

**SELF-COMPASSION IN RELATION TO PSYCHOPATHOLOGY**

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## **ABSTRACT**

### **SELF-COMPASSION IN RELATION TO PSYCHOPATHOLOGY**

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The aim of this thesis was to examine the concept of self-compassion in relation to psychopathology with mediating effects of experiential avoidance and metacognition in a Turkish university student sample. Self-Compassion which is a recently formulated promising concept in western psychology consists of three components: self-kindness, common humanity and mindfulness. In addition to self-compassion, recent psychological concepts of cognitive (metacognition) and behavioral (experiential avoidance) perspectives were investigated through models. In this thesis, the negative relationship between self-compassion and psychopathology (depression and anxiety) with mediating effects of experiential avoidance and metacognition was tested. Prior to main analyses, psychometric properties of the scales measuring self-compassion and experiential avoidance were tested. Then, three different models were tested with structural equation modeling (SEM).

In these analyses, the proposed full mediation models were compared to empirically alternative models. Self-compassion was found to be significantly and negatively related to both depression, and anxiety. In the first model experiential avoidance fully mediated the relationship between self-compassion and psychopathology. Moreover, metacognitive factors and metacognition as a whole concept mediated the relation between self-compassion and psychopathology. However, they were not as powerful as experiential avoidance. Results of this thesis supported the literature about empowering effect of self-compassion against psychopathology. Furthermore, relationships were mediated by concepts of both modern cognitive and behavior therapies. However, self-compassion, as a fundamental element of psychotherapy, was the focus of this thesis. Findings of the study were discussed in the context of the relevant literature.

Keywords: Self-Compassion, Experiential Avoidance, Metacognition, Mindfulness, Structural Equation Modeling

## ÖZ

### PSİKOPATOLOJİ İLE İLİŞKİLİ OLARAK ÖZ-ŞEFKAT

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Bu tezin amacı öz-şefkat kavramının psikopatoloji ile olan ilişkisinin yaşantısal kaçınma ve üstbilişin aracı etkileri ile birlikte Türk üniversite öğrencileri örnekleminde incelenmesidir. Öz-nezaket, ortak insanlık ve aynagönül (farkındalık) gibi üç bileşenden oluşan öz-şefkat kavramı, batı psikolojisinde yakın geçmişte formüle edilen ve umut vaadeden bir kavramdır. Öz-şefkatin yanısıra, modeller aracılığı ile bilişsel (üstbiliş) ve davranışçı (yaşantısal kaçınma) yaklaşımların güncel psikolojik kavramları da incelenmiştir. Bu tezde yaşantısal kaçınma ve üstbilişin aracı etkisi ile birlikte öz-şefkat ve psikopatoloji (depresyon ve kaygı) arasında beklenen olumsuz ilişki test edilmiştir. Esas analizlerin öncesinde öz-şefkat ve yaşantısal kaçınma ile ilgili ölçeklerin psikometrik özellikleri incelenmiştir. Sonrasında, üç farklı model yapısal eşitlik modellemesi ile test edilip, önerilen tam aracılı modeller alternatif ampirik modellerle karşılaştırılmıştır.

Öz-şefkat, depresyon ve kaygı ile anlamlı ve olumsuz olarak ilişkili bulunmuş ve birinci modelde öz-şefkat ve psikopatoloji arasındaki ilişkiye yaşantısal kaçınma tam aracılık etmiştir. Dahası, yaşantısal kaçınma kadar kuvvetli olmasa da üstbilişsel faktörler ve topyekun bir kavram olarak üstbiliş, öz-şefkat ve psikopatoloji arasındaki ilişkiye aracılık etmiştir. Bu tezin sonuçları, öz-şefkatin psikopatoloji karşısında güçlendirici etkisi ile ilgili literatürü desteklemiştir. Ayrıca tüm modellerde hem modern bilişsel hem de davranışçı terapilerin kavramları aracılık etmiştir. Fakat bu tezde, psikoterapinin temel unsuru olarak öz-şefkate odaklanılmıştır. Çalışmanın sonuçları ilgili literatür bağlamında tartışılmıştır.

Anahtar Kelimeler: Öz-Şefkat, Yaşantısal Kaçınma, Üstbiliş, Aynagönül, Yapısal Eşitlik Modeli

To My Beloved Parents

Ömer & Ayşe Gülriz



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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Self-Compassion**

Self-Compassion is central theme of Buddhist psychology for centuries and newly come to the focus of Western psychology. Although Western and Eastern psychologies have different perspectives on human distress and suffering, self-compassion is part of the both perspectives. In Western psychology insight is related to self-compassion (Jannazzo, 2009). According to Gilbert (2005), self-compassion is related to understanding, insight and knowing. Moreover, Gilbert (2005) states that compassion is antithesis of cruelty. Cruelty is defined by the intentionality for creating suffering and harm. Compassion is, on the other hand, knowing the suffering of others, accepting non-judgmentally, being connected and trying to alleviate the suffering intentionally (Gilbert, 2005). Currently in western psychology there are two approaches to self-compassion which are social psychological approach (Neff 2003a, 2003b) and evolutionary neuroscience approach (Gilbert, 2005, 2006, 2009).

### **1.1.1. Social Psychological Approach to Self-Compassion:**

Self-compassion, which is currently proposed construct, includes three main components: (1) self-kindness which is being kind toward oneself after experienced suffering and perceived deficiency rather than severely criticizing oneself, (2) common humanity which is perceiving the pain and suffering as a part of shared human experiences rather than isolating oneself from others, (3) mindfulness which is balanced awareness of one's negative emotions rather than over-identifying oneself with them (Neff, 2003a, 2003b, 2004).

Self-compassion involves kind attitude with unconditional acceptance towards oneself. Self-compassionate individuals accept negatively evaluated life experiences, psychological experiences as fundamental components of life. Moreover, in terms of self-kindness, self-compassionate individuals relate to themselves with accepting, kind, warm and understanding attitude in the face of psychological suffering and frustration. Human beings cannot always be the exact person they want to be. Self-compassionate individuals accept this reality of life and approach themselves with sympathy and kindness. This kind of approach occasions emotional peace. However, denial of this reality of life increases psychological suffering which in turn leads up to stress, frustration and self-criticism (Neff, 2008; Neff, 2009). Self-Kindness does not mean that person allow herself to do anything that she wants or forgive any behavior conducted. Rather than self-indulgence, self-kindness means to accepting the moment,

rather than avoiding challenges, to be prepared to the new challenges with courage and warmth (Jannazo, 2009)

When people experience frustration after they do not have what they exactly want, they can walk into a trap of victimization with sense of isolation (e.g., “I am the only one suffering”). In perspective of self-compassion, human beings simply defined as vulnerable, mortal and imperfect. Self-compassionate individuals recognize that the negatively evaluated part of life and personal experiences are part of the shared human experiences. With perspective of common humanity, self-compassionate individuals create a room for thinking about and remembering the similar experiences of other human beings (Neff, 2008; Neff, 2009). Common Humanity is distinct from self-pity. When people pity, they feel highly separated and disconnected, on the other hand with common humanity people know that the suffering is a part of being human. When people self-pity, they isolate and disconnect themselves from humanity and ignore the sufferings of others. Moreover, they exaggerate their problems. However, there are not these types of distortions or separations in Common Humanity (Neff, 2003a).

Self-compassionate individuals mindful of their negatively evaluated emotions. In terms of mindfulness, self-compassionate individuals have a balanced stance in the face of psychological suffering without suppressing or ignoring their negative experiences. Mindful individuals observe their thoughts as thoughts, feelings as feelings in a non-judgmental, receptive mind state (Neff 2008). Self-compassionate



individuals do not over-identify themselves with their negative thoughts and emotions, and in turn, they do not ruminate or obsessively fixate on those negative experiences. With mindful stance, self-compassionate individuals step out of themselves and observe their psychological experiences in a meta-level with greater objectivity (Neff, 2009).

### **1.1.2. Evolutionary Neuroscience Approach to Self-Compassion**

According to Gilbert (2005, 2006, 2009) self-compassion is defined in terms of evolution and neuroscience. In evolutionary neuroscience approach, it is proposed that the ability to be compassionate was evolved from the capacity for altruism and caring behavior which activates care-providing social mentality or basic archetype. This archetype is activated when people mutually care for each other and this archetype in return makes people feel soothed, safe and can change their bodies' working. Moreover, when people in kind or compassionate relations, their stress hormones reduced, feel-good brain chemicals increased and their immune systems got more strong (Gilbert, 2009). Gilbert (2009) defined compassion as behaviors addressing nurturing, looking after, teaching, guiding, mentoring, soothing, protecting, offering feelings of acceptance and belonging in order to benefit another person. Moreover, he claimed that the behaviors of compassion require attributes and skills of compassionate behavior.

In Figure 1<sup>1</sup>, outer ring is skills of compassion and inner ring is attributes of compassion. Compassionate attributes are care for well-being, sensitivity towards distress and need, sympathy, distress tolerance and acceptance, empathy, non-judgment. Moreover, outer ring also can be classified as ‘How to’s of the inner ring. Thus, people can learn to direct their attention compassionately, imagine and self-talk compassionately, feel compassionately, behave compassionately, reason compassionately, and work to create a bodily sense of compassion. Moreover, compassionate skills mean that doing the helpful or what the one really needs for oneself. This does not mean that self-compassionate skills are self-indulgent behaviors, on the contrary, what is really needed and/or helpful sometimes may be painful or very hard to do (Gilbert, 2009).

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<sup>1</sup> The Compassion circle: Inner ring key attributes of compassion, outer ring skills for developing compassionate attributes. Reproduced from Gilbert (2009)

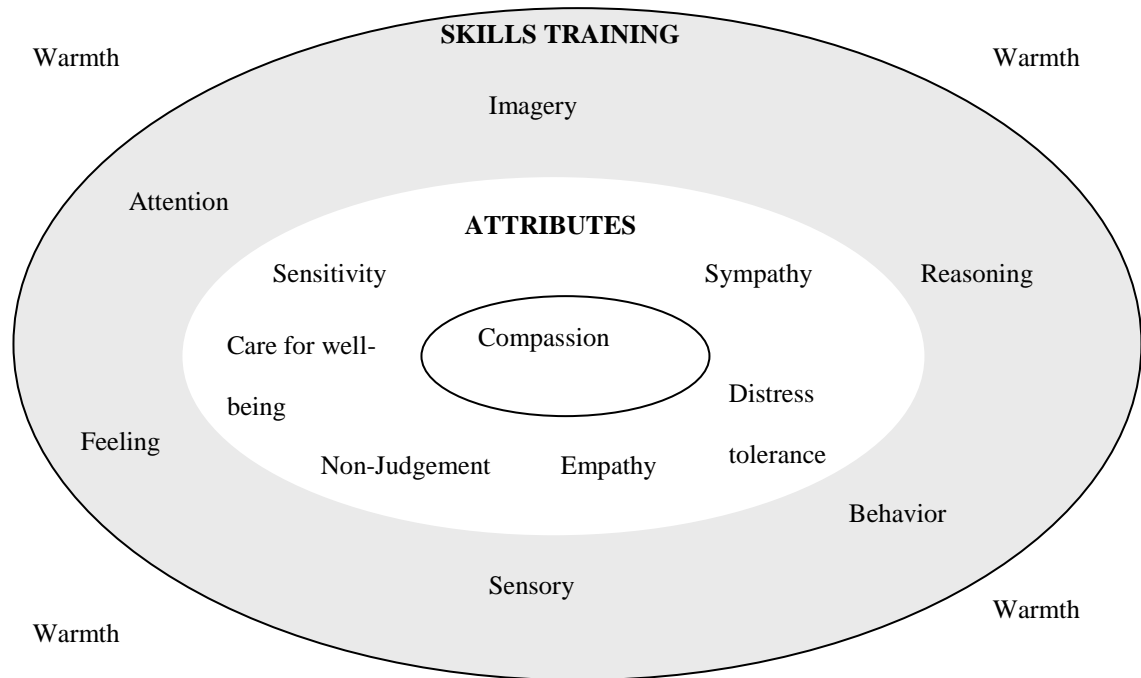


Figure 1 The Compassion Circle

*Care for well-being* is an essential attribute and at the root of compassion. When compassion directed to oneself, one focus on taking care for, nurture, and support oneself to promote well-being. People from harsh and shaming backgrounds may be caring for other people, trying to win social approval, focusing on achieving things, however, genuine care for self and concern for well-being is different. Self-criticizing people may see self-compassion as self-indulgence, selfishness, or even weakness (Gilbert, 2009).

*Sensitivity towards distress and need* means that people can take up and attend their own distress and needs. Moreover, as a choice, they can train their minds to be insensitive or sensitive. With self-awareness of our distress with openness and sensitivity, people observe their physical feelings, emotions and thoughts. Sometimes

sensitivity means to observe the feelings which hiding behind the habitual emotions or safety behaviors. With common humanity, sensitivity becomes much easier because most of our fears, shames, need for love, care, affection, approval are part of being human, not specific to oneself (Gilbert, 2009).

*Sympathy* is the ability to be moved by the feeling of others. It is proposed that the basis of sympathy is mirror neurons which are in nervous system and makes people to feel things when they just watching another being experiencing them. In self-compassion, people moved by their emotions and emotionally open to their own sufferings. However, sympathy is different from victimization of oneself, self-pity or overly identifying with a sense of angry injustice. As mentioned about the skills above, sympathetic ability is combined with feeling in helpful way with genuine movement with one's own suffering and compassionate understanding of one's own pain. In other words, in sympathy, people recognize their sufferings without minimizing, maximizing, denying or dissociating from their suffering (Gilbert, 2009).

*Distress tolerance and acceptance* is a crucial component of self-compassion and for it is being cultivated sympathy and sensitivity are needed. Tolerance is the ability to stay with the emotions and sufferings as they occur. Acceptance is coming to terms and no longer fighting and struggling with emotions and sufferings. However, acceptance does not mean to be defeated. To be more tolerant of one's own distress, being more self-kind and self-compassionate is needed (Gilbert, 2009).

*Empathy* is both an emotional component and ability to understand what and why people think, feel, do and say in the way they do. Differently from sympathy which is an automatic process, empathy needs hard work to get to know and understand one's and other's psychological reactions or experiences. Moreover, empathy is interconnected with distress tolerance, people in order to become empathic with their own suffering first they should be able to stay with their emotions as they happen (Gilbert, 2009).

*Non-judgment* is engaging with the complexities of life, one's own emotions and sufferings without belittling, disparaging and distorting them. Moreover, non-judgmentality does not mean non-preference or everything is acceptable. For example, to be non-self-judgmental does not mean that the person would have no preferences, values and not be open to self-correction, open to change, it means that the person would live a life without attacking, blaming oneself and condemning one's own feelings, emotions and experiences (Gilbert, 2009).

### **1.1.3. Self-Compassion: Research**

In terms of mental health outcomes, self-compassion found to have significant negative associations with depression and anxiety (Neff, 2003a; Neff, Hsieh & Dejitterat, 2005; Neff, Kirkpatrick & Rude, 2007; Neff, Pisitsungkagarn, & Hsieh, 2008). Furthermore, self-compassion remained as significant predictor of depression (Neff, 2003b) and anxiety (Neff, 2003b; Neff et al., 2007) when the variance explained by self-esteem were controlled. Moreover, self-compassion remained

significantly associated with anxiety after controlling for variance due to negative affect (Neff, et al., 2007), and self-compassion remained significant predictor of anxiety and depression after controlling for self-criticism (Neff, 2003b). Self-compassion found to be negatively associated with rumination and thought suppression (Neff, 2003b; Neff, et. al, 2007).

In the study of Raes (2010), it was found that the relation between self-compassion and anxiety was mediated by rumination (brooding) and worry, and the relation between self-compassion and depression was mediated by rumination (brooding). Differently from self-esteem, self-compassion did not have significant positive correlation with narcissism (Neff, 2003b; Leary, Tate, Adams, Allen, & Hancock, 2007; Neff & Vonk, 2009). In the study of Neff and Vonk (2006) it was found that self-esteem was significantly and positively correlated with narcissism ( $r = .40$ ,  $p < .001$ ), however self-compassion did not correlate with narcissism ( $r = -.03$ , ns) after the shared variance of the self-compassion and self-esteem controlled. In study of Neff, Hsieh and Dejitterat (2005), self-compassion found to be negatively correlated with avoidant coping skills and positively associated with healthy emotion-focused coping strategies, such as acceptance and positive reinterpretation and growth, after experiencing an academic failure. Although self-compassion found to be positively correlated with problem-focused coping in non-specified situations (Neff, Kirkpatrick, Rude, & Dejithirat, 2004), self-compassion did not have any significant relation with problem-focus coping after experiencing academic failure (Neff, et al., 2005). This

situation was interpreted as self-compassionate individuals try to solve problems unless the situation is unchangeable; otherwise they accept the situation and their emotions (Neff et al., 2005). Moreover, self-compassion found to have significant positive association with positive psychological functioning, which are happiness, optimism, wisdom, curiosity, personal initiative and positive affect, even when the variance due to big five personality traits were controlled (Neff, Rude, & Kirkpatrick, 2007).

In experimental study of Tate et al. (2007), self compassion found to have negative associations with negative, pessimistic and self-critical thoughts following real negative life events. Furthermore, it was found that self-compassionate individuals had greater endeavor to be kind towards themselves and to understand their emotions following negative life events that reported by them as that were their faults, and had lower levels of self-conscious emotions (shame, humiliation and embarrassment) after negative life events that reported by them as that were not their faults. Moreover, self-compassion was found to have negative associations with negative affect, catastrophizing, personalizing, and positive associations with cognitive and behavioral equanimity following hypothetical negative life events (including failure, loss and humiliation).

Promotion of self-compassionate eating attitudes among restrictive and guilty eater was examined experimentally by Adams and Leary (2007). Study investigated

whether induction of self-compassion after unhealthy food preload would reduce the tendency for the restrictive and guilty eaters to overeat (disinhibition effect).

Participants who scored highly on restrictive eating did not overeat after the preload; therefore hypothesis about the disinhibition effect was not supported. However, high restrictive eaters who were in the self-compassion preload condition compensated their preload by subsequently eating less. Hence, self-compassion induction reduced how much high restrictive eaters ate and lead them to eat like low restrictive eaters. Nonetheless, eating patterns of low restrictive and high guilt eaters were not affected by experimental self-compassion induction. In terms of cognitive and emotional responses, only people in the preload without self-compassion condition were felt negative emotion about eating. Hence, self-compassion induction successfully reduced negative self-thought of the participants in the preload self-compassion condition.

Study of Gilbert, Bellew, McEvan, Gale (2007) investigated the relations between compassionate, hostile self-to-self relating and paranoid beliefs in a sample of university students. Scales related to compassion, scales of forms and functions of self-criticism, self-reassurance and depression were used in that study. Paranoid beliefs were significantly associated with both self-hating and self-reassurance. Self-Compassion was used as a six separate factor in the study. Among positive aspects of Self-Compassion (self-kindness, common humanity and mindfulness), only self-kindness was significantly negatively correlated with paranoid beliefs. On the other



hand, negative aspects of self-compassion (self-judgment, isolation and overidentification) were significantly positively correlated with paranoid beliefs. With depression, negative aspects of self-compassion were highly positively correlated and positive aspects were weakly negatively correlated. Results of hierarchical regression yielded that self-hating was the most important predictor of paranoid beliefs even after controlling for depression.

In the study of Thompson and Waltz (2008) self-compassion and symptom severity were investigated. The post traumatic stress diagnostic scale (Foa, Cashman, Jaycox, and Perry, 1997) was used in order to assess post traumatic stress of participants. Among the sample, 100 participants were categorized as exposed group who affirmed at least one traumatic experience during which they feared physical injury and/or death for themselves or others, and experienced feelings of helplessness. Results of the study yielded that overall self-compassion scores of the participants were significantly negatively associated with post traumatic stress avoidance subscale. However, overall self-compassion scores did not significantly correlate with reexperiencing and arousal subscales. The results indicated that self-compassionate individuals may have lower level of experiential avoidance in turn which makes these individuals less prone to post traumatic stress.

A study by Williams, Stark and Foster (2008) explored the relation of self-compassion with academic anxiety, motivation and procrastination. Academic anxiety was divided

in two subcategories which academic worries and academic emotionality, or physical anxiety. Moreover, motivation also had two subcategories which are mastery-oriented (intrinsic motivation) and performance-oriented (extrinsic motivation) goals. Results of the study yielded that self-compassion, self-kindness, common humanity and mindfulness were significantly and negatively associated with both academic worry and academic emotionality. Moreover, among three groups (low, moderate and high self-compassion groups), people with high self-compassion had dramatically lower levels of academic anxiety and procrastination. Furthermore, people with high self-compassion had mastery-oriented academic goals, meaning that these individuals had intrinsic motivation to learn rather than an extrinsic gain. Therefore, this kind of motivation may lead to lesser academic anxiety and procrastination.

The experience and meaning of self-compassion for individuals with anxiety or depressive disorder was explored by Pauley and McPherson (2010). Study was adopted interpretive phenomenology analysis and conducted with ten participants. Before study participants were interviewed, 6 participants with diagnosis of depression and 4 participants with specific phobias were included in the study. All of the participants completed semi-structured interviews with questions based on self-compassion research. Results of the study yielded that, for the patients, self-compassion had two central qualities which are kindness and action. Moreover, participants reported that they found self-compassion to be useful and meaningful. Moreover, they said that self-compassion would have helped them with their

psychological disorder. One of the interesting findings of the study was that although participants reflected at length on compassion, they did not mention anything about self-compassion without being prompted to do so. This situation might be the result of the effect of participants' mental disorders on their ability to be self-compassionate, or they might have never had any contact with experience of self-compassion. Finally, participants reported that being self-compassionate is difficult. Moreover, they reported that either developing and/or maintaining self-compassion is difficult and their disorders' negative impact on their self-compassion made difficult for them to be self-compassionate.

Predictive power of self-compassion along with mindfulness of symptom severity on quality of life in mixed anxiety and depression was investigated by Van Dam, Sheppard, Forsyth and Earleywine (2011). In study relations between self-compassion, anxiety, depression, worry and quality of life were explored. Outcome variables (anxiety, worry, depression, quality of life) were predicted by mindfulness of symptom severity and self-compassion. Results yielded that self-compassion explained three times as much variance as mindfulness of symptom severity. Results indicated that, focused attention and mindfulness would be less important than the one's interaction with negative life events or unwanted private experiences. For example, approaching the negative experiences with kindness, with knowing that experience is a part of being human and with objective and equanimity seems to be a strong predictor of quality of life and psychological health. Furthermore, three

subscales of self-compassion which are self-judgment, isolation and overidentification were significant predictors of worry and anxiety. Next, four subscales of self-compassion which are self-kindness, self-judgment, isolation, mindfulness were significant predictors of depression and quality of life.

Self-compassion and psychological resilience among young adults and adolescents were explored by Neff and McGehee (2010). Study was the first study examining the self-compassion among adolescents and study contained young adult sample in purpose of comparison. Relations between self-compassion, family functioning, attachment (secure, preoccupied, fearful and dismissing), maternal support, personal fable (a measure about egocentricism), social connectedness, anxiety and depression were investigated. Results yielded that there were no difference between the self-compassion levels of adolescents and young adults. However, there were found to be a gender difference among young adults that males were more self-compassionate than females. Self-compassion was found to be significantly negatively correlated with anxiety, depression, preoccupied and fearful attachment. Moreover, self-compassion was significantly positively associated with social connectedness, secure attachment, family functioning and maternal support. Result of the study shown that self-compassion partially mediated the relation between well-being and other predictors which are maternal support, family functioning, secure attachment, preoccupied attachment, fearful attachment and personal fable.

In study of Crocker and Canevello (2008), trust and social support were predicted with compassionate goals and self-image goals. When people have compassionate goals they focus on helping other people, not trying to gain something for the self. With the compassionate goals people become a constructive force in their relationships and avoid harming the other. Moreover, compassionate goals found to be correlated with Self-Compassion which means people with compassionate goals not only compassionate towards other but also towards themselves. On the other hand, Self-image goals are related to defend a desirable social image and try to gain something with that image. Results of the study shown that, compassionate goals predicted increased perceived support and trust. Compassionate individuals reported that they feel clear, connected, feeling close to others and experiencing less interpersonal conflict.

In study of Neely, Schallert, Mohammed, Roberts and Chen (2009) self-compassion was investigated along with goal disengagement, goal reengagement, students' stress, perceived need and availability of support as predictors of well-being. Goal regulation is defined as person's ability to pull away from pursuing an unattainable, or unrealistic goal, and redirecting his energy to a new and attainable goal. In their study, they test 3 models and for each model two regression analyses were conducted. In the first regression analysis, the goal regulation and students' stress were entered in the first two steps. Then, in last step self-compassion was entered as a predictor of well-being index. Results yielded that self-compassion was the most important predictor of well-

being above and beyond the level of stress and goal regulation. Similarly, self-compassion entered in the last step of second hierarchical regression analysis in which students' stress was replaced with perceived need and availability of support. Again, self-compassion was the most important predictors above and beyond the other predictors.

Effectiveness of compassionate mind training for people with high shame and self-criticism was investigated by a pilot study of Gilbert and Procter (2006). The effectiveness of compassionate mind training was examined with uncontrolled trial. Six patients who were attending to a cognitive-behavioral-based day centre were attended to the research programme. Compassionate mind training was composed of detecting safety strategies (self-attacking, self-blame, self-monitoring) and functional analysis of self-criticism, development of compassionate imagery, self-talk and warmth, and psychoeducation about the power of imagery and thoughts. Patients attended 12 weekly two hour group sessions. At the end of the programme, in terms of health outcome variables, anxiety and depression levels of the patients were reduced. Moreover, in terms of function and forms of self-to-self relating, while self-persecution, inadequate self, hated self levels were decreasing, the self-reassurance were increasing. Furthermore, self-criticism of the patients decreased and the self-compassion levels were increased with application of compassionate mind training.

Study of Zuroff, Kelly and Shapira (2008) investigated the impact of compassionate and resilient intervention on depression levels of acne sufferers. Self-criticism is a vulnerability to depression and associated with other vulnerability factors which are difficulties in self-soothing and resisting self-attacks. Therefore, Zuroff et.al. (2008) developed two interventions for vulnerabilities. First intervention was self-soothing intervention which designed to promote compassionate, warm, reassuring style of self-relating. Second intervention was attack-resisting intervention which designed to cultivate strong, confident and retaliatory style of self-relating. Third group was assigned to control condition. Results of the study revealed that self-soothing group lowered shame and skin complaints but did not lowered depression. On the other hand, attack-resisting intervention lowered depression, shame and skin complaints.

In Study of Birnie, Speca, Carlson (2010) enhancement of Self-Compassion with Mindfulness Based Stress Reduction (MBSR) (Kabat-Zinn, 1990) was examined. Basic Components of MBSR were meditation (walking, seated, moving meditations), didactic instructions about stress and group processes (corrective feedback and sharing). Programme is composed of 8 weekly 90 minutes sessions. Prior to the programme Self-Compassion was found to be significantly positively correlated with spirituality and negatively correlated with mood disturbances. After the programme it was found that the Self-Compassion levels of the participants were significantly increased while their stress symptoms and mood disturbances decreased. Moreover, after the programme Self-Compassion found to be significantly positively correlated

with mindfulness and spirituality and negatively correlated with stress symptoms and mood disturbances.

Study of Kelly, Zurof, Foa and Gilbert (2010) examined the impact of self-compassion intervention on the self-regulation of cigarette smoking. One hundred and twenty-six participants seeking to quit smoking were assigned to four groups randomly. First group was baseline self-monitoring group. Second group was enhanced compassionate imagery and self-talk group. Third group was self-controlling intervention which was designed to stimulate threat/protection system (amygdala related system). Fourth group was self-energizing intervention which was designed for stimulating incentive focused system (dopaminergic system). Results over three weeks yielded that people in self-compassion training group reduced daily smoking quickly. However, smoking rates of other two groups and self-compassion training group were same. Furthermore, moderators of self-compassion training were being low in readiness to change, being high in trait of self-criticism, and having vivid imagery during imagery exercises.

Benefits of optimism and self-compassion exercises were investigated by Shapira and Mongrain (2010) in Canada with sample older than eighteen years old. In study the effects of two interventions which are self-compassion and optimistic thinking were explored. In self-compassion exercise condition, participants are provided a rationale to engage in a daily exercise of nurturing, caring, supportive and compassionate



stance. Participants were asked to think about an event that occurs that day which had negative impact on them or made them feel upset. Then, they asked to write a one paragraph letter to themselves in the first person about situation in a self-compassionate manner. In the other intervention group, optimistic thinking, participants were asked to think about the future in positive manner. Then, while thinking about the positive future, they were asked to give compassionate advices to their present self. Third condition was control group and participants in that group were asked to think and write about the early memories. Result of the study indicated that 1 week of practiced exercises led to increment in emotional well-being when compared control group. Similarly, participants who were assigned to two intervention groups, self-compassion and optimistic thinking, were less depressed up to three months and more happier up to six months.

Change mechanism of Mindfulness Based Cognitive Therapy (Segal, Williams and Teasdale, 2002) was explored by Kuyken et.al. (2010). The study addressed the question whether MBCT works through the mediation of enhancement of mindfulness and self-compassion across treatment, and/or by alterations in post-treatment cognitive reactivity. Cognitive reactivity is defined as large reactions and changes in negative thinking in the face of small changes in the mood (Segal et al. 2002). Study compared MBCT group with maintenance antidepressants groups with 15 months follow up. MBCT programme involved 8 weekly two hour sessions and four follow up sessions spread out over approximately one year. Results yielded that effects of

MBCT were mediated by the enhancement of self-compassion. Moreover, in maintenance group, increased cognitive reactivity was related to higher levels of depression. However, this kind of relation did not observed in MBCT group, in that group depression was not related to the levels of cognitive reactivity. It is interpreted that enhancement of self-compassion decoupled the relation between cognitive reactivity and outcome.

### **1.2 Experiential Avoidance**

Humans not only, like other complex organisms, avoid aversive events reducing the rate of positive reinforcement but also they uniquely try to avoid particular private events (e.g., memories, thoughts, feelings, emotions, behavioral predispositions, bodily sensations) which are evaluated negatively (Hayes & Gifford, 1997). This phenomenon is termed as experiential avoidance (Hayes & Wilson, 1993).

Experiential Avoidance is the unwillingness of the person to stay with certain private events and the eagerness of the person to change the frequency and form of those events and the contexts which trigger those events with deliberate actions (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Luciano, Rodríguez Valverde, & Gutiérrez Martínez, 2004).

Experiential Avoidance is proposed as a functional diagnostic dimension, rather than a syndromal classification, which lead up to different topographies of psychological distress. The aim of functional approach is organizing the behaviors as functional

processes which generates and maintains psychopathology, and then predicting and influencing those psychological events (Hayes et. al, 1996; Luciano, et.al., 2004).

According to Backledge and Hayes (2001), experiential avoidance is implicitly or explicitly noticed by various psychotherapy systems (e.g. client-centered, existential, emotion-focused, psychodynamic, behavioral and cognitive therapies). Although avoidance is recognized by the traditional behavioral and cognitive therapies, traditional forms of behavior therapy fought against anxiety and traditional forms of cognitive therapy fought against the irrational thoughts. On the other hand, modern behavior therapies [e.g., Dialectical Behavior Therapy (Linehan, 1993), Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999)] assign central role to experiential avoidance. Moreover, Neimeyer (1993, cited in Hayes et al., 1996) suggests that modern cognitive therapies focus on the acceptance of the negatively evaluated private events as fundamental components of experience, rather than controlling private events.

### **1.2.1. Etiology of Experiential Avoidance**

According to relational frame theory the base of the human verbal behavior is stimulus equivalence. For example, in stimulus equivalence, subjects rewarded for picking up the correct comparison, which are arbitrarily assigned by the experimenter, in the matching-to-sample task. In this kind of task complex organisms (e.g. monkeys, rats, pigeons) can be trained to pick Y1, which is an arbitrary geometrical shape, when the X1 is given as a sample. However, what is striking is the ability of humans to

derive relations among the stimuli, which have been observed even in 17 months old human babies (Lipkens, Hayes, & Hayes, 1993). When two sides of the triangle were trained, differently from non-humans, humans derive relation of all sides and bidirectionally (Hayes, Pankey, Gifford, Batten, & Quinones, 2002).

Transfer of stimulus functions among the members of the equivalence class makes the stimulus equivalence clinically significant. For example, when a child who never met a cat before came across with a cat, directly trained two relations which are word → object and word → oral name relations. Then, our hypothetical child would derive four additional relations without direct training which are object → word, oral name → word, oral name → object and object → oral name. And also in this example it is supposed that the child was hurt while playing with the cat and after that experience child may cry and break away from that animal named “cat”. Later, when the mother of that child says “Look! A cat!”, child again cries and runs away even though that child has never been hurt by the presence of the words “Look! A cat”. Processes of stimulus generalization cannot account for these kind of processes because of the absence of formal properties of the stimuli which bring them together. These stimuli are brought together by the verbal stimuli which they share membership, rather than their formal properties (Hayes, et al., 2002).

According to relational frame theory (RFT; Hayes, Barnes-Holmes, Roche, 2001), organisms not only learn to respond different stimuli relationally, but also the wide

variety of relations are learned and brought under contextual control. Moreover, according to RFT, functions of the events, which share a relational network, can be transformed mutually depending on the relations between those events (Hayes, et al., 2002).

In terms of RFT, the core of the human cognition and language is derived stimulus relations (DSRs). Further, the relating is accepted as an operant class which has three main properties. First property of DSRs is mutual entailment. If a person, in certain context, learns that X related to Y in a certain way, then this relation entail some kind of relation between Y and X in that particular context. Second property of DSRs is combinatorial mutual entailment. If a person, in certain context, learns that X related to Y in a certain way and Y related to Z in a certain way, then this relation entail some kind of mutual relation between X and Z in that particular context. Third property of DSRs is transformation of stimulus functions which is enabled by mutual entailment and combinatorial mutual entailment. With this property, functions of the events can be transformed to each other in relation with contextual cues (Hayes, et al., 2002).

Transformation of stimulus functions in arbitrary relations across equivalence classes without explicit training shown in transformation of stimulus control, conditioned reinforcement (Hayes, Brownstein, Devany, Kohlenberg, & Shelby, 1987), contextual control (both with preexisting verbal classes and experimentally established equivalence classes) (Kohlenberg, Hayes, & Hayes, 1991), sequential response

(Wulfert & Hayes, 1988) and simple discrimination functions (de Rose, McIlvane, Dube, Gablin, & Stoddard, 1988) .

According to RFT, humans can think, reason, evaluate, speak with meaning, listening with understanding with the ability to derive relations among stimulus and to frame events relationally in an arbitrarily applicable and contextually controlled way.

Humans can derive relations among events and words, events and events, words and words (Hayes, et al., 2002). Moreover, changes in how people view their behavior or situation that lead up to those events could change the functions of those behaviors and situations (Hayes et al., 1996) with mutual entailment quality of relational frames, or bidirectionality of human language. This property of human cognition makes self-awareness both useful and aversive (Hayes et al., 1996, 2002). Furthermore, painful qualities of self-awareness occasion experiential avoidance.

The bidirectionality of human language transforms the functions of private events. For example, for a trauma survivor the memories, thoughts about the trauma become aversive and the person experientially avoids this private event as if s/he is avoiding situations which directly experienced in the external environment because when the survivor contact with the aversive event verbally, the stimulus functions of the original event is transformed to the verbal description of the event (Hayes & Gifford, 1997; Hayes et al., 1996). Suppose a pigeon is trained to report “the shock” by pressing a lever for food pellets after the delivery of shock. In terms of the unidirectionality, rather than the bidirectionality, after the training, “reporting the

shock” will not be aversive for the pigeon because it will be associated with the food pellets (Hayes & Gifford, 1997; Hayes et al., 1996).

The long-term effect of experiential avoidance is destructive, although it has short-term gains. According to RFT, the side effect of bidirectionality of human language, experiential avoidance, is amplified by the verbal rules of socio-verbal community which trains experiential avoidance (Hayes & Gifford, 1997). Children learn from this rules that some private events are themselves bad and should be avoided. Thus, when some appropriate rules for regulating the external environment (“Clean up your room”) are applied to events inside the skin (“Stop crying or I will give something to cry about”) which in turn generates experiential avoidance (“Sadness is bad”). People become more insensitive to the contingency change in the environment when learned the task by following the verbal rules rather than the experience (Hayes, Brownstein, Haas and Greenway, 1986). Moreover, the variety of behavior that available is narrowed and the contingency of the behavior can be modified by the effects of instructions or the rules (Hayes, Brownstein, Zettle, Rosenfarb, & Korn, 1986). According to RFT, a simple rule that “I cannot stand anxiety” can lead to a years of struggles and human suffering. Moreover, if the experiential avoidance is learned as rule-governed behavior, it may result in problems which are not enough to the extinction of deliberate efforts to avoid negatively evaluated private events (Hayes & Gifford, 1997).

### **1.2.2 Experiential Avoidance and Psychological Suffering**

Three pathways for the functional contribution of the experiential avoidance to psychopathology were proposed by Hayes and Gifford (1997). Firstly, the verbal regulation of experiential avoidance includes the avoided item (e.g., “Do not think X”) and because of these verbal regulations, the avoided item can become more accessible (Wenzlaff & Wegner, 2000). For example, the strategy of thought suppression can lead to paradoxical increase in the appearance of the targeted thoughts (e.g., Wegner, Schneider, Knutson, & McMahon 1991; Wegner, Schneider, Carter, & White 1987). Moreover, in the study of Gross and John (2003), emotional suppression had demonstrated associations with experience and expression of lesser positive emotions and greater negative emotions, poor interpersonal functioning and poor physical and psychological health outcomes. Secondly, verbal regulation of private events is relatively ineffective because of classical conditioning in which the history or basic processes are not verbally governed. For example when a painful emotional experience paired with an event which is directly presented or indirectly presented with verbal associations will occasion the similar painful emotional experiences. This hypothesis was supported with work on neural pathways of fear conditioning which pointed out that in the creation of classically fear conditioning situation the higher (verbal) cortical areas are not prerequisite. Furthermore, projection from subcortex to cortex is much denser than the projection from cortex to subcortex (LeDoux, 1996 as cited in Chawla, & Ostafin, 2007). Finally, even though the experiential avoidance seems to work, it restricts people’s life in the long-run with secondary problems (e.g.,



constricting people's freedom, limiting conscious access to private events) (Hayes & Gifford, 1997).

