed to build a bridge help professionals to deal with this nature.

From this point of view, based on the fact that the prevalence of Behçet's Disease is most common in Turkish society (Sakane et al. 1999), studies on those patients could play a role in setting up variables for intervention specific to patients with Behçet's Disease. Given below is a detailed explanation of chronic diseases and their psychological effects, Behçet's Disease, and variables for depression and anxiety among patients with Behçet's Disease.

CHAPTER I

1. LITERATURE REVIEW

1.1. Chronic Illnesses and Their Psychological Effects

A chronic disease such as the Behçet's Disease may lead to functional disabilities either temporarily or permanently, which may cause psychiatric disorders (Gur et al. 2006). Chronic physical illnesses, especially ones related with chronic pain are frequently accompanied by psychological symptoms such as depression (Korff & Simon 1996; Trivedi 2004) and anxiety (Bair et al. 2003). In their study on the commonness of psychiatric disorders in people with or without chronic disorders, (Wells et al. 1988) found a strong relationship between psychiatric disorders and chronic disorders. These illnesses may lead to a vicious circle of pain, increased severity of the disorder, disability, disturbed sleep (Korff & Simon 1996), and depression. Pain in chronic disorders has sensory, emotional, behavioral, and cognitive aspects, and has negative effects on the individual as well as his/her peers (Gonzales et al. 2000). As a result, health related quality of life and life satisfaction weakens. For instance, individuals who can not perform daily activities lead a socially restricted life. In addition, they frequently experience loss of physical and sexual functioning. All of these factors may lead to negative consequences for both patients as well as their families or close relationships. For this reason, psychological factors and their results such as depression and anxiety should be carefully assessed and intervene with a multidisciplinary approach (pharmacotherapy and psychotherapeutic techniques) (Sengul & Akkaya 2014).

From many reports carried out on chronic diseases such as cancer (Burgess et al. 2005) and diabetes (Senol-Durak et al. 2011) it can be observed that anxiety and depression levels of patients with chronic disorders are significantly higher. When compared different kinds of chronic illnesses, patients with Behçet’s Disease have significantly higher scores than rheumatoid arthritis patients (Melikoglu & Melikoglu 2010). Similarly, Behçet’s Disease patients have scores of depression and anxiety higher than Psoriasis patients (Calikoglu et al. 2001). Health related quality of life of patients with chronic medical conditions such as multiple sclerosis (Janardhan & Bakshi 2002; Lobentanz et al. 2004) and type II diabetes (Chyun et al. 2006) were found to be lower in previous studies.

1.2. Behçet’s Disease

Behçet’s Disease, which is also called 'the Silk Road Disorder', was defined for the first time by a Turkish dermatologist, Professor Dr. Hulusi Behçet (1889-1948), in 1937. Then, the disease became known as Behçet's Disease or Behçet's Syndrome in the international literature from 1937 onwards. The disease is particularly related to dermatological system, but the effects on other organs and tissues make this illness a multisystemic disorder (Taner et al. 2007).

Behçet’s Disease is a chronic, inflammatory syndrome that includes periods of unpredictable exacerbation and remission (Atay et al. 2014). It is characterized by intermittent ulcers that develop in the mouth and genital regions, uveitis, and skin lesions (Kurokawa et al. 2004). Moreover, the involvement of other systems including cardiovascular, pulmonary, gastrointestinal, articular, central nervous (Siva & Fresko 2000), vascular, and neurological systems may lead to a variety of clinical problems. Also these clinical features cause temporary or permanent functional disability (Tursen et al. 2003) which sometimes making Behçet’s Disease life-threatening (Mendes et al. 2009). In this respect, multisystemic properties of the disease cause the highest morbidity and mortality (Verity et al. 1999). Today, the Behçet's Disease is known to be a more complicated entity than previously thought, as it may influence every tissue and organ (Evereklioglu 2005).

Behçet's Disease usually develops in the third decade of life (Önder & Gürer 2001). The outset of Behçet’s Disease is rare in older and younger individuals (Yazıcı et al. 1984), although there are reports of childhood cases as well (Kone-Paut et al. 1998).

Verity et. al. (1999) found that Behçet's Disease causes highest morbidity among younger patients (20- 40 years old) (Verity et al. 1999). Males usually suffer from a more severe course and demonstrate an increased frequency both of mortality and morbidity (Deuter et al. 2008; Önder & Gürer 2001), as well as a higher risk of ocular, cardiovascular, and neurological involvement than women and older patients (Tugal-Tutkun et al. 2004; Tursen et al. 2003; Yurdakul & Yazici 2008). Similarly, Behçet's Disease occurs slightly more frequently and runs a worse clinical course among males than females (Mendes et al. 2009). The male/female ratio is reported to be 3 : 2. (Önder & Gürer 2001).

In general, Behçet's Disease poses its "disease burden" especially in the early years following its onset and then "burns out" in the subsequent years. Both oral and genital ulcerations cause restrictions in life such as limiting oral intake and sexual intercourse (Evereklioglu 2005). Neurological and vascular involvement is mentioned to increase chronic morbidity when include ophthalmic inflammation (Evereklioglu 2005). The complex symptoms and involvement in Behçet's Disease can cause activities to become limited at various degrees, and restrict individuals' lifestyles, which may lead to psychological problems (Borson 1982; Tanrıverdi et al. 2003). About 10% of patients with Behçet's disease have been reported to die as a result of cardiovascular disorders and neurological involvement (Evereklioglu 2005). It is reported that, with good prognosis and appropriate treatment, the mortality rate significantly decreases (Evereklioglu 2005).

1.2.1. Diagnosis of Behçet's Disease

Behçet's Disease does not manifest obvious symptoms or laboratory findings; therefore, the diagnosis of Behçet's Disease is primarily contingent on clinical criteria (Alpsoy 2003; Kurokawa et al. 2004). Due to the lack of a standardized laboratory test, several efforts to set up diagnostic criteria have been made at different times and in different countries, namely Mason and Barnes Criteria, 1969 (Mason and Barnes, 1969), Japanese Criteria, 1987 (Behçet's Disease Research Commitee of Japon, 1972), O'Duffy Criteria, 1974, (O'Duffy, 1974), Cheng ve Zhang Criteria, 1980 (Cheng and Zhang 1980) and Dilsen Criteria, 1986 (Geyik, 1996). In 1990, with a view to ensuring a common language for diagnosis, the International Study Group for Behçet's Disease put forth a list of criteria for the diagnosis of Behçet’s Disease (International Study Group, 1990), which are currently the most widely used guidelines (Siva & Fresko 2000). For a patient to be diagnosed with Behçet's disease, besides oral ulceration, the presence of any two of these symptoms are needed: genital lesions, typical defined eye or skin lesions, or a positive pathergy test (International Study Group, 1990). The criteria for diagnosis are provided in Table 1.1.below:

Table 1.1: Diagnostic criteria for Behçet's disease (1990)

Recurrent Oral Ulcers	Minor, major or herpetiform ulceration recurring at least 3 times in a year
Plus any two of the following:	
Recurrent Genital Ulcers	Aphthous or scarring ulceration
Eye Lesions	Anterior/posterior uveitis, cells in vitreous on slit lamp, or retinal vasculitis
Skin Lesions	Erythema nodosum-like lesions, pseudo- folliculitis, papulopustular or acneiform nodules
Positive Pathergy Test	Read by a physician at 24–48 h after a prick to the forearm

1.2.2. Epidemiology of Behçet’s Disease

Behçet’s Disease is relatively more widespread in certain parts of the world (Sezen et al. 2010). Behçet’s Disease occurs mostly among North Asian and European populations who live in between latitudes 30° and 45°, which overlaps with the Old Silk Route stretching from the Mediterranean to the Far East (Tugal-Tutkun et al. 2004; Tursen et al. 2003; Verity et al. 1999). It is mentioned that the Behçet’s Disease is quite prevalent between eastern Asia and the Mediterranean regions (roughly 1–10 cases in 10,000 people) especially in Turkey (1 in 1,000), and Japan, Korea, Iran, and Saudi Arabia (1 in 10,000). On the other hand, it is much less prevalent in the United Kingdom and North America (roughly 1–2 cases in 1,000,000 people) (Sakane et al. 1999; Zouboulis et al. 1997).

1.2.3. Etiology of Behçet's Disease

Etiopathogenesis of Behçet's Disease is still unknown. On the other hand, various environmental (such as infectious agents, heat shock proteins) (Mendes et al. 2009) and/or genetic factors (such as HLA-B51) (Canpolat & Yurtsever 2011; Verity et al. 1999) are deemed to play a prominent role in the development of the disease (Kurokawa et al. 2004). Microbial infection may be engaged in the pathogenesis of the disease, even though it is not a classical infectious disease (Kurokawa et al. 2004).

Also, periods of exacerbation and remission have been found to be influenced by stress–immune system interaction (Atay et al. 2014). In other words, higher stress triggers exacerbation period due to its suppressing effect on the immune system (Koptagel-Ilal et al. 1983). Therefore, roles of psychological parameters are needed to be clarified.

1.2.4. Prognosis of Behçet's Disease

Behçet's Disease is highly unpredictable; it can shift from one organ to another, and varies significantly in severity from one patient to another. Due to its chronic and cyclical nature, it is difficult to assess its prognosis. In addition, the fact that severe symptom such as eye and neurological manifestations tend to occur later in the course of the disease which leads to poorer prognosis (Evereklioglu 2005). Also, side effects due to prolonged use of medication may also affect better prognosis adversely (Aytuğar & Pekiner 2011). However, it can be said that the most patients with Behçet's Disease have fever and malaise as well as initial involvement of oral and genital ulcerations and skin lesions. Prognosis of Behçet's Disease depends on age, gender, and the effect of the disease to other organs, particularly visual and neurological system. This variety makes necessary to evaluate patients individually (Mendes et al. 2009).

1.2.5. Clinical Features of Behçet's Disease

The most frequently observed symptoms of the disease in countries where the disease is observed are oral and genital ulcers, skin lesions and ocular lesions together with arthropathy. The most commonly observed lesions are skin lesions in all countries (Alpsoy et al. 1998; Zouboulis 1999).

Baş, (2009) mentioned that types of involvement and its effect on patients. According to him, severe and frequently-recurring oral and genital ulcers cause difficulties in the patient's life. He emphasized that neurological or ocular involvement tends to occur months or years after the outbreak of the disorder. He mentioned that young and male patients usually experience more severe symptoms. The risk of losing vision due to ocular involvement is the most important factor affecting morbidity. According to him, deaths, on the other hand, may take place due to neurological or vascular involvement, or gastrointestinal perforation, yet mortality rate is low. It is also reported that there is a positive correlation between more severe course of Behçet's Disease and early-onset of symptoms or being male, and that morbidity and mortality rates are significantly higher in young adult males (Alpsoy et al. 2003; Marshall 2004) Ocular, and vascular involvement occur more severely in male patients, whereas female patients suffer from genital ulcers and skin lesions more frequently (Ando et al. 1999; Bayraktar et al. 1997). Detailed explanations of types of involvement in Behçet's Disease are explained below.

1.2.5.1. Oral Ulcers

Recurrent oral ulceration is a frequent complaint among patients with Behçet's disease (Özbalkan & Bilgen 2006). In a study has reported that, in some cases, one patient does not have oral ulceration, but have other symptoms of the disease (Lee 1997). Patients with Behçet's Disease have one or several oral ulcers, and these lesions are usually painful and recurring (Alpsoy, 2007). These significant symptoms have a negative impact on motor functions, namely speaking, swallowing, and chewing (Al-Otaibi et al. 2005; Pamuk & Çakır 2005).

Oral ulcers, a keystone in the diagnosis of the disease, occur at the beginning phase or at any stage during the course of the disease with irregular intervals (Baş 2009; Özbalkan & Bilgen 2006). On the basis of one cross cultural study conducted by International Study Group for Behçet's Disease, oral ulcerations are present in 97- 99%

of patients. Severe and recurrent oral ulcers make difficult for patients life (Baş 2009). Oral ulcers last for 1 to 4 weeks (Baş 2009), and are usually recurrent (Alpsoy et al. 2007). Oral ulcers recur at periods that range from weeks to months and normally occur years before other systemic findings develop (Özbalkan & Bilgen 2006; Yurdakul & Yazici 2008).

Ulcers that develop in the mouth can be so tedious that they cause malnutrition. They are most frequently found on the tongue, lips, gingiva, and buccal mucosa. They cannot be distinguished clinically from aphthous ulceration (Evereklioglu 2005). Oral ulcers can be classified into three categories: minor or major aphthous ulceration, and herpetiform ulcers. Minor ulcers are the most common of the three categories. They are slightly painful, and recover without disfiguration in 4- 14 days, and reiterate irregularly. Major aphthous lesions are less common among patients with Behçet's disease. They are larger, deeper and painful ulcers and may interfere with daily activities. They leave scars after healing, which takes 2-6 weeks (International Study Group 1990; Evereklioglu 2005; Gurler et al. 1997; Mendes et al. 2009). Herpetiform ulcers are the least common type of ulceration among patients with Behçet's disease (Evereklioglu 2005; Mendes et al. 2009).

1.2.5.2. Genital Ulcers

Although genital ulcers are rare as an initial manifestation, they are regarded as one of the most characteristic symptoms of Behçet's Disease (Alpsoy et al. 2007). Scarring resulting from genital ulceration is particularly associated with Behçet's Disease. These ulcers are round or oval-shaped. They resemble oral lesions, but they tend to be larger and deeper (Evereklioglu 2005). Genital ulcers are located on the genitals and cervix uteri in women, and the prepuce and scrotum in men (Önder & Gürer 2001). They cause difficulty and pain in walking, sitting, urinating, and sexual intercourse. Studies carried out on the effects of Behçet's Disease on patients' health related quality of life have shown that genital lesions have a negative influence on the patients' body image, resulting in low self-esteem and problems in personal relationships (Canpolat & Yurtsever 2011; Tanrıverdi et al. 2003). Genital ulcers heal in 10-30 days unless a secondary infection develops (Aytuğar & Pekiner 2011).

Data on the prevalence of genital ulcers in patients with Behçet's Disease is contradictory. According to data provided by International Study Group for Behçet's Disease, 97-99% of cases have genital ulcers (Alpsoy et al. 2007; International Study Group 1990). Baş (2009) reported genital ulcers to be found in 88% of patients (equal for men and women). In another study of 2313 patients, genital ulcers were found to be more prevalent in women (Tursen et al. 2003).

1.2.5.3. Ocular Involvement

Ocular involvement is seen among 30 - 70% of all patients with Behçet's Disease. Eye is the most frequently involved viscera in the disease, and ocular involvement usually occurs within two to four years of disease onset in the greater part of clinical cases (Kural-Seyahi et al. 2003; Lee 1997; Mendes et al. 2009).However, it has been reported that, in one-fifth of the cases, ocular disease was the initial manifestation of the disease (Evereklioglu 2005).

Ocular disease manifests itself with symptoms such as hypopyon, posterior uveitis, vitreous deposits, choroiditis, and retinitis. Posterior uveitis is a more common manifestation of the disease, with 50% of all patients affected by this uveitis (Evereklioglu 2005; Önder & Gürer 2001). Eye doctors are watchful of eye inflammation and retinal vasculitis in the course of the disease (Evereklioglu 2005). Men are reported to suffer from ocular disease more frequently and severely (Tursen et al. 2003; Yurdakul & Yazici 2008). Eye symptoms can become chronic in the late stages of the disease, and may cause loss of vision (Özbalkan & Bilgen 2006). In Behçet's Disease, there is a high rate of morbidity due to ocular involvement; it is reported that 25% of ocular Behçet's Disease patients end up becoming blind in spite of treatment (Mendes et al. 2009). The natural course of ocular involvement runs a relapsing and remitting course (Baş 2009; Özbalkan & Bilgen 2006). With each attack, the eye becomes more impaired. Studies have reported contradictory findings as to the prevalence of eye involvement in Behçet's Disease patients. Baş (2009), reported that 20% of Behçet's Disease patients suffer from ocular involvement. Past studies found that eye prognosis to be quite severe (75% of patients suffered from blindness), but recent studies have reported that visual prognosis has improved due to a more aggressive use of immunosuppressive and early diagnosis (Bayraktar et al. 1997; Sakamoto et al. 1995).

1.2.5.4. Skin Lesions

Skin lesions manifest themselves in approximately 80% of Behçet's Disease patients, and show various combinations (Gurler et al. 1997; Önder & Gürer 2001; Sakane et al. 1999). Skin lesions appear as acute, round or oval-shaped, painful nodules on the legs and ankles, as well as the neck, face and arms (James 1988). Acneiform lesions normally heal in 1 or 2 weeks. Eritema nodozum is a prevalent symptom especially in women, appearing on the face and the neck (Özbalkan & Bilgen 2006).

1.2.5.5. Vascular Involvement

Behçet’s Disease may have a negative effect on arteries and veins, and vascular involvement is found to be more common in men. 30- 40% of Behçet’s patients suffer from vascular problems that generally manifest themselves after disease onset (Özbalkan & Bilgen 2006; Mendes 2009).

1.2.5.6. Pathergy Test

Pathergy is an oversensitive reaction of the skin to any intracutaneous injection or needle prick. It is specific to Behçet’s Disease and is a diagnostic criterion for the disease (Evereklioglu 2005; Melikoglu et al. 2006). The exact mechanisms underlying the phenomenon of pathergy are unknown (Yurdakul & Yazici 2008).

1.2.5.7. Joint Involvement

Although joint involvement are not included in the guidelines for diagnosis set forth by International Study Group for Behçet's Disease, its appearances in the musculoskeletal systems are one of the most common symptoms of the disease (Tursen et al. 2003). 50 to 60% of Behçet’s Disease patients experience joint involvement which are usually present following the onset of disease, yet there are rare cases where joint involvement precedes other major symptoms (Özbalkan & Bilgen 2006). Baş (2009) states that joint involvement is the third most common complaint among Behçet’s Disease patients, following oral and genital ulcers. The most widely disturbed joint is the knee, followed by the ankles, wrists, and elbows. In rare cases, hip and shoulder joints are involved. Attacks affect the same or a different joint (Yurdakul & Yazici 2008). Joint involvement causes pain and difficulties in movement, and damages social relationships of patients with Behçet's Disease (Canpolat & Yurtsever 2011). These patients suffer from diminishing quality of life as they have difficulty in carrying out their roles and obligations (Canpolat & Yurtsever 2011).

