SOCIAL INTERACTION ANXIETY AMONG UNIVERSITY STUDENTS: THE
ROLE OF RISK AND PROTECTIVE FACTORS

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_____

Prof. Dr. Tülin Gençöz
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Doctor of Philosophy.

_____

Prof. Dr. Cennet Engin-Demir
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Doctor of Philosophy.

_____

Prof. Dr. Oya Yerin Güneri
Supervisor

Examining Committee Members

Prof. Dr. Ayhan Demir	(METU, EDS)	_____
Prof. Dr. Oya Yerin Güneri	(METU, EDS)	_____
Prof. Dr. Emel Ültanır	(UÜ, EBB)	_____
Prof. Dr. Özgür Erdur Baker	(METU, EDS)	_____
Assist. Prof. Dr. Gökhan Atik	(AÜ, EBB)	_____

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Name, Lastname: Ayşe Irkörücü Küçük

Signature:

ABSTRACT

SOCIAL INTERACTION ANXIETY AMONG UNIVERSITY STUDENTS: THE ROLE OF RISK AND PROTECTIVE FACTORS

Irkörücü Küçük, Ayşe

Ph.D., Department of Educational Sciences

Supervisor: Prof. Dr. Oya Yerin Güneri

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The present study aimed to test a proposed model investigating the role of cognitive reappraisal, expressive suppression, rumination, and anxiety sensitivity in predicting social interaction anxiety through the indirect effect of mindfulness and experiential avoidance. A total of 645 (296 female, 349 male) undergraduate students participated in the study. Data collection instruments were the Demographic Information Form, Social Interaction Anxiety Scale, Emotion Regulation Questionnaire, The Ruminative Response Scale, Anxiety Sensitivity Index-3, Acceptance and Action Questionnaire-II and Mindfulness Attention Awareness Scale.

The SEM analysis revealed that the tested model significantly predicted social interaction anxiety of undergraduate students. In relation to direct effects, the relationships between cognitive reappraisal, expressive suppression, and anxiety sensitivity to social interaction anxiety were found significant; while rumination did not predict social interaction anxiety. The findings showed that expressive

suppression, rumination, anxiety sensitivity had a positive relationship with social interaction anxiety through the indirect effect of mindfulness; while cognitive reappraisal did not show significant results on social interaction anxiety through the indirect effect of mindfulness. Experiential avoidance had significant indirect effects on the relationhsips between social interaction anxiety and cognitive reappraisal, rumination, and anxiety sensitivity; while expressive suppression did not indicate any significant relationship. The findings of the study showed that the proposed model explained 36% of the variance in social interaction anxiety among undergraduate students.

Keywords: risk factors, protective factors, mindfulness, experiential avoidance, social interaction anxiety.

ÖZ

ÜNİVERSİTE ÖĞRENCİLERİNDE SOSYAL ETKİLEŞİM KAYGISI: RİSK VE KORUYUCU FAKTÖRLERİN ROLÜ

Irkörücü Küçük, Ayşe

Doktora, Eğitim Bilimleri Bölümü

Tez Yöneticisi: Prof. Dr. Oya Yerin Güneri

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Bu çalışmanın amacı, bilişsel yeniden değerlendirme, dışavurumsal bastırma, ruminasyon ve anksiyete duyarlılığından oluşan bir modelin sosyal etkileşim kaygısını yordamadaki rolünü bilinçli farkındalık ve yaşantısal kaçınma dolaylı etkisiyle test etmektir. Çalışmaya toplam 645 (296 kız, 349 erkek) lisans öğrencisi katılmıştır. Çalışmada Demografik Bilgi Formu, Sosyal Etkileşim Kaygısı Ölçeği, Duygu Düzenleme Ölçeği, Ruminasyon Ölçeği, Anksiyete Duyarlılığı Indeks-3, Kabul ve Eylem Anketi-II ve Bilinçli Farkındalık Ölçeği kullanılmıştır.

YEM analizi sonuçları modelin lisans öğrencilerinin sosyal etkileşim kaygısını anlamlı bir şekilde yordadığını ortaya koymuştur. Doğrudan etkiler bağlamında bilişsel yeniden değerlendirme, dışavurumsal bastırmave anksiyete duyarlılığının sosyal etkileşim kaygısı ile anlamlı direk bir ilişkide olduğu; ruminasyonun ise sosyal etkileşim kaygısını doğrudan yordamadığı bulunmuştur. Dolaylı etkiler bağlamında

bulgular, dışavurumsal bastırma, ruminasyon ve anksiyete duyarlılığının bilinçli farkındalık aracılığıyla sosyal etkileşim kaygısı ile pozitif bir ilişki içinde olduğunu gösterirken, bilişsel yeniden değerlendirmenin bilinçli farkındalık aracılığıylasosyal etkileşim kaygısı üzerindeanlamlı bir etkisi olmadığına işaret etmiştir. Diğer dolaylı etkilerise, yaşantısal kaçınmanın bilişsel değerlendirme, ruminasyon, anksiyete duyarlılığı ve sosyal etkileşim kaygısı arasındaki ilişki üzerinde anlamlı düzeyde dolaylıetkisi olduğunu göstermiştir. Dışavurumsal bastırmada, yaşantısal kaçınmanın dolaylı etkisine yönelikanlamlı sonuçlar elde edilmemiştir. Çalışma bulguları önerilen modelin lisans öğrencilerindeki sosyal etkileşim kaygısı varyansının %36'sını açıkladığını göstermiştir.

Anahtar kelimeler: risk faktörler, koruyucu faktörler, yaşantısal kaçınma, sosyal etkileşim kaygısı.

To All People Who Mindfully Survived From PhD Crisis

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CHAPTER 1

INTRODUCTION

1.1. Background to the Study

The first year of college is most significant and stressful period in students' lives, especially if they move another city for the college, leave family and friends behind (Fisher & Hood, 1987). This transition period influences both college years and, later developmental periods in life (Lu, 1994). Campbell, Bierman and Molenaar (2016) asserted that to have healthy transition and successful adjustment to college life one should create social network. Social interaction was seen as required process to provide social network which helps student to receive emotional and instrumental help that ease the college transition (Buote et al., 2007). However, the transition period was seen as the most important time for arise of social interaction concerns, vulnerable students to social anxiety were claimed to form unhealthy social interaction patterns which sustain throughout their lives (Campbell, Bierman & Molenaar, 2016). Moreover, Berman and Sperling (1991) reported that majority of freshman student experience high degree of isolation and loneliness because of social interaction anxiety. Buote et al., (2007) suggested that to have positive and healthy college transition one should have great deal of social interaction. Social relationships not only have positive influence on transition period, but it also strongly related to mental health (Rohde, D'Ambrosio, Tang, & Rao, 2016) academic achievement (Brooks & DuBois, 1995; Gall, Evans &Bellerose, 2000) and physical health (Cohen, Doyle, Skoner, Rabin, & Gwaltney, 1997; House, Landis, & Umberson, 1988).

Social anxiety is the constant fear of being observed by unfamiliar individuals in social performance and interaction situations (APA, DSM-V, 2013) and emerges from the dysfunction beliefs about being judged and observed by others, and having unrealistic

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high standards about expectations of others and fear of not meeting those expectations (Gilbert & Procter, 2006; Moscovitch & Hofmann, 2007). Social anxiety leads to avoidance from social situations since those situations are experienced as dangerous by socially anxious individuals (Nicholls, Staiger, Williams, Richardson, & Kambouropoulos, 2014).

Social anxiety had two dimensions, one form was being observed by others in performance situation of daily activities like eating, reading, walking and so on, the other aspect was being exposed to other individuals in the situation of interaction (Mattick & Clarke, 1998; Hook, Valentiner, & Connelly, 2013). Mattick and Clarke (1998) defined social interaction anxiety as fear of being exposed and interact with others. Social interaction anxiety makes individual feel anxious in situations of interaction which includes meeting and talking.Although social anxiety has two dimensions in majority of research studies the term social anxiety was utilized for both social interaction anxiety and social performance anxiety. Thus in the current study social anxiety term was used interchangeably with social interaction anxiety.

Most of the people experience social anxiety in one part of their lives (Sanders, 2003). However, social anxiety is more common among late adolescence and adulthood than other developmental periods (Ollendick &Hirshfeld-Becker, 2002). Onset age of social anxiety was suggested as 10 to 16, while at the age 19 symptoms get stable. Studies demonstrated that the prevalence of social anxiety symptoms among undergraduate students range from 19% to 33% (Beidel, Turner, Stanley, & Dancu, 1989; Strahan, 2003) and social anxiety is the most common psychological problem on college campuses, after depression and alcohol consumption (Furmark, 2002). Stewart and Mandrusiak (2007) have reported the prevalence of social anxiety symptoms in clinical level as %42 among freshman students. Moreover, Nordstrom, Goguen, and Hiester (2014) reported that %49 of college students receives counseling from university counseling services about the symptoms of social anxiety.

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Socially anxious undergraduate students have difficulty in interpersonal communication and perceive it as stressful (Strahan, 2003). This leads to avoidance of social situations (Nicholls, Staiger, Williams, Richardson, & Kambouropoulos, 2014) which hinders the process of establishing a social network (Buote et al., 2007). Another difficult aspect of social anxiety is about receiving psychological help. Students who experience social anxiety may abstain from seeking psychological counseling because of judgments of counselors and peers that socially anxious individual believe to be confronted (Magee, Eaton, Wittchen, McGonagle, & Kessler, 1996). Moreover, social anxiety can be subtle, students can have distress due to social anxiety without being aware of it until it becomes more severe than before (Kashdan & Herbert, 2001).

In most of the studies social interaction anxiety was measured with social anxiety scales like Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987), Social Phobia and Anxiety Inventory (SPAI; Turner, Beidel, Dancu, & Stanley, 1989) or Social Phobia Inventory (SPIN; Connor et al., 2000). In many of the research studies, Social Interaction Anxiety Scale (SIAS; Mattick & Clark, 1998) was also used to measure social anxiety. Since the definition of social anxiety includes both performance and interaction anxiety most of the scales measures social interaction anxiety construct in the concept of social anxiety. Therefore, in the current study research studies about social anxiety and social interaction anxiety were given together, however, the studies which only measure performance anxiety was excluded.

Studies with university students examined the relationship between social anxiety and various variables. Low academic success and lower grades (di Maria & di Nuovo, 1990; Strahan, 2003; Nordstrom et al., 2014), learning difficulties in school (Bernstein, Bernat, Andrew, & Layne, 2007), having difficulty in exams (Stein & Kean, 2000) and in graduation (Wittchen, Stein, Kessler, 1999), being less assertive (LeSure-Lester, 2001), experiencing social isolation, loneliness, interaction difficulty, and avoidance (Falk Dahl & Dahl, 2010; Russell & Topham, 2012), having difficulty in interacting with instructors (Boulter , 2002)associated with social anxiety. Social anxiety which

also encompasses social interaction anxiety that is strongly related to alcohol consumption (Kushner & Sher, 1993; Norberg, Norton, & Oliver, 2009; Schry & White, 2013). Moreover, these studies indicated that students' alcohol consumptions increase according to their social anxiousness with regard to interaction in a social situation (Buckner & Heimberg, 2010). This excessive alcohol consumption found related to possible alcohol-related disorders in the future (Slutske, 2005). Self-esteem also have a negative correlation with social anxiety (Tan, Lo, Ge, & Chu, 2016). Moreover, avoidance behaviors that accompany with social anxiety were reported to work as a protective factor in social interactions for an individual who has low self-esteem (Rasmussen & Pidgeon, 2011). Sexual victimization is another variable associated with social anxiety. Studies indicated that social interaction anxiety increases the risk of victimization while decreasing sexual assertiveness and utilization of assertive resistance techniques among college women. Studies pointed that social anxiety particularly social interaction anxiety is a risk factor for sexual victimization (Testa & Dermen, 1999; Cao et al, 2016). Social anxiety was also related to perfectionism among university students. This association was explained with the desire to meet expectations of others in social situations (Al-Naggar, Bobryshev, & Alabsi, 2013; Ghaedi, Bakhtiari, Melyani, & Sahragard, 2010). Studies also demonstrated that high social anxiety decreases college adjustment (Arjanggi & Kusumaningsih, 2016a; 2016b; Strahan, 2003). Thus it can be concluded that social anxiety is a significant factor in university student's life.

In Turkey, Interaction Anxiousness Scale (Leary, 1983) was the only measure of social anxiety. This measure adapted into Turkish by Öztürk (2004). One of the studies which used Interaction Anxiousness Scale (Sübaşı, 2007), showed that self-esteem, loneliness, and gender predicted social anxiety among university students. In another study, Demir and Kutlu (2016), examined the association between the social interaction anxiety and happiness among university students where the variable of loneliness was a mediator. Findings indicated that social interaction anxiety was predicted by loneliness and happiness, and the role of loneliness as moderator was also confirmed in the model. Öztürk (2014) studied the influence of perceived social

support from family and individuals' responsibility attitudes on the social anxiety of university students. Results showed that students' responsibility attitudes and perceived social support from family significantly predicted social anxiety. Öztürk and Mutlu (2010) investigated the relationship between subjective well-being, happiness, attachment style and social anxiety among university students. Results demonstrated a significant association between social anxiety and insecure attachment styles.They also found that subjective well-being level of socially anxious students is lower than non-socially anxious students. All these studies demonstrated that social interaction patterns may take place during the transition stage from high school to university in which individual has high social concerns and most vulnerable to social anxiety. Thus to prevent social anxiety and to ease adjustment process of freshmen, it is important to figure out push factors that are related to social anxiety.

Perspectives and treatment strategies were developed to understand reasons behind social anxiety, some of the most referenced theories for social anxiety are a cognitive model (Clark & Wells, 1995), the cognitive-behavioral model (Rapee & Heimberg, 1997) and the acceptance based model (Herbert & Cardaciotto, 2005). Cognitive model indicated dysfunctional cognitions, previous social experiences, biased attention as reasons of social anxiety (Clark & Wells, 1995), in cognitive behavioral model differently from cognitive model mental representations including memories of past social experiences and other sources of attention like internal and external sings of how others perceive them are included into model (Rapee & Heimberg, 1997). Although cognitive-behavioral therapies have strong evidence on treatment of social anxiety, researchers focus on new and more effective approaches to treat social anxiety such as acceptance and commitment therapy (ACT) (ACT; Hayes, Strosahl, & Wilson, 1999).

Different from cognitive behavioral perspectives ACT does not aim to change dysfunctional thoughts or perception about oneself, rather it emphasizes non-judgmental acceptance of current moment without having the struggle to avoid the situation. According to ACT perspective, the main reason of psychopathology is

experiential avoidance which defined as struggles to avoid, control or modify the structure, intensity, and frequency of one's current distressing internal experiences (e.g. feelings, physical sensations, distributing thoughts). ACT proposed that the main reason of problematic anxiety is to be fused with thoughts and feelings which are related to anxiety (Forsyth, Eifert, & Barrios, 2006). ACT posits that experiential avoidance is the reason of distress, and to remove it one needs to accept a situation which can be achieved by being psychological flexible. Psychological flexibility is at the core of ACT which is the ability to live in the present moment in accordance with personal goals and values (Hayes et al., 2011; Hayes, Strosahl, Bunting, Twohig, & Wilson, 2004a). ACT posits that six core processes that help an individual in achieving and fostering psychological flexibility. These processes are acceptance, cognitive defusion, self as context, contact with the present moment, values, and committed action (Hayes, Levin, Plumb-Vilardaga, Villatte, & Pistorello, 2013).

According to ACT perspective mindfulness is a fundamental instrument to contact with the present moment and having a non-judgmental stance towards experiences (Herbert & Cardaciotto, 2005). Thus acceptance model for social anxiety aims to decrease experiential avoidance and increase mindfulness to cope with social anxiety evoking factors. Various models were suggested to explains and understand social anxiety. These theories suggest different kinds of variables which are claimed to be related with the onset and development of social anxiety. The factors that increases the level of social anxiety was named as risk factors while factors that decreases social anxiety was signified as protective factors (Herbert & Cardaciotto, 2005). In the model of the ACT, mindfulness was suggested as a protective factor while experiential avoidance submitted as a risk factor for social anxiety (Herbert & Cardaciotto, 2005) and socially anxious individuals use these factors to diminish anxiety that they experience (Herbert & Cardaciotto, 2005). Cognitive-behavioral perspectives also suggest another form of risk and protective factors. In the current study cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity were taken into consideration.

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Cognitive reappraisal and expressive suppression are cognitive strategies that help the individual to decrease experienced anxiety in social situations (Gross & John, 2003). Cognitive reappraisal is to change the evaluation of the emotion-evoking event before the negative emotion arises to alter the emotional response, while expressive suppression is restraining the verbal and nonverbal response to a stressful event that is experienced. Studies demonstrated that while cognitive reappraisal provide positive emotions and has protective influence on social anxiety (Carthy, Horesh, Apter, & Gross, 2010; Kullik & Petermann, 2013), expressive suppression hinders the process and although in short term it provides relief, in long-term it intensifies the experienced anxiety (Butler, Lee, & Gross, 2007).

Another risk factor for social anxiety was suggested as rumination which is nonproductive continual thinking on the problem and negative emotions (Smith & Alloy, 2009). In rumination, individual focus on the symptom of anxiety and worry about the intensification of those symptoms (Nolen-Hoeksema, 2000). Rumination is named as a passive coping mechanism as individual only focus on inner experiences and does not take any attempt to change or modify the situation (Carver & Scheier, 1982). Studies indicated that rumination and social anxiety has a positive and strong correlation (Abbott & Rapee, 2004; Dannahy & Stopa, 2007; Kashdan & Roberts, 2006; Laposa & Rector 2011).

The other factor that cultivate social anxiety is anxiety sensitivity which is fear of and concerns about the consequences of anxiety-related symptoms that are perceived socially, cognitively, and physically harmful or hazardous (Holloway & McNally, 1987; Panayiotou, Karekla, & Panayiotou, 2014; Reiss & Havercamp, 1998; Reiss & McNally, 1985). Anxiety sensitivity was highlighted as a trigger factor for social anxiety (Cox, Parker, & Swinson, 1996; Naragon-Gainey, Rutter, & Brown, 2010). Studies demonstrated that individual with social anxiety is more sensitive to anxiety evoking situation, further they are more fearful about consequences of the social situation and being perceived as anxious in social events (Gratz, Tull, & Gunderson, 2008; Panayiotou et al., 2014; Sahakian & Kazarian, 2015).

In brief, according to cognitive-behavioral theories and acceptance-based perspectives, there are risk and protective factors for social anxiety. As reported by the ACT, experiential avoidance is a risk factor while mindfulness has a protective influence on social anxiety. Moreover, anxiety literature highlights the influence of cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity on the development of social anxiety. ACT has a model for social anxiety however social anxiety involves two aspects, as performance and social interaction anxiety. In the current study it was hypothesized that if the ACT model works for general social anxiety it could also work for social interaction anxiety. Therefore, in the current study, a social interaction model was proposed according to ACT perspective.

1.2. Purpose of the Study

The main purpose of the study was to test a model which investigates the role of cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity in predicting social interaction anxiety through the indirect effect of mindfulness and experiential avoidance.

Particularly, this study examined the structural relationship between cognitive reappraisal, expressive suppression, rumination, anxiety sensitivity, mindfulness, experiential avoidance and social interaction anxiety.

In addition, besides from investigating direct paths from exogenous variables (cognitive reappraisal, expressive suppression, rumination, and anxiety sensitivity) to social interaction anxiety, this study also explores indirect paths between exogenous variables (cognitive reappraisal, expressive suppression, rumination, and anxiety sensitivity) and social interaction anxiety through mindfulness and experiential avoidance. The conceptual structure of the proposed model of the current study is depicted in Figure 1.1.
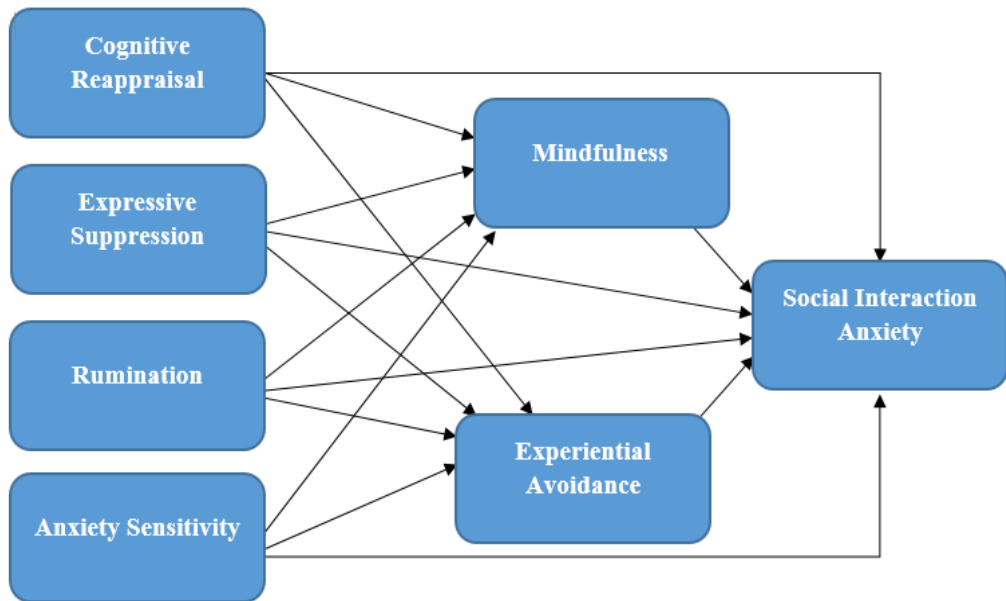
Figure 1. 1 The Hypothesized Model

1.3. Research Question

In accordance with proposed model and purpose of the current study, the main research question of the present study was;

To what extent do cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity predict social interaction anxiety through the indirect effect of mindfulness and experiential avoidance?

In compliance with the main research question, sub-research question was proposed as following;

RQ1.1. To what extent does cognitive reappraisal directly predict social interaction anxiety?

RQ1.2. To what extent does expressive suppression directly predict social interaction anxiety?

RQ1.3. To what extent does rumination directly predict social interaction anxiety?

RQ1.4. To what extent does rumination directly predict social interaction anxiety?

RQ1.5. To what extent do mindfulness have an indirect effect on the relationship between cognitive reappraisal and social interaction anxiety?

RQ1.6. To what extent do mindfulness have an indirect effect on the relationship between expressive suppression and social interaction anxiety?

RQ1.7. To what extent do mindfulness have an indirect effect on the relationship between rumination and social interaction anxiety?

RQ1.8. To what extent do mindfulness have an indirect effect on the relationship between anxiety sensitivity and social interaction anxiety?

RQ1.9. To what extent do experiential avoidance have an indirect effect on the relationship between cognitive reappraisal and social interaction anxiety?

RQ1.10. To what extent do experiential avoidance have an indirect effect on the relationship between expressive suppression and social interaction anxiety?

RQ1.11. To what extent do experiential avoidance have an indirect effect on the relationship between rumination and social interaction anxiety?

RQ1.12. To what extent do experiential avoidance have an indirect effect on the relationship between anxiety sensitivity and social interaction anxiety?

RQ1.13. To what extent does mindfulness directly predict social interaction anxiety?

RQ1.14. To what extent does experiential avoidance directly predict social interaction anxiety?

1.4. The significance of the Study

During the freshmen year students are surrounded with many problems related to social, academic and personal-emotional adjustment (Aderi, Jdaitawi, Ishak, & Jdaitawi, 2013; Beyers & Goossens, 2002; Credé & Niehorster, 2012; Jdaitawi, Ishak, Taamanh, Gharaibah, & Rababah, 2011). Studies demonstrated that social interaction anxiety negatively impacts especially the life of freshman students (Arjanggi & Kusumaningsih, 2016a, 2016b; Nordstrom et al., 2014). A student who experiences social anxiety is at risk of drop out social and emotional problems in the first year of

college (Nordstrom et al., 2014). Thus it is very important to investigate causes, correlates of social anxiety and develop preventive measures for college students, especially for the freshmen. It is hoped that the findings of the current study will show the complex relationship between variables of social interaction anxiety and also indirect relations between risk and protective factors related to social interaction anxiety.

Cognitive behavioral therapy is one of the most popular approaches that has been used to treat social anxiety. However, research studies demonstrated that majority of patients fail to respond treatment and experience relapse (Brown, Heimberg, & Juster, 1995; Turner, Beidel, & Wolff, 1994). Moreover, cognitive models (Clark & Wells, 1995; Rapee & Heimberg, 1997) developed for the treatment of social anxiety were criticized for taking only cognitive distortion into account in the understanding of social anxiety (Herbert & Cardaciotto, 2005). It was suggested as being too mechanic and not taking individual's whole concerns while treating social anxiety (Gaudiano, 2008). Another criticism was about variables used in social anxiety studies that were suggested by cognitive or cognitive behavioral therapies (Roth Ledley & Heimberg, 2006). In other words, in the literature risk factors such as expressive suppression, rumination and protective factors like reappraisal with regard to social interaction anxiety have been studied from cognitive perspectives.

However, recent research studies have found a significant influence of mindfulness on the treatment of social anxiety (Kabat-Zinn, et al., 1992) and mindfulness have been integrated into the cognitive behavioral programs for treating social anxiety(Orsillo, Roemer, & Barlow, 2003). Thus, by combining cognitive factors and mindfulness, an acceptance-based model of social anxiety was proposed as an alternative to previous models (Herbert & Cardaciotto, 2005). Therefore, it is hoped that the current study that studied associated variables of social interaction anxiety through ACT perspective might provide valuable knowledge to the literature and practitioners. Furthermore, there is a limited number of studies that examined variables of acceptance based models and their relation with cognitive factors which were claimed to play a

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significant role on the onset of social anxiety (Clark & Wells, 1995; Rapee & Heimberg, 1997). Thus the current study findings might contribute to literature regarding correlates of social interaction anxiety by taking acceptance and commitment therapy approach as a theoretical framework. Moreover, this study is unique by combining risk and protective variables for social anxiety into the model of social interaction anxiety. Although there are studies that examine the relationship between social anxiety and cognitive factors (Amiri, Taheri, Mohammadkhani, &Dolatshahi, 2017a, 2017b; Nordahl & Wells, 2017a, 2017b), studies that investigate this relationship with social interaction anxiety are very limited. It is hoped that this study will contribute the literature about social interaction anxiety and its relation to cognitive and mindfulness-based factors.

Previous studies have reported that cognitive factors like rumination, cognitive reappraisal, expressive suppression, and anxiety have associated with social anxiety. However social anxiety was mostly taken into account with performance and interaction anxiety together. In the current study, social interaction anxiety was examined as a separate factor because literature suggested that freshman students are more prone to social interaction anxiety than performance anxiety.However it was also claimed that having social interaction anxiety hinders the process of forming social network. Moreover, indirect influence of mindfulness and experiential avoidance on social interaction anxiety have not been extensively studied in the literature. Thus this study also aimed to provide insight regarding this complex relationship by combining several risk factors and protective factors related to social interaction anxiety a single model.

In Turkish universities where medium of instruction is English, students attend one year English Language Preparatory Program before they start their program of study. The classes in those schools are formed according to English language skill levels of students. When the students complete English Language Program, they take the language proficiency exam. If they successfully pass the exam, they can start first year of their undergraduate program. As it is stated in Vygotsky's social interaction theory

(1986) social interaction is the primary factor in language acquisition. According to this perspective language develops by interaction and then individual establishes cognitive structures for the new language (Brown, 2000).Therefore, the foreign language classes are the most social anxiety evoking ones due to the fact that the instructors mostly urge students to interact (MacIntyre &Gardner, 1991; Önem 2010). Thus, it is hoped that the current study which was conducted with English Language School students who are in their first year in the university and under more pressure due to the interactional nature of language learning, will provide valuable information to college counselors, and instructors regarding the related factors of social interaction anxiety among this high-risk group.

This study also includes Turkish translation and adaptation of Social Interaction Anxiety Scale (SIAS; Mattick & Clark, 1998). In Turkey Liebowitz Social Anxiety Scale (LSAS; Liebowitz, 1987) was commonly used to measure social anxiety. However, this scales measures performance and interaction anxiety and gives a total score for social anxiety like Social Phobia Inventory (SPIN; Connor et al., 2000) and Social Phobia and Anxiety Inventory (SPAI; Turner et al., 1989). There are other scales that are used to measure social anxiety yet they have more items about phobia not for anxiety, and both of the scales measures gives more pathologic results (Cao, 2016). Furthermore, in Turkey research studies uses Interaction Anxiousness Scale (IAS; Leary, 1983) which measures the only effective component of social anxiety. It could be concluded that in Turkey, there is a need for a scale that measures only social interaction anxiety with effective, cognitional and behavioral components. It is hoped that this study will fill this gap and help researchers to conduct studies that could contribute the literature regarding differences between interaction and performance anxiety. This study contributes the research field as paving a new way to study social anxiety. With the current study, researchers don't have to examine social interaction only from one perspective, they can have the opportunity to investigate social anxiety from two dimensions; interaction and performance.

1.5. Definition of Terms

Social Anxiety was defined as a "marked and persistent fear of social or performance situations in which embarrassment may occur" (APA, DSM-IV-TR, 2000, p. 456).

Social Interaction Anxiety is defined as the distress felt due to the fear of appearing inarticulate and dull, sounding foolish, and the inability act properly when meeting and talking with other parties in social interaction (Mattick & Clarke, 1998).

Cognitive Reappraisal is defined as a reconstruction of one's views with regards to an emotion-evoking situation so as to change the effect it has on that person (Lazarus & Alfert, 1964; Gross, 1998; Evers, Stok, & Ridder, 2010).

Expressive Suppression is defined as a response alteration strategy that involves the inhibition of an emotion expressive act (Gross et al., 1998; Gross et al., 2009).

Rumination is defined as honing in on the distressful symptoms one has and what these symptoms mean without getting into an act to correct the self-identified problems (Nolen-Hoeksema, 1998).

Anxiety Sensitivity is defined as a fear related to anxiety bound bodily sensations cultivating from beliefs that these sensations are indicators of forthcoming detrimental consequences (Reiss, 1987, 1991; Reiss & McNally, 1985).

Mindfulness refers to "the awareness that emerges through paying attention on purpose, in the present moment and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145).

Experiential Avoidance is defined as reluctance to engage in besetting private experiences (e.g. thoughts, feelings, bodily sensations, etc.) and taking the necessary

steps to change the mode and prevalence of these anxiety evoking events (Hayes, Wilson, Gifford, Follette & Stosahl, 1996).

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, the review of literature related to current study is presented. This section is comprised of three main parts. The first part includes the definition of social anxiety and social interaction anxiety. In the second part, the theoretical framework of the study is provided. In the third part, variables of the current study (cognitive reappraisal, expressive suppression, rumination, anxiety sensitivity, mindfulness and experiential avoidance) and previous studies examining the social interaction anxiety in relation to those variables are given. In the final part, summary of the literature review is included.

2.1. Social Anxiety

The environment that we are living in is physically, mentally, emotionally, socially and morally dynamic and challenging. Human beings develop social, psychological and physiological behaviors in order to survive in this environment. These behaviors possess effective mechanisms to meet everyday stress. As Spinella (2001) mentioned people may also become maladaptive due to the over-activation of normal adaptive mechanisms. Anxiety is a normal, emotional, reasonable and expected response to real or potential danger (Shri, 2010). It includes a subjective feeling of unease, discomfort, apprehension or fearful concern accompanied by a host of autonomic and somatic manifestations. American Psychiatric Association (2000) defines anxiety as "anticipation of future threat" (p.189). Although anxiety is a psychological response to an undefined internal danger or threat, it may also cause physiological symptoms. These symptoms may be a low level of nervousness and stress or a high-level feeling like panic (APA, 2000).

According to Lang, Davis and Öhman (2000) anxiety is "a more general state of distress, more long-lasting, prompted by less explicit or more generalized cues, involving physiological arousal but often without organized functional behavior" (p.144). It was also mentioned that the anxious person worries about unreasonably by the thought of the wheels have come off. From this point of view, anxiety is an effective mood expressed with the stress of potential negative events. A headache, dizziness, tinnitus, xerostomia, palpitation, dyspnea, different kinds of aches, muscle weakness, defatigation and gastrointestinal complaints are some of the psychosomatic reactions that can be faced with anxiety. Uneasiness, tension, nervousness, distress, depression, getting exhausted quickly, difficulty in concentration, being irritated very easily and hypervigilance can be the other symptoms of being anxious (APA, 2000).

The normal level of anxiety can be stimulant, protector, and motivator for the organism. It can help people to fight with the problematic situations. Pathological anxiety includes a high level of intolerable anxiety with a feeling of uncontrollability (Rosen &Schulkin, 1998). Thus, in order to decide whether the anxiety is pathologic or not, the frequency and the severity of anxiety, as well as its symptoms, should be considered.

Anxiety affects professional and family life by causing a breakdown in interpersonal relationships. Individuals as social beings want to be accepted and approved by others in order to satisfy their need for belonging. The fear of negative evaluations claimed to lead social anxiety. Moreover, individuals' struggle to be accepted by their social networks to escape from negative criticism which in turn can be resulted in social exclusion (Hofmann & DiBartolo, 2001).

Hartman (1986) mentioned that human beings might experience discomfort, negative ideation, and incompetence in anticipation of interpersonal interactions or in interpersonal relations. An individual's anticipation of the possibility or occurrence of personal evaluation in both real and imagined social situations may result in social anxiety (Schlenker & Leary, 1982). The individuals may exhibit anxiety because of

the fear of embarrassment and humiliation. Performance situation where an individual has to perform in front of people can also create anxiety. Fear of embarrassment and humiliation as a result of this performance can create anxiety in social situations (Schlenker & Leary, 1982). Due to the negative experiences associated with this type of anxiety, researchers have long been studying why human beings experience social anxiety. American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2000) defined social anxiety as a "marked and persistent fear of social or performance situations in which embarrassment may occur" (p. 456). The common point of the definitions of social anxiety is the fear of following, analyzing and negative critiques in human relationships (Johnson, 1997).

Mannuzza et al. (1995) concluded the first symptoms of social anxiety appears at the beginning of childhood and adolescence, and that individuals delay their own treatment until about thirty years of age. Van Zalk, Van Zalk, Kerr, and Stattin (2011) presented that youths who are socially anxious are less likely to be popular and often chose fewer friends from their surrounding social network. These individuals were also likely to choose friends who were socially anxious themselves and, over time they influence each other into becoming more socially anxious.

Schlenker and Leary (1982) mentioned that social anxiety could be experienced when human beings criticized by others or there is a possibility of criticism. Hartman (1986) defined social anxiety as the enduring experience of discomfort, negative ideation, and incompetence in the performance and anticipation of interpersonal interactions. Kashdan and McKnight (2010) stated that the sources of this irrational fear of negative critiques are the effort of leaving a good impression on someone, and thinking of being unsuccessful at the end of this effort. Socially anxious individuals are very interested in themselves as they try to make a good impression on people and focus much more on thoughts, feelings, and behaviors about their concerns. As a result, the cognitive system of the individual takes action to collect the negative information about her/himself and the social environment. Moreover, these individuals do not consider the objective information and feedback from the external social environment.

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The studies of Beck, Emergy, and Greenberg, (1985), Clark and Wells (1995), as well as Rapee and Heimberg (1997), mentioned that the human beings, who have motives as being accepted socially, try to avoid being a part of social situations where negative evaluation occurs. They also mentioned that there are some dysfunctional beliefs, which provoke anxiety in the vulnerable individual upon encountering a situation where these social evaluations may occur. Rapee and Heimberg (1997) listed these dysfunctional beliefs as the beliefs that (1) others are inherently critical, (2) others' positive appraisal is of immense importance and value (3) they must meet acceptable standards and norms (although the standards and norm that they perceive as acceptable are usually excessively high standards), (4) they are inadequate and likely to act inept or unacceptable, and (5) if they do, they will be rejected and disliked by others.

Clark and Wells (1995) concluded that socially anxious individuals can avoid eye contact as a safety behavior during the social encounter in order to minimize perceived negative responses and cope with expectations of negative evaluation. However, eye contact avoidance may result in a failure to perceive the positive non-verbal responses. Because in-situation safety behaviors often serve to support and maintain anxiety patterns due to the fact that they hinder disconfirmation of the individual's negative expectations. Furthermore, in-situation safety behaviors can also elicit more anxiety and can contribute to a self-fulfilling prophecy effect. For example, limited eye contact may convey unfriendliness and elicit avoidance from others. In a parallel, the study Rodebaugh (2009) showed that individuals with social anxiety report to have fewer friends and lower friendship quality. Similarly, Hebert, Fales, Nangle, Papadakis, and Grover (2012) found that individuals who were high on social anxiety suffered subsequent impairment in their same-sex friendships and indirectly in their romantic relationships. Biggs, Vemberg, and Wu (2012) also supported evidence for the idea that social anxiety and social withdrawal are indeed related which in turn leads to less companionship and intimacy in friendships. Rodebaugh (2009) also showed that in adult populations a unique association between social anxiety and friendship impairment exists.

Wakefield, Horwitz and Schmitz (2005) found that social anxiety that affects the quality of individuals' social life negatively has a normal distribution. In other words, social anxiety as a fear of social scrutiny or negative social evaluation can be thought to be a normal human trait due to its frequency in nonclinical samples (Craske, Rapee, Jackel, & Barlow, 1989; Hofmann & Roth, 1996). It is estimated that social anxiety occurs in about 50%-60% of the general population (Hofmann & Roth, 1996; Stein, Walker, & Forde, 1994). National Social Anxiety Center mentioned that about 12% or 15 million Americans experienced social anxiety at some point in their lives on their official website. Moreover, Peng and colleagues (2011) stated that social anxiety was estimated to range between 0.5 and 11.1% in the studies conducted in North America, European countries, and New Zealand. The results of The Report of Mental Health Profile of Turkey reflect that the frequency of social anxiety in adults is 1.8% for the last twelve months (Erol, Kılıç, Ulusoy, Keçeci & Şimşek, 1998). The studies conducted with university students also shows that the prevalence of social anxiety ranges from 9.8% to 21.7% (Dilbaz, 2002; Gültekin & Dereboy, 2011).

Ollendick and Hirshfeld-Becker (2002) mentioned that social anxiety could refer to generalized subtype that is a pervasive pattern of fear in a broad range of social situations, or a specific subtype social fear in one or a few situations. Individuals who have social anxiety are afraid of situations that may be embarrassing themselves, and it is not known how much of these fears are caused by the behaviors of the people close to this individual. Shame is a conscious sense of emotion, in which the individual puts himself in a strange and exciting state, taking into account the attitudes of others (Van den Bos, 2006).

Social anxiety explained by different theories that were classified into three categories: classical conditioning, lack of skills and cognitive approaches (Johnson, 1997). According to the classical conditioning approach, social anxiety arises as a consequence of unpleasant social experiences which after becoming conditioned stimuli for a conditioned response (Mineka & Zinbarg, 1995). Explicitly, anxiety evokes as a result of associative learning, individual associate a neutral stimulis

(speaking in front of a community) with unconditioned stimuli (being humiliated for his /her trilling voice matches the humiliation to speech) and shows social anxiety by thinking that his /her voice will trill again in the next possible speech situations which is a conditioned response (Johnson, 1997).

According to the lack of skill approach, social anxiety is caused by the inadequacy of the social skills of the individuals. When the skills required to establish and maintain relationships are incomplete or inadequate, individuals may experience negative social environments because of not establishing effective communication and interaction. They also avoid from social environments and show the symptoms of social anxiety (Cheek & Melchior, 1990).

