THE EFFECTS OF SOCIAL SUPPORT, DIFFERENTIATION OF SELF AND LOCUS OF CONTROL ON ANXIETY

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DEDICATION

I would like to dedicate this thesis study to my sister, Türkan Yahyaoğlu. When my anxious mind wanders off from everything, she was always there to give me the courage for coming back. If it wasn't for you, I couldn't become the brave woman that I am today.

ABSTRACT

This quantitative cross-sectional study was designed to examine the effects of social support, locus of control and differentiation of self on anxiety. Using the Bowen's Family Systems Theory, we aimed at examining the same relationship with a systemic lens. The data was collected both online and via pen-and-paper style. Four hundred and forty five students, from various universities in Istanbul, participated in this study. Eligibility criteria included being in the age range of 18 to 25 years old, and being able to speak and understand Turkish. The data was collected from 445 university students. Most of the participants were females (n=327, 73.5%), from middle SES level (n=219, 49.2%), 4th grade students (n=172, 38.7%) and they reported having no anxiety related psychological problems (n=405, 91%). The participation was mainly online via Qualtrics link (n=278, 62.5%). A set of questionnaire included demographic form, State-Trait Anxiety Inventory (STAI), Differentiation of Self Inventory (DoSI), Multidimensional Scale of Perceived Social Support (MSPSS) and Rotter's Locus of Control Scale (RLCS). Hierarchical linear regression was conducted in IBM SPSS Statistics 21. As a result, differentiation of self was found to be associated with trait anxiety after accounting for social support and locus of control variables. That is, as the level of differentiation of self increased, the level of trait anxiety decreased. This result was in line with the previous literature findings. However, social support and external locus of control were found to be associated with state anxiety. Therefore, this study has not only filled the gap in the literature with Turkish population, but also has emphasized the importance of differentiation of self. More longitudinal studies with a systemic perspective should be need in future research. In fact, we would be able to understand the complex nature of anxiety as practitioners who work in the field and be able to develop systemic interventions that benefit people living with anxiety.

ÖZET

Bu kantitatif enlemesine araştırma, sosyal desteğin, kontrol odağının ve benliğin ayrışmasının kaygı üzerine olan etkilerini incelemek için yapılmıştır. Bowen'ın Aile Sistemleri Teorisi'ni kullanarak, benzer ilişkiyi sistemik bakış açısıyla incelemeyi hedefledik. Veriler hem online hem de yazılı anket olarak toplanmıştır. İstanbul'un çeşitli üniversitelerinden, 445 öğrenci bu çalışmaya katılmıştır. Katılım için uygunluk kriterleri 18-25 yaş arasında olma ve Türkçe konuşup-anlamayı içermektedir. Veriler 445 öğrenciden alınmıştır. Katılımcıların çoğu kadınlardan (n=327, 73.5%), orta sosyo-ekonomik seviyedeki insanlardan (n=219, 49.2%), 4.sınıf öğrencilerinden (n=172, 38.7%) oluşurken aynı katılımcıların kaygıyla alakalı herhangi bir psikolojik problem (n=405, 91%) belirtmediği görülmüştür. Katılım çoğunlukla Qualtrics bağlantısı ile online olarak gerçekleşmiştir (n=278, 62.5%). Demografik form ile birlikte, Durumluluk-Süreklilik Kaygı Envanteri (DSKE), Benliğin Ayrışması Ölçeği (BAÖ), Çok Boyutlu Algılanan Sosyal Destek Ölçeği (ÇBASDÖ) ve Rotter'ın İç-Dış Kontrol Odağı Ölçeği (RİDKOÖ)'nden oluşan bir anket oluşturulmuştur. IBM SPSS Statisctics 21 kullanılarak hiyerarşik doğrusal regresyon analizi yapılmıştır. Sonuç olarak, benliğin ayrışması, sosyal destek ve kontrol odağı değişkenleride göz önünde bulundurulduğunda, süreklilik kaygısı ile ilişkili bulunmuştur. Yani, benliğin ayrışması arttıkça süreklilik kaygısı azalmıştır. Bu bulgu, önceki literatür bulgularıyla örtüşmektedir. Ancak, sosyal destek ve dış kontrol odağı, durumluluk kaygısı ile ilişkili bulunmuştur. Dolayısıyla, bu çalışma literatürdeki boşluğu Türk örneklemiyle doldurmakla kalmamış, aynı zamanda benliğin ayrışmasının önemini vurgulamıştır. Gelecek araştırmalarda, sistemik bakış açısı ile daha fazla boylamsal çalışmalara ihtiyaç olduğu görülmüştür. Bu sayede, alanda çalışan uygulamacılar olarak kaygının karışık doğasını daha iyi anlayabilir ve kaygı ile yaşayan insanlara yardımcı olacak sistemik müdahaleler geliştirebiliriz.

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CHAPTER 1

INTRODUCTION

Living in the age of the millennials, many of us are expected to accomplish many things in a limited amount of time. We live in a world that constantly challenges us to leave our comfort zone, whereby the human survival capacity enlarges our growth. However, this growth factor may cause trouble for some, mostly as anxiety, which is one of the commonest psychological problems stemming from concerns about future threats (Bayram & Bilgel, 2008; Bryant, Jackson & Ames, 2008; Kayhan, Çicek, Uğuz, Karababa, & Kucur, 2013). American Psychological Association (APA), defines anxiety as an emotion accompanied by tense feelings and worry which lead people might experience physical symptoms such as increased blood pressure (American Psychological Association, n.d). People with anxiety might have recurring concerns and therefore they might avoid any situations because of worry. Similarly, American Psychiatric Association (APA) defines anxiety as a normal reaction to any stressor and it can useful by alerting people to upcoming threats (American Psychiatric Association, n.d.). Anxiety is a different term than fear. Fear can be seen as an emotional response to a threat and out of fear people are more likely to perform fight or flight reaction. Whereas anxiety is about future threat/concern and out of anxiety people are more likely to perform avoidance behavior (American Psychiatric Association, n.d) . DSM-5 (Diagnostic and Statistical Manual of Mental Disorders-5, 2013) categorizes 6 types of anxiety disorders: generalized anxiety disorder, panic disorder, phobias-specific phobia, agoraphobia, social anxiety disorder, separation anxiety disorder. As directly quoted from the work of Spielbeger (1970) :

"... Anxiety is perhaps most commonly used to denote a complex emotional reaction or state that varies in intensity and fluctuates over time as a function of the intrapsychic or situational stresses that impinge upon an individual (Spielberger, 1966)…".

Spielberger (1966) divides anxiety into two categories: state anxiety and trait anxiety. State anxiety emerges temporarily during a transitional stage due to the circumstances affecting a person's life, whereas trait anxiety is a life-long personality component. That is, state anxiety is basically a response to certain conditions, whereas trait anxiety is a response to a perceived threat or fear (Carron 1971). Bowen and Kerr (1988) defined anxiety as a response to a real or imagined threat. In the cognitive theories of anxiety, Clark and Beck (2011) defined anxiety in terms of cognitive appraisals. In their terms, anxiety provoking-triggering situations lead to anxious appraisals/thoughts. As a result, people experience anxious feeling. Exaggerated threat appraisals, heightened helplessness, inhibitory processing of safety information, impaired constructive or reflective thinking, automatic and strategic processing, self-perpetuating process, cognitive primacy and cognitive vulnerability to anxiety are the central tenets of cognitive model of anxiety (Clark& Beck, 2011).

Examining various studies from different countries, including Canada, the United States, Australia, the United Kingdom, France and Scotland, Bryant, Jackson and Ames (2008) found a prevalence of anxiety of 1.2% to 15%. Prevalence of anxiety symptoms was higher, ranging from 15% to 52.3%. Bayram and Bilgel (2008) found that 47.1% of 1,617 university students in Uludağ University in Turkey had moderate or severe symptoms of anxiety.

Locus of control is a psychological construct regarding individuals' belief that they are in control of the outcomes of their lives or that these outcomes are determined by external forces. Rotter (1966) categorized these two forms of locus of control as external control and internal control. According to him, external control is when a person perceives that actions or outcomes occur due to fate or chance. Conversely, internal control is when a person perceives that actions or outcomes occur purely because of his/her own characteristics. Locus of control has also been expanded conceptually, as health locus of control, academic locus of control,

etc. However, the core belief that individuals are in control of their future outcomes or not remains the same (Marr and Wilcox 2005; Satıcı, Uysal Akın 2013).

Differentiation of the self is a Bowenian concept that represents the level of interdependence in relationships. A key element of differentiation is emotional interdependence and how that affects the functioning of an individual (Bowen & Kerr, 1988, p.89). Differentiation of the self has a role in developing a better "self". Bowen and Kerr (1988) identified two levels of differentiation: basic and functional. Basic differentiation is the level of emotional separation of one's self from one's own family (family of origin), which is usually takes place around adolescence. Functional differentiation is mainly the degree of chronic anxiety that a person has. When an individual's anxiety level is high, their functioning may deteriorate because they become more emotionally reactive. Likewise, when anxiety is low, their functioning levels may increase since they are less reactive. In fact, one should be able to stabilize one's functioning without being affected by other people' anxiety (Bowen & Kerr, 1988).

Social support is defined as the help that people get from others when in need or stressful situations (Sarason & Sarason, 1982). Although the definition varies, the main idea remains the same. For Zimet (1988), social support includes a transaction, between support providers and receivers in terms of relationships between individuals. He defined the sources of social support as family, friends and significant others. The main reason of using Zimet (1988)'s definition of social support is about bringing the systemic paradigm of couple and family therapy in practice. By examining the social support as family, friends and significant other levels might give a better idea about how these social support types interact in the relational terms.

1.1 Bowen's Family Sytems Theory and Anxiety

Bowen theory was developed by a psychiatrist called Dr. Murray Bowen. The theory was developed over the course of 12 years and 10,000 hours of family psychotherapy observations to categorize human relationships. The theory's main concept is differentiation, which is closely related to managing anxiety, according to Bowen. This in turn helps individuals balance between their own selves and togetherness or social unity in their relationships (Priest 2015). Systems play an important role in Bowen theory. The interaction between three systems, the emotional system, the intellectual system and the feeling system, plays a role in relationships (Crossno, 2011). According to Bowen and Kerr (1988), the emotional system has evolutionary, instinctual functions, such as finding food, reproducing, rearing younger generations and social relationships. The intellectual system, the "thinking brain", represents the knowing and understanding capacity of human beings. The feeling system lies between the emotional and intellectual systems to make meaning from emotional reactions. These three systems affect each other reciprocally. Bowen's theory incorporates eight closely-related concepts: differentiation of the self, triangles, nuclear family emotional system, family projection process, multigenerational transmission process, sibling position, emotional cutoff and societal emotional process. Differentiation of the self refers to an individual's emotional interdependence from their relationships (Bowen & Kerr, 1988), including the ability to not be affected by the anxiety levels of others. Triangles are observed during moderate tension between people or systems due to anxiety (Bowen & Kerr, 1988). The nuclear family emotional system enables individuals within a family to adapt to many factors (Bowen & Kerr, 1988). According to the website of the Bowen Center for the study of the family, the family rejection process happens when parents transfer their emotional problems onto their children (The Bowen Center for the Study of the Family, n.d.). The multigenerational transmission process is related to the number of emotional process patterns

in nuclear a family (Bowen & Kerr, 1988). Sibling position helps to predict the personality characteristics of good-fit marriage partners (Bowen & Kerr, 1988) while emotional cutoff refers to the emotional distance in the family systems (Bowen & Kerr, 1988). According to the same website, the societal emotional process is about "how the emotional system governs behavior on a societal level, promoting both progressive and regressive periods in a society" (The Bowen Center for the Study of the Family, n.d.).

Papero (2014) notes that anxiety is a major component of Bowen's theory in that the more anxious people become, the more likely they are to perform reactive behaviors, such as being judgmental or distant. According to Bowen, people can develop chronic anxiety, which can create continuous tension their relationships (Papero, 2014).

Thus, anxiety along with differentiation of the self are the main concepts in Bowen family systems theory. Anxiety is a pushing force to differentiate from one's family of origin. Locus of control may overlap with differentiation in Bowen's theory since, by definition, internal locus of control can be related to differentiation. That is, people with higher internal locus of control are more differentiated from their families of origin and thereby better able to manage their anxiety. Conversely, people with higher external locus of control are less differentiated, which may create problems for highly anxious individuals. The theory does not, however, clearly address the concept of social support. Bowen and Kerr (1988) claim that the family's emotional social support affects anxiety, although it may increase or decrease. In addition, people who have differentiated their selves are better able to seek support because they have already developed stronger emotional contact with other systems (Bowen & Kerr, 1988).

Bowen also developed family systems theory, which defines the family as an emotional unit and the individual as a part of this unit (Kerr, 1988). Differentiation affects emotional interdependence in relationships, which impacts the individual functioning of the

person (Bowen & Kerr, 1988). According to Bowen and Kerr (1988), this differentiation also affects the self in that, as individuality increases, the person's togetherness will also increase because the self is better developed. Two important factors influence this emotional separation from a person's family of origin: the degree of their parents' emotional separation from their own families and how relationships are managed with the person's parents, siblings and other relatives (Bowen & Kerr, 1988). In the theory, differentiation means emotional separation from the family of origin while the functional level of differentiation depends on the process of relationships. The functional level of differentiation is influenced by anxiety (Bowen& Kerr, 1988). If anxiety is high, people can become less thoughtful and more reactive whereas, if anxiety is low, people can be more aware of the situation and more thoughtful in their relationship systems. Differentiation of self has two dimensions: intrapsychic and interpersonal (Skowron, 1998). Intrapsychic dimension (emotional reactivity and taking "I" position) includes the level of self-regulation between the thinking and feeling systems (Skowron & Schmitt, 2003). As a result, a person can express his/her own personal thoughts with a solid sense of self. Skowron and Schmitt (2003) also highlighted the interpersonal dimensions: fusion with others and emotional cutoff). Interpersonal dimension is about being comfortable with intimacy especially in close relationships. That is, the more differentiated individuals are better at regulating anxiety and therefore they are less likely to experience fusion with others and emotional cutoffs.

In the emotional system, triangles are formed by the emotional configuration of three people in a somewhat predictable pattern of emotional forces (Crossno, 2011). According to Bowen (1978), triangulation is one of the ways that people handle anxiety (Crossno, 2011). Kerr and Bowen (1988) summarized the basic nature of triangles as follows:

"1. A stable twosome can be destabilized by the addition of a third person

2. A stable twosome can be destabilized by the removal of a third person

3. An unstable twosome can be stabilized by the addition of a third person

4. An unstable twosome can be stabilized by the removal of a third person" (p.138)

Bowen and Kerr (1988) defined the nuclear family emotional system as resulting from the undifferentiation of family members. They stated that three patterns should be carefully examined for symptom development: illness in a spouse, marital conflict and impairment of one or more children. These patterns, which are heavily affected by anxiety, ultimately cause clinical dysfunction (Bowen & Kerr, 1988).

When parental undifferentiation is transmitted to the child, the family projection process starts (Bowen & Kerr, 1988). For example, if there is a little emotional separation between a mother and her mother then it is highly likely that there will be little emotional separation between the mother and her child (Bowen & Kerr, 1988).

The multigenerational transmission process operates across the generational level of family transmission (Crossno, 2011). Although this transmission from parents to their offspring may be small, it can cause differences in the process of differentiation of family members. According to Bowen and Kerr (1988), it is useful for identifying both people's stable extreme of functioning (i.e. longevity, lack of physical, social or emotional dysfunction, intact marriages) and people's unstable extreme of functioning (i.e. educational and/or professional disadvantage, serious physical, social or emotional dysfunction, cut-offs) in the assessment part.

According to Bowen, knowing sibling positions across all generations (past and present) helps individuals in their differentiation, projection and triangulation (Crossno, 2011). He was mainly interested in the role of sibling positions because he thought that this would enable therapists to understand better how spouses act, both in therapy and their

marriage (Crossno, 2011). Sibling position can be helpful when understanding the personality characteristics of a good-fit marriage partner.

In Bowen family systems theory, emotional cutoff and societal emotional process are not one of the original six concepts but were added in the 1970s. Emotional cut-off and emotional distance are used interchangeably. Family members engage in emotional cut-offs as way to manage undifferentiation. The level of undifferentiation creates emotional intensity and fusion across generation, making individuals more likely to cut off from their family members or other relatives (Bowen & Kerr, 1988). The societal emotional process conceptualizes the reciprocal roles played by families and society. That is, families affect society and society affect families in turn (Crossno, 2011). According to Bowen and Kerr (1988), an increase in societal anxiety can reduce the functional level of differentiation within that society. This will very likely lead to an increase in "social symptoms", such as high divorce rates, neglect of responsibilities and high crime rates (Bowen& Kerr, 1988).

Bowen's concepts are useful in understanding family systems and can be helpful in assessment. Each concept is closely related to the others so all concepts have a complementary role. The next chapter reviews the literature about anxiety, locus of control, social support and differentiation. The study variables will also be discussed from the Bowenian perspective.

CHAPTER 2

LITERATURE REVIEW

2.1 Anxiety and Locus of Control

This section discusses research findings regarding the relationship between anxiety and locus of control. As we will elaborate further, there is a variety of cross-cultural studies about the relevant topic.