### **1.2.3 Experiential Avoidance: Research**

Generally two versions of Acceptance and Action Questionnaire (AAQ 9 item and AAQ 16-item) were used in research studies. These two measures are demonstrated high correlation ( $r = .89$ , Hayes et al., 2004). Correlation between AAQ and depressive symptoms have been in range between  $r = .37$  and  $r = .77$  in 20 studies with 3323 participants which yielded weighted correlation of  $.55$ . Correlation between AAQ and depressive symptoms have been in range between  $r = .16$  and  $r = .76$  in 14 studies with 3034 participants which yielded weighted correlation of  $.52$  (Ruiz, 2010).

Experiential avoidance has been demonstrated relation to maladaptive behaviors and psychopathology. In study of Stewart, Zvolensky, & Eifert (2002) experiential avoidance mediated the relation between anxiety sensitivity and drinking motivation as a coping strategy (e.g. "to forget about problems"). Moreover, Westrup (1999, as cited in Chawla and Ostafin, 2007) also reported the interaction effect of negative life events and experiential avoidance in terms of distinguishing alcoholics which are relapsers or non-relapsers. In study of Orcutt, Pickett & Pope (2005), experiential avoidance partially mediated the relation between interpersonal traumatic event and PTSD symptoms. Moreover, experiential avoidance was accounted for the anxiety, depression, somatization symptoms of people experiencing multiple potentially traumatic events even after number of potentially traumatic events and severity of

PTSD symptoms were controlled (Tull, Gratz Salters & Roemer, 2004). In study of Plumb, Orsillo & Luterek (2004), experiential avoidance predicted psychological distress after exposure to a negative life event when the level of psychological distress prior to negative life event was controlled. Moreover, in that study, in the sample of college student with traumatic experience, experiential avoidance accounted for the PTSD symptom severity and general psychological distress after the controlling for the severity of traumatic experience. Furthermore, they found that, in the sample of veterans, experiential avoidance predicted PTSD symptom severity and general psychological distress after controlling for the degree of combat exposure. In study of Marx and Sloan (2002), childhood sexual abuse survivors had higher scores on experiential avoidance and general psychological distress compared to the sample of who did not experienced sexual abuse in childhood. Furthermore, experiential avoidance mediated influence of childhood sexual abuse status on psychological distress. Similarly, in study of Plousny, Rosenthal, Aban, and Follette (2004), experiential avoidance partially mediated the relation between child-adolescent sexual abuse and depression and general psychological distress in adulthood. Two studies were conducted by Roemer, Salters, Raffa, and Orsillo (2005) about the relation between experiential avoidance, pathological worry and generalized anxiety disorder (GAD) symptomatology. In their first study, both worry and experiential avoidance were significant predictors of GAD symptomatology. However, in their second study experiential avoidance did not significantly correlate with worry but with depression. It should be noted that the first study had a large sample size (N=248, female college

sample) and the second had a small sample size (N=19, clinical sample) which decreasing the power of that study. In the study of Kashdan, Barrios, Forsyth, & Steger (2006) experiential avoidance mediated the influence of maladaptive coping and emotion regulation strategies (e.g., avoidant/detached coping, emotional inhibition, rumination) on anxiety related distress.

### **1.3 Metacognition: A Concept Similar to Experiential Avoidance**

Similar to experiential avoidance concept of relational frame approach, metacognitive approach of Wells (2000; 2009) emphasizes that all human beings experience negative cognitions and sometimes they believe them, however not all of them develop sustained emotional problems.

According to Wells, in metacognitive approach not only “what” people thinks but also “how” people thinks about their emotions and their control over them is important. Simply, metacognition is defined as “cognitions applied to cognitions” by Wells (2009). Furthermore, metacognition can be divided into three classes which are knowledge/beliefs, experiences and strategies (Wells 2000; 2009).

First class of metacognition is metacognitive knowledge and beliefs. There are two types of metacognitive knowledge, explicit and implicit knowledge. Explicit knowledge is a type of knowledge which is conscious and can be verbally expressed (e.g., “Having bad thoughts means I’m mentally defective”). However, implicit knowledge, which can be defined as “thinking skills”, is not consciously and verbally

accessible (e.g., attention allocation, memory search, use of biases in judgment) (Wells, 2000; 2009). In addition to metacognitive knowledge, there are two general content areas which are positive and negative metacognitive beliefs. The former beliefs are about the benefits and advantages of certain kind of responses which sustain emotional disturbances and strengthen negative thoughts. In metacognitive approach, response types (worry, rumination, fixated attention, and unhelpful self-regulatory strategies/coping behaviors) which supported by positive metabeliefs are named as cognitive attentional syndrome. The latter beliefs are interested in uncontrollability, dangerousness, importance and meaning of psychological events (Wells, 2009).

Second class of metacognition is metacognitive experience. Metacognitive experience is conscious and situational labelings and interpretations of mental status. For example, negative appraisal of intrusions, worry about worry, misinterpretations of cognitive experiences can be thought as metacognitive experiences (Wells, 2000; 2009).

Third class of metacognition is metacognitive strategies. Metacognitive strategies are reactions to the cognitive system for changing and controlling in terms of emotional and cognitive self-regulation. Metacognitive strategies may be aimed at suppressing, intensifying and changing the nature of cognitive experiences (e.g., turning attention toward threat, thought suppression, distraction, positive thinking) (Wells, 2000; 2009).

According to metacognitive approach, thoughts and beliefs can be experienced in two different ways which are object and metacognitive modes. When people fused with their cognitive experiences, people experience their thoughts directly, similar to perceptions. In object mode, people experience their thoughts and beliefs as direct experiences of the world and the self. In this mode, people see their world from their cognitive experiences as if seeing their world from their eyes. However, in metacognitive mode people consciously observe their thoughts as private events which are detached from the self and the world (Wells, 2009).

### **1.3.1 Metacognition and Self-Regulatory Executive Function Model**

Although every human being experiences negative psychological phenomena, not all of them develop and/or maintain emotional disorders (Wells, 2009). In the Self-Regulatory Executive Function (S-REF) Model of Wells and Matthews (1994, 1996), it was proposed that there are three levels of cognitive processing. These are automatic, conscious “on-line” and self-knowledge levels. Automatic level is very quick and not open to consciousness which is more like reflexive. Moreover, the activities (e.g. actions needed for driving) which are highly practiced could gain automaticity. Furthermore, processing that occurs in emotional disorders is not usually a fully automatised processing. Therefore, people sometimes monitor the signals coming from automatic level, which are not fully automatised, at the on-line level. On-line level is between automatic and self-knowledge levels where conscious processing takes place. In conscious processing, people appraise internal psychological events and carry goals and plans in accordance with self-beliefs.

According to the S-REF Model, top level is the self-knowledge level where self-beliefs are stored. Finally, human beings choose and apply metacognitive plans and beliefs according to the knowledge in the long term memory.

### **1.3.2 Metacognition: Research**

Research on metacognition had demonstrated association between metacognitive beliefs and psychological well-being. In study of Cartwright-Hatton and Wells (1997), each subscales of Metacognitions Questionnaire (MCQ; Cartwright-Hatton & Wells, 1997), which are (1) positive beliefs about worry (MCQ-PB), (2) negative beliefs about worry concerning uncontrollability and dangerous consequences (MCQ-UD), (3) lack of cognitive confidence (MCQ-LCC), (4) Negative beliefs about thoughts concerning need for control, superstition/responsibility (MCQ-SPR), (5) cognitive self-consciousness (MCQ-CSC), were positively correlated with trait anxiety, obsessions, social and health worries. Moreover, strongest relation was between psychological vulnerability factors (trait anxiety and anxious thoughts) and negative beliefs concerning uncontrollability and danger.

In literature, metacognitive beliefs shown association with obsessive compulsive symptoms (e.g., Hermans, Martens, De Cort, Pieters, & Elen, 2003, Wells & Papageorgiou, 1998), pathological worry and hypochondriasis (e.g., Boumann and Meijer, 1999), problem drinking (e.g., Spada & Wells, 2005), predisposition to hallucinations (e.g., Morrison, Wells, & Nothard, 2002), depression (e.g., Papageorgiou & Wells, 2003), problematic internet use (Spada, Langston, Nikcevic,

& Monetai, 2008), smoking dependence (Spada, Nikcevic, Moneta, Wells, 2007), Parkinson's disease (Allott, Wells, Morrison and Walker, 2005).

More specifically, Davis and Valentiner (2000) found that all subscales of MCQ except for MCQ-CSC were significantly correlated with anxiety and all subscales of MCQ significantly associated with trait anxiety and trait worry. Moreover, they found that MCQ-LCC was a strong predictor of anxiety symptoms even after controlling for trait anxiety, worry and shared variances with other four subscales of MCQ. In a preliminary study of meta-cognitions and hypochondriasis (Bouman & Meijer, 1999), it is found that hypochondriasis was best predicted by specific meta-worries about lack of control over thoughts about illness and by cognitive self-consciousness. In a study about metacognition and test anxiety (Matthews, Hillyard, Campbell, 1999) it was found that all of the subscales of MCQ were significantly predicted tension about test and bodily symptoms about test, all subscales of MCQ except for MCQ-PB predicted test worry, MCQ-LCC and MCQ-UD were predicted test irrelevant thinking.

Wells and Papageorgiou (1998) were investigated relations between worry, obsessive-compulsive symptoms and meta-cognitive beliefs. In this study positive and negative beliefs about worry were found to be significantly associated with pathological worry, and negative and positive beliefs about worry significantly predicted obsessional thoughts. In another study about role of metacognitions in worry and obsessional

thought in non-clinical sample (de Bruin, Muris, Rassin, 2007), it is found that meta-worry and thought suppression was predictive of worry and MCQ-CSC and meta-worry were predictive of obsessional thoughts. Metacognitive beliefs in generalized anxiety disorder, anxiety disorder (social phobia, panic disorder), depression, normal healthy controls were examined by Wells and Carter (2002). Patients with generalized anxiety disorder had higher scores on negative metacognition than anxious, depressive, and healthy normal controls. Depressive patients were in the middle of generalized anxiety patients and anxious patients groups, in terms of negative metacognition.

In study of Hermans, Martens, De Cort, Pieters and Eelen (2003) metacognitive beliefs were examined in obsessive compulsive patients and normal controls were investigated. According to the results of the study obsessive compulsive patients had higher scores on all MCQ subscales except for the positive belief about worry. Patients had convinced about the danger and uncontrollability of the thoughts and the one must be able to control his thoughts, and had negative beliefs about worrying in terms of its danger and harm. Moreover, obsessive patients had more self-consciousness about their cognitive activity and lower levels of cognitive confidence. Another study (Gwilliam, Wells, & Cartwright-Hatton, 2004) about obsessive compulsive disorder was explored the relations between metacognition, responsibility and obsessive compulsive symptoms. Results of the study yielded that obsessive compulsive symptoms significantly associated with metacognitive factors. Moreover,



relation between responsibility and obsessive compulsive symptoms was dependent upon metacognition. However, association between metacognition and obsessive compulsive symptoms were independent of responsibility. Moreover, metacognitive beliefs about need to control thoughts was found to be as significant predictor of OC symptoms along with morality TAF, and negative beliefs about cognitive competence. Similarly in study of Myers and Wells (2005), two formulations of OC symptomatology which are responsibility focused model of Salkovskis (1985) and metacognition focused model of Wells (1997) were explored. According to the results of the study, both responsibility and metacognitive beliefs (need to control, negative beliefs about uncontrollability and danger) were positively correlated with OC symptoms after controlling for worry. Moreover, metacognitive beliefs (need to control) of the participants were still predictive of OC symptoms even after controlling for worry and responsibility. Nevertheless, responsibility did not add to variance explained by worry and metacognitive beliefs.

In study of Papageorgiou and Wells (2001) the metacognitive beliefs about rumination in recurrent major depression were investigated. The results yielded that all of the patients with major depression had positive beliefs (e.g., as a coping strategy) and negative beliefs (e.g., about harm and danger of rumination) about rumination, which indicated that depressive patients have similar relation, in metacognitive beliefs terms, to rumination as generalized anxiety patients to worry. Moreover positive beliefs about rumination in depressed, recovered and never depressed groups were explored

by Watkins and Moulds (2005), and they have found that depressed and recovered patients had more positive beliefs about rumination than never depressed controls. In study of Spada, Mohiyeddini and Wells (2008), the predictive power of MCQ was tested for anxiety and depression. It is found that MCQ-UD was strongest predictors of both depression and anxiety. Moreover, MCQ-LCC, MCQ-NC, MCQ-CSC were significant predictors of depression.

Differences in metacognitive process between hallucinating, non-hallucinating psychiatric and control groups were explored by Baker and Morrison (1998). Their study results yielded that hallucinating group got significantly higher scores on MCQ subscales except for the MCQ-CSC. Hallucinators had significantly higher scores on MCQ-UD and MCQ-PB when compared to two control groups. MCQ-NC was significant predictor of the experience of auditory hallucinations. In an another study (Morrison, Wells & Nothard, 2000), it is found that patients with high predisposition to hallucination got significantly higher scores on MCQ-CSC, MCQ-UD, MCQ-SPR, positive beliefs about hallucinations than patients with low predisposition. Another study about auditory hallucinations and metacognition was conducted by Lobban, Haddock, Kinderman and Wells (2002). In that study a modified version of MCQ was used that had three additional subscales which are importance of consistency of thoughts, experiencing unwanted thoughts and beliefs about the normal experiences of unwanted thoughts. According to the results, hallucinating and non-hallucinating patients got higher scores on the consistency subscale than the non-patient and

anxious control groups. Moreover, anxious and hallucinating groups had significantly lower MCQ-LCC than non-hallucinating schizophrenics and normal controls. Furthermore, it was suggested by the study that anxiety related intrusive thoughts, low MCQ-LCC and belief in the importance of the consistency of thoughts were significant contributors of auditory hallucinations. In a study examining the role of metacognition on predisposition to auditory and visual hallucinations (Garcia-Montes, Cangas, Pérez-Alves, Fidalgo, Gutierrez, 2006), positive metacognitive beliefs about worry were significantly correlated with visual hallucinations and lack cognitive confidence was positively associated with both visual and auditory hallucinations. When controlled for anxiety, cognitive confidence was a significant predictor of predispositions to auditory and visual hallucinations.

Metacognition was also hypothesized as a mediator variable. For example, mediator role of metacognition between relationship between emotion and smoking dependence was explored by Spada, Nikcevic, Moneta, Wells (2007). Results of the study indicated that three dimension of metacognition which are MCQ-PB, MCQ-UD and MCQ-LCC were significantly and positively associated with smoking dependence. Furthermore, it was also found that relation between emotion and smoking dependence was partially mediated by unified metacognition latent variable. In another study (Spada, Langston, Nikcevic, & Moneta, 2008), all subscales of MCQ were correlated with problematic internet use and all dimensions were used as indicators for the general metacognition latent variable. Results yielded that the

impact of negative emotions on problematic internet use was mediated through metacognition.

In literature, preliminary finding supported the casual status of metacognitions (e.g., Nassif 1999; Yılmaz, Gençöz & Wells, 2011). In study of Nassif (1999, as cited in Wells, 2009), development of generalized anxiety disorder, prior several weeks, was predicted by negative metacognitive beliefs about uncontrollability and danger. Moreover, in the study of Yılmaz et al. (2011), metacognitive beliefs predicted the development of depression and anxiety symptoms six months later beyond and above the effects of stressful life events. Furthermore, preliminary findings in literature also supported the contribution of metacognition to emotional disorders above ordinary cognitions (e.g., Wells & Carter, 1999; Yılmaz, Gençöz, & Wells, 2007b). Wells and Carter (1999) showed that both pathological worry and level of problem with worrying were associated with negative interpretation of worrying (meta-worry). Moreover, this association was over and above the content of worry, trait anxiety and uncontrollability. Finally, Yılmaz et al. (2007b), showed that variance in depressive symptoms were explained by positive and negative beliefs about rumination (metacognition) whereas dysfunctional attitudes did not accounted. These results supported that metacognition contributed to depression more than the cognitive content does.

#### **1.4 The Aim of the Present Research**

The main aim of this dissertation is examining the relation of self-compassion and psychopathology with mediating effects of psychological acceptance, i.e. experiential acceptance and metacognitive factors. In the first part of the dissertation, the psychometric properties of Acceptance and Commitment Questionnaire (Hayes, Strosahl, Wilson, Biesset, Toarmino et al., 2004) will be examined. Secondly, the relation of self-compassion with anxiety and depression will be tested with the mediating effects of experiential avoidance and metacognitive factors. It is hypothesized that self-compassion will have significant negative association with anxiety and depression. Moreover, it is expected that self-compassion will also have significant and negative relations with experiential avoidance and metacognition. Furthermore, metacognitive factors are assumed to have significant positive relation with anxiety and depression. It is proposed that, with this mediational model, self-compassion occasions a compassionate context in which individuals can relate to their private events in a kind, accepting and mindful way. With the help of this model, people will not only gain an observer perspective and the recognition of negatively evaluated life experiences, they will also learn to interpret private events as fundamental components of life, i.e. shared human experiences. Therefore individuals will have more psychological acceptance and less experiential avoidance. Moreover this acceptance will provide them to have greater psychological well-being. The Acceptance and Action Questionnaire (AAQ) is expected to have significant negative associations with self-compassion; whereas trait anxiety, depression and

metacognitive factors will have significant positive correlation with AAQ. AAQ is also expected to have similar psychometric properties with a single factor solution which Hayes, Strosahl, Wilson, Biesset, Toarmino et.al. reported in 2004.

One of the most important assertions that is made in this dissertation is that self-compassion will significantly predict the severity of mental disorders, such as depression and trait anxiety. As long as the level of self-compassion is high, the severity of a mental illness will be low; however experiential avoidance and metacognitive factors will predict these mental health outcomes in the opposite pattern: as long as the level of experiential avoidance and metacognitive factors is high, the severity of the mental disorders will also be high. When we control the explained variance of experiential avoidance, the strong relations of self-compassion with anxiety and depression will become weaker. A very similar rationale is also valid when we control the metacognitive factors: When it is controlled the strong relations of self-compassion with anxiety and depression will become weaker. Therefore, the weakening perceived between these relations will support the mediational model that is developed in this dissertation.

#### Research Hypotheses:

1. AAQ will have significant negative associations with self-compassion, but significant positive correlation with trait anxiety, depression and metacognitive factors.
2. AAQ will have psychometric properties similar to a single factor solution of Hayes, Strosahl, Wilson, Biesset, Toarmino et al. (2004)

3. Self-Compassion will significantly predict the mental health outcomes (depression and trait anxiety).
4. Experiential avoidance and metacognitive factors will significantly predict the mental health outcomes (depression and trait anxiety).
5. Self-Compassion will have significant negative correlations with experiential avoidance and metacognitive factors.
6. When the explained variance due to experiential avoidance is controlled, the relation between self compassion and anxiety will become weaker.
7. When the explained variance due to experiential avoidance is controlled, the relation between self compassion and depression will become weaker.
8. When the explained variance due to metacognitive factors controlled, the relation between self compassion and anxiety will become weaker.
9. When the explained variance due to metacognitive factors controlled, the relation between self compassion and depression will become weaker.

## CHAPTER 2

### METHOD

#### 2.1. Participants

Four hundred and thirty four university students participated to present study. Questionnaires applied in the elective courses of Psychology department and Information Systems department. In the sample 216 participants filled out the questionnaires in paper-pencil format in the class hours and earned bonus points in return. The other 218 participants filled the computer-based versions of the questionnaire on the internet. There were students from divergent faculties, 36,9 percent of the participants were from Faculty of Arts and Science ( $n= 160$ ), 25,3 percent from Faculty of Engineering ( $n= 110$ ), 20 percent from Faculty of Economic and Administrative Sciences ( $n= 80$ ), 12 percent from Faculty of Education ( $n= 52$ ), three and a half percent from Graduate School of Informatics ( $n= 15$ ) and finally two and a half percent from Faculty of Architecture ( $n= 10$ ). In terms of the region the most of their life time spent, the answer of the 60,1 percent of the participants were metropolis ( $n = 261$ ) and for the 39,9 percent answer was city ( $n = 173$ ). 32,7 percent of the participants were male ( $n= 142$ ) and 67,3 percent of the participant were female ( $n=292$ ).



The mean age of the sample was 22,23 (sd = 2,01), and it was ranged between 19 and 29. Descriptive information about the participants is summarized in Table 1.

Table 1 Descriptive statistics for the demographic characteristics of the participants

	Mean	SD	Number	Percent
Age	22,23	2,01		
Gender				
Male			142	32,7
Female			292	67,3
Faculty of				
Arts and Science			160	36,9
Engineering			110	25,3
Economic and Administrative Sciences			87	20
Education			52	12
Graduate School of Informatics			15	3,5
Architecture			10	2,5
Region Most Time Spent				
Metropolis			261	60,1
City			173	39,9

## 2.2 Materials

The research questionnaire included two main parts. First part, Demographic Information Sheet (See Appendix A), included question about participant's age, sex, department, original and present residency.

Second Part of the research questionnaire contained five scales which are Self-Compassion Scale (SCS) (See Appendix B), Acceptance and Action Questionnaire (AAQ) (See Appendix C), Meta-Cognitions Questionnaire 30 (MCQ-30) (See Appendix D), Beck Depression Inventory (BDI) (See Appendix E), Trait Anxiety Inventory (TAI) (See Appendix F), Penn State Worry Questionnaire (PSWQ) (See Appendix G).

### **2.2.1 Self-Compassion Scale (SCS):**

Self Compassion Scale (SCS) is a 26-item self-report scale with 6 subscales and originally developed by Neff (2003b). SCS consists of the 5 item Self-Kindness subscale (e.g., “I try to be understanding and patient toward aspects of my personality I don't like”), the 5-item Self-Judgment subscale (e.g., “When I see aspects of myself that I don't like, I get down on myself”), the 4-item Common Humanity subscale (e.g., “When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.”), the 4-item Isolation subscale (e.g., “When I fail at something that's important to me I tend to feel alone in my failure”), the 4-item Mindfulness subscale (e.g., “When something upsets me I try to keep my emotions in balance”), and the 4-item Over-Identification subscale (e.g., “When something upsets me I get carried away with my feelings”). The scale aims to measure continual self-compassion. SCS is a five point Likert scale and each item answered on a scale ranging from “almost never” to “almost always”. After scores on Self-Criticism, Isolation and Over-identification subscales are reverse coded, mean scores of the six subscales are summed in order to create a total self-compassion score (Neff,2003b).

Factor structure of SCS was tested by the use of confirmatory factor analyses (CFA). As a result of series of CFA, the intercorrelation between six subscales were explained by a single higher order factor of “self-compassion” (NNFI=.90; CFI=.92). Internal consistency of SCS was reported as .92, and internal consistency of the subscales were ranged from .75 to .81. Test-retest reliability of SCS was reported as .93 (Neff, 2003b). Construct validity of SCS was tested with other scales measuring

related constructs. SCS found to have significant negative association with self-criticism, and significant positive associations with social connectedness and emotional intelligence. Discriminate validity of SCS was tested with scales measuring social desirability and narcissism. SCS is found to have no significant associations with either social desirability or narcissism (Neff, 2003b). SCS was translated and adapted to Turkish by Öveç, Akın and Abacı (2007). Prior to validity and reliability analyses, 135 English teacher living in Istanbul were administered Turkish and English forms of SCS, and correlations between scores of two forms were used to assess linguistic equivalence. Correlations between six subscales of two forms were ranged from .87 to .94. Six factors solution with principal component analysis was applied to test the factor structure of SCS. SCS Turkish form found to have similar factor structure with the original scale. First factor explained 25.62 % of variance, second factor explained 13.22 % of variance, third factor explained 11.80 % of variance, fourth factor explained 6.68 % of variance, fifth factor explained 5.51 % of variance, sixth factor explained 5.06 % of variance with six factors totally explaining 67.90 % of the variance. Moreover, CFA revealed that Turkish SCS fit the data well (NFI= .95; CFI= .97). Internal reliability of the SCS subscales were ranged between .72 and .80, and test-retest reliability of the SCS subscales were ranges between .58 and .69 ( $p < .01$ ; Öveç et al., 2007).

Moreover, SCS also adapted to Turkish by Deniz, Kesici and Sümer (2008). Prior to validity and reliability analyses, 66 English teachers administered Turkish and English

forms of SCS over a two-week period, and correlations between scores of two forms were used to assess linguistic equivalence ( $r = .96, p < .001$ ). In terms of construct validity, CFA did not support the six factors solution of Öveç et al.(2007) and Neff (2003). However, conducted EFA supported one factor solution. In EFA, examination of Scree plot test had demonstrated sharp drop right after the first factor. Eigenvalue of the first factor was 8.264 with 31.7 per cent explained variance. Eigenvalues and explained variances of other four factors shown on scree plot ranged from 1.06 (4%) to 2.25 (8.6%). Moreover, item-total correlations were ranged from .026 to .646 and two items, first and twenty-second items, were excluded because of their loadings below .30.

In terms of concurrent validity, SCS had significant correlations with Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965; Çuhadaroğlu, 1986) ( $r = .62, p < .001$ ), Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen & Griffin, 1985; Köker, 1991) ( $r = .45, p < .001$ ), Positive Affect (PA) ( $r = .41, p < .001$ ) and Negative Affect (NA) ( $r = -.48, p < .001$ ) subscales of the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; Gençöz, 2000). In terms of incremental validity, SCS, after controlling for the variance due to RSE, had maintained significant correlations with SWLS ( $r = .20, p < .01$ ), Positive Affect (PA) ( $r = .24, p < .001$ ) and Negative Affect (NA) ( $r = -.37, p < .001$ ) subscales of the PANAS. Finally, stability of SCS, after three weeks, was found to be .83 (Deniz et al., 2008).

In this present study, Turkish SCS version of Deniz et al. (2008) with one factor solution and which is reviewed and confirmed by the developer of the original scale (Neff, 2003) would be used rather than Turkish SCS version of Öveç et.al. (2007) with six factors solution.

### **2.2.2 Acceptance and Action Questionnaire (AAQ):**

AAQ is 9-item, likert type and single factor, general measure of experiential avoidance process accounted by Relational Frame Theory (Hayes et al., 1996; Hayes et al., 2001). Experiential avoidance model was tested by Hayes, Strosahl, Wilson, Biesset, Toarmino et.al. (2004) with theoretically driven iterative CFA with structural equation modeling. First, 32-item version of AAQ was administered to a clinical sample (N=460), and in the analysis items removed and the sequential CFA proceeded with better fit indices. After, 16-item version of AAQ initially developed. However, then for the population-based focus of the measure, a shorter version was also developed. Two versions of AAQ was found to be highly correlated ( $r = .89$ ).

CFA with obtained fit indices of single 9-item version of AAQ indicated a very good fit for the model [ $\chi^2(27) = 35.19, p = .13$ , the goodness of fit index (GFI) = .99, the adjusted goodness of fit index (AGFI) = .98, the root mean square residual (RMR) = .047]. Item loadings were ranged from .32 to .72. Then, the 9-item single factor solution was subjected to full CFA with a new clinical sample (N= 419). Again, the 9-item single factor solution yielded a good fit [ $\chi^2(27) = 47.61, p = .0085$ , (GFI) = .98, (AGFI) = .98, (RMR) = .054]. Item loadings were ranged from .32 to .72. Internal

consistency of measure was .70, and stability of, for four months, 16-item AAQ was .64 (Hayes et al., 2004).

After CFAs, convergent validity and incremental validity of AAQ was investigated with four clinical and six non-clinical samples, including the two samples used in previous model tests. AAQ was found to be significantly and positively correlated with Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) (ranged from .56 to .70,  $p < .001$ ), Symptom Checklist-90 Revised (SCL-90-R; Derogatis, 1994) (ranged from .49 to .53,  $p < .001$ ), Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979) (ranged from .36 to .72,  $p < .001$ ), Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996) ( $r = .60$ ,  $p < .001$ ), Quality of Life Inventory (QOLI; Frisch, 1992) ( $r = -.40$ ,  $p < .001$ ), Beck Anxiety Inventory (BAI; Beck, Epstein, Brown & Steer, 1988) (ranged from .35 to .58,  $p < .001$ ) (Hayes et al., 2004).

In terms of convergent validity AAQ found to significantly correlated with White Bear Suppression Inventory (WBSI; Wegner & Zanakos, 1994) (ranged from .44 to .50,  $p < .001$ ), with Thought Control Questionnaire's (TCQ; Wells & Davies, 1994) worry ( $r = .36$ ,  $p < .001$ ) and punishment ( $r = .37$ ,  $p < .001$ ) subscales, with Ways of Coping Questionnaire's (WOC; Folkman & Lazarus, 1988) escape-avoidance (ranged from .35 to .38,  $p < .001$ ) and distancing ( $r = .21$ ,  $p < .001$ ) subscales, with the Edwards Social Desirability Scale (ESDS; Edwards, 1957) (ranged from -.60 to -.50,

$p < .001$ ). Moreover, AAQ did not significantly correlate with Marlowe-Crowne Social Desirability Scale (MCSD; Crowne & Marlowe, 1960) (Hayes et al., 2004).

For the incremental validity, the measure was tested with ESDS, MCSD and WBSI. ESDS is a measure of self-deceptivity which highly correlated with different measures of psychopathology (anxiety, depression, self-esteem and well-being). AAQ was found to be positively correlated with SCL-90-R ( $r = .25, p < .001$ ), BAI ( $r = .10, p < .01$ ), TCQ-Worry ( $r = .21, p < .01$ ) and TCQ-Punishment ( $r = .24, p < .001$ ), WBSI ( $r = .21, p < .01$ ), BSI ( $r = .47, p < .01$ ), BDI ( $r = .55, p < .001$ ) after variance due to ESDS was controlled. Moreover, AAQ was found to be positively correlated with WBSI ( $r = .50, p < .001$ ), BSI ( $r = .69, p < .01$ ), BDI ( $r = .73, p < .001$ ), BDI-II ( $r = .60, p < .001$ ) after variance due MCSD was controlled. Finally, AAQ was found to be positively correlated with SCL-90-R ( $r = .34, p < .001$ ), BAI ( $r = .20, p < .01$ ), TCQ-Worry ( $r = .21, p < .01$ ) and TCQ-Punishment ( $r = .24, p < .001$ ), BDI-II ( $r = .53, p < .001$ ) after variance due to WBSI was controlled (Hayes et al., 2004).

Recently, AAQ was translated two languages, Dutch (Boelen & Reijntjes, 2008) and Spanish (Mairal, 2004). For the Dutch version of AAQ, single factor solution marginally fit the data [ $\chi^2/df = 3.24$ , the Comparative Fit Index (CFI) = .91, the Normed Fit Index (NFI) = .87, the Non-Normed Fit Index (NNFI) = .88, the Root Mean Square Error of Approximation (RMSEA) = .08]. After the adjustments made according to modification indices which recommending correlation of error terms of

item 1 and item 3 which are about the inability to take action in the face of negative event, the adjusted model improved [ $\chi^2$  difference (1) = 15.63,  $p < 0.001$ ;  $\chi^2/df = 2.76$ , the Comparative Fit Index (CFI) = .93, the Normed Fit Index (NFI) = .90, the Non-Normed Fit Index (NNFI) = .90, the Root Mean Square Error of Approximation (RMSEA) = .07]. In Dutch version, AAQ scores was calculated by summing AAQ item scores (Boelen & Reijntjes, 2008).

Internal consistency (Cronbach's alpha) of AAQ was found to be ranged from .53 to .74, and test retest reliability, with a mean of 22.6 days, was found to be .82. In terms of concurrent validity, AAQ had demonstrated significant correlations with Depression (Spearman's  $\rho$  ranged from .56 to .63,  $r = .66$ ,  $p < .001$ ) and Anxiety ( $r = .57$ ,  $p < .001$ ) subscales of SCL-90 (Derogatis, 1983), with Inventory of Complicated Grief (ICG-r; Prigerson and Jacobs, 2001) (Spearman's  $\rho = .63$ ,  $p < .001$ ), with Neuroticism ( $r = .66$ ,  $p < .001$ ), Extraversion ( $r = -.36$ ,  $p < .001$ ), Agreeableness ( $r = -.45$ ,  $p < .001$ ), Conscientiousness ( $r = -.39$ ,  $p < .001$ ) subscales of Neo Five Factor Inventory (NEO FFI; Costa and McCrae, 1992), with Neuroticism subscale of Eysenck Personality Questionnaire (EPQ; Eysenck, Eysenck, & Barrett, 1985) ( $r = .68$ ,  $p < .001$ ), with WBSI ( $r = .67$ ,  $p < .001$ ), with State version of State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) ( $r = .59$ ,  $p < .001$ ). In terms of incremental validity AAQ had demonstrated significant correlation with anxiety and depression after controlling for neuroticism and also after controlling for thought suppression (Boelen & Reijntjes, 2008).



In the study of Mairal (2004), construct validity of the Spanish version of AAQ was subjected to EFA with principal components model. EFA revealed three factors with eigenvalues ranging from 1.153 to 3.078, with explained variances ranging from 12.81 to 34.20 per cent. Whereas the aim of structural equation modeling is finding the adequate solution, the aim of EFA is to find the best solution. In their study, Mairal (2004) stated that although three dimensions obtained, one factor solution still remains as a possibility for the Spanish version. Internal consistency of Spanish AAQ (Cronbach's alpha) was found to be .74, retest stability of measure, after 5-6 weeks, was found to be .71. In terms of concurrent validity, Spanish AAQ had demonstrated significant correlations with BDI ( $r = .74, p < .01$ ), STAI-Trait ( $r = .76, p < .01$ ).

### **2.2.3 Meta-Cognitions Questionnaire 30 (MCQ-30):**

MCQ-30 (Wells & Cartwright-Hatton, 2004) is a 30-item questionnaire which is a shortened version of 65 item Meta-Cognition Questionnaire developed by Cartwright-Hatton and Wells in 1997. MCQ composed of five subscales which are intercorrelated and conceptually distinct. Subscales of MCQ are: (1) positive beliefs about worry, (2) negative beliefs about thoughts concerning uncontrollability and danger, (3) cognitive confidence, (4) negative beliefs concerning the consequences of not controlling thoughts, and (5) cognitive self-consciousness. Alpha reliabilities of MCQ questionnaire ranged from 0.72 to 0.89. In research MCQ had demonstrated positive correlations with pathological worry (Wells & Papageorgiou, 1998), with obsessive

compulsive symptoms (e.g., Hermans, Martens, De Cort, Pieters, & Elen, 2003), with predisposition to auditory hallucinations (e.g., Morrison, Wells, & Nothard, 2000).

In study of Wells & Cartwright-Hatton (2004), alpha scores of subscales ranged from 0.72 to 0.93. In confirmatory factor analysis (CFA), although the Chi-squared test of model fit was significant ( $\chi^2(395) = 746.80, p < 0.00$ ), other indices of goodness indicated the goodness of fit for the model [Comparative Fit Index (CFI) = 0.91; Root Mean Square Residual (RMSR) = 0.04; the Root Mean Square Error of Approximation (RMSEA) = 0.07]. After the CFA, study proceeded with exploratory factor analysis (EFA) using principal component factoring. In EFA, Scree Test implied five factors of which eigenvalues ranged from 1.18 to 9.98. Moreover factors explained 33.28 (cognitive confidence), 11.86 (positive beliefs about worry), 10.56 (cognitive self-consciousness), 8.36 (negative beliefs about thoughts concerning uncontrollability and danger), 3.93 (negative beliefs concerning the consequences of not controlling thoughts) per cent of the total variance. In terms of convergent validity, total scale and subscale scores of MCQ-30 significantly and positively associated with the measures of obsessive-compulsive symptoms, trait anxiety and pathological worry. Moreover, negative beliefs about thoughts concerning uncontrollability and danger subscale of MCQ-30 had demonstrated significant correlation with pathological worry and trait anxiety with 53 and 48 per cent shared variance. Furthermore, MCQ-30 had demonstrated high test-retest reliability for whole scale, and test-retest reliability of the subscales were ranged from acceptable to

high reliability, ranging from 0.59 (negative beliefs about thoughts concerning uncontrollability and danger) to 0.87 (cognitive self-consciousness).

Factor structure of the Turkish version of MCQ-30 was investigated with EFA using principal component analysis. Scree plot test implied five factors of which eigenvalues ranged from 1.38 to 6.79. Moreover, the explained variances by those five factors ranged from 4.61 to 22.65 per cent. In terms of the reliability of the scale, total MCQ-30 and its subscales corrected item-total coefficients were above the conventional limit, except for one item (item 5) which was not removed from the scale due to its adequate correlation with its matching subscale ( $r = .42$ ). Furthermore, MCQ-30 had demonstrated high internal consistency (alpha coefficient = .87), and internal consistency coefficient of the subscales were ranged from .73 to .89. Gutman split half reliability of MCQ-30 was .90, and coefficients of the subscales were ranged from .76 to .90. Test-retest reliability, retest correlation for the MCQ-30 was .80, and retest correlations of the subscales were ranged from .45 to .90. Conducted pair sample t-tests affirm no significant differences between two administrations, ranging from five to seven weeks (Yılmaz, Gençöz, & Wells, 2008).

In terms of convergent validity, correlations between MCQ-30 and its subscales, and Beck Depression Inventory (BDI), Padua Inventory Washington State University Revision (PI-WSUR; Burns, Keortge, Formea, & Sternberger, 1996), State Trait Anxiety Inventory Trait Form (STAI-T), Beck Anxiety Inventory (BAI), Penn State

Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990) were examined. MCQ-30 had demonstrated positive correlations with all measures. Except for the cognitive consciousness subscale, all of the subscales of MCQ-30 had demonstrated positive correlations with BDI (ranging from .16 to .47) and STAI-T (ranging from .23 to .65). Moreover, except for the cognitive self-consciousness and the cognitive confidence subscales, all of the subscales of MCQ-30 had demonstrated intercorrelations. Moreover, in terms of criterion validity, MCQ-30 and all of the subscales had significantly discriminated high worriers and low worriers. Eta squared values showed that effect size of the MCQ-30 and the negative beliefs about thoughts concerning uncontrollability and danger were quite high, .55 and .52 respectively (Yılmaz, 2007).