The cognitive theory explains the emergence and continuation of social distress with cognitive structure and processes. According to cognitive approach, in the origin of behaviors, there are schemes as the cognitive structures. Schemes that also allow individuals to make sense of their own experiences provide a framework for individuals. The social anxiety phenomenon is also explained by the schemes the individual has about the social environment and situations. These schemes are defined by the influence of the individual on the social information processing process (Clark & Wells, 1995; Leary, 1983). Pinto-Gouveia, Castilho, Galhardo, and Cunha (2006) suggested that people with social anxiety may have a maladaptive schema that emphasizes a developmental history of perceived disconnection from others and social rejection.

According to cognitive theory, in the social anxiety situation, there is a threat that the individual will not be accepted in the social environment in which she/he participates. This threat is caused because the individual thinks that she/he will be in a funny or embarrassing situation (Özgüven & Sungur, 1998). Individuals experiencing social anxiety are afraid to be humiliated, seen as stupid and weak by other people. They are worried and they act shy when they do something they are afraid of. They avoid talking in the community because they are so anxious about their body language and voice.

People with social anxiety experience somatic reactions such as palpitations, sweating, discomfort, muscle strain, facial flushing and hand flutter (APA, 2000).

In brief, social anxiety is a problem that results in many problems such as depression, failure of the individual in work or school life and etc. (Beidel, Turner, & Morris, 1999). As Aderka et al. (2012) mentioned most individuals experience social fears at some point in their lives and symptoms of social anxiety can have a detrimental impact on academic, career, and general social functioning. The most important indication of social anxiety is excessive humiliation and fear of shame (Liebowitz, Heimberg, Fresco, Travers, & Stein, 2000). Hudson and Rapee (2000) stated that socially anxious individuals are afraid of negative evaluation, rejection and criticism from others, concerned about embarrassing or humiliating oneself in front of others and negative cognitions about one's social abilities and expected performance.

It is now generally accepted that social anxiety reflects two closely related classes of feared situations: social interaction anxiety and social observation anxiety (Mattick & Clarke, 1998). Social interaction anxiety refers to excessive distress in relation to social situations that involve direct social interactions with others, such as when speaking to someone new at a party or expressing one's view at a meeting. It is associated with fears related to concerns such as being inarticulate, boring, not knowing what and how to engage in conversation, and being ignored. Social observation anxiety refers to excessive distress in relation to social situations that involve being directly observed by others or performing in front of others (e.g., public speaking, eating in public). It is associated with fears related to concerns about showing signs of being anxious such as trembling and blushing (Mattick & Clarke, 1998).

2.2. Social Interaction Anxiety

In order to survive physiologically and psychologically, the individuals must be in relation to living and non-living beings. Such characteristics emerge when social skills

are adequate and facilitate human relations. Shepherd (2016) defined social skills as the observable behaviors of a person in social interaction. The extent to which an individual feels him/herself qualified about the social skills in parallel with the social roles as being a wife, manager, child, etc. Living with other individuals and establishing social relations are very difficult for the individuals. Because socialization is a very complex process that is affected by many factors such as the other people, the countless events that individuals encounter every day, the socio-economic-cultural conditions and the physical environment (Kağıtçıbaşı, 1988).

Social interaction anxiety manifests itself during interpersonal interaction and attributed to distress in the event of meeting or talking with another people no matter who they are. It is described as the fear of appearing inarticulate and dull, sounding foolish, and the inability act properly in all sorts of social interaction situations (Mattick & Clarke, 1998). Moreover, this form of anxiety is highly affiliated with a series of undesirable psychological outcomes like negative feelings, severe disturbance and less satisfaction in relationships, suicide ideation, solitariness, less education and less performance in career achievement. As well as experiencing such negative outcomes, it is more probable that individuals who experience social interaction anxiety also pass upon the rewarding facets of social interaction and may become solitariness (Kashdan, 2002). The heightened risk of loneliness may cause adverse health issues (Cacioppo, Hawkley, & Thisted, 2010; Luo, Hawkley, Waite, & Cacioppo, 2012; Wilson et al., 2007).

Heimberg (1995) defined social interaction anxiety as a type of anxiety characterized by being in a community, which an individual feel her/himself shy in various activities such as speaking, eating, using public toilets, in the presence of other people. There may be symptoms such as distress, tension, attention and an increase in the level of physiological arousal for the people with social interaction anxiety. However, they are aware that the source of their discomfort is social interaction they are currently involved in. It is a common experience for everyone to feel anxious at a job interview

or before a meeting; but people with social interaction anxiety are affected negatively by those situations (Burger, 2006).

The schemas formed by the individuals' own social relations and/or observations about the social relations cause an individual to act on some assumptions in social situations and environments (Leary, 1995). One of the important assumptions of individuals with high social interaction anxiety is that people must show high standards of success in social settings (Heimberg, Brozovich, & Rapee, 2010; Leary, 1995), such as "I should never hesitate or thrill while talking", "I should not be seen while I am anxious by anybody." Due to these high standards, anxious individuals who find themselves inadequate in social relations also have the assumption that others find themselves inadequate (boring, incompetent). Another assumption that reinforces and fosters the anxiety of socially anxious individuals is that they accept the beliefs of others about themselves (Clark & Wells, 1995; Rapee & Heimberg, 1997). Individuals who act according to assumptions about social situations have to make bias while processing social knowledge, which increases their chance of experiencing social interaction anxiety (Mellings & Alden, 2000). Individuals experiencing social interaction anxiety tend to assess their social behavior as negative because they have high standards for successful social relationships. They are also more concerned with how they perceive themselves, thus, they are very confused with their own internal processes and do not pay much attention to external feedback. When they focus on external information, they are selective about collecting negative information about social situations. Since they focus only on negative events and feedback, they are biased when they call the stored information about social situations from memory and make decisions based on them. These biases of individuals also exacerbate the social fears and thus lead to the continuation of these fears (Clark & Wells, 1995; Mellings & Alden, 2000). The social interaction anxiety level increases due to the biased thoughts of the individual who has failed to establish communication and relationship (Kashdan & McKnight, 2010). Individuals experiencing social interaction anxiety also try to make a good impression while they think that they are not good at it (Kashdan & McKnight, 2010). These individuals perceive social environments as competitive, others as rivals, and think

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that people are better and more successful than themselves. As a result of the way they perceive social interaction and their sensitivity about others' evaluation, they do not want to take place in social environments (Purdon, Antony, Monteiro, & Swinson, 2001) and do not establish healthy relationships in social environments (Kearney, 2005).

The concept of a vicious circle of social interaction anxiety explains how people get into this situation, how this situation grows, and why people escape from social situations. The vicious circle consists of three important components. First, is the fearful waiting component in which the individual thinks that he/she can live a moment of embarrassment. For example, think her/himself as stupid, self-incompetent, ignorant, and also he/she thinks the other person will not like him/her. The second component is avoidance. This component contains to escape from the events that the individual is afraid of; do not attempt to engage in events because of the circumstances provoke the person. The third component is the negative attitudes of the person about her/himself. These people avoid the potential embarrassment that prevents them from gaining confidence in themselves (Gerlach, Willielm, & Roth, 2003). Embarrassment is one of the most common symptoms in individuals with social interaction anxiety. The individuals, who are embarrassed, feel desperate and assume that they have lost their image in society. Thinking that they are humiliated, they prefer to stay away from society (Beck, 2015; Hofmann & Dibartolo, 2001).

Individuals with high social interaction anxiety may also prefer unhealthy and nonfunctional methods like relational aggression to damage relationships and get rid of these exaggerated and distorted negative evaluations (Loudin, Loukas, & Robinson, 2003). The aggressive behaviors of individuals with social interaction anxiety can be explained by their bias in interpreting information that includes processing ambiguous reactions negatively. Individuals who think that they are negatively evaluated are worried because they believe others will not accept them. They are also angered because they think they are disadvantaged, and then the chance of aggression rises (Kashdan & McKnight, 2010).

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Not to be accepted is extremely hurtful for the individuals. Individuals who have social interaction anxiety may prefer to hurt their friends in order to protect themselves without waiting being rejected by their friends. In other words, the individuals want to hurt their friend by retaliating themselves for assuming that their friend will reject them (Kashdan & McKnight, 2010). For this reason, it was thought that relational aggression and social interaction anxiety might be related.

Individuals try to direct negative evaluations towards themselves by relational aggression such as issuing false rumors about someone. Harmful behaviors, especially through implicit and perceptive means, such as relational aggression, can be a good alternative for the socially anxious individuals who are afraid to be negatively assessed (Loudin et al., 2003; Loukas et al., 2005). Hostile attribution bias, which is common to the social information processing approach in the theoretical explanation of both social anxiety and relational aggression, suggests that there is a relationship between these two constructs.

The importance of fear of evaluation in social anxiety is supported by Weeks, Jakatdar and Heimberg (2010). Authors stated that both the fear of positive evaluation and the negative evaluation is included in social anxiety. According to Gilbert (2001), social anxiety is an evolutionary system that acts as a facilitator in nonviolent intergroup interactions. This evolutionary account of social anxiety submits that the avoidance of negative assessment is a practice undertaken to show others that one is deserving of social investment and would have assisted in avoiding conflict with those people high up in the social hierarchy. In line with this view, La Greca and Harrison (2005) ascertained that relation-wise victimization and adverse interactions with best friends predicted high levels of social anxiety. Moreover, Mahoney and McEvoy (2012) studied out that a decrease in a person's tolerance of uncertainty resulted in a decrease in social anxiety symptoms.

Another line of research has concentrated on the role of perfectionism in social anxiety. Examining the prospect of a hierarchical link between perfectionism and social

anxiety, Nepon, Flett, Hewitt, and Molnar (2011) revealed that perfectionism that is socially prescribed and perfectionist self-presentation were significantly related to negative social feedback and rumination after interpersonal strains like humiliation, mistreatment and being offended. As a result, they ascertained social anxiety to have a significant relationship with negative social feedback, interpersonal rumination, trait perfectionism, and perfectionist self-presentation. Recently, experimental studies affirmed that foreseen social rejection is instrumental in the development and prolongation of social anxiety (Voncken, Dijk, de Jong, & Roelofs, 2010). Furthermore, in another study that concentrated on the predictable power of self-criticism on the symptoms of depressive and social anxiety (Regev, Shahar, & Lipsitz, 2012). More, in particular, social interaction anxiety has been related to low positive affect (Hughes et al., 2006).

Evren (2010) mentioned that social interaction anxiety often lasts for a long time, and it becomes a chronic illness as time goes by. At the same time, depression, alcohol, and suicidal behaviors may manifest themselves in this condition. Kuntsche, Knibbe, Gmel, and Engels (2005) found that college students who suffer from high levels of social anxiety have more tendency to use alcohol as a coping strategy, whereas students with less social anxiety drank for social or enhancement reasons. Perhaps the biggest difficulty associated with this type of social anxiety is that individuals show a marked disadvantage in their ability to establish and maintain social relationships compared to their less socially anxious peers (Craske, 1999; Hofmann & Barlow, 2002).

Norton (2009) mentioned that social interaction anxiety is correlated with many other distressing states. For instance, according to Banerjee and Henderson (2001) and Rapee and Spence (2004), social interaction anxiety may be linked with poorer social cognitive functioning, such as understanding the mental states of others in social interactions or assuming negative outcomes of social behaviors. Van Ameringen, Mancini and Farvolden (2003) and Bruch, Fallon, and Heimberg (2003) also showed that people with social interaction anxiety have poorer academic performance and

greater difficulty in occupational adjustment, career choice, career entry, and adaptation to work.

Weisman, Aderka, Marom, Hermesh, and Gilboa-Schechtman (2011) found that social interaction anxiety was related to perceiving oneself as having low social rank, being inferior, and behaving submissively, as well as to low perceived intimacy and closeness among peer relations, friendships and romantic relationships.

In brief, anxiety related to social interaction has various influences on many aspects of one's life and the onset of different kinds of psychological disorders. Therefore, understanding the causes and correlated of social anxiety factors could be functional for the efforts regarding preventions and the treatment of social interaction anxiety.

2.3. Theories of Social Anxiety

There are many theories that try to explain social anxiety and its etiology. Social anxiety term includes both interaction and performance anxiety dimensions that are used interchangeably in social anxiety research. Although the current study investigates the social interaction anxiety dimension of the social anxiety, in the following section theories of social anxiety that addresses both dimensions are presented. Numerous models were proposed to understand the biological, psychological and social causes of social anxiety and to develop intervention strategies. The cognitive behavioral models (Clark & Wells, 1995; Rapee & Heimberg, 1997) and the acceptance-based model (Herbert & Cardaciotto, 2005) are the most widely used ones.

2.3.1. Cognitive Behavioral Models for Social Anxiety

According to Beck et al., (1985) the information processing is highly influenced by dysfunctional cognitions that are mostly unconscious by nature. Dysfunctional cognitions are the core of the cognitive model of social anxiety. Besides from negative

cognitions, the errors and biases in the processing of information are main reasons behind development and perpetuation of social anxiety (Beck et al., 1985; Clark & Wells, 1995; Rapee & Heimberg, 1997).

Clark and Wells (1995) developed a cognitive therapy for social anxiety based on the work of Beck et al., (1985). In this model dysfunctional cognitions and biased attention, the role of memories related to previous social experiences, self-focused attention, and perception of social treats were highlighted. Clark and Wells (1995) gave importance to maladaptive cognitions. They suggested that as individuals with social anxiety perceive themselves and social situations as dangerous, they tend to avoid from social situations without evaluating social clues, which in turn results in a misinterpretation of the experience in the social situation. Moreover, anxiety experienced by individuals in the event of social situations cause individuals to focus on internal negative experiences like thoughts and feelings rather than focusing on the reality of the social situations (Clark & Wells, 1995; Wells et al., 1995). Due to the self-focused attention, individuals miss the chance to gather information to challenge their maladaptive cognitions about the social situations, which in turn influence the appropriate interpretation and appraisal of the social situations and behaviors of other individuals. These faulty inferences about the social world and behaviors of others make social anxiety stronger and this leads to social anxiety (Clark & Wells, 1995; Wells et al., 1995).

In brief, according to Clark and Wells (1995) cognitive processes activated during social anxiety is as follows: In the first order negative cognitions about oneself or others occur and this leads individual to appraise social situation as dangerous. When individual starts to believe that situation is dangerous anxiety begins to arouse, with the anxiety arousal individual self-focused attention increases and becomes accompanied by biased negative self-evaluations and past memories about social situation, then individual engages in dysfunctional anxiety coping behaviors like avoidance, expressive suppression, or escape (Clark & Wells, 1995; Wells et al., 1995).

Several treatment strategies were utilized in order to treat social anxiety. Among them, the cognitive (Beck et al., 1985) or cognitive behavioral therapy based (Wong & Rapee, 2016) models are the most commons ones. Deriving from the cognitive model of Beck et al., (1985), Rapee and Heimberg (1997) generated a similar model for social anxiety with Clark and Wells (1995). The differences between the cognitive model of Beck et al., (1985) and the models of Rapee and Heimberg (1997) and Clark and Wells (1995) centers around the development of SAD (Rapee & Heimberg, 1997). While according to Beck et al., (1985) anxiety emerge from dysfunctional cognitions, the cognitive model of Rapee and Heimberg (1997) and Clark and Wells (1995) emphasized that anxiety does not only arise from dysfunctional cognitions but also a conflict between a person's self-expected behavior and the perception of actual performance.

According to cognitive models, socially anxious individuals form a mental representation about their own behaviors and appearance, which is assumed to be seen by other people. These mental representations include memories of past social experiences and other sources of attention like internal and external sings of how others perceive them (Rapee & Heimberg, 1997). Socially anxious individuals make defective predictions about social situations and other people based on their mental representations.

According to the cognitive-behavioral model, socially anxious individuals try to behave in social situations in accordance with the expectations of others (Rapee & Heimberg, 1997). Moreover, it is the person him or herself that determines whether his or her actions are congruent with presumed expectations of others. Thus when behaviors are not in accord with mental representations of being successful in social situations, social anxiety emerges and leads to negative evaluations about social situations (Rapee & Heimberg, 1997). In addition to Rapee and Heimberg's assertions (1997), Mellings and Alden (2000), who work on the effectiveness of cognitive behavioral therapies on social anxiety added that physiological experiences have an

influence on socially anxious individuals as they evaluate these symptoms of anxiety as negative, which in turns effects inferences about how they are perceived by others.

The effectiveness of cognitive behavioral based interventions on social anxiety have been examined widely (Heimberg & Becker, 2002; Herbert, Rheingold, & Goldstein, 2002; Otto et al., 2000; Schreiber, Höfling, Stangier, Bohn, & Steil, 2012). Furthermore, by using cognitive behavioral therapy reducing dysfunctional cognitions about social situations found to have an influence on anxiety symptom reduction (Craske, 2010). However, aside from its effectiveness, contradictory findings of the effectiveness of cognitive behavioral based interventions were given by other research studies. Dalrymple and Herbert (2007) have found that 25% of patients who were treated with CBT was not responded to treatment. Moreover, Rodebaugh, Holaway, and Heimberg (2004) reported that from 40% to 50% of individuals with social anxiety disorders experience residual symptoms after cognitive behavioral therapy.

In cognitive and cognitive-behavioral perspectives social anxiety was emerged from faulty interpretations of social situations due to self-focused attention. This inhibits the chance of gathering information for the appropriate evaluation of social situations. Thus these models focus on the influence of dysfunctional cognitions, attention bias, defective information processing and avoidance behavior for the onset and maintenance of social anxiety (Clark &Wells, 1995; Rapee & Heimberg, 1997).

CBT suggests that maladaptive beliefs about oneself, other people and social events play a crucial role in the development of social anxiety. Thus treatment strategies of CBT are based on the identification of these dysfunctional beliefs (Thurston, Goldin, Heimberg, & Gross, 2017). CBT treatments are used in different ways to treat social anxiety, among them mostly learning based approaches are utilized to remove dysfunctional fears about social situations. Social skills training is one of the methods that used with CBT treatments (Herbert et al., 2005). In individual and group CBT sessions, social skills training is given by imagining interaction or simulating social interaction, moreover, role plays also has an important place in CBT in treating social

anxiety (Herbert et al., 2005). Another skill training is given for anxiety management especially relaxation and breathing exercises to teach individual making themselves feel save in anxiety situation (Otto, Smits, & Reese, 2004). Effective emotion regulation is accepted as a significant factor in treating social anxiety, thus cognitive restructuring skill training is yet another training that is given to socially anxious individuals (Aldao, Jazaieri, Goding, & Gross, 2014). Exposure is another method that is used in CBT treatments; the fear hierarchy is constructed with the socially anxious person and therapist about anxiety evoking social situations and by using hierarchy as guideline exposure process begins. Out of session and in session exposures to anxiety evoking situation is part of this method. Moreover, post-event processing or post-event rumination was claimed to play an important role in onset and development of social anxiety (Clark & Wells, 1995; Lundh & Sperling, 2002). In CBT treatments after exposure, cognitive exercises were given to examine confronted event to damage the maladaptive processing of past event (McEvoy, Mahoney, Perini, & Kingsep, 2009).

2.3.2. Acceptance-based Model of Social Anxiety

The philosophical groundwork of ACT is the functional contextualism that emphasizes the context in which behaviors occur. Functional contextualism suggests that the meaning of an event need to be given in its own context (Hayes et al., 2004a; Hayes et al., 2011). Thus there is no problematic thought, feeling or early experience, the context makes them problematic or not. If the context includes experiential avoidance and cognitive fusion then the process could be called problematic, when the context involves defusion and acceptance then the early experiences, thoughts,and feelings of individual can be seen as less harmful (Hayes et al., 2004a; Hayes et al., 2011;).

The ACT is based on the Relational Frame Theory (RFT) (Hayes, Barnes-Holmes, & Roche, 2001) that signify the role of language and cognition. RFT associated psychopathology with language and asserted that reduction of destructive language is required for therapy (Hayes et al., 2001). RFT also suggested that by changing the negative language into more constructive one, individual can have more fully

functioning and meaningful life, and decrease suffering (Hayes et al., 2001). Furthermore, besides from looking into context, the theory also stressed the importance of relations and suggested that relations between experiences need to be modified or changed (Hayes et al., 2001). Negative experiences and struggles were seen as a result of faulty relations. Therefore, theory focuses on positive and adequate functions of these relations.

The ACT aims to help individuals by decreasing experiential avoidance, which was proposed as the main obstacle to live a meaningful life (Hayes et al., 2004b). The opposite form of experiential avoidance is psychological flexibility, which is at the core of ACT perspective. Psychological flexibility is individual's competence to live in the present moment and ability to choose behaviors that are compatible with personal goals and values (Hayes et al., 2013; Hayes et al., 2004a; Hayes et al., 2011). ACT posits six core components such as acceptance, cognitive defusion, self as context, contact with the present moment, values, and committed action that helps individual in achieving and fostering psychological flexibility.

Hayes (2005) proposed that approaches aimed to treat anxiety separated to three waves. The first wave was too scientific and ignored psychoanalytical and humanistic perspectives. The second wave viewed anxiety treatment as unidirectional in changing dysfunctional beliefs involving identification and correction of dysfunctional beliefs. Hayes (2005) proposed that due to the shortcomings of cognitive models in effectively treating anxiety, the third wave of cognitive behavioral therapies emerged. One of those approaches is acceptance and commitment therapy (ACT; Hayes et al., 1999).

According to ACT, psychopathology is the product of letting oneself to engulfment in dysfunctional thoughts and feelings which is named as "fusion" and struggles to avoid it. It also includes "experiential avoidance" which is to control or modify the structure, intensity, and frequency of one's current distressing internal experiences (e.g. feelings, physical sensations, distributing thoughts) (Hayes et al, 1999).

Control strategies like experiential avoidance can be an effective mechanism to control anxiety symptoms but they do often fail (Dalrymple & Herbert, 2007; Herbert & Cardaciotto, 2005). This evokes an increase in anxiety-related arousal and internal attention, which leads to more endeavors related to experiential avoidance. In this way, the vicious cycle of anxiety is perpetuated. As internal focus based on self-evaluation and ensuing struggles to control internal experiences cultivate anxiety, individuals who embrace their internal experiences might feel less anxiety. To sum up, symptom reduction or modifying cognitive constructs are not the part of ACT treatment, but rather accepting these symptoms nondefensively is the main aim. A reduction in symptoms is expected after successful application of ACT techniques (Dalrymple & Herbert, 2007).

ACT proposed that the main reason of problematic anxiety is to be fused with thoughts and feelings which are related to anxiety (Forsyth et al., 2006). Thus, the objective of ACT is not changing cognitive structures and behavioral responses to reduce anxiety symptoms as in CBT (Craske, 1999), but helping behavioral change by decreasing avoidance from negative internal experiences by making individual accept external and internal experiences fully and nonjudgmentally to achieve personal goals that are in line with one's values (Hayes et al., 1999; Herbert et al., 2002).

ACT suggested mindful meditation as an effective treatment for social anxiety (Arch, Wolitzky-Taylor, Eifert, & Craske, 2012; Dalrymple & Herbert, 2007; Eifert & Forsyth, 2005; Hayes et al., 1999). In the acceptance-based model, mindfulness was used as a tool to direct attention in order to help individuals to nonjudgmentally accept internal experiences without trying to avoid, escape or control them (Herbert & Cardaciotto, 2005). Herbert and Cardaciotto (2005) constructed a model of acceptance-based perspective for social anxiety. In the model, mindfulness, which is a non-judgmental acceptance of ongoing experiences, was integrated into the treatment of social anxiety. The basic premise of Herbert and Cardaciotto (2005) was the idea that mindfulness can have an alleviating influence on anxiety symptoms, dysfunctional cognitions, and behavioral avoidance. According to the acceptance based model of

social anxiety, when individual encounter an anxiety evoking situation, internal attention increases due to anxiety related emotions and thoughts. This situation makes it difficult to focus on external signs that provoke many control strategies and hinders effective anxiety management. These control strategies, which include expressive suppression or change of anxiety experiences, is referred to as experiential avoidance (Hayes et al., 1996). Hayes et al., (2004a) claimed that change could be possible if experiential avoidance is decreased and anxiety symptoms like physical sensations and emotions are accepted. Experiential avoidance is an escape from internal experiences and from the ongoing event, which inhibits the appropriate interpretation of social situations; and like in other models this contributes to the maintenance of social anxiety (Hayes et al., 1999). So as to generate new alternatives for the treatment of social anxiety, the effect of CBT on social anxiety was also compared with the ACT. Arch et al., (2012) studied the effectiveness of CBT and ACT in the treatment of anxiety disorders (panic, social anxiety, and generalized anxiety disorder). They investigated the treatment mediators, as anxiety sensitivity for CBT and cognitive defusion for the ACT. According to results of multilevel mediation analysis, individuals who were treated with ACT showed more improvement than individuals who were treated with CBT. The ACT was found to be more effective in decreasing cognitive diffusion and anxiety sensitivity compared to CBT.

In the study of Niles et al., (2014), the effectiveness of CBT and ACT in treating social anxiety was compared with a session by session treatment data. Researchers found that experiential avoidance, which indicates an escape from internal experiences, revealed a decrease in both treatments. However, the ACT group demonstrated more decrease in experiential avoidance than the group that was treated with CBT. In the same study, it was also reported that negative cognitions decreased in both treatments and indirect effect of experiential avoidance and negative cognitions on the treatment outcome were also investigated. However, at the beginning of the treatment, it was reported that ACT was more effective than CBT. ACT group demonstrated more improvement in treatment outcome related to experiential avoidance than the CBT group. At the end of treatment, both treatment strategies were found to be effective in decreasing

negative thoughts and increasing experiencing negative internal experiences, which indicates an overlap between ACT and CBT related to cognitive change (Niles at al., 2014).

Kocovski, Fleming, Hawley, Ho and Antony (2015) examined the change mechanisms of two groups who received social anxiety treatment with cognitive behavioral group therapy (CBGT) and mindfulness and acceptance-based group therapy (MAGT). While cognitive reappraisal was determined as a change mechanism for CBGT, mindfulness and acceptance were proposed as change mechanisms for MAGT. Results of the same study indicated that cognitive reappraisal had a greater negative influence on social anxiety symptoms for the CBGT group, while mindfulness was found to be effective for both treatment approaches. With these findings, researchers proposed mindfulness as a useful tool for traditional CBT, if it is combined with social anxiety treatment strategies.

Dalrymple and Herbert (2007) studied the effectiveness of ACT on the treatment of social anxiety in a 12-week program with 19 adults. Results indicated that individuals who were treated with ACT reported less social anxiety symptoms throughout their treatment including the follow-up sessions. Moreover, treatment group participants acknowledged that their use of avoidance coping decreased after ACT treatment. Moreover, a large effect size was found for the effectiveness of ACT on social anxiety whereas the quality of life scores increased after the ACT treatment.

In conclusion, studies demonstrate that acceptance and experiential avoidance are mediators of the ACT for social anxiety. Thus the current study that takes ACT as a theoretical framework, aims to investigate the association between main constructs of the ACT (mindfulness and experiential avoidance), cognitive factors (cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity) and social interaction anxiety.

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2.4. Study Variables of Social Interaction Anxiety

In the present study, social interaction anxiety and related components were investigated. According to ACT while mindfulness has a weakening influence on a vicarious cycle of social interaction anxiety, experiential avoidance was proposed to have a strengthening effect on it. According to social anxiety theories, cognitive factors can have either positive or negative influence on social interaction anxiety thus four cognitive factors were chosen as exogenous variables which are cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity.Moreover, the indirect effects of mindfulness and experiential avoidance were investigated.Thus the following part of the literature review addresses research findings related to variables of the proposed model.

2.4.1. Cognitive Reappraisal and Expressive Suppression

Every day people are facing with different kinds of stressful life events as the life's ups and downs. To deal with this difficulty individuals use a variety of coping strategies (Folkman & Lazarus, 1985; Spangler, Pekrun, Kramer, & Hofmann, 2002). Coping strategies have become one of the extensively investigated topics in the literature and researchers conducted studies to understand and explain the mechanism behind effective coping strategies.

One perspective on coping strategies is cognitive processing. In order to describe the cognitive continuum of coping, researchers differentiate coping strategies as primary appraisal "evaluation of situation" and secondary appraisal "assessment of competency in coping with the problem, and management of stress evoking situation" (Gross, 1998; Gross, 1999; Lazarus, 1999). Subsequently, Gross (1999) investigated these strategies form emotional perspective and divided these strategies into two categories as problem focused and emotion-focused. When emotions arise in the event of stress evoking situation, either emotion-focused coping strategies that regulate

persecutory emotions or problem-focused coping that is altering the distressing situation is used (Folkman & Lazarus, 1988).

The other perspective took both cognitive and emotional parts of coping strategies and proposed appraisal theory. The theory of appraisal aimed to answer the important question of how individual evaluate the situation, how they feel about this anxiety evoking event and how they regulate the emerged emotions such as anxiety (Roseman, 1984; Scherer, 1984; Smith & Ellsworth, 1985; Smith & Lazarus, 1993). The appraisal theory argued that the emotions arise after stimulating event because of individual's evaluation and interpretations about the occurrence, not by the event itself.   This appraisal process of the event includes evaluations about individual's wellbeing and existing concerns (Folkman & Lazarus, 1985; Siemer, Mauss, & Gross, 2007; Smith & Ellsworth 1987; Smith & Lazarus, 1993).

The common point of all these coping strategies is that they work to regulate emotions. Emotions can influence the decision-making process, actions, and interaction with the environment. The effect of emotions in the cognitive and behavioral process can help individuals in their daily experiences. However, this crucial element can be also problematic for the individual. Emotions can be enigmatic when they emerge at the wrong time or with unconscionable intensity and can cause social complications and a diverse range of psychopathology (Gross & Thompson, 2007). In this sense utilization of appropriate regulation strategies for emotion is required.

Emotion regulation strategies are defined as ''strategies we use to increase, maintain, or decrease one or more components of an emotional response'' (Gross, 2001, p. 215). In general, emotion regulation strategies are specified as one's consciously and unconsciously exertions to suppress alter or modify their emotional experiences to respond productively to achieve their objectives (Campbell-Sills & Barlow, 2007; Cole, Sarah, & Tracy, 2004; Gross, 1999; Rottenberg & Gross, 2003; John & Gross, 2007). In the regulation process not only negative emotions are optimized but also positive emotions are adjusted. Moreover, emotion regulation can work for

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minimizing and maximizing the intensity of experienced emotions (Gross, 2007). In this context, appropriate regulation strategies can be characterized as a regulation of negative emotions into productive and utilitarian emotions while preventing domination of functionless and non-adaptive emotion regulation strategies and optimizing positive emotions. For these reasons, using emotions regulation strategies can influence experienced emotions' intensity, continuation, and evaluation, and it can refrain individual from undesired outcomes of using maladaptive emotional responses (Folkman & Lazarus, 1988; Gross, 1998; Gross, 1999).

There are many emotion regulation strategies like avoidance, distractions, expressive suppression, cognitive reappraisal, problem-focused coping, self-blame, others-blame and rumination (Cisler, Olatunji, Feldner, & Forsyth, 2010; Folkman & Lazarus, 1988; Garnefski et al., 2002; Gross, 1999). Many studies also have addressed two main types of strategies, which are cognitive reappraisal and expressive suppression.

There are remarkable distinctions between cognitive reappraisal and expressive suppression. Cognitive reappraisal is to change the evaluation of the emotion-evoking event, before the rise of negative emotion that would alter the emotional response. The expressive suppression is restraining the verbal and nonverbal response to an experienced stressful event (Gross, 1998; Gross & John, 2003). Studies about cognitive reappraisal and expressive suppression revealed that a cognitive reappraisal is an effective form of emotion regulation strategies as it allows to reassess the emotion-evoking stressful situation and assist the individual to experience negative emotion in a more positive way (Augustine & Hemenover, 2009). The cognitive reappraisal is also called as an antecedent-focused strategy since it inhibits the rise of emotions before it fully influences the individual (Gross & John, 2003). Expressive suppression is termed as a response-focused strategy because it is used after the evoked emotions influence the response. While cognitive reappraisal can be seen as positive and adaptive emotion regulation strategy, expressive suppression is seen as maladaptive and negative one.

Emotion dysregulation has been associated with many mental disorders (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Gross and Levenson (1997) have emphasized the important role of emotion regulation strategies, stating that emotions have responsibility on development and formation of over half of the DSM-IV Axis I disorders and all of the Axis II disorders. The failure of effective emotion regulation has been related with the development and continuation of anxiety (Amstadter, 2008; Weinberg & Klonsky, 2009; Zlomke & Hahn, 2010) and generalized anxiety disorder (Gross & Thompson, 2007; Mennin & Fresco, 2009).

Studies showed that individuals who are a deficit in adaptive emotion regulation skills are more prone to anxiety disorders, and experience more intense emotion than those who have the ability to effectively regulate emotions (Carthy et al., 2010; Kullik & Petermann, 2013; Suveg & Zeman, 2004). Moreover, studies indicated that while cognitive reappraisal decrease anxiety by re-evaluating the importance of event, expressive suppression increases it by inhibiting the expression of emotion that cause incongruence between inner and outer self (Aldao et al., 2010; Higgins, 1987), which in return leads to anxious relational behavior and avoidant behavior (John & Gross, 2004). Schmidt, Tinti, Levine, and Testa (2010) found that even cognitive reappraisal linked with positive emotions like positive perceptions about one's ability to cope with a situation, expressive suppression was associated with negative emotions like anxiety, fear, frustration, and powerlessness.

Emotions have two-sided effects on social relationships. On the one hand it can help to improve, cultivate and maintain the interpersonal relationships, on the other hand it can undermine and destruct relationships (Butler et al., 2003; Butler et al., 2007; Fredrickson, 1998; Harker & Keltner, 2001; Keltner & Kring, 1998; Shiota, Campos, Keltner, & Hertenstein, 2004). In the study of John and Gross (2004), it was suggested that cognitive reappraisal and expressive suppression have a role on the interpersonal relationships by their influence on social desirability, personality traits, inauthenticity and mood management.

Expressive suppression was found to have an unfavorable effect on the interaction with others by inhibiting expressive part of emotional respond (Butler et al., 2007; Gross & John, 2003; Shiota et al., 2004). In the interaction with other people, individuals who are suppressive reported experiencing more stress than the ones who use cognitive reappraisal (Richards, Butler, & Gross, 2003). In another study, expressive suppression decreased the level of closeness and social support while cognitive reappraisal increased (Srivastava, Tamir, McGonigal, John, & Gross, 2007).

In social settings, individuals hesitate to form relationships with a suppressor or unwilling to continue their friendship (Butler et al., 2007). Butler et al., (2007) investigated the social effects of expressive suppression among women and they have found using expressive suppression as a regulative strategy in interaction, decreases the responsiveness level. Together with decrease in responsiveness level and reduction in socially rewarding behaviors like smiling, emotional disclosure and laughing in interaction make suppressor to be perceived as hostile and negative (Butler et al., 2007).

The utilization of cognitive reappraisal enables the individual to create and apply favorable interpersonal behaviors, which are appropriate for social functioning. By doing so individual is perceived as responsive and appealing (Cutilli, 2014). Studies also asserted that cognitive reappraisal increase expression and experience of positive emotion in daily life and at the same time it decreases experience and expression of negative emotions. On the contrary, expressive suppression is accepted to increase experience and expression of negative emotions (Gross & John, 2003; Larsen et al., 2012).

It can be concluded that while cognitive reappraisal does not have a risky impact on social interaction and have a protective effect on anxiety by regulating emotions, the expressive suppression as an emotion regulation strategy is found to have a destructive effect on social functioning.

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2.4.2. Rumination

A rumination is a form of maladaptive coping strategy that is used commonly to handle the stressful situation. Rumination is a passive response style, which includes nonproductive continual thinking on the problem and negative emotions. It also includes concentration on symptoms stemmed from distress, and perpetual worry about the signification of distress (Nolen-Hoeksema, 2000; Nolen-Hoeksema, Parker, & Larson, 1994; Smith & Alloy, 2009). Because individuals turn their attention into their inner world rather than concerning about outer world, rumination characterized as a passive coping strategy and contributing factor for anxiety (Carver & Scheier, 1982).

Nolen-Hoeksema (1991) has defined three unfavorable features of rumination that cause psychological distress. Firstly, the concentration on negative effects that make individual to feel more depressed which cause an increase in negative mood and make a vicious cycle of depression. Secondly, the activating effect of rumination on early recollections especially the negative ones hinders the process of challenging the new situation. Lastly, because ruminative response dominates the mind with negative thoughts individual have great difficulty in finding solutions to the encountered problem. In brief, instead of solving the anxiety-evoking a situation, individuals who use rumination tend to focus on symptoms, consequences, and causes of the situation which leads to serious psychological problems (Marks, Sobanski, & Hine, 2010; Nolen-Hoeksema, 1991).

Rumination has been found to be associated with severalforms of psychological difficulties like depression (Nolen-Hoeksema, 1991; Nolen-Hoeksema, Larson, & Grayson, 1999); eating disorder (Eckern, Stevens, & Mitchell, 1999), binge drinking and alcohol abuse (Nolen-Hoeksema & Harrell, 2002), self-harming (Hilt, Cha, & Nolen-Hoeksema, 2008), anxiety disorders (Cox, Enns, & Taylor, 2001; Edwards, Rapee, & Franklin, 2003; Nolen-Hoeksema, 1991; Nolen-Hoeksema, 2000) and social anxiety disorder (Cartwright-Hatton, Hodges, & Porter, 2003; Clark & Wells, 1995).

A cognitive model of Clark and Wells (1995) proposed that one of the predictors of social anxiety is negatively biased post-event processing which addresses the rumination that occurs at the time of the social event. Following studies also supported the findings of cognitive model of Clark and Wells (1995) and they all asserted that high socially anxious individuals tend to ruminate significantly greater than low socially anxious individuals (Bogels & Zigterman, 2000; Hodson, McManus, Clark, & Doll, 2008; Laposa & Rector, 2011; Perini, Abbott, & Rapee, 2006; Rheingold, Herbert, & Franklin, 2003).

In the study of Nolen-Hoeksema (1991) that included clinical interviews, the association between anxiety, rumination and depression were examined. The findings suggested that rumination has a predictive influence on anxiety and depression. Similarly, Cox et al., (2001) reported that rumination increases the anxiety sensitivity. In another study conducted by Marks et al., (2010) regarding the severity of anxiety and rumination and an additive effect of rumination on anxiety and daily stress was found. Recent studies also supported the previous findings of the association between social anxiety and rumination (Abbott & Rapee, 2004; Dannahy & Stopa, 2007; Kashdan & Roberts, 2006; Laposa & Rector, 2011). Socially anxious individuals also found to have significantly more negative ruminative thinking regarding the current activity they perform than non-anxious individuals (Edwards et al., 2003). In another study, it was reported that self-reported rumination about social experiences is significantly high in socially anxious individuals (Rachman, Gruter-Andrew, & Shafran, 2000). Further, Rapee and Heimberg (1997) asserted that rumination has an important role in development and continuation of social anxiety.

Researchers reported that individuals who experience social anxiety in emotion evoking social situation often tend to ruminate about past experiences especially the ones where they felt negative self-perception and anxiety (Clark, 2001; Clark & Wells, 1995). Furthermore, studies also suggest that continual negative thinking about past experiences and failures in social situations can make individual to avoid social

interaction, which consecutively restrains individual to develop new relationships and reinforce avoidance behavior (Hofmann & Scepkowski, 2006).

Melling and Alden (2000) conducted a study in which subjects, who are low and high socially anxious, asked to participate in social interaction and complete questionnaires about self-focused attention, post-event rumination, and anticipatory processing. Findings indicated that socially anxious students presented a high level of rumination compared to non-anxious students. The negative self-perception also found to cause sided social judgments and recollection while rumination contributes to recall of negative self-related information.