From his review of previous studies of the relationship between locus of control and general trait anxiety, locus of control and situation-specific measures of trait anxiety, and locus of control and state anxiety, in Florida, the United States, Archer (1979a) concluded that there are no significant differences caused by demographic variables but that there is a relationship between trait anxiety and external locus of control, and between internal locus of control and low trait anxiety, at least in some studies. In his seminal work similarly, Archer (1980) also examined the relationship between locus of control, trait anxiety and psychopathology, collecting data from 186 psychiatric inpatients (92 females, 94 males) in the Early Intervention Project of the Florida Mental Health Institute. By using Rotter's (1966) Internal-External Locus of Control Scale for measuring locus of control, the State-Trait Anxiety Inventory (STAI) of Speilberger, Grosuch and Lushene (1970) for measuring trait anixety, and the Minnesota Multiphasic Personality Inventory (MMPI) to assess psychopathology, he concluded that high trait anxiety and external locus of control were both related to psychopathology whereas internal locus of control and high trait anxiety were associated with the lowest rate of psychotic disorders and highly associated with rates of neurotic diagnosis. Internal locus of control was found to be associated with the feelings of responsibility, rumination, worry and inadequacy in high trait anxious people. There was also a significant interaction between locus of control and trait anxiety. Another contribution from Minnesota, the United States, done in the study of Ollendick (1980). He studied the locus of conflict in relation to locus of control and anxiety in a disadvantaged youth population, using data from 134 fourth grade children of about nine years old (66 males and 68 females), who were attending elementary school in a low SES district of a Midwestern US city. He used the Nowicki-Strickland Locus of Control Scale for Children to measure locus of control and the Speilberger State-Trait Anxiety Inventory for Children to measure trait anxiety. The children's parents administered the Armentrout Locus of Conflict Rating Scale for measuring

locus of conflict. He found that external locus of control and high anxiety were significantly correlated for both males and female children.

In the literature findings, we can also observe a similar trend or findings in cross-cultural studies. For example, from North Caroline, the United States, Post and Robinson (1998) studied anxiety, locus of control and self-esteem in a sample of young children of alcoholic parents (YCOA). The data was collected from 108 elementary and middle school students (49 males, 60 females) ranging between 9 and 15 years old. By using the Children of Alcoholic Information Test for measuring the feelings, attitudes, perceptions and experiences of children with alcoholic parents, the State-Trait Anxiety Inventory for measuring state anxiety, the Nowicki-Strickland Locus of Control Scale for measuring locus of control and the Coopersmith Self-Esteem Inventory for measuring self-esteem, they found that young children of alcoholic parents reported higher state anxiety levels, more external locus of control and lower levels of self-esteem than young children of non-alcoholic parents. Likewise, from Pittsburg, the United States, Warnecke, Baum, Peer and Goreczny (2014) studied the relationship between anxiety, self-efficacy, locus of control, subjective happiness, life satisfaction and optimism in graduate students. They have collected data from 113 graduate students (16 males, 89 females) with a mean age of 25 years from a university. They used the Depression Anxiety Stress Scale (DASS) for measuring state anxiety, General Self-Efficacy Scale for measuring self-efficacy, Satisfaction with Life Scale for measuring life satisfaction, Life Orientation Test-Revised scale for measuring optimism and depression, Rotter's Locus of Control Scale for measuring locus of control and the Subjective Happiness Scale for measuring happiness. They concluded that the anxiety levels of graduates were positively correlated with the level of depression and stress. In contrast, life satisfaction, self-efficacy and subjective happiness were negatively correlated with anxiety. Surprisingly, there was no significant relationship between state anxiety and locus of control. This study pointed

an interesting fact that psychology students were found to be more depressed, more stressed and with more internal locus of control than students of occupational and physical therapy. The researchers explained this in terms of the difference between "hard science (psychology)" and "soft science (occupational and physical therapy)". From the eastern side of the world-in Beijing, China- Pu, Hou and Ma (2017) investigated the mediating effect of self-esteem and trait anxiety on the relationship between locus of control and subjective self-being, using data from 400 undergraduates (214 male, 186 female) of four different universities, with an age range of 19-24 years. They used the Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANS-IE) for measuring locus of control, the Rosenberg Self-Esteem Scale (RSES) for measuring self-esteem, State-Trait Anxiety Inventory (STAI) for measuring trait anxiety and Subjective Well- Being Scale (SWBS) for measuring subjective well-being. They concluded that external locus of control was positively correlated with trait anxiety but negatively correlated with self-esteem, positive affect and life satisfaction. The negative relationship between locus of control and SWB was best explained by a partially mediated model, whereby both trait anxiety and self-esteem have a mediating effect on the relationship between locus of control and SWB. The causal path was found to run from locus of control to SWB through trait anxiety or self-esteem. That is, people with internal locus of control have a more optimistic perspective in difficult conditions and show higher self-esteem, whereas the opposite true for those with external locus of control. Similarly, people with internal locus of control have a more positive view about their effort and working experiences whereas those with external locus of control perceive their effects as minimal. Thus, people who have more positive experiences and satisfaction in life are more likely to show positive evaluations, thereby demonstrating the role of trait anxiety on the relationship of locus of control and SWB.

Another contribution from Jordan done in the study of Aldalalah and Gasaymeh (2014). They studied the influence of locus of control and anxiety on perceived blended learning competencies and obstacles. Blended learning refers to an integrative learning process where teachers use both online and classroom methods in class to enable students to develop a set of skills. They collected data from 107 technology students (46 male, 61 female) with an age range of 19-22 years, in Jadara University. They used the Blended Learning Scale for measuring perspectives about blended learning, Obstacles of Blended Learning Scale for measuring perceived obstacles of blended learning, Trait Anxiety Scale for measuring anxiety levels and the Intellectual Achievement Responsibility scale for measuring locus of control. With having no significant differences regarding demographic variables, students with external locus of controlled did not prefer blended learning whereas students with internal locus of control preferred blended learning more. The researchers explained this finding in terms of the students' motivation in interactive learning processes. They also found that students with internal locus of control demonstrated higher competencies than those with external locus of control. Finally, students with higher levels of anxiety were less likely to prefer blended learning.

In Turkey, Arslan, Dilmaç and Hamarta (2009) examined the relationship between coping with trait anxiety and stress in terms of locus of control, using data from 514 students (228 male, 286 female) in Selçuk University, Konya, Turkey. Participants completed the State-Trait Anxiety Inventory (STAI), Rotter Locus of Control Scale (RLCS) and Coping with Stress Scale (CSS). They concluded that students with high trait anxiety scores had higher scores in external locus of control. The researchers speculated that people with higher trait anxiety have higher external locus of control than people with state anxiety. This finding was consistent with the previous literature findings showing that people with external locus of control experience more anxiety than those with internal locus of control. Conversely,

people with internal locus of control have lower degrees of anxiety and therefore adopt more problem-focused coping strategies than those with external locus of control. The authors emphasized the importance of self-confidence, self-esteem and taking responsibility for one's behavior as indicators of internal locus of control. The same researchers also studied the relationships between trait anxiety, locus of control and attachment styles, using data from 400 undergraduates (267 female, 213 male) with an age range of 17-26 years in Selcuk University, Konya, Turkey. Participants completed the State-trait Anxiety Inventory (STAI), Rotter Locus of Control Scale and Inventory of Experiences on Close Relationships (IECR). Participants with external locus of control displayed more anxious and avoidant attachment behaviors than those with internal locus of control. The authors concluded that these relationships demonstrate the importance of parental attitudes on the development of anxiety and locus of control (Dilmaç, Hamarta, & Arslan, 2009).

To sum up, cross-cultural studies show that there is a relationship between locus of control and anxiety. The trend can be seen as that people with high trait anxiety have external locus of control while people with internal locus of control report lower trait anxiety. This relationship seems to affect individuals' subjective well-being, attachment, coping and even learning styles. The trend about the relationship between state anxiety and locus of control is mixed and limited. Some studies demonstrated the similar trend about the relationship between state anxiety and locus of control. That is, people who have high levels of state anxiety reported high levels of external locus of control. Whereas in some studies, there was not found to be a clear relationship between these two predictors.

2.2 Anxiety and Social Support

In this section reviews the many studies of the relationships between anxiety and social support, using a variety of sample groups, such as college students, children, spouses

of soldiers, athletes and first-time mothers. Based on the literature review about the relevant topic, it can be concluded that many of the studies were based in the United States. Contributions from other countries has been found very limited. The research findings consistently indicate a negative correlation between level of anxiety and level of social support.

Only one study from Ghana can show us the trend about the relationship between social support and anxiety. Kugbey, Osei-Boadi and Atefoe (2015) examined the influence of social support on levels of anxiety, depression and stress, using data from 165 22 to 23-year-old students from the University of Ghana. They used the Multidimensional scale of perceived social support (MSPSS) and Depression Anxiety Stress Scale (DASS-21). Social support was negatively correlated with levels of depression, state anxiety and stress whereas there were no significant differences for anxiety between the sources of the social support. Another study with a student sample has been done by Vélez et al. (2016) in Conneticut, the United States. The researchers studied how the relationship between social support seeking and rumination interacted in predicting depression and trait anxiety symptoms in children, using data from 118 children between the ages of 11 and 14. An assessment was made at baseline and the six months later using the Children's Depression Inventory (CDI), Reynolds Adolescent Depression Scale second edition (RADS-2) and Revised Children's Manifest Anxiety Scale (RCMAS). The short form of the Ruminative Responses Scale (RRS) of the Response Style Questionnaire and Children's Coping Strategies Checklist (CCSC) as a social support seeking measure were used at baseline. The researchers reported that social support seeking as a coping mechanism was associated with lower symptoms of depression and trait anxiety in the condition of low rumination.

There are some studies that showing the relationship between family support and anxiety. The trend is about experiencing less of anxiety and depression symptoms, when

family support is provided. For example, in Michigan, the United States, Covassin et al. (2014) collected data from 126 injured athletes with an age range of 18 to 24 years. The State-Trait Anxiety Inventory for measuring state anxiety and modified 6-item Social Support Questionnaire were administered. The researchers concluded that injured athletes reported higher trust in their family members when they felt tense/anxious . That is, they were more satisfied with the social support coming from their families. Similarly , in California, the United States, Sangalang and Gee (2012) studied the effects of social support and social strain on anxiety and depression among 2,095 Asian American respondents (mean age 41 years). The Composite International Diagnostic Interview of the World Health Organization (WHO-CIDI) was used to assess generalized anxiety disorder (GAD) and Major Depressive Disorder (MDD), diagnosed according to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). The brief six-item scale from NLAAS(National Latino and Asian American Study) was used to assess social support and there were two questions for measuring social strain. As a result, participants rated low level of anxiety and depression when they have family support. Family strain was related to increased likelihood of depression and anxiety disorders.

Studies, also, highlight the relationships between various kinds of social support and anxiety. In Ohio, the United States, Yang, Schaefer, Zhang, Covassin, Ding and Heiden (2014) studied the relationship between social support from athletic trainers during injury recovery and levels of depression and state anxiety. Two hundred and eighty seven participants completed the Social Support Questionnaire, Center for Epidemiological Studies Depression Scale and State-Trait Anxiety (STAI). The researchers concluded that injured athletes who received social support from their athletic trainers were less likely to experience depression and state anxiety. Similarly, in Michigan, the United States, the relationship between social support from significant other and anxiety has been demonstrated (Chavis,

2016). Chavis (2016) studied the relationship between anxiety, social support and competence in first-time mothers, collecting data from 86 mothers. The mothers completed the Parenting Sense of Competence Scale (PSCS), Multidimensional Scale of Perceived Social Support (MSPSS), Generalized Anxiety Disorder-7 (GAD-7) and Beck's Depression Inventory (BDI-II). As a result, support from the significant other lessened the mother's postpartum anxiety, in contrast to support from friends and family. In that case, the researchers concluded that the support of significant others was perceived as most effective since they were the ones providing support for daily tasks whereas friends and families can considered as outsiders regarding daily tasks.

Lastly, in Memphis, the United States, Field, Nichols, Martindale-Adams, Zuber and Graney (2012) examined the relationship between anxiety, social support and physical health in spouses of returning service men and women from Iraq and Afghanistan. In total, 86 female spouses with a mean age of 37 years completed the Generalized Anxiety Disorder-7 scale, Social Support Index (SSI) and one item from the general health subscale of the Short Form-36 for measuring self-perceived health, along with specific questions for assessing physical problems via telephone. As a result, the non-GAD group reported higher levels of social support than those with GAD. People with high anxiety reported worse perceptions of overall health. The same relationship between anxiety and social support has been demonstrated on brain activity level. In Pittsburg, the United States, Hyde, Gorka, Manuck, and Hariri (2011) conceptualized trait anxiety as threat-related amygdala reactivity. They collected data from 103 participants with an age range of 31 to 54 years. They used fMRI techniques for measuring amygdala reactivity, the Interpersonal Support Evaluation List (ISEL) for measuring availability of social support, Revised NEO Personality Inventory (NEO-PI-R) for measuring anxiety, one subscale of the Temperament and Character Inventory (TCI) for measuring anticipatory worry, State-Trait Anxiety Inventory (STAI) for

measuring trait anxiety, and Positive Affect Negative Affect Schedule (PANAS) for measuring positive and negative affect as both personality states and traits. As a result, social support significantly predicted threat-related amygdala reactivity. Both amygdala reactivity and anxiety levels were high in people who reported below average levels of social support whereas the opposite was true for those reporting average or above average levels of social support.

As a result, we can observe a similar trend about the relationship between anxiety and social support, regardless of the anxiety type. There was found to be a negative correlation between social support and anxiety levels. That is, people who have high levels of social support reported lower levels/symptoms of anxiety. This relationship seems to be evident for both trait and state anxiety.

2.3 Social Support and Locus of control

This section reviews research into the relationship between social support and locus of control. The cross-cultural studies will help us to understand the current trends about the relationship between locus of control and social support.

Sandler and Lakey (1982) investigated the stress-moderating effects of locus of control, social support and perception of control following negative events, using data from 93 undergraduate psychology students (28 male, 68 female) in Arizona, the United States. The students were allocated, based on their scores on the Mirels locus of control items (1970), to either the internal or external locus of control group. Participants completed the College Student Life Events Schedule, Inventory of Socially Supportive Behaviors (ISSB), Beck Depression Scale (BDS) and State-Trait Anxiety Inventory (STAI). As a result, locus of control was related with social support in that participants with external locus of control received more support than those with internal locus of control. However, people with

internal locus of control benefited more from social support than those with external locus of control. On the other hand in South Carolina, the United States, Marr and Wilcox (2015) studied the mediating effect of social support on the relationship between internal health locus of control and health behaviors. Health locus of control represents the degree that people believe they control their current and future health. They collected data from 838 college students (543 males, 614 females) with the mean age of 21 years, via online survey. They used the Multidimensional Health Locus of Control Scale (MHLC) for measuring internal locus of control, the short form of the International Physical Activity Questionnaire (IPAQ) Short Form for measuring physical activity. Dietary fat (%FAT) was measured with the National Cancer Institute's Quick Food Scan. They found that social support along with and self-efficacy mediated the relationship between internal locus of control, physical activity, and fruit and vegetable intake. That is, individuals who believe they are in control of their current and future health are more likely to engage in physical activity and eat more fruit and vegetable intake (as an indicator of health-related behavior). This finding was consistent with previous findings that health locus of control beliefs predict health behaviors. In Canada, Lefcourt, Martin and Saleh (1984) also studied the relationship between social support and locus of control as interactive moderators of stress in psychology students. They conducted three studies using the College Student Recent Life Events Schedule (CSRLES) for assessing the latest event its effects in the participants' lives, Inventory of Socially Supportive Behaviors (ISSB) for measuring the level and frequency of social support, Multidimensional-Multi-attributional Causality Scale for measuring achievement and affiliation, Personality Research Form (PRF) for measuring affiliation and autonomy and Profile of Mood States for measuring the occurrence of negative moods (tension, depression, anger, fatigue and confusion). They collected data from 46 (22 males, 24 females) first-year psychology students in study 1, 99 subjects (58 males, 41 females) in study 2 and 66 subjects (17 males,

49 females) in study 3. They found that students with internal locus of control seemed to benefit from social support more than those with external locus of control. They argued that this was because internal locus of control leads people to be highly autonomous and internally achievement oriented.

In Oslo, Norway, Dalgard, Bjork, and Tambs (1995) investigated social support, locus of control and negative life events in a 10-year longitudinal study with an initial sample was 1,010 adults. The data was collected from 501 people, using questionnaires to measure mental health (anxiety, depression and somatization), social support, long-lasting adversities and negative life events, and Rotter's Locus of Control Scale. A significant interaction between negative life events, social support and locus of control has been found. That is, participants with external locus of control benefited more from the buffering effect of social support than those with internal locus of control. In Groningen, Netherlands, VanderZee, Buunk and Sanderman (1997) studied the relationship between social support, locus of control and psychological well-being in both older and younger samples. In study 1, they collected data from 240 university students (33 males, 207 females) with a mean age of 23 years. Participants completed the Center for Epidemiology Studies Depression Scale (CESD), Social Support Questionnaire (SSQ) and one item from the Multidimensional Health Locus of Control Scale (MHLS). They found that social support was associated with psychological well-being, especially for people with external locus of control. Moreover, participants with internal locus of control were less likely to be depressed. In study 2, they collected data from 346 residents in a Dutch town (125 males, 221 females) with a mean age of 44 years, using the RAND 36 Health Survey for measuring psychological health, Loneliness Scale for measuring perceived social support and the short version of the MHLS for measuring locus of control. A hierarchical regression analysis indicated that people with internal locus of control perceived receiving more social support than those with external locus of control.

In Ankara, Turkey, Gençöz and Astan (2006) studied the effect on locus of control on the relationship between social support and psychological well-being for 104 hemodialysis patients (70 males, 34 females). The mean age of the participants was 46 years while the mean duration of hemodialysis treatment was 45 months. The researchers used the Beck Depression Inventory (BDI) for measuring depressive symptoms, Rotter's Internal-External Locus of Control Scale for measuring locus of control, Multidimensional Scale of Perceived Social Support (MSPSS) for measuring available social support and one question for measuring Satisfaction from Received Social Support. Regression analysis showed that for participants with internal locus of control, social support was negatively associated with depression. Those with external locus of control reported more satisfaction from received social support and rated their depressive symptoms as lower. The researchers emphasized the importance of different aspects of social support and the level of locus of control on psychological well-being. In addition to that, Satıcı, Uysal and Akın (2013) studied academic locus of control specifically, the relationship between academic locus of control and social support. Academic locus of control represents the degree students believe that they are in control of their own personal educational achievements and failures. Students with internal locus of control are more likely to have better academic achievement than those with external locus of control. The researchers collected data from 306 18 to 25-year-old university students (174 females, 132 males) in Ankara,Turkey. They used the Multidimensional Scale for Social Support (MSPSS) for measuring social support and Academic Locus of Control Scale (ALOCS) for measuring academic locus of control. The researchers found that perceived social support was associated with internal academic locus of control and negatively with external locus of control. There was a negative correlation between perceived social support and external academic locus of control. That is, students with less social support are more likely to have external academic locus of control and may feel that they are

not in control of their academic achievements. This demonstrates the importance of social support (perceived social support from family and peers) in understanding academic locus of control. Lastly, Yaycı (2016) studied the relationship between high school students' locus of control and perceived social support of families, using data from 301 high school students (96 females, 205 males) in Giresun, Turkey. The Scale of Perceived Social Support from Family (SPSSF) was used for measuring the level of family social support and Rotter's Internal-External Locus of Control Scale (RIELCS) for measuring locus of control. The more students received social support from their families, the more likely they were to have external locus of control.