#### **2.2.4 Beck Depression Inventory (BDI):**

Beck Depression Inventory (BDI) is a 21-item self-report inventory developed by Beck, Rush, Shaw and Emery in 1978 after the reevaluation and revision of the first form of BDI developed by Beck, Ward, Mendelson, Mock & Erbaugh in 1961 (Savaşır & Şahin, 1997). The scale aims to measure the severity of cognitive, emotional and motivational symptoms of depression (Öner, 1997). In BDI, participants choose the best option among the four statements for each item which best represents how they felt over the last week. Scores for each item ranges from 0 to 3 and the total score of BDI ranges from 0 to 63. BDI is not related to diagnosis of depression but the severity of the symptoms of depression (Savaşır & Şahin, 1997).

In the review of Beck, Steer and Garbin (1988), which included 25 different studies conducted between 1961 and 1986, it was reported that internal consistency of BDI was between .73 and .95, and test-retest reliability was between .60 and .80 for non-psychiatric samples and between .48 and .86 for psychiatric samples.

First form of BDI was adapted to Turkish sample by Teğin (1980) and the revised form was adapted by Hisli (1988; 1989). In two independent adaptation studies, split half reliability of BDI was reported as .71 for student sample and .61 for depressive patient sample, and test-retest reliability of the scale was reported as .65 (Teğin, 1980) and internal consistency of BDI was reported as .74 (Hisli, 1988). The concurrent validity of BDI was examined with the use of MMPI Depression Scale, the correlation between MMPI-D and BDI was reported as .63 (Hisli, 1988). In the present study, BDI adapted by Hisli (1988; 1989) was used.

#### **2.2.5 State-Trait Anxiety Inventory (STAI):**

State-Trait Anxiety Inventory composed of two 20-item self-report scales developed by Spielberger, Gorsuch, Lushene (1970). STAI aims to assess participants' situational and continual anxiety levels evaluated on a four point Likert scale ranges from “almost never” to “almost always”.

In the original study, test-retest reliability of STAI ranged from .73 to .86 for trait anxiety inventory (TAI) and from .16 to .54 for state anxiety inventory (SAI). Internal consistency for TAI ranged from .83 to .92 and for SAI it is ranged from 86. to .92.

Moreover, construct and criterion validity values were reported to be satisfactory (Spielberger et al., 1970). LeCompte and Öner (1985) translated and adapted STAI to Turkish by using both normal and psychiatric samples. Test-retest reliability of Turkish STAI varied between .71 and .86 for TAI, and between .26 to .68 for SAI. Internal consistency of the STAI varied between .83 and .87 for TAI, and between .94 to .96 for SAI. Furthermore, construct and criterion validity values were reported to be satisfactory for the Turkish STAI (Öner & LeCompte, 1985). In the present Study, only TAI was given to the participants to measure their anxiety.

### **2.2.6 Penn State Worry Questionnaire (PSWQ)**

Penn State Worry Questionnaire composed of 16-item self-report scale developed by Meyer, Miller, Metzger, & Borkovec (1990). PSWQ aims to assess participants' trait worry levels evaluated on a five point Likert scale ranges from "not at all typical of me" to "very typical of me". There are five items negatively loaded and have to be reverse scored. The score of PSWQ is calculated by summing items. Scores ranges from 16 to 80 and the higher scores represent higher levels of pathological worry.

Development of the PSWQ started with Tom Meyer's master's thesis in 1988 which aimed to develop a measure focused on trait worry (Startup and Erickson, 2006).

Development of PSWQ summarized in Molina and Borkovec (1994), the PSWQ was stem from factor analysis of 161 items which are related to worry. After the application of PSWQ to 337 university students, items of the scales were subjected to factor analysis with oblique rotation. According to factor analysis, seven factors

emerged. The first factor focusing on the frequency and intensity of worry in general rather than the content was explained 22.6 % of the variance. Final 16 item PSWQ also had good internal consistency and stability. Cronbach's alpha of the PSWQ ranged between .88 and .95 for clinical and non-clinical samples. Moreover, PSWQ yielded good test-retest scores ranging from .74 to .92 over interval of 2 to 10 weeks (Startup & Erickson, 2006). Yılmaz, Gençöz and Wells (2008) adapted and translated the scale to Turkish by using a non-clinical sample. Factor structure of Turkish PSWQ was investigated with principal component factor analysis with varimax rotation. According to factor analysis two factors emerged. First factor composed of 11 items and second factor composed of five items which are negatively loaded reverse items. Then, two factors were separately examined by principal component analyses and results shown that positively scored items explained more variance than negatively scored items and the combination of positively and negatively scored items. In terms of reliability, the scale had high internal consistency and Cronbach's alpha score was found to be .91. With subsample of 26 participants temporal reliability of the scale over interval of 5 to 7 weeks was tested. Result yielded high retest coefficients and t-test results shown that there were no significant differences over 5 to 7 weeks, in terms of participants' PSWQ scores. In terms of convergent validity PSWQ found to be significantly positively associated with obsessive compulsive symptoms, trait anxiety, anxiety, depression, positive belief about worry, negative beliefs about worry concerning uncontrollability and danger, lack of cognitive confidence, need to control thoughts, cognitive self-consciousness and total metacognition scores.

### **2.3 Procedure:**

Prior to application, information about the research design and instruments were submitted to Institute of Social Sciences Ethical Committee at Middle East Technical University for suitability of human research ethical conduct. After the Institute's approval, available classes selected for administration from Psychology Department and Information Systems Department. For every administration, first the approval of the each class's instructor was taken. Then, the administrations were made by the researcher. For one class, in Psychology Department, students took the questionnaires at home and they brought them back to next class day. Students who attended to the research earned bonus points for their participation. The order of instruments were counterbalanced prior administration, in order to eliminate ordering effect.

Questionnaires were administered by the researcher at the beginning of class hours and application took nearly 20 minutes. For computer-based version of the questionnaire, internet link of the questionnaire were sent to the volunteer students who wanted to share the research with their friends in Middle East Technical University. Moreover, the links also shared with Middle East Technical University students through online social network sites. Again, in case of ordering effect, order of instruments was counterbalanced and different internet links were established. Prior to the analysis, nine items of the Acceptance and Action Questionnaire were translated to Turkish by two bilingual English grammar teachers and researcher. Then, the translations were controlled by two psychologists prior to application.



## **2.4 Data Analysis:**

Data was analyzed with SPSS 13.0 and Lisrel 8.80 6 Month Rental Edition. Data was checked in terms of accuracy of data, missing values and outliers. Fifteen missing cases were found in the data and excluded from the analysis and final sample size of the study was 419. Each variable separately examined for univariate and multivariate outliers. No case with extreme z score detected according to Mahalanobis distance ( $p > .001$ ). Data was checked for adequacy for sample size and sample size was satisfactory for analysis.

Moreover, assumptions of normality were tested according to histograms and skewness- kurtosis values. All variables met the normality assumptions, therefore no transformations were needed. Prior to analyses, two samples (internet vs. paper pencil) were tested through independent t-tests in order to test equivalence of the samples in terms of depression, anxiety, self-compassion, experiential avoidance and metacognition scores. Separated t-tests yielded that there were no differences between two samples in terms of variables mentioned above, see Table 2. Prior to main analysis, factor analyses conducted in order to investigating the factor structure of Acceptance and Action Questionnaire, Self-Compassion Scale. In terms of factor analyses, confirmatory factor analysis using structural equation modeling with maximum likelihood estimation conducted. Moreover, test-retest stability and internal consistency and concurrent validity of the measure with other variables in the study were tested. Finally series of structural equation modeling analyses conducted in order

to examine the hypotheses about the mediational model in which relation between self-compassion and psychological well-being mediated by experiential avoidance and metacognitive factors.

Table 2 Independent T-Tests for testing the equivalence of the samples

Variables	Samples		<i>t</i>	<i>df</i>
	Paper Pencil	Internet		
Depression (BDI)	10.97 (8.83)	9.83 (7.18)	-1.44	417
Anxiety (STAI)	45.30 (9.88)	44.38 (9.74)	-.96	417
Self-Compassion (SCS)	72.89 (14.82)	74.90 (15.17)	1.37	417
Experiential Avoidance (AAQ)	23.37 (6.27)	22.98 (5.63)	-.67	417
Metacognition (MCQ)	65.89 (12.87)	65.23 (10.43)	-.58	417

Note: None of the *t* values were significant. Standard Deviations appear in parentheses below means.

## CHAPTER 3

### RESULTS

#### 3.1 Psychometric Properties of Action and Acceptance Questionnaire

##### 3.1.1 Confirmatory Factor Analysis and Construct Validity

A confirmatory factor analysis, based on data from sample of 419 participants, was performed through LISREL 8.80 6 Months Rental Edition (Jöreskog & Sörbom, 2006) on the nine items, which were presented in APPENDIX C, of Action and Acceptance Questionnaire (Hayes et al. 2004). A one factor model of AAQ is hypothesized.

Maximum likelihood estimation was employed to estimate all models. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(36, N = 419) = 763.176, p < .001$ . Next, the hypothesized model was tested and poor fit values were yielded ( $\chi^2(27, N = 400) = 209.178, p < .001$ , RMSEA= .13, GFI = .90, AGFI = .83, CFI = .75, NFI = .73). Except one item, item loadings were significant and ranged between .12 and .71, see Figure 2.

The fourth item, “I rarely worry about getting my anxieties, worries, and feelings under control”, was negatively loaded, although the item was reversed prior to the analysis.

Besides item four, there were two additional problematic items which had the lowest loadings, item 1 “I am able to take action on a problem even if I am uncertain what is the right thing to do” and item 6 “When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact”. Moreover, item 6 did not also work in a Dutch sample (Boelen & Reijntjes, 2008). Therefore, analysis run without the problematic items and good fit values were obtained ( $\chi^2(9, N = 419) = 11.96, p > .05, RMSEA = .03, GFI = .99, AGFI = .98, CFI = .99, NFI = .97$ ). All factor loadings were significant and ranged between .31 and .72, see Figure 3.

### **Reliability**

Corrected item-total correlation of the items was ranged between .22 and .52. All of the correlations were above the conventional limit of .20 (Kline, 1986). The internal consistency coefficient, split-half reliability, and test-retest correlations of AAQ was calculated for the reliability of the scale. Internal consistency of the AAQ was estimated by Cronbach’s Alpha which is found to be .64. For the scales with fewer than 10 items Cronbach’s alpha coefficient above .50 or average inter-item correlation of .2 and .4 is acceptable (Pallant, 2005), and reliability coefficient of AAQ with 6 items was above to that score. Furthermore, Guttman Split-Half reliability of the scale was .61, and Spearman-Brown Coefficient both for equal and unequal length were .62. Test-retest coefficient was estimated by Pearson correlation coefficient on a subsample twenty-seven participants. For all participants scale was administered in class and then readministered 3 weeks later. Retest coefficient was found to be .73.

### **Concurrent Validity**

For examining the concurrent validity of the AAQ, Pearson correlations of the STAI, BDI, MCQ and PSWQ were computed. As seen in Table 3, correlations between other variables and AAQ were ranged from moderate to strong. Furthermore, AAQ did not significantly correlate with two variables which are Cognitive Self Consciousness and Positive Beliefs subscales of MCQ. AAQ had significant positive correlations with STAI and BDI, .66 and .49 respectively. Furthermore, AAQ had significant positive correlations with Negative Beliefs about Worry concerning the consequences of not controlling thoughts, Negative Beliefs about Worry concerning Uncontrollability and Danger, and Lack of Cognitive Confidence subscales of MCQ, .59, .42, .24 respectively.

In terms of partial correlation, when the variance due to PSWQ was controlled, AAQ remained significantly correlated with BDI and STAI, .33 and .46 respectively. When the variance due to MCQ were controlled, AAQ still remained significantly correlated with PSWQ, BDI, and STAI, .39, .37, .56 respectively.

Table 3 Significant Correlations of AAQ and the other variables

	<u>STAI</u>	<u>BDI</u>	<u>PSWQ</u>	<u>MCQT</u>	<u>MCQLC</u>	<u>MCQNB</u>	<u>MCQUC</u>
<b>AAQ</b>	<b>.66*</b>	<b>.49*</b>	<b>.55*</b>	<b>.46*</b>	<b>.24*</b>	<b>.59*</b>	<b>.42*</b>
	<b>Controlled for PSWQ</b>			<b>Controlled for MCQ TOTAL</b>			
	<u>STAI</u>	<u>BDI</u>		<u>STAI</u>	<u>PSWQ</u>	<u>BDI</u>	
<b>AAQ</b>	<b>.33*</b>	<b>.46*</b>		<b>.56*</b>	<b>.39*</b>	<b>.37*</b>	

Note. AAQ= Acceptance and Action Questionnaire, STAI= State-Trait Anxiety Inventory Trait form, BDI = Beck Depression Inventory, PSWQ = Penn State Worry Questionnaire, MCQT= Meta-Cognitions Questionnaire Total, MCQLC= MCQ Lack of Cognitive Confidence, MCQNB= MCQ negative beliefs concerning the consequences of not controlling thoughts, MCQUC= negative beliefs about thoughts concerning uncontrollability and danger. \*p< .01

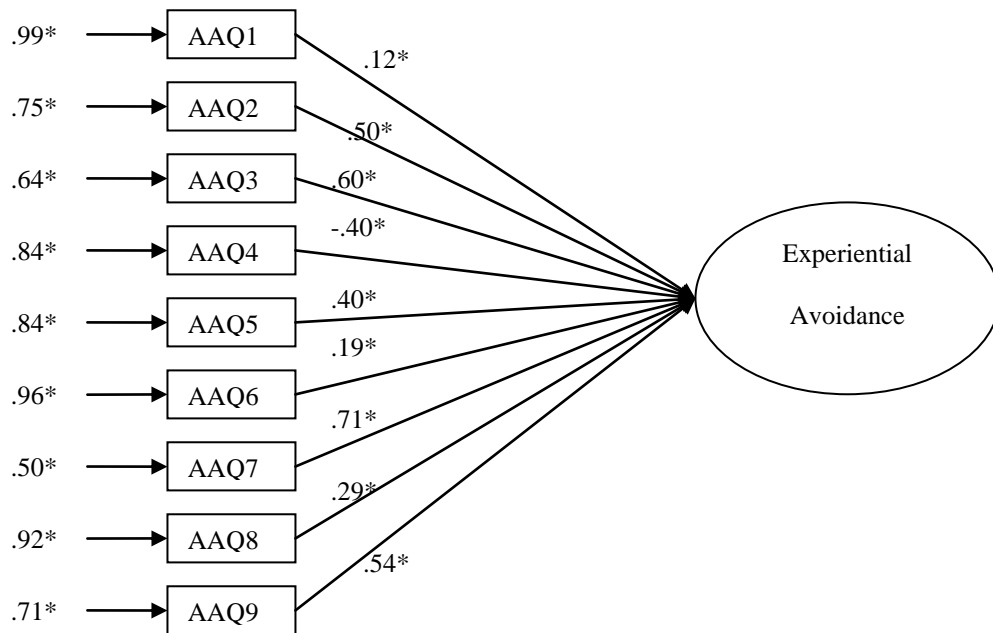


Figure 2 Loadings for 9 item Acceptance and Action Questionnaire (\* p<.05)

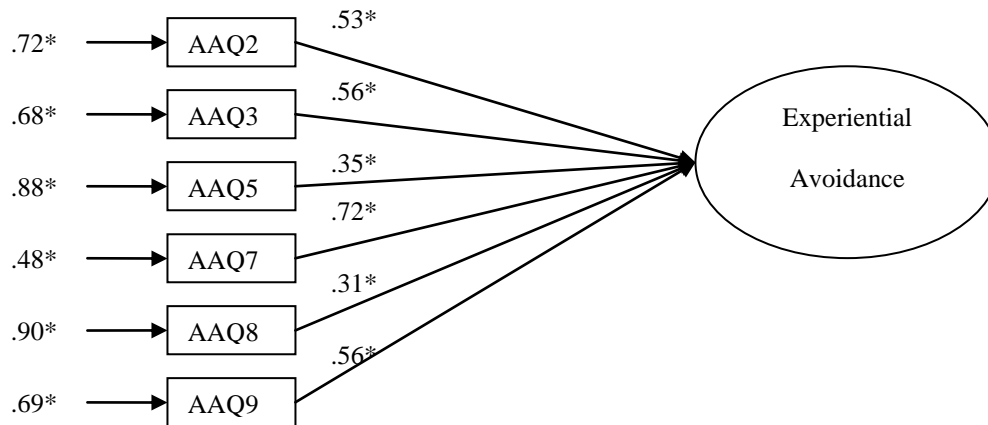


Figure 3 Loadings for 6 item Acceptance and Action Questionnaire (\* p<.05)

### 3.2 Psychometric Properties of Self-Compassion Scale

#### 3.2.1 Confirmatory Factor Analysis and Construct Validity

A confirmatory factor analysis, based on data from sample of 419 participants, was performed through LISREL 8.80 Student Version (Jöreskog & Sörbom, 2006) on the twenty-four items, which were presented in Table 4, of Self-Compassion Scale (Neff, 2003b). A six factor model of Self-Compassion Scale (Neff, 2003b) is hypothesized. Five items were hypothesized as indicators of Self-Kindness Subscale (SCS04, SCS11, SCS18, SCS21, SCS24), three items were hypothesized as indicators of Mindfulness Subscale (SCS08 SCS13 SCS16), and four items were hypothesized as indicators for each subscales which are Common Humanity (SCS02 SCS06 SCS09 SCS14), Self-Judgment (SCS07 SCS10 SCS15 SCS20), Isolation Subscales (SCS03 SCS12 SCS17 SCS23), and Overidentification (SCS01, SCS05, SCS19, SCS22). The

six factors were hypothesized to covary with each other. After the first order confirmatory factor analysis, it is hypothesized that all first order factors were gathered under a overarching secondary factor of self-compassion.

Maximum likelihood estimation was employed to estimate all models. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(276, N = 419) = 15003.387, p < .001$ . Next, the hypothesized model was tested and poor fit values were yielded ( $\chi^2(237, N = 419) = 957.08, p < .001$ , RMSEA = .09, GFI = .83, AGFI = .79, CFI = .95, NFI = .94). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged between .61 and .77 for Self-Kindness, .43 and .74 for Self-Judgment, .60 and .74 for Common Humanity, .68 and .77 for Isolation, .65 and .75 for Mindfulness, and .60 and .88 for Overidentification (see Table 4). A chi-square difference test indicated significant improvement in fit between the independence model and the hypothesized model,  $\chi^2_{diff}(39, N = 419) = 14046.307, p < .001$ .

Post hoc model modifications were performed in an attempt to develop a better fitting. Suggested modifications of modification indices of LISREL were examined. There was a problematic item, SCS20, which had a negative loading score. In the adaptation of Deniz et. al (2008), with exploratory factor analysis this item worked well. However, in that study Self-compassion scale was tested for single factor. When the item was closely investigated, it is seen that the Turkish translation changed the



meaning of item. “Cold hearted” translated as cool-headed (*soğukkanlı*) and the item’s meaning became closer to the Mindfulness rather than Self-Judgment. Therefore, SCS20 were dropped from factor analysis and for the modification of the scale and for balancing the number of items, three items were selected as indicators of each subscale. In terms of selection, items of the Self-Compassion Scale Short Version (Raes, Pommier, Neff, & Van Gucht, in press) which are also work in the Turkish sample and the items which have the highest loadings were added to 18 item Modified version of Self-Compassion Scale.

After the modification of the scale, a six factor model of Self-Compassion Scale 18 item modified version is hypothesized. Three items were hypothesized as indicators of each factor which are Self-Kindness (SCS11, SCS21, SCS24), Mindfulness (SCS08 SCS13 SCS16), Common Humanity (SCS06, SCS09, SCS14), Self-Judgment (SCS07, SCS10, SCS15), and Overidentification (SCS01, SCS05, SCS22) Isolation Subscales (SCS03, SCS12, SCS23). The six factors were hypothesized to covary with each other.

In the second analysis, the independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(153, N = 419) = 8625.663, p < .001$ . Next, the hypothesized model was tested and acceptable fit values were yielded ( $\chi^2(120, N = 419) = 404.373, p < .001$ , RMSEA= .075, GFI = .90, AGFI = .86, CFI = .97, NFI = .95). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged

between .60 and .82 for Self-Kindness, .64 and .76 for Self-Judgment, .55 and .82 for Common Humanity, .67 and .73 for Isolation, .65 and .76 for Mindfulness, and .64 and .72 for Overidentification (see Table 4). A chi-square difference test indicated significant improvement in fit between the independence model and the hypothesized model,  $\chi^2_{\text{diff}}(39, N = 419) = 8221.29, p < .001$ .

Table 4 Factor Loadings for Self-Compassion Scale

Item and Item Number	Factor Loading	
	SCS24	SCS18
<b>Factor 1: Self-Kindness</b>		
Duygusal olarak acı yaşadığım durumlarda kendime sevgiyle yaklaşmaya çalışırım. (4)	.61	
<b>Çok sıkıntılıysam, kendime ihtiyacım olan ilgi ve şefkati gösteririm (11)*</b>	.65	.60
Acı çektiğim zamanlarda, kendime karşı iyiyimdir. (18)	.74	
<b>Kendi kusur ve yetersizliklerime karşı hoşgörülüymdür. (21) *</b>	.75	.79
<b>Kişiliğimin sevmediğim yönlerine karşı anlayışlı ve sabırlı olmaya çalışırım. (24) *</b>	.77	.82
<b>Factor 2: Self-Judgement</b>		
<b>Zor zamanlar geçirdiğimde kendime daha katı (acımasız) olma eğilimindeyim. (7)*</b>	.63	.64
<b>Kişiliğimin sevmediğim yanlarına karşı hoşgörüsüz ve sabırsızım. (10)*</b>	.66	.70
<b>Sevmediğim yanlarımı gördüğümde kendi kendimi üzerim. (15)*</b>	.74	.76
Acı çektiğim durumlarda kendime karşı bir parça daha soğukkanlı olabilirim. (20)	-.43	

Table 4 (cont'd)

*Factor Loadings for Self-Compassion Scale*

Item and Item Number	Factor Loading SCS24	Factor Loading SCS18
<b>Factor 3: Common Humanity</b>		
İşler benim için kötü gittiğinde zorlukların yaşamın bir parçası olduğunu ve herkesin bu zorlukları yaşadığını görebilirim. (2)	.60	
<b>Kötü hissettiğimde, dünyada benim gibi kötü hisseden pek çok kişi olduğunu kendi kendime hatırlatırım. (6)*</b>	.74	.82
<b>Kendimi bir şekilde yetersiz hissettiğimde kendi kendime birçok insanın aynı şekilde kendi hakkında yetersizlik duyguları yaşadığını hatırlatmaya çalışırım. (9)*</b>	.69	.79
<b>Başarısızlıklarımı insan olmanın bir parçası olarak görmeye çalışırım. (14)*</b>	.65	.55
<b>Factor 4: Isolation</b>		
<b>Yetersizliklerimi düşünmek kendimi daha yalnız ve dünyadan kopuk hissetmeme neden olur. (3)*</b>	.69	.73
<b>Kendimi kötü hissettiğimde diğer insanların çoğunun benden mutlu olduğunu düşünme eğilimindeyim. (12)*</b>	.72	.67
Ben mücadele halindeyken diğer herkesin işlerinin benimkinden kolay gittiğini hissetme eğilimim vardır. (17)	.68	
<b>Benim için önemli bir şeyde başarısız olduğumda, başarısızlığın yalnız benim başıma geldiği duygusunu hissetme eğiliminde olurum. (23)*</b>	.77	.73

Table 4 (cont'd)

*Factor Loadings for Self-Compassion Scale*

Item and Item Number	Factor Loading SCS24	Factor Loading SCS18
<b>Factor 5: Mindfulness</b>		
<b>Herhangi bir şey beni üzdüğünde hislerimi dengede tutmaya çalışırım. (8)*</b>	<b>.75</b>	<b>.76</b>
<b>Acı veren bir şey olduğunda, durumu dengeli bir bakış açısıyla görmeye çalışırım. (13)*</b>	<b>.73</b>	<b>.72</b>
<b>Benim için önemli bir şeyde başarısız olduğumda, işleri belli bir bakış açısı içerisinde tutmaya çalışırım. (16)*</b>	<b>.65</b>	<b>.65</b>
<b>Factor 6: Overidentification</b>		
<b>Kendimi kötü hissettiğimde, kötü olan her şeye takılma eğilimim vardır. (1)*</b>	<b>.61</b>	<b>.64</b>
<b>Benim için önemli bir şeyde başarısız olduğumda, yetersizlik hisleriyle tükenirim (5)*</b>	<b>.61</b>	<b>.71</b>
Bir şey beni üzdüğünde, duygusal olarak bunu abartırım. (19)	<b>.86</b>	
<b>Acı veren bir şey olduğunda, olayı büyütme eğilimim vardır. (22)*</b>	<b>.88</b>	<b>.72</b>

For the second order confirmatory factor analysis, one overarching single factor of Self-Compassion was hypothesized for the six factor solution of the first order confirmatory factor analysis. Again, the independence model was clearly rejectable  $\chi^2$  (153,  $N = 419$ ) = 8625.5765,  $p < .001$ . Second order confirmatory factor analysis yielded acceptable fit values, ( $\chi^2$  (129,  $N = 419$ ) = 553.33,  $p < .001$ , RMSEA= .09, GFI = .87, AGFI = .83, CFI = .95, NNFI= .94, NFI = .93). Fit values which reported by Neff (2003) for the values for the second order confirmatory factor analysis is parallel to findings of the present study (NNFI= .88, CFI= .90). Correlations between first order factors were ranged between .31 and .90. All inter-scale correlations and correlations between first order factors and the second order factor (Self-Compassion) are summarized in Table 5.

Table 5 Inter-scale correlations and correlations between factors and Self-Compassion (all correlations significant at  $p < .05$ )

	1	2	3	4	5	6
<b>1. Self-Kindness</b>	<b>1.00</b>					
<b>2. Self-Judgment</b>	<b>-.66</b>	<b>1.00</b>				
<b>3. Common Humanity</b>	<b>.31</b>	<b>-.37</b>	<b>1.00</b>			
<b>4. Isolation</b>	<b>-.71</b>	<b>.85</b>	<b>-.40</b>	<b>1.00</b>		
<b>5. Mindfulness</b>	<b>.54</b>	<b>-.64</b>	<b>.31</b>	<b>-.70</b>	<b>1.00</b>	
<b>6. Overidentification</b>	<b>-.70</b>	<b>.83</b>	<b>-.40</b>	<b>.90</b>	<b>-.86</b>	<b>1.00</b>
<b>Self-Compassion</b>	<b>-.74</b>	<b>.89</b>	<b>-.43</b>	<b>.96</b>	<b>-.73</b>	<b>.94</b>

### **Reliability**

Corrected item-total correlation of the items was ranged between .39 and .64. All of the correlations were above the conventional limit of .20 (Kline, 1986). The internal consistency coefficient, split-half reliability, and test-retest correlations of SCS-18 was calculated for the reliability of the scale. Internal consistency of the SCS-18 was

estimated by Cronbach's Alpha which is found to be .90. Cronbach's Alpha value for SCS was .92. Furthermore, Guttman Split-Half reliability of the scale was .89, and Spearman-Brown Coefficient both for equal and unequal length were .89. Test-retest coefficient was estimated by Pearson correlation coefficient on a subsample of twenty-seven participants. For all participants scale was administered in class and then readministered 3 weeks later. Retest coefficient was found to be .82 for the SCS18 Total, .86 for Self-Kindness, .71 for Self-Judgment, .66 for Common Humanity, .80 for Isolation, .60 for Mindfulness and .62 for Overidentification.

### **Concurrent Validity**

For investigating the concurrent validity of the SCS, Pearson correlations of the STAI, BDI, MCQ and PSWQ were computed. As seen in Table 6, correlations between other variables and SCS were ranged from moderate to strong. SCS had significant negative correlations with STAI and BDI, -.68 and -.49 respectively. Furthermore, SCS had significant negative correlations with Positive Beliefs about Worry, Negative Beliefs about Worry, Uncontrollability and Danger, Lack of Cognitive Confidence and significant positive correlation with Self-Confidence subscales of MCQ, -.13, -.55, -.26, -.18, and .12 respectively. Moreover, SCS had significant negative correlation (.55) with PSWQ.

In terms of partial correlation, when the variance due to PSWQ was controlled, SCS remained significantly correlated with BDI and STAI, -.33 and -.47 respectively.

When the variance due to MCQ were controlled, SCS still remained significantly correlated with PSWQ, BDI, and STAI, -.47, -.40, -.62 respectively.

Table 6 Significant Correlations of SCS and the other variables

	MCQT	MCQPB	MCQNB	MCQUC	MCQLC	MCQSC			
SCS	-.36**	-.13*	-.55**	-.26**	-.18**	.12*			
							Controlled for		
							PSWQ		
							Controlled for		
							MCQ TOTAL		
	STAI	BDI	STAI	BDI	STAI	BDI	PSWQ		
SCS	-.68**	-.49**	-.47**	-.33**	-.62**	-.40**	-.47**		

Note. SCS18= Self-Compassion Scale 18, STAI= State-Trait Anxiety Inventory Trait form, BDI = Beck Depression Inventory, PSWQ = Penn State Worry Questionnaire, MCQT= Meta-Cognitions Questionnaire Total, MCQPB= MCQ positive beliefs about worry MCQNB= MCQ negative beliefs concerning the consequences of not controlling thoughts, MCQUC= negative beliefs about thoughts concerning uncontrollability and danger, MCQLC= MCQ Lack of Cognitive Confidence, MCQSC = MCQ Cognitive Self-Confidence . \*\*p< .01, \* p< .05.

### 3.3 Model Tests

#### 3.3.1 Correlations Among Indicators

Prior to main analysis, correlational analysis was conducted. Relationships between exogenous variable, Self-Compassion, indicators of exogenous variable, Self-Kindness, Common Humanity, Mindfulness, and mediator variables, Experiential Avoidance, Positive Beliefs about Worry, Negative Beliefs about Worry, Need to Control, Cognitive Confidence, Cognitive Self-Consciousness, indicators of mediator variables, and Outcome variables, Depression and Anxiety, and their indicators. All of the correlations are summarized in Table 7 and Appendix I.



Self-Compassion was found to be significantly negatively correlated with Experiential Avoidance, Positive Beliefs about Worry, Negative Beliefs about Worry, Need to Control, Cognitive Confidence, Depression and Anxiety. Correlation Coefficients were ranged between  $-.68$  and  $-.18$ . Self-Compassion had positive significant correlation with only Cognitive Self-Consciousness. Moreover, Self-Compassion had significant correlations with indicators of the mediator and outcome variables except for the indicators of Cognitive Self-Consciousness. Self-Kindness was found to be significantly correlated with mediator and outcome variables. Self-Kindness had significant negative correlations with Experiential Avoidance, Positive Beliefs about Worry, Negative Beliefs about Worry, Need to Control, Cognitive Confidence, Depression and Anxiety. Correlation coefficients ranged between  $-.55$  and  $-.11$ . Moreover, Common Humanity had significant negative correlations with Experiential Avoidance, Negative Beliefs about Worry, Need to Control, Cognitive Confidence, Depression and Anxiety. Correlation coefficients were ranged between  $-.59$  and  $-.13$ . Mindfulness had same correlational pattern with Common Humanity, except for the Positive Beliefs about Worry, correlational relationships were ranged between  $-.12$  and  $-.68$ . Mindfulness and Common Humanity were found to be significantly positively correlated with Cognitive Self-Consciousness,  $.16$  and  $.12$  respectively.

When the relations between mediator variables and Outcome variable were examined, Experiential Avoidance found to be significantly correlated with outcome variables

with correlational coefficients ranging from .49 to .66. Positive Beliefs about Worry was significantly correlated with Depression and Anxiety with correlation coefficients of .11 and .13, respectively. Negative Beliefs about Worry was found to be significantly correlated with outcome variables with correlation coefficients of .50 and .70. Need to Control was also found to be significantly correlated with Depression and Anxiety with correlation coefficients ranging from .33 to .35. Cognitive Confidence was also had significant positive relationship with Anxiety and Depression with correlational coefficients of .20 and .28. Finally, Cognitive Self-Consciousness had no significant correlations with Anxiety and Depression.

When relations between demographic variables and other variables were investigated, gender (male=1 and female=2) was found to be significantly negatively associated with self-compassion. More specifically, gender negatively correlated with the mindfulness facet of self-compassion. Moreover, gender significantly negatively correlated with positive beliefs about worry, need to control thoughts, and significantly positively correlated with negative beliefs about worry, cognitive self-confidence and anxiety. Furthermore, age was significantly positively correlated with self-compassion. More specifically, age significantly positively correlated with mindfulness and common humanity facets of self-compassion. Additionally, age significantly and negatively correlated with negative beliefs about worry and experiential avoidance. Finally, age did not correlated with either outcome variables

or their indicators, therefore age excluded from model tests while variable of gender was kept.

### **3.3.2 Structural Regression: Self-Compassion and Psychological Well-Being**

In order to test mediation, according to Baron and Kenny (1986), at least three conditions must exist which are (1) significant relation between predictor and outcome variables, (2) significant relation between mediator and predictor and (3) significant relation between mediator and outcome variable. Therefore, prior to mediational model tests, direct effect model in which self-compassion was predictor and depression and anxiety as outcome variables were tested in order to satisfy the first condition of Baron and Kenny (1986).

Using LISREL 8.80 6 Month Rental Edition (Jöreskog & Sörbom, 2006), the relationships between Self-Compassion, a latent variable with three indicators [three parcels from the Self-Compassion Scale (Neff, 2003b) (Self-Kindness, Common Humanity, and Mindfulness)], Depression, a latent variable with three indicators [three parcels from Beck Depression Inventory (Beck et al., 1978; Hisli, 1988, 1989), which are BDI1, BDI2, BDI3], and Anxiety, a latent variable with three indicators [three parcels from Trait form of State Trait Anxiety Inventory (Spielberger et al., 1970; LeCompte & Öner, 1985) which are STAI1, STAI2, STAI3] were examined. Data analyses were conducted in two steps. The first step was to test the measurement model, the second step was to test the structural model.

Table 7 Correlations among Variables and Indicators (Abridged Version) (\* p< .05, \*\* p< .01)

	SC	Kind	Comm	Mind	AAQ	POS	NEG	NEEDC	COGC	COSC	BDI	STAI
<b>SC</b>	1.00											
<b>Kind</b>	.88**	1.00										
<b>Comm</b>	.90**	.68**	1.00									
<b>Mind</b>	.89**	.67**	.75**	1.00								
<b>AAQ</b>	-.55**	-.43**	-.52**	-.53**	1.00							
<b>POS</b>	-.13*	-.14**	-.07	-.12**	.09	1.00						
<b>NEG</b>	-.56**	-.45**	-.46**	-.58**	.59**	.18**	1.00					
<b>NEEDC</b>	-.26**	-.24**	-.22**	-.23**	.42**	.30**	.47**	1.00				
<b>COGC</b>	-.18**	-.11*	-.15**	-.24**	.24**	.07	.26**	.18**	1.00			
<b>COSC</b>	.12*	.03	.12*	.16**	.01	.23**	.06	.32**	-.10	1.00		
<b>BDI</b>	-.49**	-.43**	-.45**	-.43**	.49**	.11*	.50**	.33**	.20**	.01	1.00	
<b>STAI</b>	-.11*	-.55**	-.59**	-.68**	.66**	.13**	.70**	.35**	.28**	-.06	.66**	1.00
<b>Gender</b>	-.13**	-.08	-.06	-.22**	.09	.15**	-.11*	-.11*	.07	.10*	.06	.17**
<b>Age</b>	.12*	-.07	.13**	.12*	-.11*	-.09	-.10*	-.09	.02	.04	-.02	-.09

Note: SC=Self-Compassion, Kind=Self-Kindness, Comm= Common Humanity, Mind= Mindfulness, AAQ = Acceptance and Action Questionnaire, Pos= Positive Belief about Worry, Neg= Negative beliefs about uncontrollability and danger, NEEDC= Need to Control, COGC= Lack of Cognitive Confidence, COSC= Cognitive Self-Consciousness, PB= Positive Belief Parcel, NB= Negative Beliefs Parcel, NCT= Need to Control Parcel, LCC= Lack Cognitive Confidence Parcel, CSC= Cognitive Self-Consciousness Parcel, BDI= Beck Depression Inventory and Parcels, STAI= Trait Anxiety and Parcels

Maximum likelihood estimation was employed to estimate all models and prior to analysis all of the latent variables were scaled with their indicators which has the highest loading. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(45, N = 419) = 2596.21, p < .001$ . Next, the measurement model (see Figure 4) was tested and good fit values were yielded ( $\chi^2(30, N = 419) = 119.56, p < .001$ , RMSEA = .08, GFI = .95, AGFI = .90, CFI = .97, NFI = .95). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged between .53 (AAQ8) and .90 (BDI2) (see Figure). Moreover, all of the structural correlations, between latent variables were statistically significant ( $p < .05$ ), except for the correlations of Demographics with Depression. Among the significant structural correlations, the strongest relationship was between Depression and Self-Compassion (*Structural Coefficient* = -.56,  $p < .05$ ), and the weakest relationship was between Demographics and Anxiety (*Structural Coefficient* = .14,  $p < .05$ ). A chi-square difference test indicated significant improvement in fit between the independence model and the measurement model,  $\chi^2_{\text{diff}}(15, N = 299) = 2476.65, p < .001$ . Prior to the structural model test, Harman's Single Factor Model was tested for the possibility of common method variance. Harman's Single Factor Model was easily rejectable, ( $\chi^2(27, N = 419) = 688.72, p < .001$ , RMSEA = .27, GFI = .69, AGFI = .49, CFI = .74, NFI = .73) which suggested that common method variance was not of great concern for the analysis.