In another study, Kashdan and Robert (2007) made 83 unacquainted college students interact with one another for 45 minutes and examined the association between social anxiety and rumination. They also investigated the affective experiences of participants after 24 hours from social interaction. Similar to the study of Melling and Alden (2000), they reported an association between negative post-event rumination and social interactions with strangers. Moreover, in the same study social anxiety and rumination was linked with an increase in negative affect, which leads to personal disclosure interaction, and decreases in negative affect, which induces small talk interaction.

To sum up, vagueness in a social situation can urge socially anxious individuals to focus on social experiences that they have experienced. This focus on social experience makes socially anxious individual focalize to their self-perceptions of imperfections and apprehensions. Focalization to inadequacies and anxieties is concluded with arising of negative emotions, which causes an increase in social interaction anxiety. Together with this also social interaction increases rumination by provoking an individual to self-focus attention, which minimizes the observation of social environment and the other people responses.

The consequences of rumination on psychological distress especially on social anxiety were presented by a large number of studies, however, only a few studies mentioned about the association between social interaction anxiety and rumination. Thus in the current study, this association will be examined.

2.4.3. Anxiety Sensitivity

Anxiety sensitivity is an individual variation variable defined as "fearful of fear" or "fearful of anxiety". According to McNally (2002), anxiety sensitivity is a fear of anxiety sensations or the fear of and concerns about the consequences of anxiety-related symptoms. These symptoms may be perceived socially, cognitively, and physically as harmful or hazardous (Holloway & McNally, 1987; Panayiotou et al., 2014; Reiss & Havercamp, 1996; Reiss & McNally, 1985). It arises from the belief that anxiety symptoms to be experienced by a person. It may cause illness such as heartbeat, increased breathing rate, shakiness, and dizziness, and embarrassment, or more anxiety (Reiss, Peterson, Gursky, & McNally, 1986). For instance, an individual who has fear a racing heartbeat might believe that he/ she may have a heart attack; dizziness, a mental breakdown, and expect suffering embarrassment in front of others. In other words, individuals with high anxiety sensitivity believe that anxiety symptoms will lead to harmful consequences, physically, psychologically or socially. In contrast, an individual who has low anxiety sensitivity believe that these symptoms are harmless even if they are disturbed by anxiety symptoms (Reiss, 1991; Reiss et al., 1986).

Anxiety sensitivity is an individual variable and cognitive structure (Starcevic & Berle, 2006). Anxiety is the tendency of "anxiety symptoms to react with fear" itself, which arises from one's beliefs about anxiety symptoms (Taylor, Koch, Woody, & McLean, 1996). In the light of these, anxiety sensitivity can be classified into three aspects, which involve physical, social and cognitive concerns (Taylor et al, 2007). Physical concerns include the perceptions of experiencing bodily sensations of anxiety that the individual believes to have harmful consequences; social concerns are

about the individual's appraisals about other people's thoughts on his/her anxiety reaction; and lastly cognitive concerns cover the fears about insanity because of concentration difficulty (Taylor, 1999).

People with anxiety sensitivity are more likely tend to show avoidance behavior because of misinterpreting the emerging, severe and unexplained signs of physical anxiety as dangerous. The concept of anxiety sensitivity seems to be related to anticipatory anxiety and that is both partially clinically overlapping. But the anticipatory anxiety is an anxiety about the re-emergence of an inevitable danger (such as a panic attack) after the panic attacks. An expectation of anxiety is the expectation that someone will experience anxiety or fear in a "certain situation" (Taylor, Jang, Stewart, & Stein, 2008). It has been suggested that people who experience anxiety may have also experienced many subjective and objective complaints such as intestinal complaints, increased respiratory rate, sweating, trembling, insomnia, tension, headache, dizziness, nausea, palpitations, weakness, loss of appetite, drop or elevated blood pressure, and muscle tension. However, some of these symptoms merely can emerge from anxiety sensitivity rather than the anxiety itself (Andrews et al., 2003).

It is assumed that anxiety sensitivity is predictive of anxiety disorder. It differs from anticipatory anxiety and state anxiety (McNally, 1996). Therefore, it is another discussion topic about whether it is a different concept from continuous (trait) anxiety. Trait anxiety is not a fear of anxiety symptoms, but rather a structural predisposition to life-threatening stimuli with a tendency to react with fear or with widespread anxiety symptoms. So it differs from the having a tendency to be afraid of anxiety symptoms. Trait anxiety does not explain the fear about anxiety that some people has and the sense of anxiety (Donnell & McNally, 1990). Nevertheless, it has been reported that people may have low anxiety sensitivity or the opposite while experiencing a high level of trait anxiety (Cox, Endler, Norton, & Swinson, 1991).

There are also discussions about anxiety sensitivity as being a personality trait. Some researchers argue that trait anxiety and anxiety sensitivity are not independent structures. Furthermore, anxiety sensitivity is a sub-dimension of trait anxiety (Lilienfeld, Jacob, & Turner, 1993; Taylor, 1995). The results of these studies also suggest that anxiety sensitivity may be a subcomponent of neuroticism or negative sensation (Zinbarg & Barlow, 1996). Although there are still questions about the relationship between these two constructs, there is a consensus that the anxiety sensitivity is an independent personality that is constantly anxious.

Anxiety sensitivity was first described by Reiss and McNally (1985) and forms the basis of the "fear-expectant model". According to fear expectant model, the process called "anxiety anticipation and anxiety sensitivity" plays a role on the basis of a fear-generating human activity, or a motivation to avoid the situation. An "anticipatory anxiety" is the expectation that an individual will experience anxiety or fear in a particular situation. Anxiety sensitivity, on the other hand, refers to a persistent fundamental fear of anxiety-related bodily sensations that arises from the belief that these sensations are signs of impending harmful consequences (Reiss & McNally, 1985). In the Expectation Theory (Reiss & McNally, 1985), high anxiety is explained by the belief that anxiety can lead to significant bodily consequences. Anxiety sensitivity involves the situations such as being afraid of having a heart attack or shortness of breath that arises from anxiety as "fear of somatic symptoms", not getting attention on a subject or feeling strange or alone as "fear of losing cognitive control", and "fear of being noticed about the anxiety symptoms" by the others in the society (Reiss, 1991; Taylor, 1995).

It is supported in the related literature that the anxiety sensitivity inherent in the person. However, it is generally thought that the anxiety sensitivity occurs in the early years of past experiences and life. For example, a child who sees that his/her parents show extreme fear and anxiety when gets sick will soon begin to perceive normal body reactions as dangerous and threatening (Asmundson, 2001; Asmundson, Norton, & Veloso, 1999). People with high anxiety sensitivity think that physical

sensations related to anxiety may have very bad consequences. Such people are concerned that heart trauma can lead to a heart stop, a temporary sensation in which the person himself or the outside world is unreal, a loss of control or loss of control, a trembling ridicule, or rejection. Some people may be concerned about such anxiety by observational learning; for example, by noticing their parents' passing through a chest pain caused by stress or by misinformation; for example, by being told that some of the temporary emotions that make the child feel uncomfortable (Mannuzza, Klein, Klein, Bessler, & Shrout, 2002). In addition to a biological predisposition, anxiety sensitivity also includes a psychological vulnerability (originated from early life events and parental attitudes). Because of not to know how to deal with life events, psychologically vulnerable people's feelings of trust towards themselves and the world are weak. Insecurity and weakness can lead to anxiety sensitivity (Barlow, 2002).

Anxiety sensitivity is seen as intensifies of anxiety because it was claimed that when anxiety level of anxiety sensitive people increases, the anxiety related sensations increase, which in turn raise anxiety level (Taylor et al, 2007). The pathogenesis effect of anxiety sensitivity on anxiety and anxiety psychopathology make it more considerable than other elements of anxiety (Ginsburg & Drake, 2002; Schmidt, Zvolensky, & Maner, 2006; Zvolensky, Schmidt, Bernstein, & Keough, 2006). The related literature shows that high levels of anxiety sensitivity increase the risk of anxiety and also anxiety related problems for an individual.

Anxiety sensitivity has been linked with variety of symptoms like panic disorder (Plehn & Peterson, 2002; Schmidt et al., 2006), depression (Taylor et al., 1996; Tull & Gratz, 2008), post-traumatic stress disorder (Pickett, Bardeen, & Orcutt, 2011), generalized anxiety disorder (Naragon-Gainey, 2010) and social anxiety disorder (Nowakowski, Rowa, Antony, & McCabe, 2016).

Anxiety sensitivity also been associated with alcohol use (DeMartini & Carey, 2011; Schmidt, Buckner, & Keough, 2007), depression (Wheaton, Deacon, McGrath,

Berman, & Abramowits, 2012; Zavos, Rijsdijk, & Eley, 2012), substance use and abuse (Stewart & Kushner, 2001; Stewart, Samoluk, & MacDonald, 2000). Stewart et al., (1999) mentioned the association of high anxiety sensitivity with both heavy drinking and alcohol-related problems. The studies show that individuals with high anxiety sensitivity are more responsive to alcohol's anxiety-reducing effects (MacDonald et al., 2000; Stewart, Zvolensky, & Eifert, 2001). Moreover, the prospective study of Schmidt et al., (2007) subjected 400 hundred individuals found that diagnoses of alcohol-use disorders are predicted by anxiety sensitivity levels.

According to Starcevic and Berle (2006), anxiety sensitivity differs according to whether individuals perceive their anxiety as uncomfortable or comfortable and their beliefs about the consequences of anxiety. This definition was formed by integrating the catastrophic misinterpretation and expectation model in panic disorder. Studies also have shown that anxiety sensitivity is linked to autonomic nervous system functions and it has a genetic basis (Stein, Jang, & Livesley, 1999, van Beek & Griez, 2003; Zvolensky & Schmidt, 2007). Cox, Borger, Taylor, Fuentes, and Ross (1999) found that panic-related anxiety is significantly predicted by anxiety sensitivity. For example, the study of Schmidt, Lerew, and Jacson (1997) found that the individuals with high anxiety sensitivity were three times more likely to experience unexpected panic attacks than the individuals with low anxiety sensitivity.

Taylor and colleagues' (1992) study show that anxiety sensitivity levels tend to be high in post-traumatic stress disorder and the study of Fedoroff and colleagues (2000) found a positive correlation between post-traumatic stress disorder and anxiety sensitivity. Watt and Stewart (2008) mentioned that various traumatic events such as car accidents, military combat, violent assault, sexual assault, natural disasters are related to high anxiety sensitivity. Anxiety sensitive individuals may respond more extremely to a traumatic event, distressed not only by the trauma but also by their own arousal reactions. High anxiety sensitivity is a predictor of social phobia. The reason is that individuals with high anxiety sensitivity afraid of being evaluated negatively when displaying observable symptoms of anxiety such as trembling, sweating, or

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blushing. Norton, Cox, Hewitt, and McLeod (1997) found that anxiety sensitivity levels were the best predictor of self-reported anxiety related to performing in public (social performance anxiety) and a good predictor of anxiety related to interacting with others (social interaction anxiety).

The study of Panayiotou et al., (2014) and also Sahakian and Kazarian (2015) supported that individual with social anxiety is more sensitive to anxiety evoking a situation, in addition to this they are more fearful about consequences of the social situation and being perceived as anxious in social events. Moreover, the study of Gratz et al., (2008) show that there is a significant difference between the individuals who have high anxiety sensitivity and low anxiety sensitivity about being prone to anxiety related somatic symptoms. For instance, an individual who has a high level of anxiety sensitivity could perceive excessive sweating as a risk for losing consciousness or control, beginning of serious illness or another form of negative results while an individual with low anxiety sensitivity perceives it as an anxiety symptom.

To sum up, researchers agree on the influence of anxiety sensitivity on social anxiety and have consensus on the premise that individuals with high anxiety sensitivity are more responsive to anxiety and its symptoms. Thus anxiety sensitivity is a non-negligible component when social anxiety is in question. Therefore, in the current study, the anxiety sensitivity is taken into consideration in the hypothesized model.

2.4.4. Mindfulness

Mindfulness emanated from Eastern spiritual tradition Buddhism and it has been used more than two thousand years. Mindfulness essentially involves full concentration on the ongoing event in opposite to automatic behaviors.

Contrary to concentration-based meditation that requires to adapting one's attention to only one stimulus, mindfulness comprises focusing on the mind itself (Baer, Smith,

Hopkins, Krietemeyer, & Toney, 2006). Although it has the religious substructures of Buddhism, to understand mindfulness it is not necessary to have the deeper understanding of Buddhism, mindfulness can be used both formal (e.g., meditation) and informal practices (Roemer & Orsillo, 2009). However, while integrating mindfulness practices in to Western psychology it is essential to protect the main premise the original purpose of mindfulness, Kabat-Zinn (2003) explained this purpose as "the potential transmutation of that suffering through meditative practices that calm and clarify the mind, open the heart, and refine attention and action" (p. 146). Kabat-Zinn (2003) informed that mindfulness should be implemented by avoiding a goal or external motivation. Following the purpose, Kabat-Zinn (1994) defines mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment." (p. 145). Shapiro, Carlson, Astin, and Freedman (2006) emphasized being nonjudgmental and open while observing the moment. Thus it can be characterized as a way of focusing on the ongoing moment with non-critical, unprejudiced, accepting demeanor. In this fashion, practicing mindfulness can be helpful in scaling up the awareness level, developing the ability to behave without judgment, assisting to act nonreactive by providing an accurate and authentic portrait of the experienced and observed event (Kabat-Zinn, 2005).

Mindfulness has been associated with different kind of variables. Mindfulness have been found to have positive correlation with effective emotion regulation (Gu, Strauss, Bond, & Cavanagh, 2015), post traumatic adaptation (Thompson, Arnkoff, & Glass, 2011), self-esteem (Pepping, O'Donovan, & Davis, 2013), effective coping strategies (Coffey, Hartman, & Fredrickson, 2010), executive attention (Gorman & Green, 2016), interpersonal relationships (Pepping, O'Donovan, Zimmer-Gembeck, & Hanisch, 2014), psychological well-being (Grossman, Niemann, Schmidt, & Walach, 2004), social engagement and academic success (Joncich, 2014). Research studies also demonstrated that mindfulness has a negative association with depression (Bernstein, Tanay, &Vujanovic, 2011), psychological (Goyal et al., 2014) and physical (Masedo & Rosa Esteye, 2007) distress.

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A wide array of mindfulness-based psychotherapy interventions like Mindfulness-based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002), Dialectical-Behavior Therapy (DBT; Linehan, 1993), Acceptance and Commitment Therapy (ACT; Hayes et al., 1999), Mindfulness-Based Stress Reduction (MBSR; Kabat- Zinn, 1982), and others (Baer, 2003) have been developed. While some mindfulness approaches like MBSR and MBCT depend on more formal meditation practice some are like DBT and ACT presents an emphasis on non-formal application of mindfulness like skill based practices. Nevertheless, all of the approaches give priority to attention and awareness (Baer et al., 2006) and stressed the idea of expanding awareness with decentering from one's own thoughts and emotions (Teasdale et al., 2002).

The importance of mindfulness has been accepted after the outstanding results of the Mindfulness-Based Stress Reduction (MBSR) program in 1979 (Kabat-Zinn, 1982) aimed to decrease chronic pain with mindfulness meditation training. Kabat-Zinn's (1982) Stress Reduction and Relaxation Program demonstrated extraordinary advancement in chronic pain reduction in 10 weeks by using mindfulness meditation training; furthermore, more improvements were reported in follow-up evaluations. Hereafter, studies to understand the effectiveness of mindfulness in various settings and implications for treating psychological phenomenon have been conducted (Bishop et al., 2004; Shapiro et al., 2006). Likewise, mindfulness intervention strategies essentially interest in decreasing daily stress make mindfulness more popular than before (Baer, 2003; Hofmann, Asnaani, & Hinton, 2010). Subsequently to a study to investigate Kabat-Zinn's (1982) Stress Reduction and Relaxation Program, on anxiety, was conducted by Miller, Fletcher, and Kabat-Zinn (1995). Participants were 22 patients who diagnosed with anxiety disorder. After 8 weeks of stress reduction intervention based on mindfulness meditation, researchers presented significant improvements in subjective and objective symptoms of anxiety and panic. Moreover, in the same study 3 years follow up program was implemented and results indicated that short-term mindfulness-based stress reduction interventions could have lasting advantages.

Kocovski, Fleming, and Rector (2009) studied the effectiveness of mindfulness and acceptance-based group therapy on social anxiety with 42 participants whose age mean score was 22. After 18 weeks treatment and 3 months, follow-up sessions researchers reported that treatment was significantly effective in reduction of social anxiety, depression, and rumination. They also informed significant increase in acceptance and mindfulness. Researchers also suggested that mindfulness and acceptance not only effective in decreasing social anxiety but also it has an influence on rumination and depression.

Baijesh (2015) investigated the influence of mindfulness in the treatment of social anxiety. The thirty adolescents participated in mindfulness-based cognitive therapy for 12 sessions over 3 months period. Results showed a reduction in social anxiety related symptoms, avoidance and self-efficacy. The acceptance of social anxiety symptoms and avoidance of the social situation were also negatively correlated, indicating that when acceptance increases avoidance behavior decreases.

In one of the recent studies Thurston et al., (2017) the impact of Cognitive-Behavioral Group Therapy (CBGT) versus Mindfulness-Based Stress Reduction (MBSR) on self-views of an individual with social anxiety was examined. Findings indicated an increase in the positive self-view of participants and decrease in the social anxiety levels of participants of both intervention groups. Researchers concluded that although CBGT and MBSR work differently they demonstrate similar results on social anxiety. The acceptance and awareness also found important in increasing positive self-view of individuals who have social anxiety.

Goldin, Morrison, Jazaieri, Heimberg, and Gross (2017) compared the results of MBSR and CBGT related to social anxiety. The results indicated that MBSR and CBGT have a similar influence on decreasing social anxiety and increasing cognitive reappraisal, however,mindfulness-based interventions were found more effective in acceptance of anxiety and success.

Association of mindfulness and social anxiety was also investigated from behavioral and emotional perspective. Golding and Gross (2010) studied the influence of mindfulness-based stress reduction (MBSR) in adults with social anxiety. They examined the change in emotional reactivity from behavioral and neural bases; moreover, they studied the change in regulation of self-beliefs with MBSR. Results indicated that MBSR is effective in reduction of social anxiety symptoms, anxiety and depression. Moreover, it was also reported in the same study the brain activities of participants during MBSR demonstrated lower amygdala activity, lessen negative emotion experience and increased brain activity in attention region. The results of the study showed that mindfulness-based interventions could enhance emotion regulation and reduce emotion reactivity, which in turn can control the increase of negative self-beliefs.

Rasmussen and Pidgeon (2011) studied the direct and indirect influence of mindfulness on self-esteem and social anxiety. Researchers examined dispositional mindfulness and social interaction anxiety. The study was conducted with 205 university students. In the proposed model self-esteem was reported as mediator. Results of the study were indicated a significant link between higher dispositional mindfulness and lower social interaction anxiety. Partial influence of this association was attributed to the effect on mindfulness on self-esteem. They suggested that mindfulness could hinder the malfunctioned mechanism that aggravates and maintain social anxiety. Another study that examined mindfulness and social anxiety and role of self-esteem were also conducted with undergraduate students (Tan et al., 2016). Results yielded negative association between social anxiety and mindfulness, and positive relationship between mindfulness and self-esteem.

In a more recent study, the effectiveness of mindfulness-based interventions on the social anxiety of university students was examined (Ye, 2017). Total of 27 university students who have high social anxiety participated to MBSR program for 2 weeks. After the program students, social anxiety level was reported to decrease, moreover researcher also submit that MBSR group demonstrated less anxiety and avoidance

compared to control group. The researcher suggested that mindfulness-based strategies could be helpful in protecting students from social anxiety and decrease perceived social anxiety in anxiety evoking social situations.

In another study association between mindfulness, social anxiety, decentering and cognitive reappraisal was investigated (Hayes-Skelton & Graham, 2013). Study results associated higher level of mindfulness and cognitive reappraisal with lower lever social anxiety. Researchers inferred that how to respond anxiety-evoking situation is the key, and if individuals respond social anxiety evoking situation with either mindfulness or cognitive reappraisal then they perceive fewer anxiety symptoms. Moreover, in the same study results, the medium-sized positive correlation between cognitive reappraisal and mindfulness was found. Researchers interpreted these results as both of the variables assessing the similar constructs and they both have an influence on social anxiety.

The literature demonstrated that mindfulness is related to social anxiety and it also has an impact on other variables, which influence social anxiety. Therefore, in the current study, it was hypothesized that mindfulness can have indirect effect on the association between social interaction anxiety and other study variables.

2.4.5. Experiential Avoidance

Individuals intentionally or unintentionally try to control and manipulate their cognitive and physical experiences to cope with anxiety evoking situations (Glick & Orsillo, 2011). According to ACT, psychopathology is the result of an objection to acknowledging internal experiences, which are thoughts, early experiences, bodily sensation, and emotions (Hayes et al., 1999). ACT premise that inability to experience unfavorable internal experiences and constantly trying to suppressed, inhibited and avoided them will eventually cause the rise of anxiety disorders.

One of the most used coping strategies is to suppress, inhibit and avoid the internal experience. Socially anxious individuals use it as an experiential avoidance. This is a learned coping strategy, but it has unhealthy benefits on reducing distress (Gross & Levenson, 1997; Panayiotou et al., 2014). Experiential avoidance is a tendency to escape from inner experiences like emotions, thoughts, memories, and physical symptoms and struggle to avoid from them (Glick & Orsillo, 2011; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Kashdan, Breen, Afram, & Terhar, 2010). An individual with social anxiety tends to avoid a social situation. This avoidance can be overly or subtle, however, all this effort given for avoiding from unfavorable experiences is temporal (Kashdan et al., 2010). Individuals who use experiential avoidance as coping strategy feel a transitory relief when they avoid a stressful situation, and they learn to relief by escaping from the situation. By doing so they acquire experiential avoidance strategy and this strategy reinforced by its temporary relief effect (Abramowitz & Moore, 2007; Campbell-Sills, Barlow, Brown, & Hofmann, 2006; Gross & Levenson, 1997; Lavy & van de Hout, 1994; Panayiotou et al., 2014; Pickett et al., 2011). Thus the aim of ACT interventions is to reduce experiential avoidance by acceptance and awareness which help the individual to allow and acknowledge internal experiences without involving any struggle to change or modify those experiences (Hayes et al., 1999).

Experiential avoidance was confirmed to be the one of the most effective component of anxiety disorders (Hooper & Larsson, 2015; Spinhoven, Drost, de Rooij, van Hemert, & Penninx, 2014) and has been associated with various psychological disorders including post-traumatic stress disorder (Pickett et al., 2011), anxiety disorders (Hayes et al., 1996), social anxiety disorder (Glick & Orsillo, 2011; Kashdan et al., 2010).

Researchers suggested that experiential avoidance specifically correlated with the onset, development, and maintenance of social anxiety (Hayes et al., 1996; Heimberg et al., 2010; Kashdan et al., 2014). Moscovitch (2009) claimed that in a social interaction, self-disclosure that leads to revealing personal strengths and weakness

makes more difficult to hide anxiety symptoms in a social situation. Thus individuals who have social anxiety usually prefer not to self-disclose and eventually start to avoid from social interaction situations.

In literature, social anxiety was a mostly studied variable with experiential avoidance. In one of the studies, the association between social anxiety, experiential avoidance, cognitive reappraisal, metacognitive awareness, and rumination was examined with high school students (Yang, 2009). According to results of the study, a strong correlation between variables was found, moreover, a significant difference between low social anxiety and high social anxiety group regarding experiential avoidance, cognitive reappraisal, metacognitive awareness, and rumination was reported. Yang (2009), also pointed that cognitive reappraisal mediates the link between experiential avoidance and social anxiety. A positive and high correlation between experiential avoidance, negative cognitive reappraisal and rumination, and negative correlation with metacognitive awareness was reported.

In more recent study Sintos (2017) investigated the mediating effect of experiential avoidance on the relationship between rejection sensitivity and social interaction anxiety with the undergraduate sample. The researcher reported the significant direct relationship between experiential avoidance and social interaction anxiety. The mediating effect of experiential avoidance on the rejection sensitivity and social interaction anxiety was confirmed, however, it was pointed that when experiential avoidance involves to the process the influence of rejection sensitivity on social interaction anxiety disappears.

Studies indicated that experiential avoidance influences social anxiety symptoms by effecting physiological reactivity (Bardeen, Fergus, & Orcutt, 2013; Panayiotou et al., 2014; Zvolensky & Forsyth, 2002). Sloan (2004) studied the association between emotion reactivity to the emotion-evoking situation and experiential avoidance. Two group of the sample with high and low experiential avoidance was reported to participate study. Results indicated that group who has high experiential avoidance

experience more emotion reactivity than the low group. Moreover, in both groups, physiological reactivity such as increased heart rate was observed. However high experiential avoidance group' physiological reactivity was lower than the low experiential avoidance group.

Studies indicating the mediating role of experiential avoidance on the relationship between anxiety sensitivity and social anxiety are also existent in the literature (Panayiotou et al., 2014). As it is defined before, experiential avoidance is a coping strategy that prevents an individual from staying in touch with unfavorable inner experiences. These experiences include emotions, thoughts as well as bodily sensations. Individuals with high anxiety sensitivity are more unwilling to experience anxiety-related sensations, which foster avoidance behavior. Thus, the overlap between experiential avoidance and anxiety sensitivity is inevitable. Studies indicated that the bodily sensations, which individuals reported in anxiety evoking situation, is belong to anxiety sensitivity-related physiological symptoms (Bardeen et al., 2013; Zvolensky & Forsyth, 2002). Panayiotou et al., (2014) examined the role of anxiety sensitivity, experiential avoidance, behavioral inhibition and self-consciousness on social anxiety, they found that experiential avoidance mediates the role of anxiety sensitivity on predicting social anxiety.

Kashdan et al., (2014) examined the influence of experiential avoidance on social interaction with two studies. In the first study, researchers measured 14 days of participants, who diagnosed with social anxiety disorder and who do not, to investigate the link between momentary experiential avoidance and social anxiety during social interaction. In the second study, the relationship between experiential avoidance and social anxiety symptoms was studied with regard to social encounter, in the second study non-clinic sample was used and all participants did not know each other. The result of the first study demonstrated that group who diagnosed with social anxiety disorder reported experiencing more social anxiety and experiential avoidance compared to the non-clinic group. Moreover, Participants reported having more social anxiety when they use experiential avoidance as coping strategy for social interaction

anxiety. The results of the second study indicated that with non-clinical sample experiential avoidance was found to predict social anxiety especially with conditions that need closeness.

Although, the influence of avoidance in anxiety disorders is clearly examined in the literature, the role of avoidance in social interaction in need to be investigated. Thus in the present study potential indirect effect of experiential avoidance on the association between social interaction anxiety and other coping strategies was investigated.

2.5. Summary of Review of Literature

Beginning to college life is considered to be one of the vulnerable periods in life for the onset of psychological problems. In this early adulthood stage, except academic demands students have to deal with social, developmental and emotional problems. However, there are factors that hinder the establishment of friendship and social contexts such as performance and interaction anxiety. There are several different perspectives that explain social anxiety. One of the most common ones is cognitive-behavioral therapies and acceptance and commitment theory. Acceptance and commitment theory is the new wave among cognitive and behavioral therapies that goal is to treat social anxiety, it aims to decrease experiential avoidance by way of non-judgmental acceptance and awareness of the present moment, self-as-context, cognitive defusion, value-based life and committed action. Non-judgmental acceptance and awareness of present moment that are crucial aspects of mindfulness are among the influential factors that affect social anxiety. Thus the aim of the ACT for social anxiety is to decrease experiential avoidance and increase mindfulness.

Literature mostly related cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity to social anxiety. However, there is a limited number of studies that investigated the relationship of cognitive reappraisal, expressive suppression, rumination, anxiety sensitivity and social interaction anxiety with regard to

mindfulness and experiential avoidance. Moreover, literature review strongly emphasizes the connection between these variables. Thus in the current study based on the ACT and existent literature, cognitive reappraisal, expressive suppression, rumination, anxiety sensitivity, mindfulness and experiential avoidance were included in the hypothesized social interaction anxiety model. In general, this chapter covers the definition of social anxiety and social interaction anxiety, theoretical perspectives that shed light on social interaction anxiety and related variables.

CHAPTER 3

METHOD

This chapter summarizes methodological procedures of the study. At first, overall research design and variables of the study are presented. In the second section sample of the study is explained. Thereafter, data collection instruments of the study and psychometric properties of each instrument are provided. In the fourth section, the data analysis is described. In the final section, limitation of the present study is given.

3.1. Overall Research Design

In the present study, correlational design was used to investigate the association among rumination, cognitive reappraisal, expressive suppression and anxiety sensitivity, mindfulness, experiential avoidance and social interaction anxiety. The correlational research design examines the relationship between variables, the strengths, and direction of the association among variables without any manipulation (Gravetter & Forzano, 2015). Accordingly, in line with the objectives of the current study, that is investigating the multiple and interrelated relationships among variables and additionally direct and indirect relations, a more complicated correlational model, structural equation modeling (SEM) (Jöreskog & Sörbom, 1996) was utilized. SEM is a series of statistical techniques which allow researchers to investigate the complex relationship between one or more independent and dependent variables with combination and sequences of factor and regression analysis (Hox & Bechger, 1998).In the model of the current study, rumination, expressive suppression, cognitive reappraisal, anxiety sensitivity, mindfulness and experiential avoidance were determined as latent variables of social interaction anxiety. In this connection, with respect to the purpose of the study research question of "To what extent do cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity predict social

interaction anxiety through the indirect effect of mindfulness and experiential avoidance?" was investigated.

3.2. Participants

The participants of the present study were English Language preparatory class students from a state university in Turkey. Data were gathered by using convenient sampling method during the beginning of the fall semester of the 2016-2017 academic year. Total of 2650 students was enrolled in English Preparatory School, but the school administration gave permission to collect data from only 55 classes in which included a total of 1000 students from beginner, elementary, intermediate and upper intermediate levels, this questionnaire were distributed to 1000 students. A total of 685 students volunteered to participate in the study, among those participants, 23 answered only the demographic information form, 9 did not respond to questions and the 8 were only marked few items of first questions of the first questionnaire. Thus 40 cases with a large amount of missing data were eliminated from the dataset. Therefore, a total of 645 participants made up the total data, composed of 296females (%45.9) and 349 males (%54.1).Crosstabulation of demographic information for distribution of participants according to their gender and faculty were given in Table 3.1.

Table 3. 1

Crosstabulation of Gender and Faculty

| Faculty | Gender | | | | | |
| | Female | | Male | | Total | |
	n	%	n	%	n	%
Architecture	28	4.3%	11	1.7%	39	6%
Art and Science	101	15.7%	47	7.3%	148	22.9%
Economics & Administrative Science	28	4.3%	36	5.6%	64	9.9%
Education	70	10.9%	23	3.6%	93	14.4%
Engineering	69	10.7%	232	36%	301	46.7%
Total	296	45.9%	349	54.1%	645	100%

As it was presented in Table 3.1, the age of the participants ranged between 17 and 32 with a mean age of 19.43 (SD=1.85). Almost half of the participants were from Faculty of Engineering. Other faculties were also represented in the sample.

3.3. Data Collection Instruments

In the current study, the demographic information form was used to obtain demographic data. Social Interaction Anxiety Scale (SIAS; Mattick & Clark, 1998) was used to collect data about the endogenous variable of the present study. For exogenous variables, Emotion Regulation Questionnaire (Gross & John, 2003), The Ruminative Response Scale (RRS; Treynor, Gonzalez, & Nolen-Hoeksema, 2003), Anxiety Sensitivity Index-3 (ASI-3; Taylor et al., 2007) were utilized.

For meditators, Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011) and Mindfulness Attention Awareness Scale (MAAS; Brown & Ryan, 2003) were applied. The reliability and validity studies of instruments used in the study are presented in the following section. Sample items from Turkish version of measures are demonstrated in Appendices (*see*Appendix; E, F, G, H, I, J).

3.3.1. Demographic Information Form

In order to gain basic information about sample demographic information form was developed. The form consisted of three questions regarding participants' age, gender, and faculty (*see* Appendix D for the Demographic Information Form).

3.3.2. Social Interaction Anxiety Scale (SIAS)

Social Interaction Anxiety Scale is a 20-item self-report instrument assessing the level of fears and avoidance regarding social interactions. SIAS is a unidimensional 5-point Likert type scale (0 = not at all characteristic or true for me to 4 = extremely characteristic or true of me) that measures generalized social interaction anxiety with

respect to social anxiety (Mattick & Clark, 1998). The higher scores represent a high level of social interaction anxiety. The scale has 3 reverse items (items 5, 9 and 11). The highest score obtained from the SIAS is 80 while the lowest is 0. Some sample items are "Item 8; I feel tense if I am alone with just one other person" and "Item 15; I find myself worrying that I won't know what to say in social situations".

Internal consistency coefficient of scale was calculated for different clinical samples, internal consistency coefficient was reported as .93 for individuals with a DSM-III diagnosis of social phobia, .91 for individuals diagnosed as agoraphobic with panic attacks, .92 for individuals who were diagnosed as suffering a simple phobia, .88 for undergraduates and .90 for community sample. The test-retest reliability for three-month interval was 0.92 for 4 weeks and 0.92 for 12 weeks (Mattick & Clark, 1998). The evidence for convergent validity by establishing a correlation with other measures of social anxiety and discriminative validity with an individual who diagnosed with social anxiety were also provided. Discriminant validity adequacy was attained by applying social interaction anxiety scale to those with social phobia, non-clinical sample, and other anxiety disorders. Findings indicate small to no correlation between these samples, in addition the correlation between SIAS and other measures of social anxiety was reported as significant while non-significant findings notified between measures of depression, locus of control, state and trait anxiety and social desirability (Brown et al., 1997; Mattick & Clarke, 1998).

3.3.2.1. Translation and Adaptation Procedure of the Social Interaction Anxiety Scale (SIAS)

In the translation procedure, the researcher required permission from corresponding author of SIAS, Richard P. Mattick, Ph.D. through email (*see* Appendix B for permission e-mail). After the permission was received, the translation and adaptation procedure were conducted according to Sousa and Rojjanasrirat (2011) suggestions.SIAS translated into Turkish by four experts (two instructors of English Language Teaching department who hold Ph.D. degree in English Language Teaching,

two instructors from Guidance and Psychological Counseling department with a Ph.D. degree in counseling psychology who are fluent in English). After translation process to choose a best fitting translation of the items two experts (a professor and an assistant professor in the Department of Guidance and Psychological Counseling) checked the correctness of translation, item comprehensibility, and clarity. Subsequently, two experts (an Assistant Professor from English Language Teaching department and one Assistant Professor of Guidance and Psychological Counseling department) were invited to back-translate the scale items into English. Later, two experts (one Assistant Professor from English Language Teaching department and one assist professor from Guidance and Psychological Counseling department) evaluated the back-translated items and compared them with the original scale. Finally, two instructors from the department of Turkish language have evaluated the accuracy of the scale items for the Turkish language. Thereby, translation procedure of the scale was finalized and utilized in reliability and validity studies for the Turkish sample.

3.3.2.2. Exploratory Factor and Confirmatory Factor Analyses of Turkish Version of Social Interaction Anxiety Scale (SIAS)

The Turkish version of the SIAS was piloted with 260 English Language preparatory class students (116 female, 142 male, 2 missing) from a state university. Age of the students ranged from 17 to 27 with a mean of 19.28 ($SD = 1.86$). Data were collected in the fall term of 2015-2016, by convenient sampling method.

An exploratory factor analysis (EFA) via Principal Component Analysis was conducted with Turkish form of SIAS by using varimax rotation. Before conducting EFA KMO and Barlett's Test of Sphericity values were checked. KMO value was .89 and Barlett's Test of Sphericity value was. 00, which indicated that data were appropriate to conduct factor analysis (Cerny & Kaiser, 1977; Field, 2009; Kaiser, 1974).

The Eigenvalues greater than 1 indicated four-factor solution. Total variance explained by four factors were as follows 32.841, 7.718, 6.838 and 5.533. However, the inspection on-screen plot presented sudden change after the first factor. In the original form of the measure, the one-factor solution was found by Mattick and Clark (1998). Thus the researcher decided to continue with a one-factor solution based on statistical results and findings regarding the original study of the measure. The factor loadings are given in Table 3.2.

Table 3. 2

Factor Loadings and Communalities of Turkish Version of SIAS

Item Number	Factor 1	Communality
SIAS_1	.462	.618
SIAS_2	.514	.393
SIAS_3	.507	.578
SIAS_4	.627	.504
SIAS_5	-.376	.586
SIAS_6	.391	.418
SIAS_7	.626	.534
SIAS_8	.588	.403
SIAS_9	.304	.463
SIAS_10	.728	.579
SIAS_11	.412	.556
SIAS_12	.629	.647
SIAS_13	.451	.408
SIAS_14	.462	.300
SIAS_15	.769	.613
SIAS_16	.668	.588
SIAS_17	.740	.628
SIAS_18	.658	.702
SIAS_19	.767	.696
SIAS_20	.552	.374

In the interest of overall reliability of the Turkish form of SIAS, internal consistency coefficient was calculated. The findings provided sufficient evidence (α=.84) for internal reliability (Tabachnick & Fidell, 2013).

In furtherance of construct validity, Confirmatory Factor Analyses (CFA) was performed for the Turkish version of SIAS with pilot study sample. Prior to CFA

analysis, necessary assumptions for the analysis were examined. The assumption for CFA was suggested as the accuracy of data, sample size, missing values, outliers, normality and linearity (Ullman, 2001). Firstly, the accuracy in data entry was controlled by frequency tables, maximum and minimum values, means and standard deviations for each and all items were checked. The data were found accurate. Secondly, the adequacy of sample size was investigated. According to Kline (2016) and Hoelter (1983), CFA analysis can be conducted with at least 200 cases. In addition, Kline (2016) recommended 5 or 10 cases per parameters also suggested.

The sample size of the pilot study was 258 and SIAS has 20 items, thus sample size of pilot data satisfied both of the suggestions. Thirdly, missing values were inspected by the data screening. Missing data were found in 5 items (items 5, 9, 14, 19 and 20). There were 5 missing values, which did not exceed %5 of the data total. Thus to handle missing data the method of mean substitution as suggested by Tabachnick and Fidell (2013) was used. Fourthly, univariate and multivariate outliers were investigated.

Univariate outliers were checked by examining standardized z scores for each case. Tabachnick and Fidell (2013) suggest that to detect univariate outliers, standardized z scores values not exceeding the range between +3.29 and -3.29 ($p< .001$, two-tailed test). No outliers were detected in pilot study data.

For multivariate outlier control, Mahalanobis distance values were used through χ^2 distributions. The cases above critical χ^2 value are considered as problematic (Tabachnick & Fidell, 2013). The critical χ^2 value was determined by critical value table for chi-square distribution. Critical χ^2 value was found as 45.315 ($\alpha = .001$). The total of 10 cases were found above this critical value $\chi^2(20) = 45.315$, ($p< .001$). Thus, outliers were removed from the analysis and pilot data sample size decreased to 248.

Next, both univariate and multivariate normality assumptions were checked. At first, univariate normality was controlled with skewness (symmetry of the distribution) and kurtosis (peakedness of the distribution) values. Skewness values ranged from 0.66 to

1.34 and kurtosis values were between -.74 and 1.82. Both of these values were in acceptable range as they were within the limits of Skewness and Kurtosis values that are between ± 3 (Stevens, 2002).

Multivariate normality was examined by using Mardia's test. The results of Mardia's test presented significant alpha, which means a violation of multivariate normality. Thus to inhibit bias due to multivariate non-normality, Satorra-Bentler chi-square was used instead of normal chi-square (Satorra & Bentler, 1988; 1994).