To sum up, the majority of studies find associations between locus of control and social support. Generally, people with external locus of control report receiving more social support, people internal locus of control report benefiting more from the received support. This relationship may affect various aspects of individuals' lives, including competency, reducing depressive symptoms and decision-making about leaving a job.

2.4 Differentiation of the Self, Anxiety and Locus of Control

This section reviews research on the relationship between differentiation of the self, anxiety and locus of control. The cross-cultural studies about the relationship between differentiation of self, anxiety and locus of control will be examined in detail.

There are studies some studies that shows the relationship between differentiation of self and social anxiety. In Israel, Peleg-Popko (2002) investigated the relationship between differentiation, social anxiety and physiological symptoms in 117 Israeli students with an age range of 20 to 28 years using the Differentiation of Self-Inventory, Social Anxiety Scale-Revised and Psychometric Symptom Checklist (PSC). As a result, students who were better differentiated from their families had lower levels of social anxiety than students who were

poorly differentiated. Physiological symptoms were also negatively correlated with differentiation. The very same trend can be seen as in the study of Peleg and Zoabi (2014). They collected data from 300 Jewish and Arab Israeli undergraduates with a mean age of 28 years. Participants completed the Differentiation of Self-Inventory-Revised (DSI-R) and Social Anxiety Scale-Revised (SAS-R). The researchers found a negative relationship between social anxiety and differentiation of the self for both ethnic groups. The relationship between differentiation of self and social anxiety is seemingly evident across generations. Peleg (2005) examined the relationship in 40 Israeli students between the parents' self-differentiation and their offspring's social anxiety with a sample reflecting family patterns across three generations. All participants filled out Differentiation of Self Inventory (DSI), Differentiation in the Family System Scale (DIFS) and Social Anxiety Scale-Revised (SAS-R). Regression analyses showed that parents' level of differentiation (differentiation of family and self) predicted their offsprings' level of differentiation. The researcher emphasized the importance of family-of-origin patterns transmission. Parents' level of social anxiety and students' level of social anxiety were also highly associated. However, parents' level of differentiation did not predict students' level of social anxiety.

Literature findings are also evident for the relationship between differentiation of self and trait anxiety. For example, in the study of Peleg-Popko (2004), the resarchers examined the relationship between differentiation of the self, test anxiety, trait anxiety and cognitive performance in 334 elementary school children with an age range of 12-13 years. Students completed the Differentiation of Self Inventory (DSI), Differentiation in the Family System Scale (DIFS), Test Anxiety Inventory (TAI), Trait Anxiety Inventory for Children (TAIC) and Digit Symbol Coding (DSC) from the Wechsler intelligence scale (WISC). As a result, participants with lower levels of differentiation from their families reported higher levels of both test anxiety and trait anxiety. Similarly, Maynard (1997) studied the relationship

between differentiation of the self and state-trait anxiety for adults with a family history of alcoholism. Participants were divided into three groups: 40 participants who had with no history of alcoholism in their families; 43 participants with a family history of alcoholism and who had received treatment; 29 participants with a family history of alcoholism but who were never treated. The researcher assessed differentiation of the self with the Haber Level of Differentiation of Self Scale (LDSS) and state-trait anxiety with the State-Trait Anxiety Inventory (STAI). There was a significant negative relationship between differentiation and anxiety and an ever stronger positive association between differentiation of the self and trait anxiety. The same trend can be seen in the study of Xue et al. (2018). They studied the relationship between differentiation of the self, adult attachment, and trait and state anxiety in people with anxiety-related disorders. They collected data from 114 individuals with ages of 18-65 years old. The control sample consisted of 117 age and gender-matched individuals. Differentiation of Self Inventory (DSI) was used for assessing level of differentiation, Close Relationships-Revised Version (ECR-R) for measuring adult attachment and State-Trait Anxiety Inventory (STAI) for assessing level of trait and state anxiety. MANCOVA and Spearman correlation analyses indicated that people with anxiety disorders had higher levels of emotional reactivity (one level of differentiation), as an indicator of the relationship between differentiation and anxiety. People with anxiety disorders were found to have lower levels of differentiation than the control sample.

In addition, the relationship between separation anxiety and differentiation of self is evident. In the study of Peleg, Halaby and Whaby (2006), they examined the relationship between separation anxiety of preschoolers and adjustment to kindergarten, and their mothers' level of differentiation and separation anxiety. They collected data from two groups in Israel. The first group included 38 children with an age range of 3 to 4 years. The second group included 38 mothers with an age range of 24 to 40. The researchers used the

Differentiation of SELF Inventory (DSI) for measuring the level of differentiation of mothers, Maternal Separation Anxiety Scale (MSAS) for assessing the level of separation anxiety in mothers and Rutter's Teachers' Questionnaire (TQ) for measuring the teachers' assessment of the children's adjustment to kindergarten. Children's separation anxiety was measured by observing and videotaping separation from their mothers. Mothers and their children were videotaped for 3 days to assess separation behaviors after voluntarily consenting to participate the study. As a result, correlational and multiple regression analyses demonstrated a positive correlation found between mothers' and children's separation anxiety. There was a significant negative relationship between children's separation anxiety and the mothers' differentiation. Similarly, Peleg and Yitzhak (2011) examined the relationship between differentiation of the self and separation anxiety in 60 Israeli couples who had been married for 6 years but had no children. Husbands and wives separately completed the Differentiation of Self-Inventory-Revised (DSI-R) and Separation Anxiety Test (SAT). Multiple regression analyses showed that higher levels of fusion were associated with higher levels of separation anxiety for men whereas for women, emotional reactivity was associated with higher levels of separation anxiety. Women also reported higher levels of separation anxiety than men.

Literature findings are limited for the relationship between locus of control and differentiation. Only one study from Ohio, the United States examined this relationship. Gabelman (2012) examined the effect of locus of control and differentiation of the self on relationship satisfaction, using data from 176 couples who had sought couple therapy. The mean ages of the male and female participants were 32 and 30 respectively. Relationship satisfaction was measured by a single-item scale. Couples also separately completed the Differentiation of Self Inventory (DSI) and Rotter's Locus of Control Scale. External locus of control was associated with emotional cut-off (one level of differentiation), especially for

males. That is, people with external locus of control were less likely to see problems in their relationship because of their own actions so they may experience more emotional cut-off than those with internal locus of control. The level of cut-off for males were also found to be related with both the males' and females' relationship satisfaction. There was no direct relationship between marital satisfaction and locus of control. Therefore, the researcher concluded that people with internal locus of control feel more in control of what happens to them. They are more likely to see problems and actively try to solve the problem, thereby reducing emotional cut-off.

To sum up, research indicates that anxiety, differentiation of the self and locus of control are related. However, these studies have some limitations. Anxiety was examined mostly through separation anxiety and test anxiety. People with higher levels of separation anxiety rate lower for differentiation, as is the case for people with test anxiety and trait anxiety. Ethnic differences and family of origin were also studied regarding the relationship between anxiety and differentiation of the self. Locus of control and differentiation (emotional cut-off) were also found to be related. The research evidence suggests that people with internal locus of control are less likely to emotionally cut-off than those with external locus of control. Some studies have suggested that relationship satisfaction and cognitive abilities may be affected by this relationship.

2.5 Statement of the Problem

Anxiety is a worldwide problem that changes people's attributions to external events, significantly affects their lives, and which many may face at any point in their lives. There are many studies which show us the trend between anxiety, locus of control, social support and differentiation. In the literature, findings the relationship between anxiety and social support is evident. That is, people who have social support tend to report lower levels of

anxiety. The trend can be seen for both trait and state anxiety. Even some researchers suggest that the type of social support positively affects the level of anxiety. Social support from family and significant other are tend to alleviate the symptoms of anxiety. The only limitation about this trend in the literature is that these findings have been mainly developed in the United States. This study also aims to fill this gap by examining the trend within Turkish population. In addition, there are empirical evidence which highlights the relationship between social support and locus of control. People who have external locus of control tend to receive more social support. Whereas, people who have internal locus of control tend to benefit more from social support. Also, there are studies which shows the mediating effect of social support on the relationship between internal locus of control and health behaviors. People who have internal locus of control tend to have a more positive view about the problematic situation and thus they would be able to not only cope with it, but also gain more from the social support received. The very same trend can be seen in the relationship between anxiety and locus of control. The trend is that people who have higher levels of trait anxiety reported high levels of external locus of control. Similar findings are also evident for state anxiety. Some studies, even, suggest that locus of control accompanied by anxiety affects the preference of learning styles. Although, at a first glance the reader might think that there is a glorifying bias when it comes to internal locus of control. However, the main trends from cross-cultural studies have been represented in the literature review in previous sections. Also, external locus of control has been found to be related not only with social support but also attachment styles. This would bring us to the final element of this study, differentiation of self. The findings about the relationship between differentiation of self, anxiety and locus of control is limited and yet sufficient. People who have high level of differentiation tend to report low level of anxiety. This link is also evident for different types of anxiety (test anxiety

and separation anxiety). Literature findings show the negative correlation between external locus of control and differentiation.

Based on the relevant findings reviewed so far, the following hypotheses can be stated:

H1: Level of social support will be associated with trait anxiety after accounting for the differentiation of self and external locus of control variables. People who have low level of trait anxiety will rate high level of social support. Similarly, people who have high level of trait anxiety will rate low level of social support.

H2: Locus of control (external) will be associated with trait anxiety after accounting for the social support and differentiation of self variables. People who have high external locus of control will rate their trait anxiety level as high.

H3: Level of self-differentiation will be associated with trait anxiety after accounting for the social support and external locus of control variables. People who have high trait anxiety will rate their self- differentiation as low. Likewise, people who have low trait anxiety will rate their self-differentiation as high.

H4: Level of social support will be associated with state anxiety after accounting for the external locus of control and differentiation of self variables. People who have high level of social support will rate their state anxiety level as low. Similarly, people who have low level of social support will rate their state anxiety level as high.

H5: Level of locus of control (external) will be associated with state anxiety after accounting for the differentiation of self and social support variables. People who have high external locus of control will rate their state anxiety level as high. People who have low external locus of control will rate their state anxiety level as low.

Literature findings suggest that is a gender effect on anxiety. In many studies, females were found to have high levels of state/trait anxiety as compared to males (Kushnir, 1981; Koç & Dündar, 2018; Panno, Donati, Milioni, Chiesi, & Primi, 2018; Khodayarifard, Anshel, & Brinthaupt, 2006; Mellanby & Zimdars, 2011). We interested in the effects of sibling position on anxiety. And, we found that the findings about the relationship between birth order and sibling position were mixed. In some studies, there was no birth order effect on anxiety (Kushnir, 1981; Li & Zhang, 2008).Whereas, in some studies, first born children were found to be less anxious (Gates, Lineberger, Crockett, & Hubbard, 1988). Also, we considered the effect of living with family. Chung and Gale (2009) was found that there was no significant relationship between living with family and differentiation of self. Therefore, we concluded that gender, living with family and sibling position will be checked as control variables.

The goal of this study is to examine the relationship between anxiety, social support and locus of control from a Bowenian perspective by adding the key term of Bowen Family Systems theory, differentiation of self. As we have seen above, literature findings are lacking when it comes to the relationship between locus of control and differentiation. Even in some studies we have seen this relationship was only found to be meaningful for males (Gabelman, 2012). Also, literature findings were found to be lacking in relevant concepts for Turkish population. In this study, these relevant concepts were examined with a Bowenian perspective. This would not only fill the gap in the literature for Turkish population but also health professional from Turkey and many other countries will benefit more. By examining different predictors (social support, locus of control, and differentiation of self) consequtively, our knowledge about anxiety might expand to various levels.

CHAPTER 3

METHODS

3.1 Sample

A power analysis was conducted for determining the same size. By using G*Power 3.1 program, with an alpha level 0.05 and power of .90 it has been found that 400-450 participants were needed in order to test 5 variables and their relations with each other.

The data were collected both via online and pen-and-paper questionnaire format. The questionnaire was administered online to the students of Ozyeğin University(N=240), Koc University students (N=28), Boğaziçi University (N=91) via using Qualtrics. They received one extra credit for participation. Pen-and-paper questionnaire format was given to the students of Maltepe university (N=147) and Acıbadem University (N=23). Those students were also given an extra credit for participation. The Qualtrics link of study was shared publicly from social media and e-mail groups. Participation from these populations was voluntary. . The data was collected by using convenient sampling method. All participants received the same questionnaires.

As eligibility criteria, participants must have been in the age range of 18-25 and they must read and understand Turkish. The rationale behind the age range came from Bowen and Kerr (1988) who stated the level of differentiation increases as one's getting older. It's the age range when we can see the level of differentiation as in high rates. People with this age range are generally college students and they are more likely to experience differentiation from family members. Also, literature findings suggest that the differentiation of self with an age range of 18-25 is closely related to psychological stress, psychological development, collage adjustment, psychological adjustment, social problem solving skills, social bonding and shame feeling (Işık&Bulduk, 2014). Therefore, in this study we collected data from this

group. Participants who are above 25 years old were excluded from the study. Also, participants who cannot speak and understand Turkish were not included in the study.

3.2 Procedure

Participation was voluntary, although extra credit for participation was taken into consideration by instructors. The data have been analyzed by hierarchical regression in SPSS. As Field (2009) explains, hierarchical regression includes selection of predictors based on past research evidence and the order of these variables are determined by the experimenter. In general, the first variable entered is assumed to be the most important. In this model, the variables were be added step by step Hierarchical linear regression was conducted.

3.3 Measures

In this study, State-Trait Anxiety Inventory (STAI), Differentiation of Self Inventory, Multidimensional Scale of Perceived Social Support (MSPSS) and Rotter's Locus of Control Scale will be used as measurement instruments.

State-Trait Anxiety Inventory (STAI). The STAI was developed by Spielberger, Gorsuch and Lushene (1970) for measuring the level of state and trait anxiety in individuals older than 14 years. The inventory has two separate parts, each of 20 items. Individuals answer each item using a 4-point Likert-type scale, ranging from 1 for "not at all" to 4 for "completely". The state anxiety scale includes items such as "I am tense" and "I feel secure" while the trait anxiety scale includes items like "I worry too much over something that really doesn't matter" and "I am a steady person". The Turkish adaptation of the scale was done by Öner and LeCompte (1985). The test-retest reliability of the Turkish adaptation was calculated using Pearson Product-Moment Correlation Coefficient. The coefficients were .73 and .86 for the Trait Anxiety Scale and.16 and .54 for the State Anxiety Scale. Kuder-Richardson's Alpha Correlations were calculated for internal consistency and homogeneity (Öner, 2012).

For the Trait Anxiety scale, the range was found to be between .83 and .92 while for the State Anxiety Scale, the range was .86 to .92. The total STAI score can vary between 20 and 80 with a higher score meaning higher anxiety.

Differentiation of Self Inventory. The Differentiation of Self Inventory was developed by Skowron and Friedlander (1998) for measuring Bowen's concept of differentiation of the self. The Turkish adaptation of the inventory was done by Işık and Bulduk (2015). The scale has 20 items that assess Emotional Reactivity (ER), "I" Position (IP), Emotional Cutoff (EC) and Fusion with Others (FO). A six-point scale is used for rating each items, from 1= "not at all true for me" to 6 = "very true for me". Higher scores mean higher anxiety. Cronbach's alpha levels were calculated to test internal consistency, which were .81 for the total scale, .78 for ER, .75 for IP, .77 for EC and .74 for FO. The coefficient value for test-retest reliability was .74.

Multidimensional Scale of Perceived Social Support (MSPSS). The 12-item MSPSS was devised by Zimet, Dahlem, Zimet and Farley (1988) to assess perceived social support by family, friends and significant others. The Turkish adaptation of the scale was done by Eker, Arkar and Yaldız (2001). Cronbach's alpha levels for each subscale's internal consistency were .85 for "Family", .88 for "Friends" and .92 for "Significant other" while the internal consistency for the overall scale was.89. The scale includes items such as "My family really tries to help me", "There is a special person with whom I can share my joys and sorrows" and "I can count on my friends when things go wrong".

Rotter's Locus of Control Scale. This was developed by Rotter (1966) to includes 29 items to measure individuals' locus of control. The scale includes items such as "A good leader expects people to decide for themselves what they should do / A good leader makes it clear to everybody what their jobs are" and "There are certain people who are just no good / There is some good in everybody". Individuals are expected to rate one of the best fit of the given two

choices in an item. The scale can be administered to individuals over 17 years old and takes approximately 15 minutes to administer. Scores can vary between 0 and 23. The Turkish adaptation of the scale was done by Dağ (1991). Cronbach's alpha values for internal consistency range between .11 and .48 while the coefficient value for test-retest reliability ranges between .49 and .83 (Öner, 2012).

CHAPTER 4

RESULTS

The results will be presented in four sections: first, the demographic characteristics of the sample of 440 participants; second, the descriptive statistics and correlations for the predictive and outcome variables; third, the ANOVA and correlation analyses; fourth, the results of the hierarchical and stepwise regression analyses to examine the effects of social support, locus of control, and differentiation of self on anxiety.

4.1 Demographic Characteristics of the Sample

The final sample for this study consisted of 445 students from different universities in İstanbul, as in Table 4.1. A set of questionnaires was given to 518 initial participants in either pen-and-paper format or online through Qualtrics. The data was collected between July 2nd and December 17th, 2018. Of the 518 initial participants, 39 terminated the survey prematurely while the responses of 34 other participants were excluded for various reasons: 12 due to the age criteria; one because of the language criteria; 21 due to partial completion.