1.2.5.8. Neurological Involvement

Neurological involvement usually occurs in 5-20% of patients (Mendes et al. 2009). Men are affected by this involvement more than women. It is one of the most critical causes of morbidity and mortality in Behçet’s Disease in the long term (Akman-Demir et al. 1999; Kural-Seyahi et al. 2003; Siva et al. 2001). Epidemiological and clinical studies have revealed that Neuro-Behçet is more prevalent in Japan than in Western countries (Motomura et al. 1980). Neurological involvement generally takes effect within 5 years following the disease onset, and the most critical nervous system manifestations are seen in men. It usually occurs in young male patients, with an age of onset of Neurological Behçet's Disease of 20-40 years (Al-Araji & Kidd 2009). Meningitis, and nerve paralysis are seen. Moreover, neuro behavioral symptoms such as euphory, loss of intuition, disinhibition, alienation to the disease, psychomotor agitation or decline, paranoid behaviors, obsessive distress, and depression are reported to be present during the course of the disorder. Psychological symptoms may develop with or without the presence of other neurological indications of Neuro-Behçet’s Disease (Siva et al. 2001). A stressful lifestyle and psychiatric problems worsen inflammation and facilitate development of other symptoms. However, the bond between Neuro Behçet’s Disease and psychiatric disorders has been demonstrated in relatively few studies in the relevant literature. In one study, Nakano et al. (2003), found very early onset of bipolar disorder and in a similar report, the patient developed treatment-resistant bipolar disorder (Alevizos et al. 2004).

1.2.5.9. Gastrointestinal System

Behçet’s Disease cause ulcerations to develop anywhere in gastrointestinal tract. Complaints such as loss of appetite, anorexia, sore throat, halitosis, dyspepsia, vomitting, nausea, flatulence, and acute bloody diarrhea are seen (Mendes et al. 2009; Özbalkan & Bilgen 2006; Yurdakul & Yazici 2008).

1.2.5.10. Vascular and Cardiac Lesions

Behçet’s Disease is a systemic vasculitis affecting arteries and veins. Vascular manifestations are frequent and critical implications for prognosis of Behçet’s Disease (Baş 2009). Cardiovascular symptoms have been described in 7-49% of patients, and they usually occur 3-16 years after the onset of the disease (Atzeni et al. 2005; Kural-Seyahi et al. 2003; Tursen et al. 2003). Many studies have reported that young and male patients suffer from vascular involvement more often and seriously when compared to women (Özbalkan & Bilgen 2006).

Behçet's Disease related cardiac disease can usually be treated with medication and support. Surgery is occasionally an option. However, vasculitis of the coronary arteries may induce infarction, requiring surgical treatment. Close cardiac monitoring is thought to be of great importance for Behçet’s Disease patients (Sezen et al. 2010).

1.2.6. Treatment of Behçet's Disease

A review of the relevant literature reveals that currently there is no effective and conclusive treatment for Behçet's Disease, and the results of treatment methods used today are not satisfactory, and clinical dilemmas persist (Evereklioglu 2005).

Treatment of Behçet's Disease depends on the severity of involvement of organs (Baş 2009), in other words, the clinical symptoms experienced by patients identify treatment approaches (Kurokawa et al. 2004). Since the etiology of the disease is still unknown, there is no specific treatment. The objective of the physician in treatment, therefore, is to suppress and control symptoms and block or limit damage to organs or tissues, to reduce oftness and severity of attacks, and prevent complications (Evereklioglu 2005; Özbalkan & Bilgen 2006). With a view to treat local problems or general system, non-streoidal anti-inflammatory drugs, immunosuppresans, cyclosproine, azathioprine, corticosteroids, and colchrine are mainly used (Evereklioglu 2005; Kurokawa et al. 2004; Yurdakul & Yazici 2008). In addition to medication, it is also known that working in close cooperation with a psychiatrist prevent recurrence of attacks (Tanrıverdi et al. 2003). Similarly, as Behçet's Disease is a syndrome in which numerous organs are involved, it is crucial for physicians to collaborate in their efforts for treatment.

The importance of working in close cooperation with a psychologist or a psychiatrist for ocular involvement is emphasized in the literature, as treatment of patients for mood changes may prove useful for long-term management of Behçet's Disease by preventing some of the new attacks (Tanrıverdi et al. 2003). Similarly, some studies highlighted the importance of cognitive behavioral therapy to improve the effectiveness of treatment and to decrease severity of depressive symptoms (Friedberg et al. 2012). In addition to psychotherapy, pharmacotherapy have been offered in the process of depression and anxiety treatment among patients with Behçet's Disease and rheumatological diseases (Bryson et al. 1996). It is hoped that this study will provide a step forward by its investigation into stressful life events, which are believed to play a major role in the onset of Behçet's Disease (Koptagel-Ilal et al. 1983) and by the proposed strategies that can be used for patients with Behçet's Disease, who go through similar experiences in the future.

1.3. Depression

Depression is a mental health problem that is expected to be among the top ten disorders occur frequently, and cause increased treatment costs as well as significant loss of labour according to data published by World Health Organization (Michaud et al. 2001). Depression varies in its severity, types of symptoms, and course of disorder. Complaints of patients varying from normal sadness to psychotic symptoms with severe manifestations result in possibly suicide. Depression is a recurrent illness. A study revealed that the chance of recurrence after the first attack is 51%, 70% after the second attack, and after the third attack it increases to 98%. In 20% of cases it can become chronic, and 10-15% of inmates diagnosed with depression commit suicide (Mercan 2010).

In clinical depression, the prevalence, severity and length of depressive signs are high (Casper et al. 1985) and have a negative influence on life quality. Depression is one of the most common psychiatric diseases in the modern society, and the individual likelihood of having depression that needs treatment during the lifetime is 10-25% for women, and 5- 12% for men (Sengul & Akkaya 2014). Depression is remarkably comorbid with other mood disorders, particularly with anxiety (Tsang et al. 2008).

Depression has multi-agent etiology, including biological, cognitive, and environmental factors. Categorized symptoms of depression are mentioned in four categories, namely emotional, cognitive, motivational, and somatic symptoms (Casper et al. 1985). They described emotional symptoms as a negative mood state, which can involve unhappiness, despair, anxiety, sorrow, failure to take pleasure, and loss of appeal. The mental signs involve negative understanding about the self, the World, and future, which can be exhibited by loss of enthusiasm, lack of drive, and difficulty beginning any activity. Appetite loss, lack of energy, weight loss or gain, and sleep problems are among the somatic symptoms (Korff & Simon 1996). These symptoms always lead to difficulties in interpersonal, social, and professional impairment. If accompanied by a physical disorder, the occurrence of depression increases unless it is treated. In that case, it obstructs the treatment of the physical disorder, increasing rates of morbidity and mortality (Mercan 2010). Therefore, depression is an underlying symptom in people with chronic illnesses (Karlidag et al. 2003; Taner et al. 2007).

Patients with dermatological problems are particularly vulnerable to psychiatric disorders and especially depression due to the chronic course of dermatological problems and negative impact on body image (Mercan 2010). In the literature, a greater ratio of Behçet’s Disease patients with higher depression score than rheumatoid arthritis, which may indicate that the awareness of patients with Behçet's Disease for depressive signs needs to be raised (Melikoglu & Melikoglu 2010). Similarly, in another study, patients with Behçet’s Disease were found to have higher levels of psychopathology (anxiety in addition to depression) than did psoriasis patients (Taner et al. 2007).

1.4. Anxiety

Anxiety arises as a reaction in the form of worry, fear, or negative expectations to a dangerous situation, in which individuals tend to misevaluate their experience due to obsession with the possibility of perceived threat in the future (Beck & Emery 1985). Barlow (2004) focused on the role played by cognitive distortions, such as the inclination to intensifying the extent of threat. Spielberger identified two types of anxiety: trait anxiety, that is, the individual's inclination to react, and state anxiety, which can be defined as momentary emotion conceived by physiological arousal and fear (Spielberger 1966).

It is suggested that depression and anxiety disorders are inclined to co-exist in 20-40% of patients (Huppert 2008). In cases where embarrassment accompanies anxiety, the symptoms become more severe (Woodruff et al. 1997). Anxiety arises in life-threatening situations such as ones in which there is physical injury, fear of loss or being punished, jealousy of someone else's success or status or where pain becomes intensified. Natural symptoms of the disorder such as itching, burning, pain, sensitiveness, irritation, and bleeding themselves affect patients with chronic illness psychologically. Woodruff et al. (1997) found prevalence of psychiatric disorders among patients with dermatological diseases such as Behçet's Disease to be 5%, and 44% of patients had depression, whereas 35% had anxiety. In the literature, patient with Behçet’s Disease had higher anxiety in addition to depression scores (Karlidag et al.

2003) than patients with chronic plaque-type psoriasis (Calikoglu et al. 2001; Taner et al. 2007), and control groups (Gur et al. 2006; Lee et al. 2005; Monastero et al. 2004).

1.5. Health-Related Quality of Life

Chronic diseases considerably affect individuals' general life satisfaction, and pose psychological difficulties by limiting their physical activities. On the other hand, even if health related quality of life is not affected completely, due to clinical properties of the disease, individuals with chronic diseases may suffer severe outcomes in some sub-dimensions of health related quality of life, such as energy level, pain, or sleep. In addition, depending on the severity and frequency of chronic disease, both health related quality of life and its sub-dimensions are seriously affected, and their severity may change from one patient to another (Bodur et al. 2006).

Health related quality of life involves being able to satisfy personal needs, feeling satisfied with one's life, social interaction at an adequate level, emotional and physical well-being, making time for having fun, being competent at inter-personal relationships, and having self-esteem (Canpolat & Yurtsever 2011).When quality of life were explored, health related quality of life and involvement types were mentioned (Gilworth et al. 2004). In that study, involvement process is considered as they limit patients’ lives. These involvement problems are known to have a negative influence on their self-esteem and relationship with others, partly due to the negative impact on body image, meeting of daily needs, and disabilities like speaking.

As previously mentioned, the relapsing and remitting course of Behçet's Disease typically result in temporary or permanent loss of functionality of organs. This has a negative impact on Behçet’s Disease patients as it limits their independency, daily activities, and social life (Uğuz et al. 2006). It is reported that patients with Behçet’s Disease had lower health quality of life scores (Bernabe et al. 2010; Bodur et al. 2006; Gur et al. 2006; I. Ertam 2009; Moses et al. 2008; Mumcu et al. 2009; Tanrıverdi et al. 2003; Uguz et al. 2007). These lower scores were explained by the effect of the prolonged duration of the disorder, or perceived disability and depressive mood state (Kim et al. 1999). Tanrıverdi et al. (2003) found a lower health related quality of life in patients with Behçet’s Disease when compared to their healthy counterparts matched by their age and gender, which is in line with the findings of Bodur et al. (2006), who compared patients with Behçet’s Disease and healthy individuals. They found that health related quality of life scores of patients with Behçet’s Disease (measured by Nottingham Health Profile) were higher at all dimensions, showing a decrease in health related quality of life in Behçet’s Disease patients. In the same study, the authors found that articular involvement caused discomfort, fatigue, and physical disability, while genital ulcerations affected individual’s self-image and sexuality negatively. According to them, mentioned factors affected health related quality of life the most. They found physical domains of Nottingham Health Profile to be linked with fatigue and joint involvement and oral ulcers, whereas psychosocial domains were associated with joint involvement, and oro-genital lesions (Bodur, Borman, Ozdemir, Atan, & Kural, 2006).

In addition, the patients in the aforementioned study reported more emotional reactions related with joint involvement, which indicated that having painful joints impaired the satisfaction with people's social interactions (Bodur et al. 2006). Likewise, in another study, it was found that impaired health related quality of life, depression and anxiety were more common in Behçet’s Disease patients with arthritis than healthy control group (Gur et al. 2006).

In line with these findings, several studies have reflected on the negative relation between symptoms of Behçet’s Disease and patients' perceived of quality of life and social relationships. In one study, Canpolat and Yurtsever (2011) reported that oral ulcers and genital ulcers, arthritis, skin lesions, pain, sleeplessness, and fatigue affected the patients' social relationships in a negative way. They emphasized the role of fatigue arising from bodily pain and sleeplessness, which may hinder patients' performance in daily activities. Therefore, these pain and sleeplessness caused incompetence in achieving routine tasks, which in turn results in reduced health related quality of life. Therefore this is a kind of vicious cycle. Also, it is mentioned that functional restriction and decline in productivity lead to some psychiatric symptoms (Bodur et al. 2006) such as depression. Therefore, it can be argued that severity of depressive symptoms is so important for patients since it contributes to quality of life.

In addition to the role of severity of disease, sociodemographic factors such as age, gender, education level and work status are known to have an impact on quality of life (Canpolat & Yurtsever 2011). In this study, being male, being 20-30 years old, university graduate, being retired and civil servant had significantly higher scores on all dimensions of health related quality of life (physical function, social function, role physical, role emotional, mental health, vitality/fatigue, pain, general health) than their counterparts (being female, being 31-41 or more years old, primary and secondary school graduate).

1.6. Depression and Anxiety in the Sample of Patients with Behçet’s Disease

Behçet's Disease is a chronic immune inflammatory disorder with periods of exacerbation and remission (Taner et al. 2007). It is mostly triggered by stressful events, and appears due to stress–immune system interaction (Taner et al. 2007). At the same time, Behçet's Disease is a cause of stress on its own by increasing depression (Taner et al. 2007).

As being part of Behçet’s Disease and a sub-dimension of health-related quality of life, pain is also related to anxiety. In one study, a positive correlation between the extent of anxiety felt by the individual and the amount of pain s/he experienced was found (Tanrıverdi et al. 2003). Therefore, for the treatment of patients experiencing pain, it is recommended to check levels of anxiety and provide treatment for anxiety.

In addition to pain, as explained before, joint involvement, one of the clinical findings of Behçet’s Disease, increased the risk of higher depression scores (Melikoglu & Melikoglu 2010). The most frequently observed psychological symptoms in Behçet’s Disease patients are psychosomatic symptoms, anxiety, and depression (Taner et al. 2007). Depression relapses are seen at the outset of the earliest symptoms of Behçet’s Disease and during emotionally critical periods (Tanrıverdi et al. 2003). On the other hand, there is also evidence to suggest that anxiety and depression linked to Behçet’s Disease are not a direct result of Behçet’s Disease itself, but rather they occur as reactions to suffering a chronic disorder (Calikoglu et al. 2001; Karlidag et al. 2003). It is also assumed that anxiety and depression are related to mechanisms for coping with stress when dealing with complications of disease (Calikoglu et al. 2001; Karlidag et al. 2003). Previous research has revealed that depression, caused partly by the duration of the disease and depression is a major crucial problem in Behçet's Disease patients (Taner et al. 2007). They found higher depression and anxiety scores in patients with Behçet's Disease, with a 45.5% prevalence and Behçet's Disease patients had four times higher risk of depression when compared to psoriasis patients. In addition, if patients had other chronic disorders in addition to Behçet's Disease, they had experienced symptoms of depression and anxiety more severely, resulting in a lower health related quality of life (Uguz et al. 2007).

In a study of Tanrıverdi et al. (2003), the higher health related quality of life scores of Behçet's Disease patients compared to healthy individuals was found to be a result of their physical condition as well as the psychological symptoms they experienced. In the same study, it was found that, in cases where there is ocular involvement, the patients were more susceptible to anxiety and depression. As regards functionality and problem solving in the study of (Karlidag et al. 2003) patients with difficulties in several domains were found to be more anxious or depressive. It is reported that these patients had difficulty carrying out ordinary daily tasks or they were in the relapse period hence they had higher depression scores.

The earliest psychiatric symptom of Behçet's Disease seems to be anxiety rather than depression. As Taner et al. (2007), reported, anxiety, which is the primary reaction to a serious disease, is the initial psychological symptom in patients with Behçet's Disease. It is mentioned that anxiety in patients with Behçet's Disease may stem from their concerns about the diagnosis and the course of the disease, along with its vital and devastating symptoms (Taner et al. 2007). Furthermore, manifestation of depression during the course of the disease may indicate a psycho- pathologic process, as the patient accepts and adapts to a chronic, incapacitating illness. Therefore, depression is particularly as a result of worsening the disease within time. In the same study, Taner et al. (2007), reported a 12-fold increase in depression risk in Behçet's Disease patients who diagnosed more than 3 years. As a result, there is an obvious need for psychiatric evaluation, diagnosis, and treatment of anxiety and depression in early stages of Behçet's Disease.

Treatment is also related to increment of stress tolerance of Behçet’s Disease patients. Previous research shown that health related quality of life of patients with Behçet's Disease was improved when comorbid major depression was treated (Uguz et al. 2007). Treating especially negative automatic thoughts and hopelessness, which are factors found to contribute to depression (Oei & Sullivan 1999), are so crucial since these domains accompany Behçet’s Disease. As a result, it is suggested to use cognitive and behavioral therapies (Taner et al. 2007).

1.6.1. Factors Affecting Depression and Anxiety in Patients with BD

Depression and anxiety in the sample of Behçet’s Disease have been investigated with generally health related quality of life. However, it is well known that perceived social support, stressful life events and positive negative emotional experiences contribute to depression and anxiety. When looking at Behçet’s Disease, they have been explored with nature of disease and health related quality of life. Since the latter two variables were mentioned above, former three variables are explained below. These variables were selected by considering Life Transitions model offered by Schaefer and Moos (1998). The model combines to question roles of environmental resources (social support), stressful events and nature of disease (time since diagnosis of disease, reduction of complaints after receiving treatment, perceived threat of illness) all of which promote either negative or positive consequences (Moos & Schaefer 1986).

1.6.2. Social Support

The family, a peer, or a spouse, social support decreases the stress level against the negative effects of stressful situations. Chronic illness has a stressful nature, for a patient, having people around provide support which increase to cope with symptoms of Behçet’s Disease (Bernabe et al. 2010). Therefore, it can be concluded that social support has a facilitating effect on the treatment. Canpolat and Yurtsever (2011) reported that patients who stated that the disease had a negative impact on their social relationships had considerably lower scores of health related quality of life. Except for these two studies mentioned above, the effect of social support on psychological well-being of Behçet's Disease did not receive enough attention. Therefore, its role is questioned in the present study.

1.6.3. Positive and Negative Emotional Experience

A review of the literature reveals the close relationship between chronic diseases like Behçet's and mood. People with psychiatric disorders and chronic medical conditions which co-exist pose a great public health concern, as they are likely to diminish functional activities (Dewa & Lin 2000). As they are parts of affective well-being, positive and negative emotional experiences are crucial. Studies have found that the feelings of patients with Behçet's Disease experience against the disorder are primarily fear, sadness, worry, desperateness, and curiosity. Moreover, patients who had difficulty in coping with the problems are reported to have psychiatric symptoms more often (Karlıdağ et al. 2001) when they learned the diagnosis of illness, 29.4% of them expressed fear, 32.3% of them expressed sadness and 38.2% of them expressed fear plus sadness. Therefore, it is probably to observe higher degree of negative emotions which is associated with depression and anxiety.

1.6.4. Stress

Stress a product of a transaction between a person and his/her surroundings. Whether it be over arousal or under arousal, stress leads to psychological or physiological distress (Aldwin 2007). Lazarus & Folkman defined stress as a particular exchange between the person and environment that is perceived by the person as taxing or surpassing his or her resources and putting his or her wellbeing in danger (Lazarus & Folkman 1984). Stress is perceived and defined as a negative term as it may refer to experiences resulting in arousal or even distress. On the other hand, stress has a motivating aspect in order for people to adapt to circumstances they come across. For example, moderate stress may motivate individuals to complete a work or perform a task, and is a keystone for success (Aydın 2010). The inner power that helps us solve problems or adapt to change is called constructive stress, whereas the kind of stress that disharmonizes an individual and destructs strategies for coping, resulting in psychological problems is called destructive stress (Aydın 2010; Baltaş & Baltaş 2012).