In the second step of the analysis, structural model (see Figure 5) was tested and good fit values were yielded ( $\chi^2(31, N = 419) = 119.81, p < .001, RMSEA = .08, GFI = .95, AGFI = .91, CFI = .97, NFI = .95$ ). When the relationship between the predictor and outcome variables were examined, the analysis yielded that Self-Compassion was a significant predictor of both Depression (*Standardized Path Coefficient* =  $-.56, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $-.47, p < .05$ ). 31 % of the total variance of Depression and 22 % of the total variance of Anxiety were explained by the direct effects of Self-Compassion.

### **3.3.3 Model Test 1: Experiential Avoidance**

Using LISREL 8.80 6 Month Rental Edition (Jöreskog & Sörbom, 2006), the relationships between Self-Compassion, a latent variable with three indicators [three parcels from the Self-Compassion Scale (Neff, 2003b) (Self-Kindness, Common Humanity, and Mindfulness)], Experiential Avoidance, a latent variable with six indicators [six items from the Acceptance and Action Questionnaire (Hayes et al. 2004) (AAQ2, AAQ3, AAQ5, AAQ7, AAQ8, AAQ9)], Depression, a latent variable with three indicators [three parcels from Beck Depression Inventory (Beck et al., 1978; Hisli, 1988, 1989), which are BDI1, BDI2, BDI3], and Anxiety, a latent variable with three indicators [three parcels from Trait form of State Trait Anxiety Inventory (Spielberger et al., 1970; LeCompte & Öner, 1985) which are STAI1, STAI2, STAI3] were investigated.

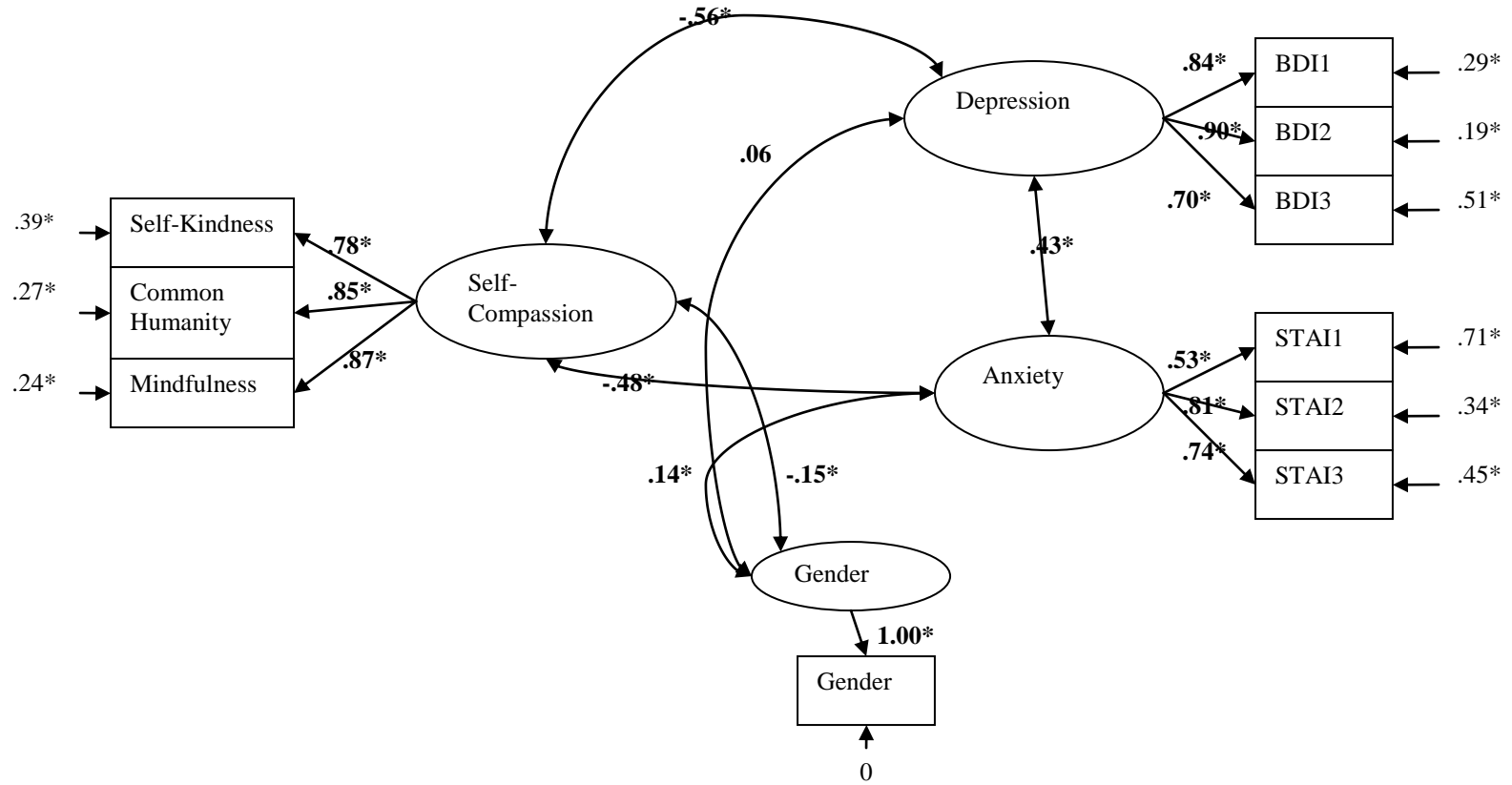


Figure 4 Measurement Model Self-Compassion and Psychological Health

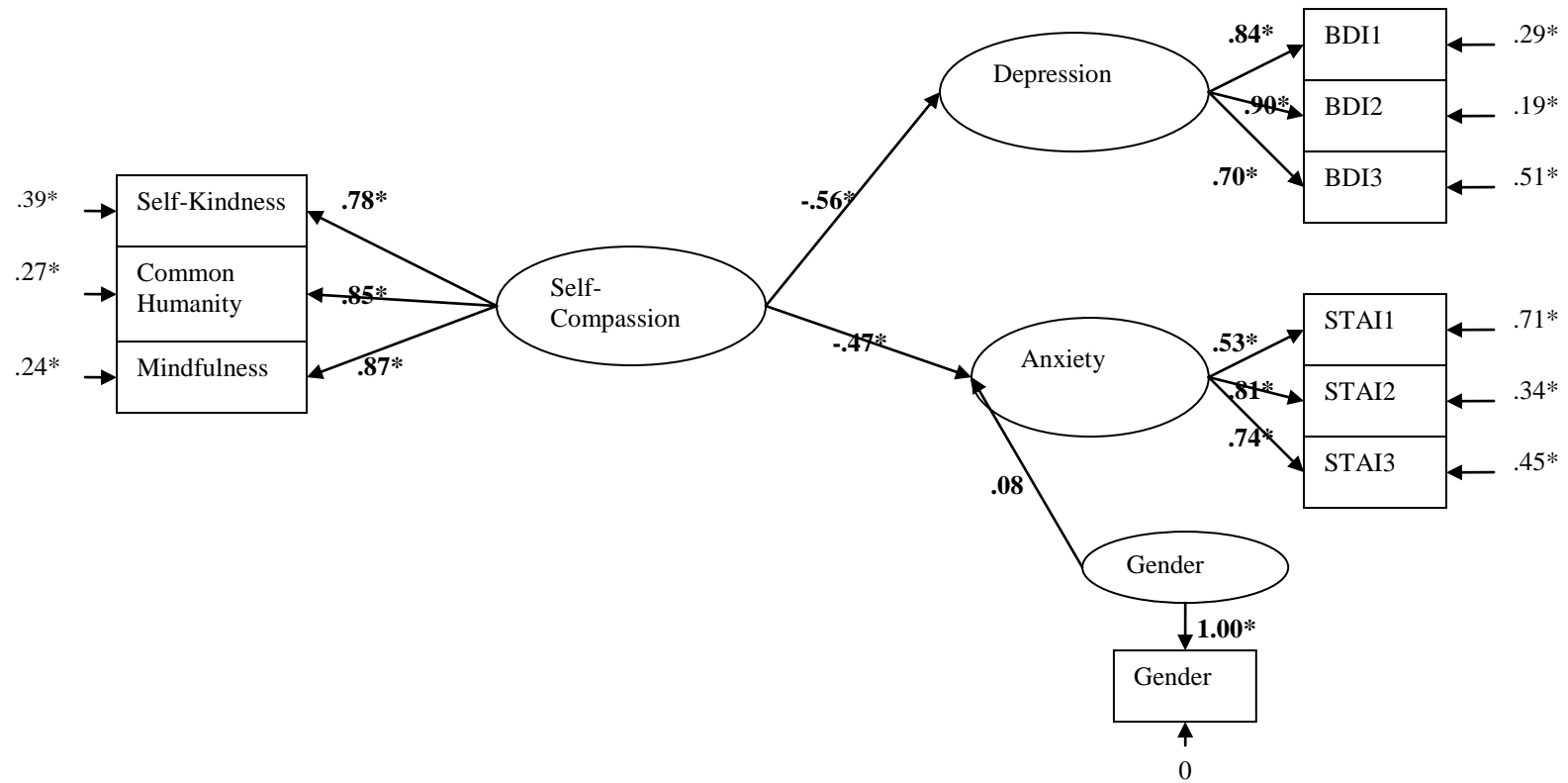


Figure 5 Structural Model Self-Compassion and Psychological Health



The proposed model was presented in Figure 6 where observed variables were presented by rectangles and latent variables were presented by circles. Absence of a line connecting variables implies no hypothesized direct effect. Figure 6 illustrates the full meditation model in which Self-Compassion predicts Experiential Avoidance negatively. Moreover, the mediator, Experiential Avoidance, predicts Depression and Anxiety negatively as the outcome variables. Furthermore, gender was found to be significantly correlated with only indicators of anxiety, and a direct path from Demographic to Anxiety was added to the model. The analyses were conducted with 419 participants. Data analyses were conducted in three steps. The first step was to test the measurement model, the second step was to test the structural model, and the third step was to compare the proposed model with the empirically alternative models which are the Saturated model and the Only Direct Effect Model.

Maximum likelihood estimation was employed to estimate all models and prior to analysis all of the latent variables were scaled with their indicators which has the highest loading. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(120, N = 419) = 4605.272, p < .001$ . Next, the measurement model (see Figure 7) was tested and good fit values were obtained ( $\chi^2(95, N = 419) = 237.572, p < .001$ , RMSEA = .06, GFI = .93, AGFI = .91, CFI = .97, NFI = .95). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged between .26 (AAQ8) and .88 (BDI2) (see Figure 7). Moreover, all of the structural correlations, between latent variables were statistically significant ( $p < .05$ ), except for

the correlations of Demographics with Depression and Experiential Avoidance.

Among the significant structural correlations, the strongest relationship was between Experiential Avoidance and Self-Compassion (*Structural Coefficient*= -.76,  $p < .05$ ),

and the weakest relationship was between Demographics and Anxiety (*Structural Coefficient*= .14,  $p < .05$ ). A chi-square difference test indicated significant

improvement in fit between the independence model and the measurement model,

$\chi^2_{\text{diff}}(25, N = 299) = 4367.70, p < .001$ . Prior to the structural model test, Harman's

Single Factor Model was tested for the possibility of common method variance.

Harman's Single Factor Model was easily rejectable, ( $\chi^2(90, N = 419) = 822.697, p < .001$ , RMSEA= .15, GFI = .76, AGFI = .68, CFI = .83, NFI = .82) which suggested

that common method variance was not of great concern for the analysis.

In the second step of the analysis, structural model (see Figure 8) was tested and good

fit values were yielded ( $\chi^2(99, N = 419) = 240.231, p < .001$ , RMSEA= .06, GFI =

.93, AGFI = .91, CFI = .97, NFI = .95). When the relationships between exogenous

variable and the mediator were examined, the analysis yielded that Self-Compassion

(*Standardized Path Coefficient*= -.78,  $p < .05$ ) was significant predictor of Experiential

Avoidance. Furthermore, when the relationship between the mediator and endogenous

variables were examined, the analysis yielded that Experiential Avoidance was a

significant predictor of both Depression (*Standardized Path Coefficient* = .69,  $p < .05$ )

and Anxiety (*Standardized Path Coefficient* = .58,  $p < .05$ ). Moreover, 61 % of the

total variance of Experiential Avoidance was explained by the direct effects of

exogenous latent variable. 48 % of the total variance of Depression and 34 % of the total variance of Anxiety were explained by the direct effects of Experiential Avoidance. Furthermore, 54 % of the total variance of Depression was explained by the indirect effect of the Self-Compassion. 45 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

In the third step of the analysis, the Proposed Model compared with empirically alternative models which are the Saturated Model and the Only Direct Effect Model. Firstly, two direct paths added, which connect exogenous variable to the outcome variables, to the proposed model for testing the Saturated, or partial mediation, Model. The Saturated Model (see Figure 9) yielded good fit values ( $\chi^2(97, N = 419) = 238.187, p < .001, RMSEA = .06, GFI = .93, AGFI = .91, CFI = .97, NFI = .95$ ), but when compared to the proposed model, the Saturated Model did not significantly improved,  $\Delta\chi^2(2) = 2.04, p > .05$ . Furthermore, when the relationships between exogenous variable and the mediator were examined, the analysis yielded that Self-Compassion (*Standardized Path Coefficient* =  $-.75, p < .05$ ) was a significant predictor of Experiential Avoidance. Furthermore, when the relationships between endogenous variables and other predictor variables were examined, the analysis yielded that Experiential Avoidance was a significant predictor of Depression (*Standardized Path Coefficient* =  $.55, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $.50, p < .05$ ). On the other hand, Self-Compassion and Demographics, as exogenous variables, were not significant predictors of neither Depression nor Anxiety. Moreover, 56 % of the

total variance of Experiential Avoidance was explained by the direct effects of exogenous latent variable Self-Compassion. 30 % of the total variance of Depression and 25 % of the total variance of Anxiety was explained by the direct effect of Experiential Avoidance. Furthermore, 41 % of the total variance of Depression and 38 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

Secondly, the Only Direct Effect Model (see Figure 10) was tested and good fit values were yielded ( $\chi^2(96, N = 419) = 237.626, p < .001, RMSEA = .06, GFI = .93, AGFI = .91, CFI = .97, NFI = .95$ ). When compared with the Proposed Model, the Only Direct Effect Model did not significantly improved fit,  $\Delta\chi^2(3) = 2.61, p > .05$ . When relationships were examined, Experiential Avoidance was the significant predictor of Anxiety (*Standardized Path Coefficient* = .50,  $p < .05$ ) and Depression (*Standardized Path Coefficient* = .56,  $p < .05$ ). Additionally, 31 % of total variance of Depression and 25 % of total variance of Anxiety were explained by Experiential Avoidance. Finally, analysis shows that the Proposed Model had good fit values. Moreover, comparisons with other empirically needed alternative models yielded that the Saturated and the Only Direct Effect Models were not significantly better than the Proposed, Full Mediation, Model.

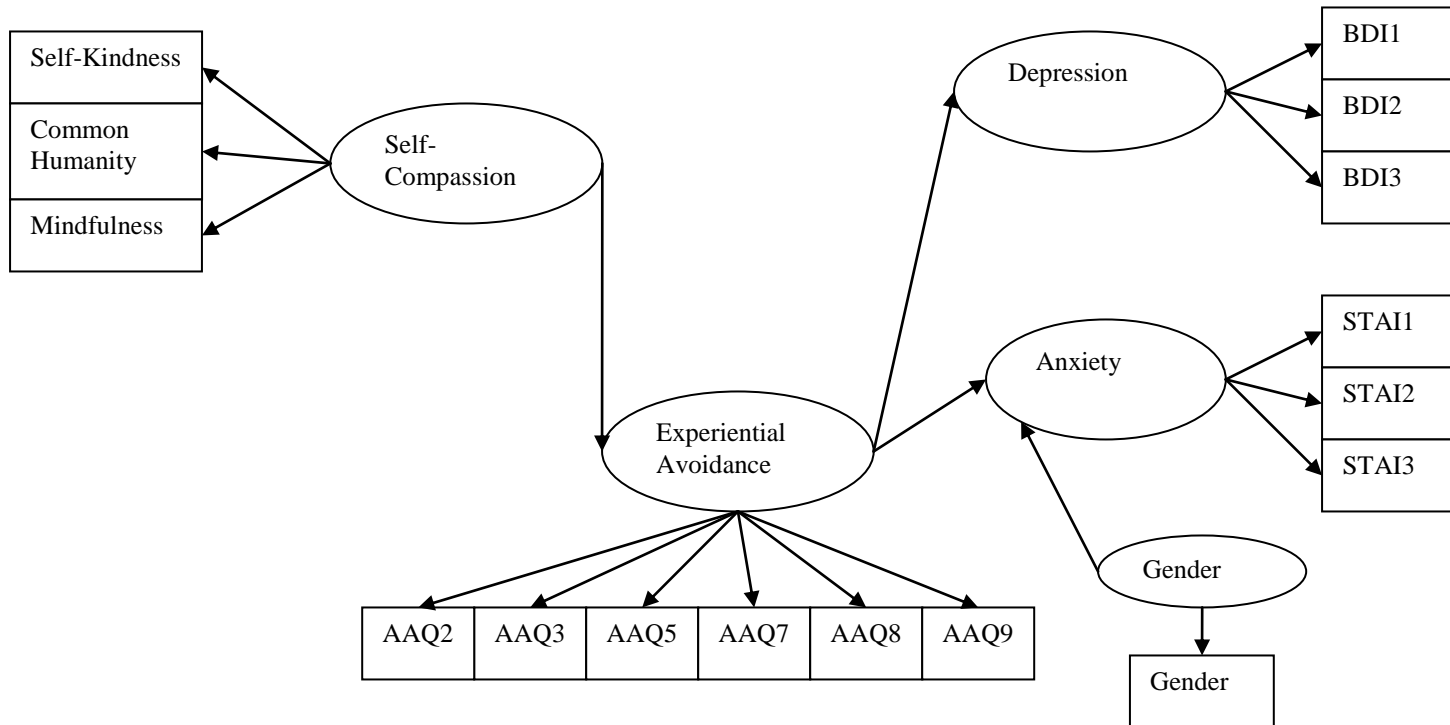


Figure 6 Proposed Model Model Test 1

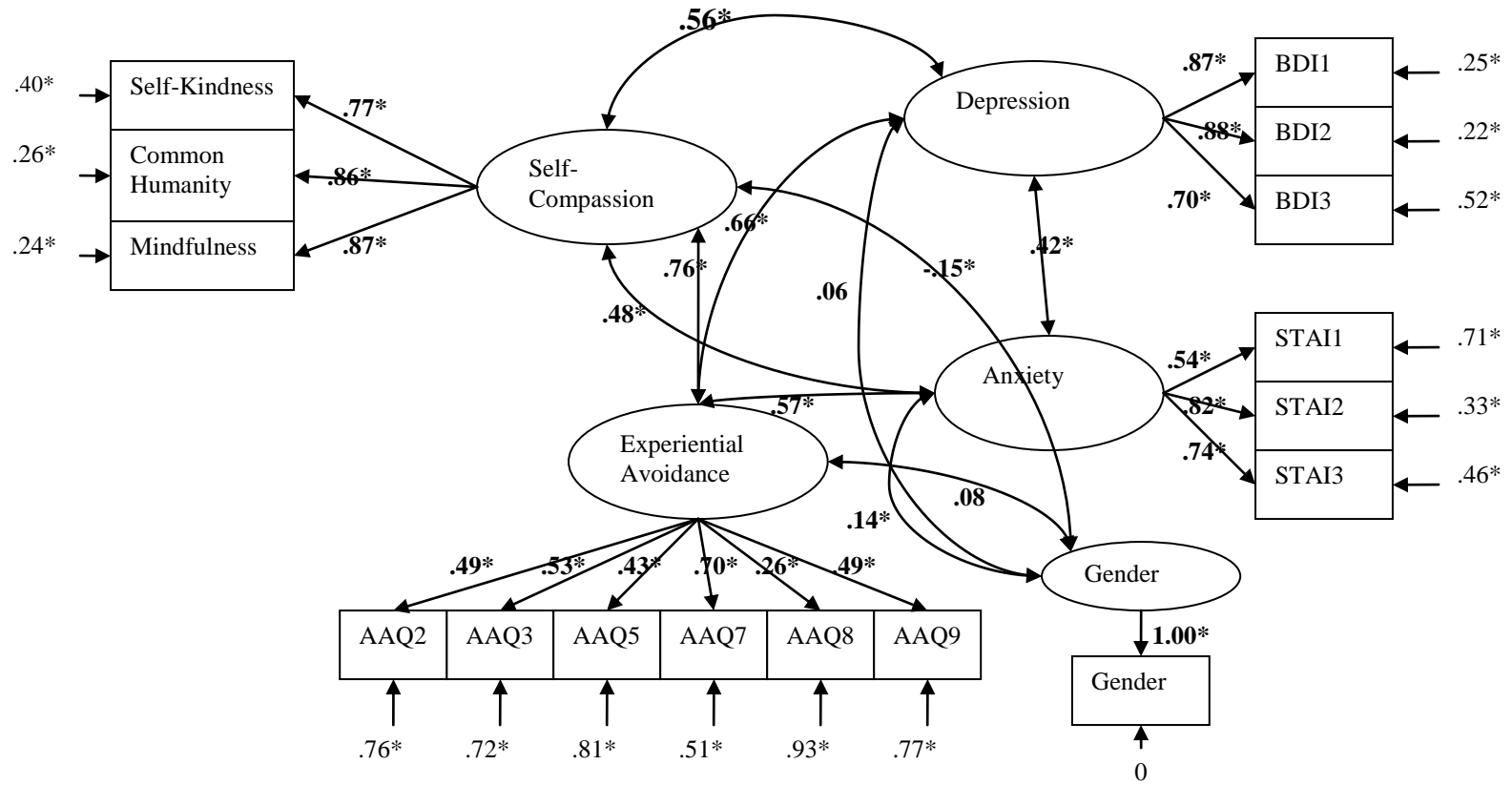


Figure 7 Measurement Model Model Test 1

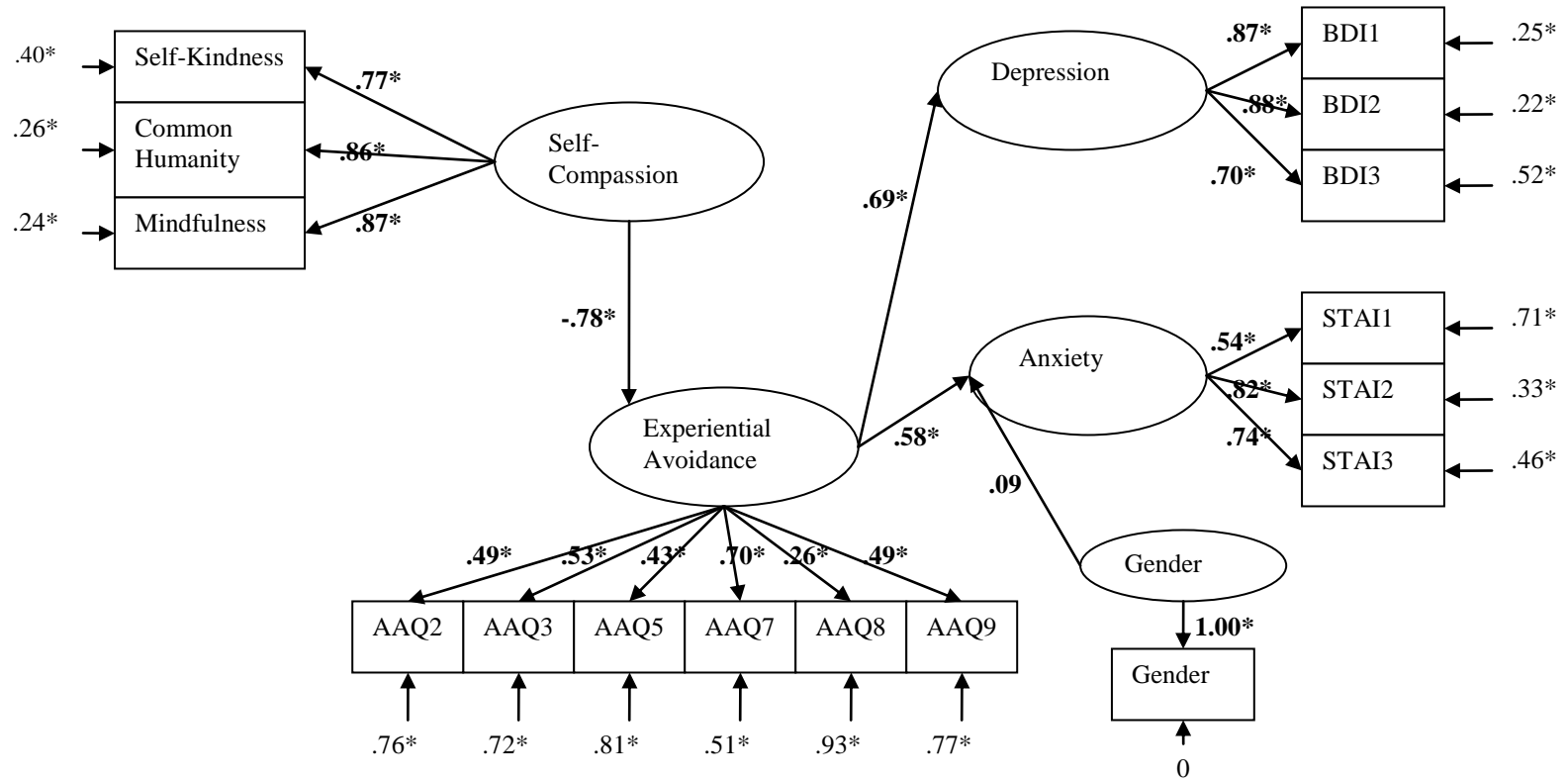


Figure 8 Structural Model Model Test 1

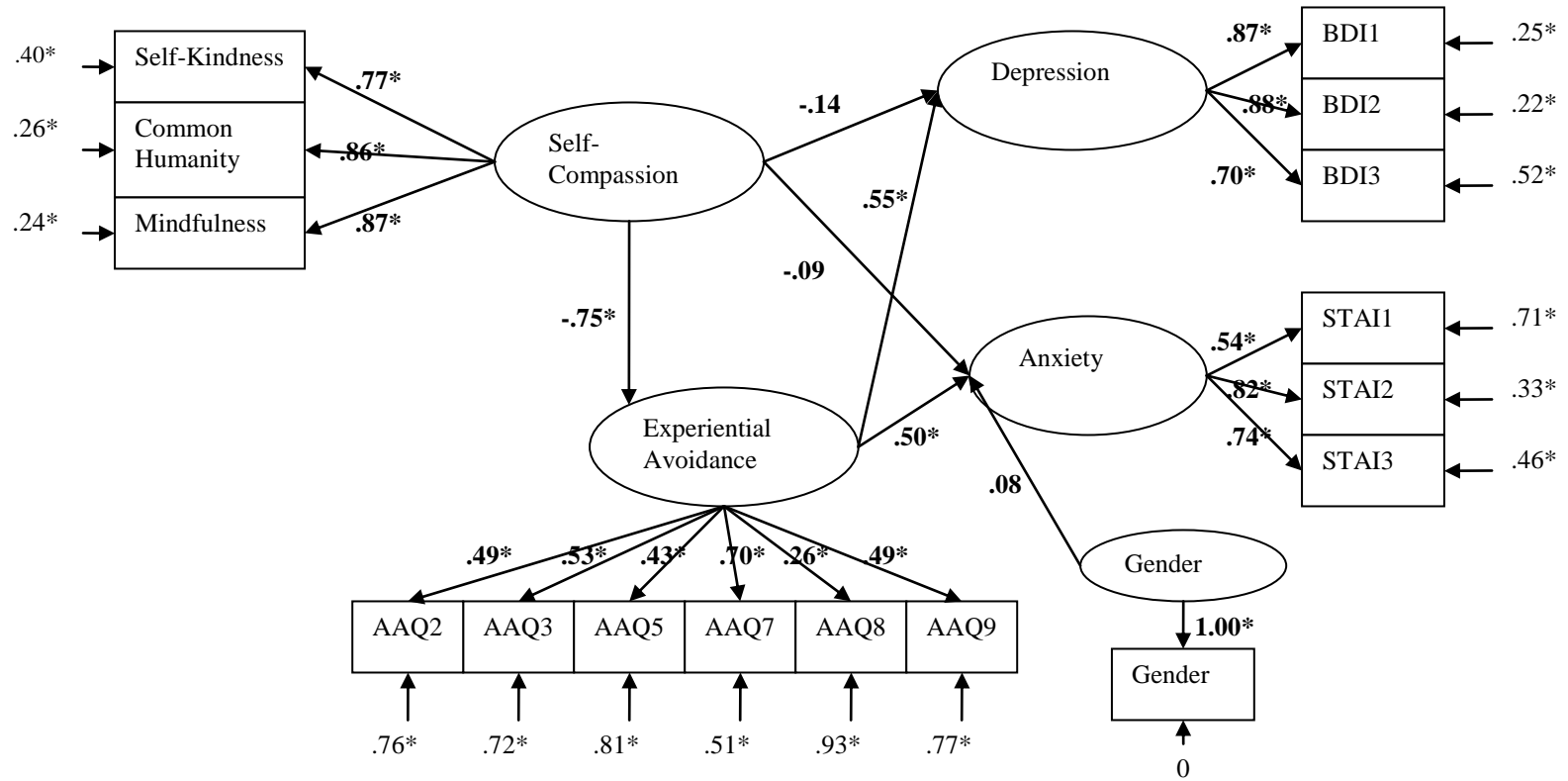


Figure 9 Saturated Model Model Test 1



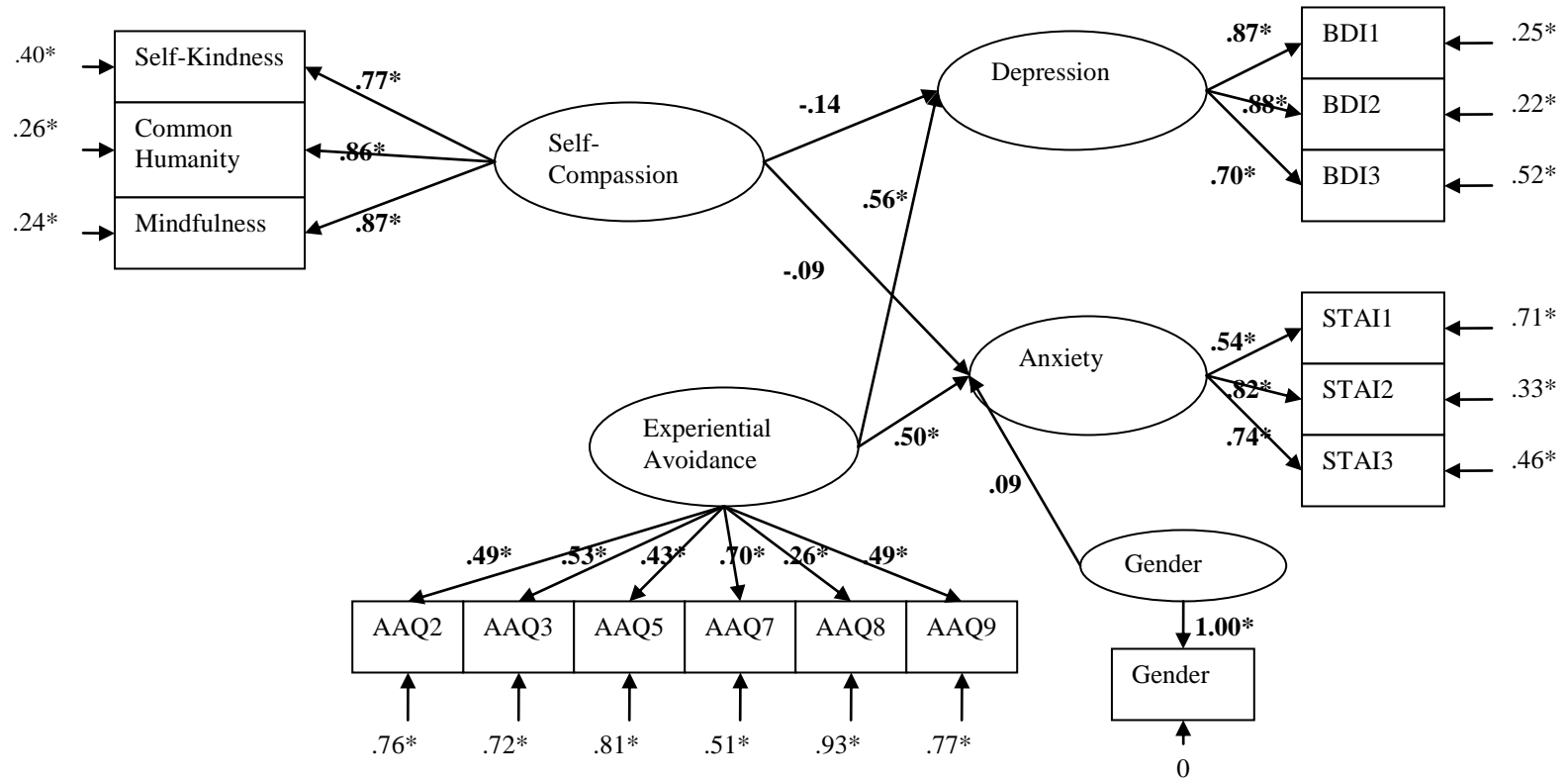


Figure 10 Only Direct Effect Model Model Test 1

### **3.3.4 Model Test 2: Metacognitive Factors**

Using LISREL 8.80 6 Month Rental Edition (Jöreskog & Sörbom, 2006), the relationships between Self-Compassion, a latent variable with three indicators [three parcels from the Self-Compassion Scale (Neff,2003b) (Self-Kindness, Common Humanity, and Mindfulness)], Positive Beliefs about Worry, a latent variable with two indicators [two parcels from Positive Beliefs about Worry Subscale of Meta-Cognitions Questionnaire (Wells & Cartwright-Hatton, 2004; Yılmaz et al., 2008) (PB1, PB2)], Negative beliefs about Worry, a latent variable with two indicators [two parcels from Negative Beliefs about Worry Subscale of MCQ-30 (NB1, NB2)], Lack of Cognitive Confidence, a latent variable with two indicators [two parcels from Cognitive Confidence Subscale of MCQ-30 (LCC1, LCC2)], Need to Control, a latent variable with two indicators [two parcels from Need to Control Subscale of MCQ30 (NC1, NC2)], Cognitive Self-Consciousness, a latent variable with two indicators [two parcels from Cognitive Self-Consciousness Subscale of MCQ30 (CSC1, CSC2)], Depression, a latent variable with three indicators [three parcels from Beck Depression Inventory (Beck et al., 1978; Hisli, 1988, 1989), which are BDI1, BDI2, BDI3], and Anxiety, a latent variable with three indicators [ three parcels from Trait form of Stait Trait Anxiety Inventory (Spielberger et al., 1970; LeCompte & Öner, 1985) which are STAI1, STAI2, STAI3] were investigated.

The proposed model was presented in Figure 11 where observed variables were presented by rectangles and latent variables were presented by circles. Absence of a

line connecting variables implies no hypothesized direct effect. Figure 11 illustrates the full meditation model in which Self-Compassion predicts Positive Beliefs about Worry, Negative beliefs about Worry, Lack of Cognitive Confidence, Need to Control, Cognitive Self-Consciousness negatively. Moreover, the mediators, Positive Beliefs about Worry, Negative beliefs about Worry, Lack of Cognitive Confidence, Need to Control, Cognitive Self-Consciousness, predict Depression and Anxiety positively as the outcome variables. Furthermore, gender was found to be only significantly correlated with indicators of anxiety, and a direct path from Demographic to Anxiety was added to the model. The analyses were conducted with 419 participants. Data analyses were conducted in four steps. The first step was to test the measurement model, the second step was to test the structural model, and third step was to trim the model if some mediators did not yield significant results, the fourth step was to compare the proposed model with the empirically alternative models which are the Saturated model and the Only Direct Effect Model.

Maximum likelihood estimation was employed to estimate all models and prior to analysis all of the latent variables were scaled with their indicators which has the highest loading. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(190, N = 419) = 5638.019, p < .001$ . Next, the measurement model (see Figure 12) was tested and good fit values were obtained ( $\chi^2(135, N = 419) = 326.994, p < .001$ , RMSEA = .06, GFI = .93, AGFI = .89, CFI = .97, NFI = .94). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged

between .51 (STAI1) and 1.02 (PB1) (see Figure 2). Moreover, Self-Compassion had significant structural correlations with Positive Beliefs about Worry (*Structural Coefficient*= -.14,  $p < .05$ ), Negative beliefs about Worry (*Structural Coefficient*= -.71,  $p < .05$ ), Lack of Cognitive Confidence (*Structural Coefficient*= -.22,  $p < .05$ ), Need to Control (*Structural Coefficient*= -.28,  $p < .05$ ). Anxiety had significant correlations with other latent variables, except with Cognitive Self-Confidence, Self-Compassion (*Structural Coefficient*= -.49,  $p < .05$ ), Demographics (*Structural Coefficient*= .14,  $p < .05$ ), Positive Beliefs about Worry (*Structural Coefficient*= .25,  $p < .05$ ), Negative beliefs about Worry (*Structural Coefficient*= .71,  $p < .05$ ), Lack of Cognitive Confidence (*Structural Coefficient*= .23,  $p < .05$ ), Need to Control (*Structural Coefficient*= .41,  $p < .05$ ). Latent variable of Depression had significant structural correlations with Self-Compassion (*Structural Coefficient*= -.55,  $p < .05$ ), Negative beliefs about Worry (*Structural Coefficient*= .59,  $p < .05$ ), Lack of Cognitive Confidence (*Structural Coefficient*= .20,  $p < .05$ ), Need to Control (*Structural Coefficient*= .40,  $p < .05$ ), Anxiety (*Structural Coefficient*= .43,  $p < .05$ ). A chi-square difference test indicated significant improvement in fit between the independence model and the measurement model,  $\chi^2_{\text{diff}}(55, N = 419) = 5311.02, p < .001$ . Prior to the structural model test, Harman's Single Factor Model was tested for the possibility of common method variance. Harman's Single Factor Model was easily rejectable, ( $\chi^2(152, N = 419) = 1901.953, p < .001, \text{RMSEA} = .17, \text{GFI} = .66, \text{AGFI} = .57, \text{CFI} = .67, \text{NFI} = .66$ ) which suggested that common method variance was not of great concern for the analysis.