Table 4.1. Demographic characteristics of the participants

	Total *N*= 445
	Mean (SD) or *n* (%)
Age	20.85 (1.86)
Gender	
Male	117 (26.3%)
Female	327 (73.5%)
Participation	
Online	278 (62.5%)
Pen-and-paper	167 (37.5%)
SES[1]	
Lower	1 (.2%)
Upper lower	24 (5.4%)
Middle	219 (49.2%)
Upper middle	179 (40.2%)
Upper	21 (4.7%)
Education Level	
University/ University student	422 (94.8%)
University Graduate	10 (2.2%)
Master/ Master student	8 (1.8%)
Master Graduate	5 (1.1%)
Grade	
Prep year	7 (1.6%)
Freshman	160 (36.0%)
Sophomore	42 (9.4%)
Junior	48 (10.8%)
Senior	172 (38.7%)
Health Problems[2]	
Yes	61 (13.7)
No	379 (85.2%)
Psychological Problems[3]	
Yes	94 (21.1%)
No	349 (78.4%)
Psychological Problems	
Anxiety Related[4]	38 (8.5%)
Others[5]	405 (91%)
Living with	
Parents, if any with siblings	191 (42.9%)
With a close relative	9 (2.0%)
With friends	56 (12.6%)
In dormitory	136 (30.6%)
Alone	30 (6.7%)
Other[6]	23 (5.2%)

Note: [1]Perceived SES level; [2]Participants were asked "Do you have any health problems?"; [3]Participants were asked "Do you have any psychological problems?"; [4] DSM-5 criteria for anxiety related psychological problems such as separation anxiety disorder, selective mutism, specific phobia, social anxiety disorder (social phobia), panic disorder, panic attack (specifier),agoraphobia, generalized anxiety disorder, substance/medication induced anxiety disorder, anxiety disorder due to another medical condition, other specified anxiety disorder and unspecified anxiety disorder; [5]others include: post-traumatic stress disorder, depression, attention-deficit/hyperactivity disorder, obsessive compulsive disorder, and etc.; [6]Other includes: with mother and siblings, with siblings only, with spouse,etc.

The participants' ages ranged between 18-25 years old with a mean of 20.85 years. A majority were female (n=327, 73.5%) with fewer male participants (n=117, 26.3%) while one participant did not report their gender. More participated online (n=278, 62.5%) than by pen-and-paper format (n=167, 37.5%). Participants mostly reported their perceived SES level as middle class (n=219, 49.2%), followed by upper middle class (n=179, 40.27%), lower upper class (n=24, 5.4%), upper class (n=21, 4.7%), and lower class (n=1, .2%). One participant did not report their SES level. Unsurprisingly, virtually all participants were university students (n=422, 94.8%), apart from a few who had completed university (n=10, 2.2%), were master's students (n=8, 1.8%), or had master's degrees (n=5, 1.1%). Most of the student participants were in their senior year (n=172, 38.7%) or first year (n=160, 36.0%). The remainder were in their prep year (n=7, 1.6%), second year (n=42, 9.4%), or third year (n=48, 10.8%) while 16 participants did not report their university level. Most participants reported no health problems (n=379, 85.2%) or psychological problems (n=349, 78.4%) whereas 94 (21.1%) participants reported psychological problems. Only 2 participants did not report if they had psychological problems or not. Psychological problems were re-grouped as anxiety-related and others. DSM-5 criteria were used to define anxiety-related psychological problems. Almost all participants reported other psychological problems (n=405, 91%) 38 (8.5%) reported anxiety related psychological problems.

Just under half the participants lived with their parents (n=191, 42.9%). The remainder lived in a dormitory (n=136, 30.6%), living with a close relative (n=9, 2.0%), friends (n=56, 12.6%), alone (n=30, 6.7%), or with others (n=23, 5.2%).

Before deciding whether to exclude the 21 participants who returned incomplete surveys, a missing data analysis was conducted using a series of t-tests and Chi-square tests. Regarding the incomplete surveys, 3 participants completed only the demographic form and

state anxiety questionnaire (STAI-state); 4 the demographic form, state anxiety questionnaire, and trait anxiety questionnaire (STAI- trait); 2 the demographic form, state-trait anxiety scale (STAI), and differentiation of self scale (DoS); 10 the demographic form, state-trait anxiety scale (STAI), differentiation of self scale (DoS), and multidimensional scale of perceived social support (MSPSS); one the demographic form, differentiation of self scale (DoS), social support scale (MSPSS), and locus of control scale (Rotter's Locus of Control Scale-RLCS). The remaining 445 participants completed all forms and scales.

The 21 participants returning incomplete surveys were therefore compared demographically to the other 445 participants using independent samples t-test and chi-square analyses. These revealed that there were no significant demographic differences between the two groups. However, there were significant differences in type of participation and anxiety-related psychological problems. The Chi-square test of independence revealed a significant interaction between the data of the 21 participants with incomplete responses and type of participation χ^2 (1, N=466)=9.339, p=.002). Specifically, they were much more likely to participate online (95.2%) than with pen-and-paper (4.5%). There was also a significant correlation between the data of 21 participants with incomplete responses and anxiety-related psychological problems (χ^2(1, N=464)=5.532, p=.019). That is, they were much more likely to report other psychological problems (76.2%) than anxiety-related psychological problems (23.8%). All 21 participants were therefore excluded from further analysis.

For the remaining 445 participants' responses, Pearson correlational analyses were then conducted between age, predictor, and outcome variables. There were no significant relationships between age and predictor and outcome variables. An independent samples t-test analysis was then conducted to examine the effects of gender on anxiety levels (state and trait anxiety). This revealed no significant difference (t(441) = 1.42 , p = .15) in the level of

state anxiety for males (*M* = 41.26, *SD* = 4.94) and females (*M* = 40.47, *SD* = 5.26). There was also no significant difference (*t*(442)= -1.72, *p* = .085) in the level of trait anxiety for males (*M* = 47.45, *SD* = 6.01) and females (*M* = 48.51, *SD* = 5.58). However, the independent samples t-test analysis revealed a significant difference (t(440) = 2.52, p = .012) in the level of state anxiety between participants who reported psychological problems (*M*= 39.49, *SD* = 4.91) and those who reported no psychological problems (*M* = 41.01, *SD* = 5.23). There was also a significant difference (*t*(441) = -2.87, *p* = .004) between the level of trait anxiety for participants who reported psychological problems (*M* = 49.71, *SD* = 5.96) and those who reported no psychological problems (*M* = 47.83, *SD* = 5.56). There was a significant difference (*t*(441) = -3.66, *p* = .000) in the level of trait anxiety between participants who reported anxiety-related psychological problems (*M* = 51.42, *SD* = 6.79)and other psychological problems (*M* = 47.93, *SD* = 5.50). Conversely, there was no significant difference (*t*(440) = .847, *p* = .397) in the level of state anxiety people who reported anxiety-related psychological problems (*M* = 40, *SD* = 5.07)and other psychological problems (*M* =40.75, *SD* = 5.21).

Lastly, a one-way ANOVA was conducted to examine the effects of sibling position, education level, SES, and grade level on state-trait anxiety. This revealed that the effect of SES on state anxiety was significant (*F*(4,442)= 4.68, *p* < .001) whereas the effect of grade level on trait anxiety was not (*F*(4,428)= 2.060, *p*= .085). Although some of the demographic variables had no significant relationships with the outcome variables, they were included in the regression model for theoretical reasons. That is, the model included gender, SES level, anxiety-related psychological problems, and grade level as demographic variables.

4.2 Descriptive Statistics for Predictor and Outcome Variables

State-Trait Anxiety Inventory (STAI) has two subscales to measure state anxiety and trait anxiety. The Differentiation of Self (DoS) scale has 4 subscales: emotional reactivity, I-position, emotional cutoff, and fusion with others. The Multidimensional Perceived Social Support Scale (MSPSS) has 3 subscales: social support from family, friends, and significant others. Table 4.2 shows the descriptive statistics for the predictor and outcome variables, including means, standard deviations, minimum and maximum values, and Cronbach alphas for the scales and subscales.

The Cronbach alpha level for State-Trait Anxiety Inventory (STAI) was .93 for the total scale, and .92 for state anxiety and .88 for trait anxiety. Previous studies have reported Cronbach alpha levels in the range of .83 and .92 for the trait anxiety subscale and .86 to .92 for state anxiety (Öner, 2012).

The Multidimensional Scale of Perceived Social Support (MSPSS) had an overall Cronbach alpha level of .90 while the subscales' levels ranged between .89 and .94. Previous studies have shown similar levels: .85 for Family, .88 for Friends, and .92 for Significant other. and an internal consistency for the overall scale of .89 (Eker, Arkar, & Yaldız, 2001).

For the Differentiation of Self Inventory (DoSI), the total Chronbach alpha level was .82 for the whole scale, and .61 to .74 for the four subscales. Previous studies have reported Cronbach alpha levels of .81 for the total scale, and .74 to .78 for the subscales (Işıka & Bulduk, 2015).

Table 4.2. Descriptive statistics for predictor and outcome variables

Predictor Variables	**N (Items)**	**M**	**SD**	**Min**	**Max**	**Alpha**
State-Trait Anxiety Inventory (STAI)	40	88.83	8.38	45	120	.93
State Anxiety Inventory subscale	20	40.69	5.18	29	55	.92
Trait Anxiety Inventory subscale	20	48.24	5.71	34	70	.88
Multidimensional Scale of Perceived Social Support (MSPSS)	12	63.19	15.91	15	84	.90
MSPSS- Family Support subscale	4	21.49	6.26	4	28	.89
MSPSS- Significant Other Support subscale	4	19.89	8.08	3	28	.94
MSPSS- Friend Support subscale	4	5.45	6.26	4	28	.93
Differentiation of Self Scale (DoS)	20	78.73	14.09	26	114	.82
DoS- Emotional Reactivity subscale	5	15.18	5.21	4	29	.70
DoS- I Position subscale	5	19.73	5.19	6	30	.71
DoS- Emotional Cutoff subscale	5	22.45	4.52	6	30	.61
DoS- Fusion with others subscale	5	21.38	5.13	5	30	.74
Rotter's Locus of Control Scale (RLCS)	23	13.09	3.65	3	21	.64

For Rotter's Locus of Control Scale (RLCS), the Chronbach alpha level was .64, compared to scores ranging between .11 and .48, and coefficient values for test-retest reliability ranging between .49 and .83 (Öner, 2012).

4.3. Correlations for Predictive and Outcome Variables

To examine the research questions, correlational analysis was conducted between predictive and outcome variables in order to determine which variables to include in the regression models. Pearson correlations were used to assess the relationships between age, anxiety, social support, differentiation of self, and locus of control, as presented in Table 4.3.

Age was not correlated with either state or trait anxiety, so it was excluded from the regression models. Trait anxiety and state anxiety were positively correlated with each other (r = .111, p < .05). State anxiety was also positively correlated with social support (MSPSS) (r = .245, p < .01), friend support (r = .169, p < .01), family support (r = .236, p < .01), significant other support (r = .170, p < .01), differentiation of self (DoSI) (r = .118, p < .05), and "I" position (DoSI) (r = .234, p < .01). Finally, state anxiety was negatively correlated with locus of control (r = -.149, p < .01).

In contrast, trait anxiety was positively correlated with locus of control (r = .247, p < .01) whereas it was negatively correlated with the following variables: differentiation of self (DoSI) (r = -.595, p < .01), emotional reactivity (DoSI) (r = -.557, p < .01), "I" position (DoSI) (r = -.322, p < .01), emotional cutoff (DoSI) (r = -.246, p < .01), and fusion with others (DoSI) (r = -.526, p < .01).

Social support total scale was correlated with all three subscales, friend support (r = .750, p < .01), family support (r = .716, p < .01), and significant other support (r = .833, p < .01). The social support total scale also positively correlated with differentiation of self total scale (r = .224, p < .01), "I" position (DoSI) (r = .197, p < .01), and emotional cutoff (r = .434, p < .01).

Table 4.3. Correlations for Predictive and Outcome Variables

		Mean (*SD*)	1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Age	20.85 (1.86)	-												
2.	State Anxiety (STAI)	40.69 (5.18)	.041	-											
3.	Trait Anxiety (STAI)	48.24 (5.71)	-.075	.111*	-										
4.	Multidimensional Scale of Perceived Social Support (MSPSS)	63.19 (15.91)	.063	.245**	-.069	-									
5.	Friend Support (MSPSS)	21.81 (6.26)	.076	.169**	-.031	.750**	-								
6.	Family Support (MSPSS)	21.49 (6.26)	.031	.236**	-.053	.716**	.331**	-							
7.	Significant Other Support (MSPS)	19.89 (8.08)	.042	.170**	-.072	.833**	.446**	.379**	-						
8.	Locus of Control (RLCS)	13.09 (3.65)	-.025	-.149**	.247**	-.051	-.053	-.022	-.043	-					
9.	Differentiation of Self (DoSI)	78.73 (14.09)	.013	.118*	-.595**	.224**	.159**	.196**	.166**	-.261**	-				
10.	Emotional Reactivity (DoSI)	15.18 (5.21)	.047	.024	-.557**	.067	.012	.100*	.044	-.220**	.765**	-			
11.	"I" Position (DoSI)	19.73 (5.19)	.015	.234**	-.322**	.197**	.139**	.176**	.144**	-.185**	.681**	.324**	-		
12.	Emotional Cutoff (DoSI)	22.45 (4.52)	.013	.090	-.246**	.434**	.324**	.396**	.298**	-.114*	.557**	.256**	.141**	-	
13.	Fusion with Others (DoSI)	21.38 (5.13)	-.040	-.016	-.526**	-.035	-.003	-.091	.002	-.210**	.788**	.531**	.403**	.244**	-

Note: * p<.05 ** p<.01. STAI: State-Trait Anxiety Inventory; MSPSS: Multidimensional Scale of Perceived social Support; RLCS: Rotter's Locus of Control Scale; DoSI: Differentiation of Self Inventory.

Family support was positively correlated with friend support (r = .331, p < .01), and emotional reactivity (r = .100, p < .05), differentiation of self (DoSI) (r = .196, p < .01), "I" position (DoSI) (r = .176, p < .01), and emotional cutoff (r = .396, p < .01). Friend support was also positively correlated with differentiation of self (DoSI) (r = .159, p < .01), "I" position (DoSI) (r = .139, p < .01), and emotional cutoff (r = .324, p < .01). Significant other support was positively correlated with friend support (r = .446, p < .01) and family support (r = .379, p < .01). It also positively correlated with differentiation of self (DoSI) (r = .166, p < .01), "I" position (DoSI) (r = .144, p < .01), and emotional cutoff (r = .298, p < .01).

As well as its correlations with the support scales, differentiation of self (DoSI) positively correlated with emotional reactivity (r = .765, p < .01), "I" position (r = .681, p < .01), emotional cutoff (r = .557, p < .01), and fusion with others (r = .788, p < .01). There were also positive correlations between levels of differentiation of self (DoSI): "I" position and emotional reactivity (r = .324, p < .01), emotional cutoff and emotional reactivity (r = .253, p < .01), emotional cutoff and "I" position (r = .141, p < .01), emotional reactivity and fusion with others (r = .531, p < .01), and fusion with others with "I" position (r = .403, p < .01) and emotional cutoff (r = .244, p < .01).

Finally, locus of control was also negatively correlated with fusion with others (DoSI) (r = -.210, p < .01), differentiation of self (DoSI) (r = -.261, p < .01), emotional reactivity (r = -.220, p < .01) "I" position (r = -.185, p < .01).

4.4 Hierarchical Regression Analyses

Based on the preceding correlational analysis, hierarchical regression analysis was conducted to examine the effects on anxiety of differentiation of self, locus of control, and social support. Thus, the dependent variables were trait anxiety (STAI-Trait Inventory) and state anxiety (STAI-State Inventory) while the independent variables were DoSI (Differentiation of Self Inventory) total score, RLCS (Rotter's Locus of Control Scale) total score, and MSPSS (Multidimensional Scale of Perceived Social Support) total score.

Before proceeding with the analysis, the relationships between the independent variables were assessed for collinearity. As Table 4.4 shows, multicollinearity was not a concern because the Variance Inflation Factor (VIF) values were being close to 1: specifically, 1.137 for DoSI, 1.096 for RLCS, and 1.106 for MSPSS.

Table 4.4. Multicollinearity and VIF

Variables	VIF
DoSI	1.137
RLCS	1.096
MSPSS	1.106

Note: DoSI: Differentiation of Self Inventory; RLCS: Rotter's Locus of Control; MSPSS: Multidimensional Scale of Perceived social Support Scale.

Table 4.5 presents the results of hierarchical linear regression analyses. Model 1 included gender (male=0, female=1), anxiety-related psychological problems (anxiety-related=1, others=0), SES level (middle class=1, others=0), and grade level (4^{th} year=1, others=0). Model 2 added differentiation of self (continuous, from 1 to 6). Model 3 added locus of control (external=1 vs. others=0). Model 4 added social support (continuous, 1 to 7).

Table 4.5. Hierarchical linear regression analysis result

	Trait Anxiety								State Anxiety							
Step and variable	d*f*	R^2	ΔR^2	ΔF	*B*	*SE*	β	*t*	d*f*	R^2	ΔR^2	ΔF	*B*	*SE*	β	*t*
(1) Gender (male=0, female=1)	(4,419)	.060	.060	6.63**	1.06	.611	.083	1.74	(4,418)	.024	.024	2.56*	-1.01	.576	-.085	-1.75
Anxiety Related Psychological Problems (anxiety related=1, others=0)					3.28	.951	.165	3.46**					-.719	.896	-.039	-.803
SES (middle class=1, others=0)					-1.03	.539	-.091	-1.91					-1.05	.509	-.101	-2.06*
Grade Level (4^{th} grade=1, others=0)					-1.28	.551	-.111	-2.32*					.953	.519	.089	1.83
(2) Differentiation of Self	(1,416)	.394	.334	230.474**	-.234	.015	-.584	-15.18**	(1,417)	.036	.012	5.07*	.041	.018	.109	2.25*
(3) Locus of Control (external)	(1,417)	.397	.004	2.48	.097	.062	.063	1.577	(1,416)	.049	.013	5.66*	-.171	.072	-.119	-2.38*
(4) Social Support	(1,416)	.402	.005	3.20	.025	.014	.071	1.78	(1,415)	.108	.060	27.75**	.084	.016	.257	5.26**

Note: * p<.05 ** p<.01.