In the literature, the presence of highly stressful events before the onset and exacerbation of Behçet's Disease is reported as crucial (Karlidag et al. 2003; Melikoglu & Melikoglu 2010). Moreover, a study on 55 patients with Behçet's Disease examined the importance of stressful life events and spelled out these events as socioeconomic and/or related to family conflicts (Koptagel-Ilal et al. 1983). Similarly, stressful events were related with the disease (Aslan et al. 1996). Furthermore, the relationship between depression and stress is reported as cyclical, in other words, depression affect or be affected by stressful events (Tanrıverdi et al. 2003). On the other hand, role of stress in relation to anxiety have been less likely to examined in the sample of Behçet's Disease. Therefore, presence of stressful life events on both depression and anxiety are questioned in the present study.

1.7. Aims of the Present Study

Behçet's Disease, which is a chronic condition causing temporary or permanent functional disabilities affect to develop some psychological disorders (Gur et al. 2006; Tanrıverdi et al. 2003) and loss of labor power (Canpolat & Yurtsever 2011). Behçet's Disease and its psychological aspects have not been examined extensively. Although stressful life events and course of disease are questioned there have been limited numbers of empirical studies. For defining risk groups conducting comprehensive studies are suggested in the literature (Alpsoy et al. 2007).

Even though deleterious impact of the illness on psychological wellbeing has been mentioned by comparing Behçet's Disease patients with healthy controls (Bodur et al. 2006; Tanrıverdi et al. 2003), or patients with other chronic illnesses diabetes mellitus (Skinner & Hampson 1998), and cancer patients (Galway et al. 2012), those studies examined physical aspects. Therefore, there is a gap in the literature regarding psychological aspects of Behçet's Disease.

It is known that the onset of the initial symptoms of Behçet's Disease and the timing of major relapses occur at emotionally critical periods (Karlidag et al. 2003;

Wells et al. 1988a). However, role of stress on especially anxiety has not been examined in those studies. Therefore, its role on both depression and anxiety is aimed to investigate in the present study. In addition to depression and trait anxiety, this study is aimed to examine factors affecting state anxiety which help clinicians to put forward our knowledge about situational factors.

In addition to stress, previous studies have addressed that patients with Behçet’s Disease with psychological symptoms had mood problems, and poor psychosocial adjustment or quality of life (Borson 1982; Tanrıverdi et al. 2003). In those studies, however, both role of emotional experiences (as being affective part of well-being) and quality of life have not been investigated into same study. Therefore, in the present study, both emotional experiences and health-related quality of life are aimed to investigate.

Studies on the psychological aspects of Behçet’s Disease and health-related quality of life has been limited in the literature; although the psychological aspects of Behçet’s Disease have been peripherally mentioned in several reviews and case reports, there are few papers that deal with this aspect exclusively (Gur et al. 2006). Given the insufficiency of research into the psychological effects of Behçet’s Disease in the literature, this study aims to provide an insight into this neglected aspect of Behçet's Disease. As mentioned above, Behçet’s Disease includes different types of involvement that each of them might influence patients differently. However, types of involvements on psychological aspects have not gain enough attention in the literature. In other words, there is another gap in the literature about type of involvement on psychological aspects.

Also, relationship with variables are aimed to investigate by considering the theoretical framework of Life Transitions Model which questioned roles of environmental resources, nature of disease, stress, and outcomes such as negative and positive emotional experiences associated with psychological well-being. In addition to this model, the frame of the present study was drawn by considering literature findings basically obtained from physical sides of illnesses (Bodur et al. 2006).

1.8. Hypotheses of the Present Study

The purpose of the present study is to examine factors affecting depression and anxiety in patients Behçet's disease via perceived social support, the health related quality of life, positive and negative emotional experiences on the basis of the theoretical framework of Schaefer and Moos. The following aims are determined:

Hypothesis 1: Are there significant differences regarding the gender type on depression, trait anxiety, state anxiety and dimensions of health related quality of life.

Females will more likely to have higher scores from depression, trait anxiety, state anxiety and dimensions of health related quality of life than males.

Hypothesis 2: Are there significant difference among inpatients and outpatients in respect to depression, trait anxiety, state anxiety and dimensions of health related quality of life?

Inpatients will have significantly higher scores on depression, trait anxiety, state anxiety and dimensions of health related quality of life than outpatients.

Hypothesis 3: Are there significant difference on evaluating complaints as reduced or not based on depression, trait anxiety, state anxiety and dimensions of health related quality of life?

Individuals evaluating received treatment as not reducing complaints will have significantly higher scores than others on depression, trait anxiety, state anxiety and dimensions of health related quality of life.

Hypothesis 4: Are there significant differences regarding the presence or absence of stressful life events on depression, trait anxiety, state anxiety and dimensions of health related quality of life.

Individuals reporting stressful life events will have higher scores from depression, trait anxiety, state anxiety and dimensions of health related quality of life than individuals not reporting stressful life events.

Hypothesis tested below will be tested by One way anova(s). The type of stressful life events, degree about perceived prognosis and dangerousness will be examined in respect to dependent variables.

Hypothesis 5: Whether type of stressful life event will be associated with depression, trait anxiety, state anxiety and dimensions of health related quality of life.

Individuals reporting loss will significantly higher scores than other groups in respect to depression, trait anxiety, state anxiety and dimensions of health related quality of life.

Hypothesis 6: Whether disease related variables (time since diagnosis of disease, reduction of complaints after receiving treatment, perceived threat of illness, number of hospitalizations) and clinical features (oral ulcer, genital ulcer, ocular involvement, rheumatic involvement and neurologic involvement) will be significantly associated with depression, trait anxiety.

The following hypotheses will be tested by using hierarchical regression analyses in five sets run for the data obtained from patients with Behçet's Disease.

Hypothesis 8: Whether after controlling socio demographic variables, perceived social support, the nature of illness, health related quality of life, positive and negative emotional experiences will be significantly associated with depression, trait anxiety and depression.

Being female and having lower levels of education will be associated with higher depression, trait/state anxiety.

Perceiving lower levels of social support will be associated with higher depression, trait anxiety and state anxiety

Higher number of hospitalizations, perceiving prognosis as worse, perceiving hıgher dangerousness, will be associated with higher depression, trait anxiety and state anxiety.

Having higher scores from negative emotional reactions and lower scores of positive emotional reactions will have higher scores of depression, trait anxiety and state anxiety.

CHAPTER II

2. METHOD

2.1. Participants

A total of three hundred patients with Behçet's Disease from four different hospitals in Turkey, namely Department of Dermatology of Abant Izzet Baysal University in Bolu, Ophthalmology and Rheumatology Department of Cumhuriyet University Faculty of Medicine Research and Application Hospital in Sivas, Department of Rheumatology of Marmara Pendik Education and Research Hospital in Istanbul, and Department of Ophthalmology of Hacettepe University Faculty of Medicine in Ankara, participated in the study. All patients participated voluntarily in this study, which was performed between June 2014 and January 2015. The participants were diagnosed with Behçet's Disease in accordance with the criteria set forth the International Study Group for Behçet's Disease (International Study Group 1990).

One hundred and forty two females (47.3%) and one hundred and fifty eight males (52.7%) participated in the study. As for the education levels of the participants with Behçet's Disease, 4.0% (N=12) were literate, 26.7% (N=80) were primary school graduates, 19.3% (N=58) were secondary school graduates, 22.7% (N=68) were high school graduates, 12.3% (N=37) were college graduates, and 15.0% (N=45) were university graduates. In terms of the marital status of the participants with Behçet's Disease, 23.0% (N=69) were single, 68.0% (N=204) were married, and 9.0% (N=27) were divorced.

When looking at the major symptoms of Behçet's Disease, 92.7% (N=278) of them have oral aphthous, 82.7% (N=248) of them have genital ulcers, 64.3% (N=193) of them have ocular involvements, 57.7% (N=173) of them have joint involvement, 43.3% (N=130) of them have vascular involvement and 9.7% (N=29) of them have neurologic involvement. The majority of the patients used drugs regularly 70% (N=210). While 23.0% of patients used drugs occasionally (N=69), the rest of them did not use any drug 7% (N=21).

The mean age of the Behçet's patients varied between 17 and 72 years with an average of 36.45 (SD= 10.05), and their monthly income ranged from 600,00 to 6000,00 YTL, with an average of 1840.17 YTL (SD= 1205.46).

When looking at the times since diagnosis of illness, it ranged between 1-444 months with a mean of time since diagnosis as 97.61 months (SD= 84.77). The length of the hospitalization from Behçet’s Disease ranged between 0-294 months with a mean of 37.97 months (SD= 64.86). The mean height of the patients with Behçet’s Disease ranged from 155 to 190 centimeters with a mean of 166.62 (SD= 6.67). The mean kilogramme of the patients with Behçet’s Disease ranged from 50 to 97 kilogramme with a mean of 70.49 (SD= 11.17). In terms of the mean time since smoking of the patients with Behçet’s Disease ranged from 0 to 540 months with a mean of 80.67 (SD= 118.98). The mean of time since regarding using alcohol of the patients with Behçet’s Disease ranged from 0 to 192 months with a mean of 4.98 (SD= 18.96). The socio-demographic information of the participants and means of the demographic variables are presented in Table 2.1 and Table 2.2

2.2. Measures

The instruments used in the present study were Demographical Information Form, Beck Depression Inventory II (BDI), State–Trait Anxiety Inventory (STAI-T), Multidimensional Perceived Social Support Scale, The Scale of Positive and Negative Experience (SPANE), Nottingham Health Profile (NHP).

Table 2.1: Demographic variables of the participants

Variables	n	%	Variables	n	%
Education (graduation)			*Involvement*		
Literate	12	4.0	Oral aphthous	278	92.7
Primary school	80	26.7	Genital ulcers	248	82.7
Secondary school	58	19.3	Ocular involvements	193	64.3
High school	68	22.7	Joint involvement	173	57.7
College	37	12.3	Vascular involvement	130	43.3
University	45	15.0	Neurologic involvement	29	9.7
Employment Status			Living place		
Housewife	82	27.3	Village	28	9.3
Tradesmen	44	14.7	Town	15	5.0
Official	43	14.3	City (center)	153	51.0
Retired	19	6.3	Metropol (suburb)	7	2.3
Student	19	6.3	Metropol (center)	97	32.3
Security personnel	19	6.3	Gender		
Self-employed	13	4.3	Male	158	52.7
Engineer	12	4.0	Female	142	47.3
Teacher	11	3.7	Having Children		
Worker	10	3.3	Yes	218	72.7
Unemployment	10	3.3	No	82	27.3
Marital Status			Treatment stage		
Married	204	68.0	Regular drug use	210	70.0
Bachelor	69	23.0	Occasional drug use	69	23.0
Divorced	27	9.0	Not drug use	21	7.0

Table 2.2: Demographic variables of the participants

Measures	Mean	Std. Deviation	Min.	Max.
Demographic variables				
Age	36.45	10.05	17.00	72.00
Monthly income (Turkish Liras)	1840.17	1205.46	600.00	6000.00
Duration in the disease (in months)	97.61	84.78	1.00	444.00
Duration of hospitalization	37.97	64.86	.00	294.00
Height	166.62	6.67	155.00	190.00
Kilogramme	70.49	11.17	50.00	97.00
Smoking	80.67	118.98	.00	540.00
Using alcohol	4.98	18.96	.00	192.00

2.2.1. Demographic Information Form

The demographic information form, developed locally by taking into account the collective clinical and literature information in accordance with the aims of the study. This form was prepared for patients with Behçet's Disease by the researcher. The form consists of general demographic questions such as age, gender, education, profession, marital status, and monthly family income, etc. Besides general demographic questions, there are also questions about the nature of illness. For instance, questions relating to time since diagnosis of disease, reduction of complaints after receiving treatment, perceived threat of illness, and having illness were addressed in the form. Participants are asked to answer the questions about the number of hospitalizations and its effect on daily life, job/school life, and leisure time.

Each item of these questions are evaluated on a Likert type scale, which ranges from 0 (no disrupt) to 10 (too much disrupt). Also, individuals are asked to evaluate perceived threat (none /little /middle /quite /excessive) and perceived prognosis of illness (very bad/ bad /neutral /good /very good) by using 5 point Likert scale. Additionally, there is only one open response question in the form and it is about stressful life events. This question is asked to the participants in order to find out similarities among the specific events which they suffered. Content analysis of the open response was made by two psychologists. The psychologists rated the question independently, and categorized it into four dimensions: loss, familial problems, financial problems, and having no stressful experience. See Appendix A for examples of Demographic Information Form.

2.2.2. Beck Depression Inventory-II

Beck Depression Inventory II (BDI –II) was first developed by Beck et al. (1979). It includes a 21-item self-report inventory in order to assess the severity of depression. The items are rated between 0 and 3, depending on the severity of the symptoms. Total score range is between 0 - 63 and is divided into four grades in severity: minimal depression (total score of 0-13), mild depression (14-19), moderate depression (20-28), and severe depression (≥ 29). Turkish edition of Beck Depression Inventory was adapted by Hisli (1989) and its internal consistency was found to be .88, with a test re-test reliability score of .80. The scale was revised and the final form known as Beck Depression Inventory II was formed (Beck et al. 1996). Kapçi et al. (2006) published a revised version of Beck Depression Inventory II with a view to adapting to Turkish language. The internal consistency coefficient was .89 for clinical samples, .90 for non-clinical college students and test-retest reliability was found to be .94. Moreover, validity analysis was .81, construct validity was .39 and discriminant validity .39, .49, .42. respectively. Beck Depression Inventory II adapted to Turkish was used in the present study. In the present study, the internal consistency reliability as determined by Cronbach's alpha was .88. See Appendix B for examples of Beck Depression Inventory II.

2.2.3. State-Trait Anxiety Inventory

State-Trait Anxiety Inventory which is a self-report inventory, consists of two components (Spielberger et al. 1983). The scale applied to measure the situational and general anxiety. Both State Anxiety Inventory and Trait Anxiety Inventory include 20 items and total items of the scale have 40 items. Each item of the scale is scored on 4-

point Likert-type scale as 1 (never) to 4 (always). The psychometric properties of the scale was reported to be satisfactory (Spielberger et al., 1983; cited in Öner & Le Compte, 1985). The scale was adapted to Turkish by Öner and Le Comte (1985) with an internal consistency score of .90 to .96 for State Anxiety, and .81 to .90 for Trait Anxiety. The test-retest reliability of the scale ranged between .70 and .86. In the present study, the internal consistency reliability as determined by Cronbach's alpha was .84 for trait anxiety, .88 for state anxiety. See Appendix C and D for examples from State-Trait Anxiety Inventory.

2.2.4. Multidimensional Perceived Social Support Scale

Multidimensional Perceived Social Support Scale was developed by Zimet et al. (1988). The scale is designed to assess one person's perception of the sufficiency of social support coming from three sources as follows friends, family, and others. This scale includes 12 items and is a self-report inventory. Each items of these questions are evaluated on a Likert type scale varying between 1 (disagree very strongly) and 7 (agree very strongly). There are three main factors that have a fundamental role in the scale; social support from friends, family, and significant others. The adaptation of the scale to Turkish was made by Eker and Arkar (1995). In this version the psychometric properties of the scale in psychiatry, surgery, and normal (patient visitors) samples are tested. They found three factors which each factors consisted of 4 items. These factors were perceived social support from friends (3, 4, 8, 12), perceived social support from family (1, 2, 7, 10), and recognized social support from others (5, 6, 9, 11). In the present study, the internal consistency reliability as determined by Cronbach's alpha was .89 and it is obtained as follows from perceived social support from family (.85), friends (.88) and others (.93). See Appendix E for examples from Multidimensional Perceived Social Support Scale.

2.2.5. The Scale of Positive and Negative Experience

The Scale of Positive and Negative Experience (SPANE) was developed by Diener et al. (2009). There are six items in either of the positive and negative experience scales, with a total of 12 items. Each item has a score range between 1 (very rarely or never) and 5 (very often or always). The scale includes positive and negative experiences which are affective part of subjective well-being. The scale includes feelings that generally assess the full extent of positive and negative experiences. With general items, the scale evaluates pleasant as well as unpleasant emotional feelings which are the focus of most scales in addition to reflecting on states like interest, flow and engagement, and physical satisfaction. The positive and negative items are scored independently so as to compose partial independence or reparability of the two types of feeling. Both positive and negative emotional experiences scores are ranging from 6 to 30. Durak and Senol-Durak (2015) adapted the scale to Turkish. The psychometric properties of the scale was reported to be satisfactory. In the present study, the internal consistency reliability as determined by Cronbach's alpha was .50 for this study and it is obtained as follows from positive emotional experiences (.88) and negative emotional experiences (.82). See Appendix F for examples from The Scale of Positive and Negative Experience.

2.2.6. Nottingham Health Profile

Nottingham Health Profile is an instrument of comprehensive health status which is used in several diseases to evaluate the personal sense of physical, emotional, and social features of the disorder, and observe the course of disease as well as effectiveness of treatment. Nottingham Health Profile which is a self-report inventory, includes 38 questions that assess six dimensions: energy level (3 questions), pain (8 questions), physical mobility (8 questions), emotional reactions (9 questions), sleep (5 questions), and social segregation (5 questions). Participants respond to each item as "Yes" or "No". This scale was developed by several researchers.

For clinical purposes, Nottingham Health Profile is the most effective and practical method. One of its most valuable properties is that, rather than asking questions about people's emotions, it focuses on their behavior (McDowell 2006). It is also very simple, sensitive, and comprehensive, and can be performed with a great number of people. It is the only measure on health perception developed for use in Europe. Along with other languages, it was translated into Turkish and tested for reliability and validity (Kücükdeveci et al. 2000). The Nottingham Health profile is comprised of two parts, and for the purposes of this study, the first -and the most widely used- part of the profile, which measures physical, emotional, and social aspects of stress, was used. The exclusion of the second part did not affect validity or reliability. The scale dealt with health with questions related to current complaints, and included 38 items as well as 6 subareas consisting of the level of energy (1, 2, 3), pain (4, 5, 6, 7, 8, 9, 10, 11), emotional reactions (12, 13, 14, 15, 16, 17, 18, 19, 20), sleep (21, 22, 23, 24, 25), social isolation (26, 27, 28, 29, 30), and physical mobility (31, 32, 33, 34, 35, 36, 37, 38), with a total score ranging between 0 - 100. The scores can be read as the higher a score is, the more severe and various the problems are, whereas a lower score indicates a good quality of life (McDowell 2006). It took nearly ten minutes to complete the scale.

Internal consistency coefficients for the subscales were .56 (social isolation), .67 (pain), .70 (energy level), .72 (sleep and physical mobility) and .83 (emotional reactions). In the present study, the Cronbach's alpha value was found .93 for this study and it is obtained as follows from energy level (.67), pain (.87), emotional reactions (.85), sleep (.75), social segregation (.79), and physical mobility (.78). See Appendix G for examples from Nottingham Health Profile.