In the second step of the analysis, structural model (see Figure 13) was tested and acceptable fit values were obtained ( $\chi^2(153, N = 419) = 487.644, p < .001, RMSEA = .08, GFI = .89, AGFI = .85, CFI = .94, NFI = .91$ ). When the relationships between exogenous variable and the mediators were examined, the results of analysis indicated that Self-Compassion was significant predictor of Positive Beliefs about Worry (*Standardized Path Coefficient* = -.10,  $p < .05$ ), Negative beliefs about Worry (*Standardized Path Coefficient* = -.76,  $p < .05$ ), Lack of Cognitive Confidence (*Standardized Path Coefficient* = -.24,  $p < .05$ ), Need to Control (*Standardized Path Coefficient* = -.31,  $p < .05$ ). Furthermore, when the relationship between the mediators and endogenous variables were examined, the analysis yielded that Negative Beliefs about Worry and Need to Control were significant predictors of both Depression and Anxiety. Negative Beliefs about Worry significantly predicted Depression (*Standardized Path Coefficient* = .55,  $p < .05$ ) and Anxiety (*Standardized Path Coefficient* = .62,  $p < .05$ ). Further, Need to Control was also a significant predictor of Depression (*Standardized Path Coefficient* = .23,  $p < .05$ ) and Anxiety (*Standardized Path Coefficient* = .12,  $p < .05$ ). Moreover, 58 % of the total variance of Negative Beliefs about Worry, 10 % of the total variance of Need to Control, 6 % of the total variance of Lack of Cognitive Confidence and 1 % of Positive Beliefs about Worry was explained by the direct effects of the exogenous latent variable, Self-Compassion. 35 % of the total variance of Depression and 39 % of the total variance of Anxiety were explained by the direct effects of Negative Beliefs about Worry and Need to Control. Furthermore, 49 % of the total variance of Depression was explained by the

indirect effect of Self-Compassion. 51 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

In the third step of the analysis, initial Proposed model was trimmed and this trimmed model (see Figure 14) was tested. Only two of the proposed five mediators were statistically significant mediators. Therefore, in the trimmed model it was suggested that Self-Compassion, as an exogenous variable, predicts mediators which are Need to Control and Negative Beliefs about Worry negatively. In turn, mediator variables predict outcome variables which are Anxiety and Depression positively. Then, trimmed model's structural model (see Figure 14) was tested and good fit values were yielded ( $\chi^2(69, N = 419) = 241.626, p < .001, RMSEA = .08, GFI = .92, AGFI = .88, CFI = .96, NFI = .94$ ). When the relationships between exogenous variable and the mediators were investigated, the analysis yielded that Self-Compassion was a significant predictor of Negative beliefs about Worry (*Standardized Path Coefficient* =  $-.75, p < .05$ ), and Need to Control (*Standardized Path Coefficient* =  $-.30, p < .05$ ). Furthermore, when the relationship between the mediators and endogenous variables were examined, the analysis yielded that Negative Beliefs about Worry and Need to Control were significant predictors of both Depression and Anxiety. Negative Beliefs about Worry significantly predicted Depression (*Standardized Path Coefficient* =  $.57, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $.64, p < .05$ ). Further, Need to Control was also a significant predictor of Depression (*Standardized Path Coefficient* =  $.21, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $.14, p < .05$ ).

Moreover, 56 % of the total variance of Negative Beliefs about Worry, 9 % of the total variance of Need to Control was explained by the direct effects of exogenous latent variable, Self-Compassion. 37 % of the total variance of Depression and 43 % of the total variance of Anxiety were explained by the direct effects of Negative Beliefs about Worry and Need to Control. Furthermore, 49 % of the total variance of Depression was explained by the indirect effect of Self-Compassion. 52 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

In the fourth step of the analysis, the Trimmed Model was compared with empirically alternative models which are the Saturated Model and the Only Direct Effect Model. Firstly, two direct paths added, which connect exogenous variable to the outcome variables, to the proposed model for testing the Saturated, or partial mediation, Model. The Saturated Model (see Figure 15) yielded good fit values ( $\chi^2(67, N = 419) = 230.246, p < .001, RMSEA = .08, GFI = .93, AGFI = .89, CFI = .96, NFI = .95$ ), and when compared to the proposed model, the Saturated Model did significantly improved,  $\Delta\chi^2(2) = 11,38, p < .01$ . When the relationships between exogenous variable and the mediators were investigated, the analysis yielded that Self-Compassion was significant predictor of Negative beliefs about Worry (*Standardized Path Coefficient* =  $-.71, p < .05$ ), Need to Control (*Standardized Path Coefficient* =  $-.29, p < .05$ ). Furthermore, when the relationship between the mediators and endogenous variables were examined, the analysis yielded that Negative Beliefs about Worry and Need to Control were a significant predictors of both Depression and Anxiety.

Negative Beliefs about Worry was significantly predicted Depression (*Standardized Path Coefficient*= .29,  $p < .05$ ) and Anxiety (*Standardized Path Coefficient*= .68,  $p < .05$ ). Further, Need to Control was also a significant predictor Depression (*Standardized Path Coefficient*= .20,  $p < .05$ ) and Anxiety (*Standardized Path Coefficient*= .13,  $p < .05$ ). Next, when the relationship between the exogenous variable and outcome variable investigated, it was found that Self-Compassion was a significant predictor of Depression (*Standardized Path Coefficient*= -.30,  $p < .05$ ). Moreover, 50 % of the total variance of Negative Beliefs about Worry, 8 % of the total variance of Need to Control was explained by the direct effects of exogenous latent variable, Self-Compassion. 21 % of the total variance of Depression was explained by the direct effects of Negative Beliefs about Worry, Need to Control and Self-Compassion. 48 % of the total variance of Anxiety were explained by the direct effects of Negative Beliefs about Worry and Need to Control. Furthermore, 26 % of the total variance of Depression was explained by the indirect effect of Self-Compassion. 51 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

Secondly, the Only Direct Effect Model (see Figure 16) was tested and good fit values were yielded ( $\chi^2(64, N = 419) = 179.945, p < .001, RMSEA = .07, GFI = .94, AGFI = .91, CFI = .97, NFI = .96$ ). When compared with the Proposed Model, the Only Direct Effect Model was significantly improved,  $\Delta\chi^2(3) = 61.68, p < .05$ . When relationships were examined, Negative Beliefs about Worry was the significant predictor of



Anxiety (*Standardized Path Coefficient* = .71,  $p < .05$ ) and Depression (*Standardized Path Coefficient* = .29,  $p < .05$ ). Moreover, Need to Control was a significant predictor of Depression (*Standardized Path Coefficient* = .18,  $p < .05$ ). Furthermore, Self-Compassion was significant predictor of Depression (*Standardized Path Coefficient* = -.30,  $p < .05$ ). Additionally, 20 % of total variance of Depression was explained by the direct effects of Negative Beliefs about Worry, Need to Control and Self-Compassion. 50 % of total variance of Anxiety was explained by Negative Beliefs about Worry. Finally, analysis shows that the Proposed Model had good fit values. However, comparisons with other empirically needed alternative models yielded that the Saturated and the Only Direct Effect Models were significantly better than the Proposed, Full Mediation, Model.

Table 8

*Structural Correlations among Latent Variables (\*  $p < .05$ )*

	<b>Gender</b>	<b>SC</b>	<b>PB</b>	<b>NB</b>	<b>LCC</b>	<b>NCT</b>	<b>CSC</b>	<b>ANX</b>	<b>DEP</b>
<b>Gender</b>	1.00								
<b>SC</b>	-.16*	1.00							
<b>PB</b>	-.11*	-.14*	1.00						
<b>NB</b>	.13*	-.71*	.23*	1.00					
<b>LCC</b>	.10	-.22*	.09	.27*	1.00				
<b>NCT</b>	-.17*	-.28*	.38*	.53*	.18*	1.00			
<b>CSC</b>	-.11*	.09	.21*	.15*	-.07	.43*	1.00		
<b>ANX</b>	.14*	-.49*	.25*	.71*	.24*	.41*	.12	1.00	
<b>DEP</b>	.06	-.55*	.07	.59*	.20*	.40*	.06	.43*	1.00

Note: SC=Self-Compassion, PB= Positive Beliefs about Worry, NB= Negative Beliefs about Worry, LCC= Lack of Cognitive Confidence, NCT= Need to Control Thoughts, CSC= Cognitive Self-Consciousness, ANX= Anxiety, DEP= Depression

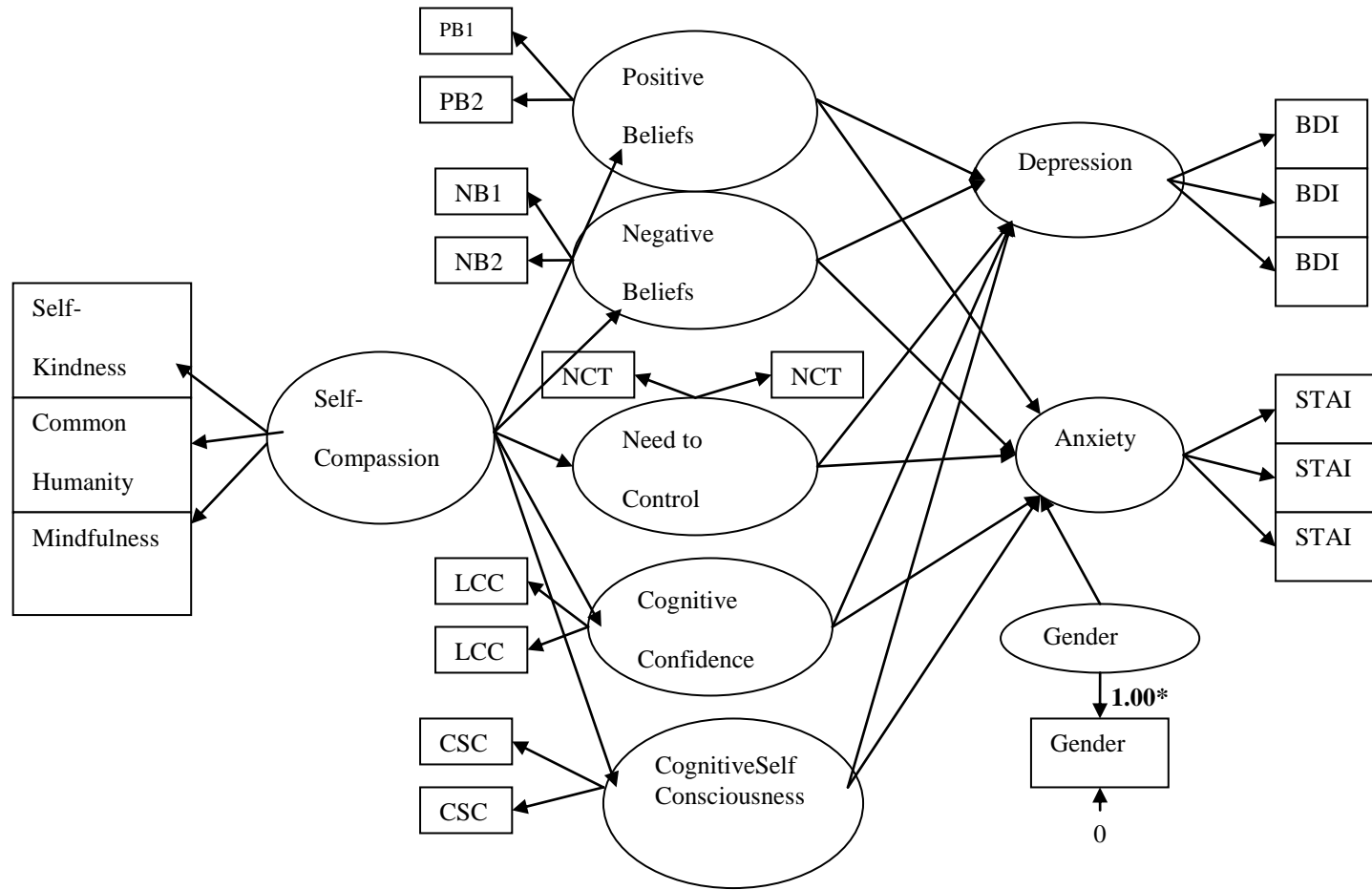


Figure 11 Proposed Model Model Test 2

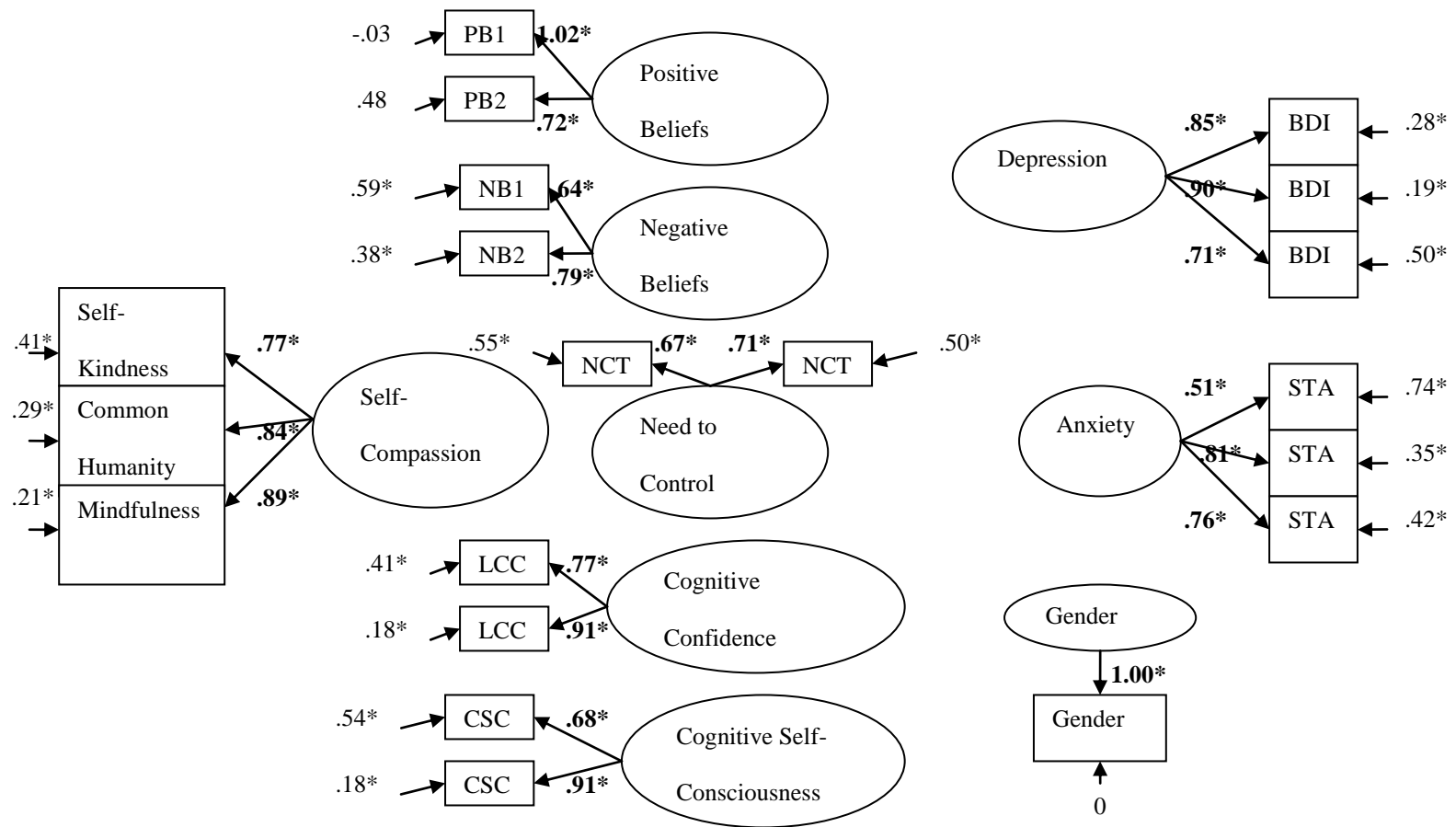


Figure 12 Measurement Model Factor Loadings Model Test 2

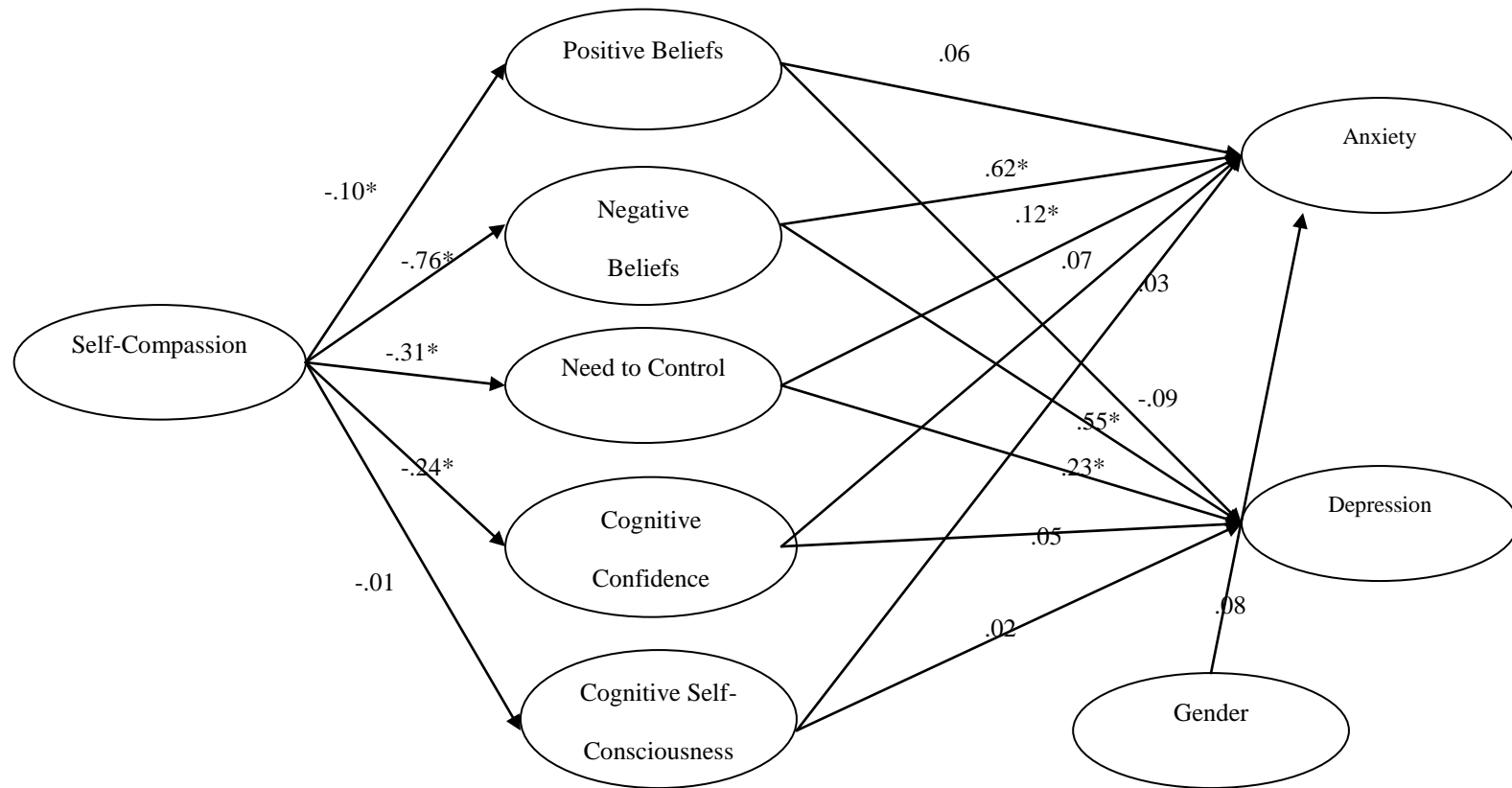


Figure 13 Structural Model Model Test 2

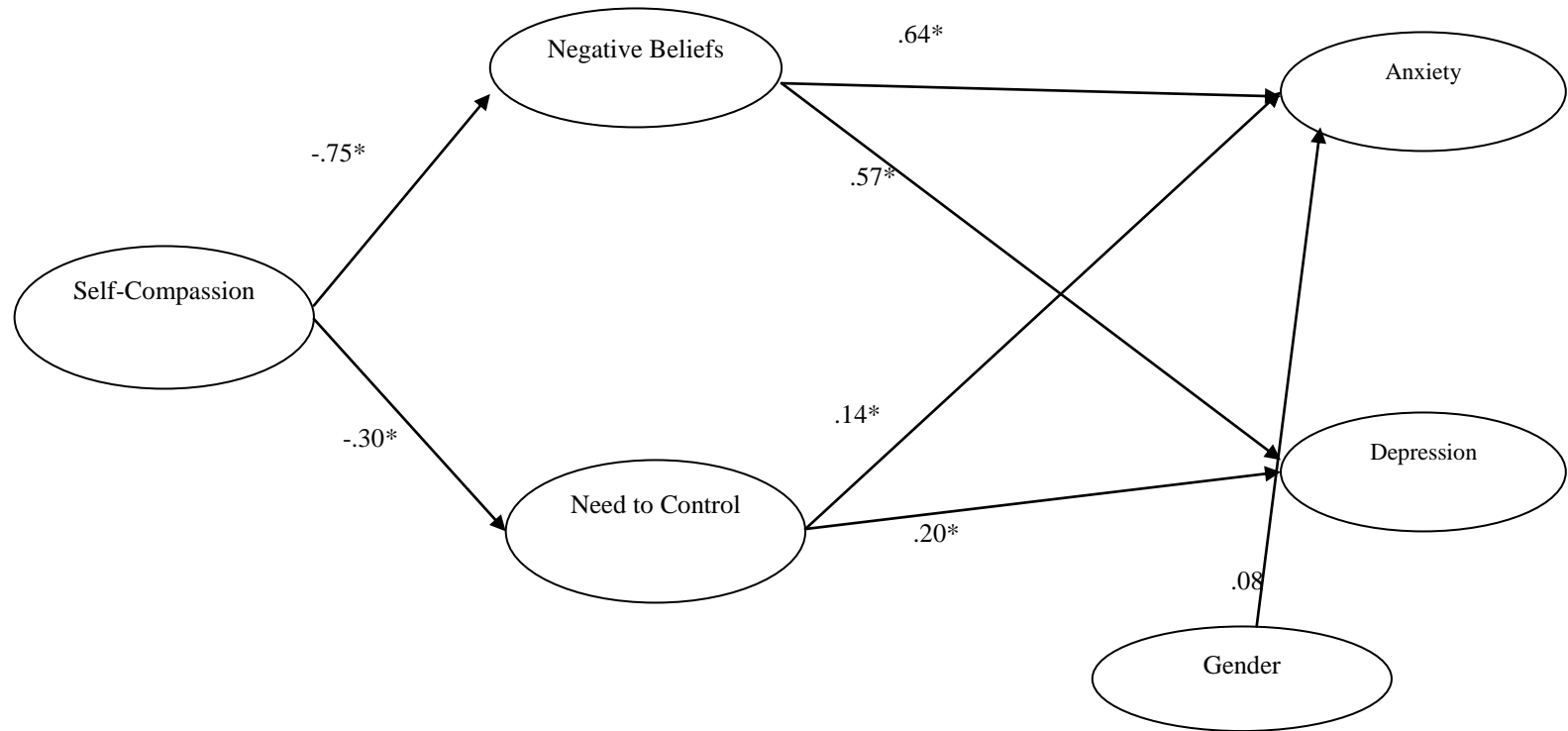


Figure 14 Trimmed Model Model Test 2

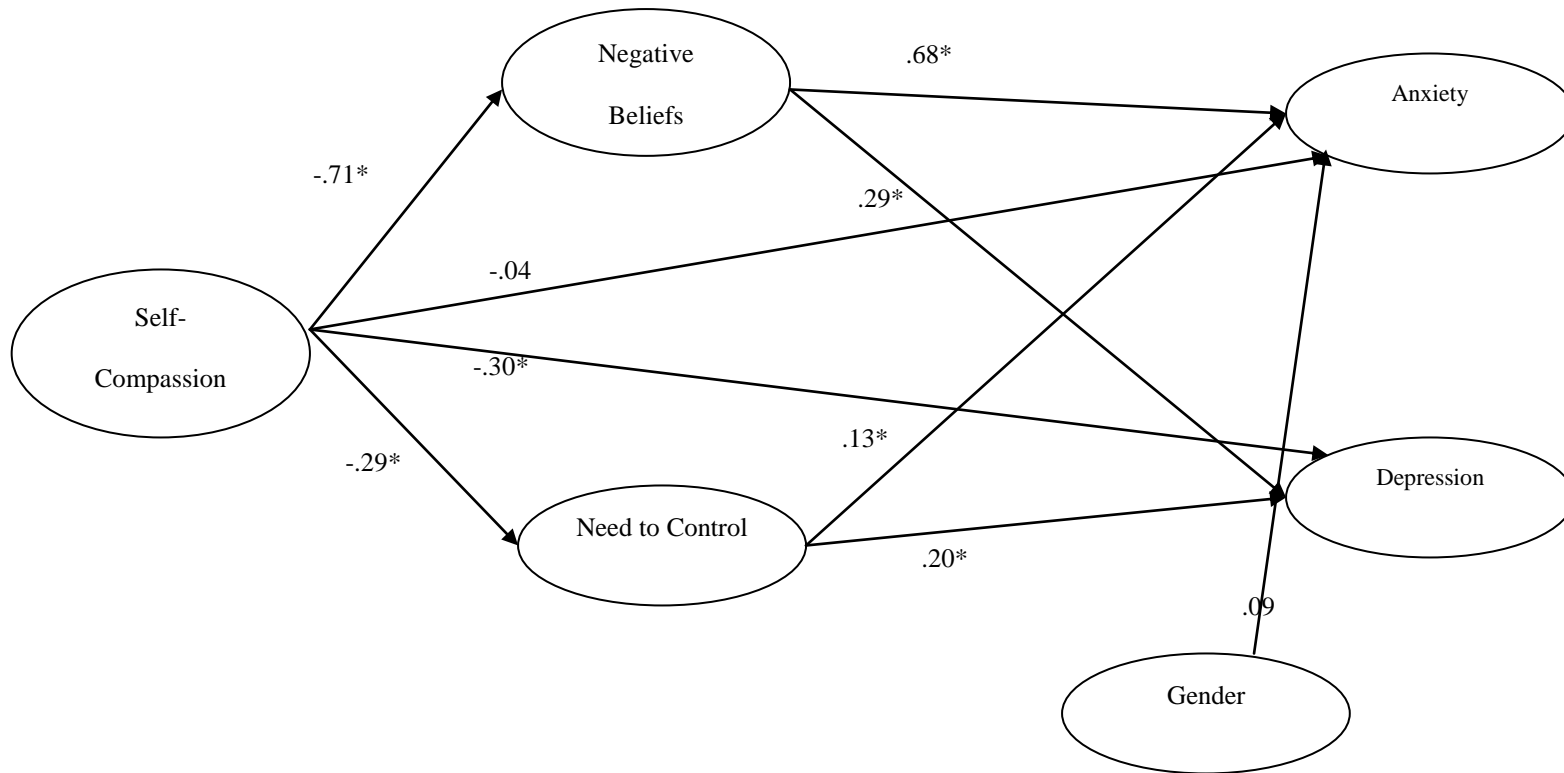


Figure 15 Saturated Model Model Test 2

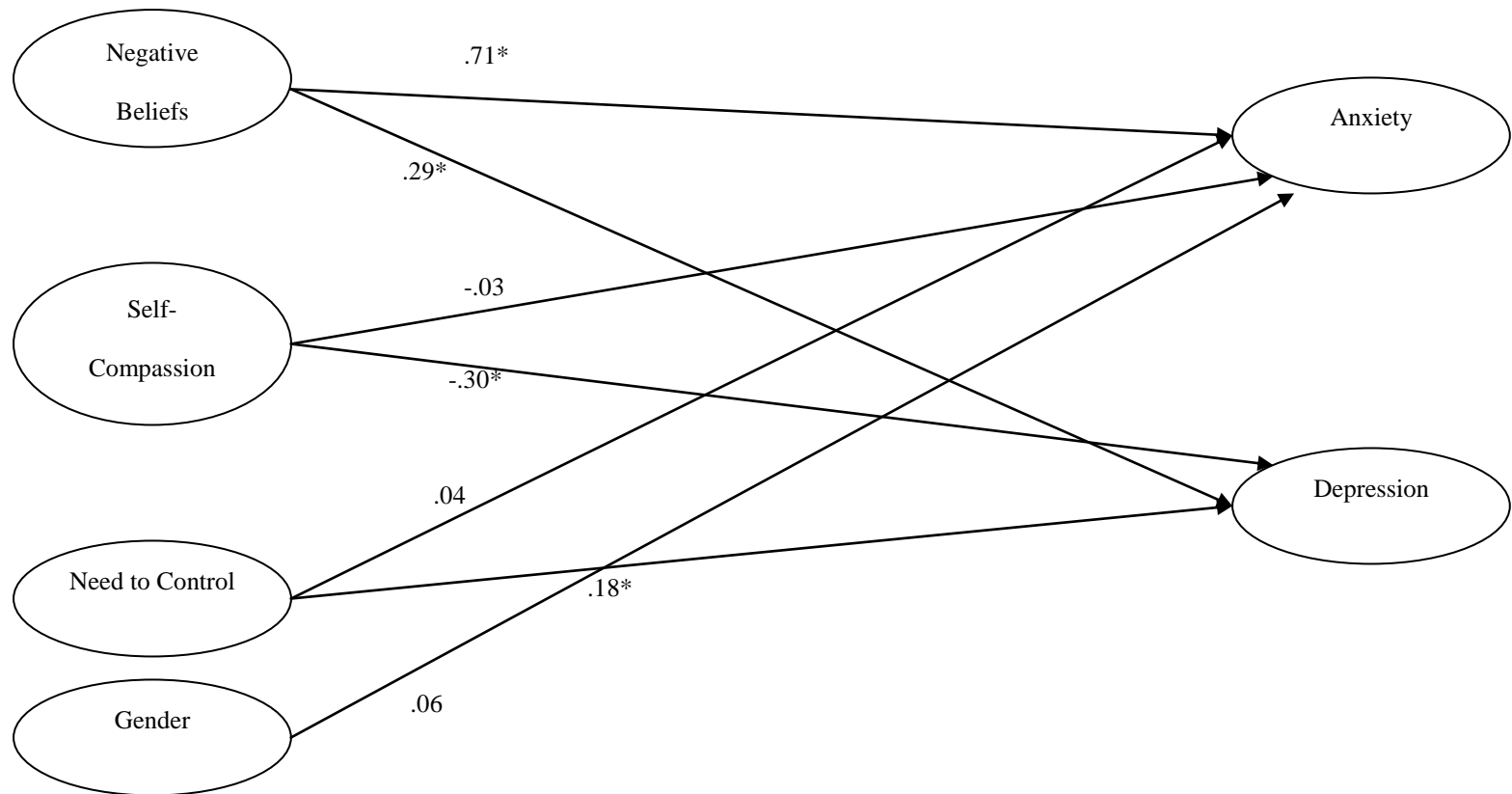


Figure 16 Only Direct Effect Model Model Test 2

### **3.3.5 Model Test 3: Metacognition**

Using LISREL 8.80 6 Month Rental Edition (Jöreskog & Sörbom, 2006), the relationships between Self-Compassion, a latent variable with three indicators [three parcels from the Self-Compassion Scale (Neff,2003b) (Self-Kindness, Common Humanity, and Mindfulness)], Total Metacognitive Factors, a latent variable with five indicators [five parcels from Meta-Cognitions Questionnaire 30 (Wells & Cartwright-Hatton, 2004; Yilmaz et al., 2008) which are Positive Beliefs about worry (POS), Negative beliefs about Worry (NEG), Lack of Cognitive Confidence (COGC), Need to Control (NEEDC) and Cognitive Self-Consciousness (COGSELF)], Depression, a latent variable with three indicators [three parcels from Beck Depression Inventory (Beck et al., 1978; Hisli, 1988, 1989), which are BDI1, BDI2, BDI3], and Anxiety, a latent variable with three indicators [ three parcels from Trait form of Stait Trait Anxiety Inventory (Spielberger et al., 1970; LeCompte & Öner, 1985) which are STAI1, STAI2, STAI3] were investigated.

The proposed model was presented in Figure 17 where observed variables were presented by rectangles and latent variables were presented by circles. Absence of a line connecting variables implies no hypothesized direct effect. Figure 17 illustrates the full meditation model in which Self-Compassion predicts Total Metacognitive Factors negatively. Moreover, the mediator, Total Metacognitive Factors, predicts Depression and Anxiety negatively as the outcome variables. Furthermore, gender was found to be only significantly correlated with indicators of anxiety, and a direct



path from Demographic to Anxiety was added to the model. The analyses were conducted with 419 participants. Data analyses were conducted in three steps. The first step was to test the measurement model, the second step was to test the structural model, and the third step was to compare the proposed model with the empirically alternative models which are the Saturated model and the Only Direct Effect Model.

Maximum likelihood estimation was employed to estimate all models and prior to analysis all of the latent variables were scaled with their indicators which has the highest loading. At the beginning of the model test, one of the indicators (Cognitive Self-Consciousness) of Total Metacognitive Factors was not significantly loaded. Therefore, that indicator dropped from the model and the analyses continued without that indicator. The independence model which tests the hypothesis that all variables are uncorrelated was clearly rejectable,  $\chi^2(91, N = 419) = 4025.280, p < .001$ . Next, the measurement model (see Figure 18) was tested and good fit values were obtained ( $\chi^2(68, N = 419) = 249.355, p < .001$ , RMSEA = .08, GFI = .92, AGFI = .88, CFI = .95, NFI = .94). Furthermore, all factor loadings were significant ( $p < .05$ ) and ranged between .25 (POS) and .89 (BDI2) (see Figure 18). Moreover, all of the structural correlations, between latent variables were statistically significant ( $p < .05$ ), except for the correlations of Demographics with Depression and Total Metacognitive Factors. Among the significant structural correlations, the strongest relationship was between Total Metacognitive Factors and Anxiety (*Structural Coefficient* = .70,  $p < .05$ ), and the weakest relationship was between Demographics and Anxiety (*Structural Coefficient* =

.14,  $p < .05$ ). A chi-square difference test indicated significant improvement in fit between the independence model and the measurement model,  $\chi^2_{\text{diff}} (25, N = 299) = 3775.925, p < .001$ . Prior to the structural model test, Harman's Single Factor Model was tested for the possibility of common method variance. Harman's Single Factor Model was easily rejectable, ( $\chi^2 (152, N = 419) = 109.815, p < .001, \text{RMSEA} = .13, \text{GFI} = .76, \text{AGFI} = .70, \text{CFI} = .85, \text{NFI} = .83$ ) which suggested that common method variance was not of great concern for the analysis.

In the second step of the analysis, structural model (see Figure 19) was tested and good fit values were yielded ( $\chi^2 (72, N = 419) = 259.912, p < .001, \text{RMSEA} = .08, \text{GFI} = .92, \text{AGFI} = .88, \text{CFI} = .95, \text{NFI} = .94$ ). When the relationships between exogenous variable and the mediator were examined, the analysis yielded that Self-Compassion (*Standardized Path Coefficient* =  $-.71, p < .05$ ) was a significant predictor of Total Metacognitive Factors. Furthermore, when the relationship between the mediator and endogenous variables were examined, the results of the analysis showed that Total Metacognitive Factors was a significant predictor of both Depression (*Standardized Path Coefficient* =  $.67, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $.71, p < .05$ ). Moreover, 50 % of the total variance of Total Metacognitive Factors was explained by the direct effects of exogenous latent variable. 45 % of the total variance of Depression and 50 % of the total variance of Anxiety were explained by the direct effects of Total Metacognitive Factors. Furthermore, 48 % of the total variance of

Depression was explained by the indirect effect of the Self-Compassion. 50 % of the total variance of Anxiety was explained by the indirect effect of Self-Compassion.

In the third step of the analysis, the Proposed Model compared with empirically alternative models which are the Saturated Model and the Only Direct Effect Model. Firstly, two direct paths added, which connect exogenous variable to the outcome variables, to the proposed model for testing the Saturated, or partial mediation, Model. The Saturated Model (see Figure 20) yielded good fit values ( $\chi^2(70, N = 419) = 249.912, p < .001, RMSEA = .08, GFI = .92, AGFI = .88, CFI = .95, NFI = .94$ ), and when compared to the proposed model, the Saturated Model did significantly improved fit,  $\Delta\chi^2(2) = 10.00, p < .01$ . Furthermore, When the relationships between exogenous variable and the mediator were examined, the results indicated that Self-Compassion (*Standardized Path Coefficient* =  $-.67, p < .05$ ) was a significant predictor of Total Metacognitive Factors. Furthermore, when the relationships between endogenous variables and other predictor variables were examined, the analysis yielded that Total Metacognitive Factors was significant predictor of Depression (*Standardized Path Coefficient* =  $.45, p < .05$ ) and Anxiety (*Standardized Path Coefficient* =  $.68, p < .05$ ), Self-Compassion was also significant predictor of Depression (*Standardized Path Coefficient* =  $-.25, p < .05$ ), but Anxiety. On the other hand, Demographics, as exogenous variable, was not significant predictor of neither Depression nor Anxiety. Moreover, 45 % of the total variance of Total Metacognitive Factors was explained by the direct effects of exogenous latent variable Self-

Compassion. 26 % of the total variance of Depression was explained by the direct effect of Total Metacognitive Factors and Self-Compassion. 46 % of the total variance of Anxiety was explained by the direct effect of Total Metacognitive Factors. Furthermore, 46 % of the total variance of Anxiety and 30 % of the total variance of Depression was explained by the indirect effect of Self-Compassion.