The overall model for trait anxiety was not significant (R^2 = .402, adjusted R^2 = .392, F(1,416) = 3.200, p = .074). Model 1 was significant for trait anxiety (R^2 = .060, F(4,419) = 6.63, p = .000) in which, demographic factors (gender, anxiety-related psychological problems, SES level, and grade level) together explained 6% of the variance. Gender did not predict trait anxiety (β = .083, t(419) = 1.74, p = .081, pr^2 = .007) whereas anxiety-related psychological problems was a significant positive predictor (β = .165, t(419) = 3.46, p = .001, pr^2 = .027). SES level did not predict trait anxiety (β = -.091, t(419) = -1.91, p = .057, pr^2 = 0.08), whereas grade level did to small degree (β = -.111, t(419) = -2.32, p = .021, pr^2 = 0.011).

Model 2 was also statistically significant for trait anxiety (R^2= .394, Δ R^2 = .334, Δ F(1,418) = 230.474, p = .000). This model explained 33.4% of the variance. Differentiation of self was a significant positive predictor of trait anxiety (β =-.584, t(418)=-15.18, p=.000, pr^2=.35).

Models 3 (R^2 = .397, Δ R^2 = .004, Δ F(1,417) = 2.488, p = .115) and 4 (R^2 = .402, Δ R^2 = .005, Δ F(1,416) = 3.200, p = .074), however, were not significant. In Model 3, locus of control did not predict trait anxiety (β = .063, t(417) = 1.57, p = .115, pr^2 = .005). In Model 4. social support did not predict trait anxiety (β = .071, t(416) = 1.78, p = .074, pr^2 = .007).

It was hypothesized in this study that participants with higher levels of differentiation of self were likely to experience lower levels of trait anxiety. The findings presented here support this inverse relationship between differentiation of self and trait anxiety.

Turning now to state anxiety, the overall model was significant (R^2 = .108, adjusted R^2 = .093, F(1,415) = 25.75, p = .000). Model 1 was significant (F(4,418) = 2.56, p = .038, R^2 = .024), meaning that 2.4% of the variance was explained by demographic factors (gender, anxiety related psychological problems, SES level, and grade level). State anxiety was

negatively predicted by SES level (β = -.101, $t(418) = -2.06$, $p = .039$, $pr^2 = .010$) but not predicted by gender (β = -.085, $t(418) = -1.75$, $p = .080$, $pr^2 = .007$), psychological problems (β = -.039, $t(418) = -.803$, $p = .423$, $pr^2 = .001$), or grade level (β =. 089, $t(418) = 1.83$, $p = .067$, $pr^2 = .007$).

Model 2 for state anxiety was also statistically significant ($R^2 = .036$, adjusted $R^2 = .012$, $\Delta F(1,417) = 5.07$, $p = .025$), explaining 1.2% of variance. In this model, differentiation of self positively predicted state anxiety (β = .109, $t(417) = 2.25$, $p = .025$, $pr^2 = .012$).

Model 3 for state anxiety was also significant ($R^2 = .049$, $\Delta R^2 = .013$, $\Delta F(1,416) = 5.66$, $p = .018$), explaining 1.3% of the variance. Locus of control was a significant negative predictor of state anxiety (β = -.119, $t(416) = -2.38$, $p = .018$, $pr^2 = .013$). This did not support the study's hypothesis that people with high external locus of control rate their state anxiety levels as high.

Lastly, Model 4 for state anxiety was statistically significant ($R^2 = .108$, $\Delta R^2 = .060$, $\Delta F(1,415) = 25.75$, $p = .000$), explaining 6% of the variance. Social support was a significant positive predictor of state anxiety (β = .257, $t(415) = 5.26$, $p = .000$, $pr^2 = .062$). Thus, the study hypothesis that participants with high levels of social support report low levels of state anxiety was not supported.

Further analyses were conducted to examined the effect on both state and trait anxiety of the type of social support. The scores for friend support and significant other support were summed as a new variable, peer support, while the family support scores remained unchanged. The goal was to reveal any differences in the effect on both anxiety variables of social support from family and peers. Family support and peer support were thus entered into the analysis using the same models as before.

Correlational analyses revealed that state anxiety positively correlated with peer support (r=.198, p<.01) whereas trait anxiety and peer support were not correlated (r=.063, p=.182). In the new regression model including peer support, the overall model remained non-significant for trait anxiety (R^2 = .401, adjusted R^2 = .390, F(1,416) = 2.18, p = .140). Indeed, the only difference was in Model 4, which was now not significant for trait anxiety (R^2 = .401, Δ R^2 = .003, Δ F(1,416) = 2.181, p = .140). Peer support did not predict trait anxiety (β = .058, t(416) = 1.47, p = .140, pr^2 = .005).

In contrast, the overall model for state anxiety was significant (R^2 = .086, adjusted R^2 = .071, F(1,415) = 16.303, p = .000), with Model 4 making the difference. Model 4 for state anxiety was significant, R^2 = .086, Δ R^2 = .037, Δ F(1,415) = 16.90, p = .000. That is, peer social support was a positive predictor of state anxiety (β = .201, t(415) = 4.11, p = .000, pr^2 = .039).

Correlational analyses also revealed a significant positive relationship between state anxiety and family support (r = .236, p < .01) whereas trait anxiety was not correlated with family support. The overall model including family support for trait anxiety was not significant (R^2 = .401, adjusted R^2 = .391, F(1,416) = 2.504, p = .114). Model 4 was not significant for trait anxiety (R^2 = .401, Δ R^2 = .004, Δ F(1,416) = 2.504, p = .114). That is, family support did not predict trait anxiety (β = .062, t(416) = 1.58, p = .114, pr^2 = .005).

In contrast, the overall model including family support for state anxiety was significant (R^2 = .103, adjusted R^2 = .088, F(1,415) = 25.164, p = .000). The only difference was in the Model 4, which was significant for state anxiety (R^2 = .103, Δ R^2 = .054, Δ F(1,415) = 25.164, p = .000). That is, family social support was a positive predictor of state anxiety (β = .241, t(415) = 5.01, p = .000, pr^2 = .057).

CHAPTER 5

DISCUSSION

This chapter analyzes the results in relation to each hypothesis, drawing on Bowen's Family Systems Theory (Bowen& Kerr, 1988) for its theoretical perspective, along with previous literature concerning the relationship between anxiety, locus of control, social support, and differentiation.

5.1 Hypothesis One

Level of social support is inversely associated with the level of trait anxiety after controlling for external locus of control and differentiation of self. People with a lower levels of trait anxiety have higher levels of social support. Conversely, people with higher levels of trait anxiety have lower levels of social support.

Given that previous research findings have highlighted the inverse relationship between trait anxiety and social support (Vélez et al., 2016; Fields, Nichols, Martindale-Adams, Zuber & Graney, 2012), the same trend was expected between trait anxiety and social support within the Turkish student population studied here.

Correlational analysis showed that there were no significant correlations between the MSPSS scores measuring social support and STAI-Trait scores measuring trait anxiety. Regression analyses supported the correlational findings. Social support did not predict trait anxiety. That is, participants' level of trait anxiety was not affected by their perceived social support.

In Bowen's Family Systems Theory (Bowen & Kerr, 1988), social support plays a limited role in trait anxiety. They agreed that good support systems may help reduce the symptoms of "clinical courses" (Bowen & Kerr, 1988). By clinical courses, they meant

functional collapses and psychotic periods. However, they argued that the most important predictor for clinical courses was differentiation of self. Similarly, it can be argued that differentiation of self is the main factor affecting level of trait anxiety, rather than social support.

Previous studies have examined the relationship between social support and trait anxiety. Vélez et al. (2016) studied how the relationship between social support seeking and rumination interacted in predicting depression and trait anxiety symptoms in 118 US children between the ages of 11 and 14. They found that high levels of support seeking were related with low levels of trait anxiety, especially for children who had less rumination. Fields, Nichols, Martindale-Adams, Zuber and Graney (2012) studied the relationship between generalized anxiety, social support, and physical health in spouses of US service men and women returning from duty in Iraq and Afghanistan. Correlational analyses again indicated that social support was negatively correlated with generalized anxiety, with the non-generalized anxiety group reporting higher levels of social support than those with generalized anxiety. Contrary to previous research findings, however, social support and trait anxiety were not related.

A possible explanation for the insignificant relationship between social support and trait anxiety in this study might be the negative effects of social support. Research findings have generally confirmed the positive effects of social support, although there is also limited evidence for its negative effects. For example, Buunk and Hoorens (1992) found that, for some cases, social support may aggravate stress levels. That is, when people have social support, their perceptions about the problematic situation become more negative. This makes them more likely to experience the problematic event even more negatively (Buunk & Hoorens, 1992). Beehr, Bowling, & Bennet (2010) reported that social support is harmful in dealing with occupational stress. Although socially supportive interactions in the workplace

may mostly alleviate stress, the very same social interactions may make people to feel inadequate and incompetent. Consequently, they may actually be harmed by receiving social support. The present study found that social support was not a significant predictor of trait anxiety. This finding may be in line with the aforementioned findings regarding the negative effect of social support. Similarly, people who have high social support may not have decreased symptoms in trait anxiety, mostly because their perceptions about the negative event worsen after sharing and receiving social support. That is, people with anxiety may feel more inadequate and incompetent after sharing.

The relationship between social support and anxiety was not included in Bowen's Family Systems Theory (Bowen & Kerr, 1988). Instead, they emphasized the importance of differentiation of self as being mostly related with anxiety. Anxiety was the main force for differentiation of the self, by causing interdependence in relationships. Although, they acknowledged the effects of "good support systems", this effect was limited compared to differentiation of self (p. 239).

5.2 Hypothesis Two

Locus of control (external) is positively associated with the level of trait anxiety after controlling for the social support and differentiation of self variables. People who have high external locus of control rate their trait anxiety level high.

Previous research findings indicate that people who have external locus of control rate their trait anxiety level as high (Pu, Hou, & Ma, 2017; Arslan, Dilmaç, & Hamarta, 2009). Thus, the same trend was expected in this study.

There was a significant positive correlation between RLCS scores measuring locus of control and STAI-Trait scores measuring trait anxiety. However, the regression analyses did not support this finding as external locus of control did not predict trait anxiety levels.

This relationship was not presented in Bowen's Family Systems Theory (Bowen & Kerr, 1988). In the present study, based on the correlational analysis, external locus of control was negatively related with differentiation of self. Therefore, it was assumed that people who have high levels of external locus of control would report low levels of differentiation of self since they had high levels of trait anxiety. From a Bowenian perspective, this relationship is relatively new.

The relationship between external locus of control and trait anxiety has been studied in the literature. Pu, Hou and Ma (2017) investigated the mediating effect of self-esteem and trait anxiety on the relationship between locus of control and subjective self-being. External locus of control was positively correlated with trait anxiety but negatively correlated with self-esteem, positive affect, and life satisfaction. Arslan, Dilmaç and Hamarta (2009) examined the relationship between coping with trait anxiety and stress in terms of locus of control. They found that people with high trait anxiety scores also have high external locus of control scores. However, the findings in the present study did not support previous findings. That is, external locus of control did not predict trait anxiety.

The insignificant relationship between external locus of control and trait anxiety may be explained by the internal component of trait anxiety. Earlier findings have indicated the multifaceted nature of trait anxiety's relationship with personality traits. For example, Özdemir and Dalkıran (2017) found a relationship between the five factor personality traits and anxiety. People with high scores in neuroticism rated their performance anxiety level as high. Kotov, Gamez, Schmidt, and Watson (2010) conducted a meta-analysis that showed that the "big" personality traits were positively related to anxiety, substance use, and depressive disorders. This suggests that anxiety can be dependent on both internal (trait) and external (state) factors. The present study, however, found no significant relationship between external locus of control and trait anxiety. According to Spielberger (1966), trait anxiety is a

response to perceived threat, which can be seen as a personality trait. In contrast, external locus of control concerns outside factors whereby the individual attributes control to external sources (e.g. fate, chance, etc.) (Rotter, 1966). Therefore, the nature of trait anxiety may be better understood by internal factors, such as personality traits, rather than external factors, such as external locus of control. In that case, the present findings may help fill this gap, especially for the Turkish population studied here.

Bowen's Family systems theory (Bowen & Kerr, 1988) did not include locus of control. The present study's correlation analysis showed a negative relationship between external locus of control and differentiation of self. This indicates that people with high external locus of control rate their level of differentiation as low. This relationship was evident for almost all subscales of differentiation of self such as emotional reactivity, "I" position, and fusion with others. However, this inverse relationship was not observed for emotional cutoff. Although Bowen's Family Systems theory did not include external locus of control, there may be a possible connection between these terms within the theory.

5.3 Hypothesis Three

Level of self-differentiation is associated with trait anxiety after controlling for social support and external locus of control. People who have high trait anxiety rate their self-differentiation as low whereas people with low trait anxiety rate their self-differentiation level as high.

The same trend as hypothesized is evident from previous literature findings (Peleg-Popko, 2004; Xue et al., 2018). Therefore, this study predicted the same trend.

The correlational analysis supported the third hypothesis in that differentiation of self, measured by Differentiation of Self Inventory (DoSI), was negatively correlated with trait anxiety. Trait anxiety was negatively correlated with all DoSI subscales. As the level of trait

anxiety increased, the level of differentiation of self decreased. The regression analyses showed that DoSI total scale significantly predicted STAI-Trait Anxiety scale alongside the other two independent variables (MSPSS and RLCS). In this model, differentiation of self explained 33.4% of the variance in trait anxiety. Participants with high differentiation of self reported lower levels of trait anxiety.

In Bowen's Family Systems Theory, Bowen and Kerr (1988) emphasized the relationship between differentiation of self and anxiety. They claimed that anxiety was a driving force for achieving interdependence in relationships. By differentiation of self, an individual could develop a better "self". Differentiation of self is closely related with anxiety while, according to Bowen, helping people to create balance between their own selves and social unity in their relationships (Priest, 2015). Thus, it was hypothesized in this study that there would be negative relationship between differentiation of self and trait anxiety.

Previous research has investigated the relationship between differentiation of self and trait anxiety. Peleg-Popko (2004) examined the relationship between differentiation of the self, test anxiety, trait anxiety, and cognitive performance. Correlational analyses revealed that differentiation of self was negatively correlated with trait anxiety. That is, participants with lower levels of differentiation from their families reported higher levels of both test anxiety and trait anxiety. Xue et al. (2018) studied the relationship between differentiation of the self, adult attachment, and trait and state anxiety in people with anxiety-related disorders. Correlational analyses demonstrated a negative correlation between differentiation of self and trait anxiety. A negative correlation was even evident between trait anxiety and the sub-levels of differentiation of self (emotional reactivity, "I" position, emotional cutoff, and fusion with others). The findings of the present study confirm the findings outlined above.

This study found a similar significant relationship between differentiation of self and trait anxiety. Differentiation of self was a significant predictor of trait anxiety, alongside the other predictor variables (locus of control and social support). Bowen's Family Systems Theory (Bowen& Kerr, 1988) may help explain this finding. According to Bowen, differentiation of self is closely related with anxiety (Priest, 2015). When anxiety is high, one cannot function properly. This in turn, leads the individual to become more emotionally reactive to the environment and relationships. It is therefore important for an individual to stabilize their anxiety level without affecting other people (Bowen & Kerr, 1988). Many studies in the literature have confirmed this relationship. As expected, the study in the present study support both the theory and previous findings.

5.4 Hypothesis Four

Level of social support is negatively associated with the level of state anxiety after controlling for the differentiation of self and external locus of control. People who have a high level of social support rate their state anxiety level as low. Conversely, people who have a low level of social support rate their state anxiety level as high.

In this study, high social support was also related with low levels of state anxiety (Covassin et al., 2014; Yang, Schaefer, Zhang, Covassin, Ding & Heiden, 2014). However, previous studies only investigated the relationship between state anxiety and social support. The same relationship was expected in the present study between social support and state anxiety. That is, people who have high levels of social support will rate their state anxiety level as low.

Contrary to expectations, however, the correlational analyses revealed significant positive correlations between MSPSS scores and STAI-State Anxiety. That is, participants who had high levels of social support also reported high levels of state anxiety. Both the MSPSS

total scale and its subscales (friend support, family support significant other support) were correlated with STAI-State Anxiety. The regression analysis showed that MSPSS total scores significantly predicted STAI-State Anxiety scores. That is, as the level of social support increased, the level of state anxiety also increased. Thus, the analysis failed to support the hypothesized inverse relationship.

The relationship between social support and state anxiety was not included in Bowen's Systems Theory (Bowen & Kerr, 1988). They downplayed the effects of "good support systems" and found its effect to be limited (Bowen & Kerr, 1988, p.239). Therefore, hypothesis four was unrelated to their theory.

The results in this study were contradicted by previous findings. Previous research suggests that, as the level of social support increases, the level of state anxiety decreases. Covassin et al. (2014) conducted a study with injured athletes. They found that high level of social support was associated with low levels of state anxiety. Similarly, Yang, Schaefer, Zhang, Covassin, Ding, and Heiden (2014) studied the relationship between social support from athletic trainers during injury recovery and levels of depression and state anxiety. Injured athletes who received social support from their athletic trainers were less likely to experience depression and state anxiety. The present findings did not support these results.