Linearity assumption was also checked by way of visual examination of bivariate scatterplots for each item. The visual inspection of scatter plot presented oval-shaped which indicate the relations in data set is linear (Tabachnick & Fidell, 2013).

Once for all multicollinearity was assessed by examining the intercorrelation between the items in the correlation matrix. Tabachnick and Fidell (2013) suggest a cutoff point for correlation coefficient higher than .90 and Stevens (2009) recommends a cutoff point as $r \geq .80$. The correlation matrix of 20 items of SIAS has found to range between .043 and .499 indicating that there was no correlation exceeding the cutoff point.

Confirmatory Factor Analysis for the pilot study (n=248) was conducted with LISREL 8.80 software. The criteria proposed by various authors in the literature for agreeable fit indexes are given in Table 3.3. In the present study following criteria were followed: CFI value which is expected to be 90 or above (Byrne, 2010; Schumacker & Lomax, 2010) while NNFI value is expected to be smaller than .93 or .95 (Bentler, 1990; Byrne, 2010; Hu & Bentler, 1999); χ^2/df value that is anticipated to be smaller than 3 (Kline, 2016) or 5 (Schumacker & Lomax, 2010); RMSEA values is suggested to be between values of .05 and .08 (Schumacker & Lomax, 2010) or offered to be smaller than .10 (Byrne, 2010). For SRMR is expected to be smaller than .80 (Hair, Black, Babin, & Anderson, 2010).

Table 3. 3

Goodness of Fit Indexes Cutoff Values

Goodness of Fit Indexes	Measured Model of SIAS Fit Indexes	Suggested Cutoff Values
$\chi 2/df$	4.23	$\leq$ .3 (Kline, 2016) $\leq$ .5 (Schumacker & Lomax, 2010)
CFI	.97	$\geq$ .90 (Schumacker & Lomax, 2010) $\geq$ .95 (Byrne, 2010)
NNFI	.98	$\leq$ .90 (Bentler, 1990) $\leq$ .93 (Byrne, 2010) $\leq$ .95 (Hu & Bentler, 1999)
RMSEA	.07	.05 < RMSEA <.08 (Schumacker & Lomax, 2010) < .10 (Byrne, 2010)
SRMR	.05	< .80 (Hair el al., 2010)

The CFA analysis indicated perfect fit of the model to the data. The one-dimensional structure for SIAS with pilot study sample yielded following results [Satorra-Bentler χ^2 (169) = 299.15, p =.00; χ^2/df-ratio = 1.77; *NNFI* = .96, *CFI* = .97, *SRMR*= 0.06, *RMSEA* = .05]. Results showed that the items indicated similar behaviors (item 18; When mixing in a group, I find myself worrying I will be ignored and item 19; I am tense mixing in a group) were freely estimated. Prior to reporting the fit indices, significant chi-square can be reported however chi-square is very sensitive to sample size (Byrne, 2010). Following the CFA analysis unstandardized, standardized parameter estimates, *t* values and explained variance by each item were examined for each item. Unstandardized, standardized parameter estimates, *t* values, and explained variance were presented in Table 3.4.

Table 3. 4

Unstandardized and Standardized Parameter Estimates for SIAS

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	*T*	R^2
SIAS1	.44	.42	6.74	.18
SIAS2	.41	.46	7.38	.21
SIAS3	.54	.33	7.70	.11
SIAS4	.56	.59	10.93	.35
SIAS5	.17	.17	2.47	.03

Table 3.4 (continued)

Unstandardized and Standardized Parameter Estimates for SIAS

SIAS6	.30	.36	6.02	.13
SIAS7	.51	.59	9.56	.35
SIAS8	.54	.55	8.81	.31
SIAS9	.30	.25	3.50	.06
SIAS10	.62	.71	12.16	.50
SIAS11	.31	.15	2.31	.02
SIAS12	.65	.59	9.43	.35
SIAS13	.41	.40	5.84	.16
SIAS14	.46	.43	6.06	.19
SIAS15	.78	.76	13.69	.58
SIAS16	.65	.65	10.29	.43
SIAS17	.73	.72	12.18	.51
SIAS18	.56	.61	9.29	.38
SIAS19	.66	.74	13.29	.55
SIAS20	.62	.53	8.78	.28

As seen from Table 3.4, unstandardized factor loadings for one factor structure of SIAS have values between .17 and .78, while standardized factor loadings have values between .17 and .76. All t values indicated significant results for all items of SIAS. Only item three present unstandardized and standardized parameter estimates below .30, however, t values demonstrated significant results at alpha 0.5, in the original scale development study the unstandardized and standardized factor loadings were not given (Mattick & Clark, 1998), thus item 3 was kept in the study.

3.3.2.3. Confirmatory Factor Analysis and Reliability of the Turkish Version of SIAS for the Present Study

The pilot study of SIAS demonstrated good fit indices and the one-factor structure of the scale was confirmed for the pilot data. Subsequently, one more confirmation and reliability analyses were conducted with the data of current study gathered from preparatory class students. Participants were English Language preparatory class students from a state university in Turkey.

For the present study the total score of SIAS was utilized, thus the one-factor structure of SIAS was tested. In advance of confirmatory analysis, basic assumptions were checked, and no any violation except form multivariate normality was found. Mardia's test results indicated a violation of multivariate normality ($p<.05$) thus Satorra-Bentler was reported instead of normal chi-square.

CFA results supported the single factor model of scale to data [Satorra-Bentler χ^2 (169) = 548.54, p =.00; χ^2/df-ratio = 3.25; NNFI = .98, CFI = .98, SRMR= 0.04, RMSEA = .06] the items which indicates similar behaviors (item 18; When mixing in a group, I find myself worrying I will be ignored and item 19; I am tense mixing in a group) were freely estimated suitably to literature. In reporting the fit indices significant chi-square can be reported however chi-square is very sensitive to sample size (Byrne, 2010). In the light of reference values (Table 3.3), the fit indices of the confirmatory analysis of SIAS for the data of current study presented acceptable values for one-factor structure.

Following the CFA analysis unstandardized, standardized parameter estimates, t values and explained variance were examined for each item of SIAS. Unstandardized, standardized parameter estimates, t values, and explained variance were presented in Table 3.5.

Table 3. 5

Unstandardized and Standardized Parameter Estimates for SIAS

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	t	R^2
SIAS1	.56	.56	14.98	.31
SIAS2	.57	.53	15.36	.29
SIAS3	.69	.60	20.08	.35
SIAS4	.60	.62	21.80	.39
SIAS5	.37	.37	9.85	.14
SIAS6	.50	.54	15.27	.29
SIAS7	.74	.72	31.29	.52
SIAS8	.60	.59	18.78	.35
SIAS9	.42	.37	8.12	.14
SIAS10	.70	.74	28.08	.54
SIAS11	.48	.46	11.14	.21

Table 3.5 (continued)

Unstandardized and Standardized Parameter Estimates for SIAS

SIAS12	.77	.71	27.81	.50
SIAS13	.50	.48	12.98	.23
SIAS14	.69	.61	17.71	.37
SIAS15	.84	.79	45.82	.63
SIAS16	.81	.74	31.40	.55
SIAS17	.80	.76	35.41	.58
SIAS18	.79	.72	27.85	.51
SIAS19	.85	.81	51.79	.66
SIAS20	.57	.44	13.04	.19

As seen from Table 3.5, unstandardized factor loadings of the SIAS were between .37 and .85 while standardized factor loadings ranged between .37 and .81. The t values of all SIAS items indicated significant results.

The amount of variance explained by each item ranged from %14 to %66. The CFA results confirmed one-factor structure for the SIAS. And internal consistency coefficient was calculated as .92.

3.3.3. Ruminative Response Scale (RRS)

The Ruminative Response Scale (RRS) is as a subscale of the Response Style Questionnaire (RSQ). The RSQ has 71 items within this 71 items 21 items are used to measure RRS. The purpose of the RRS is to measure respondents' inclination to ruminate about negative life events (Nolen-Hoeksema & Morrow, 1991). The RRS consists of four subscales ruminative response scale, distracting response scale, dangerous activities scale and problem-solving scale. In the current study, the short form of RRS (Treynor et al., 2003) was used. Short form of RRS s includes 10 items, which are rated on a 4-point Likert type scale (1 = almost never to 4 = almost always).

RRS has two subscales, which are a reflection and brooding. The scale yields subscale score as well as total score. In the current study total score was utilized. In scoring, the

higher scores indicate a high level of ruminative tendency. Some sample items of the RRS include "Item 10; Go someplace alone to think about your feelings'' (item for reflection subscale) and "Item 3; Think "Why do I always react this way?" (Item for brooding subscale). Internal consistency coefficient was reported by Treynor et al., (2003) as .72 for the Reflection subscale and .77 for Brooding subscale. Additionally, the test-retest reliability was informed as .60 for reflection subscale and for .62 for brooding subscale.

The Turkish translation of RRQ was made by Erdur-Baker (2002) and internal consistency coefficient was reported as .90. In another study, Bugay (2010) confirmed the one-factorial structure of RRS and additively the internal consistency coefficient was reported as .77. The reliability evidence of the measure later on reported by Erdur-Baker and Bugay (2012), the results indicated the internal consistency coefficient as .77 for reflection and .75 for brooding subscales, and .86 for the total scale.

3.3.3.1. Confirmatory Factor Analysis and Reliability of the RRS for the Present Study

In the present study one-factor structure of the RRS was tested prior to data analysis with preparatory class students. Participants were English Language preparatory class students from a state university in Turkey. Before conducting confirmatory analysis basic assumptions were checked and no any violation except form multivariate normality was found. Mardia's test results indicated a violation of multivariate normality ($p<.05$) thus Satorra-Bentler was reported instead of normal chi-square. CFA results supported the single factor model of the scale [Satorra-Bentler χ^2 (33) = 139.91, p =.00; $\chi^2/df\text{-}ratio$ = 4.23; *NNFI* = .96, *CFI* = .97, *SRMR*= 0.05, *RMSEA* = .07]. As chi-square is very sensitive to sample size fit indices were used (Byrne, 2010). Model fit indices indicated good fit with the suggested criterions (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010).

Subsequently, the modification indexes check, the items, which indicate similar behaviors and have literature justification were freely estimated. The error covariance of item 7 – item 8 and item 8 – item 9 were freely estimated. Standardized estimates ranged between .89 and .47 for reflection and between .82 and .42 brooding subscales. Internal coefficient consistency was calculated and found as .84.

For the next step of CFA, unstandardized, standardized parameter estimates, *t* values and explained variance for each item of RRS were examined. Unstandardized, standardized parameter estimates, *t* values, and explained variance were presented in Table 3.6.

Table 3. 6

Unstandardized and Standardized Parameter Estimates for RRS

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	T	R^2
RRS1	.47	.55	13.02	.30
RRS2	.69	.71	16.42	.51
RRS3	.60	.67	18.59	.44
RRS4	.78	.82	28.81	.67
RRS5	.29	.32	7.24	.10
RRS6	.50	.54	14.27	.29
RRS7	.43	.47	10.74	.22
RRS8	.58	.62	16.97	.38
RRS9	.74	.79	24.17	.60
RRS10	.41	.43	10.53	.18

As it can be seen from Table 3.6, unstandardized factor loadings for one factor structure of RRS have ranged between .29 and .78, while standardized factor loadings values were between .32 and .82. The t values of the RRS items were significant. The amount of variance that is explained by each item ranges from %10 to %67. The CFA results confirmed the one-factor structure for RRS reported.

3.3.4. Emotion Regulation Questionnaire (ERQ)

Emotion regulation questionnaire was developed by Gross and John (2003). ERQ has 10 items that evaluate participants' strategies to control their feelings and expressions of emotions. The measure asks participants to rate their responses using 7-point Likert type scale from 1 = strongly disagree to 7 = strongly agree. ERQ has two subscales as cognitive reappraisal (6 items) and expressive suppression (4 items).

For both scales, separate scores are calculated. For the cognitive reappraisal scale, high scores indicate individual's tendency to avail of cognitive reappraisal as an emotion regulation strategy while high scores in expressive suppression subscale point that individual put expressive suppression on work as an emotion regulation strategy. Some sample items include "Item 5; When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm" (an item for cognitive reappraisal subscale) and "Item 9; When I am feeling negative emotions, I make sure not to express them" (an item for expressive suppression subscale).

Internal consistency coefficient was reported by Gross and John (2003) as .79 for cognitive reappraisal and .73 for expressive suppression. The test-retest reliability in 3-month period was .69 for both subscales. The Turkish translation of ERQ was made by Yurtsever (2004) and internal coefficient consistency was reported as .88 for the cognitive reappraisal and .82 for the expressive suppression, the correlation between two subscales was reported as -.52 ($p<.01$) (Yurtsever, 2004).

3.3.4.1. Confirmatory Factor Analysis and Reliability of the ERQ for the Present Study

In the current study similar to the original form of ERQ (Gross & John, 2003), the two-factor structure of ERQ was tested. Since total score cannot be obtained from the ERQ, it needs to be evaluated with two dimension; cognitive reappraisal and expressive suppression (Yurtserver, 2004).

The confirmatory analysis was conducted with the participants of main data, which is a total of 645 English Language preparatory class students. Prior to analysis, basic assumptions for confirmatory analysis were assessed. The only violation was found in multivariate normality. The Mardia's test results indicated significant results which mean a violation of multivariate normality ($p<.05$) thus Satorra-Bentler was reported instead of normal chi-square.

Results presented fit for the study data; for cognitive reappraisal Satorra-Bentler χ^2 (6) = 28.31, p =.00; χ^2/df-ratio = 4.72, NNFI = .98, CFI = .99, SRMR= 0.04, RMSEA = .07; for expressive suppression Satorra-Bentler χ^2 (2) = 6.58, p =.00; χ^2/df-ratio = 3.29, NNFI = .98, CFI = .99, SRMR= 0.02, RMSEA = .06. According to goodness of fit indices suggested by researchers (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010), tested model showed a good fit regarding the fit indices criterions. In the current CFA fit indices were used instead of chi-square because of its sensitivity to sample size (Byrne, 2010).

Following the modification indexes check, the error covariance of item 4 – item 6, item 4 – item 2 and item 3 -item2 were freely estimated. Modification between items was done according to literature and also these items were determined to measure similar behaviors. Standardized estimates ranged between .89 and .47 for cognitive reappraisal and between .74 and .47 for expressive suppression. Internal consistency coefficient of the ERQ for the present study was calculated as .84 for cognitive reappraisal and .76 for expressive suppression.

In order to complete the CFA, unstandardized, standardized parameter estimates, *t* values and explained variance were examined for both cognitive reappraisal and expressive suppression subscales separately. Unstandardized, standardized parameter estimates, *t* values, and explained variance were presented in Table 3.7.

Table 3. 7

Unstandardized and Standardized Parameter Estimates for Cognitive Reappraisal and Expressive Suppression Scales

Scale	Item	Unstandardized Factor Loadings	Standardized Factor Loadings	t	R^2
ERQ Cognitive Reappraisal	ERQ 1	.68	.42	10.25	.22
	ERQ 3	1.25	.79	19.16	.62
	ERQ 5	1.16	.74	19.00	.55
	ERQ 7	1.45	.89	24.07	.79
	ERQ 8	1.30	.79	22.05	.62
	ERQ 10	0.92	.53	12.33	.28
ERQ Expressive Suppression	ERQ 2	1.36	.74	19.04	.54
	ERQ 4	1.24	.71	18.57	.51
	ERQ 6	1.38	.73	20.00	.54
	ERQ 9	0.81	.47	11.16	.22

The unstandardized, standardized parameter estimates, *t* values and explained variance for scales of cognitive reappraisal and expressive suppression were checked separately. The unstandardized factor loadings for the one-factor structure of cognitive reappraisal scale have values between .68 and 1.45, while expressive suppression scale had values between 0.81 and 1.38.

The standardized factor loadings for cognitive reappraisal scale' items range from .42 to .89, while it ranges for expressive suppression scale' item from .47 to .74. The t values presented significant values for items in both subscales. The amount of variance that is explained by each item ranges from %22 to %62 for cognitive reappraisal scale and %22 to %54 for expressive suppression scale.

All the CFA results support that although cognitive reappraisal and expressive suppression are the subscales of emotion regulation questionnaire, they both support one-factor structure and can be used as separate scales, which was also supported by in the original adaptation study (Yurtsever, 2004).

3.3.5. Acceptance and Action Questionnaire-II (AAQ-II)

Acceptance and action questionnaire was developed to measure experiential avoidance and psychological flexibility by Hayes et al., (2004b). Depending on its version, the number of items that exist in the scale range between 9 and 16. The final version scale was reported to involve items on the negative evaluation of feelings, avoidance of internal experiences, discriminating thought and its emotive and behavioral adjustment in beingness of challenging thoughts and feelings (Bond et al., 2011). Hayes et al., (2004b) reported the alpha coefficient of the AAQ as .70 and test re-test reliability as .64 for the 4 months period. However the internal consistency and factor structure of the scale was reported to present unstable and problematic results, thus researchers develop more valid and reliable form of AAQ (Bond et al., 2011). The AAQ-II is the most widely used measure of experiential avoidance. Participants respond items to on 7-point Likert-type scale (ranging from 1 = never true to 7 = always true). The total scores indicate the level of experiential avoidance. Since AAQ-II is used to measure two different constructs, higher scores are suggestive of greater emotional avoidance, while lower scores indicate increased psychological flexibility. Some sample items are "I worry about not being able to control my worries and feelings." and "Emotions cause problems in my life." Internal consistency coefficient was reported by Bond et al., (2011) as .84 (.78 – .88), and additionally, in the same study test-retest reliability was found as .81 (for 3 months) and .79 (for 12 months). The Turkish adaptation study of AAQ-II was conducted by Meunier et al., (2014). The study also supports single factor solution for Turkish form of AAQ-II. They reported the internal consistency coefficient as .88. The test-retest reliability for two months period was also .78.

3.3.5.1. Confirmatory Factor Analysis and Reliability of the AAQ-II for the Present Study

In the present study single factor solution of AAQ-II was tested with the participants of main data, which is a total of 645 English Language preparatory class students. Before starting the confirmatory analysis required assumptions were checked.

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Univariate normality assumption was presented sufficient results. However multivariate normality assumption was violated. Mardia's normalized coefficient was found significant therefore Satorra-Bentler was reported instead of normal chi-square [Satorra-Bentler χ^2 (11) = 37.21, p =.00; χ^2/df-ratio = 3.38; *NNFI* = .99, *CFI* = .99, *SRMR*= 0.03, *RMSEA* = .06]. Fit indices were evaluated rather than chi-square as it is sensitive to sample size (Byrne, 2010), in consideration of suggested fit indices in the literature (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010), goodness of fit indices showed a good fit.

After conducting the first analysis, to gain better fit indices model was modified by freeing error correlation between items 6-7, 2-3, and 1-4. The covariance application was done according to literature and meaning of items. After modification model presented good fit with current data. Standardized estimates ranged between .63 and .81. Internal consistency coefficient of the AAQ-II for the present study was calculated as .88. After CFA, to complete the analysis unstandardized, standardized parameter estimates, *t* values and explained variance for each item of AAQ-II were controlled. Unstandardized, standardized parameter estimates, *t* values, and explained variance were presented in Table 3.8.

Table 3. 8

Unstandardized and Standardized Parameter Estimates for AAQ-II

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	t	R^2
AAQ1	1.10	.65	16.84	.42
AAQ2	1.18	.71	18.83	.50
AAQ3	1.21	.70	21.45	.49
AAQ4	1.23	.71	18.56	.50
AAQ5	1.41	.81	26.73	.66
AAQ6	1.22	.63	17.77	.40
AAQ7	1.20	.65	17.49	.42

The unstandardized factor loadings for one factor structure of AAQ-II have values between 1.10 and 1.41, while standardized factor loadings have values between .63

and .81. The t values indicated significant results for each item of AAQ-II. The amount of variance that is explained by each item of AAQ-II ranged from %40 to %66. The CFA results confirm the one-factor structure for AAQ-II for the current study.

3.3.6. Anxiety Sensitivity Index-3 (ASI-3)

The Anxiety Sensitivity Index-3 is 18 items self-report questionnaire, which measures the fear of anxiety reactions of the body like blushing, rapid heartbeats, and inefficacy to concentrate. ASI-3 asks participants to respond on five-point Likert type scale (0="Not at all like me" to 4="Very much like me") the degree of the fear of possible negative consequences of anxiety-related sensations.

The ASI-3 is grounded on Anxiety Sensitivity Index (ASI; Reiss et al., 1986) and Anxiety Sensitivity Index-Revised (ASI-R; Taylor & Cox, 1998), which are also well-established scales. Taylor et al., (2007) was combined and revised items in ASI and ASI-R and developed ASI-3. ASI-3 has three subscales physical concerns, cognitive concerns, and social concerns. Scoring can be done by adding three subscale scores separately or by summing all items to have a total score. The lowest score that can be taken from the scale is 0 and the highest score is 72. Some sample items are "Item 13; When I begin to sweat in a social situation, I fear people will think negatively of me'' and "Item 14; When my thoughts seem to speed up, I worry that I might be going crazy." Internal consistency coefficient reported by Taylor et al., (2007) and it was computed for 6 different countries, which are United States, Canada, France, Mexico, Netherlands and Spain with the clinical and non-clinical sample. The subscale reliability of the ASI-3 for each subscale ranged between .76-.86 for physical concerns, .79-.91 for cognitive concerns and .73-.86 for social concerns based on data gathered from six countries.

Taylor et al., (2007) suggested to use the total score for assessing the general level of anxiety sensitivity, it was claimed that general factor is account for a %76 proportion of variance. Researchers also reported that the ASI-3 has acceptable evidence about

convergent, discriminant, and criterion-related validity. The Turkish adaptation studies of the ASI-3 were performed by Mantar, Yemez, and Arkın (2010). In the adaptation study, the ASI-3 was informed to show discriminant validity between other scales of anxiety disorder. Factor structure of scale has been reported to present similar values with the original form. They also suggested using the total score for general factor. In the same study, the researchers reported the internal coefficient consistency as .93 while reporting test-retest reliability as .64 for a total score.

3.3.6.1. Confirmatory and Reliability of the ASI-3 for the Present Study

In the present study total score of ASI-3 was utilized. Prior to CFA analysis, basic assumptions were checked. CFA analysis was conducted with the participants of main data, which is a total of 645 English Language preparatory class students.

Univariate normality results indicated no violation however multivariate normality was found to violate the normality assumption. Mardia's test results indicated a violation of multivariate normality ($p<.05$) thus Satorra-Bentler was reported instead of normal chi-square. CFA results supported the single factor model of scale to current data [Satorra-Bentler χ^2 (135) = 348.70, p =.00; $\chi^2/df\text{-}ratio$ = 2.58; $NNFI$ = .98, CFI = .98, $SRMR$= 0.06, $RMSEA$ = .05]. CFA results of ASI-3 indicate good fit regarding the suggested fit indices (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010).

Standardized estimates ranged between .48 and .74. In order to calculate internal consistency coefficient of the ASI-3, internal coefficient consistency for current study sample was computed at α= .91. Subsequent to CFA to confirm the one-factor structure of ASI-3, unstandardized, standardized parameter estimates, t values and explained variance for each item of ASI-3 were examined. Unstandardized, standardized parameter estimates, t values, and explained variance were presented in Table 3.9.

Table 3. 9

Unstandardized and Standardized Parameter Estimates for ASI-3

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	t	R^2
ASI1	.48	.35	10.77	.22
ASI2	.71	.58	11.51	.34
ASI3	.73	.61	13.80	.37
ASI4	.69	.48	11.16	.23
ASI5	.80	.63	15.54	.40
ASI6	.71	.62	12.13	.38
ASI7	.83	.67	15.60	.45
ASI8	.76	.65	15.18	.43
ASI9	.67	.60	11.57	.36
ASI10	.92	.70	14.40	.49
ASI11	.64	.52	8.22	.28
ASI12	.81	.63	16.20	.40
ASI13	.75	.63	14.31	.40
ASI14	.81	.69	12.73	.47
ASI15	.60	.62	8.86	.39
ASI16	.81	.71	20.45	.51
ASI17	.57	.48	6.60	.23
ASI18	.88	.74	16.40	.55

The unstandardized factor loadings for one factor structure of ASI-3 have values between .48 and .92, while standardized factor loadings have values between .35 and .74. The t values indicated significant results for each item of ASI-3. The amount of variance explained by each item of ASI-3 ranged between %22 and %55. The CFA results of the current study confirmed the one-factor structure of the ASI-3.

3.3.7. Mindful Attention Awareness Scale (MAAS)

Mindfulness Attention Awareness Scale was developed by Brown and Ryan (2003) to measure the awareness of the momentary experience of individuals and their mindful participation in daily life. The MAAS is a 15 item self-reported questionnaire, which assess mindfulness on a 6-point Likert scale (6 = almost never to 1 = almost every time). The explanatory factor analysis of the scale was reported to demonstrate one-factor structure and gives single total score by adding all items that participant respond.

The scores of the MAAS range from 15 to 90. High scores indicate a high degree of mindful awareness. Some sample items from the measure are "Item 1; I could be experiencing some emotion and not be conscious of it until sometime later" and "Item 7; It seems I am "running on automatic," without much awareness of what I'm doing." Internal consistency coefficient was reported as .87 for original scale. The test-retest reliability over a 4-week period was found as .81 for original form. Convergent, Discriminant and Incremental Validity studies of the scale were also yielded satisfactory results.

The Turkish translation of MAAS was made by Özyeşil, Arslan, Kesici, and Deniz (2011). For the Turkish form, internal coefficient consistency was found at .80 and test-retest reliability was reported as .86. The MAAS also yielded significant discriminant validity results by presenting significant positive relationships with other similar scales.

3.3.7.1. Confirmatory and Reliability of the MAAS for the Present Study

The proposed one-factor solution was tested for the current study with the participants of main data, which is a total of 645 English Language preparatory class students. Prior to analysis basic assumption for confirmatory analysis was assessed, only violation was found in multivariate normality, Mardia's test results indicated significant results which means violation of multivariate normality ($p<.05$) thus Satorra-Bentler was reported instead of normal chi-square data [Satorra-Bentler χ^2 (89) = 328.87, p =.00; $\chi^2/df\text{-}ratio$ = 3.70; $NNFI$ = .93, CFI = .94, $SRMR$= 0.05, $RMSEA$ = .06].

CFA results evaluate with the goodness of fit indices criterions (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010). Results indicated a good fit. Standardized estimates ranged between .43 and .82. The internal coefficient consistency for current study sample was computed at α=.81

In the second place of CFA unstandardized, standardized parameter estimates, t values and explained variance for each item of MAAS were controlled to confirm the one-factor structure of the scale. Unstandardized, standardized parameter estimates, t values, and explained variance were presented in Table 3.10.

Table 3. 10

Unstandardized and Standardized Parameter Estimates for MAAS

Item	Unstandardized Factor Loadings	Standardized Factor Loadings	t	R^2
MAAS1	.48	.38	8.65	.15
MAAS2	.51	.37	9.28	.14
MAAS3	.65	.53	13.85	.28
MAAS4	.51	.35	7.82	.12
MAAS5	.49	.35	8.72	.12
MAAS6	.49	.34	7.84	.11
MAAS7	.75	.59	15.54	.35
MAAS8	.82	.67	18.20	.45
MAAS9	.48	.36	7.92	.13
MAAS10	.71	.59	15.57	.35
MAAS11	.48	.32	7.51	.10
MAAS12	.74	.57	13.28	.33
MAAS13	.55	.43	11.25	.19
MAAS14	.82	.62	16.84	.39
MAAS15	.80	.66	17.99	.43

The unstandardized factor loadings ranged between .48 and .82, while standardized factor loadings values were between .32 and .67. The t values for each item was examined and results indicated significant results for the items of MAAS. The amount of variance that is explained by each item ranged from %11 to %45. The CFA results confirmed the one-factor structure for MAAS for the current study.

3.4. Data Collection Procedure

In the first instance to start data collection procedure in the English Language Preparatory School of a state university in Turkey, necessary permission from the Human Subjects Ethics Committee (HSEC, see Appendix A) was obtained. After that, the HSEC permission was submitted to the Director of the Department of Basic

English and a debriefing about the study was given. In addition to HSEC permission, another permission about applying the instrument and conducting the study with preparatory school students was taken from Directorship of the English Language Preparatory School. Following this step, a meeting was arranged with academic coordinators of each language level in the English Language Preparatory School to inform them about the study and request their support in data collection procedure.

The data collection procedure was completed in two phases. The first phase that was a pilot study to adapted SIAS into Turkish and the second phase was for the main data. Both of the data was collected from English Language Preparatory School of a state university. Before collecting the main data, it was ensured that students who participate pilot study do not participate the main data.

The pilot study was conducted with preparatory class students, in the fall semester of 2015-2016. After obtaining all necessary permissions, the classrooms, which participate in the study, were chosen with academic coordinators. The researcher took all the precautions to make sure that none of the students in the pilot study participated the main study. The total of 15 classes was determined by coordinators, in application instructors administered the instruments by providing voluntary participation, and 2 classes were not cooperated because of their intensive schedule. The pilot study was in paper-pencil format and it took approximately 5 minutes for participants to complete the measures. The data were collected in one-week period.

The main study data were collected at the fall semester of 2016-2017. All data were collected in the one-week period during the first two weeks of the fall semester. Subsequently, the instrument packages were given to coordinators, coordinators. The academic coordinators held meetings with the instructors in their groups and informed them about the study and gave measures to the ones who were a volunteer to apply them in their classes. Instructors of 55 classes were volunteered to administer the survey package in their classes. The number of students in each class was ranged between 15 and 25. Later on, the instructors of chosen classes were informed by the

researcher both verbally and with a written note, about the aim of the study and how to administer instruments. Ultimately, the instrument package which includes all scales and consent form (see Appendix C for the consent form) were given to instructors by the researcher. The instructors administered the package to students during the class hours. The package took approximately 15 minutes to complete, the application was done in paper-pencil format.

The beginning of the semester was intentionally chosen for data collection. First, it was asserted that students experience loneliness during first two weeks of college (Cutrona, 1982), which strengths their social anxiety (Rodebaugh, Weeks, Gordon, Langer, & Heimberg, 2012). Secondly, this transition period also marks the transition from adolescence to adulthood, according to research studies the developmental transition periods are times when attachment systems are triggered and especially for individuals who are insecurely attached (Ainsworth, 1973; Ainsworth et al., 1978). At the beginning of the semester because of rapid life changes like the beginning to college, entering to a new environment, moving away from family, trying to find friends triggers attachment systems and increases social anxiety (Parade, Leerkes, & Blankson, 2010). Finally, because the feeling of loneliness is highest at the beginning of semester and attachment system is thought to be activated in the college life transition period.

3.5. Description of Variables

In the current section, the variables of the present study were described. First of all the proposed model aimed to explore the relationship between social interaction anxiety, mindfulness, experiential avoidance, expressive suppression, cognitive reappraisal, rumination and anxiety sensitivity. All variables in the study are latent thus total scores were computed for each. Variables of the current study were defined in three categories; exogenous variables (rumination, expressive suppression, cognitive reappraisal, and anxiety sensitivity), mediator variables (mindfulness and experiential avoidance) and endogenous variable (social interaction anxiety).

3.5.1. Exogenous Variables

Exogenous variables are equivalent to independent variables that are employed to predict endogenous variables, which is equivalent to the dependent variable. The exogenous variables of the current study are rumination, cognitive reappraisal, expressive suppression and anxiety sensitivity.

Cognitive reappraisal: It was measured as a subscale of Emotion Regulation Scale (ERQ) (Yurtsever, 2004). ERQ is a10 items, 7-point Likert type scale. The scale of cognitive reappraisal composes of 6 items. A total score is calculated and score range from 6 to 42.

Expressive suppression: It was measured as a subscale of Emotion Regulation Scale (ERQ) (Yurtsever, 2004). ERQ is a10 items, 7-point Likert type scale. The scale of expressive suppression composes of 4 items. A total score is calculated and score range from 4 to 28.

Rumination: It was measured by 10-item short form of Ruminative Response Scale (RRS) (Erdur-Baker & Bugay, 2012) with 4 points Likert type scale. It is a latent variable and total score calculated to measure rumination level. The score range from 10 to 40.

Anxiety sensitivity: It was measured by Anxiety Sensitivity Index-3 (ASI-3) (Manter, Yemez, & Arkın, 2010) which is 18 items self-report questionnaire on five-point Likert type scale. The total score is calculated and scoring of the scale range from 0 to 72.

3.5.2. Mediator variables

Mediator variables are the factors that influence the predictability of exogenous variables on endogenous variables. The mediator variable of the present study is mindfulness and experiential avoidance.

Mindfulness: It was measured by Mindfulness Attention Awareness Scale (MAAS) (Özyeşil et al., 2011). MAAS is a 15 item self-reported questionnaire, which assesses mindfulness on a 6-point Likert scale. The scale gives a single total score that ranges from 0 to 60.

Experiential avoidance: It was measured by Acceptance and Action Questionnaire-II (AAQ-II) (Bond et al., 2011) with 7 items on a 7-point scale. The scale gives a total score and the scores can range from 7 to 49.

3.5.3. Endogenous Variables

Endogenous variables are equivalent to dependent variables. The endogenous variables of the current study are social interaction anxiety.

Social interaction anxiety: It was measured by Social interaction anxiety scale (Mattick & Clark, 1998), which is a 20-item self-report instrument. SIAS is a 5-point scale Likert type scale. The total score is calculated and the score range from 0 to 100.

3.6. Data Analysis

In the current study in accordance with the purpose, several steps were followed in order to develop a model of social interaction anxiety and test the prospective model. The model investigates the relationship between social interaction anxiety, mindfulness, experimental avoidance, rumination, cognitive reappraisal, expressive suppression and anxiety sensitivity. Specifically, social interaction anxiety was explored in terms of risk and protective factors. To that end, as main analysis Structural Equation Modeling (SEM) was used to test the proposed model and explain the relationships among variables by using LISREL 8.8 (Jöreskog & Sorbom, 1996). Prior to main analysis, in the first place to identify missing data, data screening and data cleaning procedure were completed. Then required assumption for the main analysis

was tested. In the third place, descriptive statistics were summarized. Data screening, identification of missing data, outlier analysis, normality controls and descriptive statistics were all conducted by using SPSS 22 (IBM Corp., 2013). Prior to SEM analysis item parceling was done. Finally, SEM was run to test the model. Measurement and structural models were evaluated, direct, indirect and total effects for variables were explored.

3.7. Limitations of the Study

The current research has some possible constraints and limitations. The primary limitation of the current study was generalizability. The sampling method of the current study was convenient sampling rather than random sampling which quite sensitive to selection bias, influence control of implementer and can cause high sampling errors. The sample is comprised of English Language Preparatory School students of a state university. In sum, the present study tested the model of social interaction anxiety with the current sample thus, these findings cannot be generalized to other samples.

Another limitation can be instrumentation. Because the English Language Preparatory School Directorship didn't give permission to the researcher in order to collect data in classes, the application of instruments was conducted by instructors. Although to standardize the data collection procedure, the researcher took necessary precautions and provided structured detailed verbal and written instruction to instructors, monitoring the data collection process in each class was not possible.

The other limitation is the cross-sectional nature of the present study. As the study is cross-sectional and correlational, interpreting causality is not possible, thus findings need to be interpreted by considering this fact. Beside from cross-sectional nature, the study is limited to some of the cognitive factors that have an effect on social interaction anxiety, however social anxiety, which is the base of interaction anxiety, has been affected by many factors that is not taken into consideration in this study.

CHAPTER 4

RESULTS

Findings of the current study are presented in this section. Firstly, assumptions of the SEM are checked. Secondly, descriptive statistics of the study variables and bivariate correlations among variables of the study are given. Thirdly, measurement model to illustrate the validity of measurements is addressed. And in the fourth section, results regarding the Structural Equation Modelling analysis (SEM), are demonstrated.

4.1. Preliminary Analyses

SPSS 22 (IBM Corp., 2013) was used in all preliminary analysis. The data were screened in order to detect any missing value, misentry, and outliers in the data set. For detection procedure frequency tables were used to figure out any extreme cases and misentry.

4.2. Assumptions of SEM

After a succession of data screening, the assumptions of SEM missing data, sample size, outliers, normality, linearity and homoscedasticity, and multicollinearity were checked.

4.2.1. Missing Data

There are many reasons of missing data and various methods such as complete cases analysis, pairwise deletion, mean substitution and regression-based single imputation (Kline, 2016; Schumacker & Lomax, 2010) to deal with them. However, before deciding the right method, Tabachnick and Fidell (2013) suggest the examination of

the pattern of missing data. Rubin (1976) claims three mechanisms to understand the pattern of missing data, which are missing at random (MAR), missing completely at random (MCAR), and missing not at random (MNAR). Hence, to understand if the missing data were random or not Little's MCAR tests were conducted for each scale.

Test results for each instrument presented statistically non-significant chi-square values, which indicates random pattern, thus it was recommended that any method to deal with missing data give the same estimation for correlation and covariance (Little & Rubin, 2002).

In consideration of MCAR tests results and references about handling missing data, a decision to continue with mean substitution method was made. Missing values that exceed 5% is problematic for further analysis (Tabachnick & Fidell, 2013). However, when missing cell number is below 5% of the total cells for the targeted items in the scale, mean substitution method is suggested to cope with missing data.

There were 8 missing values in the data, which did not exceed 5% of the total. There were various methods to handle the missing data such as mean substitution, pairwise deletion, regression, substitution, pattern matching, expectation-maximization algorithm, and full information maximum likelihood.

Kline (2016) suggested that techniques superior to other; but acknowledged the necessity to report all missing data handling analyses used in the study, in cases where it influences the results of the main analysis.Thus in the current study as Kline (2016) suggested classical method which is mean substitution and a modern method that is expectation-maximization algorithm were used. The main analysis results did not yield any significant difference between these two methods. Thus to handle with missing data the method of mean substitution was used.

4.2.2. Outlier Analysis

Detection of outliers is a necessary process for the SEM, which is a more complex form of correlation analysis because of its effect on error rates and estimation accuracy (Zimmerman, 1994). Moreover, outliers especially can have an impact on results of correlation values due to its power on the distortion of mean and standard deviation from regularly expected variations (Schwager & Margolin, 1982; Zimmerman, 1994).

In order to detect univariate and multivariate outliers, different procedures were used. First, univariate outliers were examined by with standardized z scores. Tabachnick and Fidell (2013) suggest that to detect univariate outliers, standardized Z-score values need to be between +3.29 and -3.29 ($p < .001$, two-tailed test). The Z-scores of the obtained for the present study is demonstrated in table 4.1. In terms of univariate outlier analysis, findings indicated that there were no univariate outliers in each scale.

Table 4. 1

Minimum and Maximum Values Related to Z-Scores of Major Variables (N=645)

	Minimum	Maximum
Zscore(Mindfulness Attention Awareness Scale	-3.03	2.87
Zscore(Social Interaction Anxiety Scale)	-2.11	3.20
Zscore(Acceptance and Action Questionnaire-II)	-1.64	2.81
Zscore(Ruminative Response Scale)	-2.09	2.89
Zscore(Cognitive Reappraisal Scale)	-3.16	1.79
Zscore(Expressive Suppression Scale)	-2.14	2.23
Zscore(Anxiety Sensitivity Index-3)	-1.56	3.19

In addition to univariate outliers, multivariate outliers were also checked. Mahalanobis distance values were used through χ^2 distributions. The cases above critical χ^2 value are considered as problematic (Tabachnick & Fidell, 2013). The critical χ^2 value was determined by critical value table for chi-square distribution.

Critical χ^2 value was 24.322 ($\alpha = .001$) and 4 cases were found above this critical value $\chi^2(7) = 24.322$, ($p < .001$). Before omitting these problematic cases, two different

datasets were created in order to measure the difference in the calculation with these four cases. There was no any difference in the results, thus researcher decided to include these outliers to the dataset.