2.3. Procedure

Ethical approval was obtained from Human Research Ethics Board of Abant İzzet Baysal University. After obtaining the consent of heads of the Dermatology, Ophthalmology and Rheumatology Departments of the hospitals to participate in this study, the questionnaires were applied to Behçet's patients receiving treatment in the aforementioned departments. Participants were identified with the help of doctors and medical secretaries in the hospitals. Patients who gave consent of participation were asked to complete the questionnaire and deliver it to the researcher with their signatures applied on the part of the questionnaire requiring written informed consent. They were also told that they could withdraw from the study at any time, and personal information would be kept confidential. The questionnaires were collected from inpatient departments and the outpatient departments of the hospitals. Inmates filled in the questionnaire in their rooms or the room reserved for us at the hospital so as to ensure that all participants felt more comfortable while answering the questions. On the other hand, outpatients were contacted with the help of staffs in hospital. The telephone numbers of participants who had given consent were collected from doctors or medical secretaries in the hospitals' Dermatology, Ophthalmology and Rheumatology Departments, the researcher phoned the participants and then explained the aims of the study shortly. In the scope of this research the participants were asked whether they knew another Behçet's patient. Potential participants were contacted and informed of the aim of the present study. The participants were asked whether they have any questions or not and they were informed that they could ask if they have any queries by contacting the researcher. All the participants completed the questionnaires in approximately 40-50 minutes. Participants who wanted information about the results of this study were informed at the end of the reporting process. See Appendix H for examples of Informed Consent Form.

CHAPTER III

3. RESULTS

3.1. Data Cleaning

In this study all results were analyzed by using Statistical Package for the Social Sciences programs (SPSS) version 21.

Before main analyses, accuracy of data entry, missing values, fit between their normal distributions, skewness and kurtosis levels for the all variables and the assumptions of multivariate analysis were questioned. There was no univariate or multivariate outliers. Therefore, a total of 300 participants were used in the data analyses process.

3.2. Descriptive Statistics

Means standard deviations, and possible ranges of variables with descriptive statistics are demonstrated in Table-3.1.

Table 3.1: Descriptive information for the measures of the study

Measures	Mean	Std. Deviation	Min.	Max.
Psychological Distress				
Depression	14.23	10.77	0	51
Trait Anxiety	29.46	9.31	7	53
State Anxiety	21.47	9.90	3	51
Affective Well being				
Positive Emotional Experience	19.93	5.14	6	30
Negative Emotional Experience	16.79	4.93	6	30
Multidimensional Perceived Social Support				
Social Support From Family	21.92	6.53	4	28
Social Support From Friend	19.28	7.13	4	28
Social Support From Others	16.61	8.71	4	28
Health-Related Quality of Life				
Energy Level	72.22	33.92	0	100
Pain	46.50	34.58	0	100
Physical Mobility	29.63	24.64	0	100
Emotional Reactions	46.33	34.58	0	100
Sleep	34.73	32.47	0	100
Social Isolation	29.63	24.64	0	100

3.3. Bivariate Correlations among the Variables

Bivariate correlations among the variables of the present study are demonstrated in Table-3.2. Depression was positively correlated with trait anxiety ($r = .60$, $p \leq .001$), state anxiety ($r = .56$, $p \leq .001$), energy level ($r = .41$, $p \leq .001$), pain ($r = .34$, $p \leq .001$), emotional reaction ($r = .65$, $p \leq .001$), sleep ($r = .39$, $p \leq .001$), social isolation ($r = .58$, $p \leq .001$) and physical mobility ($r = .30$, $p \leq .001$), negative emotional experience ($r = .53$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .18$, $p \leq .01$), perceived threat of illness ($r = .17$, $p \leq .01$), the number of hospitalizations, ($r = .18$, $p \leq .01$). However, depression was negatively correlated with perceived social support from family ($r = -.41$, $p \leq .001$), perceived social support from friends ($r = -.27$, $p \leq .001$) and perceived social support from significant others ($r = -.28$, $p \leq .001$), positive emotional experience ($r = -.49$, $p \leq .001$) and perceived prognosis of illness ($r = -.32$, $p \leq .001$).

Trait anxiety was positively correlated with state anxiety ($r = .59$, $p < .001$) and energy level ($r = .53$, $p \leq .001$), pain ($r = .44$, $p \leq .001$), emotional reaction ($r = .68$, $p \leq .001$), sleep ($r = .41$, $p \leq .001$), social isolation ($r = .49$, $p \leq .001$), physical mobility ($r = .36$, $p \leq .001$), negative emotional experience ($r = .55$, $p < .001$), perceived threat of illness ($r = .18$, $p \leq .01$), and the number of hospitalizations ($r = .12$, $p \leq .05$). On the other hand, trait anxiety was significantly negatively correlated with perceived social support from family ($r = -.30$, $p \leq .001$), perceived social support from friends ($r = -.21$, $p \leq .001$), perceived social support from significant others ($r = -.20$, $p \leq .001$), positive emotional experience ($r = -.51$, $p \leq .001$) and perceived prognosis of illness ($r = -.20$, $p \leq .001$).

Moreover, state anxiety was positively correlated with energy level ($r = .35$, $p \leq .001$), pain ($r = .30$, $p \leq .001$), emotional reaction ($r = .60$, $p \leq .001$), sleep ($r = .32$, $p \leq .001$), social isolation ($r = .51$, $p \leq .001$), physical activity ($r = .31$, $p \leq .001$), negative emotional experience ($r = .49$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .15$, $p \leq .01$) and perceived threat of illness ($r = .20$, $p \leq .001$). On the other hand, state anxiety was negatively correlated with perceived social support from family ($r = -.30$, $p \leq .001$), perceived social support from friends ($r = -.30$, $p \leq .001$), perceived social support from others ($r = -.24$, $p \leq .001$), positive emotional experience ($r = -.50$, $p \leq .001$) and perceived prognosis of illness ($r = -.24$, $p \leq .001$).

Perceived social support from family was positively correlated with perceived social support from friends ($r = .38$, $p \leq .001$), perceived social support from significant others ($r = .36$, $p \leq .001$), positive emotional experience ($r = .37$, $p \leq .001$), perceived prognosis of illness ($r = .21$, $p \leq .001$). On the other hand, perceived social support from family was negatively correlated with energy level ($r = -.15$, $p \leq .05$), pain ($r = -.24$, $p \leq .001$), emotional reaction ($r = -.34$, $p \leq .001$), sleep ($r = -.27$, $p \leq .001$), social isolation ($r = -.41$, $p \leq .001$), physical activity ($r = -.18$, $p \leq .01$), negative emotional experience ($r = -.32$, $p \leq .001$), reduction of complaints after receiving treatment ($r = -.14$, $p \leq .05$), and perceived threat of illness ($r = -.14$, $p \leq .05$).

Perceived social support from friends was positively correlated with perceived social support from significant others ($r = .53$, $p \leq .001$), positive emotional experience ($r = .35$, $p \leq .001$), and perceived prognosis of illness ($r = .15$, $p \leq .05$). On the other hand, perceived social support from friends was negatively correlated with energy level ($r = -.15$, $p \leq .05$), pain ($r = -.14$, $p \leq .05$), emotional reaction ($r = -.32$, $p \leq .001$), sleep ($r = -.21$, $p \leq .001$), social isolation ($r = -.37$, $p \leq .001$), physical mobility ($r = -.17$, $p \leq .01$), negative emotional experience ($r = -.18$, $p \leq .01$), and reduction of complaints after receiving treatment ($r = -.16$, $p \leq .01$).

Perceived social support from significant others was positively correlated with positive emotional experience ($r = .30$, $p \leq .001$), and perceived prognosis of illness ($r = .13$, $p \leq .05$). On the other hand, perceived social support from others was negatively correlated with energy level ($r = -.12$, $p \leq .05$), emotional reaction ($r = -.24$, $p \leq .001$), sleep ($r = -.18$, $p \leq .001$), social isolation ($r = -.39$, $p \leq .001$) and negative emotional experience ($r = -.22$, $p \leq .001$).

Energy level was positively correlated with pain ($r = .47$, $p \leq .001$), emotional reaction ($r = .54$, $p \leq .001$), sleep ($r = .36$, $p \leq .001$), social isolation ($r = .32$, $p \leq .001$), physical mobility ($r = .43$, $p \leq .001$), negative emotional experience ($r = .40$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .15$, $p \leq .05$) and perceived threat of illness ($r = .15$, $p \leq .01$). However, energy level was negatively correlated with positive emotional experience ($r = -.33$, $p \leq .001$) and perceived prognosis of illness ($r = -.21$, $p \leq .001$).

Pain was positively correlated with emotional reaction ($r = .51$, $p \leq .001$), sleep ($r = .48$, $p \leq .001$), social isolation ($r = .29$, $p \leq .001$), physical mobility ($r = .69$, $p \leq .001$), negative emotional experience ($r = .34$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .18$, $p \leq .01$) and perceived threat of illness ($r = .22$, $p \leq .001$). However, pain was negatively correlated with positive emotional experience ($r = -.33$, $p \leq .001$) and perceived prognosis of illness ($r = -.35$, $p \leq .001$).

Emotional reaction was positively correlated with sleep ($r = .57$, $p \leq .001$), social isolation ($r = .62$, $p \leq .001$), physical mobility ($r = .54$, $p \leq .001$), negative emotional experience ($r = .57$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .24$, $p \leq .001$) and perceived threat of illness ($r = .17$, $p \leq .01$). On the other hand, emotional reaction was negatively correlated with positive emotional experience ($r = -.54$, $p \leq .001$) and perceived prognosis of illness ($r = -.32$, $p \leq .001$).

Sleep was positively correlated with social isolation ($r = .42$, $p \leq .001$), physical mobility ($r = .44$, $p \leq .001$), negative emotion experience ($r = .44$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .17$, $p \leq .01$), perceived threat of illness ($r = .18$, $p \leq .01$) and the number of hospitalizations ($r = .13$, $p \leq .05$). However, sleep was negatively correlated with positive emotional experience ($r = -.38$, $p \leq .001$) and perceived prognosis of illness ($r = -.22$, $p \leq .001$).

Social isolation was positively correlated with physical mobility ($r = .35$, $p \leq .001$), negative emotional experience ($r = .41$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .23$, $p \leq .001$) and the number of hospitalizations ($r = .14$, $p \leq .05$). On the other hand, social isolation was negatively correlated with positive emotional experience ($r = -.43$, $p \leq .001$) and perceived prognosis of illness ($r = -.16$, $p \leq .01$).

Physical mobility was positively correlated with negative emotional experience ($r = .23$, $p \leq .001$), reduction of complaints after receiving treatment ($r = .19$, $p \leq .001$) and perceived threat of illness ($r = .21$, $p \leq .001$). However, physical mobility was negatively correlated with positive emotional experience ($r = -.35$, $p \leq .001$) and perceived prognosis of illness ($r = -.35$, $p \leq .001$).

Positive emotional experience was positively correlated with perceived prognosis of illness ($r = .24$, $p \leq .001$). On the other hand, positive emotional experience was negatively correlated with negative emotional experience ($r = -.48$, $p \leq .001$), reduction of complaints after receiving treatment ($r = -.12$, $p \leq .05$) and perceived prognosis of illness ($r = -.16$, $p \leq .01$).

Table 3.2: Correlation analysis of the variables

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	.60***	.56***	-.41***	-.27***	-.28***	.41***	.34***	.65***	.39***	.58***	.30***	-.49***	.53***	.18**	.05	-.32***	.17**	.18**
2		.59***	-.30***	-.21***	-.20***	,53***	.44***	.68***	.41***	.49***	.36***	-.51***	.55***	.10	.04	-.20***	.18**	.12*
3			-.30***	-.30***	-.24***	.35***	-.30***	.60***	.32***	51***	.31***	-.50***	.49***	.15**	-.03	-.24***	.20***	.02
4				.38***	.36***	-.15*	-.24***	-.34***	-.27***	-.41***	-.18**	.37***	-.32***	-.14*	-.01	.21***	-.14*	-.07
5					.53***	-.15*	-.14*	-.32***	-.21***	-.37***	-.17**	.35***	-.18**	-.16**	-.02	.15*	-.05	.02
6						-.12*	-.011	-.24***	-.18***	-.39***	-.09	.30***	-.22***	-.01	.04	.13*	.02	-.03
7							.47***	.54***	.36***	-.32***	.43***	-.33***	.40***	.15*	.03	-.21***	.15**	.11
8								.51***	.48***	.29***	.69***	-.33***	.34***	.18**	.09	-.35***	.22***	.03
9									57***	.62***	.54***	-.54***	.57***	.24***	.03	-.32***	.17**	.10
10										.42***	.44***	-.38***	.44***	.17**	.09	-.22***	.18**	.13*
11											.35***	-.43***	.41***	.23***	.06	-.16**	.08	.14*
12												-.35***	.23***	.18***	.11	-.35***	.21***	-.00
13													-48***	-.12*	-.05	.24***	-.15**	-.08
14														18**	.04	-.23***	.19***	.11
15															-0.02	-.32***	.03	-.03
16																-.01	0.09	.23***
17																	-18**	-08
18																		.10

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: 1 = Depression, 2 = Trait Anxiety, 3 = State Anxiety, 4 = SSfa, 5 = SSfr, 6 = SSso, 7= Energy Level, 8= Pain, 9 = Emotional Reaction, 10=Sleep, 11= Social Isolation, 12= Physical Activity, 13= Positive Emotional Experience, 14= Negative Emotional Experience, 15 = Reduction of Complaints After Receiving Treatment, 16 = Time Since Diagnosis of Disease, 17 = Perceived Prognosis of Illness 18 = Perceived Threat of Illness 19 = The Number of Hospitilization

Negative emotional experience was positively correlated with reduction of complaints after receiving treatment ($r = .18$, $p \leq .01$) and perceived threat of illness ($r = .19$, $p \leq .001$). However, negative emotional experience was negatively correlated with perceived prognosis of illness ($r = -.23$, $p \leq .001$).

Reduction of complaints after receiving treatment was negatively correlated with perceived prognosis of illness ($r = -.32$, $p \leq .001$). Time since diagnosis of disease was positively correlated with the number of hospitalizations ($r = .23$, $p \leq .001$). Perceived prognosis of illness was negatively correlated with perceived threat of illness ($r = -.18$, $p \leq .01$).

3.4. Independent Samples T-Tests for Dependent Variables

Independent samples *t*-tests were used to test whether there were any significant differences between variables by analyzing gender, the number of hospitalizations and reduction of complaints after receiving treatment on the dependent variables (depression, trait-state anxiety, and disease related variables, positive and negative emotional experiences) of the study. The results of the independent samples t-test analyses are given below.

3.4.1. Gender on Dependent Variables

Independent samples t-tests were performed to test whether there were any differences between female and male on depression, trait-state anxiety, the health related quality of life and positive and negative emotional experiences. According to results, there was a significant gender difference on depression [$t(298) = 2.92$, $p \leq .01$]. Females ($M = 16.13$; $SD = 10.73$) had higher depression score than males ($M = 12.54$; $SD = 10.56$). There was a significant gender difference on trait anxiety [$t(298) = 6.19$, $p \leq .001$]. Females ($M = 32.78$; $SD = 9.16$) had higher trait anxiety score than males ($M = 26.50$; $SD = 8.42$). There was a significant difference of gender on state anxiety [$t(298) = 2.15$, $p \leq .05$]. Females ($M = 22.76$; $SD = 9.96$) had higher state anxiety score than males ($M = 20.32$; $SD = 9.73$).

In addition to gender difference on main dependent variables, independent samples t-tests were used to test whether there were any differences between female and male on health-related quality of life dimensions; namely energy level, pain, emotional reaction, sleep, social isolation and physical mobility.

There was a significant difference gender difference on energy level [$t(298) = 4.37$, $p \leq .001$]. Females ($M = 80.99$; $SD = 30.85$) had higher energy level difficulty score than males ($M = 64.35$; $SD = 34.71$). There was a significant gender difference on pain [$t(298) = 5.41$, $p \leq .001$]. Females ($M = 57.39$; $SD = 33.13$) had higher pain score than males ($M = 36.71$; $SD = 32.99$). There was a significant gender difference on emotional reaction [$t(298) = 3.54$, $p \leq .001$]. Females ($M = 53.21$; $SD = 31.00$) had higher emotional reaction score than males ($M = 40.15$; $SD = 32.65$). There was a significant gender difference on sleep [$t(298) = 3.59$, $p \leq .001$]. Females ($M = 41.69$; $SD = 33.73$) had higher sleep difficulty score than males ($M = 28.48$; $SD = 30.06$). On the other hand, there was not a significant gender difference on social isolation [$t(298) = 1.30$, $p =$ n.s.]. There was a significant gender difference on physical mobility [$t(298) = 3.93$, $p \leq .001$]. Females ($M = 35.39$; $SD = 24.32$) had higher physical mobility difficulty score than males ($M = 24.45$; $SD = 23.83$). There was a significant gender difference on positive emotional experience [$t(298) = -3.77$, $p \leq .001$]. Males ($M = 20.96$; $SD = 5.09$) had higher positive emotional experience score than females ($M = 18.77$; $SD = 4.96$). There was a significant gender difference on negative emotional experience [$t(298) = 3.35$, $p \leq .001$]. Females ($M = 17.78$; $SD = 4.96$) had higher negative emotional experience score than males ($M = 15.90$; $SD = 4.74$). The results are demonstrated in Table-3.3.

Table 3.3: Group differences of gender on dependent variables

Dependent Variables	Female M (SD)	Male M (SD)	t (298)
Depression	16.13 (10.73)	12.54 (10.56)	2.92 **
Trait Anxiety	32.78 (9.16)	26.50 (8.42)	6.19***
State Anxiety	22.76 (9.96)	20.32 (9.73)	2.15*
Energy level	80.99 (30.85)	64.35 (34.71)	4.37***
Pain	57.39 (33.13)	36.71 (32.99)	5.41***
Emotional Reaction	53.21 (31)	40.15 (32.65)	3.54***
Sleep	41.69 (33.73)	28.48 (30.06)	3.59***
Social Isolation	29.58 (31.84)	24.68 (33.27)	1.30
Physical Mobility	35.39 (24.32)	24.45 (23.83)	3.93***
Positive Emotional Experience	18.77 (4.96)	20.96 (5.09)	-3.77***
Negative Emotional Experience	17.78 (4.96)	15.90 (4.74)	3.35***

3.4.2. Patient Status on Dependent Variables

In addition to gender difference on variables, independent samples t-tests were conducted to examine whether there were any differences of the patient status (inpatient or outpatient) on dependent variables which are depression, trait-state anxiety, health-related quality of life dimensions and positive and negative emotional experiences. There was a significant difference of the patient status on depression [t (298) = -3.10, p ≤ .01]. Inpatients (M= 16.43; SD= 10.95) had higher depression score than outpatients (M= 12.59; SD= 10.37). There was a significant difference of the patient status on trait anxiety [t (298) = -2.09, p ≤ .05]. Inpatients (M= 30.76; SD= 9.39) had higher trait anxiety score than outpatients (M= 28.50; SD= 9.15).