A possible explanation for this result may relate to the need for social support. There is a lack of research examining the effects of perceived social support and the need for support on anxiety. However, one study did investigate the effect of perceived social support, when needed, on mental health. Melrose, Brown, and Wood (2015) studied the effects of perceived social support on well-being, measured by the Short Form-36v2 Health Survey, when that support was needed. Participants with high levels of received support when needed also had high levels of well-being. They concluded that the effect of received social support

on well-being was magnified when the support was needed at that time. Helgeson (1993) also demonstrated the importance of receiving social support, especially when needs are being met, regarding the effects of social support on adjustment for patients following their first cardiac event. Participants were interviewed to measure perceived and received support, and adjustment level. The results showed that perceived support was more important than received support. Helgeson concluded that researchers should consider the importance of the needs met through social support when studying this factor. In the present study, because participants were only asked to rate their level of perceived social support, nothing can be concluded about the actual support and benefit from that support. The MSPSS scale used here can only indicate participants' perceptions about perceived social support. Items such as "I can talk about my problems with my family", "There is a special person who is around when I am in need", and "I have friends with whom I can share my joys and sorrows" can help us understand perceived social support from family, friends, and significant others. However, they do not say anything conclusive about the received social support and how much the participants benefited from that support. To measure actually received social support and the benefit from that support, participants could be asked open-ended qualitative questions. This would improve knowledge about the relationship between social support and state anxiety.

Although the effects of "good support systems" were included in Bowen's Family Systems Theory (Bowen & Kerr, 1988, p.239), they were not defined not specified exactly. Rather, the role of differentiation of self on anxiety was strongly emphasized.

5.5 Hypothesis Five

Level of locus of control (external) is associated with the level of state anxiety after controlling for the social support and differentiation of self. People who have high external

locus of control rate their state anxiety level as high. People who have low external locus of control rate their state anxiety level as low.

Previous research on the relationship between external locus of control and state anxiety is both limited and mixed. Post and Robinson (1998) found that people who have a high external locus of control reported high levels of state anxiety. However, Warnecke, Baum, Peer& Goreczny (2014) did not find a clear relationship between locus of control and state anxiety. Therefore, through hypothesis five, the present study examined the relationship between external locus of control and state anxiety, predicting that, as the level of external locus of control increased, the level of state anxiety also increased.

The correlation analyses showed that RLCS scores were negatively correlated with STAI-State Anxiety scores. That is, people who rated high levels of external locus of control reported low levels of state anxiety. The regression analyses also revealed a significant inverse effect of external locus of control on state anxiety. As the level of external locus of control increased, the level of state anxiety decreased.

The relationship between external locus of control and state anxiety was not presented in Bowen's Family Systems Theory (Bowen & Kerr, 1988). Based on the correlational findings, external locus of control was negatively related with differentiation of self. This indicated that people who have high levels external locus of control would rate their levels of differentiation of self as low. However, differentiation of self was found to be positively correlated with state anxiety. That is, people who have high levels of state anxiety reported high levels of differentiation of self. Therefore, from a Bowenian perspective, this relationship between external locus of control and state anxiety cannot be explained.

There is only limited research with mixed results about the relationship between locus of control and state anxiety. For example, Post and Robinson (1998) studied anxiety, locus of

control, and self-esteem in a sample of young children of alcoholic parents (YCOA). The children reported higher state anxiety levels, more external locus of control, and lower levels of self-esteem than young children of non-alcoholic parents. Warnecke, Baum, Peer and Goreczny (2014) studied the relationship between anxiety, self-efficacy, locus of control, subjective happiness, life satisfaction, and optimism in graduate students. Correlational analyses revealed no significant relationship between state anxiety and external locus of control. The present study found a negative correlation between external locus of control and state anxiety. The regression analysis also revealed that external locus of control was a significant predictor of state anxiety. That is, the present findings contradict previous research findings.

One possible reason for this contradictory finding may be the different cultural setting. Mueller and Thomas (2000) examined the characteristics of entrepreneurship across cultures. They found that internal locus of control orientation was more likely in individualistic cultures. In contrast, Turkish culture has been mainly characterized as collectivist (Göregenli, 1997), although others have noted characteristics of individualistic cultures (Kim, Triandis, Kâğitçibaşi, Choi, & Yoon, 1994). Although Hofstede (2001) concluded that Turkish culture was mainly collectivist, it falls in the midpoint of the individualism and collectivism dimension (İmamoğlu, Günaydın, & Selçuk, 2011). Literature investigating the relationship between external locus of control and anxiety is lacking for collectivist cultures. Only one study has studied this relationship. Cheng, Cheung, Chio, and Chan (2012) examined the relationship between locus of control and psychological symptoms across 18 cultural regions. They found that the linear relationship between external locus of control and anxiety was weaker in collectivist cultures than collectivist cultures. They explained this difference in terms of collectivist cultures' lower emphasis on agent-related focus. A linear relationship between external locus of control and state anxiety was therefore

expected in the present study. However, participants with high levels of external locus of control rated their level of state anxiety as low. This difference may be explained by the predominantly collectivist nature of Turkish culture. That is, participants' state anxiety level might be low because they attributed power to external forces.

Bowen and Kerr (1988) did not include the effects of locus of control in Family Systems Theory. In the theory, one of the most important factors was differentiation and its relationship with anxiety. In the present study, external locus of control was a significant negative predictor of state anxiety. Correlational analyses revealed that state anxiety was positively correlated with differentiation of self. That is, people who have high levels of external locus of control have low levels of state anxiety, causing them to have low levels of differentiation of self. Although external locus of control was not included in Bowen's Family Systems Theory, external locus of control and differentiation of self may be connected through their relationship with anxiety.

After controlling for the effect of external locus of control and differentiation of self, neither peer support nor family support was found to be associated with trait anxiety. However, both peer support and family support were associated with state anxiety. Peer social support explained 8.6% of the variance in state anxiety. That is, people with high levels of peer social support also reported high levels of state anxiety. Family support explained 10.3% of the variance. That is, people who had high levels of family support also reported high levels of state anxiety. The present study found no great differences between the kinds of social support. The effect of social support on state anxiety remained as important as before.

5.6 Limitations

There are several limitations in the present study. The first limitation is that the findings were mostly based on an online survey. Since the motivation of each participant differ, the responses given may also be different and misleading in some cases. However, this is a risk for all online survey studies. The second limitation is the use of a non-clinical sample, which may lead to generalizability issues. The third limitation concerns the convenience sampling method of using friends and colleagues to reach participants meeting the eligibility criteria. This sample may not be representative of the entire population as a homogenous sample in terms of age, SES, and education level. The fourth limitation is that most of the participants were females. The skewedness of the sample in terms of gender and participation type mean that the results may not be generalizable for males or participants who used the pen-and-paper survey. The final limitation is the use of cross-sectional data, which means that cause and effect relationships cannot be properly tested.

5.7 Clinical Implications

This study examined the effects of social support, differentiation of self, and external locus of control on anxiety. Unlike many previous studies, it specifically investigated the effects of the predictor variables on both state and trait anxiety. The analyses revealed a significant relationship between differentiation of self and trait anxiety, which is in line with previous findings (Peleg-Popko, 2004; Xue et al., 2018). Differentiation of self was associated with trait anxiety after controlling for social support and external locus of control. That it, as people become more differentiated, their trait anxiety level became lower. This finding is also evident in Turkish culture. This suggests that practitioners and interventionists should consider differentiation of self when developing strategies and techniques for managing trait anxiety. Therapists may benefit more from systemic interventions that include

not only the various dynamics of the family/couple/individual system but also the relationship of these dynamics with each other. For example, they could encourage more autonomy and a less interdependent relationship with families, especially when working with anxiety. For Bowen & Kerr (1988), family systems are like units that work in an intertwined fashion. Therefore, it is important for a model to include the various systems and the relationship between them. Although their model highlighted the nature of systemic intervention, no systemic interventions were included. Systemic interventions are shaped by the need of families/couples. As each client brings their own ideas about the problem, interventions may need to differ for each client.

The present study also produced findings that contradicted previous research. For instance, the relationship between state anxiety and social support was positive. That is, people who reported high levels of social support also reported high levels of state anxiety. This should encourage practitioners to explore social support beyond the client's perception of that support. This study's findings indicate that it is extremely important to ask exploratory questions to understand the client's concept of social support. This may be very helpful for understanding the client's level of state anxiety. Another contradictory finding concerns the relationship between external locus of control and state anxiety. As the level of external locus of control increased, the level of state anxiety also increased. Thus, it is important to understand clients' perceptions about external locus of control. This study thus indicates the importance of asking qualitative questions.

5.8 Further Research

This study investigated the predictors of anxiety for a Turkish population, the relationship between anxiety, social support, and locus of control. To examine this relationship from a theoretical perspective, the study drew on a Bowenian concept called

differentiation of self. This study found that differentiation of self was a more significant predictor of trait anxiety than external locus of control and social support. This confirm previous research results (Peleg-Popko, 2004; Xue et al., 2018).

External locus of control was not found to be significant predictor of trait or state anxiety. Previous research suggests that the relationship between locus of control and anxiety affects individuals' subjective well-being, attachment, coping, and learning styles. Future studies might therefore include these factors to gain a broader perspective about this relationship. Since there is only limited research into the relationship between locus of control and state anxiety, further studies should focus more on this relationship. This would enable a more thorough grasp of these concepts and their relationship paths with other variables.

We did not find the same relationship between anxiety and social support. One interesting finding in the present study concerns the relationship between social support and state anxiety. In contrast to previous research, as the level of social support increased, the level of state anxiety also increased. This finding may be explained by cultural differences between the populations studied. Further research should therefore examine the same relationship within collectivistic cultures. By including comparisons between collectivistic and individualistic cultures, many other contributing variables can be discovered.

Future research might add other possible predictors of state anxiety. In this study, external locus of control, social support, and differentiation of self were used to predict trait and state anxiety. There is a vast literature concerning predictors of state anxiety. One possible predictor is perfectionism as this has been found to have a positive relationship with state anxiety (Flett, Hewitt, Endler, & Tassone, 1994). That is, people with high levels of perfectionism report high levels of state anxiety, especially when they feel pressured. Anxiety

has also been proposed as a mediator in the relationship between insomnia and negative perfectionist thinking (Akram, Ellis, & Barclay, 2015). Thus, the relationship between perfectionism and state anxiety seems multifaceted. Another possible variable is self-efficacy as there is some evidence of an inverse relationship between self-efficacy and state anxiety (De Pero, Minganti, Pesce, Capranica, & Piacentini, 2013; Topoğlu, 2014; Marquez, Jerome, McAuley, Snook, & Canaklisova, 2002). Another potential predictor of state anxiety is self-esteem as previous research suggests a negative relationship between self-esteem and state anxiety (Hoi Yan, 2006; Suliman & Halabi, 2007). However, although this inverse relationship between self-esteem and state anxiety has been demonstrated in the literature, no causal relationship can be inferred (Hiller, Steffens, Ritter, & Stangier, 2017). Another possible predictor of state anxiety is subjective well-being, given previous research showing an inverse relationship with state anxiety (Pacesova, Smela, Kracek, & Plevkova, 2018; Vancampfort, De Hert, Knapen, Maurissen, Raepsaet, Deckx, Remans, & Probst, 2011). Finally, state anxiety might be predicted by spirituality, as previous findings indicate that state anxiety decreases as spirituality increases (Nikfarjam et al., 2018; Steiner, Zaske, Durand, Molloy, & Arteta, 2017; Álmos et al., 2015). Future studies could therefore include perfectionism, self-efficacy, self-esteem, subjective well-being, and spirituality as potential predictors of state anxiety. This could help unravel the complex nature of state anxiety.

In this study, the State-Trait Anxiety Inventory (STAI) of Spielberger, Gorsuch and Lushene (1970) was used to measure both trait and state anxiety levels. However, state anxiety items in this questionnaire, such as “I feel calm”, “I feel tense”, and “I am worried”, may be more suitable for measuring mindfulness or even people’s immediate state of mind. That is, it’s unclear whether these items measure the participants’ current anxiety of participants or an anxiety response to the particular event or situation. Spielberger (1966) defined state anxiety as a response to specific conditions, which may also be related to the

emotional capacity to understand being anxious. The STAI items may therefore be unable to measure the emotional maturity part of state anxiety. Future research might consider using different measures of state anxiety for to eliminate these potential validity issues.

This study also found that differentiation of self is a significant negative predictor of trait anxiety. However, the cross-sectional design means that the cause and effect relationship cannot be proved. Further research could therefore include longitudinal designs to examine causality better.

Furthermore, anxiety and differentiation of self are rich concepts, so future research might include path analyses to examine the several dimensions and interactions between them. This would improve our understanding of both the relationship between differentiation of self and anxiety and enable more systemic interventions to be devised, based on the relevant current literature.

5. 9 Conclusions

This study was a cross-sectional quantitative study to examine the relationship between social support, locus of control, differentiation of self, and anxiety. Differentiation of self was found to be inversely associated with anxiety, among the other variables, such as social support and external locus of control. That is, people, with high levels of differentiation of self had less trait anxiety. This study has contributed to the literature by adding new information about the relationship between these concepts in a Turkish population. Filling the literature gap for the relevant matter in the Turkish population was another purpose of this study. This study was also the first study to examine anxiety from a systemic perspective. Future research should include more systemic, longitudinal, and cross-cultural research to produce a better understanding of these concepts. Therapists/practitioners who work in the field would benefit if more systemic interventions can be developed.

APPENDIX A- GÖNÜLLÜ KATILIM ONAY FORMU

Sayın Katılımcı,
Bu araştırma, Özyeğin Üniversitesi Çift Aile Terapisi yüksek lisans öğrencisi Psk. Sinem Yahyaoğlu ve Dr. Senem Zeytinoğlu (Özyeğin Üniversitesi Psikoloji Bölümü) tarafından yürütülmektedir. Bu araştırma kişilerin kaygı düzeyleri, kontrol odakları, sosyal destek ve benliğin ayrımlaşması arasındaki ilişkiyi incelemektedir. Çalışmada doğru veya yanlış cevap yoktur. Sizden istediğimiz kendinize en yakın hissettiğiniz cevapları işaretlemenizdir. Çalışma yaklaşık 30 dk sürecektir.

Bu çalışma bilimsel amaçlarla yapılmaktadır. Çalışma süresince toplanan veriler anonim olarak değerlendirilecek ve araştırmanın hiçbir aşamasında isimler kullanılmayacaktır. Sonuçlar kişisel bilgileriniz ile eşleştirilmeyecek, araştırma sonucunda herhangi bir kişisel değerlendirme yapılmayacaktır. Araştırmanın bilgileri ve verileri araştırmacının şifreli bilgisayarında ve kilitli ofisinde tutulacaktır. Çalışmaya katılım tamimiyle gönüllüdür. Bu formu imzalamama ve çalışmaya katılmama hakkınız her zaman geçerlidir. Formu imzalasanız dahi kendinizi rahat hissetmediğiniz an çalışmayı bırakabilirsiniz.

Çalışma hakkında daha fazla bilgi almak için Psk. Sinem Yahyaoğlu (E-posta: sinem.yahyaoglu@ozu.edu.tr) ile iletişim kurabilirsiniz.
Bu formda anlatılan araştırmanın etik yönleriyle ve/veya araştırma detaylarıyla ilgili sorularınız, sorunlarınız veya önerileriniz varsa lütfen Özyeğin Üniversitesi Etik Kurulu ile (216) 564 91 76 nolu telefondan temasa geçiniz.
Yukarıda sözü geçen _____
_____isimli araştırma projesinin detaylarını okudum ve bu proje ile ilgili sorularım cevaplandı. Bu çalışmaya gönüllü olarak katılıyorum.

_____ _____
İsim Soyad Tarih

APPENDIX B- DEMOGRAFİK BİLGİ FORMU

1) Cinsiyetiniz: ○K ○E 2)Yaşınız:_____

3) Sosyo-ekonomik (maddi) seviyenizi nasıl tanımlarsınız?
○ Üst sınıf ○Üst-orta sınıf ○Orta sınıf ○Düşük-orta sınıf ○Düşük sınıf

4) Eğitim durumunuz:
○ Üniversite ○ Yüksek lisans

5) Kaçıncı sınıf: ……
6) Herhangi bir psikolojik sorununuz var mı? ○Evet ○Hayır
Evet ise lütfen belirtiniz: ……..
7) Varsa, sorununuz için psikolojik destek aldınız mı? ○Evet ○Hayır
8) Şu anda psikolojik destek alıyor musunuz? ○Evet ○Hayır
9) Psikiyatrik ilaç kullanıyor musunuz? ○Evet ○Hayır
10) Herhangi bir sağlık probleminiz var mı? ○Evet ○Hayır
Evet ise lütfen belirtiniz: ……..
11) Kimlerle yaşıyorsunuz?
○Anne-baba, varsa kardeşlerinizle birlikte
○Yakın akraba ile
○Arkadaşlarınız ile
○Yurtta
○Yalnız
○Diğer: ……
12) Sizle beraber toplam kaç kardeşsiniz? …….
13) Siz ailenizin kaçıncı çocuğusunuz? ……..

APPENDIX C- DURUMLULUK- SÜREKLİLİK KAYGI ENVANTERİ (DSKE)

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyun, sonra da o anda nasıl hissettiğinizi ifadelerin şağ tarafındaki parantezlerden uygun olanını işaretlemek suretiyle belirtin. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin **anında** nasıl hissettiğinizi gösteren cevabı işaretleyin.