4.2.3. Sample Size Adequacy

There are many arguments about sufficient sample size for SEM. One of the suggestions is based ratio of cases to free parameters. The preferred goal is to have 20:1 ratio for cases to the number of model parameters, however, it was asserted that 10:1 is a more realistic goal (Kline, 2016). Also, Hair et al. (2010) determine a cut-point for this ratio as 5:1 as yet less than this ratio is not recommended for the instability of estimation. With 29 observed variables, 29 error variance and 7 latent variables with 21 correlation, the study had a total of 79 free parameters. In the light of proposed ratio, the sample size (N=645) was found sufficient according to Hair et al (2010) criterion.

Other recommendations about sufficient sample size for SEM also support the sample size of the current study. Hoelter (1983) asserts that a critical N of 200 points out satisfactory fit. Thus, Hoelter's critical N was calculated, in other words, largest sample size for accepting satisfactory fit was estimated and found as 254.30, which is approximately three times smaller than the current sample size. In addition to these calculations, Kline (2016) and Tabachnick and Fidel (2013) advised that at least 200 cases need to conduct SEM. By considering these references it can be concluded that the sample size of the present study was sufficient for the SEM.

4.2.4. Normality

At first, univariate normality was checked via exploration of skewness (symmetry of the distribution) and kurtosis (peakedness of the distribution) values; histograms; Q-Q plots and Box plots of the all variables. As demonstrated in Table 4.2, skewness values were found to range from -.64 to .61 and kurtosis values were found to range from -

.60 to .22 which are accepted as in the limits of Skewness and Kurtosis values between +3.29 and -3.29 ($p < .001$, two-tailed test) (Kline, 2016; Stevens, 2009). Furthermore, visual check of histograms and Q-Q plots showed no great deviation from normality. In all normal and detrended normal Q-Q plots all cases are distributed around the lines.

Table 4. 2

Skewness and Kurtosis Values for Scales

	Skewness	*SE*	*Kurtosis*	*SE*
Mindfulness Attention Awareness Scale	.01	.10	-.15	19
Social Interaction Anxiety Scale	.27	.10	-.35	19
Acceptance and Action Questionnaire-II	.49	.10	-.43	19
Ruminative Response Scale	.38	.10	-.30	19
Cognitive Reappraisal Scale	-.64	.10	.22	19
Expressive Suppression Scale	-.10	.10	-.60	19
Anxiety Sensitivity Index-3	.61	.10	-.13	19

Multivariate normality was examined by using Mardia's test. The results of Mardia's test presented significant alpha which means a violation of multivariate normality, to inhibit for bias due to multivariate non-normality Satorra-Bentler chi-square was used instead of normal chi-square (Satorra & Bentler, 1988; 1994).

In the current study the multivariate normality assumptions were violated thus to inhibit for bias due to multivariate non-normality it is suggested to use item parceling method (Bandalos, 2002; Little, Cunningham, Shahar, &Widaman, 2002). Item parceling is a method of producing one item by summing or calculating average scores for multiple items (Bandalos, 2002; Little et al., 2002). It is suggested that in SEM analysis, instead of single individual score, the sum or mean scores can be used to indicate latent variable (Bandalos 2002; Yang, Nay, & Hoyle, 2010). Marsh, Hau, Balla and Grayson (1998) found that items between two to twelve give more appropriate solutions without parceling, however, more than twelve items questionnaire gives proper solutions when parceled.

Nasser and Takahashi (2003) claimed that item parceling decrease the complexity of model by decreasing the number of latent variable's indicators. Moreover, researchers suggested to use item parceling to overcome the violation of multivariate normality (Kline, 2016), to get better fit indexes (Matsunaga, 2008; Thompson & Melancon,1996), to optimize variables to sample size ratio, to decrease error which is caused by systematic errors of individual items (Bandalos, 2002; Kline, 2016; Little et al., 2002; Yang et al., 2010). Beside from advantages of using item parceling, researchers previse that to use item parceling, a scale which will be parceled need to have a unidimensional structure to avoid biased structural parameters (Bandalos, 2002; Little et al., 2002; Yang et al., 2010). For the current study unidimensional structure of all instruments was proved. In a brief to overcome the effect of violation of multivariate normality and to have advantages of item parceling, it was decided to continue by using item parceling method. Three methods are used while utilizing parceling procedure. First one is a random assignment which requires assigning items randomly to parcels; the second one is a factorial algorithm in which assignment is done according to factor loadings of items; the third one is a correlational algorithm in which parcels are formed based on the magnitude of correlations among the items (Matsunaga, 2008). For the current study factorial algorithm method was utilized.

4.2.5. Linearity and Homoscedasticity of Residuals

Linearity and homoscedasticity assumption was checked by way of visual examination of bivariate scatterplots and residual plots for each scale. The visual inspection of residual plots no apparent pattern in the scatter plot of predicted value and residuals were explored. In addition, it is expected to have an equal variance between predictor variables to reach linearity, inspection of scatter plots presented oval-shaped which indicate the relations in data set are linear (Tabachnick & Fidell, 2013). In the light of findings of the visual inceptions, it was inferred that linearity and homoscedasticity assumptions were not violated, the variance of the error term was constant across each value of the predictor (Hair et al., 2010).

4.2.6. Multicollinearity

Multicollinearity can be assessed by correlation matrix (Pearson), variance inflation factor (VIF) or tolerance values. In multicollinearity assumption, it is expected to not to have a high correlation between variables, Tabachnick and Fidell (2013) suggest a cutoff point for correlation coefficient higher than .90 and Stevens (2009) recommends a cutoff of point as $r \geq .80$. The correlation matrixes between all variables have found to range between -.48 and .63 thus no correlation that exceeded the cutoff point (Table 4.3). This finding indicates satisfaction of multicollinearity assumption.

Table 4. 3

Bivariate Correlations between Variables of the Study

	Mindfulness	Social Interaction Anxiety	Experiential Avoidance	Rumination	Cognitive Reappraisal	Expressive Suppression	Anxiety Sensitivity
Mindfulness	-						
Social Interaction Anxiety	-.37**	-					
Experiential Avoidance	-.48**	.46**	-				
Rumination	-.40**	.32**	.63**	-			
Cognitive Reappraisal	.19**	-.21**	-.25**	-.13**	-		
Expressive Suppression	-.25**	.32**	.22**	.20**	-.03**	-	
Anxiety Sensitivity	-.44**	.42**	.56**	.51**	-.17**	.20**	-

**p<.01

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In addition to correlation matrix values, VIF and tolerance values also calculated to provide evidence for multicollinearity. Kline (2016) highlighted that tolerance value should be more than .10 to verify the assumption. On the other hand VIF values, more than .10 would cause a violation (Kline, 2016). The tolerance values changed between .92 and .48 while VIF values changed between 1.08 and 2.10. All values were within expected limits. Therefore, the assumption of multicollinearity was not violated.

4.3. Descriptive Statistics

The means, standard deviations, maximum and minimum scores regarding all study variables were presented in Table 4.4. At first, the mean score that was taken from social interaction anxiety was reported as 28.26 (SD=13.37). The mean social interaction anxiety score of participants in the current study were close to the mean scores measured by SIAS in other studies. For example in a study conducted with a community sample composed of African Americans mean score of 31.22 (Carter, Sbrocco, Tang, Rekrut, & Condit, 2014) was reported for the social interaction anxiety. The Spanish version of the scale that was employed to 1012 Spanish students from age 13 to 19, also yielded the mean score of 21.43 for male students and 23.70 for female students. Mattick and Clarke (1998) suggested that higher scores in SIAS indicated the higher level of social interaction anxiety and they suggested a cutoff point of 43 for pathological social interaction anxiety. Thus participants of the current study had a lower level of social interaction anxiety than the proposed cut of point. Secondly, for the exogenous variables of the study; the mean score of rumination was 22.60 (SD=6.00) was obtained.

Similarly, in a study done by Erdur-Baker and Bugay (2012), the mean score rumination was reported as 22.1 for female and 21.1 for male college students. Thirdly, the mean score of cognitive reappraisal was found as 28.98 (SD=7.28), the minimum and maximum score is taken from cognitive reappraisal scale 6 and 42; the mean score of expressive suppression was 15.76 (SD=5.48), the minimum and

maximum score taken from expressive suppression scale were 4 and 28. In the Turkish adaptation study of emotion regulation questionnaire mean score for reappraisal was reported as 25.9 and 14.3 for expressive suppression (Yurtsever, 2004). In the current study, cognitive reappraisal and expressive suppression mean scores are similar to current participants mean score.

The mean score of anxiety sensitivity was 21.08 (*SD*=13.51), the minimum and maximum score is taken from anxiety sensitivity scale were 0 and 64. In the development and validation study of ASI-3, which was conducted with 4.720 university students, the mean score was reported as 27.5 for generalized anxiety disorder group. For nonclinical groups mean scores was reported as 12.8 for Canadian sample, 16.4 for France sample, 15.2 for Mexico sample, 10.7 for the Netherlands sample, and 14.2 for Spain sample. Thus it can be inferred that anxiety sensitivity index scores of participants of the current study are lower than the generalized anxiety group of original study. Lastly, descriptive statistics of the moderator variables, which were mindfulness and experiential avoidance, were informed. Among moderator variables, mindfulness had a mean of 58.31 (*SD*=10.34) and experiential avoidance had a mean of 22.48 (*SD*=9.43). The maximum score for mindfulness was presented as 88 and maximum score for experiential avoidance was reported as 49. For the minimum scores, respondents took a minimum score of 27 from mindfulness and 7 from experiential avoidance.

Table 4. 4

Means, Standard Deviations, Maximum and Minimum Scores of Variables

	Score Range	Min.	Max.	*M*	*SD*
Social Interaction Anxiety	0-80	.00	71.00	28.26	13.37
Mindfulness	15-90	27.00	88.00	58.31	10.35
Experiential Avoidance	7-49	7.00	49.00	22.48	9.43
Rumination	10-40	10.00	40.00	22.60	6.00
Cognitive Reappraisal	6-42	6.00	42.00	28.98	7.28
Expressive Suppression	6-28	4.00	28.00	15.76	5.48
Anxiety Sensitivity	0-72	.00	64.00	21.08	13.51

4.4. Model Testing

In order to test a model for social interaction anxiety and to figure out the role of rumination, cognitive reappraisal, expressive suppression and anxiety sensitivity in this model through the moderator effect of mindfulness and experiential avoidance, all variables were tested in the measurement model.

Before conducting SEM, a measurement model was tested to evaluate the relationship between latent and observed variables. For the second step, the structural model was tested by SEM. In the last step, the total, direct and indirect effects were evaluated. In consideration of statistical significance of SEM results, several goodnesses of fit indices have been suggested.

Despite the fact that there are no specific rules about which fit indices will be used to evaluate the structural model, most used fit indices were combined to assess the statistical significance of the tested model. In the current study, model fit indices of chi-square value (χ^2), root-mean-square error of approximation (RMSEA), the Bentler comparative fit index (CFI), Non-Normed-Fit Index (NNFI), Standardized Root Mean Square Residual (SRMR) and the goodness of fit index (GFI) were evaluated to test the proposed model.

At first, model fit index of chi-square value (χ^2) was investigated, however, as χ^2 is very sensitive to sample size, it is recommended to interpret normed chi-square, which is chi-square/ degrees of freedom ratio and symbolized as χ^2/df (Kline, 2016). χ^2/df value is anticipated to be smaller than 3 (Kline, 2016) or 5 (Schumacker & Lomax, 2010).

However, in the current study, the multivariate assumption of SEM was violated which means multivariate normality was not ensured. In the case of multivariate non-normality, maximum likelihood method can present biased results like increasing the probability of type I error (Enders, 2006).

In structural equation models, use of robust maximum likelihood estimation was suggested to deal with non-normality (Curran, West, & Finch, 1996; Hu, Bentler, & Kano, 1992; Satorra & Bentler, 1988; 1994). Besides using robust maximum likelihood estimation, using the Satorra-Bentler scaled chi-square is proposed to have more accurate chi-square with non-normal data (Satorra & Bentler, 2010). Thus in the current study, Satorra-Bentler chi-square value was evaluated. Furthermore, to adjust fit indices and standard errors to non-normal data, weight matrix was computed, therefore asymptotic covariance matrix was used instead of the covariance matrix (Jöreskog & Sörbom, 1996).

The second fit index, which was used in the current study, is a root-mean-square error of approximation (RMSEA) that is expected to be between .05 and .08 (Schumacker & Lomax, 2010) or offered to be smaller than .10 (Byrne, 2010).

The third fit index was NNFI value which is claimed to be smaller than .93 or .95 (Bentler, 1990; Byrne, 2010; Hu & Bentler, 1999). Fourth fit index CFI was assessed by using the criterion of being higher than .90 (Byrne, 2010; Hu & Bentler, 1999; Schumacker & Lomax, 2010). The fifth fit index was GFI which is goodness of fit index was suggested to be 90 or above (Byrne, 2010; Hu & Bentler, 1999) and for the final fit index SRMR values was evaluates, which is expected to be smaller than .80 (Hair et al., 2010; Hu & Bentler, 1999).

4.4.1. Model Description

Prior to SEM, Item parceling is a method of producing one item by summing or calculating average scores for multiple items (Bandalos, 2002; Little et al., 2002) was utilized. In consideration of parceling factorial algorithm method in which assignment is done according to factor loadings of items, is used in the current study. In the current study, some variables were used with parceling some were not. To give a precise description of the model, the observed and latent variables were given in Table 4.5.

Table 4. 5

Latent and Observed Variables

Latent Variables	Observed Variables (with item parceling)
Social Interaction Anxiety	SAP1, SAP2, SAP3, SAP4
Mindfulness	MP1, MP2, MP3
Expressive Suppression	ERS1, ERS2, ERS3, ERS4
Rumination	RUP1, RUP2
Anxiety Sensitivity	ASP1, ASP2, ASP3
Latent Variables	Observed Variables (without item parceling)
Experiential Avoidance	AAQ1, AAQ2, AAQ3, AAQ4, AAQ5, AAQ6, AAQ7
Cognitive reappraisal	ERR1, ERR2, ERR3, ERR4, ERR5, ERR6

4.4.2. Measurement Model

In the first instance, the measurement model was examined by enabling latent variables to correlate to understand the relationship between latent variables of and their observed variables and to figure out any necessity for adjustment in the hypothesized model. In brief, to saturate the structure model, a measurement model was tested.

In the measurement model of current study latent variables of social interaction anxiety, mindfulness, experiential avoidance, rumination, cognitive reappraisal, expressive suppression and anxiety sensitivity was investigated.

The findings of measurement model indicated the fit indices for all the latent variables as [Satorra-Bentler $\chi^2(354) = 845.27$, $p = .00$; $\chi^2/df\text{-}ratio = 2.39$; *RMSEA* $= .05$; *CFI* $= .98$; *NNFI* $= .98$; *GFI* $= .90$; *SRMR* $= .05$]. According to model fit indices, CFA results indicated good fit for the proposed model, goodness of fit indices showed a good fit regarding the fit indices criterions (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010).
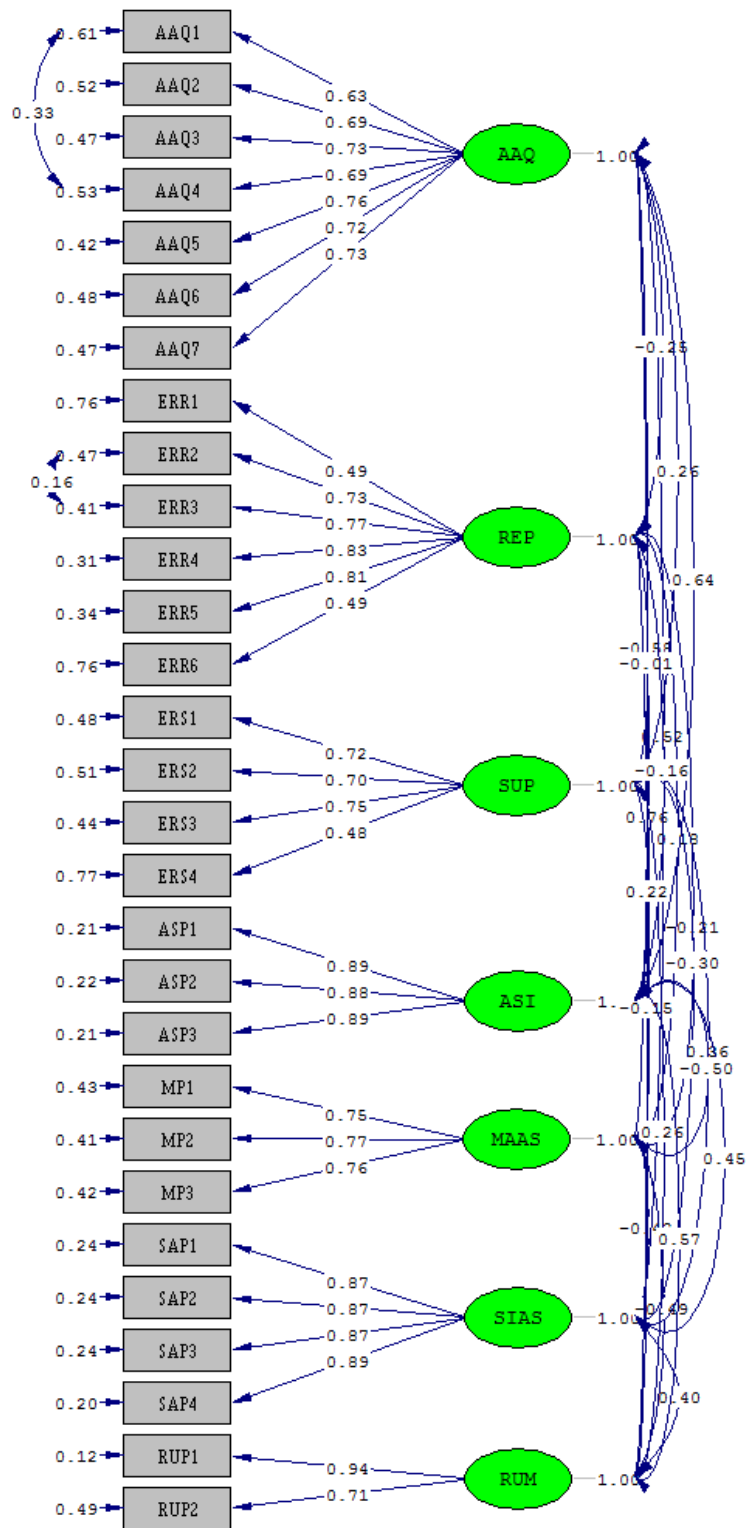
Figure 4. 1 Measurement Model

In addition to model fit indices, t values, standardized and unstandardized estimate and explained variance were also examined. All t values for were found significant as they all greater than 1.96. Standardized estimates were demonstrated a distribution between the value of .48 and 94. Unstandardized estimates were found to be ranged between 0.72 and 4.49. Variance explained for each variable was found to be changed between %23 and %89 (Table 4.6).

Table 4. 6

The Unstandardized and Standardized Estimates, t Values and Explained Variance (R^2) for Measurement Model

Construct	Item	Unstandardized Estimates	Standardized Estimates	t	R^2
Social Interaction Anxiety	SAP1	3.27	.87	28.24	.79
	SAP2	3.12	.87	28.44	.76
	SAP3	3.22	.87	28.89	.76
	SAP4	3.27	.89	32.20	.80
Mindfulness	MP1	3.12	.75	20.67	.57
	MP2	3.19	.77	22.16	.59
	MP3	2.97	.76	20.77	58
Experiential Avoidance	AAQ1	1.07	.63	17.10	.39
	AAQ2	1.15	.69	19.49	.48
	AAQ3	1.26	.73	24.73	.53
	AAQ4	1.19	.69	19.25	.47
	AAQ5	1.31	.76	25.62	.58
	AAQ6	1.39	.72	23.85	.52
	AAQ7	1.35	.73	22.96	.53
Rumination	RUP1	2.99	.94	27.37	.88
	RUP2	2.42	.71	19.45	.51
Cognitive Reappraisal	ERR1	.72	.48	10.60	.24
	ERR2	1.16	.78	18.40	.53
	ERR3	1.19	.73	19.97	.59
	ERR4	1.36	.83	23.66	.69
	ERR5	1.35	.81	23.55	.66
	ERR6	.85	.49	11.61	.24
Expressive Suppression	ERS1	1.34	.72	19.12	.52
	ERS2	1.22	.70	18.56	.49
	ERS3	1.41	.74	21.13	.56
	ERS4	.84	.48	11.91	.23
Anxiety Sensitivity	ASP1	4.49	.89	29.23	.79
	ASP2	4.29	.88	25.49	.78
	ASP3	4.15	.89	33.05	.79

As presented in Table 4.6 In accordance with modification indices, t values, standardized and unstandardized estimate and explained variance values, overall model was accepted.

4.4.3. Structural Model

In this section hypothesized model and the direct and indirect relationships among exogenous and endogenous variables were examined by Structure Equation Modeling. Structure model was examined with LISREL 8.80. Robust Maximum Likelihood estimation was used to eliminate bias caused by non-normality, thus Satorra-Bentler scaling-corrected test statistic was produced (Satorra & Bentler, 2010). Moreover, the model fit indices of *RMSEA*, *CFI, NNFI*, *GFI,* and *SRMR* was provided to control the goodness of fit for the proposed model. The results of the structural model illustrated as Satorra-Bentler $\chi^2(355) = 864.89$, $p = .00$; $\chi2/df\text{-}ratio = 2.44$; *RMSEA = .05*; *CFI = .98*; *NNFI= .98*; *GFI = .90*; *SRMR = .05*. According to reference fit indices for structural equation model, model fits ındices for the hypnotized model demonstrate good fit regarding the fit indices criterions (Bentler, 2010; Byrne, 2010; Hair et al., 2010; Hu & Bentler, 1999; Klein, 2011; Schumacker & Lomax, 2010).

In accordance with structural part of the model, the regression coefficients for each proposed direct relationship were examined. The regression coefficients in other words paths indicated 12 statistically significant paths out of 14 direct paths. The significant coefficients ranged between -.29 and .59. The total of 11 statistically significant paths were as follows; from cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity to mindfulness; from rumination, cognitive reappraisal, anxiety sensitivity to experiential avoidance; from exogenous variable cognitive reappraisal, expressive suppression and anxiety sensitivity to social interaction anxiety; and from mindfulness and experiential avoidance to social interaction anxiety. The statistically non-significant pats were the direct paths from expressive suppression to experiential avoidance and from rumination to social interaction anxiety. In Figure 4.2 the

standardized parameter estimates were depictured, non-significant paths were demonstrated as a red arrow.
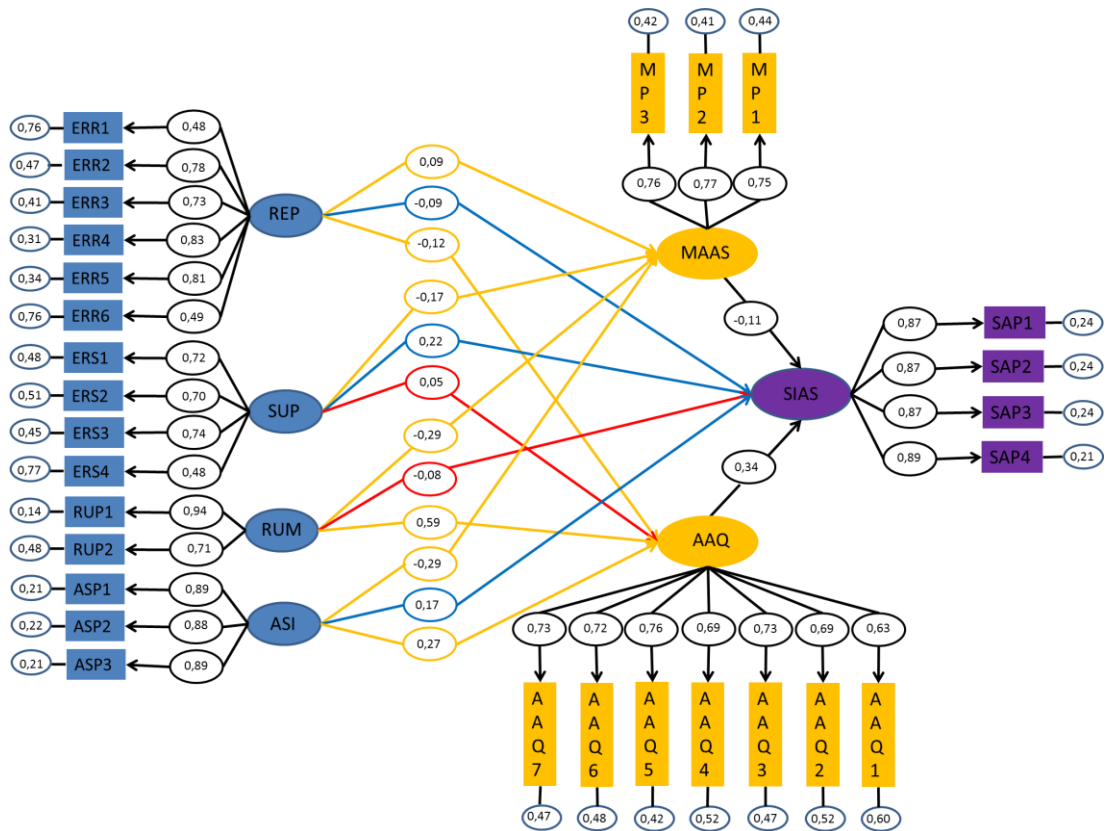
Figure 4. 2- Structural Model with Standardized Estimates, Significant and Non-Significant Paths

In pursuance of defining the proportion of variance that was explained by each latent variable, the squared multiple correlation coefficients (R^2) were investigated. In Table 4.7, R^2 values for mindfulness, experiential avoidance and social interaction anxiety in the structural model were presented.

The results of R^2 values for explained variance in the structural model indicated that the cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity accounted for 37% of the variance in mindfulness, and 67% of the variance in experiential avoidance. Furthermore, together with mindfulness, experiential

avoidance, cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity explained 36% of the variance in social interaction anxiety.

Table 4. 7

Squared Multiple Correlations for Proposed Structure Model

Latent Variables	R^2
Mediator Variables	
Mindfulness	.37
Experiential Avoidance	.67
Endogenous Variable	
Social Interaction Anxiety	.36

4.4.4. Direct, Indirect and Total Relationships

In the structure model, the statistically significant and non-significant direct paths for latent variables were given, in this section, all direct, indirect and total effects were investigated. The direct effects from three exogenous variable; cognitive reappraisal ($\beta = -.09$ $p < .05$), expressive suppression ($\beta = .22$, $p < .01$) and anxiety sensitivity ($\beta = .17$ $p < .01$) to endogenous variable which was social interaction anxiety were statistically significant, however only one direct effect from rumination ($\beta = -.08$, $p > .05$) to social interaction anxiety was found non-significant.

In line with Kline (2016) effect size values for standardized path coefficient (β), the values below .10 were accepted as small effect size, while values around .30 approved as medium effect size and values higher than .50 approved as large effect size.

According to the effect size values stated by Kline (2016), it can be concluded that the effect size of cognitive reappraisal on social interaction anxiety was small, while effect size of expressive suppression and anxiety sensitivity on social interaction anxiety was medium.

Moreover, the sign of coefficient describes the direction of the relationship, according to effect size and relation directions, it can be concluded that individuals who use

cognitive reappraisal more as a coping strategy feel less social interaction anxiety. On the contrary, individuals who use expressive suppression more as coping strategy and who are more sensitive to anxiety feel more social interaction anxiety.

The direct effect of all exogenous variables; cognitive reappraisal ($\beta = .09\ p < .05$), expressive suppression ($\beta = -.17\ p < .01$), rumination ($\beta = -.29\ p < .01$), and anxiety sensitivity ($\beta = -.29\ p < .01$), on mindfulness were statistically significant. The rumination, expressive suppression and anxiety sensitivity were found to have a medium effect on mindfulness, while cognitive reappraisal has a small effect. That is, individuals who use more expressive suppression, rumination and who are more sensitive to anxiety are less mindful, while the individual who uses more cognitive reappraisal are more mindful.

The direct effects between experiential avoidance and endogenous variables, which are rumination ($\beta = .59\ p < .01$), cognitive reappraisal ($\beta = -.12,\ p < .01$) and anxiety sensitivity ($\beta = .27,\ p < .01$) were statistically significant. Only one endogenous variable that is expressive suppression ($\beta = .05,\ p>.05$) was found to have a non-significant direct effect on experiential avoidance. To be clearer, individuals who use more rumination and who are more sensitive to anxiety, engage more experiential avoidance behavior. On the other hand, individuals who utilize cognitive reappraisal more, use less experiential avoidance strategy.

In the next step, the indirect effects of exogenous variables on the endogenous variable through the influence of mindfulness and experiential avoidance were investigated. At first, the indirect effect of exogenous variables on social interaction anxiety via mindfulness was examined.

Findings indicated that expressive suppression ($\beta = .02\ p < .05$), rumination ($\beta = .03\ p < .05$) and anxiety sensitivity ($\beta = .03\ p < .05$) have significant positive indirect effect on social interaction through mindfulness. Although cognitive reappraisal indicated significant direct effect for mindfulness and for social interaction anxiety, it did not

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demonstrate significant results (β = -0.01> .05) for indirect effect on social interaction anxiety via mindfulness. Moreover, although rumination presents a non-significant direct relationship with social interaction anxiety, its indirect relation via mindfulness indicates significant indirect effect, which means mindfulness fully; influence the relationship between rumination and social interaction anxiety. Concisely, mindfulness is one of the protective variables that effect the relationship between risk factors for anxiety and social interaction anxiety.

For another variable experiential avoidance, the indirect effect of cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity on social interaction anxiety via experiential avoidance was investigated. Results revealed that cognitive reappraisal (β =-.04, $p < .05$) presents negative and significant indirect relationship, rumination ($\beta = .20$ $p < .05$) and anxiety sensitivity ($\beta = .09$ $p < .05$) have shown significant positive indirect effect on social interaction through experiential avoidance. Only expressive suppression ($\beta = 0.02> .05$) did not indicate significant indirect effect for social interaction anxiety via experiential avoidance.

The total effects, which are the sum of the direct and indirect effect of the exogenous variable on endogenous variable, were also examined. All total effects of the exogenous variable on endogenous variables were found significant; cognitive reappraisal ($\beta= -.14$, $p<.01$), expressive suppression ($\beta=.26$, $p<.01$), rumination ($\beta=-.15$, $p<.05$) and anxiety sensitivity ($\beta=.29$, $p<.01$). All direct, indirect and total effects were demonstrated in Table 4.8.

Table 4. 8

Direct, Indirect, and Total Effects of the Proposed Structural Model

Direct Effects	β
Cognitive Reappraisal → Social Interaction Anxiety	-.09[*]
Expressive Suppression → Social Interaction Anxiety	.22[**]
Rumination → Social Interaction Anxiety	-.08
Anxiety Sensitivity → Social Interaction Anxiety	.17[**]
Cognitive Reappraisal → Mindfulness	.09[*]
Expressive Suppression → Mindfulness	-.17[**]

Table 4.8 (continued)

Direct, Indirect, and Total Effects of the Proposed Structural Model

Direct Effects	β
Rumination → Mindfulness	-.29**
Anxiety Sensitivity → Mindfulness	-.29**
Cognitive Reappraisal → Experiential Avoidance	-.12**
Expressive Suppression → Experiential Avoidance	.05
Rumination → Experiential Avoidance	.59**
Anxiety Sensitivity → Experiential Avoidance	.27**
Mindfulness → Social Interaction Anxiety	-.11*
Experiential Avoidance → Social Interaction Anxiety	.34**
Indirect Effects	
Cognitive Reappraisal → Mindfulness → Social Interaction Anxiety	-.01
Expressive Suppression → Mindfulness → Social Interaction Anxiety	.02*
Rumination → Mindfulness → Social Interaction Anxiety	.03*
Anxiety Sensitivity → Mindfulness → Social Interaction Anxiety	.03*
Cognitive Reappraisal → Experiential Avoidance → Social Interaction Anxiety	-.04*
Expressive Suppression → Experiential Avoidance → Social Interaction Anxiety	.02
Rumination → Experiential Avoidance → Social Interaction Anxiety	.20**
Anxiety Sensitivity → Experiential Avoidance → Social Interaction Anxiety	.09**
Total Effects	
Cognitive Reappraisal → Social Interaction Anxiety	-.14**
Expressive Suppression → Social Interaction Anxiety	.26**
Rumination → Social Interaction Anxiety	.15*
Anxiety Sensitivity → Social Interaction Anxiety	.29**

*p<.05, **p<.01

4.5. Summary of the Results

In this section, the results of structural equation modeling were summarized. The relationship between variables of mindfulness, experiential avoidance, cognitive reappraisal, expressive suppression, rumination, anxiety sensitivity and social interaction anxiety was investigated. In furtherance of structure model, first required assumption for structural equation modeling was satisfied. Secondly, a measurement model was tested and accepted. Thirdly, the overall model was examined in terms of goodness of fit indices. Findings indicated a good fit, and the proposed model

accounted .36 of the explained variance in social interaction anxiety. After structural model testing, the direct, indirect and total effects of variables to outcome variable were examined. In explaining relationships between variables of the current study, direct and indirect effects were explained. According to results while cognitive reappraisal, expressive suppression, and anxiety sensitivity indicate significant direct effect on social interaction anxiety, rumination did not. For the indirect effect of exogenous variables on social interaction anxiety via mindfulness all of the exogenous variables demonstrated significant indirect effect except cognitive reappraisal. Different from the indirect effect of mindfulness, in the indirect effect of experiential avoidance only expressive suppression did not mark significant indirect effect. In accordance with the results, it can be concluded that increase in expressive suppression resulted in an increase in students' social interaction anxiety when their dispositional mindfulness low. It is same for anxiety sensitivity. The high level of anxiety sensitivity leads to high level of social interaction anxiety when students' dispositional mindfulness was low. In cognitive reappraisal, students' social interaction anxiety was found to decrease when cognitive reappraisal increases regardless of mindfulness. However, effect of cognitive reappraisal on social interaction anxiety is decreasing when students also have high experiential avoidance. It can be concluded that cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity predicted the level of social interaction anxiety level of participants through the indirect effect of mindfulness and experiential avoidance.

CHAPTER 5

DISCUSSION

In the current chapter, the general and specific findings regarding research questions and hypothesized models are discussed in consideration of relevant literature. Following the discussion of findings, implications of the result for practice and research studies are given. At the end of the present section recommendations for further research studies are presented.

5.1. Discussion of the Findings

The aim of the present study was to test a model to investigate the role of cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity in predicting social interaction anxiety through the indirect effect of mindfulness and experiential avoidance. In line with this purpose, descriptive statistics were analyzed in terms of scores that students took from measures. Then the measurement model was first tested to examine the reliability of each indicator and latent constructs for investigating the causal relationship. After goodness of fit indices was controlled for the measurement model, the structural model was tested. In the structural model, the role of cognitive reappraisal, expressive suppression, rumination and anxiety sensitivity in predicting social interaction anxiety through the indirect effects of mindfulness and experiential avoidance were tested.Descriptive statistics indicated that, preparatory class students' social interaction anxiety scores were in the limits, which indicated that their social interaction anxiety level was not high. In terms of model, the results indicated that the proposed structural model fitted the data well.

Furthermore, in the current model direct and indirect effects were assessed. The results indicated that majority of direct and indirect effects were significant. The overall

model was found to account for the 36% of the variance in social interaction anxiety scores, while the variance accounted for mindfulness and experiential avoidance were 37% and 67% respectively. In the model, the only rumination did not reveal significant results. While mindfulness indicated significant relationships with all indicators, experiential avoidance did not mark significant relationships only with expressive suppression. All indirect paths accept the relationship between cognitive reappraisal and social interaction anxiety, through mindfulness and the relation between expressive suppression and social interaction anxiety via experiential avoidance did not present significant results. The results of these direct and indirect effects were discussed below.

5.1.1. Discussion of the Direct Effects and Indirect Effects

In this part, the research questions were addressed and the direct and indirect effects between exogenous variables; cognitive reappraisal, repression, rumination, anxiety sensitivity and exogenous variable social interaction anxiety right along with mindfulness and experiential avoidance were discussed.

Cognitive reappraisal as an exogenous variable had a negative and significant direct effect on social interaction anxiety, which means that individuals who engage in more cognitive reappraisal experience less social interaction anxiety. This finding was also parallel with the current literature that emphasizes the detractive influence of cognitive reappraisal on social anxiety in interpersonal domains (Butler et al., 2003; Cutuli, 2014; Goldin, McRae, Ramel, & Gross, 2008; Gross & John, 2003; Kashdan & Farmer, 2012; Richards et al., 2003). One explanation for this result might be that individuals who use cognitive reappraisal are perceived by others as responsive and emotionally pleasing (Cutuli, 2014), which makes interaction less stressful for them (Richards et al., 2003). The other one could be that, due to reevaluation made by individuals who use cognitive reappraisal, the emotion-evoking situation may change its meaning and emotional impact for these individuals which in turn may decrease the level of anxiety regarding the social interaction.

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The significant and positive direct effect of cognitive reappraisal on mindfulness was also found in the current study. That is, individuals who use more cognitive reappraisal are more disposed towards mindfulness. In other words, reinterpreting the emotion-evoking situation and altering meaning to adapt to the emotion-evoking situation can decenter individuals from the anxiety-evoking situation and can help individuals to turn to their inner world which provides internal awareness. Literature suggests that mindfulness and cognitive reappraisal positively foster one another (Garland, Gaylord, & Park, 2009). Thus, this finding was in harmony with previous findings as well (Desrosiers, Vine, Klemanski, & Nolen-Hoeksema, 2013; Hölzel et al., 2011; Hill & Updegraff, 2012; Pepping, Davis, & O'Donovan, 2013; Tran et al., 2014).

In terms of the indirect effect of mindfulness in the association between cognitive reappraisal and social interaction anxiety; findings indicated non-significant results. Although emotion regulation was associated with anxiety, constructs of emotion regulation were suggested to have independent effects on anxiety (Aldao et al., 2014). Emotion regulation, which is adaptively effective on anxiety, was found to influence anxiety regardless of the mindfulness processes (Mennin, Heimberg, Turk, & Fresco, 2005). Moreover, mindfulness has been suggested as a substitute of the more traditional emotional coping strategy of cognitive reappraisal (Brockman, Ciarrochi, Parker, & Kashdan, 2016). Studies indicated that mindfulness and adaptive emotion regulation strategies accounted for shared variance in symptoms of general anxiety (Roemer, Orsillo, & Salters-Pedneault, 2008). These findings support the insignificant indirect effect of mindfulness on the relationship between cognitive reappraisal and social interaction anxiety. That is, mindfulness did not change the level of social interaction anxiety among individuals who used cognitive reappraisal.

Moreover, in the literature, there are some contradictory results that compare the effectiveness of cognitive reappraisal and mindfulness on anxiety (Keng, Robins, Smoski, Dagenback, & Leary, 2013; Szasz, Szentagotai, & Hofmann, 2011). While Szasz et al., (2011) found that cognitive reappraisal was more useful than mindfulness

in anxiety situations. In the current study, mindfulness was found to account for more variance than cognitive reappraisal on social interaction anxiety.