There was not a significant difference of the patient status on state anxiety [t (298) = -.30, p = n.s.]. Besides, differences between patient status variable on the health-related quality of life dimensions (energy level, pain, emotional reaction, physical mobility), and positive emotional experience were not significant, respectively, [t (298) = - 1.90, p = n.s.], [t (298) = - 0.60, p = n.s.] [t (298) = - 1.80, p = n.s.], [t (298) = .10, p = n.s.],[t (298) = 1.35, p = n.s].

There was a significant difference of the patient status on sleep [t (298) = -2.24, p ≤ .05]. Inpatients (M= 39.53; SD= 31.47) had higher sleep difficulty score than outpatients (M= 31.11; SD= 32.84). There was a significant difference of the patient status on social isolation [t (298) = -2.37, p ≤ .05]. Inpatients (M= 32.09; SD= 33.95) had higher social isolation difficulty score than outpatients (M= 23.16; SD= 31.16). There was a significant difference of the patient status on negative emotional experience [t (298) = -1.93, p ≤ .05]. Inpatients (M= 17.42; SD= 4.96) had higher negative emotional experience than outpatients (M= 16.32; SD= 4.86). The results are demonstrated in Table-3.4.

Table 3.4: Group differences of patient status on dependent variables

Dependent Variables	Impatient M (SD)	Outpatient M (SD)	t (298)
Depression	16.43 (10.95)	12.59 (10.37)	-3.10**
Trait Anxiety	30.76 (9.39)	28.50 (9.15)	-2.09*
State Anxiety	21.67 (9.80)	21.33 (9.99)	-.30
Energy level	76.49 (29.87)	69.00 (36.44)	-1.90
Pain	47.87 (34.24)	45.47 (34.90)	-.60
Emotional Reaction	50.22 (31.12)	43.40 (33.27)	-1.80
Sleep	39.53 (31.47)	31.11 (32.84)	-2.24*
Social Isolation	32.09 (33.95)	23.16 (31.16)	-2.37*
Physical Mobility	29.46 (22.25)	29.75 (26.37)	.10
Positive Emotional Experience	19.47 (4.95)	20.27 (5.26)	1.35
Negative Emotional Experience	17.42 (4.96)	16.32 (4.86)	-1.93*

3.4.3. Reduction of Complaints on Dependent Variables

Independent samples t-tests were performed to test whether there were any differences reduction of complaints after receiving treatment, on depression, trait-state anxiety, the health-related quality of life variables (i.e., energy level, pain, emotional reaction, sleep, social isolation and physical mobility), positive and negative emotional experiences.

There was a significant difference about reduction of complaints on depression [t (298) = -3.16, p ≤ .01]. Individuals who did not reported reduction of complaints (M=

17.68; SD= 11.42) had higher depression score than individuals who reported reduction of complaints (M= 13.15; SD= 10.35). There was not a significant difference of reduction of complaints on trait anxiety [t (298) = -1.78, p = n.s]. There was a significant difference of reduction of complaints on state anxiety [t (298) = -2.70, p ≤ .01]. Individuals who did not reported reduction of complaints (M= 24.19; SD= 10.42) had higher state anxiety score than individuals who reported reduction of complaints (M= 20.62; SD= 9.59). There was a significant difference of reduction of complaints on energy level [t (298) = -2.55, p ≤ .05]. Individuals who did not reported reduction of complaints (M= 81.02; SD= 28.98) had higher energy level difficulty score than individuals who reported reduction of complaints (M= 69.44; SD= 34.94). There was a significant difference of reduction of complaints on pain [t (298) = -3.18, p ≤ .01]. Individuals who did not reported reduction of complaints (M= 57.64; SD= 34.57) had lower pain score than individuals who reported reduction of complaints (M= 42.98; SD= 33.91). There was a significant difference reduction of complaints on emotional reaction [t (298) = -4.27, p ≤ .001]. Individuals who did not reported reduction of complaints (M= 60.19; SD= 31.96) had higher emotional reactions score than individuals who reported reduction of complaints (M= 41.96; SD= 31.48). There was a significant difference of complaints on sleep [t (298) = -3.04, p ≤ .01]. Individuals who did not reported reduction of complaints (M= 44.72; SD= 35.92) had higher sleep difficulty scores than individuals who reported reduction of complaints (M= 31.58; SD= 30.72). There was a significant difference of reduction of complaints on social isolation [t (298) = -4.15, p ≤ .001]. Individuals who did not reported reduction of complaints (M= 40.56; SD= 35.99) had higher social isolation score than individuals who reported reduction of complaints (M= 22.72; SD= 30.35). There was a significant difference about reduction of complaints on physical mobility [t (298) = -3.30, p ≤ .001]. Individuals who did not reported reduction of complaints (M= 37.85; SD= 28.69) had higher physical mobility difficulty score than individuals who reported reduction of complaints (M= 27.03; SD= 22.68). There was a significant difference of reduction of complaints on positive emotional experience [t (298) = 2.03, p ≤ .05]. Individuals who reported reduction of complaints (M= 20.26; SD= 4.86) had higher positive emotional experience score than individuals who did not reported reduction of complaints (M= 18.86; SD= 5.84). On the other hand, there was a significant difference of reduction of complaints on negative emotional experience [t (298) = -3.15, $p \leq .01$]. Individuals who did not reported reduction of complaints (M= 18.36; SD= 5.27) had higher negative emotional experience score than individuals who reported reduction of complaints (M= 16.29; SD= 4.72). The results are demonstrated in Table-3.5.

Table 3.5: Group differences of reduction of complaints on dependent variables

Dependent Variables	Reduction of Complaints M (SD)	Not Reduction of Complaints M (SD)	t (298)
Depression	13.15 (10.35)	17.68 (11.42)	-3.16**
Trait Anxiety	28.93 (9.37)	31.17 (8.97)	-1.78
State Anxiety	20.62 (9.59)	24.19 (10.42)	-2.70**
Energy Level	69.44 (34.94)	81.02 (28.98)	-2.55*
Pain	42.98 (33.91)	57.64 (34.57)	-3.18**
Emotional Reaction	41.96 (31.48)	60.19 (31.96)	-4.27***
Sleep	31.58 (30.72)	44.72 (35.92)	-3.04**
Social Isolation	22.72 (30.35)	40.56 (35.99)	-4.15***
Physical Mobility	27.03 (22.68)	37.85 (28.69)	-3.30***
Positive Emotional Experience	20.26 (4.86)	18.86 (5.84)	-2.03*
Negative Emotional Experience	16.29 (4.72)	18.36 (5.27)	-3.15**

3.4.4. Presence of Stressful Life Events on Dependent Variables

Independent samples t-tests were performed to test whether there were any differences presence or absence of stressful life event on depression, trait-state anxiety, the health related quality of life variables (i.e., energy level, pain, emotional reaction, sleep, social isolation and physical mobility), positive and negative emotional experiences.

There was a significant difference presence or absence of stressful life event on depression [t (298) = 3.86, $p \leq .001$]. Individuals who reported stressful life event (M=

16.73; SD= 11.78) had higher depression score than individuals did not report stressful life event (M= 12.03; SD= 9.28). There was a significant difference of presence or absence of stressful life event on trait anxiety [t (298) = 3.78, p ≤ .001]. Individuals who reported stressful life event (M= 31.58; SD= 9.27) had higher trait anxiety score than individuals did not report stressful life event (M= 27.60; SD= 8.96). There was not a significant difference of the presence or absence of stressful life event on state anxiety [t (298) = 1.64, p = n.s]. There was a significant difference presence or absence of stressful life event on energy level [t (298) = 4.27, p ≤ .001]. Individuals who reported stressful life event (M= 80.85; SD= 27.09) had higher energy level difficulty score than individuals did not report stressful life event (M= 64.57; SD= 37.44). There was a significant difference presence or absence of stressful life event on pain [t (298) = 2.47, p ≤ .05]. Individuals who reported stressful life event (M= 51.68; SD= 33.98) had higher pain score than individuals did not report stressful life event (M= 41.90; SD= 34.57). There was a significant difference presence or absence of stressful life event on emotional reaction [t (298) = 2.52, p ≤ .05]. Individuals who reported stressful life event (M= 51.30; SD= 31.42) had higher emotional reaction score than individuals did not report stressful life event (M= 41.93; SD= 32.88). There was a significant difference presence or absence of stressful life event on sleep [t (298) = 1.22, p = n.s]. There was a significant difference presence or absence of stressful life event on social isolation [t (298) = 2.48, p ≤ .05]. Individuals who reported stressful life event (M= 31.91; SD= 33.38) had higher social isolation score than individuals did not report stressful life event (M= 22.64; SD= 31.43). There was a significant difference presence or absence of stressful life event on physical mobility [t (298) = 2.18, p ≤ .05]. Individuals who reported stressful life event (M= 32.89; SD= 23.21) had higher physical mobility score than individuals did not report stressful life event (M= 26.73; SD= 25.57). There was a significant difference presence or absence of stressful life event on positive emotional experience [t (298) = - 3.23, p ≤ .001]. Individuals who did not reported stressful life event (M= 20.82; SD= 5.06) had higher positive emotional experience score than individual reported stressful life event (M= 18.92; SD= 5.05). There was a significant difference presence or absence of stressful life event on negative emotional experience [t (298) = 3.03, p ≤ .01]. Individuals who reported stressful life event (M= 17.69; SD= 4.71) had higher negative emotional experience score than individuals did not report stressful life event (M= 15.99; SD= 4.99). The results are demonstrated in Table-3.6.

Table 3.6: Group differences of stressful life events on dependent variables

Dependent Variables	Presence Stressful Life Event M (SD)	Absence Stressful Life Event M (SD)	t (298)
Depression	16.73 (11.78)	12.03 (9.28)	3.86***
Trait Anxiety	31.58 (9.27)	27.60 (8.96)	3.78***
State Anxiety	22.47 (10.25)	20.59 (9.53)	1.64
Energy Level	80.85 (27.09)	64.57 (37.44)	4.27***
Pain	51.68 (33.98)	41.90 (34.57)	2.47 *
Emotional Reaction	51.30 (31.42)	41.93 (32.88)	2.52*
Sleep	37.16 (32.30)	32.58 (32.57)	1.22
Social Isolation	31.91 (33.38)	22.64 (31.43)	2.48*
Physical Mobility	32.89 (23.21)	26.73 (25.57)	2.18*
Positive Emotional Experience	18.92 (5.05)	20.82 (5.06)	-3.23***
Negative Emotional Experience	17.69 (4.71)	15.99 (4.99)	3.03**

3.5. One-Way ANOVA

One-Way ANOVA analyses were performed to reveal possible effect of the type of stress, perceived prognosis of illness, perceived threat of illness on dependent variables

3.5.1. The Type of Stress on Dependent Variables

To examine the type of stressful life event on the dependent variables (depression, trait anxiety and state anxiety) three separate one way ANOVA's were performed. Depression, trait anxiety and state anxiety scores of individuals were compared on the basis of type of stress including four categories; individuals not experienced difficulty, individuals experienced loss, individuals experienced familial problems and individuals experienced financial difficulties were compared by One-Way Anova. The results are presented in Table 3.6.

The type of stressful life events on depression was significant [F(3, 296) =5.71 p ≤ .001]. Post hoc analyses using Bonferroni test revealed that individuals experienced loss had significantly higher depression scores (M= 18.07, SD= 12.33) than individuals not experienced life difficulty (M=12.27, SD=9.35). On the other hand, the scores of these individuals did not significantly different from individuals experienced familial problems (M= 16.92, SD= 12.64) or financial difficulties (M= 13.40, SD= 9.55). Also, individuals experienced familial problems, financial difficulties and individuals not experienced difficulties did not significantly different from each other.

The effect of type of stressful life events on trait anxiety was significant [F(3, 296) =7.00 p ≤ .001]. Post hoc analyses using Bonferroni test revealed that individuals experienced familial problems (M= 34.00, SD= 9.80) and individuals experienced loss (M= 31.87, SD= 9.46) had significantly higher trait anxiety scores than individuals not experienced life difficulty (M=27.63, SD=8.81). Also, individuals experienced familial problems and financial difficulties (M= 28.76, SD= 8.38)did not significantly different from each other. The effect of type of stressful life events on state anxiety was not significant [F(3, 296) =1.61 p =n.s].

3.5.2. The Degree about Perceived Prognosis on Dependent Variables

To examine the effects of perceived prognosis of illness on the dependent variables (depression, trait anxiety and state anxiety), three separate one way ANOVA’s were performed. Depression, trait anxiety and state anxiety scores of individuals reported their diagnosis as “very bad”, “bad”, “neutral”, “good” and “very good” were compared by One-Way Anova. The results are presented in Table 3.6.

The degree of perceived prognosis of illness on depression was significant [F(4, 295) =9.59 p ≤ .001]. Post hoc analyses using Bonferroni test revealed that individuals who reported their prognosis as “very bad” (M= 19.92, SD= 12.84), “bad”(M= 20.90, SD= 9.91) and “neutral”(M= 15.83, SD=11.09) had significantly higher depression scores than individuals who reported their prognosis as “very good” (M= 9.07, SD= 7.32) and “good” (M= 9.62, SD= 8.18). On the other hand, individuals who reported prognosis as “very good”, “very bad”, or “bad” and “good” did not significantly different from each other.

The degree of perceived prognosis of illness on trait anxiety was significant [F(4, 295) =5.06 p ≤ .001]. Post hoc analyses using Bonferroni test revealed that individuals who reported their prognosis as “bad” (M= 33.08, SD= 9.00) and “neutral” (M= 30.68, SD= 9.20) had significantly higher trait anxiety scores than individuals who reported their prognosis as “good” (M= 25.82, SD= 8.54). On the other hand, individuals who reported prognosis as “very good”, “very bad”, “bad” and “good” did not significantly different from each other.

The degree of perceived prognosis of illness on state anxiety was significant [F(4, 295) =7.12 p ≤ .001]. Post hoc analyses using Bonferroni test revealed that individuals who reported their prognosis as “bad” (M= 30.66, SD= 8.54) had significantly higher state anxiety scores than individuals who reported their prognosis as “very good” (M= 16.70, SD= 8.67), “good” (M= 19.17, SD= 8.78) and “neutral”(M= 21.99, SD= 9.69). On the other hand, individuals who reported prognosis as “very good”, “very bad”, and “bad” did not significantly different from each other.

3.5.3. The Degree about Perceived Threat of Illness on Dependent Variables

To examine the degree about perceived threat of illness on the dependent variables (depression, trait anxiety and state anxiety), three separate one way ANOVA’s were performed. Depression, trait anxiety and state anxiety scores of individuals reported perceived prognosis as “not dangerous”, “slightly dangerous”, “moderately dangerous”, “quite a few dangerous” and “excessively dangerous” were compared by One-Way Anova. Results are presented in Table-3.6.

The degree about perceived threat of illness on depression was significant [$F(4, 295) = 3.20$ $p \leq .05$]. Post hoc analyses using Bonferroni test revealed that individuals who perceived threat of illness “quite a few” ($M = 19.10$, $SD = 11.58$) had significantly higher depression scores than individuals who perceived threat of illness as “not dangerous” ($M = 12.40$, $SD = 11.10$) and “slightly dangerous” ($M = 12.69$, $SD = 9.64$). Also, individuals reported as “not dangerous” and “slightly dangerous”, or “moderately dangerous” and “excessively dangerous” did not significantly different from each other.

The degree about perceived threat of illness on trait anxiety was significant [$F(4, 295) = 2.73$ $p \leq .05$]. Post hoc analyses using Bonferroni test revealed that individuals who perceived threat of illness as “quite a few” ($M = 32.36$, $SD = 7.71$) had significantly higher trait anxiety scores than individuals who perceived threat of illness as “not dangerous” ($M = 26.56$, $SD = 8.78$). Also, individuals reported perceived threat of illness as “slightly”, “moderately” and “excessively” and “not dangerous” did not significantly different from each other.

The degree of perceived threat of illness on state anxiety was also significant [$F(4, 295) = 4.75$ $p \leq .001$]. Post hoc analyses using Bonferroni test revealed that individuals who perceived threat of illness as “quite a few” ($M = 25.42$, $SD = 9.17$), “moderately” ($M = 21.77$, $SD = 10.52$), and “slightly” ($M = 22.04$, $SD = 8.62$) had significantly higher state anxiety scores than individuals who perceived threat of illness as “not dangerous” ($M = 17.02$, $SD = 8.40$). Also, scores of these first three groups did not significantly different from each other.

Table 3.6: One-way ANOVA results on dependent variables

		Depression						Trait Anxiety					State Anxiety				
		N	M	S	F	df	p	M	S	F	df	p	M	S	F	df	p
Type of Stress	No stress	165,00	12,27	9,35				27.63	8,81				20.59	9,31			
	Loss	66,00	18,07	12,33	5,70	3, 296	≤.001	31.87	9,46	7.00	3, 296	≤.001	22,07	9,42	1,61	3, 296	0,19
	Familial problems	37,00	16,92	12,64				34.	9,80				24,41	10,17			
	Financial difficulties	32,00	13,40	9,55				28.76	8,38				21,42	11,15			
Perceived Prognosis of the Disease	Very bad	16,00	19.92	12,84				32.25	11,33				23.73	12,87			
	Bad	18,00	20.90	9,91				33.08	9.00				30.66	8,54			
	Neutral	166,00	15.83	11,09	9,59	4, 295	≤.001	30.68	9,20	5,06	4, 295	≤.001	21.99	9,69	7, 12	4, 295	≤.001
	Good	77,00	9,62	8,18				25.82	8,54				19.17	8,78			
	Very good	23,00	9,07	7,32				28.21	8,06				16.70	8,67			
Perceived Threat of the Disease	Not dangerous	56	12,40	11,10				26.57	8,78				17,02	8,40			
	Slightly dangerous	73	12,69	9,64				29.27	9,24				22,04	8,62			
	Moderately dangerous	116	14,04	10,40	3,20	4, 295	≤.05	29.65	9,61	2,71	4, 295	≤.05	21.77	10,52	4,75	4.295	≤.001
	Quite a few dangerous	38	19,10	11,58				32.36	7,71				25.42	9,17			
	Excessively dangerous	17	17,46	12,23				32.22	10,53				22.85	12,41			

3.6. Regression Analyzes for the Variable Related to Disease on Dependent Variables

In order to explore role of disease related variables on depression, trait anxiety and state anxiety, regression analyses were performed three times. In this respect, variables associated with disease were entered into equation by using Enter method. These variables are time since diagnosis of disease, reduction of complaints after receiving treatment, perceived threat of illness, the number of hospitalizations and perceived prognosis of illness, and also clinical features of Behçet's Disease (oral ulcer, genital ulcer, ocular involvement, joint involvement, vascular involvement and neurologic involvement). The results of the unstandardized regression coefficients (β), the standardized regression coefficients (Beta), t value, R^2, and R^2 change for each step are seen in Table-3.7.

3.6.1. Disease Related Variables, Clinical Features and Their Association with Depression

Regression analyses run for the depression revealed that, perceived prognosis of illness ($\beta = -.25$, t (288) = -4.25, $p \leq .001$) and perceived threat of illness ($\beta = .14$, t (288) = 2.57, $p \leq .05$), the number of hospitalizations ($\beta = .13$, t (288) = 2.36, $p \leq .01$), oral ulcer ($\beta = .24$, t (288) = 3.08, $p \leq .01$) and genital ulcer ($\beta = -.19$ t (288) = -2.44, $p \leq .05$) were found to be significantly associated with depression. These variables explained 19.2% of the variance ($F [11, 288] = 6.22$, $p \leq .001$).