		HİÇ	BİRAZ	ÇOK	TAMAMİYLE
1.	Şu anda sakinim	(1)	(2)	(3)	(4)
2.	Kendimi emniyette hissediyorum	(1)	(2)	(3)	(4)
3	Su anda sinirlerim gergin	(1)	(2)	(3)	(4)
4	Pişmanlık duygusu içindeyim	(1)	(2)	(3)	(4)
5.	Şu anda huzur içindeyim	(1)	(2)	(3)	(4)
6	Şu anda hiç keyfim yok	(1)	(2)	(3)	(4)
7	Başıma geleceklerden endişe ediyorum	(1)	(2)	(3)	(4)
8.	Kendimi dinlenmiş hissediyorum	(1)	(2)	(3)	(4)
9	Şu anda kaygılıyım	(1)	(2)	(3)	(4)
10.	Kendimi rahat hissediyorum	(1)	(2)	(3)	(4)
11.	Kendime güvenim var	(1)	(2)	(3)	(4)
12	Şu anda asabım bozuk	(1)	(2)	(3)	(4)
13	Çok sinirliyim	(1)	(2)	(3)	(4)
14	Sinirlerimin çok gergin olduğunu hissediyorum	(1)	(2)	(3)	(4)
15.	Kendimi rahatlamış hissediyorum	(1)	(2)	(3)	(4)
16.	Şu anda halimden memnunum	(1)	(2)	(3)	(4)

17	Şu anda endişeliyim	(1)	(2)	(3)	(4)
18	Heyecandan kendimi şaşkına dönmüş hissediyorum	(1)	(2)	(3)	(4)
19.	Şu anda sevinçliyim	(1)	(2)	(3)	(4)
20.	Şu anda keyfim yerinde.	(1)	(2)	(3)	(4)

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyun, sonra da o anda nasıl hissettiğinizi ifadelerin sağ tarafındaki parantezlerden uygun olanını işaretlemek suretiyle belirtin. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarfetmeksizin **anında** nasıl hissettiğinizi gösteren cevabı işaretleyin.

		Hemen hemen hiçbir zaman	**Bazen**	**Çok zaman**	**Hemen her zaman**
21.	Genellikle keyfim yerindedir	(1)	(2)	(3)	(4)
22	Genellikle çabuk yorulurum	(1)	(2)	(3)	(4)
23	Genellikle kolay ağlarım	(1)	(2)	(3)	(4)
24	Başkaları kadar mutlu olmak isterim	(1)	(2)	(3)	(4)
25	Çabuk karar veremediğim için fırsatları kaçırırım	(1)	(2)	(3)	(4)
26.	Kendimi dinlenmiş hissediyorum	(1)	(2)	(3)	(4)
27.	Genellikle sakin, kendine hakim ve soğukkanlıyım	(1)	(2)	(3)	(4)
28	Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim	(1)	(2)	(3)	(4)
29	Önemsiz şeyler hakkında endişelenirim	(1)	(2)	(3)	(4)
30.	Genellikle mutluyum	(1)	(2)	(3)	(4)
31	Her şeyi ciddiye alır ve endişelenirim	(1)	(2)	(3)	(4)
32	Genellikle kendime güvenim yoktur	(1)	(2)	(3)	(4)
33.	Genellikle kendimi emniyette hissederim	(1)	(2)	(3)	(4)
34	Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım	(1)	(2)	(3)	(4)
35	Genellikle kendimi hüzünlü hissederim	(1)	(2)	(3)	(4)
36.	Genellikle hayatımdan memnunum	(1)	(2)	(3)	(4)
37	Olur olmaz düşünceler beni rahatsız eder	(1)	(2)	(3)	(4)
38	Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutamam	(1)	(2)	(3)	(4)
39.	Aklı başında ve kararlı bir insanım	(1)	(2)	(3)	(4)

40	Son zamanlarda kafama takılan konular beni tedirgin ediyor	(1)	(2)	(3)	(4)

APPENDIX D- BENLİĞİN AYRIŞMASI ÖLÇEĞİ (BAÖ)

Aşağıda kendinizle ve başkalarıyla olan ilişkilerinize yönelik düşünce ve duygularınızı içeren ifadeler yer almaktadır. Sizden istenen her bir ifadeyi dikkatlice okuyarak 1'den 6'ya kadar olan seçeneklerden sizi en iyi ifade eden seçeneği işaretlemenizdir. Eğer herhangi bir madde sizinle direk ilgili gözükmüyorsa (örn., şu anda bir eşiniz/partneriniz yoksa), olması halinde nasıl düşünüp nasıl davranabileceğinizle ilgili en iyi tahmininizi belirtiniz. İçten yanıtlarınız için teşekkürler.

1-----2-----3-----4-----5-----6
Hiç Uygun Değil Çok Uygun

1. Ailemin yanındayken genellikle kendimi kısıtlanmış hissederim.	1	2	3	4	5	6
2.Önemli bir işe ya da göreve başlarken genellikle başkalarının cesaretlendirmesine ihtiyaç duyarım.	1	2	3	4	5	6
3. İnsanlar benimle yakınlık kurmaya çalıştıklarında, kendimi onlardan uzak tutarım.	1	2	3	4	5	6
4. İnsanlar benimle yakınlık kurmaya çalıştıklarında, bundan genellikle rahatsızlık duyarım.	1	2	3	4	5	6
5.Hemen hemen hayatımdaki herkesten onay alma ihtiyacı hissederim.	1	2	3	4	5	6
6. Değiştiremeyeceğim şeyler için üzülmenin bir anlamı yok.	1	2	3	4	5	6
7. Yakın ilişkilerimde kısıtlanma kaygısı yaşarım.	1	2	3	4	5	6
8. Eleştirilmek beni oldukça rahatsız eder.	1	2	3	4	5	6
9. Anne/babamın beklentilerine göre yaşamaya çalışırım.	1	2	3	4	5	6
10. Kendimi olduğum gibi kabul ederim.	1	2	3	4	5	6
11. Eşimle/partnerimle bir tartışma yaşarsam, tüm gün bu tartışma üzerine düşünürüm.	1	2	3	4	5	6
12. Başkaları tarafından baskı altında olduğumu hissettiğim zamanlarda bile onlara "hayır" diyebilirim.	1	2	3	4	5	6
13. Yaptığım şeyin doğru olduğunu düşünüyorsam başkalarının ne dediğini pek de umursamam.	1	2	3	4	5	6
14. Bir karar alırken danışacağım birileri yoksa kolay kolay karar veremem.	1	2	3	4	5	6
15. Başkaları tarafından incitilmek beni aşırı derecede rahatsız eder.	1	2	3	4	5	6
16. Eşimin/partnerimin yoğun ilgisi beni bunaltır.	1	2	3	4	5	6
17. İnsanlar üzerindeki izlenimimi merak ederim.	1	2	3	4	5	6
18. Duygularımı genellikle çevremdekilerden daha yoğun yaşarım.	1	2	3	4	5	6
19. Hayatımda ne olursa olsun, kendimle ilgili düşüncelerimden asla taviz vermem.	1	2	3	4	5	6
20. Anne/babamın fikrini almadan karar veremem.	1	2	3	4	5	6

APPENDIX E- ÇOK BOYUTLU ALGILANAN SOSYAL DESTEK ÖLÇEĞİ (ÇBASDÖ)

Aşağıda 12 cümle ve her birinde de cevaplarınızı işaretlemeniz için 1'den 7'ye kadar rakamlar verilmiştir. Her cümlede söylenen sizin için ne kadar çok doğru olduğunu veya olmadığını belirtmek için o cümle altındaki rakamlardan yalnız bir tanesini daire içine alarak işaretleyiniz. Bu şekilde 12 cümlenin her birine bir işaret koyarak cevaplarınızı veriniz.

1- İhtiyacım olduğunda yanımda olan özel bir insan var

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

2- Sevinç ve kederlerimi paylaşabileceğim özel bir insan var

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

3-Ailem bana gerçekten yardımcı olmaya çalışır

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

4-İhtiyacım olan duygusal yardımı ve desteği ailemden alırım

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

5-Beni gerçekten rahatlatan özel bir insan var

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

6-Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

7-İşler kötü gittiğinde arkadaşlarıma güvenebilirim

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

8-Sorunlarımı ailemle konuşabilirim

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

9-Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

10-Yaşamımda duygularıma önem veren özel bir insan var

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

11-Kararlarımı vermemde ailem bana yardımcı olmaya isteklidir

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

12-Sorunlarımı arkadaşlarımla konuşabilirim

Kesinlikle hayır 1 2 3 4 5 6 7 Kesinlikle Evet

APPENDIX F- ROTTER İÇ- DIŞ KONTROL ODAĞI ÖLÇEĞİ (RİDKOÖ)

Bu anket, bazı önemli olayların insanları etkileme biçimini bulmayı amaçlamaktadır. Her maddede "a" ya da "b" harfleriyle gösterilen iki seçenek bulunmaktadır. Lütfen, her seçenek çiftinde sizin kendi görüşünüze göre gerçeği yansıttığına en çok inandığınız cümleyi (yalnız bir cümleyi) seçiniz ve bir yuvarlak içine alınız.

Seçiminizi yaparken, seçmeniz gerektiğini düşündüğünüz veya doğru olmasını arzu ettiğiniz cümleyi değil, **gerçekten doğru olduğuna inandığınız cümleyi** seçiniz. Bu anket kişisel inançlarla ilgilidir; bunun için "doğru" yada "yanlış" cevap diye bir durum söz konusu değildir.

Bazı maddelerde her iki cümleye de inandığınızı yada hiç birine inanmadığınızı düşünenebilirsiniz. Böyle durumlarda, **size en uygun olduğuna inandığınız cümleyi** seçiniz. Seçim yaparken her bir cümle için bağımsız karar veriniz; önceki tercihleriniziden etkilenmeyiniz.

1. a) Ana-babaları çok fazla cezalandırdıkları için çocuklar problemli oluyor.
   b) Günümüz çocuklarının çoğunun problemi, ana-babaları tarafından aşırı serbest bırakılmalarıdır.

2. a) İnsanların yaşamındaki mutsuzlukların çoğu, biraz da şansızlıklarına bağlıdır.
   b) İnsanların talihsizlikleri kendi hatalarının sonucudur.

3. a) Savaşların başlıca nedenlerinden biri, halkın siyasetle yeterince ilgilenmemesidir.
   b) İnsanlar savaşı önlemek için ne kadar çaba harcarsa harcasın, her zaman savaş olacaktır.

4. a) İnsanlar bu dünyada hak ettikleri saygıyı er geç görürler.
   b) İnsan ne kadar çabalarsa çabalasın ne yazık ki değerleri genellikle anlaşılamaz.

5. a) Öğretmenlerin öğrencilere haksızlık yaptığı fikri saçmadır.

b) Öğrencilerin çoğu, notlarının tesadüfi olaylardan etkilendiğini fark etmez.

6. a) Koşullar uygun değilse insan başarılı bir lider olamaz.

b) Lider olamayan yetenekli insanlar fırsatları değerlendirememiş kişilerdir.

7. a) Ne kadar uğraşsanız da bazı insanlar sizden hoşlanmazlar.

b) Kendilerini başkalarına sevdiremeyen kişiler, başkalarıyla nasıl geçinileceğini bilmeyenlerdir.

8. a) İnsanın kişiliğinin belirlenmesinde en önemli rolü kalıtım oynar.

b) İnsanların nasıl biri olacaklarını kendi hayat tecrübeleri belirler.

9. a) Bir şey olacaksa eninde sonunda olduğuna sık sık tanık olmuşumdur.

b) Ne yapacağıma kesin karar vermek güvenmekten daime daha iyidir.

10. a) İyi hazırlanmış bir öğrenci için, adil olmayan bir sınav hemen hemen söz konusu olamaz.

b) Sınav sonuçları derste işlenenle çoğu kez o kadar ilişkisiz oluyor ki, çalışmanın anlamı kalmıyor.

11. a) Başarılı olmak çok çalışmaya bağlıdır; şansın bundan payı ya hiç yoktur yada çok azdır.

b) İyi bir iş bulmak, temelde, doğru zamanda doğru yerde bulunmaya bağlıdır.

12. a) Hükümetin kararlarında sade vatandaş da etkili olabilir.

b) Bu dünya güç sahibi birkaç kişi tarafından yönetilmektedir ve sade vatandaşın bu konuda yapabileceği fazla birşey yoktur.

13. a) Yaptığım planları yürütebileceğimden hemen hemen eminimdir.

b) Çok uzun vadeli planlar yapmak her zaman akıllıca olmayabilir, çünkü birçok şey zaten iyi ya da kötü şansa bağlıdır.

14. a) Hiçbir yönü iyi olmayan insanlar vardır.

b) Herkesin iyi bir tarafı vardır.

15. a) Benim açımdan isteğimi elde etmenin talihle bir ilgisi yoktur.

b) Çoğu durumda, yazı-tura atarak da isabetli kararlar verebiliriz.

16. a) Kimin patron olacağı, genellikle, doğru yerde ilk önce bulunma şansına kimin sahip olduğuna bağlıdır.

b) İnsanlara doğru şeyi yaptırmak bir yetenek işidir; şansın bunda payı ya hiç yoktur ya da çok azdır.

17. a) Dünya meseleleri söz konusu olduğunda, çoğumuz anlayamadığımız ve kontrol edemediğimiz güçlerin kurbanıyızdır.

b) İnsanlar siyasal ve sosyal konularda aktif rol alarak dünya olaylarını kontrol edebilirler.

18. a) Birçok insan rastlantıların yaşamlarını ne derece etkilediğinin farkında değildir.

b) Aslında "şans" diye bir şey yoktur.

19. a) İnsan, hatalarını kabul edebilmelidir.

b) Genelde en iyisi insanın hatalarını örtbas etmesidir.

20. a) Bir insanın sizden gerçekten hoşlanıp hoşlanmadığını bilmek zordur.

b) Kaç arkadaşınızın olduğu, ne kadar iyi olduğunuza bağlıdır.

21. a) Uzun vadede, yaşamınızdaki kötü şeyler iyi şeylerle dengelenir.

b) Çoğu talihsizlikler yetenek eksikliğinin, ihmalin, tembelliğin ya da her üçünün birden sonucudur.

22. a) Yeterli çabayla siyasal yolsuzlukları ortadan kaldırabiliriz.

b) Siyasetçilerin kapalı kapılar ardında yaptıkları üzerinde halkın fazla bir kontrolü yoktur.

23. a) Öğretmenlerin verdikleri notları nasıl belirlediklerini bazen anlayamıyorum.

b) Aldığım notlarla çalışma derecem arasında doğrudan bir bağlantı vardır.

24. a) İyi bir lider, ne yapacaklarına halkın bizzat karar vermesini bekler.

b) İyi bir lider herkesin görevinin ne olduğunu bizzat belirler.

25. a) Çoğu kez başıma gelenler üzerinde çok az etkiye sahip olduğumu hissederim.

b) Şans yada talihin yaşamımda önemli bir rol oynadığına inanmam.

26. a) İnsanlar arkadaşça olmaya çalışmadıkları için yalnızdırlar.

b) İnsanları memnun etmek için çok fazla çabalamanın yararı yoktur, sizden hoşlanırlarsa hoşlanırlar.

27. a) Liselerde atletizme gereğinden fazla önem veriliyor.

b) Takım sporları kişiliğin oluşumu için mükemmel bir yoldur.

28. a) Başıma ne gelmişse, kendi yaptıklarımdandır.

b) Yaşamımın alacağı yön üzerinde bazen yeterince kontrolümün olmadığını hissediyorum.

29. a) Siyasetçilerin neden öyle davrandıklarını çoğu kez anlamıyorum.

b) Yerel ve ulusal düzeydeki kötü idareden uzun vadede halk sorumludur.

REFERENCES

Akram, U., Ellis, J. G., & Barclay, N. L. (2015). Anxiety mediates the relationship between perfectionism and insomnia symptoms: a longitudinal study. *PLoS One*, *10*(10), e0138865. doi:10.1371/journal.pone.0138865

Aldalalah, O. A., & Gasaymeh, A. M. M. (2014). Perceptions of blended learning competencies and obstacles among educational technology students in light of different anxiety levels and locus of control. *Contemporary Educational Technology*, *5*(3), 218-238.

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Publication. doi:10.1176/appi.books.9780890425596

American Psychiatric Association. n.d. *What are anxiety disorders?* Retrieved from https://www.psychiatry.org/patients-families/anxiety-disorders/what-are-anxiety-disorders

American Psychological Association. n.d. *Anxiety*. Retrieved from http://www.apa.org/topics/anxiety/index.aspx

Andó, B., Álmos, P. Z., Németh, V. L., Kovács, I., Fehér-Csókás, A., Demeter, I., ... & Janka, Z. (2016). Spirituality mediates state anxiety but not trait anxiety and depression in alcohol recovery. *Journal of Substance Use*, *21*(4), 344-348. doi:10.3109/14659891.2015.1021869

Archer, R. P. (1979a). Relationships between locus of control and anxiety. *Journal of Personality Assessment*, *43*(6), 617-626. doi:10.1207/s15327752jpa4306_10

Archer, R. P. (1980). Generalized expectancies of control, trait anxiety, and psychopathology among psychiatric inpatients. *Journal of Consulting and Clinical Psychology*, *48*(6), 736. doi:10.1037/0022-006X.48.6.736

Arslan, C., Dilmaç, B., & Hamarta, E. (2009). Coping with stress and trait anxiety in terms of locus of control: A study with Turkish university students. *Social Behavior and Personality: An International Journal, 37*(6), 791-800. doi:10.2224/sbp.2009.37.6.791

Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology*, *43*(8), 667-672. doi:10.1007/s00127-008-0345-x

Beehr, T. A., Bowling, N. A., & Bennett, M. M. (2010). Occupational stress and failures of social support: when helping hurts. *Journal of occupational health psychology*, *15*(1), 45. doi: 10.1037/a0018234

Black, J. S. (1990). Locus of control, social support, stress, and adjustment in international transfers. *Asia Pacific Journal of Management*, *7*(1), 1-29. doi:10.1007/BF01731881

Bowen, M., & Kerr, M. E. (1988). Family evaluation. WW Norton & Company.

Bryant, C., Jackson, H., & Ames, D. (2008). The prevalence of anxiety in older adults: methodological issues and a review of the literature. *Journal of Affective Disorders*, *109*(3), 233-250. doi: 10.1016/j.jad.2007.11.008

Buunk, B. P., & Hoorens, V. (1992). Social support and stress: The role of social comparison and social exchange processes. *British Journal of Clinical Psychology*, *31*(4), 445-457. doi:10.1111/j.2044-8260.1992.tb01018.x

Carron, A. V. (1971). Reactions to "Anxiety and motor behavior". *Journal of Motor Behavior*, *3*(2), 181-188. doi:10.1080/00222895.1971.10734900

Cauce, A. M., Hannan, K., & Sargeant, M. (1992). Life stress, social support, and locus of control during early adolescence: Interactive effects. *American Journal of Community Psychology*, *20*(6), 787-798. doi:10.1007/BF01312608

Chavis, L. (2016). Mothering and anxiety: Social support and competence as mitigating factors for first-time mothers. *Social work in health care*, *55*(6), 461-480. doi:10.1080/00981389.2016.1170749

Cheng, C., Cheung, S. F., Chio, J. H. M., & Chan, M. P. S. (2013). Cultural meaning of perceived control: a meta-analysis of locus of control and psychological symptoms across 18 cultural regions. *Psychological bulletin*, *139*(1), 152. doi:10.1037/a0028596

Chung, H., & Gale, J. (2009). Family functioning and self-differentiation: A cross-cultural examination. *Contemporary Family Therapy*, *31*(1), 19-33. doi:10.1007/s10591-008-9080-4

Clark, D. A., & Beck, A. T. (2011). *Cognitive therapy of anxiety disorders: Science and practice*. Guilford Press.