Secondly, the Only Direct Effect Model (see Figure 21) was tested and good fit values were yielded ( $\chi^2(69, N = 419) = 249.510, p < .001, RMSEA = .08, GFI = .93, AGFI = .88, CFI = .95, NFI = .94$ ). When compared with the Proposed Model, the Only Direct Effect Model was significantly improved fit,  $\Delta\chi^2(3) = 10.402, p < .05$ . However, The Only Direct Effect Model was not better than Saturated, or the partial mediation, Model,  $\Delta\chi^2(1) = 0.402, p > .05$ . When relationships were examined, Total Metacognitive Factors was the significant predictor of Anxiety (*Standardized Path Coefficient* = .69,  $p < .05$ ) and Depression (*Standardized Path Coefficient* = .45,  $p < .05$ ). Furthermore, Self-Compassion was significant predictor of Depression (*Standardized Path Coefficient* = -.25,  $p < .05$ ). Additionally, 26 % of total variance of Depression was explained by the direct effects of Total Metacognitive Factors and Self-Compassion. 48 % of total variance of Anxiety was explained by Total Metacognitive Factors. Finally, analysis shows that the Proposed Model had good fit values. Moreover, comparisons with other empirically needed alternative models yielded that the Saturated and the Only Direct Effect Models were significantly better

than the Proposed, Full Mediation, Model. However, only Direct Effects Model was not significantly was not better than the Saturated, Partial Mediation, Model.

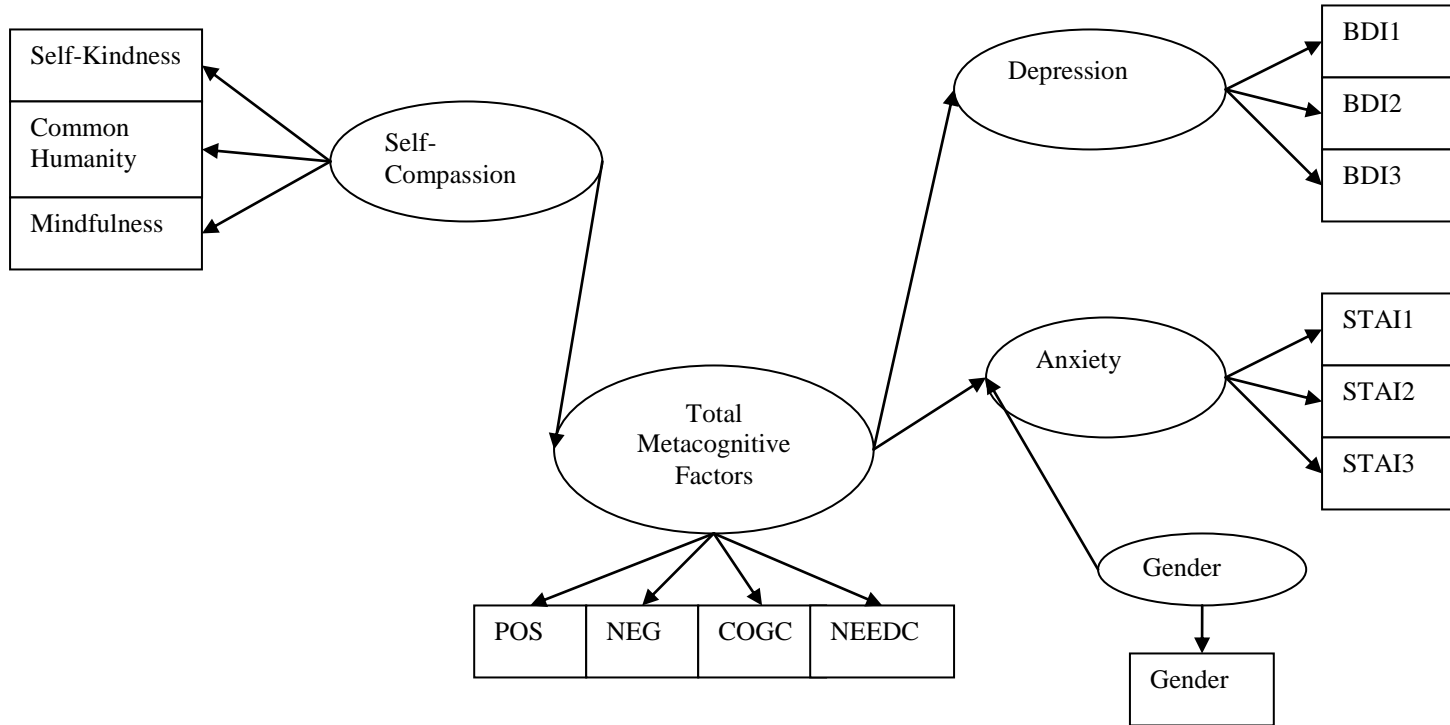


Figure 17 Proposed Model Model Test 3

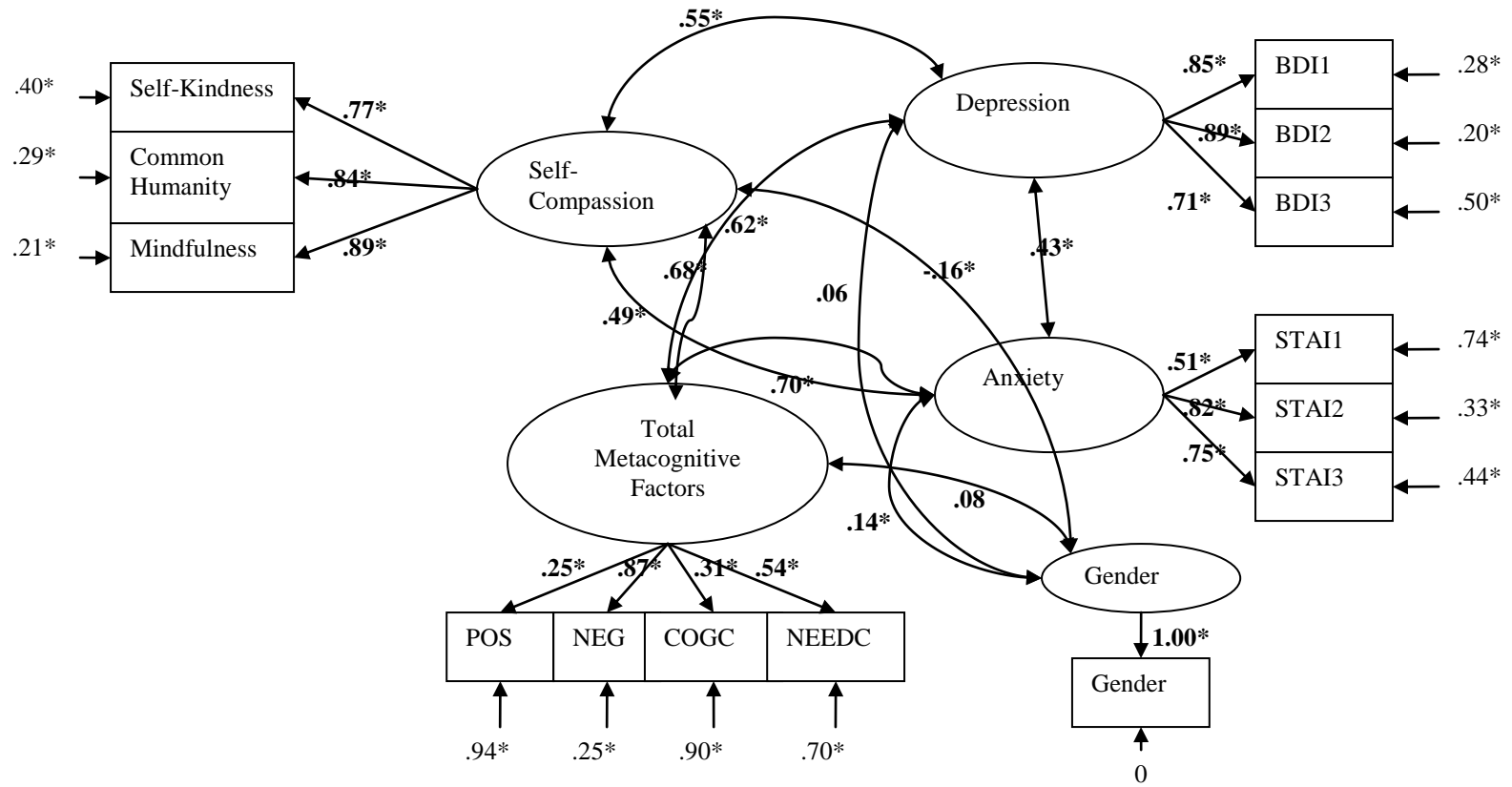


Figure 18 Measurement Model Model Test 3

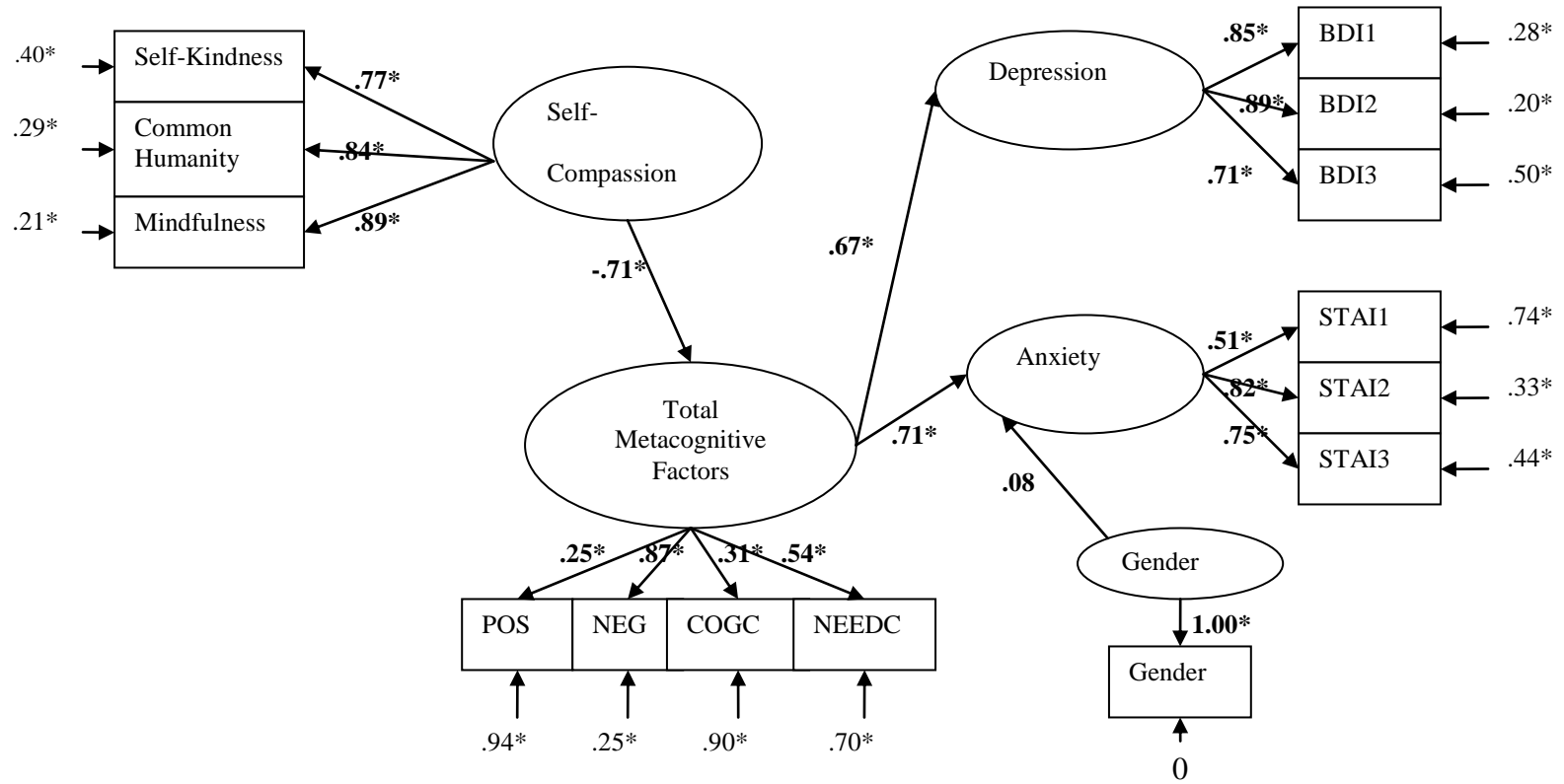


Figure 19 Structural Model Model Test 3



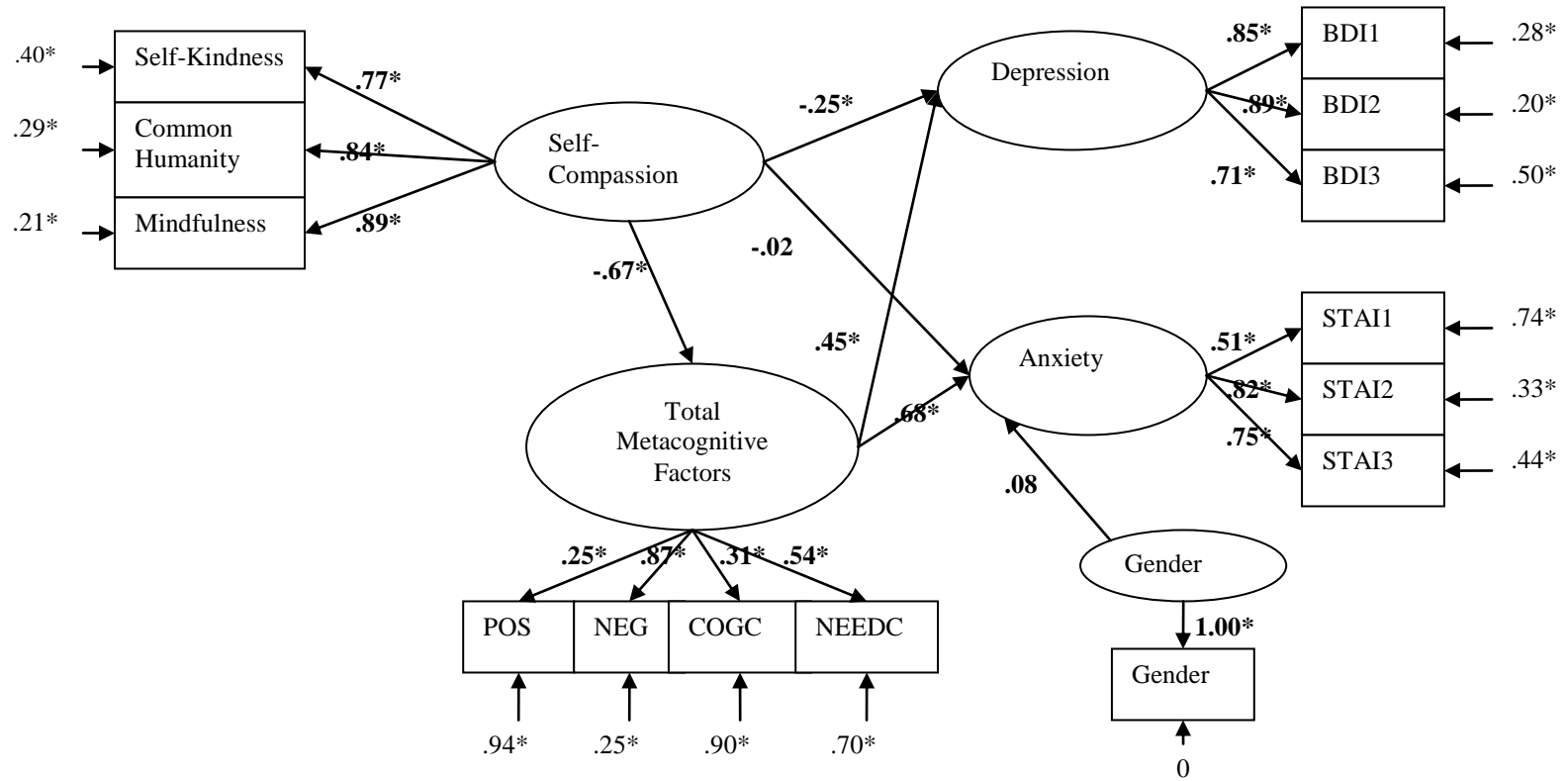


Figure 20 Saturated Model Model Test 3

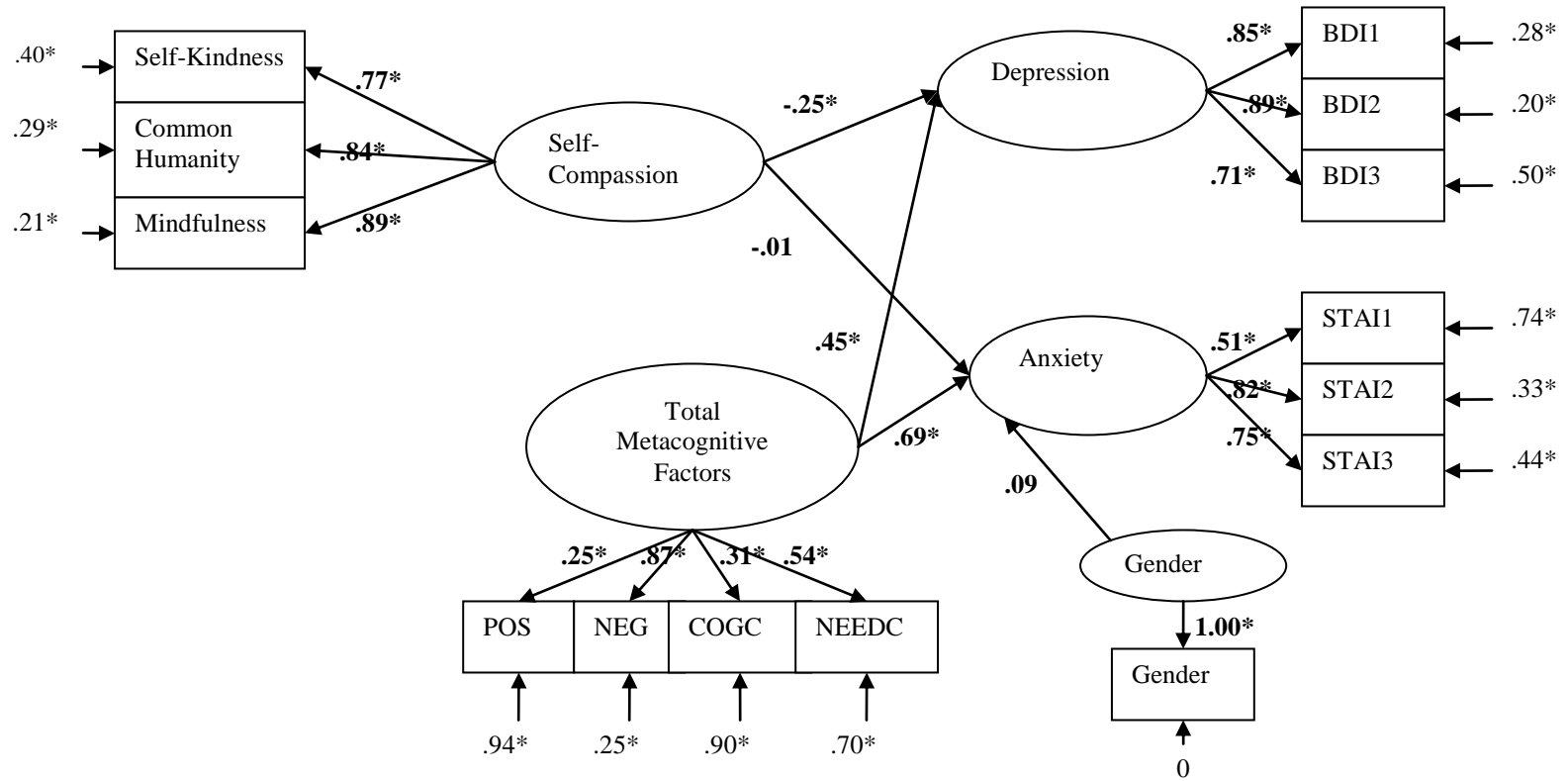


Figure 21 Only Direct Effect Model Model Test 3

## **CHAPTER 4**

### **DISCUSSION**

This study investigated the relation of self-compassion with psychopathology and experiential avoidance and metacognition as mediators. The first chapter of this thesis introduced the relevant literature in relation with theories of self-compassion, experiential avoidance and metacognition. The second chapter introduced the participants, the measures, and the procedure of the study. In the third chapter, the results of the analyses were explained. In this chapter, results of the study will be discussed under the scope of the relevant literature, and limitations of the study, implications for future research, implications for psychotherapy will be provided.

#### **4.1. Overview of the Hypotheses**

The first hypothesis of the study, which states that Acceptance and Action Questionnaire (AAQ) will have significant negative associations with self-compassion, trait anxiety and depression, and significant positive correlation with metacognitive factors, was accepted except for two metacognitive factors which are cognitive self-consciousness and positive beliefs about worry.

Second Hypothesis of the study, which is AAQ will have psychometric properties similar to a single factor solution of Hayes et al. (2004), was rejected. Therefore, the Turkish version of AAQ was exposed to post hoc modification and after this modification Turkish AAQ with six items yielded good psychometric properties.

Third Hypothesis of the study, which is self-compassion will significantly predict the mental health outcomes (depression and trait anxiety) was accepted. Forth hypothesis of the study, which is experiential avoidance and metacognitive factors will significantly predict the mental health outcomes (depression and trait anxiety), was also accepted. Fifth hypothesis of study, which is self-compassion will have significant negative correlations with experiential avoidance and metacognitive factors, was accepted. Sixth hypothesis of the study, when the explained variance due to experiential avoidance is controlled, the relation between self compassion and anxiety will become weaker, and seventh hypothesis, which is when the explained variance due to experiential avoidance controlled, the relation between self compassion and depression will become weaker, were accepted. Eighth hypothesis of the study, which is when the explained variance due to metacognitive factors controlled, the relation between self compassion and anxiety will become weaker, and ninth hypothesis when the explained variance due to metacognitive factors controlled, the relation between self compassion and depression will become weaker, were also accepted.

## **4.2 . Psychometric Properties of the Measures**

Psychometric properties of the Turkish version of Acceptance and Action Questionnaire (AAQ) and Self-Compassion Scale (SCS) were inspected in this present study. For this purpose factor structure and construct validity, item total correlations, internal consistency, split-half reliability, temporal reliability and convergent validity were investigated.

### **4.2.1. Acceptance and Action Questionnaire**

Psychometric properties of the Turkish version of Acceptance and Action Questionnaire (AAQ) (Hayes et al., 2004) were inspected in this present study. For this purpose factor structure and construct validity, item total correlations, internal consistency, split-half reliability, temporal reliability and convergent validity were investigated.

First of all, confirmatory factor analysis was conducted for examining the factor structure and construct validity of the AAQ. Confirmatory factor analysis yielded unacceptable fit values and then the scale was inspected. In the scale, item four “I rarely worry about getting my anxieties, worries, and feelings under control” was negatively loaded although the the item was reversed prior to the analysis. Moreover there were two additional problematic items with lowest loadings which are item 1, “I am able to take action on a problem even if I am uncertain what is the right thing to do”, and item 6, “When I evaluate something negatively, I usually recognize that this is just a reaction, not an objective fact”. Item six also did not worked in Dutch version

of the scale (Boelen & Reijntjes, 2008). All three problematic items were reverse items and these items might confuse the participants' attending to the present research. Item one might be understood as an impulsive act rather than committed action, item four might be confusing because of the temporal words in the item which is reversed and temporal words in the answer choices, and the expression (objective fact) in item six might be unfamiliar to our culture, like the Dutch sample. So, the second confirmatory factor analysis was conducted without the problematic items and six item AAQ was yielded good fit values.

In terms of reliability, items of AAQ showed acceptable corrected item-total correlations. Moreover, scale yielded acceptable internal consistency score. The scale's cronbach's alpha values were .64; however, for scales with items fewer than ten, alpha scores above .50 is acceptable (Pallant, 2005). In literature internal consistency of AAQ was ranged between .53 and .74 (Boelen & Reijntjes, 2008; Mairal, 2004). Furthermore, the scale had acceptable values in terms of split half-reliability coefficients. Temporal reliability of the scale was tested with interval of 3 weeks, and retest coefficient of the scale was good and supported the temporal reliability of the scale.

In terms of convergent validity, when zero order correlation were investigated, the scale significantly and positively correlated with trait anxiety, depression, negative beliefs about worry concerning uncontrollability and danger, negative beliefs about

worry concerning about the not controlling thoughts and lack of cognitive confidence. Similarly in literature AAQ was found to be significantly positively correlated with Depression (Mairal, 2004; Plumb et al., 2004; Plousny et al., 2004; Forsyth, Parker, & Finlay, 2003) and Anxiety (Mairal, 2004; Boelen & Reijntjes 2008; Kashdan et al., 2006). Moreover, in terms of partial correlations, when the variance due to pathological worry (PSWQ) was controlled, AAQ remained significantly correlated with depression and trait anxiety. When the variance due to metacognition was controlled, AAQ remained significantly correlated with pathological worry, depression and trait anxiety.

To sum up, nine item AAQ did not yielded acceptable fit values. Therefore scale was modified and problematic items were excluded from the scale and the number of items was dropped to six. Then, results of the analyses show that the six item AAQ has good construct validity, internal reliability, temporal reliability and convergent validity. However, factor structure of the six item AAQ sample should be tested with different samples.

#### **4.2.2. Self-Compassion Scale**

Psychometric properties of the Turkish version of Self-Compassion Scale (SCS) (Deniz, et al., 2008) were examined in the present study. For this purpose factor structure and construct validity, item total correlations, internal consistency, split-half reliability, temporal reliability and convergent validity were investigated.

First of all, confirmatory factor analysis with six factor solution with 24 item Turkish version of SCS (Deniz et al., 2008) was conducted. Scale yielded poor fit values. Then, in order to develop a better fitting post hoc model modification were conducted. In the scale there was a problematic item with negative loading which was item 20. When this item was investigated in terms of its meaning it is seen that Turkish translation of “Coldhearted” translated as “Soğukkanlı” which gives the meaning closer to mindfulness rather than Self-judgment. However, this item is not a problem for the researcher for using one factor solution of Deniz et. al (2008). For testing the six factor first order and one factor second order factor structure, this problematic item was excluded from the scale and for balancing the number of indicators, three items were selected for each factor. Selection criteria was choosing the concurrent items of Turkish SCS and 12 item Short Version SCS (Raes et al., in press) and then selecting items with highest loading for constructing the 18 item Modified version of SCS (SCS-18). Confirmatory factor analysis of SCS-18 yielded good fit values for the first order analysis which testing the six factor solution. Moreover, SCS-18 yielded good fit values for second order confirmatory factor analysis. According to this analysis it was shown that all six factors of SCS-18 gathered under the one overarching factor which is self-compassion. There are two studies conducted about the psychometric properties of SCS in Turkish Literature (Akin, Akin, & Abacı, 2007; Deniz et al., 2008). First study tested the factor structure of SCS with confirmatory factor analysis; however, only the first order factor analysis was tested and scale used as six different subscales not as a unified self-compassion construct (Akin, Akin, & Abacı, 2007).



Second study tested factor structure of SCS with exploratory factor analysis and it is found that there was only one factor of self-compassion (Deniz, et al., 2008). In this present study, it is both tested the six factor solution in the first order and the one factor solution in the second order. Results show that there are six factors under the second order factor of self-compassion.

In terms of reliability, high score was found as cronbach's alpha. Moreover, SCS-18 had acceptable corrected item total correlations. Further, split half reliability of the scale was calculated and good values were yielded in terms of Guttman Split-Half reliability and Spearman-Brown Coefficient both for equal and unequal length. Then, temporal reliability was tested with test-retest application with the interval of 3 weeks. Results yielded that both the SCS-18 and its subscales have good temporal and internal reliability.

In terms of concurrent validity, when zero order correlation were investigated, the scale significantly and negatively correlated with trait anxiety, depression, negative beliefs about worry concerning uncontrollability and danger, negative beliefs about worry concerning about the not controlling thoughts, lack of cognitive confidence, positive beliefs about worry. On the other hand, SCS-18 significantly and positively correlated with Cognitive Self-Consciousness. This unexpected correlation might be due to the confusion between observing one's inner world with (Cognitive Self-Consciousness) and without (Mindfulness) losing contact with the present moment.

Moreover, in terms of partial correlations, when the variance due to pathological worry (PSWQ) was controlled, SCS remained significantly correlated with depression and trait anxiety. When the variance due to metacognition was controlled, SCS-18 remained significantly correlated with pathological worry, depression and trait anxiety. Furthermore, when the correlation SCS-18 and Turkish SCS (Deniz et al., 2008) was examined, it is seen that two scale scales were almost identical ( $r = .99$ ,  $p < .01$ ).

To sum up, 24 item SCS did not yielded acceptable fit values. Therefore, post hoc model modifications were executed in order to have better fit values. When the SCS-18 with 18 items was analyzed better fit values were yielded. Then, results of the analyses show that the SCS-18 has good construct validity, internal reliability, temporal reliability and convergent validity. However, factor structure of the SCS-18 sample should be tested with different samples.

### **4.3 Model Tests**

Three model tests were conducted in the present study. The first model test examined the mediator role of experiential avoidance in relation with self-compassion, depression, anxiety. Moreover, in the second and third model tests mediator role of metacognitive factors were tested. In the second test, metacognitive factors were separately entered the equation; however, in the third model test metacognitive factors were entered as a unified metacognition factor. In this part of dissertation, model tests will be discussed with regard to the relevant literature.

### **4.3.1 Self-compassion, Experiential Avoidance and Psychological Health**

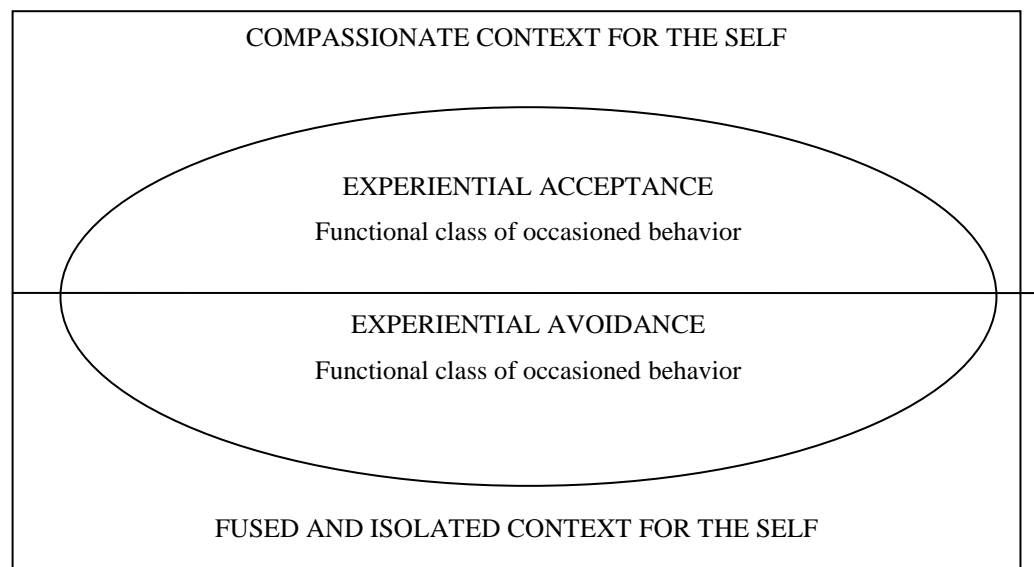
In the first model test, effects of self-compassion on outcome variables, which are anxiety and depression, mediated by experiential avoidance were tested. Experiential avoidance is a fundamental concept of Relational Frame and Acceptance and Commitment approaches which stem from functional contextual behavioral philosophy of science (Hayes et al., 1999; Törneke, 2010). According to this philosophy of science everyone acts in a context. More specifically, human beings live in a physical and spatial context as well as they live in socio-verbal, or psychological context. Therefore behaviors, which can be grouped in experiential avoidance as a functional class, should be acted in a particular socio-verbal contexts in which people see psychological events as causes, fuse with psychological events, and try to control psychological events (Hayes, Kohlenberg, & Melancon, 1989). According to this model it was hypothesized that individuals who are mindful, conscious of common humanity and self-kind would act less experientially avoidant and in turn report less psychological disturbance. Model test supported this hypothesis. Effects of self-compassion on outcome variables were fully mediated by experiential avoidance. Additionally, when the model is compared with other empirical competing models, which are partial mediation and only direct effect models, full mediation model was as good as other models. Moreover, according to partial mediation model direct effects of self-compassion on depression and anxiety decreased by 75 % and 81 %, respectively, with mediational effects of experiential avoidance. The results were parallel with the literature in which self-compassionate

individuals are found to be able to tolerate negatively evaluated psychological experiences (Tate et al. 2007). Moreover, self-compassionate individuals were found to be less experientially avoidant and therefore resilient for post-traumatic stress disorder in the face of traumatic experiences (Thompson & Waltz, 2008). For example, in a similar study Raes (2010) found that impact of self-compassion on anxiety mediated through worry and rumination, and on depression mediated through rumination. In fact, although formally they may seem different, in a functional perspective, both rumination and worry can be classified as experiential avoidance; because people usually worry in order to avoid future anxiety, or they ruminate for finding the sole reason why they are experiencing a particular psychological situation and so they avoid experiencing sadness or loss (Wells, 2009). So, it seems that Raes (2010) also found similar paradoxical effect of experiential avoidance. Moreover, in literature researchers tested experiential avoidance as a mediating variable in relation with psychological health outcome variables and other psychological variables which are passive coping (Fledderus et., al., 2006), maladaptive coping and emotional regulation styles (avoidant/detached coping, emotional inhibition, rumination) (Kashdan et al., 2006), sexual victimization (Merwin, et al., in press), psychological abuse in childhood (Reddy et al., 2006), maladaptive perfectionism (Santanello & Gardner, 2007), and interpersonal traumatic event (Orcutt & Pickett, 2005). However, differently from other studies in literature, in this study, not only full mediation model is tested but it was also compared with empirical competing models. It is the first model in the literature testing the mediational effect of experiential avoidance in

relation with self-compassion and psychological well-being. When other mediational tests that are mentioned above are analyzed it seems that generally mediational effect of experiential avoidance is tested in contexts where self-compassion is low. So, results of this study are in line with the literature.

The results of this study can be interpreted such that, self-compassion is context for the self for occasioning the accepting behavior for negatively evaluated psychological experiences (see Figure 18). More specifically, when people have the knowledge of common humanity and experience of the feeling of self, apart from its content, they reach to the perspective of transcendent self, or self-as-a-context. With common humanity, negatively experienced life events or psychological phenomena could become more tolerable and become in relation of coordination with being a human rather than the relation of opposition with being a human. Therefore this way of looking could make negative life events more bearable. Furthermore, according to Neff's social psychological perspective of self-compassion, weaknesses and negative experiences of life are part of being human and not one's fault which she should run away (Neff, 2008, 2009). With mindfulness, an individual can have open-minded and objective stance when observing her emotions and thoughts. Therefore, an individual can contact with the present moment without distorting her experience. Further, with self-kindness, an individual can contact herself in a more compassionate manner. With this compassionate and kind manner, an individual can better tolerate her failures and losses. Finally, a context of common humanity, mindfulness and self-kindness can

occasion behaviors which lead directly to experience the world as it is. In study of Pauley and McPherson (2010), when depressive and anxious patients were asked about self-compassion they equated it with action and kindness. Moreover, they told that self-compassion would be effective in their healing process. However, although they talked about compassion in the interview they did not say anything about self-compassion without a prompt. This finding is also parallel to the model tested in present research. When people live in a fused and isolated context, the context brings out experiential avoidance and in a compassionate context for the self more experientially accepting and open-minded behaviors were occasioned. People with psychological disorders might have never experienced compassionate context for the self, or their context changed from compassionate context for the self to fused and isolated context for the self.