3.6.2. Disease Related Variables, Clinical Features and Their Association with Trait Anxiety

Regression analyses run for the trait anxiety revealed that, perceived prognosis of illness ($\beta = -.15$, t (288) = -2.44, $p \leq .05$) and perceived threat of illness ($\beta = .15$, t (288) = 2.59, $p \leq .05$), the number of hospitalizations ($\beta = .10$, t (288) = 1.79 $p \leq .05$), genital ulcer ($\beta = -.24$ t (288) = -2.98, $p \leq .01$) and ocular involvements ($\beta = .18$ t (288)

= 2.07, $p \leq .05$) were found to be significantly associated with trait anxiety. These variable explained 13.9% of the variance ($F [11, 288] = 4.24$, $p \leq .001$).

3.6.3. Disease Related Variables, Clinical Features and Their Association with State Anxiety

Regression analyses run for the state anxiety revealed that, perceived prognosis of illness ($\beta = -.18$, $t (288) = -3.08$, $p \leq .05$) and perceived threat of illness ($\beta = .18$, $t (288) = 3.28$, $p \leq .001$), oral ulcer ($\beta = .18$ $t (288) = 2.16$, $p \leq .05$) and genital ulcer ($\beta = -.19$ $t (288) = -2.29$, $p \leq .05$) were found to be significantly associated with state anxiety. These variable explained 12.0% of the variance ($F [11, 288] = 3.57$, $p \leq .001$).

3.7. Hierarchical Multiple Regression

In order to explore factors related to depression, trait anxiety and state anxiety, regression analyses were performed three times. In this respect, five sets of hierarchical multiple regression analyses were conducted to examine the association among the variables of the study. Variables were set on the basis of Schaefer and Moos model ın which the model consider social support at the initial phase, nature of disease at the second phase, positive and negative outcomes at the later phase. Therefore, our sets includes (i) control variables, (ii) perceived social support, (iii) the variable related to disease, (iv) health-related quality of life, (v) positive and negative emotional experiences.

Table 3.7: Regression analyzes on dependent variables

	Predictors in set	F for set	t for w/in set Predictors	df	Beta (β)	Model R^2 Change
A. Dependent Variable: Depression						
	Perceived prognosis of illness		-4.25^{***}	11, 288	-.25	
	Perceived threat of illness		2.57^{*}	288	.14	
	The number of hospitalizations		2.36^{**}	288	.13	
	Reduction of complaints		1.72	288	.09	
	Time since diagnosis of disease		0.12	288	.00	
I.	Oral ulcer	6,22***	3.08^{**}	288	.24	19.2
	Genital ulcer		-2.44^{*}	288	-.19	
	Ocular involvement		16.00	288	.01	
	Joint involvement		-.99	288	-.09	
	Vascular involvement		.00	288	.00	
	Neurologic involvement		.43	288	.02	
B. Dependent Variable: Trait Anxiety						
				11, 288		
	Perceived prognosis of illness		-2.44^{*}	288	-0,15	
	Perceived threat of illness		2.59^{*}	288	.15	
	The number of hospitalizations		1.79^{*}	288	.10	
	Time since diagnosis of disease		0,28	288	.02	
	Reduction of complaints		1,37	288	0,08	
I.	Genital ulcer	4.24^{***}	-2.98^{**}	288	-24	13,9
	Ocular ınvolvement		2.07^{*}	288	.18	
	Oral ulcer		0,74	288	0,06	
	Joint involvement		0,07	288	0,00	
	Vascular involvement		-0,31	288	-0,04	
	Neurologic involvement		-0,53	288	-0,03	
C. Dependent Variable: State Anxiety						
				11, 288		
	Perceived prognosis of illness		-3.08^{*}	288	-.18	
	Perceived threat of illness		3.28^{***}	288	.18	
	The number of hospitalizations		-11	288	-.00	
	Time since diagnosis of disease		-82	288	-.05	
	Reduction of complaints		1.49	288	.09	
I.	Oral ulcer	$3,57^{***}$	2.16^{*}	288	.18	12
	Genital ulcer		-2.29^{*}	288	-.19	
	Ocular ınvolvement		-.11	288	-.01	
	Joint involvement		-.4	288	-.04	
	Vascular involvement		.52	288	.06	
	Neurologic involvement		.38	288	.02	

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: Clinical Features of Behçet’s Disease were coded as 1 for presence, and 2 for absence

More specifically, after controlling the socio-demographic variables, the factors of perceived social support (i.e., from family, friends and significant others) were entered into the equation on the second step. The variable related to disease, (i.e., time since diagnosis of disease, reduction of complaints after receiving treatment, perceived threat of illness, the number of hospitalizations and perceived prognosis of illness) were entered into the equation on the third step. The factors of the health related quality of life (i.e., energy level, pain, emotional reaction, sleep, social isolation and physical mobility) were entered into the equation on the fourth step. Finally, positive and negative emotional experiences were entered into the equation on the fifth step. In all analyses, "Enter method" is used. The results of the unstandardized regression coefficients (β), the standardized regression coefficients (Beta), t value, R^2, and R^2 change for each step are seen in Table 3.8, Table 3.9, Table 3.10 and Table 3.11 demonstrates a general summary of the multiple hierarchical regression analyses.

3.7.1. Factors Related to Depression

Hierarchical regression analyses run for the depression (see Table-3.8) revealed that, gender ($\beta = -.14$, $t(296) = -2.39$, $p \leq .05$) and education ($\beta = -.12$, $t(296) = -2.00$, $p \leq .05$) were found to be significantly associated with depression and these variable explained 4.4% of the variance ($F [3, 296] = 4.54$, $p \leq .01$).

On the second step, effect of perceived social support from family ($\beta = -.31$, $t(293) = -5.40$, $p \leq .001$) was found to be significantly associated with depression, and increased the explained variance to 21.3% ($F [3, 293] = 20.95$, $p \leq .001$).

On the third step, effect of perceived prognosis of illness ($\beta = -.18$, $t(288) = -3.23$, $p \leq .001$) and the number of hospitalizations ($\beta = .16$, $t(288) = 3.07$, $p \leq .01$) were found to be significantly associated with depression, and increased the explained variance to 29.2% ($F [5, 288] = 6.47$, $p \leq .001$).

On the fourth step, effect of emotional reactions ($\beta = .40$, $t(282) = 6.02$, $p \leq .001$), social isolation ($\beta = .28$, $t(282) = 4.80$, $p \leq .001$) and physical mobility ($\beta = -.15$, $t(282) = -2.40$, $p \leq .05$) were found to be significantly associated with depression, and increased the explained variance to 53.3% ($F [6, 282] = 24.27$, $p \leq .001$).

On the fifth step, effect of negative emotional experience (β = .14, t (280) = 2.65, $p \leq .01$) was significantly associated with depression, and increased the explained variance to 55.3% (F [2, 280] = 6.13, $p \leq .01$).

Table 3.8: Hierarchical multiple regression results for depression

	Predictors in set	F for set	t for w/in set Predictors	df	Beta (β)	Model R^2 Change
A. Dependent Variable: Depression						
I.	*Control Variables*	4.54**		3, 296		4.4
	Gender		-2.39*	296	-.14	
	Education		-2.00*	296	-.12	
	Marital Status		.63	296	.04	
II.	*Perceived Social Support*	20.95***		3, 293		21.3
	PSS from family		-5.40***	293	-.31	
	PSS from friends		-1.19	293	-.08	
	PSS from significant others		-1.90	293	-.12	
III.	*Disease Related Variables*	6.47***		5, 288		29.2
	Perceived prognosis of illness		-3.23***	288	-.18	
	The number of hospitalizations		.3.07**	288	.16	
	Time since diagnosis of disease		-.68	288	-.04	
	Perceived threat of illness		1.55	288	.08	
	Reduction of complaints		1.08	288	.06	
IV.	*Health Related Quality of Life*	24.27***		6, 282		53.3
	Emotional reaction		6.02***	282	.40	
	Social isolation		4.80***	282	.28	
	Physical mobility		-2.40*	282	-.15	
	Energy level		1.76	282	.09	
	Pain		.23	282	.01	
	Sleep		-.31	282	-.02	
V.	*SPANE*	6.13**		2, 280		55.3
	Negative emotional experience		2.65**	280	.14	
	Positive emotional experience		-1.68	280	-.09	

* p < .05 ** p < .01 *** p < .001

Note: Gender was coded as 1 for female, and 2 for male

3.7.2. Factors Related to Trait Anxiety

Hierarchical regression analysis run for the trait anxiety (see Table 3.9) revealed that, gender (β = -.29, t (296) = -5.37, p $\leq$ .001) and education (β = -.19, t (296) = -3.34, p $\leq$ .001) were found to be significantly association with trait anxiety and these variable explained 15.6% of the variance (F [3, 296] = 18.24, p $\leq$ .001).

On the second step, effect of perceived social support from family (β = - .19, t (293) = -3.35, p $\leq$ .001) was found to be significantly associated with trait anxiety, and increased the explained variance to 22.9% (F[3, 293] = 9.27, p $\leq$ .001).

On the third step, effect of perceived threat of illness (β = .11, t (288) = 2.16, p $\leq$ .05) and the number of hospitalizations (β = .16, t (288) = 3.01, p $\leq$ .01) were found to be significantly associated with trait anxiety, and increased the explained variance to 28.2% (F [5, 288] = 4.22, p $\leq$ .001).

On the fourth step, effect of energy level (β = .18, t (282) = 3.65, p $\leq$ .001), emotional reactions (β = .48, t (282) = 7.68, p $\leq$ .001), social isolation (β = .13, t (282) = 2.39, p $\leq$ .05) and physical mobility (β = -.15, t (282) = -2.56, p $\leq$ .05) were found to be significantly associated with trait anxiety, and increased the explained variance to 57.4% (F [6, 282] = 32.22, p $\leq$ .001).

On the fifth step, effect of both positive (β = -.13, t (280) = -2.61, p $\leq$ .01) and negative emotional experiences (β = .16, t (280) = 3.22, p $\leq$ .001) significantly associated with trait anxiety, and increased the explained variance to 60.5% (F [2, 280] = 10.87, p $\leq$ .001).

3.7.3. Factors Related to State Anxiety

Hierarchical regression analysis run for the state anxiety (see Table 3.10) revealed that, gender (β = -.12, t (296) = -2.08, p $\leq$ .05) was found to be significantly associated with state anxiety and this variable explained 2.7% of the variance (F [3, 296] = 2.72, p $\leq$ .05).

On the second step, effect of perceived social support from family (β = - .20, t (293) = -3.25, $p \leq .001$) and perceived social support from friends (β = - .20, t (293) = -2.97, $p \leq .01$) were found to be significantly associated with state anxiety and increased the explained variance to 15.8% (F [3, 293] = 15.18, $p \leq .001$).

Table 3.9: Hierarchical multiple regression results for trait anxiety

	Predictors in set	F for set	t for w/in set Predictors	df	Beta (β)	Model R^2 Change
A. Dependent Variable: Depression						
I.	*Control Variables*	4.54^{**}		3, 296		4.4
	Gender		-2.39^{*}	296	-.14	
	Education		-2.00^{*}	296	-.12	
	Marital Status		.63	296	.04	
II.	*Perceived Social Support*	20.95^{***}		3, 293		21.3
	PSS from family		-5.40^{***}	293	-.31	
	PSS from friends		-1.19	293	-.08	
	PSS from significant others		-1.90	293	-.12	
III.	*Disease Related Variables*	6.47^{***}		5, 288		29.2
	Perceived prognosis of illness		-3.23^{***}	288	-.18	
	The number of hospitalizations		$.3.07^{**}$	288	.16	
	Time since diagnosis of disease		-.68	288	-.04	
	Perceived threat of illness		1,55	288	.08	
	Reduction of complaints		1,08	288	.06	
IV.	*Health Related Quality of Life*	24.27^{***}		6, 282		53.3
	Emotional reaction		6.02^{***}	282	.40	
	Social isolation		$.4.80^{***}$	282	.28	
	Physical mobility		-2.40^{*}	282	-.15	
	Energy level		1,76	282	.09	
	Pain		.23	282	.01	
	Sleep		-.31	282	-.02	
V.	*SPANE*	6.13^{**}		2, 280		55.3
	Negative emotional experience		2.65^{**}	280	.14	
	Positive emotional experience		-1.68	280	-.09	

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: Gender was coded as 1 for female, and 2 for male

On the third step, effect of time since diagnosis of disease (β = - .11, t (288) = -2.08, p $\leq$ .05), perceived prognosis of illness (β = -.15, t (288) = -2.65, p $\leq$ .01) and perceived threat of illness (β = .13, t (288) = 2.29, p $\leq$ .05) were found to be significantly associated with state anxiety and increased the explained variance to 21.7% (F [5, 288] = 4.36, p $\leq$ .001).

On the fourth step, effect of emotional reactions (β = .43, t (282) = 6.00, p $\leq$ .001), social isolation (β = .22, t (282) = 3.47, p $\leq$ .001) were found to be significantly associated with state anxiety and increased the explained variance to 44,3% (F [6, 282] = 19.07, p $\leq$ .001).

On the fifth step, effect of both positive (β = -.17, t (280) = -3.12, p $\leq$ .01) and negative emotional experiences (β = .15, t (280) = 2.70, p $\leq$ .01) were significantly associated with state anxiety and increased the explained variance to 48.3% (F [2, 280] = 10.74, p $\leq$ .001).

Table 3.10: Hierarchical multiple regression results for state anxiety

	Predictors in set	F for set	t for w/in set Predictors	df	Beta (β)	Model R^2 Change
A. Dependent Variable: State Anxiety						
I.	*Control variables*	2.72^{*}		3, 296		2.7
	Gender		-2.08^{*}	296	-.12	
	Education		.74	296	.04	
	Marital Status		1.84	296	.11	
II.	Perceived Social Support	15.18^{***}		3, 293		15.8
	PSS from family		-3.25^{***}	293	-.20	
	PSS from friends		-2.97^{**}	293	-.20	
	PSS from significant others		-1.07	293	-.07	
III.	Disease Related Variables	4.36^{***}		5, 288		21.7
	Time since diagnosis of disease		-2.08^{*}	288	-.11	
	Perceived prognosis of illness		-2.65^{**}	288	-.15	
	Perceived threat of illness		2.29^{*}	288	.13	
	The number of hospitalizations		.27	288	.02	
	Reduction of complaints after receiving treatment		.60	288	.03	
IV.	Health related quality of life	19.07^{***}		6, 282		44.3
	Emotional reaction		6.00^{***}	282	.43	
	Social isolation		3.47^{***}	282	.22	
	Physical mobility		-.73	282	-.05	
	Pain		-.16	282	-.01	
	Sleep		-.61	282	-.04	
	Energy level		.95	282	.05	
V.	SPANE	10.74^{***}		2, 280		48.3
	Positive emotional experience		-3.12^{**}	280	-.17	
	Negative emotional experience		2.70^{**}	280	.15	

* $p < .05$ ** $p < .01$ *** $p < .001$

Note: Gender was coded as 1 for female, and 2 for male

Table 3.11: General summary of general regression analyses

	Depression	Trait Anxiety	State Anxiety
Socio-Demographic Variables			
Gender	-	- - -	-
Education	-	- - -	
Marital Status			
Perceived Social Support			
Perceived Social Support from Family	- - -	- - -	- - -
Perceived Social Support from Friends			- -
Perceived Social Support from Others			
Disease Related Variables			
Perceived prognosis of illness	- - -		- -
The number of hospitalizations	+ +	+ +	
Time since diagnosis of disease			-
Perceived threat of illness		+	+
Reduction of complaints after receiving treatment			
Health Related Quality of Life			
Energy level		+ + +	
Pain			
Emotional Reaction	+ + +	+ + +	+ + +
Sleep			
Social Isolation	+ + +	+	+ + +
Physical Mobility	-	-	
SPANE			
Positive Emotional Experience		- -	- -
Negative Emotional Experience	+ +	+ + +	+ +
Total R^2	55.3%	60.5%	48.3%

CHAPTER IV

4. DISCUSSION

The diagnosis of Behçet's Disease requires the presence of at least two of the following: recurrent oral ulcers which have no other clinical account, genital ulceration, eye lesions, skin lesions and positive pathergy test appearances together according to the International Study Group. Canpolat and Yurtsever (2011) found that patients generally suffer from malaise and fatigue during the course of the disease. Therefore, diagnosis affects individuals' well-being negatively. Experiencing all of these symptoms might influence psychological wellbeing of these patients. Even though deleterious impact of the illness on psychological wellbeing has been mentioned by comparing Behçet's Disease patients with healthy controls, there is a gap in the literature regarding psychological aspects. Also another gap is unknown aspects of Behçet's Disease by considering type of involvement. Moreover, stress–immune system interaction has been emphasized in the Behçet's Disease literature while explaining Behçet's Disease etiology (Atay et al. 2014). Therefore, understanding stress, emotional experiences and nature of disease will clarify stress–immune system interaction.

In this study, factors associated with depression and anxiety was examined in the sample of Behçet's Disease patients. Correlations between variables were found as expected. Likewise in previous studies (Curtis et al. 2004; Symister & Friend 2003; Tezel et al. 2011), there were negative correlations between perceived social support and depression or anxiety. Similarly, there were negative correlations between depression or trait-state anxiety and positive emotional experience. There were positive correlations between depression or trait-state anxiety and negative emotional experience. These findings were consistent with the literature (Gruber et al. 2011;

Watson et al. 1988). Also, positive correlations between depression or trait-state anxiety and sub-dimensions of health related quality of life were expected. Likewise Bodur et al. (2006) found a positive correlation between fatigue and health related quality of life dimensions, sub-dimensions of health related quality of life were positively correlated with each other in the present study. Additionally except for neurological involvement, all types of involvement depression and anxiety were positively correlated which means individuals having involvement had higher scores of depression and trait-state anxiety. Moreover, time since diagnosis of disease was not significantly associated with depression and trait-state anxiety in the present study. However, its association with depression was significant in earlier studies (Taner et al. 2007).

4.1. Independent Samples T-Tests for Dependent Variables

When examining the gender difference on dependent variables, results were significant. Females had higher scores of depression and trait-state anxiety than males, which is in accord with past findings (Tanrıverdi et al. 2003). Also consistent with the portrayal of depression and trait-state anxiety, females had significantly higher scores of negative emotional experiences and lower scores of positive emotional experiences. Therefore, professionals should consider gender differences when a patient with Behçet’s Disease needs psychological treatment.

Independent sample t-tests were used to test whether there were any differences between female and male on health related quality of life; namely, energy, pain, emotional reaction, sleep, social segregation and physical mobility. Females had significantly higher scores in those dimensions except for social isolation scores. In other words, females' health related quality of life was poorer than males. Therefore, professionals might consider additional rehabilitation programs (i.e., program for increasing energy and physical mobility) for female patients. For instance, when considering higher emotional reactions among female patients, clinicians may provide social skills training.