Covassin, T., Crutcher, B., Bleecker, A., Heiden, E. O., Dailey, A., & Yang, J. (2014). Postinjury anxiety and social support among collegiate athletes: a comparison between orthopaedic injuries and concussions. *Journal of athletic training*, *49*(4), 462-468. doi:10.4085/1062-6059-49.2.03

Crossno, M., A. (2011). Bowen's family systems theory. In Metcalf, L. (Ed.), *Marriage and family therapy: A practice-oriented approach* (pp. 39- 64). New York, NY: Springer Publishing Company.

Dağ, İ. (1991). Rotter'in iç-dış kontrol odağı ölçeği (RİDKOÖ)'nin üniversite öğrencileri için güvenirliği ve geçerliği. *Psikoloji Dergisi*, 7 (26), ss. 10-16.

Dalgard, O. S., Bj, S., & Tambs, K. (1995). Social support, negative life events and mental health. *The British Journal of Psychiatry*, *166*(1), 29-34. doi:10.1192/bjp.166.1.29

De Pero, R., Minganti, C., Pesce, C., Capranica, L., & Piacentini, M. F. (2013). The relationships between pre-competition anxiety, self-efficacy, and fear of injury in elite team gym athletes. *Kinesiology, 45*(1), 63-72.

Dilmac, B., Hamarta, E., & Arslan, C. (2009). Analysing the trait anxiety and locus of control of
undergraduates in terms of attachment styles. *Educational Sciences: Theory and Practice*, *9*(1), 143-159.

Eker, D., Arkar, H., & Yaldız, H. (2001). Çok boyutlu algılanan sosyal destek ölçeğinin gözden
geçirilmiş formunun faktör yapısı, geçerlik ve güvenirliği. *Türk Psikiyatri Dergisi*, *12*(1), 17-25.

Field, A. (2009). *Discovering statistics using SPSS*. London. Sage Publications.

Fields, J. A., Nichols, L. O., Martindale-Adams, J., Zuber, J., & Graney, M. (2012). Anxiety, social support, and physical health in a sample of spouses of OEF/OIF service members. *Military medicine*, *177*(12), 1492-1497. doi:10.7205/MILMED-D-12-00036

Flett, G. L., Endler, N. S., Tassone, C., & Hewitt, P. L. (1994). Perfectionism and components of state and trait anxiety. *Current psychology*, *13*(4), 326-350.

Gabelman, E. (2012). *The effects of locus of control and differentiation of self on relationship satisfaction* (Doctoral dissertation, The Ohio State University).

Gates, L., Lineberger, M. R., Crockett, J., & Hubbard, J. (1988). Birth order and its relationship to depression, anxiety, and self-concept test scores in children. *The Journal of genetic psychology*, *149*(1), 29-34. doi:10.1080/00221325.1988.10532136

Gençöz, T., & Astan, G. (2006). Social support, locus of control, and depressive symptoms in hemodialysis patients. *Scandinavian Journal of Psychology*, *47*(3), 203-208. doi:10.1111/j.1467-9450.2006.00508.x

Göregenli, M. (1997). Individualist-collectivist tendencies in a Turkish sample. *Journal of Cross-Cultural Psychology, 28*(6), 787-794. doi:10.1177/0022022197286009

Grinberg, A. S., & Seng, E. K. (2017). Headache-specific locus of control and migraine-related

quality of life: Understanding the role of anxiety. *International Journal of Behavioral Medicine*, *24*(1), 136-143. doi:10.1007/s12529-016-9587-2

Helgeson, V. S. (1993). Two Important Distinctions in Social Support: Kind of Support and Perceived Versus Received 1. *Journal of applied social psychology, 23*(10), 825-845. doi:10.1111/j.1559-1816.1993.tb01008.x

Hiller, T. S., Steffens, M. C., Ritter, V., & Stangier, U. (2017). On the context dependency of implicit self-esteem in social anxiety disorder. *Journal of behavior therapy and experimental psychiatry*, *57*, 118-125. doi: 10.1016/j.jbtep.

Hoi Yan, C. (2006). Factors affecting the state anxiety level of higher education students in Macau: the impact of trait anxiety and self-esteem. *Assessment & Evaluation in Higher Education*, *31*(6), 709-725. doi: 10.1080/02602930600760934

Hyde, L. W., Gorka, A., Manuck, S. B., & Hariri, A. R. (2011). Perceived social support moderates the link between threat-related amygdala reactivity and trait anxiety. *Neuropsychologia*, *49*(4), 651-

656. doi:10.1016/j.neuropsychologia.2010.08.025

Imamoglu, E. O., Gunaydin, G., & Selcuk, E. (2011). Individuation and relatedness as predictors of the authentic self: Beyond gender and cultural orientations. *Türk Psikoloji Dergisi*, *26*(67), 27-48.

Işık, E., & Bulduk, S. (2015). Psychometric properties of the differentiation of self inventory-revised in Turkish adults. *Journal of Marital and Family Therapy*, *41*(1), 102-112. doi:10.1111/jmft.12022

Kayhan, F., Cıcek, E., Uguz, F., Karababa, İ. F., & Kucur, R. (2013). Mood and anxiety disorders among inpatients of a university hospital in Turkey. *General Hospital Psychiatry*, *35*(4), 417-422. doi:10.1016/j.genhosppsych.2013.03.004

Kerr, M. E. (1988, September). Chronic anxiety and defining a self. *The Atlantic Monthly*, *9*, 35-58.

Khodayarifard, M., Anshel, M. H., & Brinthaupt, T. M. (2006). Relationships between Attributional Style and Trait Anxiety for Preadolescent Australian Boys and Girls. *Australian Journal of Educational & Developmental Psychology*, *6*, 26-38.

Kim, U. E., Triandis, H. C., Kâğitçibaşi, Ç. E., Choi, S. C. E., & Yoon, G. E. (1994). *Individualism and collectivism: Theory, method, and applications*. Sage Publications, Inc.

Koç, M., & Dündar, A. (2018). Research on Social Anxiety Level and Communication Skills of Secondary School Students. *Asian Journal of Education and Training*, *4*(4), 257-265. doi:10.20448/journal.522.2018.44.257.265

Kotov, R., Gamez, W., Schmidt, F., & Watson, D. (2010). Linking "big" personality traits to anxiety, depressive, and substance use disorders: a meta-analysis. *Psychological bulletin*, *136*(5), 768. doi: 10.1037/a0020327

Kugbey, N., Osei-Boadi, S., & Atefoe, E. A. (2015). The Influence of Social Support on the Levels of Depression, Anxiety and Stress among Students in Ghana. *Journal of Education and Practice*, *6*(25), 135-140.

Kushnir, T. (1981). Anticipating Skylab: Subjective probability of injury in relation to birth order, anxiety and affiliation. *European Journal of Social Psychology*, *11*(1), 109-113. doi:10.1002/ejsp.2420110108

Lefcourt, H. M., Martin, R. A., & Saleh, W. E. (1984). Locus of control and social support: Interactive moderators of stress. *Journal of Personality and Social Psychology, 47*(2), 378. doi:10.1037/0022-3514.47.2.378

Li, H., & Zhang, Y. (2008). Factors predicting rural Chinese adolescents' anxieties, fears and depression. *School Psychology International*, *29*(3), 376-384. doi:10.1177/0143034308093676

Marr, J., & Wilcox, S. (2015). Self-efficacy and social support mediate the relationship between
internal health locus of control and health behaviors in college students. *American Journal of Health Education, 46*(3), 122-131. doi:10.1080/19325037.2015.1023477

Marquez, D. X., Jerome, G. J., McAuley, E., Snook, E. M., & Canaklisova, S. (2002). Self-efficacy manipulation and state anxiety responses to exercise in low active women. *Psychology and Health*, *17*(6), 783-791. doi:10.1080/0887044021000054782

Maynard, S. (1997). Growing up in an alcoholic family system: The effect on anxiety and differentiation of self. *Journal of Substance Abuse, 9*, 161-170. doi:10.1016/S0899-3289(97)90014-6

Mellanby, J., & Zimdars, A. (2011). Trait anxiety and final degree performance at the University of Oxford. *Higher Education, 61*(4), 357-370. doi: 10.1007/s10734-010-9335-5

Melrose, K. L., Brown, G. D., & Wood, A. M. (2015). When is received social support related to perceived support and well-being? When it is needed. *Personality and Individual Differences, 77,* 97-105. doi:10.1016/j.paid.2014.12.047

Moshki, M., & Cheravi, K. (2016). Relationships among depression during pregnancy, social support and health locus of control among Iranian pregnant women. *International Journal of Social Psychiatry*, *62*(2), 148-155. doi: 10.1177/0020764015612119

Nikfarjam, M., Solati, K., Heidari-Soureshjani, S., Safavi, P., Zarean, E., Fallah, E., & Goudarzi, I. (2018). Effect of Group Religious Intervention on Spiritual Health and Reduction of Symptoms in Patients with Anxiety. *Journal of Clinical & Diagnostic Research*, *12*(10). doi:10.7860/JCDR/2018/36291.12097

Ollendick, D. G. (1979). Locus of control and anxiety as mediating variables of locus of conflict in disadvantaged youth. *The Journal of Psychology*, *101*(1), 23-25. doi:10.1080/00223980.1979.9915048

Öner, N. (2012). *Türkiye'de Kullanılan Psikolojik Testlerden Örnekler: Bir Başvuru Kaynağı* (Genişletilmiş 7. Baskı). İstanbul: Boğaziçi Üniversitesi Yayınevi.

Öner, N.& LeCompte A. (1985) *Durumluk-Sürekli Kaygı Envanteri El Kitabı, İ*stanbul: Boğaziçi Üniversitesi Yayınları.

Özdemir, G., & Dalkıran, E. (2017). Identification of the Predictive Power of Five Factor Personality Traits for Individual Instrument Performance Anxiety. *Journal of Education and Training Studies*, *5*(9), 109-114. doi:10.11114/jets.v5i9.2522

Panno, A., Donati, M. A., Milioni, M., Chiesi, F., & Primi, C. (2018). Why women take fewer risk than men do: the mediating role of state anxiety. *Sex Roles*, *78*(3-4), 286-294.

Pacesova, P., Smela, P., Kracek, S., Plevkova, J. (2018). Women's well-being, state and trait anxiety regarding their sport activity. *Sport Mont, 16*(2), 33-38. doi:10.26773/smj.180606

Papero, D. V. (2014). Assisting the two-person system: An approach based on the Bowen theory. *Australian and New Zealand Journal of Family Therapy*, *35*(4), 386-397. doi:10.1002/anzf.1079

Peleg, O. (2005). The relation between differentiation and social anxiety: What can be learned from students and their parents?. *The American Journal of Family Therapy*, *33*(2), 167-183. doi:10.1080/01926180590921403

Peleg, O., & Yitzhak, M. (2011). Differentiation of self and separation anxiety: Is there a similarity between spouses?. *Contemporary Family Therapy*, *33*(1), 25-36. doi:10.1007/s10591-010-9137-z

Peleg, O., & Zoabi, M. (2014). Social anxiety and differentiation of self: A comparison of Jewish and Arab college students. *Personality and Individual Differences*, *68*, 221-228. doi:10.1016/j.paid.2014.04.032

Peleg, O., Halaby, E., & Whaby, E. N. (2006). The relationship of maternal separation anxiety and differentiation of self to children's separation anxiety and adjustment to kindergarten: A study in Druze families. *Journal of Anxiety Disorders, 20*(8), 973-995. doi:10.1016/j.janxdis.2006.01.008

Peleg-Popko, O. (2002). Bowen theory: A study of differentiation of self, social anxiety, and physiological symptoms. *Contemporary Family Therapy*, *24*(2), 355-369. doi:10.1023/A:1015355509866

Peleg-Popko, O. (2004). Differentiation and test anxiety in adolescents. *Journal of Adolescence*, *27*(6), 645-662. doi:10.1016/j.adolescence.2004.06.002

Post, P., & Robinson, B. E. (1998). School-age children of alcoholics and non-alcoholics: Their anxiety, self-esteem, and locus of control. *Professional School Counseling*, *1*(5), 36-40.

Priest, J. B. (2015). A Bowen family systems model of generalized anxiety disorder and romantic
relationship distress. *Journal of Marital and Family Therapy*, *41*(3), 340-353. doi:10.1111/jmft.12063

Pu, J., Hou, H., & Ma, R. (2017). The mediating effects of self-esteem and trait anxiety mediate on the impact of locus of control on subjective well-being. *Current Psychology*, *36*(1), 167-173. doi:10.3389/fpsyg.2017.01707

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, *80*(1), 1. doi:10.1037/h0092976

Sandler, I. N., & Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. *American Journal of Community Psychology*, *10*(1), 65-80. doi:10.1007/BF00903305

Sangalang, C. C., & Gee, G. C. (2012). Depression and anxiety among Asian Americans: The effects of social support and strain. *Social work*, *57*(1), 49-60. doi:10.1093/sw/swr005

Sarason, I. G., & Sarason, B. R. (1982). Concomitants of social support: Attitudes, personality
characteristics, and life experiences. *Journal of Personality*, *50*(3), 331-344. doi:10.1111/j.1467-6494.1982.tb00754.x:

Satıcı, S. A., Uysal, R., & Akın, A. (2013). Perceived social support as predictor of academic locus of control. *Education Sciences & Psychology*, *23*(1).

Skowron, E. A., & Friedlander, M. L. (1998). The differentiation of self inventory: Development
and initial validation. *Journal of Counseling Psychology*, *45*(3), 235. doi:10.1037/0022-0167.45.3.235

Skowron, E. A., & Schmitt, T. A. (2003). Assessing interpersonal fusion: Reliability and validity of a new DSI fusion with others subscale. *Journal of marital and family therapy*, *29*(2), 209-222. doi:10.1111/j.1752-0606.2003.tb01201.x

Solomon, Z., Mikulincer, M., & Avitzur, E. (1988). Coping, locus of control, social support, and combat-related posttraumatic stress disorder: A prospective study. *Journal of Personality and Social Psychology*, *55*(2), 279. doi:10.1037/0022-3514.55.2.279

Spielberger, C. D. (1966). Theory and research on anxiety. In C. D. Spielberger (Ed.), *Anxiety and behavior* (pp. 3- 22). New York, NY: Academic Press.

Spielberger, C. D., Gorsuch, R. L.,& Lushene, R. E. (1970). *Manual for state and anxiety inventory*. Palo Alto, CA: Consulting Psychologists.

Steiner, L. M., Zaske, S., Durand, S., Molloy, M., & Arteta, R. (2017). Spiritual factors predict state and trait anxiety. *Journal of religion and health*, *56*(6), 1937-1955. doi:10.1007/s10943-016-0293-9

Suliman, W. A., & Halabi, J. (2007). Critical thinking, self-esteem, and state anxiety of nursing students. *Nurse education today*, *27*(2), 162-168. doi:10.1016/j.nedt.2006.04.008

The Bowen Center for the Study of the Family. n.d. *Eight concepts.* Retrieved from https://thebowencenter.org/theory/eight-concepts/

Topoğlu, O. (2014). Musical Performance Anxiety: Relations between Personal Features and State Anxiety Levels of Pre-Service Music Teachers. *International Online Journal of Educational Sciences*, *6*(2). doi: 10.08.2014

Vancampfort, D., De Hert, M., Knapen, J., Maurissen, K., Raepsaet, J., Deckx, S., ... & Probst, M. (2011). Effects of progressive muscle relaxation on state anxiety and subjective well-being in people with schizophrenia: a randomized controlled trial. *Clinical Rehabilitation*, *25*(6), 567-575. doi:10.1177/0269215510395633

VanderZee, K. I., Buunk, B. P., & Sanderman, R. (1997). Social support, locus of control, and psychological well-being. *Journal of Applied Social Psychology*, *27*(20), 1842-1859. doi:10.1111/j.1559-1816.1997.tb01628.x

Vélez, C. E., Krause, E. D., McKinnon, A., Brunwasser, S. M., Freres, D. R., Abenavoli, R. M., & Gillham, J. E. (2016). Social support seeking and early adolescent depression and anxiety symptoms: The moderating role of rumination. *The Journal of early adolescence*, *36*(8), 1118-1143. doi:10.1177/0272431615594460

Warnecke, A., Baum, C., Peer, J., & Goreczny, A. (2014). Intercorrelations between individual personality factors and anxiety. *College Student Journal*, *48*(1), 23-33.

Xue, Y., Xu, Z. Y., Zaroff, C., Chi, P., Du, H., Ungvari, G. S., ... & Xiang, Y. T. (2018). Associations of differentiation of self and adult attachment in individuals with anxiety-related disorders. *Perspectives in Psychiatric Care*, *54*(1), 54-63. doi:10.1111/ppc.12200

Yang, J., Schaefer, J. T., Zhang, N., Covassin, T., Ding, K., & Heiden, E. (2014). Social support from the athletic trainer and symptoms of depression and anxiety at return to play. *Journal of athletic training*, *49*. doi:10.4085/1062-6050-49.3.65

Yaycı, L. (2016). Lise öğrencilerinde aileden algılanan sosyal destek ile denetim odağı arasındaki ilişkinin incelenmesi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, *12*(3). doi:10.17860/mersinefd.282383

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, *52*(1), 30-41. doi:10.1207/s15327752jpa5201_2