*Figure 22* Compassionate context for the self

According to Relational Frame Theory, people overidentify, or fuse, with their thoughts or emotions. They experience them as real objects of the physical world. In fact this fusion is not only a normal process of language but also a dark side of the language. Thus, this equivalence property of human communication may lead to psychological problems. As a result of this fusion, people experience the world indirectly (Törneke, 2010). For example, fear of tomorrow (worry) or regrets of past (rumination) may dominate their lives instead of the present moment. When people got fused, they start to avoid their psychological experiences as if they are concrete objects of the world. According to the studies of thought suppression, there is a paradoxical increase in psychological phenomena which is suppressed (Wenzlaff & Wegner, 2000, for a review). According to various studies, paradoxical effects of suppression, as a kind of avoidance, was shown for emotional valence (Davies & Clark, 1998; Petrie, Booth, & Pennebaker, 1998), natural suppressing thoughts (Trinder & Salkovskis, 1994), anxiety-related disorders (Shiperd & Beck, 1999; Muris, Merkelbach, Horselenberg, Susenaar, & Leeuw, 1997; Janeck & Calamari, 1999) and depression (Wenzlaff & Bates, 1998). According to Wenzlaff and Wegner (2000), people who use thought suppression as a coping strategy might have a belief or knowledge about the success of thought suppression although it backfires. Similarly, present model shows that experiential avoidance was a strong predictor of both anxiety and depression, which implies that when experientially avoided from negatively evaluated phenomena, they experience the very phenomena which they try to avoid. Result of the study is parallel with other studies in the experiential avoidance

literature. In literature, experiential avoidance generally found to be significantly associated with psychological distress (e.g., Begotka, Woods, & Wtterneck, 2004; Marx and Sloan 2002). More specifically, experiential avoidance in literature is found to be significantly positively associated with depression (Plosny et al., 2004; Fledderus, Bohlmeijer, & Pieterse, 2010; Kashdan, Morina, Priebe, in press; Mervin, Rosenthal, & Coeffey, in press; Reddy, Pickett, & Orcutt, 2006; Tull & Gratz, 2008; Ruiz, 2010) and anxiety related distress which are PTSD (Orcutt et al., 2005; , GAD (Roemer et al., 2005), Social Anxiety Disorder (Kashdan et al., in press), Worry (Santanello & Gardner, 2007), Anxiety (Tull et al., 2004; Fledderus et al., 2010; Kashdan, Barrios, Forsyth, Steger, 2006; Reddy et al., 2006; Ruiz, 2010;). In fact again, common humanity facet of self-compassion comes into play. Human beings suffer whether they avoid or not; however, if they avoid suffering they will suffer much more than they would. Besides paradoxical effect of experiential avoidance, it may lead them to narrow their lives with challenges of psychological disturbance. Experiential avoidance is a kind of avoidant behavior which operates in the service of negative reinforcement (Dahl, et al., 2009). Compassionate context for the self might break the vicious cycle of experiential avoidance and psychological disturbance. Paralelly, in a study of Kuyken et al. (2010) it was found that enhancement of self-compassion decoupled the relation between cognitive reactivity and depression. So they do not overidentify, or fuse, themselves with their cognitive reactions. Therefore, compassionate context for the self might occasion behavior in service of positive reinforcement rather than negative reinforcement. In turn, this context would expand



the possibilities of the human beings and make them freer. Furthermore, according to self-compassion research, self-compassionate individuals are found to be using problem focused coping for unspecified problems (Neff et al., 2004); however, when they come across with problems which are unchangeable they use functional emotion focused coping (positive reinterpretation and acceptance) strategies (Neff., 2005). Therefore, self-compassionate individuals become psychologically more flexible in terms of coping. For example, they do not constraint with the only option of problem focused coping in terms of unchangeable emotions or situations. Using problem focused coping in unchangeable situations may lead individuals to experiential avoidance and to narrow their lives of individuals.

Moreover self-compassion model can be interpreted in terms of values. In Acceptance and Commitment approach, valuing is recently defined as “freely chosen, verbally constructed consequences of ongoing, dynamic, evolving patterns of activity, which establish predominant reinforcers for that are intrinsic in engagement in the valued behavioral pattern itself” (Wilson, 2009, p. 66).

This definition means that values are freely chosen and intrinsically engaged by individuals. The chosen values have verbal constructions of the consequences which change the degree to which previously established consequences function as reinforcers or punishers. Moreover, values are not static and evolve over time. Differently from concrete goals, values can never be fulfilled or accomplished. For

example a person can be compassionate to himself; however, if self-compassion is a value for him he can be more compassionate to himself 4 years later. So, there is no limit for the values, there can always be more. For a valued living, compassion for the self was defined as prerequisite. Two facets of self-compassion were emphasized in value approach of Acceptance and Commitment Therapy: defusion (mindfulness) and common humanity. According to this approach people can experience context for the self and might rescue themselves from the traps of experiential avoidance with the perspective of transcendent self which allows them to connect to the shared human experiences (Dahl, Plumb, Stewart, & Lundgren, 2009). People generally have two different ways of living. First way is experiential avoidance and the second is valued living. Experiential avoidance has gains in the short term; but in the long term, it narrows individuals' lives. On the other hand, living a valued life might be problematic in the short term; however, it would expand the life of the individual in the long term (Dahl et al., 2009, Hayes et al., 1999). Parallel to this theory, without the knowledge of common humanity or how to defuse or be mindful of psychological events or how to be kind or compassionate to oneself, people become trapped by experiential avoidance. Moreover, according to both approaches of self-compassion, there will not be any self-compassion without suffering (Neff, 2003a; Gilbert, 2009). According to Gilbert (2009), in order to be compassionate, people should tolerate their distress and have sympathy and empathy for themselves with an accepting manner. As a result, in a compassionate context individuals face with challenges of life and negative psychological experiences in a kind and compassionate manner without

avoiding negative thoughts or emotions. This model does not claim that in compassionate context symptoms of individuals will be eliminated entirely, on the contrary this kind of expectancy would also be classified as experiential avoidance. According to experiential avoidance approach, human emotional discomfort is divided into two categories: dirty and clean emotional discomforts. Clean emotional discomfort is experienced as a result of life experiences (e.g. loss, failure etc.) and dirty emotional discomfort are experienced as a result of experiential avoidance or unwillingness (worry about anxiety, rumination about sadness) (Hayes et al., 1999). In the proposed model of the current study, it seems that self-compassion is acting as a predictor of experiential avoidance more strongly than experiential avoidance is acting as predictor of depression and anxiety. This result can be interpreted such that, compassionate context for the self can create a context in which dirty emotions are diminished and therefore symptoms of depression and anxiety are also diminished. However, a human being can experience depression and/or anxiety although she lives in a compassionate context for the self. This experience of anxiety and depression might be interpreted as experiencing the clean emotional discomfort. Moreover, with compassionate context, negative clean emotions might be evaluated by an individual as a part of shared human experiences. To sum up, self-compassion is a context for self upon which processes of self (experiential acceptance, experiential avoidance, symptoms) are flourished.

### **4.3.2 Self-compassion, Metacognition and Psychological Health**

In the present study, two groups of model tests were conducted about metacognition in relation with self-compassion, depression and anxiety. In the first model test, mediator role of metacognition, as a unified construct, is tested in relation to other variables. Moreover in the second model test, mediator role of metacognitive factors were tested separately in relation to self-compassion and mental health outcome variables. In both model tests, proposed models were compared with empirically competing models.

In the first model, mediator role of metacognitive factors were separately tested with self-compassion as a predictor variable and health outcome variables, depression and anxiety, as dependent variables. Self-compassion is found to be significantly related to with positive beliefs about worry, negative beliefs about uncontrollability and danger, lack of cognitive confidence and need to control thoughts; however no significant relationship between self-compassion and cognitive self-consciousness was found. Moreover, anxiety was significantly correlated with all metacognitive factors except for the cognitive self-consciousness. This finding is similar to the findings of the study of Yılmaz et al. (2008) in which all subscales of MCQ 30 was significantly correlated with trait anxiety except for the cognitive self-consciousness. Moreover in the literature, contradictory findings yielded about the relation of cognitive self-consciousness and psychopathology. For example in terms of hallucinations, Baker and Morrison (1998) found cognitive self-consciousness nonsignificantly related to

hallucinations. On the other hand, Morrison et al., (2000) found that proneness to hallucinations were predicted by cognitive self-consciousness. Similarly in terms anxiety, even in a particular study contradicting results yielded. In a study by Davis and Valentiner (2000) cognitive self-consciousness was found to be significantly correlated with trait anxiety, but anxiety symptoms. In the literature cognitive self-consciousness has been generally found to be associated with obsessive compulsive symptomatology (eg., Hermans et al., 2003; de Bruin et al., 2007). Therefore, with the findings of the current study and literature, it might be argued that the cognitive self-consciousness subscale of the MCQ-30 might be related to obsessive compulsive symptomatology rather than predicting the general psychopathology. Nevertheless, in the present study depression was significantly correlated with negative beliefs about uncontrollability and danger, lack of cognitive confidence, need to control thoughts. Similar findings were found by Yilmaz et al. (2008); however in addition to the associations were found in the present study, they also found that positive beliefs about worry was significantly correlated with depression. In a separate study of Spada et al. (2008) depression was found to be significantly associated with negative beliefs about the uncontrollability and danger, lack of cognitive confidence, need to control thoughts, and cognitive self-consciousness. All associations found to be significant in this study has also been reported by the other researchers. Therefore, it can be noted that negative beliefs about uncontrollability and danger, lack of cognitive confidence, need to control thoughts are more fundamentally related to depressive

symptomatology rather than other metacognitive factors which are cognitive self-consciousness and positive beliefs about worry.

Structural model test of the proposed model, self-compassion significantly predicted the metacognitive factors which it was significantly correlated. However, when mediator role of the metacognitive factors was investigated, only two of them, which are negative beliefs about uncontrollability and danger and need to control thoughts, were significant predictors of anxiety and depression. Similarly in the literature both metacognitive factors were found to be as predictors of wide range of psychopathological problems. Negative beliefs about uncontrollability and danger were found to be as predictor of hallucination proneness (Morrison et al., 2000), pathological worry, trait anxiety (Wells & Papageorgiou, 1998b), obsessive compulsive symptomatology (Hermans, 2003; Myers & Wells, 2005), stress symptoms (Roussis & Wells, 2006). Moreover, in literature, need to control thoughts was found to be as predictor of hallucinations (Baker and Morrison, 1998), obsessive compulsive symptomatology (Wells & Papageorgiou, 1998b; Gwilliam et al., 2004), trait anxiety (Davis & Valentiner, 2000), stress symptoms (Roussis & Wells, 2006), depression (Spada et al., 2008). Later the model was trimmed by excluding the insignificant proposed mediators and then the trimmed model was compared with the empirically competing models which are partial mediation, or Saturated, model and direct effect model. When models compared, in partial mediation model, the effect of self-compassion on anxiety was found to be insignificant which supports the full

mediation hypothesis of metacognition between self-compassion and anxiety. On the other hand, the effect of self-compassion on depression was decreased by 47 % in the partial mediation model when compared with the model in which the metacognition was excluded. This finding supports the partial mediator role of metacognition between self-compassion and depression. Furthermore, in this model test results yielded that direct effect model and partial mediation model were significantly better than the full mediation model.

In the second model, the mediator role of metacognition was tested with self-compassion as an independent variable and depression and anxiety as the dependent variables. Results suggest that, people who are more mindful, conscious of shared experience of common humanity and kind toward themselves had lower levels of metacognitive beliefs. This result suggests that knowledge about common humanity, compassion, mindfulness and kindness can be important factor in the selection of metacognitive goals and plans. Moreover, the indirect effects of self-compassion on anxiety and depression were mediated by metacognitive factors. Since the model is rather novel model in the literature, the other competing models were tested with structural equation modeling. In the direct effect model, the structural path from self-compassion to the anxiety became statistically insignificant, although the path was significant when structural model was tested without the effect of metacognition. This finding supports the full mediation hypothesis about mediating role of metacognition between self-compassion and anxiety. On the other hand, direct effect of self-

compassion on depression was found to be significant. However, the effect was decreased by 56 % when compared with the effect of self-compassion on depression when metacognition was excluded from the model. This finding supports partial mediation about mediating role of metacognition between self-compassion and depression. Furthermore, results of model comparison yielded that when model changed from full mediation model to partial mediation model, the fit indices were significantly improved. Moreover, fit indices in the direct effect model were significantly improved when compared with the full mediation model; however, the direct effect model was not significantly better than the partial mediation model. In the literature, mediator role of metacognition was reported with negative emotions and smoking dependence (Spada et al., 2007) and Problematic internet use (Spada et al., 2008). Similar to the findings in the literature, partial mediator role of metacognition, as a unified process rather than the content of metacognitive factors, was supported. Hierarchical regression models, or direct effect models can describe the predictors of a certain construct. However, from these model tests different therapeutical road maps can be proposed. In his road map rather than focusing on symptoms or maladaptive beliefs, compassion for the self can be focused by the therapist. Rather than challenging and modifying contents of cognition, content or form of thinking styles, therapist can focus on the patients' relation to themselves in terms of their private experiences (mindfulness versus overidentification), their connectedness with their nature of humanity (common humanity versus isolation) and their relation to themselves whether kind or harsh (self-kindness versus self-criticism).



According to Wells (2009) every human being experience negative psychological experiences. However, not all of them develop and maintain an emotional disorder. In the Self-Regulatory Executive Function (S-REF) Model, Wells and Matthews (1994, 1996) propose that there are three level of cognitive processing. These are automatic, conscious “on-line” and self-knowledge levels. Automatic level is not open to consciousness which is more like reflexive. However, people sometimes monitor the signals coming from that level at the on-line level. On-line level at the middle of information from automatic level and self-knowledge level is where people appraise internal psychological events and carry on plans and goals in accordance with self-beliefs. Human beings choose and implement metacognitive plans and beliefs according to the knowledge in the Long-term Memory. Although this self-knowledge embraces the knowledge about physical world and self in the S-REF model, Wells (2009) diminish the role of the knowledge about self and world in universal treatment formulation of metacognitive therapy. According to the universal treatment model of Metacognitive therapy, self/world view is modeled as out of the metacognitive domain as a factor which is irrelevant to the drive of the process of metacognition and relevant to the content of rumination and worry.

Although the results of the second model seem to contradict with S-REF model of Wells and Matthews (1994), in practice, a parallel process is followed in Metacognitive Therapy. In Metacognitive therapy patients first learn attention training and detached mindfulness before the modification of metacognitive beliefs

(Wells,2009). To this date, attention training seems promising with cases of recurrent major depression (Papageorgiou & Wells, 2000), social phobia (Wells & Papageorgiou, 1998a), hypochondriasis (Papageorgiou & Wells, 1998), auditory hallucinations (Valmaggia, Bouman, & Schuurman, 2007; Wells, 2007). Moreover observer perspective training also plays pivotal role in the application of Metacognitive Theory (Wells, 2009). With these information, the results of this study seem to fit the application of Metacognitive Therapy.

When individuals become mindful, they will be able to detach themselves from internal psychological events. That is, they will be able to switch to the metacognitive mode in the face of negative psychological experiences. The other part of mindfulness is overidentification with private events; and it can be proposed that people with overidentification can be prone to be stuck in the object mode. Rather than a contradiction, mindfulness might be tapping to the modes of S-REF model and skill of attention allocation. Therefore they can fuse with their metacognitive belief without being able to evaluate them objectively.

Moreover, isolation of individual from common humanity endangers victimhood in humans (Neff, 2003a). Without accepting the negative private events as a part of being human, people can personalize their problems and can feel alone. Thus, this could preclude their switch to the metacognitive mode. Although, common humanity is not specifically mentioned in metacognitive therapy, the very information given by

the book of Adrian Wells (2009), on metacognitive theory, is that the negative experiences of psychological events are part of human condition. Moreover, psychoeducation or experiential exercises, which are designed for detach mindfulness, might be tapping to consciousness of shared experience of being human.

Furthermore, self-kindness is a way relating to self in a compassionate and accepting manner. Self-Kindness might be leading to acceptance of psychological suffering. According to Neff (2003a), without suffering self-compassion would be impossible. Therefore, in the face of psychological suffering, knowledge of relation to oneself kindly may make metacognitive beliefs be observed and evaluated objectively, and make individual experience anxiety and sadness kindly.

#### **4.4 Limitations and Strengths of the Study**

Limitations of the present study might be sampling bias, self-report methodology, weaknesses of the instrument for experiential avoidance used in the study, cross-sectional design of the study. The sample of this present study was gathered from Middle East Technical University student sample. Therefore, the results of this present study cannot be generalized to the whole population. Furthermore, in terms of gender, the ratio of males to females was not proportionate. Female participants were twice as much as male participants. Therefore, these results should be replicated with samples which have proportionate ratios of each gender. Moreover, self-report methodology might be another limitation in terms of common method bias. However, common error was controlled prior to model tests with the test of single factor solution, and

results yielded that the common method error was not a great deal of concern for the present study. Future studies might use other ways of measurement rather than only using self-report measures. Another limitation of the study might be the psychometric property of AAQ. Nine item version of the AAQ did not yielded same results as given by American sample, and Turkish version was modified and used with 6 items. Therefore, in future studies more comprehensive version of the experiential avoidance scale should be developed for Turkish sample. Finally, the present study had a cross-sectional design, and correlational designs cannot lead to absolute interpretation about causality. Thus, future studies should test the models of the present study with longitudinal designs.

A major strength of the study was the way it was conducted. The study had adequate sample size, and allowed for participant anonymity; data collection was controlled with randomized order of scales. Middle East Technical University has a heterogeneous student sample with 40 different departments. Therefore, in this study data were gathered from wide range of the departments of Middle East Technical University. Furthermore, this study was the first study in literature which is investigating the relations between self-compassion, metacognition/experiential avoidance, depression and anxiety. Moreover, two current psychotherapy schools (Metacognitive and Functional Contextual Schools) were investigated in terms of self-compassion, and proposed models were compared with empirically alternative

models. Moreover, new directions for psychotherapy were suggested for these two psychotherapy schools with findings of the present study.

#### **4.5 Implications for the Future Research**

In this present study it was found that effects of self-compassion on anxiety and depression were mediated by experiential avoidance and metacognition. In a similar study Raes (2010) found that effects of self-compassion on anxiety mediated through worry and rumination, and effects on depression mediated through rumination. Hence, future studies should test these mediational models with different samples.

Furthermore, rather than anxiety, in future studies the model might be tested with other specific anxiety disorders and other psychopathological disorders.

Metacognitive model was tested with problematic internet use (Spada et al., 2008), alcohol use (Spada & Wells, 2005), smoking dependence (Spada et al., 2007), Parkinson's disease (Allott et al., 2005), stress symptoms (Spada et al., 2008).

Therefore models could be tested with those patient populations and other patient populations of chronic diseases. Besides individual psychological problems, this model could be tested with relationship satisfaction and couple problems. Moreover, self-compassion is an important issue for adolescent sample and the first study on self-compassion in the adolescent sample was conducted by Neff and McGehee (2010).

Therefore, self-compassion might be studied in adolescent sample in Turkey and this model might be tested in this group.

In the current study all data were gathered with self-report measures. Then, prior to model tests all indicators were forced to single factor solution in order to test the common method error. Common method error was not problem for this study; however, data gathering ways might be expanded in future studies. For example, compassionate and self-critical facial expressions might be coded, and then self-compassion of individuals could be measured with that coding manual after watching their video in which they are doing a task and failing.

Finally, this present study used a cross-sectional design. Moreover, correlational analysis with cross-sectional design cannot give absolute information about causality. Therefore, longitudinal studies can be conducted in the future. In first model, self-compassion was proposed as a context occasioning accepting behaviors and in turn leading to psychological well-being. In the second model, self-compassion was proposed as a self-knowledge which leads to less cognitive attentional syndrome and in turn leads to more psychological well-being. In future studies, for both models, two wave research design could be used in which time one psychological health variables controls the time two psychological health variables. Moreover, for testing the causal status of self-compassion, time one self-compassion might be used.

#### **4.6 Implications for Psychotherapy**

In these present models, self-compassion, health outcome variables and concepts of two current psychotherapy schools which are functional contextual behaviorist and metacognitive schools were investigated. In the first model test, self-compassion was

proposed as a context for the self in which behaviors which are relation to self, relation to private experiences (thoughts, emotions, drives, urges), relation to being human were occasioned by that context. Behaviorists formulate relation of behaviors and private events as behavior-behavior relations. Therefore, a new question was needed to proceed and this school asked the question: “What are the contingencies that lead verbal thoughts [private events] to control other forms of behavior ?” So this question leads them to a context which occasions experiential avoidance, and psychopathology. According to their proposed socio-verbal context, three main characteristics of the context were argued to lead to psychological problems (Hayes, et al., 1989). According to this context:

- Fusion: Excessive attachment to literal content of thoughts makes psychological flexibility impossible or difficult. When people fuse with their thought, they live away from the present moment and live in the past or future (Stroschal, Hayes, Wilson, & Gifford, 2004).
- Reason Giving: Overuse of the seemingly rational or logical and culturally accepted reasons for continuing to psychologically unhealthy patterns of behavior. And this overuse of reasons makes the individual less in touch with real contingencies in the world (Hayes et al. 1989).
- Control: Control characteristic was a natural result of reason giving and fusion characteristics. For example, when anxiety causes avoidance, then it is rationalized that the anxiety should be controlled. Moreover, other bad thoughts or bad private events should be controlled. This characteristic of

socio-verbal context, like other characteristics, reinforced by the verbal community (Hayes et al. 1989).

These characteristics of the socio-verbal context tap into the overidentification characteristic of self-compassion. Overidentification is a negative aspect of self-compassion in which people react to private events, try to control them and overidentify, fuse, with the private events. Therefore, in clinical settings, mindfulness training could be given for fostering a more defused and accepting attitude. Moreover, with mindfulness training reason giving characteristic of the socio-verbal context could be changed in vivo in therapy setting. For example, in mindfulness meditation exercise patient could be instructed to observe the itchiness on their nose and their thoughts or urges to scratching. Moreover, while staying with the urges to scratching they will also observe the behavior which is not scratching and standing still. With similar exercises, reason giving characteristic of the thoughts and emotions could be changed with transfer of the new associations between reason giving and urges to thoughts and emotions.

Moreover, in terms of common humanity, therapists can share their emotions and experiences without emphasizing the content but the process. Therefore with this kind of communication patients cannot contact with the context of common humanity and be inspired by the experiences of the fellow human. Further, it is already recommended by Acceptance and Commitment Therapy approach to self-disclose if



that self-disclosure will lead the patient to live a valued life (Dahl, et al., 2009).

Besides the therapist disclosures, disclosures of the prior patients could be used in the therapy settings in terms of strengthening the common humanity aspect of self-compassion. For example, at the end of therapy process of a patient, he or she might be asked to write a letter for a newcomer patient. In that letter, patients could be asked to write about their process, emotions, thoughts, behaviors and how they increased their quality of life.

Similar exercises or techniques could also be used in Metacognitive therapy; however theoretical explanations of these therapeutic implications will be different. For instance, with self-disclosure from therapists or prior patients, self-belief about common humanity and isolation would be changed. For example, when a patient think that the intrusions are fault of him, and no one else experience that kind of psychological phenomena will be more reactive to his intrusions. Moreover, he could easily be fused with his intrusions, overidentify with them and try to suppress them. As it is seen from the studies of thought suppression, the suppression is a backfiring strategy when applied to private events (Wenzlaff & Wegner, 2000). Therefore, with emphasis of common humanity patients perspective on private events could be changed. Techniques for common humanity could pave the way for mindfulness training. Because patients with lower sense common humanity would be stuck in the object mode, and always struggle with their thoughts without being able to establish their inner psychological experience and the experiences from the outer world.

Furthermore, detached mindfulness training is given at the beginning of the therapy process with attention training (Wells, 2009). Therefore, metacognitive therapy could be empowered with common humanity and self-kindness.

In the present study, self-compassion was investigated in relation to depression and anxiety with concepts of two therapy schools, which are metacognitive and functional contextual, as mediators. Results shown that self-compassion played a fundamental role in relation to psychopathology. However, it should be tested with other psychotherapy schools to see whether self-compassion is a common factor for psychotherapy or not.

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## APPENDICES

### APPENDIX A

#### DEMOGRAPHIC INFORMATION SHEET

Cinsiyetiniz : ( ) Erkek ( ) Kadın

Yaşınız :

Bölümünüz :

Sınıfınız :

Yaşamınızın çoğunun geçtiği yer:

Büyükşehir\_\_\_ (Ankara, İstanbul, İzmir) Şehir\_\_\_ Kasaba\_\_\_ Köy\_\_\_

Ailenizin gelir düzeyi:

Yüksek\_\_\_ Orta\_\_\_ Düşük\_\_\_



## APPENDIX B

### SELF-COMPASSION SCALE- TURKISH VERSION

#### Sample Items:

#### ZORLUKLAR KARŞISINDA KENDİME GENEL OLARAK NASIL DAVRANIYORUM?

Yanıtlamadan önce her bir ifadeyi dikkatle okuyunuz. Her bir maddenin sağında takip eden ölçeği kullanarak, belirtilen durumda ne kadar sıklıkla hareket ettiğinizi belirtiniz.

Her bir maddeyi kendinize göre derecelendiriniz 1 (Hemen hemen hiçbir zaman)-7 (Hemen hemen her zaman).

#### **Kendimi kötü hissettiğimde, kötü olan her şeye takılma eğilimim vardır.**

İşler benim için kötü gittiğinde zorlukların yaşamın bir parçası olduğunu ve herkesin bu zorlukları yaşadığını görebilirim.

#### **Kötü hissettiğimde, dünyada benim gibi kötü hisseden pek çok kişi olduğunu kendi kendime hatırlatırım.**

Kendimi bir şekilde yetersiz hissettiğimde kendi kendime birçok insanın aynı şekilde kendi hakkında yetersizlik duyguları yaşadığını hatırlatmaya çalışırım.

#### **Çok sıkıntılıysam, kendime ihtiyacım olan ilgi ve şefkati gösteririm**

*Development by*

Neff, K. D. (2003b). Development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 223-250.

*Translation/Adaptation by*

Deniz, M. E., Kesici, Ş., & Sümer, A. S. (2008). The validity and reliability of the Turkish version of the Self-Compassion Scale. *Social Behavior and Personality*, 36, 1151-1160.

*Contact Address:* Doç. Dr. M. Engin Deniz, Selçuk Üniversitesi Teknik Eğitim Fakültesi Eğitim Bölümü, Konya/Türkiye.

## APPENDIX C

### TURKISH VERSION OF ACCEPTANCE AND ACTION QUESTIONNAIRE

Yanıtlamadan önce her bir ifadeyi dikkatle okuyunuz. Her bir maddenin sağında takip eden ölçeği kullanarak, her bir maddenin sizin için ne kadar doğru belirtiniz. Sizden istenen, her bir ifadenin sizin için ne oranda **doğru** olduğunu yedi basamaklı ölçek üzerinde (**1 = Hiçbir Zaman Doğru Değil; 7 = Her Zaman Doğru**), ilgili rakamın bulunduğu kutucuğu işaretleyerek belirtmenizdir.

#### **Sample Items:**

Sık sık kendimi geçmişte yapmış olduğum, ve bir daha ki sefer daha farklı yapabileceğim şeyleri hayal ederken yakalarım.

#### **Kaygı kötüdür.**

Eğer sihirli bir şekilde geçmişteki acı veren tüm deneyimlerimi silebilseydim, silerdim.

#### *Development by*

Hayes, S. C., Strosahl, K. D., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., Polusny, M., A., Dykstra, T. A., Batten, S. V., Bergan, J., Stewart, S. H., Zvolensky, M. J., Eifert, G. H., Bond, F. W., Forsyth J. P., Karekla, M., & McCurry, S. M. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record, 54*, 553-578.

#### *Translation/Adaptation by*

Bayramoğlu, A. (2011). Self-Compassion in relation to psychopathology. *Unpublished Doctoral Thesis, Middle East Technical University.*

Contact address: Ali Bayramoğlu, aynagonul[at]gmail[dot]com

## APPENDIX D

### META-COGNITIONS QUESTIONNAIRE 30-TURKISH VERSION

Bu anket insanların kendi düşünceleri hakkında sahip oldukları inançları ile ilgilidir.

Aşağıda, insanların ifade ettikleri bazı inançlar listelenmiştir. Lütfen her maddeyi okuyunuz ve bu ifadeye genellikle ne kadar katıldığınızı uygun numarayı daire içine

olarak belirtiniz (1 = Hiç Katılmıyorum; 4 = Tamamen Katılıyorum).

#### **Sample Items:**

Endişelenmek gelecekte olabilecek sorunları engellememe yardımcı olur.

#### **Düşüncelerim hakkında çok düşünürüm.**

Endişe verici bir düşünceyi kontrol altına almazsam, ve sonra bu düşüncem gerçekleşirse, bu benim hatam olur.

#### **Endişelerim beni deliye döndürebilir.**

Endişelenmek yaşadıklarımla başetmeme yardımcı olur.

#### *Development by*

Wells, A., & Cartwright-Hatton, S. (2004). A short form of the Metacognitions Questionnaire: Properties of the MCQ 30. *Behaviour Research and Therapy*, 42, 385–396.

#### *Translation/Adaptation by*

Yılmaz, A. E., Gençöz, T., & Wells, A (2008). Psychometric characteristics of the Penn State Worry Questionnaire and Meta-Cognitions Questionnaire-30 and metacognitive predictors of worry and obsessive-compulsive symptoms in a Turkish Sample. *Clinical Psychology and Psychotherapy*, 15, 424-439.

*Contact Address:* Yrd. Doç. Dr. A. Esin Yılmaz, Abant İzzet Baysal Üniversitesi

Psikoloji Bölümü, Bolu/Türkiye

## APPENDIX E

### TURKISH VERSION OF BECK DEPRESSION INVENTORY

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

1. a) Kendimi üzgün hissetmiyorum.  
b) Kendimi üzgün hissediyorum.  
c) Her zaman için üzgünüm ve kendimi bu duygudan kurtaramıyorum.  
d) Öylesine üzgün ve mutsuzum ki dayanamıyorum.
2. a) Gelecekte umutsuz değilim.  
b) Geleceğe biraz umutsuz bakıyorum.  
c) Gelecekte beklediğim hiçbir şey yok.  
d) Benim için bir gelecek yok ve bu durum düzelmeyecek.
3. a) Kendimi başarısız görmüyorum.  
b) Çevremdeki birçok kişiden daha fazla başarısızlıklarım oldu sayılır.  
c) Geriye dönüp baktığımda, çok fazla başarısızlığım olduğunu görüyorum.  
d) Kendimi tümüyle başarısız bir insan olarak görüyorum.
4. a) Herşeyden eskisi kadar zevk alabiliyorum.  
b) Herşeyden eskisi kadar zevk alamıyorum.  
c) Artık hiçbirşeyden gerçek bir zevk alamıyorum.  
d) Bana zevk veren hiçbir şey yok. Herşey çok sıkıcı.
5. a) Kendimi suçlu hissetmiyorum.  
b) Arada bir kendimi suçlu hissettiğim oluyor.  
c) Kendimi çoğunlukla suçlu hissediyorum.  
d) Kendimi her an için suçlu hissediyorum.

6. a) Cezalandırıldığımı düşünmüyorum.  
b) Bazı şeyler için cezalandırılabilceğimi hissediyorum.  
c) Cezalandırılmayı bekliyorum.  
d) Cezalandırıldığımı hissediyorum.
7. a) Kendimden hoşnutum.  
b) Kendimden pek hoşnut değilim.  
c) Kendimden hiç hoşlanmıyorum.  
d) Kendimden nefret ediyorum.
8. a) Kendimi diğer insanlardan daha kötü görmüyorum.  
b) Kendimi zayıflıklarım ve hatalarım için eleştiriyorum.  
c) Kendimi hatalarım için her zaman suçluyorum.  
d) Her kötü olayda kendimi suçluyorum.
9. a) Kendimi öldürmek gibi düşüncelerim yok.  
b) Bazen kendimi öldürmeyi düşünüyorum fakat bunu yapamam.  
c) Kendimi öldürebilmeyi isterdim.  
d) Bir fırsatını bulursam kendimi öldürürdüm.
10. a) Her zamankinden daha fazla ağladığımı sanmıyorum.  
b) Eskisine göre su sıralarda daha fazla ağlıyorum.  
c) Su sıralar her an ağlıyorum.  
d) Eskiden ağlayabilirdim, ama su sıralarda istesem de ağlayamıyorum.
11. a) Her zamankinden daha sinirli değilim.  
b) Her zamankinden daha kolayca sinirleniyor ve kızıyorum.  
c) Çoğu zaman sinirliyim.  
d) Eskiden sinirlendiğim şeylere bile artık sinirlenemiyorum.
12. a) Diğer insanlara karşı ilgimi kaybetmedim.  
b) Eskisine göre insanlarla daha az ilgiliyim.  
c) Diğer insanlara karşı ilgimin çoğunu kaybettim.  
d) Diğer insanlara karşı hiç ilgim kalmadı.
13. a) Kararlarımı eskisi kadar kolay ve rahat verebiliyorum.  
b) Şu sıralarda kararlarımı vermeyi erteliyorum.  
c) Kararlarımı vermekte oldukça güçlük çekiyorum.  
d) Artık hiç karar veremiyorum.
14. a) Dış görünüşümün eskisinden daha kötü olduğunu sanmıyorum.  
b) Yaşlandığımı ve çekiciliğimi kaybettiğimi düşünüyorum ve üzülüyorum.  
c) Dış görünüşümde artık değiştirilmesi mümkün olmayan olumsuz değişiklikler olduğunu hissediyorum.  
d) Çok çirkin olduğumu düşünüyorum.

15. a) Eskisi kadar iyi çalışabiliyorum.  
b) Bir işe baslayabilmek için eskisine göre kendimi daha fazla zorlamam gerekiyor.  
c) Hangi iş olursa olsun, yapabilmek için kendimi çok zorluyorum.  
d) Hiçbir iş yapamıyorum.
16. a) Eskisi kadar rahat uyuyabiliyorum.  
b) Şu sıralar eskisi kadar rahat uyuyamıyorum.  
c) Eskisine göre 1 veya 2 saat erken uyanıyor ve tekrar uyumakta zorluk çekiyorum.  
d) Eskisine göre çok erken uyanıyor ve tekrar uyuyamıyorum.
17. a) Eskisine kıyasla daha çabuk yorulduğumu sanmıyorum.  
b) Eskisinden daha çabuk yoruluyorum.  
c) Su sıralarda neredeyse her şey beni yoruyor.  
d) Öyle yorgunum ki hiçbir şey yapamıyorum.
18. a) İştahım eskisinden pek farklı değil.  
b) İştahım eskisi kadar iyi değil.  
c) Su sıralarda istahım epey kötü.  
d) Artık hiç iştahım yok.
19. a) Son zamanlarda pek fazla kilo kaybettiğimi sanmıyorum.  
b) Son zamanlarda istemediğim halde üç kilodan fazla kaybettim.  
c) Son zamanlarda beş kilodan fazla kaybettim.  
d) Son zamanlarda yedi kilodan fazla kaybettim.

-Daha az yiyerek kilo kaybetmeye çalışıyorum. EVET ( ) HAYIR ( ) –

20. a) Sağlığım beni pek endişelendirmiyor.  
b) Son zamanlarda ağrı, sızı, mide bozukluğu, kabızlık gibi sorunlarım var.  
c) Ağrı, sızı gibi bu sıkıntılarım beni epey endişelendirdiği için baska şeyleri düşünmek zor geliyor.  
d) Bu tür sıkıntılar beni öylesine endişelendiriyor ki, artık başka birşey düşünemiyorum.
21. a) Son zamanlarda cinsel yaşantımda dikkatimi çeken birşey yok.  
b) Eskisine göre cinsel konularla daha az ilgileniyorum.  
c) Şu sıralarda cinsellikle pek ilgili değilim.  
d) Artık, cinsellikle hiçbir ilgim kalmadı.

## APPENDIX F

### TURKISH VERSION OF THE STATE-TRAIT ANXIETY INVENTORY- TRAIT FORM

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi dikkatlice okuyun, sonra da genel olarak nasıl hissettiğinizi, ifadelerin sağ tarafındaki rakamlardan uygun olanını işaretlemek suretiyle belirtin. Doğru yada yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin, genel olarak nasıl hissettiğinizi gösteren cevabı işaretleyiniz. **1 (Hiç) – 4 (Tamamiyle).**

1. Genellikle keyfim yerindedir.
2. Genellikle çabuk yorulurum.
3. Genellikle kolay ağlarım.
4. Başkaları kadar mutlu olmak isterim.
5. Çabuk karar veremediğim için fırsatları kaçıırım.
6. Kendimi dinlenmiş hissederim.
7. Genellikle sakin, kendime hakim ve soğukkanlıyım.
8. Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim.
9. Önemsiz şeyler hakkında endişelenirim.
10. Genellikle mutluyum.
11. Her şeyi ciddiye alır ve etkilenirim.
12. Genellikle kendime güvenim yoktur.
13. Genellikle kendimi emniyette hissederim.
14. Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım.
15. Genellikle kendimi hüznü hissederim.
16. Genellikle hayatımdan memnunum.
17. Olur olmaz düşünceler beni rahatsız eder.



18. Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutmam.
19. Akli başında ve kararlı bir insanım.
20. Son zamanlarda kafama takılan konular beni tedirgin eder.

## APPENDIX G

### TURKISH VERSION OF PENN STATE WORRY QUESTIONNAIRE

Her bir ifadenin sizi ne ölçüde tanımladığını, aşağıda verilen ölçekten yaralanarak değerlendiriniz ve uygun olan numarayı ilgili maddenin yanındaki boşluğa yazınız.

1	2	3	4	5
Beni hiç tanımlamıyor		Beni biraz tanımlıyor		Beni çok iyi tanımlıyor

#### Sample Items:

Herşeyi yapmaya yeterli zamanım yoksa, bunun için endişelenmem.

#### Her zaman birseyler hakkında endişeleniyorum.

Bir konu ile ilgili olarak yapabileceğim daha fazla bir şey olmadığında, artık o konu hakkında endişelenmem.

#### Yaşamakta olduğum şeyler hakkında endişeleniyor olduğumu farkederim.

Tamamen yapıp bitirene kadar tasarladığım işler hakkında endişelenirim.

#### Development by

Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990).  
Development and validation of the Penn State Worry Questionnaire.  
*Behaviour Research and Therapy*, 28, 487-495.

*Translation/Adaptation by*

Yılmaz, A. E., Gençöz, T., & Wells, A (2008). Psychometric characteristics of the Penn State Worry Questionnaire and Meta-Cognitions Questionnaire-30 and metacognitive predictors of worry and obsessive-compulsive symptoms in a Turkish Sample. *Clinical Psychology and Psychotherapy*, 15, 424-439.

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Psikoloji Bölümü, Bolu/Türkiye.

## APPENDIX H

### INFORMATION FORM FOR UNIVERSITY STUDENTS

Sayın Katılımcı;

Bu çalışma ODTÜ Klinik Psikoloji Bütünleşik Doktora Programı öğrencisi Ali Bayramoğlu'nun doktora tezi kapsamında yürütülmektedir. Bu çalışmanın amacı kişilerin psikolojik deneyimleri ve yaşadıkları olaylar hakkındaki algılarıyla ilgili bilgi toplamaktır.

Bu anket, yedi bölümden oluşmaktadır. Her bölümdeki ölçeğin nasıl cevaplanacağı konusunda ilgili bölümün başında bilgi verilmiştir. Anketin cevaplanması yaklaşık 15-20 dakika sürmekte olup herhangi bir süre kısıtlaması bulunmamaktadır.