In addition to gender difference, patients' status on dependent variables demonstrated that inpatients had higher depression and trait anxiety score than outpatients. This result was expected (Senol-Durak et al. 2011). However, patient status was not considerably different in state anxiety. This result might be due to the fact that they feel that they are under control by professionals about their illness. Besides, differences in the patient status as regards the health related quality of life (energy level, pain, emotional reaction, physical mobility), and positive emotional experience were not significant. However, inpatients had higher scores of sleep difficulty, social segregation and negative emotional experiences. Therefore, professionals should target their agenda on behavioral approaches to sleep difficulty and social isolation. For instance, in inpatient clinic several social activities might be arranged to these patients.

In addition to patient status, independent samples t-tests were performed to test whether there were any differences about reduction of complaints after receiving treatment on dependent variables. Individuals who did not reported reduction of complaints after receiving treatment had higher depression and state anxiety scores than individuals who reported reduction of complaints. On the other hand, this difference was not significant on trait anxiety. This might be due to a kind of habituations to their complaints. However, state-trait anxiety and reduction of complaints after receiving treatment relationship needs to be explored in further studies. Moreover, individuals who did not reported reduction of complaints after receiving treatment had higher energy difficulty, pain, emotional reactions, sleep difficulty, social isolation and physical mobility difficulty score than individuals who reported reduction of complaints. Moreover, individuals who did not reported reduction of complaints after receiving treatment had lower positive emotional experience score and higher negative emotional experience score than individuals who reported reduction of complaints after receiving treatment. Therefore, professionals working with these patients should consider their perceptions about treatment to increase their health related quality of life.

In addition to reduction of complaints variable, presence or absence of stressful life event on dependent variables were examined. Individuals who reported stressful life event had higher depression, trait anxiety, negative emotional experience score and lower positive emotional experience scores than individuals who did not reported stressful life event. These relationships between variables were consistent with literature that stress triggers several psychological disorder or emotional states (Koptagel-Ilal et al. 1983). Additionally stressful life events are mentioned as crucial for onset or prognosis of Behçet’s disease. However, individuals' state anxiety scores were not significantly different on the basis of presence or absence of stressful life events. Although we asked recent life events they answered earlier life events. Therefore, their state anxiety level was not correlated. Moreover, on the basis of health related quality of life, individuals who reported stressful life event had higher scores of all dimensions except for sleep difficulty. Therefore, screening the presence of stressful life events is crucial on health related quality of life scores which might also promote physical aspects that stress-physical activity relationship (i.e, hypothalamic– pituitary–adrenal axis activity) was mentioned before (Taner et al. 2007). It is suggested to receive stress and coping program among patients experiencing stressful life events since stress and presence of involvement link has been mentioned extensively. Hence, patients receiving these programs might gain utility in terms of health related quality of life as well as life satisfaction. However, the effectiveness based intervention studies are needed in further literature.

4.2. Type of Stressful Life Events on Dependent Variables

Since stress-physical activity relationship (i.e, hypothalamic– pituitary–adrenal axis activity) was mentioned before (Taner et al. 2007), we further investigate the type of stressful life events and depression or trait-state anxiety. To examine the effects of type of stressful life event on the dependent variables (depression, trait anxiety and state anxiety) one way ANOVA’s were conducted. When type of live events were taken on the basis of four categories (individuals not experienced difficulty, individuals experienced loss, familial problems and financial difficulties), the type of stressful life events on depression was significant. As expected, individuals who experienced loss had significantly higher depression scores than individuals who did not experience life difficulty. Loss is mentioned as a chore structure underlying depression (Beck et al. 1979). Similarly, Koptagel-Ilal et al. (1983) reported that nearly all of the patients with Behçet's disease had serious psychological symptoms, which primarily were the result of socioeconomic problems and/or family conflicts.

Regarding anxiety, while the type of stressful life events on state anxiety was not significant, its effect on trait anxiety was significant. Individuals experienced familial problems and individuals experienced loss had significantly higher trait anxiety scores than individuals not experienced any life difficulty. These events include chronic aspects. Therefore, insignificancy in state anxiety and significancy in trait anxiety is obvious.

4.3. The Effect of Perceived Prognosis on Dependent Variables

To examine the effects of perceived prognosis of illness on the dependent variables (depression, trait anxiety and state anxiety), one way ANOVA's were conducted.

The effect of perceived prognosis of illness on depression was significant that individuals who reported their prognosis as "very bad" "bad" and "neutral" had significantly higher depression scores than individuals who reported their prognosis as "very good" and "good". This result was consistent with the literature that individuals having poorer prognosis perception had lesser positive outcomes in the sample of heart disease patients (Şenol-Durak & Ayvaşik 2010). Regarding the trait anxiety, individuals reporting their prognosis as "bad" and "neutral" had significantly higher trait anxiety scores than individuals reporting their prognosis as "good". Similarly, individuals reporting their prognosis as "bad" had significantly higher state anxiety scores than individuals reporting their prognosis as "very good", "good" and "neutral". On the other hand, other groups did not significantly different from each other. Sensitive evolutions about perceived prognosis should enhance outcomes.

4.4. The Degree of Perceived Threat of Illness on Dependent Variables

To examine the degree about perceived threat of illness on the dependent variables (depression, trait anxiety and state anxiety), one way ANOVA's were conducted.

The effect of perceived threat of illness on depression was significant that individuals perceiving threat of illness “quite a few” had significantly higher depression scores than individuals perceiving threat of illness as “not dangerous” and “slightly dangerous”. Similarly, individuals perceiving threat of illness as “quite a few” had significantly higher trait anxiety scores than individuals perceiving threat of illness as “not dangerous”. Furthermore, individuals perceiving threat of illness as “quite a few”, “moderately”, and “slightly” had significantly higher state anxiety scores than individuals perceiving threat of illness as “not dangerous”. This result was consistent with the literature that individuals having higher perceived threat had lesser positive outcomes in the sample of heart disease patients (Şenol-Durak & Ayvaşik 2010).

4.5. Disease Related Variables, Clinical Features and Their Association with Dependent Variables

In a study conducted by Melikoglu and Melikoglu (2010), the authors did not find any relation between disease activity and depression in Behçet's patients. They mentioned that possible factors about clinical features and depression in Behçet's patients is limited. They highlighted that conducted studies mainly compare depression scores of healthy controls and patients with high pain intensity. Therefore, they suggest to examine only patients with on the basis of their involvement. Also, depression severity and lower quality of life were found to be associated in another study (Uguz et al. 2007). In this respect, disease related variables and clinical features on well-being were examined in the light of aforementioned literature.

The diagnosis of Behçet's Disease is comprised of at least two of recurrent oral ulcers which have no other clinical account, genital ulceration, eye lesions, skin lesions and positive pathergy test appearances together according to the International Study Group. Experiencing all of these symptoms might influence psychological well-being of these patients who generally assume the unexpected nature of the disease. Therefore, role of disease related variables, and clinical features were investigated.

In addition to disease related variables and their association with dependent variables, clinical features are examined in the present study since the role of involvement types in Behçet's Disease was mentioned in the literature (Gürler et al. 2000). Higher perceived threat and poorer perceived prognosis, absence of oral ulcers, and presence of genital ulcers were considerably associated with higher scores both of depression and of state anxiety. In depression, higher number of hospitalizations was also associated with more severe depression. Moreover, higher perceived threat and poorer perceived prognosis, higher number of hospitalizations, presence of genital ulcers and absence of ocular involvement were significantly associated with higher trait anxiety scores. As found in studies conducted with heart disease patients (Şenol-Durak & Ayvaşik 2010) and diabetic patients (Senol-Durak 2014), perceived threat and perceived prognosis were significantly associated with depression and anxiety. Also, as a significant stressor, the number of hospitalization was linked with higher depression and trait anxiety scores due to the patients' feelings of helplessness about their illness.

As mentioned in the literature that ulcers lead pain and pain has influence on individual’s self-image and sexuality (Tanrıverdi et al. 2003), genital ulcers were related to higher depression and state anxiety scores. Therefore, presence of genital ulcers may be related with pain which affected depression and trait-state anxiety since this ulcer may lead sexual dysfunction and cause limitation to move even walking. Results were consistent in the literature (Tanrıverdi et al. 2003). Therefore, future studies may be conducted in this respect. On the other hand, absence of oral ulcers and higher depression or state anxiety as well as absence of ocular involvement and higher trait anxiety results were highly interesting. Contrary findings revealed ocular involvement and depression relationship (Tanrıverdi et al. 2003). Absence of oral ulcers and higher depression or state anxiety results may be related to participant’s characteristics since these patients were not experience the disease in active phases. Absence of ocular involvement and higher trait anxiety results may be explained by anticipatory anxiety about having ocular involvement in the future. When interviewed with Behçet’s Disease patients, most of the patients shared anticipatory anxiety about ocular involvement. Therefore, these results may be related with attributions about ocular involvement. Professionals working with Behçet’s Disease patients might focus on perceived threat, perceived prognosis, the number of hospitalizations, absence or presence of types of ulcers or involvement. In keeping with the suggestions about addressing perceptions about illness, cognitive–behavioral therapy is a practical option for dealing with perceptions in patients with Behçet's Disease. Patients may also derive advantage from psycho-educational or self-management interventions. By this way they can enhance their ability to cope with their disease and its symptoms. As a result they will improve their physical and psychological functioning (Gur, Sarac, Burkan, Nas, & Cevik, 2006).

4.6. Factors Related to Depression

Hierarchical regression analyses run for the depression revealed that, being female and having less educated were associated with higher depression on the first step. Similar findings were found in other studies (Katon et al. 2004; Penninx et al. 1999). Female participants were have restricted social environment. Therefore, they had higher scores of depression. Cognitive behavioral group psychotherapy might be recommended for these female patients to increase keeping touch with each other. Also, lower education level might restrict patients to find appropriate resources. Therefore, depression scores of those patients were higher. At the second step, perceiving lower level of social support from family was associated with higher depression. Similar findings were found in other studies (Clara et al. 2003; Grav et al. 2012; Primomo et al. 1990; Roohafza et al. 2014). Therefore, collaboration with family in the treatment is so crucial. At the third step, having poorer perceived prognosis of illness and having higher number of hospitalizations were found to be linked with higher depression. Therefore, addressing prognosis perceptions was so important to deal with depression. Patients with repeated number of hospitalizations reported that their functionality was disturbed regarding daily life activities ($M=6.81$, $SD=3.46$, Range $=9$), work/school life ($M=6.88$, $SD=3.46$, Range $=9$), social relationships ($M=5.94$, $SD= 3.49$, Range $=9$) and leisure time ($M=6.20$, $SD=3.57$, Range $=9$). Also, clinicians should reach patients who have higher number of hospitalizations.

At the fourth step, likewise, inverted correlations between health related quality of life and depression were found before (Tanrıverdi et al. 2003; Uguz et al. 2007), three dimensions of health related quality of life was associated with higher depression in the present study. Having higher emotional reactions, social segregation and lower physical mobility problems were associated with higher depression. This result demonstrates that while Behçet’s Disease patients deal with social isolation, they were fighting against their emotional reactions. In other words, negative evaluations about social activities might lead emotional problems that are evaluated as negative triad in depression. This triad mentioned in the literature (Beck et al. 1979) was so important for Behçet’s Disease patients. Moreover, increasing social activities and skills training about emotional regulations are suggested to these patients. Surprisingly, higher physical mobility problems and lower depression scores were associated. While dealing and coping with the physical problems (i.e, walking, sitting), they might not consider his/her emotional sides. Therefore, these problems actually lead to engage in life.

The relation between Behçet's Disease and depression and quality of life is significant. It is found that there is negative correlation between major depression in patients with Behçet's Disease. This correlation may also be lead as quality of life has a negative correlation with depression symptoms (Uguz et al. 2007).

At the fifth step, having higher negative emotional experience was found to be closely associated with higher depression. Negative emotional states are important for diagnosis of depression. Although patients receiving treatment, it is foun that patients with Behçet's Disease are in an emotionally negative mood as their reasons for their complaints does not decrease. Regression results reveal that after controlling the effect of all variables (i.e., disease related variables), still this emotional side was associated with higher depression. These emotional conditions occur according to the reactions in some respects. Some of these conditions are feeling lonely and sadness. Therefore, clinicians should address the emotional experiences of the patients to increase utility of professional help.

4.7. Factors Related to Trait Anxiety

A similar regression analysis was conducted for trait anxiety. Results were revealed that, being female and having less educated was associated with higher trait anxiety at the first step. This result is consistent with Theofilou (2011) studies conducted with patients with Chronic Renal Failure samples. At the second step, perceiving lower level of social support from family was associated with higher trait anxiety. Mutual support help relieve anxiety as found with heart disease samples (Şenol-Durak & Ayvaşik 2010) and caregivers samples (Kuscu et al. 2009). The considerable effect of family support reveals that working with the patients as well as with their families help to obtain better outcomes. In this respect, it is suggested for clinicians to give psychoeducation programs to families. Perceived threat which is highly related to threat as being underlying mechanism of anxiety disorders, clinicians focus on threat perception. Also, special attention to patients with higher number of hospitalization is suggested. At the fourth step, having lower level of energy, having higher emotional reactions, social segregation, and higher physical mobility problems were associated with higher trait anxiety. Similar findings were obtained in the previous studies (Tanrıverdi et al. 2003). At the fifth step, having higher negative emotional experience and lower positive emotional experience were found to be significantly associated with higher trait anxiety. When considering these two types of emotional experiences were significant as behind of all other variables, focusing with emotional aspects are necessary to deal with trait anxiety. Emotional change is highlighted in the literature (Koptagel-Ilal et al. 1983). Therefore, emotional sides are needed to be considered to deal with anxiety.

In the respect of all findings obtained from trait anxiety, in the study carried out by Taner et al. (2007) it is found that regardless of the duration or age the progressive nature of the Behçet's Disease anxiety triggers easily and this situation remains as a fact during the course of the disease. Therefore, professionals should intervene trait anxiety in the process of disease.

4.8. Factors Related to State Anxiety

A similar regression analysis was conducted for state anxiety. Results were revealed that, being female was associated with higher state anxiety at the first step. There is consistent literature (Hunt-Shanks et al. 2009). At the second step, perceiving lower level of social support from family and friends were associated with higher state anxiety. It was very interesting that friend support was associated with state anxiety but not trait anxiety. Therefore, self-help groups or friend support might be crucial to deal with complications assume to leading current feelings of anxiety. Also, family support might be helpful to deal with state anxiety. At the third step, having higher perceived threat of illness and having worse prognosis perception were associated with higher state anxiety. At the fourth step, having higher emotional reactions and social isolation were associated with higher state anxiety. Similar findings were highlighted in the literature (Tanrıverdi et al. 2003). Likewise seen in trait anxiety, two dimensions (emotional reactions and social isolation) were associated with state anxiety. Therefore, dealing with the psychologically health-related quality of life issues is a key to promote well-being. At the fifth step, having higher negative emotional experience and lower positive emotional experience were found to be significantly associated with higher state anxiety. In other words, affective well-being are so crucial that it was associated with state anxiety on behind of socio-demographic, social support, nature of disease and health-related quality of life.

4.9. Further Studies

When considering genital involvement and trait- state anxiety relationship further studies are needed to explore sexual dysfunction. Also, as Koptagel-Ilal et al. (1983) revealed that personality traits (eagerness to show regressive tendencies), associated with trait anxiety in the sample of Behçet's Disease. Role of personality and quality of life among these patients was also mentioned in the literature (Atay et al. 2014). Therefore, further studies should investigate the role of traits.

Moreover, disrupted body image, hardships in social adaptation, and coping with emotions were associated with trait anxiety in the sample of Behçet's Disease (Koptagel-Ilal et al. 1983). Similar to these findings, Behçet’s Disease patients with having higher scores of social isolation had higher scores of depression and state-trait anxiety in the present study. Therefore, intervention studies are encouraged to see effect of assertiveness or social skills training in the sample.

Also, showing emotional reactions, having higher negative emotional experiences and lower positive emotional experiences further questioned the importance of emotional regulation or emotional approach coping both of which were mentioned in the chronic patients population (Stanton et al. 2002).

In addition to these, while time since diagnosis and depression, trait-state anxiety was not found significant in the present study, its effect on depression was found in another study (Taner et al. 2007). In that study, insignificancy was highlighted in the sample of psoriasis patients and the importance of duration of illness more than 3 years. On the other hand, time since diagnosis and depression relationship was not found in another study (Melikoglu & Melikoglu 2010). These controversial results further questioned the importance of time since diagnosis variable. Therefore, further studies are encouraged to conduct with the variables mentioned above.

As mentioned in the literature, stressful life events, which are the focus of this study, are crucial for the mental well-being of Behçet's patients. It is suggested that more detailed studies on the number of severity of stressful life events experienced by patients with Behçet's disease would benefit the relevant literature considerable.

4.10. Clinical Implications

When considering the importance of appropriate treatment decrease the mortality rate (Evereklioglu 2005), clinical implications for these patients are crucial. As being multisystemic disease, Behçet’s Disease treatment should combine both physical and psychological treatment. In this respect, the nature of disease and clinical features are associated with depression and anxiety in the present study. Also, it is recommended to evaluate patients case by case since the prognosis of diseases includes variability (Mendes et al. 2009). Especially early recognition and treatment of anxiety symptoms in young, newly diagnosed Behçet’s Disease patients are highlighted in the literature since those patients generally have anxiety symptoms (Taner et al. 2007).

In accordance with results associated with the dimensions of health related quality of life, patients had higher scores of social isolation, and difficulty in expressing their emotions. Also, these patients have frequently cited symptoms of depression and anxiety (Taner et al. 2007).When the clinical features and the nature of illness variables associated with depression and anxiety is considered, it can be concluded that both medication and psychological treatment is important in dealing with the disorder.

Considering types of involvement was associated with state and trait anxiety differently, unique evaluation of patients with Behçet's Disease is crucial. Also, the etiology of illness is unknown (Kurokawa et al. 2004) and there is no cure to relieve symptoms (Evereklioglu 2005). It is therefore important to evaluate each case in itself.

When considering the nature of illness variables, perceived threat of illness and perceived prognosis of were associated with all variables. These variables are associated with cognitive process of illness. In addition, positive and negative emotional experiences were found to be associated with dependent variables after controlling the effect of other variables. In this respect, cognitive behavioral psychotherapy is important for patients since it combines cognitive and emotional aspects in psychotherapy. As it is well known, cognitions, emotions and behaviors are three sides of a triangle all of whose angles affect each other.

Since Behçet’s Disease is still unknown in the society and patients do not express their illness to others, providing psychoeducation could also be appropriate. This education might include the nature, psychological aspects, and methods on how to cope with illness. In this respect, to increase adjustment to illness and help recovery during involvement and increase adherence to treatment, self-management strategies are also suggested.