Another finding in relation to cognitive reappraisal was related to experiential avoidance. There was a negative and significant relationship between those two variables. This finding indicated that the increase in the usage of cognitive reappraisal resulted in a decrease in experiential avoidance. This result was also in line with previous studies (Blechert et al., 2015; Goldin et al., 2008; Gross, 1998; Gross, 2014; Gross & John, 2003). Cognitive reappraisal was reported to reduce emotional experiences (Goldin et al., 2008; Gross & John, 2003) by reformulating the interpretation of anxiety evoking situations (Gross, 1998). In this way, it was asserted to help social functioning (Gross, 2002; Ochsner, Bunge, Gross, & Gabrieli, 2002). Specifically, revaluation of an emotion-evoking situation in a more acceptable way that leads to a decrease in emotions help individual to accept the situation and prelude avoidance from inner experiences.

Cognitive reappraisal was claimed to change individuals' view on social situations which help them to alter their emotional responses (Blechert et al., 2015; Gross, 2014), thus even if individual use experiential avoidance, a cognitive reappraisal is still a predictor of social interaction anxiety. These findings also explain and support the findings of the current study that revealed a significant negative indirect effect of experiential avoidance on cognitive reappraisal and social interaction anxiety. That is to say, the more individuals use cognitive reappraisal the more their experiential avoidance decreases and the less they experience social interaction anxiety. In terms of the indirect effects of mindfulness on the relationship between cognitive reappraisal and social interaction anxiety findings indicated non-significant results.

The second exogenous variable was expressive suppression, which marked a significant positive direct effect on social interaction anxiety. This finding was consistent with literature which emphasized the positive correlation between emotional expressive suppression and social anxiety in interaction (Farmer & Kashdan, 2012; Gaebler, Daniels, Lamke, Fydrich, & Walter, 2014; Gross, 2015).

Moreover, expressive suppression demonstrated the highest loading in predicting social interaction anxiety in the current study. This result was in line with the study of Hofmann, Heering, Sawyer, and Asnaani (2009) who examined the effects of acceptance, cognitive reappraisal and expressive suppression on the social anxiety of undergraduate students and compared the influence of these structures on social anxiety by assigning students to three group. The results indicated that the expressive suppression group demonstrated the highest anxiety related symptoms than cognitive reappraisal and acceptance groups. Also, there was no difference between the cognitive reappraisal and acceptance groups. Together with these results, it can be concluded that expressive suppression has a strong effect on social interaction anxiety.

Many studies demonstrated that individuals with high social anxiety often preferred to use expressive suppression as an emotion regulation strategy (Farmer & Kashdan, 2012; Gross, 2015). Individuals who use expressive suppression as a regulation strategy tend to suppress both positive and negative emotions (Spokas, Luterek, & Heimberg, 2009; Werner & Gross, 2010). Thus, individuals who interact with individuals who use expressive suppression reported experiencing more stress than those who use adaptive regulation strategies (Butler et al., 2003). Suppressors were proposed as not responding individuals in interactional situations. The reason behind this was given as the inability of suppressors in taking required information from others (Moore & Zoellner, 2012) to respond appropriately, which inhibits the flow of the interaction (Cutuli, 2014). Moreover, as suppressors hide both their negative and positive emotions, their partners perceive them as undesirable and unreliable (Baumeister & Tice, 1990). All these factors contribute to social interaction anxiety of suppressors. More specifically, as expressive suppression is an effort to prevent emotion-expressive behavior when individuals try to suppress internal experiences and emotions, their anxiety in social situations increase which in turn cause an increase in the level of their social interaction anxiety. Chambers, Gullone, and Allen (2009) proposed that mindfulness is an emotion regulation strategy that is the opposite of expressive suppression. This is because when using mindfulness, individuals accept thoughts and emotions rather than subconsciously reacting to them. In the findings of

the current study, the significant direct relationship between expressive suppression and mindfulness also supported this premise, which was in line with the related line of literature (Brockman et al., 2016; Broderick, 2005; Chambers et al., 2009; Hayes et al., 1999). Studies demonstrated that mindfulness decreased the level of maladaptive emotion regulation (Baer et al., 2006; Hayes & Feldman, 2004). That is, the more expressive suppression is utilized; there is fewer dispositions to mindfulness. In other words, when individuals are too concentrated on hiding the expression of their emotions, they cannot turn to themselves, which prevents inner experiences and block attention to here and now that leads to decreases in mindfulness. This conclusion was also supported by the literature, which suggested that expressive suppression increased self-monitoring behaviors (Richards et al., 2003), which led individuals to excessively focus on possible social threats (Bögels & Mansell, 2004). Mindfulness, which involves an awareness of the present moment was claimed to outperform awareness of emotions. Stated in other words, when an individual is too occupied with self-monitoring, awareness of the present moment was affirmed to extend the experience of anxiety (Borkovec, 2002).

The finding regarding expressive suppression was about its direct effect on experiential avoidance. Results indicated a non-significant direct effect of expressive suppression on experiential avoidance, which signified that the efforts to hide expression of emotions was either not related to avoidance of inner unfavorable experiences or functioned as similar constructs. Both constructs were named as maladaptive emotion regulation strategies (Kashdan & Breen, 2008; Santanello & Gardner, 2007), and both of them were conceptualized as an avoidance strategy (Aldao et al., 2010; Aldao et al., 2014). Moreover, since both of the self-protective mechanisms serve as suppressors for thought and emotions, Hayes et al., (2003) suggested expressive suppression as a form of experiential avoidance. As these two constructs were suggested to measure similar regulation strategies, the non-significant effect found between these variables was reasonable.

Another finding of expressive suppression was about the indirect effect of experiential avoidance on the relationship of expressive suppression and social interaction anxiety. The indirect pathway connecting the expressive suppression and social interaction anxiety through experiential avoidance was non-significant. Existing studies examined experiential avoidance and expressive suppression constructs as mediators (e.g. Kashdan, Barrios, Forsyth, & Steger, 2006; Riley, 2014; Shi, Zhang, Zhang, Fu, & Wang, 2016; Wolgast, Lundt, & Vigor, 2013). Kashdan et al., (2006) for example found that experiential avoidance mediates the effect of expressive suppression on undesirable psychological outcomes. There is no study that directly examined the indirect influence of experiential avoidance on the association of social interaction anxiety and expressive suppression. In another study, the effect of expressive suppression on psychological well-being was found to be insignificant after controlling experiential avoidance (Wolgast et al., 2013). All of these studies demonstrated that there are no indirect effects of experiential avoidance behaviors on the association between expressive suppression and social interaction anxiety among university students. Concisely, experiential avoidance did not change the intensity of social interaction anxiety among individuals who suppressed their emotions.

Regarding the indirect effects of mindfulness on the relation of expressive suppression and social interaction anxiety, findings indicated that there was a positive relationship between expressive suppression and social interaction anxiety through the indirect effect of mindfulness. That is, the relationship between expressive suppression and social interaction anxiety was still significant with the effect of mindfulness. Specifically, when individuals suppress their emotions, their disposition to mindfulness decreased and this led to an increase the level of social interaction anxiety of individuals. There is no study except those studies in neuroscience that examined the link between mindfulness, emotion regulation, and social anxiety. Those studies demonstrated that emotion center of the brain responded exaggeratedly to anxiety evoking situations (Blair et al., 2008; Phan, Fitzgerald, Nathan, & Tancer, 2006) and that mindfulness changed the signals in the emotion center of the brain (Goldin & Gross, 2010). However, there are studies that can provide evidence for this finding.

Research findings demonstrated that mindfulness alleviated the effect of expressive suppression (Baer et al., 2006; Brockman et al., 2016; Broderick, 2005; Chambers et al., 2009; Hayes & Feldman, 2004; Hayes et al., 1999). In addition, literature also suggests a strong positive link between expressive suppression and social anxiety regarding interaction, which emphasize the amplifier effect of expressive suppression on social interaction anxiety (Farmer & Kashdan, 2012; Gaebler et al., 2014; Gross, 2015). A combination of the findings from psychology and neuroscience literature, the indirect inference of mindfulness on the relation of expressive suppression and social interaction anxiety can be verified.

The third exogenous variables were rumination, which displayed a non-significant effect on social interaction anxiety. Surprisingly, there was a non-significant direct relationship between rumination and social interaction anxiety, and a significant indirect relationship between rumination and social interaction anxiety through both variables that are mindfulness and experiential avoidance. Studies, which solely examined the relationship between social interaction anxiety and rumination, have reported significant relationships between these two variables (Clark & Wells, 1995; Dannahy & Stopa, 2007; Kashdan & Roberts, 2006; Melling &Alden, 2000; Perini et al., 2006). However, in the current study, only the indirect relationship was significant. This means that in the presence of mindfulness and experiential avoidance, rumination has an influence on social interaction anxiety.

The significant relation between rumination and mindfulness was also supported by the literature. Research studies demonstrated that mindfulness is helpful in reducing ruminative thinking (Bacon, Faris, & Carlson, 2012; Campbell, Labelle, Robins, Keng, Ekblad, & Brantley, 2012; Marks et al., 2010; Ramel, Goldin, Carmona, & McQuaid, 2004; Segal et al., 2002; Shapiro et al., 2006), improving adaptive emotion regulation skills and decreasing usage of non-adaptive emotion regulation strategies (Arch & Craske, 2006; Coffey & Hartman, 2008). Marks et al., (2010) studied the relationship between mindfulness, rumination, depression, and anxiety with three hundred and seventeen high school students and the findings indicated a significant negative

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correlation between mindfulness and rumination. In addition, the multiple regression analysis in the same study revealed the amplifier influence of rumination on anxiety. Moreover, it was also reported that mindfulness lessened the relationship between anxiety and rumination. These results were consistent with the premise that emphasizes the contrast effect of mindfulness and rumination on anxiety (Brown & Ryan, 2003; Kocovski & Rector, 2007; Marks et al., 2010; Vengel, 2015). These findings indicated that having more ruminative thoughts decreases the disposition to be mindful, which in turn increases social interaction anxiety. In other words, when individuals repetitively go over a problem or thought, which specifically make their inner experiences difficult that in turn causes a decrease in conscious awareness. In the same line, a decrease in dispositional mindfulness may be the reason of increases in ruminative thinking, which also causes an increase in social interaction anxiety and also strengthens the relationship between these two.

In the current study, other finding with regard to rumination was the direct effect of it on experiential avoidance. The results marked that rumination has significant and positive direct effect on experiential avoidance. This finding was in line with previous studies (Bhuptani, 2017; Bjornsson et al., 2010; Cribb, Moulds, & Carter, 2006; Spinhoven et al., 2016). Fresco, Frankel, Mennin, Turk, and Heimberg (2002) characterized rumination as an avoidance strategy. Ciarrochi, Scott, Deane, and Heaven (2003) asserted that as rumination inhibits recognition, management and processing ability of individuals on negative mood, this inhibition might be avoidance from negative internal experiences. Moreover, Nolen-Hoeksema (2008) and Smith et al., (2007) informed that individuals with high ruminative thinking engage in significantly more avoidance behaviors, which provide temporary relief from unpleasant emotional experiences. These findings can help researchers to clarify the indirect influence of experiential avoidance on the relation of rumination and social interaction anxiety. Since rumination was reported as an avoidance strategy when experiential avoidance included the relation between rumination and social interaction anxiety, experiential avoidance can make the influence of rumination stronger than before that might be the reason of the indirect influence. That is to say that individuals

with high ruminative thinking engage more in experiential avoidance, which means that constant thinking about the problem inhibits dealing with internal experiences. By doing so individuals avoid unfavorable internal events. In brief, it can be said that rumination has a relation with social interaction anxiety when an individual has a low level of dispositional mindfulness and that the relationship between rumination and social interaction anxiety is significant when individual experiential avoidance is high.

The fourth exogenous variables were anxiety sensitivity that specified a significant and positive direct effect on social interaction anxiety. This result was consistent with previous research, which indicated anxiety sensitivity as a factor that has significant influence on social anxiety (Anderson & Hope, 2009; Norton et al., 1997), especially with regards to interaction (Gore, Carter, & Parker, 2002; Naragon-Gainey, 2010; Naragon-Gainey et al., 2014). Individuals with higher anxiety sensitivity scores experience more social anxiety after social interaction than individuals with low anxiety score (Gore et al., 2002). Reasons of the increase in the anxiety sensitivity were correlated with fear of catastrophic consequences about a social situation like interpersonal rejection (McNally, 2002), low level of social acceptance and victimization by peers (Callaghan & Joseph, 1995; Craig, 1998). Thus it can be inferred that anxiety sensitivity increases social interaction anxiety by dramatizing consequences of physiological symptoms to anxiety. To clarify, as anxiety sensitivity is a fear of anxiety-related bodily sensations, when individuals encounter with a social interaction anxiety evoking situation, the individuals with high level of anxiety sensitivity may try to deal with the fear of anxiety-related sensations, which in turn may increase their anxiety level again that leads to a vicious circle between social interaction anxiety and anxiety sensitivity.

The acceptance of the present moment without judgment, which is a key definition of mindfulness, was asserted to be related with controlling anxiety provocation (Degen, 2007; School, Van Mil-Klinkenberg, & Van Der Does, 2015). Mindfulness was accepted as an appropriate response to anxiety evoking situations while anxiety sensitivity was claimed to be an inappropriate response (Macaulay, Watt, MacLean, &

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Weawer, 2015). Thus these two opposite structures were associated in different studies (Degen, 2007; McKee, Zvolensky, Solomon, Bernstein, & Leen-Feldner, 2007; Vujanovic, Zvolensky, Bernstein, Feldner, & McLeish, 2007). Moreover, there are some studies that found an association between anxiety sensitivity and component of mindfulness like mindful awareness (Degen, 2007) and mindfulness attention (Zvolensky et al., 2015). Moreover, there is also evidence in certain studies that mindfulness decreases anxiety sensitivity (Schoorl et al., 2015; Tanay, Lotan, & Bernstein, 2012). These studies were consistent with the results of the present study. With regard to the relationship between mindfulness and anxiety sensitivity, a direct effect indicated a negative and significant relationship, which means that when anxiety sensitivity increases mindfulness, decreases. More clearly, when an individual is preoccupied with controlling the fear of bodily sensations, it is hard to have a conscious awareness due to having difficulty in concentrating on inner experiences.

On the other hand, responses to anxiety and its influence on individuals were claimed to be mediated by mindfulness (Bishop et al., 2004; Hayes & Feldman, 2004; Hayes et al., 1999). In one of the recent studies higher levels of anxiety sensitivity were associate with lower levels of mindfulness, and this association was presented as evidence of social anxiety (Zvolensky et al., 2015). These findings were consistent with current findings that denoted a significant and positive indirect effect of mindfulness on the relationship between anxiety sensitivity and social interaction anxiety. Stated differently, individuals with higher levels of anxiety sensitivity may have high levels of social interaction anxiety when they have a low level of mindfulness.

Anxiety sensitivity was reported to develop and increase experiential avoidance (Karekla, Forsyth, & Kelly, 2004; Zinbarg, Brown, Barlow, & Rapee, 2001). It was suggested that experiential avoidance and anxiety sensitivity are maladaptive responses to experienced anxiety. However, while experiential avoidance is related to thoughts and emotions, anxiety sensitivity focuses on bodily sensations. Thus these two constructs were found to complete each other. In addition, it was reported that anxiety sensitivity strengthened experiential avoidance (Kampfe et al., 2012; Kashdan

& Rottenberg, 2010), thus there two constructs were claimed to be related but distinct structures (Kampfe et al., 2012). Compatible with the past studies, in the current study, a positive and significant relation was found between anxiety sensitivity and experiential avoidance. That is when individuals have high anxiety sensitivity; they may also be more engaged in experiential avoidance. That is when individuals are too sensitive to anxiety to avoid the fear of bodily sensation; they will engage in experiential avoidance to control or escape from the fear of anxiety-related sensations.

Fears about anxiety symptoms in social situations caused by beliefs about potential social consequences were claimed to make individuals avoid social situation formation, which strengthens the avoidance from social interaction (Clark & Wells, 1995; Rapee & Heimberg, 1997). The relation between anxiety sensitivity and social anxiety was suggested to be influenced by other variables like emotional avoidance (Pickett, Lodis, Parkhill, & Orcutt, 2012; Zvolensky & Forsyth, 2002). These premises were consistent with current findings, which present a positive indirect effect of experiential avoidance on the relationship between anxiety sensitivity and social interaction anxiety. That is, the more individuals had anxiety sensitivity, the more they felt experiential avoidance and had higher social interaction anxiety.

After the direct effect of an exogenous variable on endogenous variables, the direct effects of mindfulness and experiential avoidance on exogenous variable were discussed. Both of the variables, which are mindfulness and experiential avoidance, demonstrated significant direct effects on social interaction anxiety.

Low levels of mindfulness were claimed to play an important role in symptoms of general anxiety. Previous findings of the association between mindfulness and anxiety suggest that mindfulness is an effective component of anxiety and its symptoms (Baer et al., 2006; Kabat-Zinn et al., 1992; Orsillo & Roemer, 2005; Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006). Social interaction anxiety was not examined in the literature separately from social anxiety, thus in all studies, social anxiety, which involves social interaction anxiety was demonstrated. Several studies

indicated a strong negative relation between social anxiety and mindfulness. Also, those studies informed that higher levels of mindfulness are a factor of significant decrease in social anxiety (Faucher, Koszycki, Bradwejn, Merali, & Bielajew, 2016; Goldin & Gross, 2010; Goldin, Ramel, & Gross, 2009; Kocovski, Fleming, Hawley, Huta, & Antony, 2013; Kocovski et al., 2009; Morgan et al., 2013; Schmerts, Masuda, & Anderson, 2012). Studies conducted with college students also demonstrated negative associations between mindfulness and social anxiety (Brown & Ryan, 2003; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007; Lau et al., 2006; Tan et al., 2016). In the current study, mindfulness was also found to have a negative significant relationship with social interaction anxiety.

Maladaptive self-focused attention was claimed to be one of the crucial factors in maintaining social anxiety (Hope, Gansler, &Heimberg, 1989; Jostes, Pook, & Florin, 1999). Mindfulness is claimed to be a chain breaker in the cycle of maladaptive self-focused attention and social anxiety (Beitel, Ferrer, & Cecero, 2005; Bogels, Sijbers, &Voncken, 2006; Schmerts et al., 2012). Moreover, Amir, Beard, Burns, and Bomyea (2009) asserted that mindfulness could make individuals pay attention to their environment and hinder the process of focusing catastrophic consequences of social situations. Furthermore, this attention also helps individuals to develop new healthy memories. In this way, it was claimed that individuals direct their attention to discovering new and effective ways of coping with social situations, which are perceived as stressful (Fjorback, Arendt, Ornbol, Fink, & Walach, 2011). To put a finer point on it, when individuals are more aware of internal experiences, accepting the situation without evaluation and focusing on here and now rather than focusing on self, causes the social anxiety level decreases.

Experiential avoidance was confirmed to be one of the most effective components of anxiety disorders (Hooper & Larsson, 2015; Spinhoven et al., 2014). The increase in experiential avoidance was linked with avoidant coping and interpersonal problems (Gerhart, Baker, Hoerger, & Ronan, 2014). Moreover, experiential avoidance was found to predict social interaction anxiety regardless of the diagnosis of social anxiety

(Cisler et al., 2010; Kashdan et al., 2013; Kashdan et al., 2014). In accordance with previous premises in the current study, experiential avoidance was found to have a significant positive direct effect on social interaction anxiety. To be more precise, individuals who engage more in experiential avoidance feel more social interaction anxiety. This finding was also in line with previous studies (Berman, Wheaton, McGrath, & Abramowitz, 2010; Levin, Haeger, & Smith, 2017; Mahaffey, Wheaton, Fabricant, Berman, & Abramowitz, 2013; Moscovitch, 2009).

Experiential avoidance was claimed to contribute to social anxiety. This contribution was explained in various ways. One of them was a withdrawing individual from social situations by making them behave in a cold manner towards others. Another way was making individuals behave in a hostile manner to others so that they can escape from feelings of vulnerability and decrease their disturbing physiological arousals (Barkham, Hardy, & Startup, 1996; Gardner & Moore, 2008).This link was also explained by a decrease in behavioral flexibility, which claimed to increase avoidant coping (Gerhart et al., 2014). Another explanation was provided via maladaptive rules. Researchers asserted that individuals developed maladaptive rules about certain emotions as bad or good. Bad emotions were claimed to be ones that individuals coded as must be avoided (Hayes, 1989). Each time an individual avoids social situations; the chain of avoidant coping becomes rigid, which hinders the process of acknowledging the problematic nature of maladaptive relationships. This makes individuals begin to view social interactions as problematic (Kashdan, Morina, & Priebe, 2009). In brief, when individuals try to control or refrain themselves from undesirable internal experiences and when they engage in social interaction situation, it provides a transitory relief that causes an increase in the level of social anxiety.

In general, all these findings support the cognitive-behavioral model of social anxiety (Clark & Wells, 1995; Rapee &Heimberg, 1997) modified by Herbert and Cardaciotto (2005) who incorporated the construct of mindfulness to the model. The current model of this study demonstrated that the mindfulness integrated model was also valid for social interaction anxiety. The prevalent model of social anxiety (Clark & Wells, 1995;

Herbert & Cardaciotto, 2005; Rapee &Heimberg, 1997) proposed that high levels of social anxiety arise from biased interpretation of social situations like impaired cognitive reappraisal, problematic acceptance, awareness of negative emotions, concerns about physical symptoms like being overly sensitive to anxiety or anxiety about looking anxious and repetitive negative thoughts about oneself. As a result of these conditions, individual prefers to use temporary safety behaviors like experiential avoidance or emotional expressive suppression.

In conclusion, the proposed model fitted the data well. ACT proposed that rather than suppressing, avoiding and ruminating unpleasant thought and feelings, and also making a negative evaluation about situations, it is better to embrace those undesired thoughts, feelings and experiences through meditation to reach desired goals. In doing so, ACT helps clients to acquire effective coping strategies to alleviate anxiety rather than maintaining it via ruminative thinking patterns, unreasonable evaluation of symptoms and experiential avoidance. Mindfulness is a significant component of the ACT. Considering social interaction anxiety within the framework of ACT theory may assist applied researchers in examining maladaptive anxiety coping strategies (i.e. rumination, experiential avoidance). Furthermore, mindfulness helps individuals to observe and experience thoughts and emotions without judgment. This, in turn, helps thought to pass without sticking to rumination and expressive suppression, potentially inhibiting excessive focus on anxiety symptoms and prevents individuals from controlling, avoiding or resisting their inner experiences. Since expressive suppression, rumination, anxiety sensitivity and experiential avoidance are regarded as risk factors with regards to social interaction anxiety for university students, cognitive reappraisal and mindfulness might be considered as shielding factors for social interaction anxiety.

5.2. The implication for Research and Practice

In the recent years, studies indicated various models for social anxiety across different kinds of theoretical approaches. The current study contributes to previous models

(cognitive model and acceptance commitment therapy model) of social anxiety by emphasizing the importance of rumination, expressive suppression, anxiety sensitivity, experiential avoidance, mindfulness and cognitive reappraisal for social interaction anxiety.

In the future studies, researchers may conduct experimental studies that foster mindfulness and cognitive reappraisal and may investigate the impact of these factors on social interaction anxiety.

Social anxiety is a widely studied topic with college students. However, the majority of the studies conducted on social performance rather than social interaction anxiety. In the current study, social interaction anxiety was examined. The current study contributes to social anxiety literature through studying social interaction anxiety among college students.

Previous studies about the effectiveness of cognitive factors on social anxiety were highlighted only risk and protective variables into consideration. However, the current study adds to the literature by investigating mindfulness and experiential avoidance into this complex relationship.

As the results of the current study indicated, the influence of expressive suppression on social interaction anxiety was found to be independent of all other factors, which means that mindfulness and experiential avoidance are not effective factors with regard to social interaction anxiety when expressive suppression is used.

In addition, expressive suppression was found to account for the highest variance among other variables on social interaction anxiety. Therefore, from the findings of the current study, it could be suggested that while developing an intervention model or designing preventive programs about social interaction anxiety among university students the expressive suppression could be taken into account.

The current study suggested that rumination had no effect on social interaction anxiety without its influence on mindfulness and experiential avoidance. Put it another way, rumination is effective only through its effect on experiential avoidance and mindfulness. Therefore, before investigating ruminative thinking pattern of the socially anxious clients, counselors may take into account mindfulness and experiential avoidance at first.

This study suggested cognitive reappraisal and mindfulness as adaptive coping strategies for social interaction anxiety. Accordingly, psychological counselors working in university counseling services may be suggested to use cognitive reappraisal and mindfulness skills in their practices while working with clients having high social interaction anxiety. These strategies may also be used to coach university students having anxiety and emotion regulation difficulties. An increased capacity in anxiety regulation may as well assist students in alleviating their performance anxiety. For these reasons, it could be suggested that the findings of the current study may encourage counselors to enhance adaptive coping strategies of their clients.

Findings of the current study indicated that accepting rather than avoiding internal experiences decreases social interaction anxiety and, both mindfulness and cognitive reappraisal were found to be useful in decreasing social interaction anxiety. In mindfulness and cognitive reappraisal, individuals try to regulate their attention intentionally in an open-minded and non-judgmental manner as well as focus on here and now (Brown & Ryan, 2003; Brown, Ryan, & Creswell, 2007). However, in opposite constructs (experiential avoidance, expressive suppression, rumination and anxiety sensitivity), individuals constantly try to eliminate, avoid or struggle with inner experiences. These opposite constructs have one thing in common, which is the self-regulation of attention. Strategies planned to reduce self-focused attention and enhance externally focused attention may help in decreasing struggles to reduce efforts towards controlling arousal related to anxiety, which in turn results in fewer behavioral disruption (Wells & Papageorgiou, 1998). Therefore, counselors in university counseling centers, other practitioners working with college students and researchers

who develop intervention programs about social interaction anxiety can include self-focused attention to their intervention programs.

Social anxiety is a crucial factor in the transition period to university. It has an influence on all areas of adjustment like the social, academic, personal-emotional and institutional adjustment (Arjanggi & Kusumaningsih, 2016a, 2016b). This study can provide an insight into university counseling services and college administrators by offering information about risk and protective factors for social interaction anxiety that can be used while designing remedial and preventive services to students who have social interaction anxiety.

Last but not least, in the current study, the Turkish adaptation of the Social Interaction Anxiety Scale was conducted. The validity and reliability studies of the measure conducted with a sample of university students yielded satisfactory results. Therefore, practitioners and researchers can utilize Social Interaction Anxiety Scale while investigating social anxiety with samples similar to that of the current study.

5.3. Recommendations for Further Studies

Results of the current study indicated the indirect effect of mindfulness and experiential avoidance, in the relation between anxiety coping strategies and social interaction anxiety among university students. Thus further recommendations related to the findings and methodological limitations were presented in this section.

First of all, as this study was a correlational study, it covers relationships between variables and demonstrates the predictive power of cognitive reappraisal, expressive suppression, and rumination and anxiety sensitivity on social interaction anxiety. Thus, experimental studies are necessary to understand the interrelationship between social interaction anxiety, cognitive and emotional factors. Treating cognitive and emotional factors separately or in combination can be beneficial for decreasing social interaction anxiety. Moreover, in the current study only direct and indirect effect between

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variables was investigated and no mediation analysis was conducted. Thus in the future studies the mediation analysis could be included in the model.

Findings of the current study indicated non-significant indirect effect of experiential avoidance on the relationship between social interaction anxiety and expressive suppression. However, related literature highlighted the indirect influence of experiential avoidance on the association between emotion regulation abilities and social anxiety. Moreover, the same indirect effect can be seen in the link between adaptive-maladaptive coping strategies and social anxiety. Thus, the present study can be replicated by using emotion regulation ability and adaptive-maladaptive coping strategies and social interaction anxiety. This would enable researchers can have more information about the association between experiential avoidance, coping strategies and social interaction anxiety.

This study provided introductory evidence of the unique connection between the variables of the current study; however, the effects of demographic variables (gender, age, etc.) were not included in the model. Hence longitudinal studies, as well as studies with different age groups, are required to understand the interrelationship between cognitive factors and social interaction anxiety better. Thus further studies can be conducted by considering the influence of demographic variables on social interaction anxiety.

This study was the first attempt to translate and adapt the social interaction anxiety scale into Turkish; in addition, the validity and reliability studies of the scale were conducted with university students. Therefore, researchers who plan to utilize the social interaction anxiety scale with Turkish samples are suggested to examine the psychometric properties of the scale for their population. Thus, validity and reliability studies of social interaction anxiety scale required to be replicated with representative samples from different universities, different age groups, different education programs and class levels. Furthermore, to gain a better understanding of social interaction anxiety and related variables, studies with populations from different cultures, races

and ethnicities need to be conducted. This can considerably contribute to the social anxiety literature in Turkey.

Even though there might be numerous other psychological factors contributing to the symptoms of anxiety, the current study emphasizes the forces of seven factors that are interrelated to each other, which were determined to have a significant relationship with anxiety in social interaction situations for university students. The integration of these seven constructs in etiological theoretical models related to anxiety symptoms and disorders will be of great value to enrich the related line of literature and the field of psychology. Further studies are needed to assess other variables that might be related to social anxiety in order to fully explore the nature of social interaction anxiety.

The protective and risk factors were examined for the social interaction construct of social anxiety, however social anxiety involves interaction and performance situations, thus these factors can be examined for the construct of performance anxiety in social situations. Moreover, as the university students struggle with academic demands besides from anxiety about social situations, academic performance anxiety can be studied with this sample in terms of performance and interaction anxiety.

This study can be replicated with a sample composed of people who have considerably high social interaction anxiety, individuals that have low social interaction anxiety, and participants diagnosed with social anxiety disorder. This, in turn, can assist our understanding of the differences between these individuals and the influence of the variables of the current study on them. Moreover, further research on social interaction anxiety is needed to comprehend such sample differences with respect to anxiety evoking situations.

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APPENDICES

A. MIDDLE EAST TECHNICAL UNIVERSITY HUMAN SUBJECTS ETHICS COMMITTEE APPROVAL LETTER

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER

ORTA DOĞU TEKNİK ÜNİVERSİTESİ
MIDDLE EAST TECHNICAL UNIVERSITY

DUMLUPINAR BULVARI 06800
Sayı: 28620816 / ÇANKAYA ANKARA/TURKEY
T: +90 312 210 22 91
F: +90 312 210 79 59
ueam@metu.edu.tr
www.ueam.metu.edu.tr

05 ARALIK 2016

Konu: Değerlendirme Sonucu

Gönderilen: Prof. Dr. Oya Yerin GÜNERİ

Eğitim Fakültesi

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof. Dr. Oya Yerin GÜNERİ;

Danışmanlığını yaptığınız doktora öğrencisi Ayşe IRKÖRÜCÜ'nün "Modelling the relationship among social interaction anxiety, mindfulness, emotion regulation, rumination, experiential avoidance and anxiety sensitivity in university student" başlıklı araştırmanız İnsan Araştırmaları Kurulu tarafından uygun görülerek gerekli onay **2016-EGT-170** protokol numarası ile **19.12.2016-01.08.2017** tarihleri arasında geçerli olmak üzere verilmiştir.

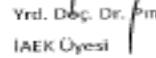Bilgilerinize saygılarımla sunarım.

Prof. Dr. Canan SÜMER
İnsan Araştırmaları Etik Kurulu Başkanı

Prof. Dr. Mehmet UTKU
İAEK Üyesi

Prof. Dr. Ayhan SOL
İAEK Üyesi

Prof. Dr. Ayhan Gürbüz DEMİR
İAEK Üyesi

Doç. Dr. Yaşar KONDAKÇI
İAEK Üyesi

Yrd. Doç. Dr. Pınar KAYGAN
İAEK Üyesi

Yrd. Doç. Dr. Emre SELÇUK
İAEK Üyesi

B. PERMISSON LETTER OF SOCIAL INTERACTION ANXIETY SCALE

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Konu:          RE: SIAS
Gönderen:      "Richard Mattick" <R.Mattick@unsw.edu.au>
Tarih:         13 Ekim 2016, Perşembe, 5:23 am
Alıcı:         "ayse.irkorucu@metu.edu.tr"
```

Dear Dr. Mattick,

I am a Ph. D student at Middle East Technical University
(METU), Ankara, Turkey, and I am working on my
dissertation, for which I'm trying to identify the
predictors of mindfulness in Turkish university students.
In
this respect, I'm planning to use your Social Interaction
Anxiety Scale, and would like to ask for your approval to
be able use the SIAS and adapt it to the Turkish
university setting. Moreover, I would also be please if
you could also send me the score sheet of the SIAS and
your phd dissertation as well because I couldn't find it
in online data bases.

With my best regards,

Ayşe IRKÖRÜCÜ

Phd Canditate-METU

Dear Ayse,

You have my full permission to use/adapt these scales.
There is no scoring sheet. I can send you the papers if
you like. The thesis is not digitalised. However I will
send you the papers from the thesis if you remind me on 4
October.

Thank you for your interest in our work.
Kindest regards.
Richard P Mattick.
UNSW Australia.
+61 419409010.

C. VOLUNTARY PARTICIPATION FORM

Gönüllü Katılım Formu

Bu çalışma Prof. Dr. Oya Yerin GÜNERİ'nın danışmanlığında Orta Doğu Teknik Üniversitesi doktora öğrencisi Ayşe IRKÖRÜCÜ tarafından yürütülen "Bilinçli farkındalık, ruminasyon, duygu düzenleme, yaşantısal kaçınma, anksiyete duyarlılığı ile sosyal etkileşim kaygısı ilişkilerinin modellenmesi" başlıklı tez çalışmasına yöneliktir. Bu anket formu, bu değişkenlere yönelik bilgi toplamayı amaçlayan maddeler içermektedir. Ankette sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Elde edilen bilgiler kesinlikle gizli tutulacaktır ve elde edilecek sonuçlar sadece akademik amaçlı kullanılacaktır. Ankete katılım tamamen gönüllülük esasına dayanmaktadır.

Bu çalışmada üniversite öğrencilerinde ki sosyal etkileşim kaygısının nedenleri araştırılarak, bu kaygıdan ötürü yalnızlaşan, sosyal ortalardan uzak duran ve çevresinden gerekli sosyal desteği alamayan gençlere sosyal etkileşim kaygılarını anlamaları ve yenebilmeleri için sosyal etkileşim kaygısına farklı bakış açısı getirebilmek hedeflenmektedir. Dolayısıyla bütün soruları eksiksiz olarak doldurmanız, katkı sağlayacak bir değerlendirme adına oldukça büyük bir önem taşımaktadır. Fakat katılım sırasında sorulardan ya da herhangi bir başka nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Anket formunu doldurmanız yaklaşık 15 dakikanızı alacaktır. Çalışma hakkında daha ayrıntılı bilgi almak için ayse.irkorucu@metu.edu.tr adresi ile iletişim kurabilirsiniz.

İlginiz için teşekkürlerimi sunarım.

Saygılarımla
Ayşe IRKÖRÜCÜ

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayınlarda kullanılmasını kabul ediyorum. (Lütfen formu imzalayarak uygulayıcıya teslim ediniz.)

Ad-Soyad   :

Tarih   :

İmza   :

D. DEMOGRAPHIC FORM

BİLGİLENDİRME FORMU

Sayın Katılımcı; Bu çalışma ODTÜ Eğitim Bilimleri Bölümü Doktora Programı öğrencisi Ayşe IRKÖRÜCÜ'nün doktora tezi kapsamında yürütülmektedir. Bu çalışma, üniversite öğrencilerinin sosyal iletişim kaygısı düzeylerini etkileyen faktörleri incelemek amacıyla yapılmaktadır. Anketin cevaplanması yaklaşık 15 dakika sürmekte olup herhangi bir süre kısıtlaması bulunmamaktadır. Çalışmaya katılım tamamiyle gönüllülük esasına dayanmaktadır. Katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, cevaplama işini yarıda bırakıp istediğiniz anda çıkmakta serbestsiniz. Ankette sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak, sadece araştırmacılar tarafından değerlendirilecek ve elde edilecek bilgiler bilimsel yayınlarda kullanılacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz.

Çalışma hakkında daha fazla bilgi almak için Ayşe IRKÖRÜCÜ (ayse.irkorucu@metu.edu.tr) ile iletişim kurabilirsiniz.

DEMOGRAFİK BİLGİ FORMU

1. Cinsiyetiniz:☐ Kız   ☐Erkek

2. Yaşınız: _____

3. Bölümünüz: _____

E. SAMPLE ITEMS OF SOCIAL INTERACTION ANXIETY SCALE

SOSYAL KAYGI ÖLÇEĞİ

Açıklama: Aşağıdaki maddelerde yer alan her bir ifadenin sizin için ne derece doğru olduğunu veya kişisel bir özelliğiniz olduğunu gösteren rakamı lütfen daire içine alınız. Değerlendirme ölçeği aşağıdadır:

(0) Asla kişisel bir özelliğim değil yada <u>benim için asla doğru değil</u>,

(1) Çok az bir kişisel özelliğim yada <u>benim için çok az doğru</u>,

(2) Kısmen bir kişisel özelliğim yada <u>benim için kısmen doğru</u>,

(3) Çok fazla kişisel bir özelliğim yada <u>benim için çok doğru</u>,

(4) Aşırı derecede kişisel bir özelliğim yada <u>benim için aşırı doğru</u>.

Özellik	Asla	Çok az	Kısmen	Çok	Aşırı
1. Eğer otoriteyle (öğretmen, patron) konuşmak zorunda kalırsam gergin hissederim.	0	1	2	3	4
2.Başkalarıyla göz teması kurmakta zorluk çekerim.	0	1	2	3	4
3. Kendim veya duygularım hakkında konuşmak zorunda kaldığımda gerilirim.	0	1	2	3	4

F. SAMPLE ITEMS OF EMOTION REGULATION QUESTIONNAIRE

DUYGU YÖNETİMİ ANKETİ

Açıklama: Size duygusal yaşamınızla özellikle de duygularınızı nasıl kontrol ettiğiniz (yani düzenlediğiniz ve yönettiğiniz) ile ilgili sorular sormak istiyoruz. Lütfen her maddeyi okuduktan sonra, o maddede belirtilen fikre katılma derecenizi 7 (Tamamen Katılıyorum) ve 1 (Hiç Katılmıyorum) arasında değişen rakamlardan size uygun olanını işaretleyerek belirtiniz.

(1) Hiç katılmıyorum, (2) Katılmıyorum, (3) Biraz katılmıyorum, (4) Kararsızım, (5) Biraz katılıyorum, (6) Katılıyorum, (7) Tamamen katılıyorum anlamına gelmektedir.

	Hiç Katılmıyorum	Katılmıyorum	Biraz katılmıyorum	Kararsızım	Biraz katılıyorum	Katılıyorum	Tamamen Katılıyorum
1. İçinde bulunduğum duruma göre düşünme şeklini değiştirerek duygularımı kontrol ederim.	1	2	3	4	5	6	7
2. Olumsuz duygularımın az olmasını istersem, durumla ilgili düşünme şeklimi değiştirim.	1	2	3	4	5	6	7
3. Olumlu duygularımın fazla olmasını istediğim zaman duruma ilgili düşünme şeklimi değiştirim.	1	2	3	4	5	6	7

G. SAMPLE ITEMS OF RUMINATIVE RESPONSE SCALE

RUMİNASYON ÖLÇEĞİ

Açıklama: İnsanlar kötü bir deneyim yaşadıklarında bir sürü farklı şey yapar ya da düşünürler. Lütfen aşağıdaki cümleleri okuyup, son iki hafta içinde, belirtilenlerine kadar sıklıkta yaptığınızı işaretleyin. Lütfen, ne yapmanız gerektiğini değil, gerçekte ne yaptığınızı belirtin.

(1) Hiçbir Zaman, (2) Bazen, (3) Çoğunlukla, (4) Her Zaman anlamına gelmektedir.

	Her zaman	Bazen	Çoğunlukla	Her zaman
1. "Bunu hak etmek için ne yaptım" diye ne kadar sık düşünüyorsun?	1	2	3	4
2. Son zamanlarda yaşadığın olayları analiz edip "Kendimi niye böyle üzgün hissediyorum" diye ne kadar sık düşünüyorsun?	1	2	3	4
3. "Niye bu şekilde bir tepki gösteriyorum?" diye ne kadar sık düşünüyorsun?	1	2	3	4

H. SAMPLE ITEMS OF ANXIETY SENSITIVITY INDEX-3

ANKSİYETE DUYARLILIĞI İNDESİ - 3

Açıklama: Lütfen her maddede sizin için en uygun olduğunu düşündüğünüz sayıyı daire içerisine alınız. Eğer her hangi bir madde şimdiye kadar hiç yaşamadığınız bir şeyle ilgiliyse (örn.: toplum içinde bayılmak), böyle bir deneyimi yaşamanız halinde nasıl hissedebileceğinizi temel alarak cevaplayınız. Bunun dışında, tüm maddeleri kendi deneyiminizi temel alarak cevaplayınız. Her madde için sadece bir sayıyı daire içerisine almaya dikkat ediniz ve lütfen tüm maddeleri cevaplayınız.

(0)Çok az, (1)Az, (2)Biraz, (3)Fazla, (4) Çok fazla anlamına gelmektedir.

	Çok az	Az	Biraz	Fazla	Çok fazla
1. Sinirli görünmemek benim için önemlidir.	0	1	2	3	4
2. Kafamı bir işe veremediğim zaman, aklımı kaçırıyorum diye endişelenirim.	0	1	2	3	4
3. Kalbimin hızlı çarpması beni korkutur	0	1	2	3	4

I. SAMPLE ITEMS OF MINDFULL ATTENTION AWARENESS SCALE

BİLİNÇLİ FARKINDALIK ÖLÇEĞİ

Açıklama: Aşağıda sizin günlük deneyimlerinizle ilgili bir dizi durum verilmiştir. Lütfen her bir maddenin sağında yer alan 1 ile 6 arasındaki ölçeği kullanarak her bir deneyimi ne kadar sık veya nadiren yaşadığınızı belirtiniz. Lütfen deneyimizin ne olması gerektiğini değil, sizin deneyiminizi gerçekten neyin etkilediğini göz önünde bulundurarak cevaplayınız. Lütfen her bir maddeyi diğerlerinden ayrı tutunuz.

(1) Hemen hemen her zaman, (2) Çoğu zaman, (3) Bazen, (4) Nadiren, (5) Oldukça Seyrek, (6) Hemen hemen hiçbir zaman anlamına gelmektedir.

	Hemen hemen her zaman	Çoğu zaman	Bazen	Nadiren	Oldukça seyrek	Hemen hemen hiçbir zaman
1. Belli bir süre farkında olmadan bazı duyguları yaşayabilirim.	1	2	3	4	5	6
2. Eşyaları özensizlik, dikkat etmeme veya başka bir şeyleri düşündüğüm için kırarım veya dökerim.	1	2	3	4	5	6
3. Şu anda olana odaklanmakta zorlanırım.	1	2	3	4	5	6

J. SAMPLE ITEMS OF ACCEPTANCE AND ACTION QUESTIONNAIRE-II

KABULLENME ve EYLEM ÖLÇEĞİ-II

Açıklama: Aşağıda birtakım ifadeler göreceksiniz. Lütfen her bir ifadenin sizin için ne kadar doğru olduğunu aynı satırda bulunan sayıları yuvarlak içine alarak değerlendiriniz. Seçiminizi aşağıdaki ölçeği kullanarak yapınız.

(1) Hiçbir zaman doğru değil (2) Çok nadiren doğru (3) Nadiren doğru (4) Bazen doğru (5) Sıklıkla doğru (6) Neredeyse her zaman doğru (7) Her zaman doğru anlamına gelmektedir.

	Hiçbir zaman doğru değil	Çok nadiren doğru	Nadiren doğru	Bazen doğru	Sıklıkla doğru	Neredeyse her zaman doğru	Her zaman doğru
1. Acı verici deneyimlerim ve anılarım anlamlı bir hayat yaşamamı zorlaştırıyor.	1	2	3	4	5	6	7
2. Duygularımdan korkarım.	1	2	3	4	5	6	7
3. Kaygılarımı ve duygularımı kontrol edememekten endişe duyarım.	1	2	3	4	5	6	7

K. CURRICULUM VITEA

PERSONAL INFORMATION

Surname, Name: Irkörücü Küçük, Ayşe

Date and Place of Birth: 03.10.1985, ANTALYA

Email: irkorucuay@yahoo.com

EDUCATION

Degree	Institution	Year of Graduation
PhD	Middle East Technical University, Psychological Counseling and Guidance	2018
MS	Middle East Technical University, Psychological Counseling and Guidance	2012
BS	Akdeniz University Classroom Instruction Education	2007
High School	Celal Bayar Anatolian High School	2002

WORK EXPERIENCE

Year	Place	Enrollment
2012 - 2016	Ufuk Univetsity	Research Assistant
2016 - Present	Ufuk University	Instructor

FOREIGN LANGUAGES

English (Advanced)

1. GİRİŞ

Üniversitenin ilk yılı gençlerin yaşamında özellikle de üniversite eğitimi için başka bir kente taşınıp, ailelerini ve arkadaşlarını geride bıraktıklarında, oldukça önemli ve stresli bir dönem olmaktadır (Fisher ve Hood, 1987). Campbell, Bierman ve Molenaar (2016) sağlıklı bir geçiş dönemi için kişinin sosyal ağlar kurmasının gerekliliğini vurgular. Sosyal etkileşim sosyal ağ kurmak için bir gerekliliktir ve öğrencilerin geçiş sürecini kolaylaştırmak için gerekli olan duygusal ve araçsal desteği sağlar (Buote ve ark., 2007). Buote ve ark., (2007) pozitif ve sağlıklı bir geçiş dönemi için fazla miktarda sosyal etkileşimde bulunulmasını önerir. Sosyal ilişkilerin uyum sürecine olumlu etkilerinin yanı sıra, akıl sağlığı (Rohde, D'Ambrosio, Tang, ve Rao, 2016), akademik başarı (Gall, Evans ve Bellerose, 2000) ve fiziksel sağlık (House, Landis ve Umberson, 1988) üzerinde de önemli etkileri olduğu bulunmuştur.

Sosyal kaygı, sosyal performanslar ve etkileşim durumlarında yabancılar tarafından gözlemlenmenin verdiği sürekli korkudur (APA, DSM-V, 2013). Diğerleri tarafından gözlemlenip yargılanma, diğer insanların beklentileri ile ilgili gerçekçi olmayan yüksek standartlar ve bu beklentileri karşılayamama korkusu konularında işlevsiz inançlar nedeniyle ortaya çıkmaktadır (Gilbert ve Procter, 2006; Moscovitch ve Hoffman, 2007). Sosyal kaygı, bu durumu yaşayan bireyler tarafından tehlikeli görüldüğü için bireyin kendini sosyal durumlardan uzaklaştırmasına yol açar (Nicholls, Staiger, Williams, Richardson ve Kambouropoulos, 2014). Sosyal kaygının iki boyutu vardır; biri yemek yeme, okuma, yürüme gibi günlük faaliyetler esnasında diğerleri tarafından gözlemlenme durumunda ortaya çıkar, diğeri ise sosyal etkileşim yaşanan durumlarda diğer bireylere maruz kalma sonucunda oluşur (Hook, Valentiner ve Connelly, 2013; Mattick ve Clarke, 1998). Mattick ve Clarke (1998) sosyal etkileşim kaygısını diğer insanlara maruz bırakılma ve onlarla etkileşme korkusu

olarak tanımlar. Sosyal etkileşim kaygısı, tanışma, buluşma ve konuşma içeren etkileşim durumlarında bireyin kendini kaygılı hissetmesine sebep olur.

Sosyal kaygı ve sebeplerini açıklamaya çalışan birçok kuram bulunmaktadır. Sosyal kaygının biyolojik, psikolojik ve sosyal sebeplerini anlamak ve önleme stratejileri geliştirmek için çok sayıda model önerilmiştir. En sık karşılaşılan modellerden bazıları bilişsel davranış modelleri (Clark ve Wells, 1995; Rapee ve Heimberg, 1997) ve kabul ve kararlılık temelli modeldir (Herbert ve Cardaciotto, 2005).

Bilişsel model sosyal kaygının sebepleri olarak işlevsiz bilişleri, önceki sosyal deneyimleri ve yanlı dikkati ele alır (Clark ve Wells, 1995). Bilişsel davranışçı modele göre, sosyal kaygı yaşayan bireyler diğerlerinin beklentileriyle uyumlu bir sosyal davranış içerisinde olmaya çalışırlar (Rapee ve Heimberg, 1997). Eylemlerinin, diğerlerinin olası beklentileriyle uyumlu olup olmadığına karar veren de bireyin kendisidir. Bu yüzden sosyal ortamlarda başarılı olduğu düşünülen davranışların zihin temsilleriyle uyumlu olmadığı durumlarda, sosyal durumlarla ilgili olumsuz değerlendirmelere yol açan sosyal kaygı başlar ve artar (Rapee ve Heimberg, 1997).

Hayes (2005) kaygının tedavi edilmesine yönelik yaklaşımların üç dalgaya ayrıldığını belirtir. Birincisi psikanalisttik ve hümanisttik bakış açılarının görmezden gelindiği fazlasıyla bilimsel bir dalga olarak betimlenir. İkinci dalga kaygı tedavisine işlevsiz düşüncelerin tespit edilmesi ve düzeltilmesini içeren işlevsiz düşüncelerin değiştirildiği tekyönlü bir girişim olarak görülmüştür. Hayes (2005) kaygının etkili bir şekilde tedavi edilmesinde üçüncü dalga bilişsel davranış terapilerinin ortaya çıkma sebebini bilişsel modellerin eksikliklerine dayandırır. Bu yaklaşımlardan biri KKT'dir (Hayes ve ark., 1999).

Herbert ve Cardaciotto (2005) sosyal kaygı için kabul-temelli perspektif modelini inşa etmiştir. Kabul-temelli modelde, süregiden deneyimlerin önyargısız bir şekilde kabul edilmesi olan bilinçli farkındalık sosyal kaygının tedavisiyle bütünleştirilmiştir. Herbert ve Cardaciotto'nun (2005) temel önermesi, bilinçli farkındalığın kaygı

semptomları, işlevsiz/bozuk bilişler ve davranışsal kaçınmalar üzerinde azaltıcı bir etkisi olabileceği fikridir. Sosyal kaygının kabul temelli modeline göre, birey kaygıyı tetikleyici bir durumla karşılaştıkça kaygı bağlantılı duygu ve düşünceler sebebiyle içsel dikkati artmaktadır. Bu durum da birçok kontrol stratejisini tetikleyen dışsal göstergelere odaklanmayı zorlaştırmaktadır ve kaygının etkili bir şekilde yönetimini engellemektedir. Kaygı yaşantılarını baskılama ya da değiştirmeyi içeren bu stratejiler yaşantısal kaçınma olarak adlandırılır (Hayes ve ark., 1996). Hayes ve diğerleri (2004) eğer yaşantısal kaçınma azaltılır ve fiziksel duyum ve negatif duygular gibi kaygı semptomları kabul edilirse değişimin mümkün olabileceğini ileri sürer. Sosyal durumların yorumlanmasına ket vuran yaşantısal kaçınma, iç yaşantılardan ve devam ediyor olan olaylardan bir kaçıştır ve diğer modellerde olduğu gibi sosyal kaygının devam etmesinde payı vardır (Hayes ve ark., 1999). Bu yüzden sosyal kaygıya yönelik kabul modeli sosyal kaygıyı tetikleyici unsurlarla başa çıkabilmek için yaşantısal kaçınmayı azaltmayı ve bilinçli farkındalığı artırmayı hedefler.

İnsanlar çeşitli ve birbirinden farklı stresli olaylarla karşılaşırlar. Bu zorluklarla başa çıkmak için birçok strateji kullanırlar (Spangler, Pekrun, Kramer ve Hoffman, 2002). Baş etme stratejileri literatürdeki en kapsamlı araştırma konularından biri olmuştur ve araştırmacılar etkili baş etme stratejilerinin ardındaki mekanizmayı anlamak ve açıklamak amacıyla araştırmalar yapmıştır. En çok kullanılan baş etme statejilerinin başında duygu düzenleme stratejileri gelmektedir.

Duygu düzenleyici stratejiler genellikle hedeflerine ulaşabilmek amacıyla duygusal yaşantılarını baskılamak, dönüştürmek ya da değiştirmek için yaptığı bireyin bilinçli ve bilinçsiz çabaları olarak nitelendirilir (Campbell-Sills ve Barlow, 2007). Düzenleme sürecinde yalnızca olumsuz duygular optimize edilmekle kalınmaz aynı zamanda olumlu duygular da uyarlanır (Gross, 2007). Bu bağlamda, uygun düzenleyici stratejiler, işlevsiz ve uyumsuz duygu düzenleyici stratejilerinin nüfuzunu önlerken, olumsuz duyguların üretken ve faydalı duygulara dönüştürülmesi ve olumlu duyguların optimize edilmesi olarak karakterize edilir. Çeşitli duygu düzenleme

stratejilerinin olmasına rağmen, birçok çalışma bilişsel yeniden değerlendirme ve bastırma olmak üzere iki temel stratejiye göndermede bulunur.

Yeniden değerlendirme ve baskılama sosyal durumlarda yaşanılan kaygının azaltılmasında bireye yardımcı olan bilişsel stratejilerdir (Gross ve John, 2003). Bastırma yaşanılan stresli olaya yönelik sözlü ve sözel olmayan tepkiyi bastırırken, bilişsel yeniden değerlendirme duygusal tepkiyi dönüştürmek için olumsuz duygu görünmeden önce duyguyu tetikleyen olayın değerlendirilmesini değiştirmeyi amaçlar. Araştırmalar yeniden değerlendirmenin olumlu duyguların sağlanmasında ve sosyal kaygı üzerinde iyileştirici bir etkiye sahip olduğunu (Carthy, Horesh, Apter ve Gross, 2010; Kullik ve Petermann, 2013), baskılamanın ise kaygıyı artırdığı ve süreci engellediğini ortaya koymaktadır (Butler, Lee ve Gross, 2007).

Ruminasyon sorun ve olumsuz duygular üzerinde üretken olmayan devamlı düşünceyi içeren pasif başetme stratejisidir. Huzursuzluk ve huzursuzluğun önemi konusunda sürekli devam eden bir kaygı durumundan kaynaklanan semptomlara yoğunlaşmayı içerir (Nolen-Hoeksema, 2000). Araştırmalar ruminasyon ve sosyal kaygının pozitif ve güçlü bir ilişkiye sahip olduğunu göstermektedir (Laposa ve Rector 2011).

Anksiyete duyarlılığı "korkunun korkusu" ya da "kaygı korkusu" olarak tanımlanan bireysel bir değişken ve bilişsel yapıdır (Starcevic ve Berle, 2006). Kaygı, bireyin kaygı semptomlarında düşüncelerinden kaynaklanan "korkuyla tepki vermek üzere kaygı semptomlarına" eğilimdir (Taylor, Koch, Woody ve McLean, 1996). Anksiyete duyarlılığının sosyal kaygıyı tetikleyici bir unsur olarak görüldüğü vurgulanmaktadır (Naragon-Gainey 2010). Araştırmalar göstermektedir ki, sosyal kaygı yaşayan bireyler kaygı uyandırıcı durumlara daha duyarlıdırlar ve sosyal durumların sonuçları ile sosyal ortamlarda kaygılı olarak algılanmak konusunda daha endişelidirler (Sahakian ve Kazarian, 2015).

Özetle KKT'de belirtildiği üzere bilinçli farkındalık sosyal kaygı üzerinde koruyucu bir etkiye sahipken, yaşantısal kaçınma riskli bir unsurdur. Bunun yanı sıra, yeniden değerlendirme, baskılama, ruminasyon, ve anksiyete duyarlılığının sosyal kaygının

gelişimindeki etkisine kaygı konusundaki literatür dikkat çekmektedir. Ancak bu ilişki KKT modelinde sosyal etkileşim kaygısı için sınanmamıştır. Bu sebeple Türkiye'deki üniversite öğrencileri ile yapılan bu çalışmada KKT yaklaşımına dayalı bir sosyal etkileşim modeli önerilmiştir.

1.1 Çalışmanın Amacı

Bu çalışmanın amacı, bilinçli farkındalık ve yaşantısal kaçınma dolaylı etkisiyle, bilişsel yeniden değerlendirme, bastırma, ruminasyon ve anksiyete duyarlılığının sosyal etkileşim kaygısını yordamadaki rolünü inceleyen bir modeli test etmektir.

1.2. Çalışmanın Önemi

Üniversiteye geçiş dönemi boyunca üniversiteye yeni başlayan öğrenciler; akademik problemler, akademik uyum ve kişisel-duygusal uyum problemleriyle karşı karşıya kalırlar (Aderi, Jdaitawi, Ishak ve Jdaitawi, 2013). Bütün bu sorunların yanında sosyal etkileşim kaygısı da, üniversite birinci sınıf öğrencilerinin uyumunu etkileyen en önemli unsurlardan birisi olarak görülmektedir (Arjanggi ve Kusumaningsih, 2016; Nordstrom, Goguen ve Hiester, 2014). Bu yüzden, üniversiteye yeni giren öğrencilerin yaşadığı sosyal etkileşim kaygısına karşı önlemler almak önemlidir. Nitekim bu çalışma alandaki uygulayıcılara ve özellikle üniversite danışma merkezlerindekilere, sosyal etkileşim kaygısını etkileyen değişkenler arasındaki kavramsal bağlantıyı ve aynı zamanda bilişsel boyutta bireyin güçlü ve zayıf yönlerinin sosyal iletişim kaygısına yönelik dolaylı olarak etkisini göstererek yardımcı olabilecektir.

Sosyal kaygı bozukluklarını tedavi etmede kullanılan en popüler yaklaşımlardan biri bilişsel davranışçı terapidir. Fakat araştırmalar birçok hastanın tedaviye cevap vermediğini ve hastalığının nüksettiğini göstermiştir (Brown, Heimberg ve Juster, 1995). Bu doğrultuda önceki modellere alternatif olarak bilişsel faktörlerin ve bilinçli farkındalığın birleştirildiği bir model olarak sosyal kaygının kabul temelli modeli

önerilmiştir (Herbert ve Cardaciotto, 2005). Bu nedenle, mevcut çalışma bu bakış açısını KKT'ye dönüştürerek yeni bir bakış açısı sunmaktadır. Bu yeni vizyonla, çalışmanın bulguları, uygulayıcıların KKT perspektifiyle sosyal etkileşim kaygısının ilişkili değişkenlerini anlamalarına yardımcı olabilir.

Ayrıca, kabul temelli modellerin değişkenlerini ve bunların sosyal anksiyete bozukluğunun başlangıcında önemli rol oynadığı iddia edilen bilişsel faktörlerle (Clark ve Wells; 1995; Rapee ve Heimberg, 1997) ilişkisini inceleyen sınırlı sayıda çalışma bulunmaktadır. Bu nedenle mevcut çalışma, kuramsal bir çerçeve olarak KKT yaklaşımını kullanarak sosyal etkileşim kaygısıyla ilişkili değişkenleri inceleyerek literatüre katkıda bulunmayı amaçlamıştır. Bu çalışma ayrıca, KKT perspektifinden sosyal etkileşim kaygısı modelinde, sosyal kaygıya ilişkin riskli ve koruyucu değişkenleri birleştiren tek çalışmadır. Bu yüzden, bu çalışma sosyal etkileşim kaygısı ve bununla ilişkili bilişsel ve bilinçli farkındalık temelli faktörler hakkında literatüre katklı sağlayacaktır.

Önceki çalışmalar, ruminasyon, yeniden değerlendirme, baskılama ve kaygı gibi faktörlerin sosyal kaygıyla ilişkisini raporlamıştır. Ancak bu çalışmalarda sosyal kaygı performans ve etkileşim kaygısının birleşimi olarak ölçülmüştür. Bu çalışmada sosyal etkileşim kaygısı ayrı bir faktör olarak alınmıştır. Bununla birlikte, literatürde bilinçli farkındalığın ve yaşantısal kaçınmanın sosyal etkileşim kaygısı üzerindeki dolaylı etkisine yönelik bir çalışma bulunmamaktadır. Bu çalışmanın bu karmaşık ilişki ile ilgili bir iç görü kazandırması beklenmektedir.

Türkiye'de araştırmacılar çoğunlukla sosyal kaygının sadece duygusal boyutunu ele alan Etkileşim Kaygısı Ölçeği'ni (EKÖ; Leary 1983) kullanmaktadır. Türkiye'de sosyal etkileşim kaygısının yalnızca duygusal boyutunu ele alan değil, aynı zamanda bilişsel ve davranışsal boyuttan da ele alan bir ölçeğe ihtiyaç duyulmaktadır. Bu çalışmanın söz konusu boşluğu doldurup, araştırmacılara etkileşim ve performans kaygısını gerçekten ayıran çalışmalar geliştirmelerine yardımcı olacağı düşünülmektedir. Böylece bu çalışma yeni bir ölçeğin yanı sıra, sosyal kaygıyı

çalışmak amacında yeni bir yol çizerek alana katkı sağlamıştır. Bu çalışmada, araştırmacılar sosyal etkileşim kaygısını sadece tek bir perspektiften değil, iki farkı noktadan; etkileşim ve performans, olarak inceleme fırsatı bulacaktır.

Dil edinimi üniversite öğrenciler için çok önemli olup kaygıya yol açan bir iştir. İkinci dil öğreniminde etkileşim teorisi kısaca dil öğrenim sürecinde etkileşimin rolünü vurgular (Vygotsky, 1986). Bu nedenle, dilsel alan etkili dil öğreniminde sosyal etkileşimin üzerine büyük önem vermiştir. Literatür, yabancı dil sınıflarında öğrencinin daha çok etkileşime teşvik edildiğini ve bu nedenle de çok da kaygı uyandıran sınıflar olduğunu vurgular (MacIntyre ve Gardner, 1991; Önem, 2010). Bu nedenle bu çalışmada hazırlık sınıfı öğrencileri seçilmiş olunup, bu doğrultuda İngilizce hazırlık okulu öğrencileri arasında sosyal etkileşim kaygısının hangi koruyucu ve risk etkenleri ile iletişimde olduğu konusunda bilgi sağlayarak, sosyal etkileşim kaygısını azaltmada hazırlık sınıflarıyla çalışan danışmanlara yardımcı olacaktır. Bu öğrenciler için sadece sosyal kaygının tek bir yapı olarak ele alınması yeterli olmadığından, mevcut çalışma özellikle hazırlık sınıfı öğrencilerinin yaşam mücadelelerinde diğer çalışmalardan daha yararlı olacaktır.

2. YÖNTEM

Bu bölümde araştırmanın yöntemi hakkında bilgi verilmiştir. Bölüm araştırma deseni, örneklem, veri toplama araçları ve veri analizi hakkında açıklamaları içermektedir.

2.1. Araştırmanın Deseni

Araştırmanın amacı doğrultusunda değişkenler arasındaki doğrudan ve dolaylı ilişkiler inceleneceği için ilişkisel araştırma deseni kullanılmıştır (Fraenkel ve Wallen, 2006). SEM, araştırmacıların, bir veya daha fazla bağımsız ve bağımlı değişken arasındaki karmaşık ilişkiyi, faktör ve regresyon analizinin kombinasyonu ve sekansları ile araştırmasına olanak sağlayan bir dizi istatistiksel tekniktir (Hox ve Bechger, 1998).

2.2. Örneklem

Veri toplama prosedürü iki aşamada tamamlandı. İlk aşama SIAS ölçeğini uyarlamak amacıyla yapılan pilot çalışma için toplanan verilerdir. İkinci aşamada ana çalışma için veri toplanmıştır. Her iki veri de bir yıllık aralıkla ODTÜ İngilizce Hazırlık Okulu'ndan toplanmıştır. Ana verileri toplamadan önce, pilot çalışmaya katılan öğrencilerin ana verilere katılmadıkları bilgisi temin edilmiştir.

Bu çalışmanın verileri, uygun örneklem yöntemi kullanılarak Türkiye'de ki bir devlet üniversitesinin hazırlık okulunda okuyan 645 öğrenciden elde edilmiştir. Bu katılımcılar arasında 23 katılımcı sadece demografik formu yanıtlamış, 9 katılımcı sorulara cevap vermemiş ve ankete katılan 8 kişi anketin ilk sorularının sadece birkaç maddesini işaretlemiştir. Bu nedenle, büyük miktarda eksik veri içeren 40 veri, veri setinden çıkarılmıştır. Analizlere kalan 645 (296 kadın, 349 erkek) katılımcı ile devam edilmiştir. Katılımcıların yaş aralığı 17 ve 32'dir, katılımcıların yaş ortalaması 19.43 olarak bulunmuştur. Katılımcıların fakültelerine bakıldığında örneklemin hemen hemen yarısını mühendislik fakültesi öğrencilerinin oluşturduğu gözlenmektedir. Katılımcıların 301'ini (%46.7) Mühendislik Fakültesi, 39'unu (%6) Mimarlık Fakültesi, 148'ini (%22.9) Fen Edebiyat Fakültesi, 34'üni (%9.9) İktisadi ve İdari Bilimler Fakültesi ve 93'ünü (%14.4) Eğitim Fakültesi öğrencilerinin oluşturduğu tespit edilmiştir.

2.3. Veri Toplama Araçları

Bu çalışmada, demografik bilgileri toplamak amacıyla ilk olarak kişisel bilgi formu kullanılmıştır. Sonrasında ise çalışmanın değişkenleri hakkında bilgi toplamak amacıyla Sosyal Etkileşim Kaygısı Ölçeği (SIAS; Mattick ve Clark, 1998), Duygu Yönetimi Ölçeği (Gross ve John, 2003), Ruminasyon Ölçeği (RRS; Treynor ve ark., 2003), Anksiyete Duyarlılığı İndeksi-3 (ASI-3; Taylor ve ark., 2007) Kabul ve Eylem Ölçeği-II (AAQ-II; Bond ve ark., 2011) ve Bilinçli Farkındalık Ölçeği (MAAS; Brown

ve Ryan, 2003) kullanılmıştır. Çalışmada ayrıca Sosyal Etkileşim Kaygısı Ölçeği'nin (SIAS; Mattick ve Clark, 1998) Türkçe'ye uyarlama çalışması yapılmıştır.

2.3.1. Kişisel Bilgi Formu

Kişisel bilgi formu katılımcıların yaşlarını, cinsiyetlerini ve hangi fakülte öğrencisi olduklarını tespit etmeyi amaçlayan üç soru içermektedir.

2.3.2. Sosyal Etkileşim Kaygısı Ölçeği

Sosyal Etkileşim Kaygısı ölçeği 20 maddelik 5'li derecelendirme ölçeğidir. (0-Asla kişisel özelliğim değil ya da benim için asla doğru değil ve 4-Aşırı kişisel özelliğim ya da benim için aşırı doğru) arasındadır. Ölçek sosyal etkileşime yönelik korku ve kaçınmanın seviyesini ölçer. Ölçekten alınan yüksek puanlar en az 0 en fazla 80 arasında değişmektedir yüksek puanlar kişide sosyal etkileşim kaygısının ne seviyede olduğunu gösterir. Ölçeğin orijinal çalışmasında iç tutarlılık katsayısı klinik örneklem için .93 olarak belirtilmiştir. Üç ay içindeki test-tekrar test tutarlılığı 4 hafta için .92, 12 hafta için .92 olarak bildirilmiştir (Mattrick ve Clark, 1998). Bu tez kapsamında ölçeğin Türkçe'ye uyarlama çalışması gerçekleştirilmiştir.

Ölçeğin uyarlama çalışmaları doğrultusunda açımlayıcı ve doğrulayıcı faktör analizleri yapılmıştır. Açımlayıcı faktör analizi (AFA) yapılmadan önce KMO değeri hesaplanmış ve ölçeğin AFA'ya uygun olduğu görülmüştür. AFA sonucu, orijinal formdaki gibi tek faktörlü bir yapıya işaret etmiştir.

Pilot çalışmada ölçeğin Türkçe formunun güvenirliği için Cronbach alfa iç tutarlık katsayısı hesaplanmış ve .84 bulunmuştur. Doğrulayıcı Faktör Analizi (DFA) sonuçları ise bu çalışmaya katılan üniversite hazırlık sınıfı öğrencilerinde ölçeğin tek boyutlu yapısının doğrulandığını göstermiştir [Satorra-Bentler χ^2 (169) = 299.15, p =.00; χ^2/df-ratio = 1.77; NNFI = .96, CFI = .97, SRMR= 0.06, RMSEA = .05].

Pilot çalışmadan sonra DFA, çalışmanın ana örneklem grubu olan ODTU hazırlık sınıfı öğrencileriyle tekrar hesaplanmıştır. Bulunan sonuçlar bu örneklem grubu içinde ölçeğin tek boyutlu yapısını doğrulamıştır [Satorra-Bentler χ^2 (169) = 548.54, p =.00; χ^2/df-ratio = 3.25; NNFI = .98, CFI = .98, SRMR= 0.04, RMSEA = .06]. Bu çalışmanın ana örneklem grubuyla hesaplanan ölçeğin Cronbach alfa iç tutarlık katsayısı .92 bulunmuştur. Bu çalışmaya katılan pilot örneklem grubu ve ana örneklem grubundan elde edilen bulgular, sosyal etkileşim kaygısı ölçeğinin bu geçerli ve güvenilir olduğuna işaret etmiştir.

2.3.3. Ruminasyon Ölçeği

Ruminasyon Ölçeği Nolen-Hoeksema ve Morrow (1991) tarafından bireylerin olumsuz yaşam olaylarıyla ilgili ruminasyon eğilimlerinin ölçmek amacıyla geliştirilmiş 21 maddelik 4'lü derecelendirme (1-Neredeyse hiç; 4-Neredeyse her zaman) ölçeğidir. Ölçeği kısa formu Treynor, Gonzales ve Nolen-Hoeksema (2003) tarafından geliştirilmiştir, ölçeğin "saplantılı düşünme" ve "derin düşünme" olmak üzere iki alt boyutu vardır. Ölçeğin kısa formu 10 maddeden oluşmakta, ölçek iki alt boyutlu şeklinde değerlendirilebileceği gibi toplam puan şeklinde değerlendirilebilmektedir. Ölçekten alınan puanlar 10 ile 40 arasında değişmektedir. Ölçeğin Türkçeye çevrilme çalışması Erdur (2002) tarafından yapılmış, ölçeğin tek faktörlü yapısını doğrulamış ve Cronbach alfa iç tutarlık katsayısını .90 olarak rapor etmiştir. Sonrasında Bugay (2010) yılında yaptığı çalışmada ölçeğin tek faktörlü yapısını tekrar onaylamış ve Cronbach alfa iç tutarlık katsayısını .77 olarak belirtmiştir. Daha sonrasında Erdur Baker ve Bugay (2012) çalışmasında iç tutarlılık katsayısı .85 olarak raporlanmıştır.

Ruminasyon ölçeğinin geçerlilik ve güvenilirliği, bu çalışmanın örneklem grubuyla (n= 645) tekrar test edilmiştir. Elde edilen doğrulayıcı faktör analizi bulguları ölçeğin iyi uyum indekslerine sahip olduğuna işaret etmektedir [Satorra-Bentler χ^2 (33) = 139.91, p =.00; χ^2/df-ratio = 4.23; NNFI = .96, CFI = .97, SRMR= 0.05, RMSEA = .07]. İç tutarlılık kat sayısı ölçek için .84 olarak bulunmuştur.

2.3.4. Duygu Düzenleme Ölçeği

Duygu Düzenleme Ölçeği Gross ve John (2003) tarafından geliştirilmiş, Türkçeye uyarlama çalışmaları Yurtsever (2004) tarafından yapılmıştır. Duygu düzenleme ölçeği 10 maddeden oluşan 7'li derecelendirme (1 = kesinlikle katılmıyorum, 7 = kesinlikle katılıyorum) ölçeğidir. Ölçek iki alt ölçeğe sahiptir bunlar yeniden değerlendirme ve bastırmadır. Bastırma orijinal formda ölçeğin Cronbach alfa iç tutarlık katsayısını yeniden değerlendirme alt ölçeği için .79, bastırma alt ölçeği için .73 olarak bildirilmiştir, 3 aylık aralıktaki test tekrar test güvenilirliği ise .69 olarak rapor edilmiştir (Gross ve John, 2003). Ölçeğin Türkçeye uyarlama çalışmasında Yurtsever (2004) Cronbach alfa iç tutarlık katsayısını yeniden değerlendirme alt ölçeği için .88, bastırma alt ölçeği için .82 raporlamıştır. Ölçeğin orijinal formunda ve Türkçeye uyarlama çalışmasında ulaşılan iki boyutlu faktör yapısı bu çalışmada da doğrulanmıştır. Bu çalışmada doğrulayıcı faktör analizi bulguları iki alt ölçeğinde iyi uyum indekslerine sahip olduğunu işaret etmektedir. Yeniden değerlendirme alt ölçeği için Satorra-Bentler χ^2 (6) = 28.31, p =.00; $\chi^2/df\text{-}ratio$ = 4.72, NNFI = .98, CFI= .99, SRMR= 0.04, RMSEA = .07; ve bastırma alt ölçeği için Satorra-Bentler χ^2 (2) = 6.58, p =.00; $\chi^2/df\text{-}ratio$ = 3.29, NNFI = .98, CFI = .99, SRMR= 0.02, RMSEA = .06. Bu çalışma doğrultusunda alt ölçeklerin Cronbach alfa iç tutarlık katsayıları bastırma boyutu için .84, yeniden ifade etme boyutu için ise .76 olarak bulunmuştur.

2.3.5. Kabullenme ve Eylem Ölçeği-II

Kabullenme ve eylem ölçeği yaşantısal kaçınma ve psikolojik esnekliği ölçmek amacıyla Hayes ve diğerleri (2004b) tarafından geliştirilmiştir. Ölçek başlangıçta 16 madde şeklide geliştirilmiş fakat sonrasında ölçek Bond ve ark., (2011) tarafından revize edilmiş. Ölçeğin revize edilmiş en son hali 7 maddeden oluşan 7'li derecelendirme ölçeğidir (1: Hiç doğru değil; 7: Her zaman doğru). Ölçekten alınan yüksek puanlar kişinin yaşantısal kaçınma davranışını fazlalığını göstermektedir. Bond ve ark., (2011) ölçeğin tek faktörlü yapıya sahip olduğunu, Cronbach alfa iç

tutarlık katsayısını ise .84, 3 aylık aralıktaki test tekrar test puanını .81, 12 aylık aralıktakini ise .79 olarak raporlamışlardır.

Kabullenme ve Eylem Ölçeği-II, Türkçeye Meunier ve diğerleri (2014) tarafından yapılmıştır. Türkçeye uyarlama çalışmasında tek faktörlü yapı onaylanmış, Cronbach alfa iç tutarlık katsayısı .88 olarak bildirilmiştir (Meunier ve ark., 2014). Bu çalışma kapsamında yapılan doğrulayıcı faktör analizi sonuçları iyi uyum indeksleri göstermiştir, [Satorra-Bentler χ^2 (11) = 37.21, *p* =.00; *χ^2/df-ratio* = 3.38; *NNFI* = .99, *CFI* = .99, *SRMR*= 0.03, *RMSEA* = .06]. Kabul ve Eylem Ölçeği-II'nin bu çalışma kapsamında Cronbach Alpha katsayısı .88 olarak hesaplanmıştır.

2.3.6. Anksiyete Duyarlılığı İndeksi-3