In accordance with our results, family support is important. Therefore, providing psychoeducation to families may be crucial. In this psychoeducation, aspects such as difficulties of patients, how to cope with illness, importance of familial support and how families can support the patients can be included. Also, psychological burden of families as well as patients might be handled through group psychotherapy. As friend support is crucial for state anxiety, patients with Behçet's disease may benefit from group psychotherapy or self-help groups to relieve their anxiety. Support group may also be suggested as it provides a setting where patients with Behçet's disease can feel they are not alone, their feelings are universal as well as the difficulties they come across, and where they can share their own strategies to cope with difficulties or problem-solving techniques, or how they came to terms with their disease and adapt to it. If the physicians are to better understand patients' disease and help them and their family they should consider their psychological conditions too and also should be aware of the fact that the health-related quality of life subject is important for the treatment progress.

4.11. Limitations

Results obtained in the present study had some limitations. Firstly, our results can not be generalized other patients having other types of multisystemic disorders since our study sample is composed of only Behçet’s Disease patients. Secondly, our study design is cross-sectional. Therefore, cause-effect relationships cannot be seen. Longitudinal studies are suggested to see causal relationships.

4.12. Conclusion

Patients with Behçet’s Disease depression and anxiety reveal the importance of certain socio-demographic variables (being female, having less educated), having higher perceived social support from family, some disease related variables (having poorer perceived prognosis of illness, higher perceived threat of illness, having higher number of hospitalization, having lower health quality of life (emotional reactions, social segregation and physical mobility) and positive-negative emotional experiences. These results demonstrate that especially dealing with positive-negative emotional experiences and increasing health related quality of life and focusing on their perceptions about nature of disease are crucial in the process of depression and anxiety treatment.

Also, it is necessary that patients with Behçet’s Disease be informed and psychologically supported by nurses in the clinics and outpatient units during and after the treatment with a view to helping them to understand the disease better. By this support they continue the treatment and deal with the symptoms better. While the patients are being informed, their sociodemographic characteristics need to be considered (Canpolat & Yurtsever 2011). Actually being female and having less educated are crucial for the patients’ depression and anxiety scores in the present study. Also, in that information phase, psychologists can work with these patients. He/she can also work with their families since family support was associated with well-being in the present study.

Also, social support network inside the clinique should be evaluated sensitively. During interviews with patients they shared their negative emotions about the morbidity of friends. These types of negative changes would lead to burden among patients as well as clinic staff. Future studies are encouraged to conduct intervention programs.

Patients will be contacted individually in order that finding a patient- specific solution to the sleep disorders that reduce their quality of life will be easy. In addition, fatigue should be assessed carefully, and a suitable series of activities should be composed for each patient (Canpolat & Yurtsever 2011).

Current management strategies aiming to prevent fatigue, arthralgia, and efforts to assess psychosocial situation and symptoms of the patients will improve quality of life and increase life satisfaction of patients (Bodur et al. 2006). Therefore, the physiatrist or rheumatologist should assist the patients to enhance their quality of life by using available methods (Gur et al. 2006). Our results also showed the importance of health-related quality of life.

Besides, it is important to study self-esteem with these patients so this will contribute to well-being. Also patients' beliefs according to their illness and themselves can be read as the key indicators in coping with their pain and sustaining psychological well-being during the course of the disease as well as treatment process.

This study revealed that the congruence between a physician, rheumatologist, psychiatrist and psychologist is crucial once a patient is diagnosed with Behçet's Disease. That is to say, these patients may require a multi-step approach. As a result, it can be concluded that such interventions may also improve the quality of life of these patients and hinder worse prognosis (Gur et al. 2006).

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APPENDICES

Appendix A: Demographical Information Form

1. Yaşınız:

2. Cinsiyetiniz: ❑ Kadın ❑ Erkek

3. Eğitim Durumunuz:
   a) Okuryazar değil
   b) Okuryazar
   c) İlkokul mezunu
   d) Ortaokul mezunu
   e) Lise mezunu
   f) Yüksekokul mezunu
   g) Üniversite mezunu
   h) Yüksek Lisans mezunu
   i) Doktora mezunu

4. Mesleğiniz:
   a) Memur
   b) İşçi
   c) Ev hanımı
   d) Sağlık Personeli
   e) Serbest Meslek
   f) Öğrenci
   g) Öğretmen-Öğretim üyesi
   h) Mimar-mühendis
   i) Esnaf
   j) Tekniker-Teknisyen
   k) Emekli
   l) Yönetici
   m) Çiftçi
   n) Güvenlik Personeli
   o) İşsiz
   p) Diğer _______

5. Halen çalışıyor musunuz?

a) Evet
Ne kadar süredir çalışıyorsunuz? ________yıl__________ay

b) Hayır
Daha önce çalışıyorduysanız ne kadar süredir çalışmıyorsunuz? ______yıl______ ________ay

c) Hiç çalışmadım

6. Medeni Haliniz:
   a) Bekar
   b) Evli
   c) Ayrı
   d) Boşanmış
   e) Eşi vefat etmiş

7. Çocuğunuz var mı? ❑ Hayır ❑ Evet ise Kaç çocuğunuz var? ____________

8. En uzun süre yaşadığınız yer:
   a) Köy
   b) Kasaba
   c) Şehir (Gecekondu)
   d) Şehir (Merkez)
   e) Büyük şehir gecekondu (Ankara, İstanbul, İzmir, Bursa, Adana)
   f) Büyük şehir merkez (Ankara, İstanbul, İzmir, Bursa, Adana)

9. Ailenizin toplam AYLIK gelir düzeyi:_____________TL (Toplam miktar belirtiniz)

10. Sigara kullanıyor musunuz?
   a. Evet
      Ne kadar süredir kullanıyorsunuz? _______yıl__________ay
   b. Hayır

11. Alkol kullanıyor musunuz?
   a. Evet
      Ne kadar süredir kullanıyorsunuz? _______yıl__________ay
   b. Hayır

12. Kaç kilosunuz?------------

13. Boyunuz? -----------------

14. Herhangi bir sosyal güvenceniz var mı?

a) Var
   1. Memur/memur emeklisi
   2. İşçi /işçi emeklisi
   3. Bağkur/bağkur emeklisi

4. Özel sigorta
5. Yeşil kart
6. Diğer ____________

b) Yok

15. Behçet Hastalığınızı öğreneli ne kadar oluyor? __yıl ___ay

16. Hastalığınız nedeniyle yaşadığınız organ tutulumlarını işaretleyiniz.

Oral Ulcer	❑ Evet	❑ Hayır
Genital Ulcer	❑ Evet	❑ Hayır
Göz Tutulumu	❑ Evet	❑ Hayır
Romatolojik Tutulum	❑ Evet	❑ Hayır
Damar Tutulumu	❑ Evet	❑ Hayır
Nörolojik Tutulum	❑ Evet	❑ Hayır
Diğer (Belirtiniz)	…………………	

17. Tedaviniz şikayetlerinizde azalma sağladı mı? ________________________

18. Hastalığınız nedeniyle hiç hastaneye yattınız mı?

a) Evet b) Hayır

Kaç kez hastaneye yattınız? ____________

Son iki yatışınız ne zamandı? ______yıl ____ay ve ___yıl _______ay

Yatışınız günlük işlerinizin ne ölçüde aksamasına neden oldu?

Hiç aksatmadı Çok fazla aksattı

1 2 3 4 5 6 7 8 9 10

Yatışınız iş/okul hayatınızın ne ölçüde aksamasına neden oldu?

Hiç aksatmadı Çok fazla aksattı

1 2 3 4 5 6 7 8 9 10

Yatışınız sosyal ilişkilerinizin ne ölçüde aksamasına neden oldu?

Hiç aksatmadı Çok fazla aksattı

1 2 3 4 5 6 7 8 9 10

Yatışınız boş vakit aktivitelerinde bulunmanızın ne ölçüde aksamasına neden oldu?

Hiç aksatmadı Çok fazla aksattı

1 2 3 4 5 6 7 8 9 10

19. Hastalığız ile ilgili olarak şu anki durumunuzu nasıl değerlendiriyorsunuz?

a) Çok kötü
b) Kötü
c) Zaman zaman iyi zaman zaman kötü
d) İyi
e) Çok iyi

20. Rahatsızlığınızın hayati tehlikesini nasıl değerlendiriyorsunuz?

a) Hiçbir hayati tehlikesinin olmadığını düşünüyorum
b) Hayati tehlikesinin çok az derecede olduğunu düşünüyorum
c) Hayati tehlikesinin orta derecede olduğunu düşünüyorum
d) Hayati tehlikesinin oldukça fazla derecede olduğunu düşünüyorum
e) Hayati tehlikesinin aşırı derecede olduğunu düşünüyorum

21. Yakın zamanda sizi etkileyen bir stres yaşadınız mı? Yaşamınızda sizi etkileyen önemli bir olay oldu mu? (Örn, bir yakın kaybı, trafik kazası gibi.)

____

a) Ne kadar süre oldu? ___yıl ___ay
b) Bu olay sizi ne kadar etkiledi?

Hiç etkilemedi Çok fazla etkiledi

1 2 3 4 5 6 7 8 9 10

Appendix B: Beck Depression Inventory-II

Aşağıda, kişilerin ruh durumlarını ifade ederken kullandıkları bazı cümleler verilmiştir. Her madde, bir çeşit ruh durumunu anlatmaktadır. Her maddede o duygu durumunun derecesini belirleyen 4 seçenek vardır. Lütfen bu seçenekleri dikkatlice okuyunuz. **SON BİR HAFTA içindeki (şu an dahil)** kendi duygu durumunuzu göz önünde bulundurarak, size uygun olan ifadeyi bulunuz. Daha sonra, o madde numarasının karşısında, size uygun ifadeye karşılık gelen seçeneği bulup işaretleyiniz.

Example of items:

1. a) Kendimi üzgün hissetmiyorum.
   b) Kendimi üzgün hissediyorum.
   c) Her zaman için üzgünüm ve kendimi bu duygudan kurtaramıyorum.
   d) Öylesine üzgün ve mutsuzum ki dayanamıyorum.

5. a) Kendimi suçlu hissetmiyorum.
   b) Arada bir kendimi suçlu hissettiğim oluyor.
   c) Kendimi çoğunlukla suçlu hissediyorum.
   d) Kendimi her an için suçlu hissediyorum.

13. a) Kararlarımı eskisi kadar kolay ve rahat verebiliyorum.
    b) Şu sıralarda kararlarımı vermeyi erteliyorum.
    c) Kararlarımı vermekte oldukça güçlük çekiyorum.
    d) Artık hiç karar veremiyorum.

Appendix C: State Anxiety Inventory

Bu anket, **İLK SAYFADA** tanımladığınız sizin için stresli olayın çeşitli boyutları hakkındaki düşünceleriniz ile ilgilidir. Bu nedenle bu anketi doldururken ilk sayfada tanımladığınız **STRES VERİCİ DURUMU/OLAYI** göz önünde bulundurunuz. Her ifadeyi okuyarak yukarıda stres verici durum olarak belirttiğiniz olayı aklınızdan geçirdiğinizde ne hissettiğinizi sizin için uygun rakamı **SEÇEREK** belirtiniz. Lütfen, herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin **ANINDA** nasıl hissettiğinizi gösteren cevabı seçiniz ve **TÜM** soruları cevaplayınız. Sizin için **"stres verici durum"** olarak tanımladığınız olay neydi?

1. Şu anda sakinim

13. Çok sinirliyim

18. Heyecandan kendimi şaşkına dönmüş hissediyorum

Appendix D: Trait Anxiety Inventory

Aşağıda, kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyunuz, sonra da genel olarak nasıl hissettiğinizi uygun rakamı işaretlemek suretiyle belirtiniz. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin genel olarak nasıl hissettiğinizi gösteren cevabı işaretleyiniz.

1. Genellikle keyfim yerindedir

7. Genellikle sakin, kendine hakim ve soğukkanlıyım

16. Genellikle hayatımdan memnunum

Appendix E: Multidimensional Perceived Social Support Scale

Aşağıda 12 cümle ve her bir cümle altında da cevaplarınızı işaretlemeniz için 1’den 7’ye kadar rakamlar verilmiştir. Her cümlede söylenenin sizin için ne kadar doğru olduğunu veya olmadığını belirtmek için rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Bu şekilde 12 cümlenin her birine bir işaret koyarak cevaplarınızı veriniz. Lütfen hiçbir cümleyi cevapsız bırakmayınız. Sizce doğruya en yakın olan rakamı işaretleyiniz.

1.Ailem (örneğin, annem, babam, eşim, çocuklarım, kardeşlerim) bana gerçekten yardımcı olmaya çalışır

Kesinlikle Hayır Kesinlikle Evet

1 2 3 4 5 6 7

8. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var

Kesinlikle Hayır Kesinlikle Evet

1 2 3 4 5 6 7

11. Ailem ve arkadaşlarım dışında olan ve beni gerçekten rahatlatan bir insan (örneğin, flört, nişanlı, sözlü, akraba, komşu, doktor) var

Kesinlikle Hayır Kesinlikle Evet

1 2 3 4 5 6 7

Appendix F: The Scale of Positive and Negative Experience

Lütfen son bir ay içinde yaptıklarınızı düşünün ve aşağıdaki duygulardan her birini ne kadar hissettiğinizi 1 ile 5 arasında değişen puanları kullanarak değerlendiriniz. Her bir madde için seçtiğiniz numarayı işaretleyiniz.

1	2	3	4	5
Asla	Nadiren	Bazen	Sık sık	Her zaman

Olumlu	1	2	3	4	5
Olumsuz	1	2	3	4	5
İyi	1	2	3	4	5
Kötü	1	2	3	4	5

Appendix G: Nottingham Health Profile

Aşağıda insanların günlük hayatta karşılaşabilecekleri bazı problemler sıralanmıştır. Listeye bakınız ve şu anda sahip olduğunuz problem için Evet, olmadığınız problem için Hayır olan yere X işaretleyiniz. Lütfen her soruyu cevaplayınız. Emin değilseniz, şu anda en doğru olduğunu düşündüğünüz cevabı işaretleyiniz.

ENERJİ	Evet	Hayır
1. Enerjim Kısa sürede tükeniyor.		
2. Herşey çaba harcamamı gerektiriyor.		
AĞRI	Evet	Hayır
1. Merdivenleri inerken ve çıkarken ağrım oluyor		
2. Ayakta durduğum zaman ağrım oluyor.		
3. Pozisyonumu değiştirirken ağrım oluyor.		
DUYGUSAL REAKSİYONLAR	Evet	Hayır
7. Endişelenmek geceleri uykumu kaçırıyor.		
8. Sanki kontrolümü kaybediyormuşum gibi hissediyorum.		
9. Hayatın yaşamaya değer olmadığını düşünüyorum.		
UYKU	Evet	Hayır
1. Sabahın erken saatlerinde istemeden uyanıyorum.		
2. Uykuya dalmam uzun sürüyor.		
SOSYAL İZOLASYON	Evet	Hayır
1. İnsanlarla geçinmek güç geliyor.		
2. İnsanlarla iletişim kurarken zorlanıyorum.		
FİZİKSEL HAREKETLİLİK	Evet	Hayır
6. Giyinirken zorlanıyorum.		
7. Dışarıda yürümek için yardıma ihtiyaç duyuyorum.		
8. Kesinlikle yürüyemiyorum.		

Appendix H: Informed Consent Form

Bir araştırma projesine davet edilmektesiniz. Karar vermeden önce araştırmanın neden ve nasıl yapılacağını anlamanız çok önemlidir. Lütfen biraz zaman ayırın ve aşağıdaki bilgileri dikkatlice okuyun, isterseniz başkalarıyla tartışın. Açık olmayan bir bölüm varsa ya da daha ayrıntılı bilgiye ihtiyaç duyuyorsanız lütfen bize ulaşın. Ancak araştırmaya katılmak isteyip istemediğinize karar vermek için lütfen biraz düşünün. Çalışmaya katılmak tamamen GÖNÜLLÜK ve GİZLİLİK esasına bağlıdır. Çalışmaya katılmamakta veya herhangi bir zamanda herhangi bir nedenle ya da neden göstermeksizin araştırmadan çekilme durumunda size yönelik olumsuz hiçbir sonuç bulunmamaktadır. Çalışmaya vermiş olduğunuz cevaplar ve kişisel bilgiler sadece araştırma amacıyla kullanılacaktır. Katılımınızı gönüllü bir şekilde kabul ettiğinizi belirten bu belgeniz doldurduğunuz anketlerden ayrı tutularak araştırmacı tarafından saklanacaktır. Anketlerin bir oturumda olmak üzere 40 dakika ile 1 saat arasında doldurulması planlanmaktadır. Bu çalışmaya katılımınızdan dolayı size veya tedavi görmüş olduğunuz kuruma herhangi bir ücret verilmeyecek ya da sizden veya tedavi görmüş olduğunuz kurumdan herhangi bir ücret talep edilmeyecektir. Bu çalışmaya katılımınızdan dolayı hiçbir fiziksel, psikolojik, sosyal, ekonomik vb. risk ya da rahatsızlık yaşamayacağınız öngörülmektedir. Ancak, katılım sırasında sorulardan veya başka bir nedenden dolayı kendinizi kötü hissederseniz çalışmayı yarıda bırakma hakkına sahipsiniz. Bunun yanı sıra, bu çalışmanın size verdiği rahatsızlığı gidermekle yükümlüyüm. Bu çalışma sonunda elde edilen bilgiler sadece bilimsel amaçla kullanılacak ve hiçbir kimlik bilginiz paylaşılmayacaktır. Eğer siz de bu çalışmanın sonuçları hakkında bilgilendirilmek isterseniz bilgiler sizinle de paylaşılacaktır. Çalışma hakkında her türlü bilgi ve sorularınızı Abant İzzet Baysal Üniversitesi Yüksek Lisans Öğrencisi ve Cumhuriyet Üniversitesi Arş. Gör. Feride Özlem ELAGÖZ'e (ozlemelagoz@yahoo.com) iletebilirsiniz. Çalışmaya vermiş olduğunuz destekten dolayı çok teşekkür ederim.

Bu araştırma Abant İzzet Baysal Üniversitesi İnsan Araştırmaları Etik Kurulu tarafından onaylanmıştır. Araştırmaya katılımınızla ilgili herhangi bir şikâyetiniz varsa Sosyal Psikoloji Anabilim Dalı Başkanı Prof. Dr. Hamit COŞKUN'a (Tel: 0374 254 13 10) bildirebilirsiniz. Her tür şikayetiniz gizlilikle değerlendirilecek, araştırılacak ve sonuç hakkında tarafınıza bilgi verilecektir.

Onam Formu: Yukarıda belirtilen Bilgilendirme Formunu okudum/Bilgilendirme Formu sözlü olarak bana anlatıldı. Araştırma hakkında yeterli bir şekilde bilgilendirilerek bu çalışmaya yönelik tüm sorularım araştırmacı tarafından detaylı ve yeterli bir şekilde yanıtlandı. Vermiş olduğum bilgilerin bilimsel amaçlı kullanılmasını kabul ediyorum. Herhangi bir zamanda herhangi bir nedenle veya neden göstermeksizin araştırmadan çekilme hakkına sahip olduğumu biliyorum ve çalışmaya gönüllü bir şekilde katılmayı istiyorum. Bu formun imzalı bir kopyası bana verilecektir.

Katılımcının: Adı-Soyadı: Tarih: İmza:

Arş. Gör. Feride Özlem ELAGÖZ

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