Anksiyete duyarlılığı kişinin duyduğu kaygının zararlı toplumsal veya fiziksel sonuçlarının olduğuna inanması ve bu yüzden kaygıya bağlı hissiyat ve belirtilerden korkmasıdır. Anksiyete Duyarlılığı İndeksi-3, anksiyete duyarlılığını ölçmek için geliştirilmiştir (Reiss, Peterson, Gursky ve McNally, 1986; Taylor ve Cox, 1998). Anksiyete Duyarlılığı İndeksi-3, Reiss ve diğerleri (1986) tarafından geliştirilen Anksiyete Duyarlılığı İndeksi ve Taylor ve Cox (1998) tarafından geliştirilen Anksiyete Duyarlılığı İndeksi-Gözden Geçirilmiş Formu'nun (ADİ-GF) tekrar gözden geçirilmesi ve revize edilmesi sonucu Taylor ve diğerleri (2007) tarafından geliştirilmiştir. Ölçek 18 maddelik 5'li derecelendirme (0-çok az; 4-çok fazla) ölçeğidir, ölçekten alınabilecek en az puan 0 en fazla puan 72'dir.

Ölçek üç alt boyutla kullanılabileceği gibi (fiziksel, toplumsal ve bilişsel korku), ölçeğin alt ölçekleri arasındaki yüksek korelasyondan ötürü (83 ile 99 arasında) ölçeğin toplam puanının kullanılabilir olduğu belirtilmiştir (Taylor ve ark., 2007). Ölçeğin iç tutarlık katsayısı 6 farklı ülkede hesaplanmış (Amerika, Kanada, Fransa, Meksika, Hollanda ve İspanya), .76-.86 fiziksel kaygılar alt ölçeği, .79-.91 bilişsel kaygılar alt ölçeği ve .73-.86 sosyal kaygılar alt ölçeği için Cronbach alfa değeri bildirilmiştir.

Anksiyete Duyarlılığı İndeksi-3'ün Türkçeye uyarlama çalışması Manter, Yemez ve Arkın (2010) tarafından yapılmıştır. Ölçeğin 3 faktörlü ve tek faktörlü yapısı uyarlama çalışmasında da desteklenmiş, araştırmacılar genel anksiyete duyarlılığı ölçümü için toplam puan kullanımını önermiştir. Uyarlama çalışmasında ölçeğin Cronbach alfa iç tutarlılık kat sayısı .93, test tekrar test güvenirlik puanı ise .64 olarak belirtilmiştir.

Bu çalışma kapsamında ölçeğin tek faktörlü yapısı için yapılan doğrulayıcı faktör analizi sonuçları iyi uyum indeksleri göstermiştir [Satorra-Bentler χ^2 (135) = 348.70, p =.00; $\chi^2/df\text{-}ratio$ = 2.58; *NNFI* = .98, *CFI* = .98, *SRMR*= 0.06, *RMSEA* = .05], Cronbach Alpha katsayısı .91 olarak hesaplanmıştır.

2.3.7. Bilinçli Farkındalık Ölçeği

Bilinçli Farkındalık Ölçeği, Brown ve Ryan (2003) tarafından geliştirilmiş olup, günlük hayattaki anlık deneyimlerin farkında olma ve bunlara dikkatini verebilme eğilimini değerlendiren bir ölçektir. Bilinçli Farkındalık Ölçeği 15 maddeden oluşan 6'lı derecelendirme (6 – Hemen hemen her zaman; 1– hemen hemen hiçbir zaman) ölçeğidir. Ölçekten alınan toplam puanlar kişinin bilinçli farkındalık seviyesini vermektedir. Ölçeğin orijinal formunun Cronbach alfa iç tutarlılık kat sayısı .87 olarak bildirilmiştir, 4 hafta arayla yapılan test tekrar test sonuçları .81 olarak rapor edilmiştir (Brown ve Ryan, 2003)

Bilinçli Farkındalık Ölçeğinin Türkçeye uyarlama çalışması Özyeşil, Arslan, Kesici ve Deniz (2011) tarafından yapılmıştır. Uyarlama çalışmasında ölçeğin tek faktörlü yapıya sahip olduğu onaylanmış, Cronbach alfa iç tutarlılık kat sayısı .86 olarak verilmiştir.

Bu çalışma kapsamında ölçeğin tek faktörlü yapısı için yapılan doğrulayıcı faktör analizi sonuçları iyi uyum indeksleri göstermiştir [Satorra-Bentler χ^2 (89) = 328.87, p =.00; $\chi^2/df\text{-}ratio$ = 3.70; *NNFI* = .93, *CFI* = .94, *SRMR*= 0.05, *RMSEA* = .06], Cronbach Alpha katsayısı .81 olarak hesaplanmıştır.

2.4. Veri Toplama Süreci

Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulundan izin alındıktan sonra veri toplamak amacıyla Temel İngilizce Bölüm Başkanlığı'ndan gerekli izinler alınmıştır. Sonrasında ise İngilizce Hazırlık Okulu akademik koordinatörleriyle çalışma hakkında görüşülmüş, koordinatörlerin belirlediği sınıflar için tüm ölçme araçlarını içeren bir kitapçık oluşturulmuştur. Veri toplama süreci 2016-2017 eğitim öğretim yılı güz döneminde yapılmıştır. Uygulamaya gönüllü katılım özellikle vurgulanmış, katılımcılara çalışmanın amacı açıklanmıştır.

2.5. Veri Analizi

Üniversite öğrencilerindeki ruminasyon, yeniden değerlendirme, bastırma ve anksiyete duyarlılığı ile sosyal etkileşim kaygısı arasındaki ilişkide bilinçli farkındalığın ve yaşantısal kaçınmanın dolaylı etkisi LISREL 8.80 kullanılarak incelenmiş ve bu doğrultuda önerilen model Yapısal Eşitlik Modeli (YEM) ile test edilmiştir. Analizlerin başlangıcında betimleyici istatistikler ve bazı varsayımları kontrol etmek amacıyla SPSS 20 kullanılmıştır.

2.6. Çalışmanın Sınırlılıkları

Mevcut çalışma bazı olası kısıtlamalara ve sınırlamalara sahiptir. Bu sınırlılıklardan ilki çalışmanın örneklem seçimi yönteminden kaynaklanan bulguların genellenebilir olmayışıdır. İkinci olarak ölçme araçlarının uygulaması her sınıfın kendi öğretmeni tarafından gerçekleştirilmiştir, bu da veri toplama sürecindeki talimatlarda farklılık yaratmış olabilir. Bir diğer sınırlılık ise nedensellik hakkındadır. Çalışma ilişkisel bir çalışma olduğu için nedensellik çıkarımı yapılamamaktadır. Son olarak bu çalışmada katılımcıların verileri anketler aracılığıyla toplandığı için verilen cevapların nesnelliği ve içtenliği konusunda da sınırlılıklar olabilir, bu varsayım çalışmanın sınırlılığı olarak gösterilebilir.

3. BULGULAR

Yapısal eşitlik modellemesine (YEM) verileri hazırlamak için veri temizleme ve veri tarama işlemleri gerçekleştirilmiştir. Sonrasında YEM analizi varsayımı olarak kayıp veri analizi, örneklem büyüklüğünün yeterliliği, uç değerler, normallik, doğrusallık ve çoklu doğrusallık testleri kontrol edilmiştir.

Yapılan testler sonucunda çalışma verilerinin çoklu normal dağılım varsayımını sağlamadığı görülmüştür, bu varsayımdaki ihlalden dolayı analizlere Asimtotik Kovaryans Ki-kare değeri hesaplanarak devam edilmiştir.

3.1. Betimsel Analizler

Sosyal Etkileşim Kaygısı ölçeğinden çalışmanın katılımcıların aldıkları toplam puanların ortalaması 28.26 (*SS*=13.37) olarak raporlanmıştır. Çalışmanın dışsal değişkenleri ölçmek için kullanılan diğer ölçeklerden ruminasyon ölçeğinden alınan puanların ortalaması 22.60 (*SS*=6.00) olduğu görülmüştür. Yeniden değerlendirme ölçeği için 28.98 (*SS*=7.28), bastırma ölçeği için ise alınan puanların ortalamasının ise 15.76 (*SS*=5.48) olduğu görülmüştür. Anksiyete duyarlılığı ölçeğinden alınan puanların ortalaması ise 21.08 (*SS*=13.51) olarak bulunmuştur. Katılımcıların ortalaması bilinçli farkındalık ölçeği için 58.31 (*SS*=10.34) iken yaşantısal kaçınma ölçeği için 22.48 (*SD*=9.43)'dir.

3.2. Model Testi Bulguları

Bu çalışmada, sosyal etkileşim kaygısı modelini test etmek ve ruminasyon, yeniden değerlendirme, bastırma ve anksiyete duyarlılığı ile sosyal etkileşim kaygısı arasındaki ilişkide bilinçli farkındalığın ve yaşantısal kaçınmanın dolaylı rolünü anlayabilmek ve bu değişkenlerin bir model içerisinde test edebilmek için ölçüm modeli test edilmiştir. Ölçüm modelinden önce bütün değişkenlerin model içerisindeki test edilebilirliğini olası kılmak için madde sayısı fazla olan ölçme araçlarında parselleme yöntemi

uygulanmış (Kline, 2016). Bununla beraber, Marsh, Hau, Balla ve Grayson (1998), madde sayısı iki ve on iki arasında değişen ölçeklerde, fazla parsellemenin az parsellemeye göre asıl modele daha uygun sonuçlar verdiğini belirtmiştir. Bu doğrultuda sosyal etkileşim kaygısı ölçeği dört, bilinçli farkındalık ölçeği üç, ruminasyon ölçeği iki, anksiyete duyarlılığı ölçeği üç parsele ayrılmıştır, bastırma, yeniden değerlendirme ve yaşantısal kaçınma ölçekleri için parselleme yöntemine gerek duyulmamıştır.

Ölçüm modeli analizi sonucunda elde edilen sonuçlar, model için kabul edilebilir uyum indekslerine işaret etmiştir ve sosyal etkileşim kaygısı, ruminasyon, yeniden değerlendirme, bastırma, anksiyete duyarlılığı, bilinçli farkındalığın ve yaşantısal kaçınma değişkenlerinin aynı model üzerinde test edilmesinin uygunluğunu göstermiştir: [Satorra-Bentler χ^2(354) = 845.27, p = .00; χ^2/df-ratio = 2.39; RMSEA = .05; CFI = .98; NNFI= .98; GFI = .90; SRMR = .05].

Ölçüm modelinden sonra YEM analizine geçilmiştir, analiz sonuçları modelin çalışma verisiyle uyum sağladığını, iyi ve kabul edilebilir indekslere sahip olduğu göstermiştir Satorra-Bentler χ^2(355) = 864.89, p = .00; χ2/df-ratio = 2.44; RMSEA = .05; CFI = .98; NNFI= .98; GFI = .90; SRMR = .05. Yapısal modeldeki açıklanan varyans değerlerine bakıldığında ise yeniden değerlendirme, bastırma, ruminasyon, anksiyete duyarlılığı, bilinçli farkındalık ve yaşantısal kaçınma hepsinin birden modelin %36'sını açıkladığı, dışsal değişkenlerin ise bilinçli farkındalığı %67, yaşantısal kaçınmayı ise %67 açıkladığı bulunmuştur.

Test edilen yapısal eşitlik modelinde doğrudan etkiler incelendiğinde, sosyal etkileşim kaygısının, yeniden değerlendirme (β = -.09 p < .05), bastırma (β = .22, p < .01) ve anksiyete duyarlılığını (β = .17 p < .01) tarafından yordanmakta olduğu fakat ruminasyon (β = -.08, p > .05) tarafından anlamlı ve doğrudan yordanmadığı bulunmuştur. Diğer değişkenler de ise bilinçli farkındalığın yeniden değerlendirme (β = .09 p < .05), bastırma (β = -.17 p < .01), ruminasyon (β = -.29 p < .01), ve anksiyete duyarlılığı (β = -.29 p < .01) tarafından doğrudan yordandığı görülmüştür. Yaşantısal

kaçınmanın ise ruminasyon ($\beta = .59$ $p < .01$), yeniden değerlendirme ($\beta = -.12$, $p < .01$) ve anksiyete duyarlılığı($\beta = .27$, $p < .01$) tarafından doğrudan yordandığı fakat bastırma ($\beta = .05$, $p > .05$) tarafından anlamlı ve doğrudan yordanmadığı bulunmuştur.

Test edilen yapısal eşitlik modelinde dolaylı etkiler incelendiğinde, bilinçli farkındalığın yeniden değerlendirme hariç diğer bütün dışsal değişkenler ile sosyal etkileşim kaygısı arasındaki ilişkide istatistiksel olarak anlamlı bir dolaylı etkisi olduğu görülmüştür. Yaşantısal kaçınma değişkeninin ise bastırma hariç diğer bütün dışsal değişkenler ile sosyal etkileşim kaygısı arasındaki ilişkide istatistiksel olarak anlamlı dolaylı etki eden bir değişken olduğu bulunmuştur. Bu sonuca göre, bilinçli farkındalığın, yeniden değerlendirme ($\beta = -0.01 > .05$) dışındaki tüm değişkenlerin bastırma ($\beta = .02$ $p < .05$), ruminasyon ($\beta = .03$ $p < .05$) ve anksiyete duyarlılığının ($\beta = .03$ $p < .05$), sosyal etkileşim kaygısıyla olan ilişkisinde dolaylı etkiye sahip olduğu bulunmuştur. Yaşantısal kaçınma değişkenin ise, bastırma hariç ($\beta = 0.02 > .05$) diğer bütün değişkenlerle; yeniden değerlendirme ($\beta = -.04$, $p < .05$), ruminasyon ($\beta = .20$ $p < .05$) ve anksiyete duyarlılığı ($\beta = .09$ $p < .05$) ile sosyal etkileşim kaygısı arasındaki ilişkide dolaylı ve anlamlı bir rolü olduğu görülmüştür. Bu bulgularla beraber tüm dışsal değişkenlerin içsel değişken üzerindeki toplam etkilerinin hepsi anlamlı olduğu bulunmuştur; yeniden değerlendirme ($\beta = -.14$, $p < .01$), bastırma ($\beta = .26$, $p < .01$), ruminasyon ($\beta = -.15$, $p < .05$) ve anksiyete duyarlılığı ($\beta = .29$, $p < .01$).

4. TARTIŞMA

Bu çalışmada ruminasyon, yeniden değerlendirme, bastırma ve anksiyete duyarlılığı ile sosyal etkileşim kaygısı seviyesini belirleme arasındaki ilişkide, bilinçli farkındalığın ve yaşantısal kaçınmanın dolaylı etkisinin önemli bir role sahip olduğu hipotezi geliştirilen bir model ile test edilmiştir. Her bir maddenin ve gizli değişkenlerin nedensel ilişki araştırması için güvenilirliğini incelemek amacıyla öncelikle ölçüm modeli test edilmiştir. Sonuçlar, önerilen yapısal modelin veri ile uyum sağladığını göstermiştir. Ayrıca, araştırma bulguları doğrudan ve dolaylı etkilerin anlamlı olduğunu da göstermiştir. Bu araştırma modelinin sosyal etkileşim

kaygısıyla %36 varyans tespit edilmişken, bu oran bilinçli farkındalıkta %37, yaşantısal kaçınmada ise %67 olarak bulunmuştur. Gizli değişken üzerindeki doğrudan etkinin değerlendirilmesinde, sadece ruminasyonda anlamlı bir sonuç elde edilmemiştir. Diğer bir yandan bilinçli farkındalık değişkeni ruminasyona tam olarak etki etmektedir. Bunun dışında, dolaylı değişken olarak bilinçli farkındalığın tüm değişkenlerle anlamlı bir ilişkisi varken, yaşantısal kaçınmanın bu anlamlı ilişkiye bastırma değişkeni hariç sahip olduğu tespit edilmiştir. Dolaylı ilişkiler açısından ise, bilinçli farkındalık tarafından dolaylı etki edilen yeniden değerlendirme ve sosyal etkileşim kaygısı arasındaki ilişki ve yaşantısal kaçınmanın dolaylı etki ettiği bastırma ve sosyal etkileşim kaygısı arasındaki ilişki dışında anlamlı bir sonuçla karşılaşılmamıştır.

Dışsal bir değişken olarak yeniden değerlendirme, sosyal etkileşim kaygısı üzerinde pozitif ve anlamlı bir doğrudan etkiye sahiptir. Bu durum bilişsel yeniden değerlendirmeyi daha çok kullanan bireylerin sosyal etkileşim kaygısını daha az deneyimlediği anlamına gelmektedir. Bu sonuç, kişilerarası etkileşimde sosyal kaygı üzerinde yeniden değerlendirmenin olumsuz etkisi üzerine odaklanan literatürle uyuşmaktadır (Cutuli, 2014; Goldin, McRae, Ramel ve Gross, 2008). Bunun yanı sıra, yeniden değerlendirmenin bilinçli farkındalık üzerinde anlamlı ve pozitif bir etkiye sahip olduğu tespit edilmiştir. Bu sonuç geçmiş literatürle benzerlikler göstermektedir (Hill ve Updegraff 2012; Tran ve ark., 2014) ve bilinçli farkındalıkla ve yeniden değerlendirmenin birbirlerini desteklediği vurgulanmaktadır (Garland, Gaylord ve Park, 2009).

Yeniden değerlendirme ve sosyal etkileşim kaygısı arasındaki ilişkide bilinçli farkındalığın dolaylı etkisinde ise anlamlı bir sonuç elde edilememiştir. Kaygı üzerinde uyumlu bir şekilde etkili olan duygu düzenlemesinin, bilinçli farkındalık süreci olmaksızın kaygıyı etkilediği bulunmuştur (Mennin, Heimberg, Turk ve Fresco, 2005). Yapılan çalışmalar bilinçli farkındalık ve işlevsel duygu düzenleme yöntemlerinin genel kaygı belirtileri üzerinde ortak bir varyansı açıkladığını belirtmiştir (Roemer, Orsillo ve Salters-Pedneault, 2008). Bu çalışmalar, yeniden

değerlendirme ve sosyal etkileşim kaygısı arasındaki ilişkideki bilinçli farkındalığın anlamlı olmayan dolaylı etkisini desteklemektedir.

Yeniden değerlendirme ile yaşantısal kaçınma arasında ise negatif yönde anlamlı bir ilişki olduğu gözlemlenmiştir. Bu bulgu, literatürdeki çalışmalara benzer şekilde, yeniden değerlendirmenin kullanımındaki artışın, yaşantısal kaçınmada bir azalmaya neden olduğunu göstermektedir (Blechert ve ark., 2015; Gross, 2014). Bunun yanı sıra yeniden değerlendirmenin, kaygı uyandıran durumları yeniden düzenleyerek bireylerin duygusal yaşantılarını azalttığı bildirilmiştir (Blechert ve ark., 2015). Çalışmanın bu bulguları, yeniden değerlendirme ve sosyal etkileşim kaygısı arasındaki ilişki üzerinde yaşantısal kaçınmanın anlamlı negatif dolaylı etkisini açığa çıkarmıştır. Bu durum, yeniden değerlendirmeyi çok kullanan bireylerin yaşantısal kaçınma kullanımlarının azaldığı ve sosyal etkileşim kaygısını daha az deneyimlediklerini göstermektedir. Yeniden değerlendirme ve sosyal etkileşim kaygısı arasındaki ilişkide bilinçli farkındalığın dolaylı etkisine ilişkin bulgular ise anlamlı bulunmamıştır.

Bu çalışmada bir diğer dışşal değişken olarak bastırmanın sosyal etkileşim kaygısı ile ilişkisine bakıldığında, anlamlı ve pozitif doğrudan etkinin olduğu gözlemlenmiştir. Bu sonuç literatürdeki çalışmaların bulguları ile de benzerlik göstermektedir (Farmer ve Kashdan, 2012; Gross, 2015). Baş etme mekanizması olarak bastırma kullanan bireyler, olumlu veya olumsuz duygularını sakladıkları ve bastırdıkları için karşıdaki kişiyle açık şekilde etkileşime geçemez. Bunum sonucunda karşıdaki kişiyle samimi bir iletişim kuramaz ve yakınlık için gerekli taleplere uygun cevaplar veremez (örn; gerçek his ve duyguları açıklama), bu paylaşımı sağlayamadığı için de karşı taraftın da aynı şekilde duygu, his ve düşüncelere yönelik bilgisini alamaz (Moore ve Zoellner, 2012). Bütün bunların sonucu olarak istenmeyen ve güvenilir olarak algılanmayan bireyler haline gelirler (Baumeister ve Tice, 1990).

Bu faktörler bastırmayı kullanan bireylerin sosyal etkileşim kaygısına katkı sağlamaktadır. Bu durumun tam tersi olarak, bilinçli farkındalığı duygu düzenleyici bir yöntem olarak kullanan bireyler ise bilinçsizce tepki göstermek yerine duygu ve

düşünceleri kabul etmeyi tercih ederler. Bu çalışmanın bulguları ilgili literatüre benzer şekilde, bastırma ve bilinçli farkındalık arasındaki anlamlı doğrudan ilişkiyi desteklemektedir (Broderick, 2005; Brockman, Ciarrochi, Parker ve Kashdan, 2016). Bu araştırmanın bulguları ayrıca bastırma ile yaşantısal kaçınma arasında anlamlı olmayan doğrudan ilişkiyi göstermektedir. Buna göre olumlu veya olumsuz duyguları gizleme çabası ne içsel olumsuz yaşantıdan kaçınma ile bağlantılıdır ne de benzer şekilde işlev görmektedir. Her ikisi de kaçınma stratejisi olarak kavramsallaştırılmaktadır (Aldao, Nolen-Hoeksema ve Schweizer, 2010; Aldao, Jazaieri, Goldin ve Gross, 2014). Bu iki değişken de aynı düzenleme stratejilerini ölçtüğü için, aralarındaki anlamlı olamayan ilişki makul görülebilmektedir.

Bu çalışma ile ilgili bir diğer bulgu ise, bastırmanın sosyal etkileşim kaygısıyla olan ilişkisi üzerindeki yaşantısal kaçınmayla olan dolaylı etkisidir. Üniversite öğrencileri arasında yapılan önceki literatür çalışmalarında yaşantısal kaçınma ve dışavurumsal bastırma sadece ara değişken olarak incelenmiştir ve bu çalışmalarda bastırma ve sosyal etkileşim kaygısı arasındaki bağlantıda yaşantısal kaçınmanın ara değişken olarak etkisine yer verilmemiştir (örn. Wolgast, Lundt ve Vigor, 2013). Özetle, bu ara değişkenler arasındaki anlamlı olmayan dolaylı etkiyi inceleyen bir çalışma literatürde bulunmamaktadır.

Bilinçli farkındalığın, bastırma ve sosyal etkileşim kaygısı arasındaki ilişkideki dolaylı etkisine bakıldığında ise, bulgular bastırma ve sosyal etkileşim kaygısı arasındaki ilişkide bilinçli farkındalığın dolaylı etkisiyle pozitif yönde bir ilişki göstermektedir. Bireyler olumlu veya olumsuz duygularını bastırdıklarında, bilinçli farkındalığa olan yönelimleri azalır ve bu durum bireylerin sosyal etkileşim kaygısı seviyelerini artırır. Literatür çalışmaları bastırma ve sosyal etkileşim kaygısı arasındaki güçlü ilişkiyi, bastırmanın sosyal etkileşim kaygısını artırıcı yönünü vurgulayarak önermektedir (Gross, 2015). Bu bağlamda, literatürdeki araştırma bulgularının birleşimiyle, bastırma ve sosyal etkileşim kaygısı arasındaki ilişki üzerindeki dolaylı etki çeşitlendirilebilir.

Üçüncü dışsal değişken olarak ruminasyonun ise sosyal etkileşim kaygısı üzerinde anlamlı olmayan doğrudan bir etkisi vardır. Buna ek olarak şaşırtıcı bir şekilde, ruminasyon ve sosyal etkileşim kaygısı arasında anlamlı olmayan doğrudan bir ilişki varken bilinçli farkındalık ve yaşantısal kaçınma dolaylı etkisiyle, bu iki değişken arasındaki ilişki anlamlı olarak tespit edilmiştir. Sosyal etkileşim ve ruminasyon arasındaki bu ilişkiyi inceleyen önceki çalışmalar anlamlı bir etki keşfetmelerine rağmen (Clark ve Wells, 1995; Dannahy ve Stopa, 2007; Melling ve Alden, 2000) bu çalışmada sadece dolaylı etki anlamlı bulunmuştur. Bu durum, ruminasyonun sosyal etkileşim kaygısı üzerindeki dolaylı etkisinin bilinçli farkındalık ve yaşantısal kaçınma kaynaklı olduğunu göstermektedir.

Ruminasyon ve bilinçli farkındalık arasındaki anlamlı ilişkiye odaklanan ilgili literatür, bilinçli farkındalığın ruminatif düşünmeyi azaltmada (Campbell, Labelle, Bacon, Faris ve Carlson, 2012; Shapiro, Carlson, Astin ve Freedman, 2007), işlevsel duygu düzenleme becerilerini geliştirmede ve işlevsel duygu düzenleme yöntemlerinin kullanımını azaltmada (Arch ve Craske, 2006; Coffey ve Hartman, 2008) yardımcı olduğu gösterilmiştir. Bu durum bireylerin bir sorun ya da düşünceye tekrar eden bir şekilde odaklanmasının içsel deneyimlere dönmesini zorlaştırdığı ve bununda bilinçli farkındalığın azalmasına neden olduğunu göstermektedir.

Bu çalışmanın bulguları ruminasyonun yaşantısal kaçınma üzerinde anlamlı ve pozitif doğrudan bir etkisi olduğunu göstermiştir ve bu sonuç ilgili literatürde önceki çalışmaların sonuçlarıyla da uyuşmaktadır (Bhuptani, 2017; Bjornsson ve ark., 2010). Fresco, Frankel, Menning, Turk ve Heimberg (2002) ruminasyonu kaçınma yöntemi olarak betimlerken Nolen-Hoeksema (2008) ve Smith ve ark., (2007) yüksek ruminatif düşünceye sahip bireylerin daha çok kaçınma davranışı sergilediğini ve bu durumun hoş olmayan duygusal deneyimlerden geçici bir kaçış sağladığını ifade etmişlerdir. Bu bulgular araştırmacıların ruminasyon ve sosyal etkileşim kaygısı arasındaki ilişkide yaşantısal kaçınmanın dolaylı etkisini açığa çıkarmalarına yardım edebilir. Kısacası, bireyler düşük bilinçli farkındalık eğilimine sahip olduğunda ruminasyonun sosyal

etkileşim kaygısıyla bir ilişkisi vardır ve bu ilişki bireylerin yaşantısal kaçınmaları yüksek olduğunda anlamlıdır.

Dördüncü dışsal değişken olan anksiyete duyarlılığının sosyal etkileşim kaygısı üzerinde anlamlı ve pozitif bir etkisi vardır ve bu bulgu önceki literatür çalışmalarıyla da uyum sağlamaktadır (Anderson ve Hope, 2009; Norton, Cox, Hewitt ve McLeod, 1997). Anksiyete duyarlılığı yüksek bireyler sosyal etkileşim sonrasında anksiyete duyarlılığı düşük bireylere göre daha fazla kaygı yaşarlar (Gore ve ark., 2002). Bu artışın sebebi, anksiyete duyarlılığının sosyal olayların felaketleştirilmiş sonuçlarıyla ilişkisi olmasından kaynaklanır, bu sonuçlar düşük seviyede sosyal kabul ve akran zorbalığıyla (Callaghan ve Joseph, 1995) olabilmektedir.

Ansiyete duyarlılığı ve bilinçli farkındalık farklı çalışmalarda ilişkilendirilirken (Degen, 2007; McKee ve ark., 2007), bazı çalışmalar bilinçli farkındalığın anksiyete duyarlılığını azalttığına ilişkin kanıt sunmaktadır (Schoorl ve ark., 2015; Tanay, Lotan ve Bernstein, 2012). Bahsedilen bulgular bu çalışmada da doğrulanmıştır. Bilinçli farkındalık ve anksiyete duyarlılığı arasındaki negatif anlamlı ilişki bulunmuştur. Diğer bir yandan, kaygıya ve onun bireyler üzerindeki etkisine gelen cevapların bilinçli farkındalık tarafından aracılık edildiği iddia edilmektedir (Bishop ve ark., 2004; Hayes ve ark., 1999; Hayes ve Feldman, 2004). Zvolensky ve diğerleri (2015), anksiyete duyarlılığı yüksek seviyesinin bilinçli farkındalığın düşük seviyesiyle ilişkisini sosyal kaygıya kanıt olarak göstermektedir.

Anksiyete duyarlılığının yaşantısal kaçınmayı geliştirdiği ve artırdığı bildirilmektedir (Zinbarg, Brown, Barlow ve Rapee, 2001). Anksiyete duyarlılığının yaşantısal kaçınmayı güçlendirdiği ve bu unsurların ilişkili fakat farklı yapılar oldukları savunulmaktadır (Kampfe ve ark., 2012). Literatürün önceki çalışmalarıyla uyumlu olarak bu çalışmada da anksiyete duyarlılığı ve yaşantısal kaçınma arasındaki pozitif ve anlamlı ilişki tespit edilmiştir. Bu durum bireylerin yüksek anksiyete seviyesine sahip olduklarında yaşantısal kaçınmayla da daha fazla meşgul olduklarını göstermektedir.

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Anksiyete duyarlılığı ve sosyal kaygı arasındaki ilişkinin duygusal kaçınma gibi diğer değişkenler tarafından da aracılık edildiği ileri sürülmektedir (Pickett, Lodis, Parkhill ve Orcutt, 2012; Zvolensky ve Forsyth, 2002). Belirtilen tespitlerle uyumlu şekilde bu çalışmanın bulguları da anksiyete duyarlılığı ve sosyal etkileşim kaygısı arasındaki ilişki üzerindeki yaşantısal kaçınmanın pozitif dolaylı etkisini belgelemektedir. Bu etki bireylerin anksiyete duyarlılığı arttıkça hissettikleri yaşantısal kaçınma ve sosyal etkileşim kaygısının da arttığını göstermektedir.

Genel kaygı belirtileri üzerinde bilinçli farkındalığın düşük seviyesinin önemli bir rol oynadığı iddia edilmektedir. Bilinçli farkındalık ve kaygı arasındaki ilişki üzerine gerçekleştirilen önceki çalışmalar, bilinçli farkındalığın kaygı ve kaygının belirtilerinde önemli bir yapı olduğu önerilmektedir (Baer, Smith, Hopkins, Kritemeyer ve Toney, 2006; Orsillo ve Roemer, 2005). Üniversite öğrencileriyle gerçekleştirilen önceki çalışmalarda olduğu gibi bu çalışmada da bilinçli farkındalığın sosyal etkileşim kaygısıyla olan negatif ilişkisi tespit edilmiştir (Brown ve Ryan, 2003;Tan, Lo, Ge ve Chu, 2016).

Bilinçli farkındalık, sosyal kaygıyı ve onun önemli etkenlerinden olan işlevsiz kendine odaklı dikkati içeren zinciri kırmada etkili bir role sahiptir (Schmerts, Masuda ve Anderson, 2012). Bunun yanı sıra, bilinçli farkındalık bireylerin çevrelerine odaklanmalarını, sosyal durumların yıkıcı sonuçlarından kaçınmalarını (Beard, Burns ve Bomyea, 2009) ve ayrıca yeni sağlıklı anılar geliştirmelerini sağlamaktadır. Bu bağlamda, içsel deneyimlerinin daha çok farkında olan bireyler kendilerine odaklanmak yerine burada ve şimdiye odaklanarak ve durumu değerlendirmeksizin kabul ederek sosyal kaygı seviyelerinin azalmasını sağlarlar.

Kaygı bozukluğunun en etkili unsurlarından olan yaşantısal kaçınmadaki artış kaçınmalı baş etme stratejisi ve kişilerarası problemlerle bağlantılı olduğu onaylanmıştır (Gerhart, Baker, Hoerger ve Ronan, 2014) ve yaşantısal kaçınmanın sosyal kaygı bozukluğunun teşhisi gözetilmeksizin sosyal etkileşim kaygısını tespit ettiği bulunmuştur (Cisler ve ark., 2010; Kashdan ve ark., 2014). Bu bulgularla

bağlantılı olarak, bu çalışmada da yaşantısal kaçınmanın sosyal etkileşim kaygısı üzerindeki anlamlı pozitif doğrudan etkisi tespit edilmiştir. Bu durum ilgili literatürle uyumlu olarak yaşantısal kaçınma ile daha çok meşgul olan bireylerin sosyal etkileşim kaygısını daha çok hissettiklerini göstermektedir (Levin, Haeger ve Smith, 2017; Moscovitch, 2009).

Yaşantısal kaçınmanın sosyal kaygıya birkaç farklı şekilde katkı sağladığı iddia edilmektedir. Bunlardan ilki bireylere diğer insanlara soğuk davrandırarak onları sosyal durumlardan uzaklaştırmaktır. Bir diğeri, bireyleri zarar görebilme ve rahatsız edici fizyolojik uyarılmalarını azaltma hislerinden kaçmak amacıyla diğerlerine saldırganca davrandırmadır (Barkham, Hardy ve Startup, 1996; Gardner ve Moore, 2008). Ayrıca bu durum davranışsal esneklikte azalma ile de açıklanabilir ve bunun kaçınmalı baş etmeyi de artırdığı iddia edilmektedir (Gerhart ve ark., 2014). Bir diğer açıklama ise bireylerin kötü ya da iyi olarak belirli duygular hakkında işlevsiz kurallar geliştirmeleridir. Kötü duyguların, kaçınılması gereken duygular olarak kodlanıldığı savunulmaktadır (Hayes, 1989). Kısacası bireyler istenmeyen içsel deneyimlerinden kendilerini uzak tutmaya ya da bu duygulardan korumaya çalıştıklarında ve sosyal etkileşim durumuna maruz kaldıklarında bu durum onlara sosyal kaygı seviyelerinde bir artışa neden olan geçici bir rahatlık sağlar.

Genel olarak, tüm bu bulgular bilinçli farkındalık yapısını modele dahil eden Herbert ve Cardaciotto (2005) tarafından değiştirilen sosyal kaygının, bilişsel davranışçı modelini desteklemektedir (Clark ve Wells, 1995; Rapee ve Heimberg, 1997). Bu çalışmanın modeli ayrıca bilinçli farkındalıkla birleştirilen modelin, sosyal etkileşim kaygısı modeli için de geçerli olduğunu göstermektedir.

4.1. Araştırma ve Uygulamaya Yönelik Öneriler

Son yıllarda yapılan ve birbinden farklı kuramsal yaklaşımların kullanıldığı çalışmalar sosyal kaygı kavramına çeşitli modeller sunmuştur. Bu çalışma ise sosyal etkileşim kaygısı üzerinde ruminasyon, bastırma, anksiyete duyarlılığı, yaşantısal kaçınma,

bilinçli farkındalık ve duygu düzenleme kavramlarının önemine vurgu yaparak bilişsel model gibi önceden geliştirilen modellere katkı sağlamaktadır.

Bu çalışmada KKT teorik yaklaşımı kapsamında önerilen model veri ile uyumludur. KKT modeli içinde sosyal etkileşim kaygısını düşünmek uygulamalı araştırmacıların ruminasyon, yaşantısal kaçınma gibi işlevsiz kaygı ile başa çıkma yöntemlerini incelemelerine yardım edebilmektedir. Ayrıca, KKT'nin önemli unsurlarından biri olan bilinçli farkındalık bireylerin duygu ve düşünceleri yargılamaksızın gözlemlemelerini ve deneyimlemelerini sağlamaktadır. Bastırma, ruminasyon, anksiyete duyarlılığı, yaşantısal kaçınma üniversite öğrencilerinin sosyal etkileşim kaygısı için risk taşıdığı ya da hassas bir faktör olarak görüldüğü için, yeniden değerlendirme ve bilinçli farkındalık bu kaygı için koruyucu etken olarak düşünülebilir. Bu bağlamda, sonraki çalışmalarda araştırmacılar bilinçli farkındalık ve bilişsel yeniden değerlendirmeyi teşvik etmek için deneysel çalışmalar gerçekleştirebilirler ve bu unsurların sosyal etkileşim kaygısı üzerindeki etkisini araştırabilirler.

Literatürdeki çalışmaların birçoğu sosyal etkileşim kaygısından çok sosyal performansa odaklanmıştır. Bu çalışma ise, üniversite öğrencilerinin sosyal etkileşim kaygısına vurgu yaparak ilgili literatüre katkıda bulunmaktadır. Bu çalışma bilinçli farkındalık ve yaşantısal kaçınmayı değişkenleri de sosyal kaygı literatüne kazandırmıştır.

Bu çalışmanın sonuçları değişkenler arasında en yüksek varyansa sahip olan bastırmanın sosyal etkileşim kaygısı üzerindeki etkisinin diğer değişkenlerden bağımsız olduğunu göstermiştir. Bu sonuçlar dikkate alındığında üniversite öğrencilerinin sosyal etkileşim kaygısı ile ilgili önleyici programlar tasarlanırken ya da müdahale modeli geliştirirken bastırmanın göz önünde bulundurulduğu çalışmalar önerilebilir.

Bu çalışmanın bulguları ruminasyonun sadece yaşantısal kaçınma ve bilinçli farkındalık etkisiyle sosyal etkileşim kaygısı üzerinde bir etkiye sahip olduğunu göstermiştir. Bu doğrultuda, sosyal kaygısı olan danışanların ruminatif düşünme desenlerini araştırırken, danışmanlar öncelikle bilinçli farkındalık ve yaşantısal kaçınmayı dikkate alabilirler.

Üniversitelerin danışma servislerinde çalışan uzmanlar yüksek sosyal etkileşim kaygısına sahip olan danışanlarla çalıştıklarında yeniden değerlendirmeyi ve bilinçli farkındalığı uygulamalarında kullanabilirler. Ayrıca bu yöntemler psikolojik danışmanların kaygı ve duygu düzenlemelerinde üniversite öğrencilerine yardım ederken ve kaygı düzenlemelerindeki artan kapasitede öğrencilerin performans kaygılarını hafifletmelerini sağlayabilir. Bu nedenle, bu çalışmanın bulguları danışanların işlevsel başa çıkma yöntemlerini geliştirmek için danışmanları tarafından önerilebilir.

Bu araştırmanın sonucu bilişsel yapıların ortak noktası olarak kendine odaklı dikkati vurgulamaktadır. Bu sebeple, üniversitelerin danışma merkezlerinde çalışan danışmanlar, diğer uygulayıcılar ve sosyal etkileşim kaygısı hakkında müdahale programı geliştiren araştırmacılar kendi modellerine kendine odaklı dikkati almalıdırlar.

Bu çalışma üniversite danışma servislerine sosyal etkileşim kaygısını güçlendirici ve zayıflatıcı yönde etki eden unsurlar hakkında bilgi sağlayarak ışık tutmaktadır. Bu çalışmanın bulguları okula uyum programlarındaki ve derslerindeki sosyal etkileşim kaygısı konusunun önemini kavrayan yöneticiler ve program geliştiriciler için değerli bilgiler sağlamaktadır.

Son olarak, bu çalışmada Sosyal Etkileşim Kaygısı Anketinin Türkçe uyarlamasından faydalanılmıştır. Bu bağlamda uygulayıcılar ve araştırmacılar bu çalışmanın benzer örneklemi ile sosyal kaygıyı incelerken Sosyal Etkileşim Kaygısı Anketi'nden yararlanabilirler.

4.2. Sonraki Çalışmalar için Öneriler

Öncelikle bu çalışmada değişkenlerin diğer dış değişkenler üzerindeki yordayıcı etkisini ve değişkenler arasındaki ilişkiyi belirlemek üzere ilişkisel araştırma yöntemi kullanılmıştır. Sonraki çalışmalarda sosyal etkileşim kaygısı, bilişsel ve duygusal unsurlar arasındaki karşılıklı ilişkiyi anlamak için deneysel araştırma yöntemi kullanılabilir. Bilişsel ve duygusal etkenleri bağımsız veya birlikte ele almak sosyal etkileşim kaygısını azaltmada faydalı olabilir ve bu durum neden-sonuç ilişkisini ortaya çıkaran deneysel araştırma yöntemi ile elde edilebilir.

İlgili literatür duygu düzenleme becerileri ve sosyal kaygı arasındaki ilişkide yaşantısal kaçınmanın bağdaştırıcı etkisinin altını çizmektedir. Bunun dışında benzer bir etki işlevsiz-işlevsel başa çıkma yöntemleri ve sosyal kaygı arasındaki ilişkide de görülebilir. Bu sebeple, benzer bir çalışma duygu düzenleme becerisi, işlevsiz-işlevsel başa çıkma yöntemleri ve sosyal etkileşim kaygısı kullanılarak gerçekleştirilebilir ve böyle bir çalışma üç değişken arasındaki ilişki hakkında araştırmacılara daha fazla bilgi sağlayabilir.

Bu çalışma değişkenler arasındaki ilişkiye açıklayıcı kanıtlar sunarken modelde yaş, cinsiyet gibi demografik değişkenlerin etkisi araştırılmamıştır. Bu nedenle, farklı yaş gruplarından katılımcıları içeren daha uzun vadeli çalışmalar uygulanması gerekir. Bunun dışında, benzer bir çalışma farklı üniversitelerden ve sınıf seviyelerinden üniversite öğrencilerini içeren tanımlayıcı örneklem ile yürütülebilir.

Bu çalışmada, Sosyal Etkileşim Kaygısı Anketi Türkçeye uyarlanmıştır ve anketin geçerliliği ve güvenirliği üniversite öğrencileriyle test edilmiştir. Bu bağlamda, sonraki çalışmalarda bu anketi kullanacak olan araştırmacıların anketin geçerlik ve güvenirlik çalışmalarını kendi katılımcılarıyla da incelemeleri önerilmektedir. Bunun yanı sıra, sosyal etkileşim kaygısı ve ilgili değişkenler arasındaki ilişkiyi daha iyi anlamak için farklı kültür, ırk ve etnik gruplardan oluşan araştırma gruplarıyla da benzer çalışmalar yürütülebilir.

Bu çalışmanın dış faktörleri (bilişsel yeniden değerlendirme, bastırma, ruminasyon ve anksiyete duyarlılığı), sosyal kaygının sosyal etkileşim kaygısı yönünün incelemiştir. Bu nedenle bu unsurlar sosyal durumlarda performans kaygısının yapısını belirlemek için de incelenebilir. Ayrıca bu çalışma yüksek ve düşük sosyal etkileşim kaygısına sahip bireylerden ve sosyal anksiyete bozukluğu teşhis edilen katılımcılardan oluşan bir örneklem grubuyla da yürütülebilir. Bu durum bireyler arasındaki farklılıkları ve bu çalışmadaki değişkenlerin bu farklılıklar üzerindeki etkisinin anlaşılmasına yardımcı olabilir. Bunun dışında sosyal etkileşim kaygısı üzerinde gelecekte yapılacak çalışmalar kaygı çağrıştırıcı durumlara ilişkin farklı örneklem gruplarıyla yapılabilir.

M. TEZ FOTOKOPİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ☒ X

Uygulamalı Matematik Enstitüsü ☐

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YAZARIN

Soyadı   : IRKÖRÜCÜ KÜÇÜK
Adı   : Ayşe
Bölümü : Eğitim Bilimleri

TEZİN ADI (İngilizce): Social Interaction Anxiety Among University Students: The Role Of Risk And Protective Factors

TEZİN TÜRÜ : Yüksek Lisans / Master ☐   Doktora/ PhD ☒ X

1. Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın. ☐

2. Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullancılarının erişimine açılsın. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐

3. Tezim bir (1) yıl süreyle erişime kapalı olsun. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☒ X

Yazarın imzası / Signature ....   Tarih / Date ....