Çalışmaya katılım tamamiyle gönüllülük esasına dayanmaktadır. Anket genel olarak, kişisel rahatsızlık verecek sorular içermemektedir. Ancak, katılım sırasında herhangi bir nedenden ötürü kendinizi rahatsız hissederseniz, cevaplama işini yarıda bırakıp istediğiniz anda çıkmakta serbestsiniz. Verdiğiniz bilgiler gizli tutulacak ve bu çalışma dışında hiçbir amaçla kullanılmayacaktır. Katılımınız için şimdiden çok teşekkür ederim.

Sorularınız için;

Ali Bayramoğlu

(e127595@metu.edu.tr)

***Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesebileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).***

İsim Soyad

Tarih

İmza

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## APPENDIX I

### CORRELATIONS AMONG VARIABLES AND INDICATORS

*Correlations among Variables and Indicators (Unabridged version of Table 7) (\*  $p < .05$ , \*\*  $p < .01$ )*

	SC	Kind	Comm	Mind	AAQ	AAQ 2	AAQ 3	AAQ 5	AAQ 7	AAQ 8	AAQ 9	POS	NEG	NEEDC	COGC	COS C	PB 1
<b>SC</b>	1.00																
<b>Kind</b>	.88**	1.00															
<b>Comm</b>	.90**	.68**	1.00														
<b>Mind</b>	.89**	.67**	.75**	1.00													
<b>AAQ</b>	-.55**	-.43**	-.52**	-.53**	1.00												
<b>AAQ2</b>	-.33**	-.30**	-.30**	-.29**	.61**	1.00											
<b>AAQ3</b>	-.34**	-.24**	-.32**	-.36**	.64**	.29**	1.00										
<b>AAQ5</b>	-.38**	-.28**	-.36**	-.39**	.49**	.20**	.21**	1.00									
<b>AAQ7</b>	-.52**	-.43**	-.51**	-.47**	.70**	.33**	.38**	.23**	1.00								
<b>AAQ8</b>	-.15**	-.12*	-.13**	-.14**	.45**	.12*	.22**	.02	.21**	1.00							
<b>AAQ9</b>	-.26**	-.19**	-.26**	-.27**	.69**	.30**	.26**	.16**	.37**	.17**	1.00						
<b>POS</b>	-.13*	-.14**	-.07	-.12**	.09	.15**	.07	.03	.21**	-.27**	.09	1.00					
<b>NEG</b>	-.56**	-.45**	-.46**	-.58**	.59**	.35**	.39**	.36**	.46**	.23**	.34**	.18**	1.00				
<b>NEEDC</b>	-.26**	-.24**	-.22**	-.23**	.42**	.28**	.27**	.18**	.27**	.14**	.33**	.30**	.47**	1.00			
<b>COGC</b>	-.18**	-.11*	-.15**	-.24**	.24**	.08	.21**	.14**	.17**	.08	.19**	.07	.26**	.18**	1.00		
<b>COSC</b>	.12*	.03	.12*	.16**	.01	.15**	-.04	-.19**	.01	.05	.04	.23**	.06	.32**	-.10	1.00	
<b>PB1</b>	-.13**	-.13**	-.08	-.14**	.13**	.19**	.09	.04	.20**	-.20**	.12*	.91**	.20**	.31**	.09	.21**	1.00

Note: SC=Self-Compassion, Kind=Self-Kindness, Comm= Common Humanity, Mind= Mindfulness, AAQ = Acceptance and Action Questionnaire, Pos= Positive Belief about Worry, Neg= Negative beliefs about uncontrollability and danger, NEEDC= Need to Control, COGC= Lack of Cognitive Confidence, COSC= Cognitive Self-Consciousness, PB= Positive Belief Parcel, NB= Negative Beliefs Parcel, NCT= Need to Control Parcel, LCC= Lack Cognitive Confidence Parcel, CSC= Cognitive Self-Consciousness Parcel, BDI= Beck Depression Inventory and Parcels, STAI= Trait Anxiety and Parcels

Table 8 (cont'd)

Correlations among Variables and Indicators (Unabridged version of Table 7) (\*  $p < .05$ , \*\*  $p < .01$ )

	SC	Kind	Comm	Mind	AAQ	AAQ 2	AAQ 3	AAQ 5	AAQ 7	AAQ 8	AAQ 9	POS	NEG	NEEDC	COGC	COS C	PB1
<b>PB2</b>	-.10*	-.12*	-.06	-.09	.04	.11*	.04	.02	.17**	-.28**	.05	.91**	.13*	.21**	.08	.15**	.73**
<b>NB1</b>	-.44**	-.36**	-.36**	-.46**	.49**	.25**	.31**	.30**	.34**	.29**	.29**	-.01	.82**	.34**	.25**	-.01	.02
<b>NB2</b>	-.50**	-.41**	-.42**	-.51**	.50**	.32**	.33**	.29**	.43**	.19**	.27**	.24**	.86**	.40**	.16**	.07	.25**
<b>NCT1</b>	-.13**	-.14**	-.10*	-.09	.30**	.27**	.21**	.03	.20**	.11*	.23**	.29**	.27**	.79**	.10	.37**	.32**
<b>NCT2</b>	-.25**	-.26**	-.20**	-.20**	.31**	.23**	.20**	.18**	.21**	.06	.23**	.23**	.38**	.82**	.14**	.22**	.22**
<b>LCC1</b>	-.15**	-.11*	-.12*	-.19**	.19**	.07	.19**	.06	.13**	.09	.14**	.05	.20**	.12*	.88**	-.07	.08
<b>LCC2</b>	-.16**	-.08	-.13**	-.22**	.22**	.06	.18**	.14**	.16**	.06	.18**	.07	.25**	.17**	.92**	-.08	.09
<b>CSC1</b>	.01	-.06	.02	.05	.10*	.24**	.07	-.12*	.08	.10*	.04	.18**	.14**	.22**	.05	.82**	.17**
<b>CSC2</b>	.07	-.01	.09	.10*	-.01	.11*	-.04	-.13**	.02	.01	.02	.23**	.11*	.31**	-.09	.90**	.19**
<b>BDI</b>	-.49**	-.43**	-.45**	-.43**	.49**	.28**	.30**	.32**	.42**	.12*	.30**	.11*	.50**	.33**	.20**	.01	.06
<b>BDI-1</b>	-.49**	-.42**	-.47**	-.43**	.53**	.29**	.34**	.34**	.46**	.14**	.34**	.06	.46**	.32**	.19**	-.04	.05
<b>BDI-2</b>	-.47**	-.43**	-.42**	-.40**	.44**	.26**	.26**	.29**	.40**	.11*	.26**	.15**	.45**	.33**	.18**	.05	.09
<b>BDI-3</b>	-.30**	-.27**	-.26**	-.28**	.29**	.19**	.19**	.22**	.22**	.06	.15**	.08	.42**	.22**	.17**	-.01	.02
<b>STAI</b>	-.68*	-.55**	-.59**	-.68**	.66**	.37**	.40**	.46**	.56**	.18**	.42**	.13**	.70**	.35**	.28**	-.06	.14**
<b>STAI-1</b>	-.11*	-.05	-.10**	-.14**	.20**	.09	.11*	.08	.16**	.13**	.14**	.07	.16**	.12*	.13**	.05	.06
<b>STAI-2</b>	-.38**	-.29**	-.30**	-.44**	.40**	.25**	.24**	.26**	.29**	.15**	.26**	.16**	.51**	.29**	.20**	-.02	.18**
<b>STAI-3</b>	-.35**	-.29**	-.27**	-.37**	.37**	.28**	.19**	.21**	.29**	.13**	.24**	.22**	.49**	.33**	.14**	.18**	.24**
<b>Gender</b>	-.13**	-.08	-.06	-.22**	.09	-.03	-.01	.03	.09	.18**	.05	-.15**	.11*	-.11*	.07	.10*	-.12*
<b>Age</b>	.12*	.07	.13**	.12*	-.11*	-.10*	-.03	-.14**	-.02	.05	-.13**	-.09	-.10*	-.09	.02	.04	-.08

Note: SC=Self-Compassion, Kind=Self-Kindness, Comm= Common Humanity, Mind= Mindfulness, AAQ = Acceptance and Action Questionnaire, Pos= Positive Belief about Worry, Neg= Negative beliefs about uncontrollability and danger, NEEDC= Need to Control, COGC= Lack of Cognitive Confidence, COSC= Cognitive Self-Consciousness, PB= Positive Belief Parcel, NB= Negative Beliefs Parcel, NCT= Need to Control Parcel, LCC= Lack Cognitive Confidence Parcel, CSC= Cognitive Self-Consciousness Parcel, BDI= Beck Depression Inventory and Parcels, STAI= Trait Anxiety and Parcels

Table 8 (cont'd)

Correlations among Variables and Indicators (Unabridged version of Table 7) (\*  $p < .05$ , \*\*  $p < .01$ )

	PB2	NB1	NB2	NCT 1	NCT 2	LCC 1	LCC 2	CSC 1	CSC 2	BDI	BDI- 1	BDI- 2	BDI- 3	STAI	STAI- 1	STAI- 2	STAI- 3
<b>PB2</b>	1.00																
<b>NB1</b>	-.05	1.00															
<b>NB2</b>	.19**	.51**	1.00														
<b>NCT1</b>	.20**	.16**	.28**	1.00													
<b>NCT2</b>	.18**	.27**	.31**	.47**	1.00												
<b>LCC1</b>	.06	.20**	.10*	.09	.09	1.00											
<b>LCC2</b>	.08	.23**	.16**	.10*	.13**	.70**	1.00										
<b>CSC1</b>	.11*	.09	.14**	.23**	.15**	-.02	-.05	1.00									
<b>CSC2</b>	.15**	.05	.12*	.34**	.21**	-.08	-.05	.62**	1.00								
<b>BDI</b>	.13*	.39**	.42**	.16**	.33**	.15**	.17**	.08	.03	1.00							
<b>BDI-1</b>	.08	.35**	.38**	.14**	.31**	.12*	.15**	.05	-.02	.90**	1.00						
<b>BDI-2</b>	.15**	.35**	.38**	.19**	.33**	.14**	.15**	.11*	.07	.92**	.76**	1.00					
<b>BDI-3</b>	.11*	.33**	.35**	.09	.22**	.12*	.15**	.06	.03	.82**	.59**	.65**	1.00				
<b>STAI</b>	.12*	.53**	.62**	.18**	.29**	.20**	.28**	.07	-.02	.66**	.63**	.61**	.49**	1.00			
<b>STAI-1</b>	.05	.08	.19**	.09	.10	.12*	.11*	.07	.03	.10*	.08	.11*	.07	.31**	1.00		
<b>STAI-2</b>	.13**	.34**	.50**	.18**	.23**	.16**	.20**	.05	-.01	.30**	.27**	.28**	.22**	.64**	.47**	1.00	
<b>STAI-3</b>	.18**	.35**	.45**	.25**	.26**	.10*	.13**	.23**	.17**	.39**	.31**	.39**	.33**	.64**	.40**	.59**	1.00
<b>Gender</b>	-.15**	.12*	.09	-.05	-.17**	.06	.09	-.07	-.10*	.06	.02	.07	.06	.17**	.11*	.11*	.10*
<b>Age</b>	-.05	-.06	-.11*	-.10*	-.05	.04	-.01	.01	.05	-.02	-.01	-.05	.03	-.09	-.08	-.09	-.09

Note: SC=Self-Compassion, Kind=Self-Kindness, Comm= Common Humanity, Mind= Mindfulness, AAQ = Acceptance and Action Questionnaire, Pos= Positive Belief about Worry, Neg= Negative beliefs about uncontrollability and danger, NEEDC= Need to Control, COGC= Lack of Cognitive Confidence, COSC= Cognitive Self-Consciousness, PB= Positive Belief Parcel, NB= Negative Beliefs Parcel, NCT= Need to Control Parcel, LCC= Lack Cognitive Confidence Parcel, CSC= Cognitive Self-Consciousness Parcel, BDI= Beck Depression Inventory and Parcels, STAI= Trait Anxiety and Parcel



## APPENDIX J

### TURKISH SUMMARY

#### GİRİŞ

##### 1. Öz-Şefkat

Gilbert'e (2005) göre zulmün zıddı olan şefkat ve öz-şefkat, asırlardır budist psikolojinin temel konusu olmuş, son yıllarda da batı psikolojisinin dikkatini çekmeye başlamıştır. Her ne kadar iki farklı psikolojinin insan çilesi ve acılarına farklı yaklaşımları olsa da öz-şefkat ikisi için de ortaktır. Günümüz batı psikolojisinde öz-şefkat için iki farklı bakış açısı vardır: Sosyal Psikolojik Yaklaşım (Neff 2003a, 2003b) ve Evrimsel Nörobilim Yaklaşımı (Gilbert, 2005, 2006, 2009). Sosyal Psikolojik Yaklaşımına göre öz-şefkat 3 ana bileşenden oluşmaktadır: Öz-nezaket, Ortak İnsanlık ve Aynagönül (Mindfulness). Öz-nezaket kişinin olumsuz deneyimler ya da başarısızlıklar yaşadıkdan sonra kendisini şiddetli bir şekilde eleştirmeden kendisine karşı nazik olabilmesidir. Ortak İnsanlık bilincinin farkında olmak ise kişinin kendisini toplumdan yalıtmadan ve kurbanlaştırmadan, yaşadığı sorunların insan olmanın bir parçası olduğunun farkında olabilmesidir. Aynagönül ise kişinin yaşadığı olumsuz duyguların dengeli bir şekilde farkında olması ve bu olumsuz duygularıyla aşırı-özdeşleşime girmemesidir (Neff, 2003a, 2003b, 2004).

Evrimsel Nörobilim Yaklaşımına göre ise (Gilbert, 2005, 2006, 2009) şefkatli olabilme insanların yardımseverlik ve altruizm gibi yetenekleri üzerinden evrilmiştir. Gilbert (2009) şefkatin çeşitli özellik ve beceriler gerektirdiğini iddia etmektedir. Şefkatli özellikler iyi-oluşa ihtimam göstermek, dertlere ve ihtiyaçlara karşı duyarlı olma, duygudaşlık (sempati), acılara dayanabilme ve acıları kabul edebilme, eşduyum (empati) ve yargılayıcı olmamadır. Ayrıca kişiler dikkatini şefkatle verme, şefkatli imgeleme ve öz-konuşma, şefkatle hissetme, davranma, akıl yürütme ve bedensel şefkat hissi yaratma gibi becerileri öğrenerek şefkat ile ilgili özelliklerini yaşama geçirebilirler (Gilbert, 2009). İyi-oluşa ihtimam göstermek kişinin kendisini yetiştirerek, destekleyerek kendi bakımını üstlenerek kendi iyi oluş halini güçlendirmesidir. Dertlere ve ihtiyaçlara karşı duyarlı olarak kişiler kendi duygu, düşünce ve fiziksel hislerine karşı daha açık hale gelirler. Kişiler hem duyarlı olma hem de duyarsız olma konusunda kendilerini eğitebilirler. Eğer kişi ortak insanlık halinin bilincinde olarak yaşadığı sıkıntıların kendisine has olmadığını ve bu sıkıntıların insan olmanın bir parçası olduğunu fark edebilirse bu kişinin kendi dert ve ihtiyaçlarına karşı duyarlı olabilmesini kolaylaştıracaktır. Duygudaşlık, diğer insanların duygularından etkilenebilmektir. Öz-şefkate ise bu, kişinin kendi duygularına karşı açık olması ve onlara karşı duyarsız olmamasıdır. Öz-şefkatli kişiler acılarının farkındadırlar fakat acılarını küçültmezler, abartmazlar, inkar etmezler ya da kendilerini kurbanlaştırmazlar. Acılara dayanabilme ve acıları kabul edebilme duyarlılığın ve duygudaşlığın ortaya çıkışı ile mümkün olan bir özelliktir. Bu özellik kişinin acıları ve duyguları ile birlikte kalabilmesi ve bu yaşantısıyla mücadele

etmekten vazgeçerek daha kabulcü olabilmesidir. Eşduyum (empati) hem duygusal bir bileşen hem de diğer insanların ne düşündükleri ve nasıl davrandıklarını anlayabilmeyi gerektiren bir özelliktir. Ayrıca, acılara dayanabilme özelliği ile iç içe geçmiş olan bu özellik, kişilerin duygularına karşı eşduyumlu olabilmesi için kişilerin duyguları ile bir arada kalabilmesini gerektirmektedir. Yargılayıcı olmama ise kişinin kendi duygularıyla, acılarıyla ve hayatın güçlükleriyle onları küçümsemeden, kötülemeden ve çarpıtmadan bağ kurabilmesidir (Gilbert, 2009).

## 2. Öz-Şefkat Araştırmalar

Akıl sağlığı ile ilgili araştırmalarda öz-şefkatin kaygı ve depresyon ile negatif korelasyona sahip olduğu bildirilmiştir (Neff, 2003a; Neff, Hsieh & Dejitterat, 2005; Neff, Kirkpatrick & Rude, 2007; Neff, Pisitsungkagarn & Hsieh, 2008).

Ayrıca öz-şefkat, öz-güven tarafından açıklanan varyans kontrol edildiğinde dahi kaygı (Neff, 2003b; Neff et al., 2007) ve depresyon (Neff, 2003a) için anlamlı bir yordayıcı olarak kalmaya devam etmiştir. Buna ilaveten öz-şefkat, olumsuz duygulanımın açıkladığı varyans kontrol edildikten sonra kaygının (Neff. et al., 2007) ve öz-eleştirisinin açıkladığı varyans kontrol edildikten sonra da kaygı ve depresyonun (Neff, 2003b) anlamlı yordayıcısı olmaya devam etmiştir. Öz-şefkatin ruminasyon ve istenmeyen düşünceleri bilinçli olarak bastırma çabaları ile negatif bir ilişki içinde olduğu da bildirilmiştir (Neff, 2003b; Neff, et al., 2007).

Raes bir çalışmasında (2010), öz-şefkat ve kaygı arasındaki ilişkiye ruminasyonun ve kaygının, öz-şefkat ve depresyon arasındaki ilişkiye ise ruminasyonun aracılık ettiğini bulmuştur. Öz-güvenden farklı olarak öz-şefkat ve narsisizm arasında

anlamli bir pozitif iliřki bildirilmemekle beraber (Neff, 2003b; Leary, et al., 2007; Neff & Vonk, 2009) öz-güvenin açıklamıř olduđu varyans kontrol edildiğinde de öz-řefkat ve narsisizm arasındaki korelasyonun sıfıra yaklařtıđı bildirilmiřtir (Neff & Vonk, 2006). Bařa çıkma becerileri açısından, öz-řefkat belirli bir özelliđi olmayan durumlar üzerinden deđerlendirdiğinde sorun çözümü odaklı bařa çıkma ile pozitif bir korelasyona sahipken (Neff, et al., 2004) akademik bařarısızlık sonrası deđerlendirildiğinde ise sorun çözümü odaklı bařa çıkma ile bir iliřki içinde olmadıđı belirtilmiřtir (Neff et al., 2005). Bu durum öz-řefkatli bireylerin deđiřtirilebilecek durumlarda sorunun çözümüne odaklanırken deđiřtirilemeyecek durumlarda duygularını ve durumu kabul etmeyi tercih edeceklerini göstermektedir (Neff, et al., 2005). Ayrıca, öz-řefkat, beř büyük kiřilik boyutu kontrol edildikten sonra dahi mutluluk, iyimserlik, bilgelik, merak, kiřisel giriřkenlik ve olumlu duygulanım gibi olumlu psikolojik iřlev ile ilgili deđiřkenlerle anlamli pozitif korelasyon göstermiřtir (Neff, Rude, & Kirkpatrick, 2007).

Tate ve arkadaşlarının deneysel çalışmasında (2007), öz-řefkat ve kötümserlik, öz-eleřtiri ve olumsuz düşünceler arasında olumsuz bir iliřki olduđu saptanmıřtır. Bununla birlikte öz-řefkati yüksek bireylerin kendi hataları olarak gördükleri deneyimler sonrasında kendilerine karřı nazik olma ve duygularını anlama konusunda daha çok çaba sarf ettikleri, kendilerinin hatası olduđunu düşünmedikleri durumlarda ise daha az özbilince iliřkin duygu (ařađılanma, utanç, sıkıntı) hissettikleri bildirilmiřtir. Ayrıca öz-řefkatin, felaketleřtirme,

kişiselleştirme ve olumsuz duygulanımla ilişkisi negatif; hipotetik olumsuz yaşam olaylarından sonra bilişsel ve davranışsal sakinlikle ise pozitif ilişki içinde olduğu rapor edilmiştir. Kısıtlayıcı ve kendini suçlayıcı yeme tarzına sahip kişilerle yapılan deneysel bir çalışmada, öz-şefkat koşulunda olan katılımcıların deney öncesi verilen ön yükleme sonrasında daha az yemek yedikleri gösterilmiştir. Ayrıca, öz-şefkat ön yük koşulunda olan kısıtlayıcılığı yüksek katılımcıların daha sonra deneyde daha az yiyerek ön yüklemeyi telafi ettikleri gözlemlenmiştir. Duygusal ve bilişsel tepkilerle ilgili olarak, sadece öz-şefkatsiz ön yükleme koşulunda olan katılımcıların yeme ile ilgili olumsuz duygu hissettikleri bildirilmiştir. Dolayısıyla öz-şefkat müdahalesinin başarılı bir şekilde katılımcıların kendileri ile ilgili olumsuz düşüncelerini azalttığı belirtilmiştir (Adams & Leary, 2007). Gilbert, Bellew, McEvan ve Gale (2007) çalışmalarında kendi kendine ilişkide şefkat, düşmanca tutum ve paranoid inançlar arasındaki ilişkiyi üniversite örneklemini üzerine araştırmışlardır. Çalışmada öz-rahatlatma ve öz-nefretin paranoid inançlarla pozitif bir ilişki içinde olduğu, öz-şefkatin olumlu yönleri (öz-nezaket, ortak insanlık hali, aynagönül) arasında sadece öz-nezaketin paranoid inançlarla anlamlı olumsuz ilişki içinde olduğu ve öz-şefkatin tüm olumsuz yönlerinin (öz-yargılama, yalıtım, aşırı özdeşleşim) paranoid inançlarla olumlu ilişki içinde olduğu belirtilmiştir. Thompson ve Waltz'ın (2007) çalışması ise son bir sene içerisinde en az bir travmatik deneyimi olan 100 katılımcı ile gerçekleştirilmiştir. Çalışmada öz-şefkati yüksek olan bireylerin travma sonrası stres kaçınması puanlarının anlamlı bir şekilde düşük olduğu bulunmuştur. Fakat bu

ilişkinin benzerinin yeniden yaşantılama ve uyarılma ile gözlenmediği belirtilmiştir. Öz-şefkati yüksek olan bireylerin yaşantısal kaçınmaları da düşük olacağından travma sonrası strese daha az yatkın olabilecekleri iddia edilmiştir. Willam, Stark ve Foster (2008) çalışmalarında öz-şefkatin akademik kaygı, motivasyon ve erteleme ile ilişkisini araştırmışlar; öz-şefkat, öz-nezaket, ortak insanlık hali ve aynagönlün akademik kaygı ile negatif ilişki içinde olduğunu belirtmişlerdir. Ayrıca düşük, orta ve yüksek öz-şefkatli üç grup arasında öz-şefkati düşük olan grubun anlamlı derecede akademik kaygı ve ertelemeye sahip olduğu, öz-şefkati yüksek olan grubun ise içsel akademik motivasyonun dışsal kazanımlara göre daha yüksek olduğu rapor edilmiştir. Dolayısıyla, içsel motivasyonun daha az akademik kaygı ve ertelemeye neden olabileceği de iddia edilmiştir. Pauley ve McPherson (2010), 6 depresyon ve 4 spesifik fobi hastasıyla öz-şefkat deneyimi ve öz-şefkatin anlamı ile ilgili niteliksel bir araştırma yapmışlardır. Hastalar öz-şefkatin iki temel niteliğinin nezaket ve eylem olabileceğini belirtmişlerdir. Ayrıca öz-şefkati anlamlı ve işlevsel bulduklarını ve öz-şefkatin kendi iyileşme süreçlerinde kendilerine yardımcı olabileceğini belirtmişlerdir. Araştırmanın bir ilginç bulgusunun ise hastalar ile uzun uzadıya şefkat üzerine mülakat yapılmasına karşın hiç bir hastanın ipucu verilmediği müddetçe öz-şefkatten bahsetmemiş olması olduğu belirtilmiştir. Bu durumun hastaların akıl sağlıklarının öz-şefkatli olabilmeleri üzerindeki etkisiyle ya da hastaların hayatlarında hiç bir zaman öz-şefkati deneyimlememeleriyle açıklanabileceği ifade edilmiştir. Öz-şefkat ve semptom şiddeti ile ilgili

farkındalığın karışık anksiyete-depresif bozukluğu durumunda yaşam kalitesi üzerindeki yordayıcı etkisi Van Dam, Sheppard, Forsyth ve Earleywine (2011) tarafından gösterilmiştir. Çalışmada öz-şefkat ve semptom şiddeti ile ilgili farkındalığın sonuç değişkenlerini (depresyon, kaygı ve yaşam kalitesi) anlamlı bir şekilde yordadığı bulunmuştur. Bununla birlikte öz-şefkatin semptom şiddeti ile ilgili farkındalığa nazaran üç kat daha fazla varyans açıkladığı bildirilmiştir. Bu sonuç, sadece farkında olmaktan ziyade kişinin farkında olduğu deneyimlerle nasıl ilişki kuracağını bilmesinin daha önemli bir yordayıcı olabileceği göstermiştir. Öz-şefkatin öz-yargılama, yalıtım ve aşırı özdeşleşim altölçekleri kaygı ve endişenin; öz-nezaket, öz-yargılama, yalıtım ve farkındalık altölçekleri ise depresyon ve yaşam kalitesinin anlamlı yordayıcıları olarak rapor edilmiştir. Öz-şefkat ve ergenler ile ilgili ilk çalışma Neff ve McGehee (2010) tarafından yapılmıştır. Çalışmada öz-şefkat, aile işlevselliği, bağlanma, anne desteği, ben merkezilik, sosyal bağlılık, kaygı ve depresyon arasındaki ilişkiler incelenmiştir. Öz-şefkatin kaygı, depresyon, kaygılı bağlanma ile olumsuz; sosyal bağlılık, güvenli bağlanma, aile işlevselliği ve anne desteği ile de olumlu bir ilişki içinde olduğu bulunmuştur. Ayrıca çalışmada öz-şefkatin, iyi-oluş ile anne desteği, aile işlevselliği, güvenli bağlanma, kaygılı bağlanma ve ben merkezilik arasında kısmi aracı rolü oynadığı da belirtilmiştir.

Öz-şefkat psikolojik müdahale olarak çeşitli çalışmalarda incelenmiştir. Gilbert ve Procter (2006) çalışmalarında şefkatli zihin eğitiminin, utancı ve öz-eleştirisini yüksek kişiler üzerindeki etkisini test etmişlerdir. 6 hasta ile yapılan bu çalışma 12

hafta 2 saatlik bir uygulama ile kontrol grubu olmaksızın test edilmiştir. Çalışma sonunda hastaların depresyon ve kaygı seviyelerinin düştüğü, kendi kendine ilişki temelinde öz-eziyet, yetersiz benlik hissi ve öz-nefret seviyelerinin düşerken öz-tatmin seviyelerinin yükseldiği gözlenmiştir. Zuroff, Kelly Ve Shapira (2008) şefkat ve direnç müdahalelerinin akne hastalarının depresyon seviyeleri üzerindeki etkisini incelemişlerdir. Şefkat eğitiminde kişilerin kendileriyle şefkatli, sıcak ve rahatlatıcı bir öz-ilişki kurmaları hedeflenirken; direnç eğitiminde güçlü, güvenli ve misilleme yapan bir öz-ilişki kurmaları hedeflenmiştir. Şefkat grubunun utanç ve cilt şikayetleri azalırken depresyon seviyeleri değişmemiş; fakat direnç grubunda hem utanç ve cilt şikayetleri hem de depresyon seviyeleri azalmıştır. Birnie, Speca, Carlson (2010) öz-şefkat ile güçlendirilmiş Aynagönül Temelli Stress Azaltımı (Kabat-Zinn, 1990) müdahalesini incelemişlerdir. Uygulama öncesinde öz-şefkatin maneviyat ile olumlu, duygudurum bozukluğu ile olumsuz bir ilişki içinde olduğu gözlenmiştir. Uygulama sonrasında katılımcıların öz-şefkat seviyeleri yükselirken stres semptomları ve duygudurum bozukluk seviyelerinin azaldığı belirtilmiştir. Uygulama sonrasında öz-şefkatin maneviyat ve aynagönül ile olumlu, stres semptomları ve duygudurum bozukluklarıyla olumsuz bir ilişki içinde olduğu rapor edilmiştir. Son olarak, Shapira ve Mongrain (2010) internet üzerinde öz-şefkat ve iyimserlik egzersizlerinin faydaları üzerine bir çalışma yürütmüşler, katılımcılardan her gün kendilerini üzen bir olayla ilgili kendi kendilerine kısa bir mektup yazmalarını istemişlerdir. Öz-şefkatli gruptakilerden kendilerine şefkat gösterir şekilde bir mektup yazmaları; iyimser gruptakilerden



ise gelecek hakkında olumlu düşünerek şimdiki kendilerine şefkatli öğütler vermeleri istenmiştir. Kontrol grubundan ise yalnız anılarını yazmaları istenmiştir. Bir hafta sonunda iki grubunda iyi-oluş hallerinin kontrol grubuna kıyasla güçlendiği ve iki grubun da üç ay boyunca daha az depresif, altı ay boyunca da daha mutlu olduğu belirtilmiştir.

### **3. Yaşantısal Kaçınma**

Diğer canlılardan farklı olarak insanlar, sadece pozitif pekiştirmenin oranını azaltan itici uyarılardan değil olumsuz olarak değerlendirdikleri belli özel yaşantılardan (örn, anılar, düşünceler, duygular) da kaçarlar (Hayes & Gifford, 1997). Bu fenomen yaşantısal kaçınma olarak adlandırılmaktadır (Hayes & Wilson, 1993). Yaşantısal kaçınma kişinin bazı özel yaşantıları deneyimlemeye karşı isteksiz olması ve bu yaşantıların yapısını, sıklığını ve bu yaşantıları tetikleyen bağlamları kasti eylemlerle değiştirmeye istekli olmasıdır (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996; Luciano, Rodrigues Valverde, & Gutierrez Martinez, 2004); sendromal bir sınıflamadan ziyade işlevsel tanısal bir boyut olarak öne sürülmüştür. İşlevsel yaklaşımın amacı davranışları psikopatolojiyi ortaya çıkaran ve muhafaza eden işlevsel süreçler olarak düzenlemektir (Hayes et al., 1996; Luciano, et al., 2004). Geleneksel davranışçı ve bilişsel terapiler yaşantısal kaçınmayı kabul etseler de, geleneksel davranışçı terapiler kaygıyla, geleneksel bilişsel terapiler de yersiz düşüncelerle savaşmayı tercih etmektedirler. Öte yandan, modern davranış terapileri [örn., Diyalektik Davranış Terapisi (Linehan,

1993), Kabul ve Sadakat Terapisi (Hayes, Stroshal, Wilson, 1999)] yaşantısal kaçınmaya merkezi bir rol vermektedirler. Ayrıca, Neimeyer (1993, akt. Hayes ve ark., 1996) modern bilişsel terapilerin özel yaşantıları kontrol etmeye çalışmak yerine olumsuz özel yaşantıları deneyimin temel bileşenleri olarak kabul etmek gerektiğini ifade etmektedir.

İlişkisel çerçeve teorisine göre (Hayes, Barnes-Holmes, & Roche, 2001) insan dilsel davranışının temeli uyaran denklidir. Örneğin, örnekleme eşleme çalışmasında gelişkin canlılara (örn., maymun, fare, güvercin) X1 (keyfi geometrik bir şekil) örnekleme olarak verildiğinde Y1 seçilmesi öğretilir. İnsanları farklılaştıran becerise ise henüz 17 aylık bir bebeğin dahi uyaranlar arasında ilişkiler türetebilmesidir (Lipkens, Hayes & Hayes, 1993). Bir üçgenin iki tarafı öğretildiğinde insanlar, diğer canlılardan farklı olarak, üçgenin her tarafı ile ilgili bilgiyi çift yönlü olarak türetebilmektedirler (Hayes, Pankey, Gifford, Batten, & Quinones, 2002). Buna ek olarak uyaran işlevlerinin transfer edilmesi ise bu durumu klinik olarak anlamlı kılmaktadır. Örneğin, hayatında daha önce hiç kedi görmemiş bir çocuk kedi ile karşılaştığında “kelime → nesne” ve “kelime → sözel isim” ilişkileri konusunda direkt olarak eğitilir. Daha sonra bu çocuk dört yeni ilişki türetir: “nesne → kelime”, “sözel isim → kelime”, “sözel isim → nesne” ve “nesne → sözel isim”. Çocuğun ilk karşılaşma sırasında kedi ile oynarken kedinin kendisini yaralaması sonucu “kedi” isimli bu canlıdan kaçması beklenen bir durumdur. Daha sonrasında, annesi “Bak ! Kedi!” dediğinde çocuk, daha önce

“Bak ! Kedi!” cümlesinin mevcudiyetinde kötü bir deneyim yaşamamış olsa dahi kaçıp ağlayacaktır. Bu durum uyaran genellemesi ile açıklanamaz çünkü buradaki uyaranlar yapısal özellikleri nedeniyle değil, ortak üye oldukları sözel uyaran sayesinde bir araya getirilmişlerdir (Hayes, et al., 2002). İnsan dilinin çift yönlülüğü özel yaşantıların işlevlerini dönüştürmektedir. Örneğin bir travma mağduru için travma ile ilgili anılar, düşünceler bizatihi iticidir ve kişi sanki travmatik olaydan kaçtırmuşçasına bu özel yaşantılardan kaçır çünkü direkt olarak deneyimlenen orjinal travmatik yaşantının uyaran işlevleri olayın sözel betimlemesine transfer edilmiştir (Hayes & Gifford, 1997; Hayes et al., 1996). Aynı durum hayvanlar için geçerli değildir. Şok sonrasında yemek topağı alabilmesi için butonu gagalaması öğretilen bir güvercin için şoku rapor etmek, tek yönlülük nedeniyle ve yiyecek ile eşleştiği için, itici olmayacaktır (Hayes & Gifford, 1997; Hayes et al., 1996). Kısa vadeli kazançları olsa da yaşantısal kaçınmanın uzun vadede etkileri yıkıcıdır. İlişkisel Çerçeve Teorisine göre yaşantısal kaçınma ya da insan dilinin çift yönlülüğü sosyo-sözel toplumun sözel kuralları ile güçlendirilmektedir (Hayes & Gifford, 1997). Çocuklar bu kurallardan bazı özel yaşantıların bizatihi kötü olduğunu ve bu yaşantılardan kaçılması gerektiğini öğrenmektedir. Dışsal çevreye uygun olan bazı kurallar (“Odanı Topla”) iç dünyaya uygulanmaya çalışıldığında (“Kafanı Topla”) yaşantısal kaçınma ortaya çıkar. İnsanlar deneyimlerinden ziyade sözel kurallarla öğrendiklerinde çevredeki koşulların değişimine karşı daha duyarsız hale gelirler (Hayes, Brownstein, Haas, & Greenway, 1986).

Hayes ve Gifford (1997) yaşantısal kaçınmanın üç yolla psikopatolojiye işlevsel olarak katkıda bulunduğunu iddia etmektedirler. Birincisi, yaşantısal kaçınmanın sözel düzenlemesi kaçınılan ögeyi kendi içinde barındırmaktadır (örn: “X’i düşünme”) ve sözel düzenleme sebebi ile kaçınılan öge daha da ulaşılabilir hale gelebilir (Wenzlaff & Wegner, 2000). İkincisi, klasik koşullanma nedeniyle özel yaşantıların sözel olarak düzenleme çabaları başarısız olur. Son olarak, yaşantısal kaçınma işe yarıyor gibi görünse de uzun vadede ikincil problemlerle insanların yaşamlarını kısıtlar.

#### **4. Yaşantısal Kaçınma: Araştırma**

Yapılan çalışmalarda yaşantısal kaçınma ve depresif semptomlar arasındaki bağıntı değeri .37 ile .77 arasında değişmiştir. Ayrıca, yaşantısal kaçınma ve kaygı arasındaki bağıntı değeri .16 ve .76 arasında değişmiştir (Ruiz, 2010). Yaşantısal kaçınma ve psikopatoloji arasındaki ilişki bir çok çalışmada rapor edilmiştir. Stewart, Zvolevsky ve Eifert (2002) yaşantısal kaçınmanın içki içerek başa çıkma ve kaygı duyarlılığı arasında aracı olduğunu belirtmiştir. Orcutt, Pickett ve Pope’un (2005) çalışmasında yaşantısal kaçınma kişiler arası travmatik yaşantılar ve travma sonra stress bozukluğu (TSSB) semptomları arasında kısmi olarak aracılık etmiştir. Ayrıca yaşantısal kaçınma, potansiyel travmatik yaşantıların sayısı ve TSSB semptomlarının şiddeti kontrol edildikten sonra bile birden fazla travmatik deneyim yaşamış kişilerin depresyon, kaygı ve somatizasyon semptomlarını açıklayabilmiştir (Tull, Gratz Salters, & Roemer, 2004). Marx ve

Sloan'ın (2002) çalışmasında çocukluğunda cinsel istismara uğramış kişilerin genel psikolojik stresi ve yaşantısal kaçınması bu tür bir deneyimi olmayan kişilere kıyasla yüksek çıkmıştır. Ayrıca, Plousny, Rosenthal, Aban ve Follette'nin (2004) çalışmasında yaşantısal kaçınma, çocukluk-ergenlik dönemi cinsel istismar, depresyon ve genel psikolojik stres arasındaki ilişkiye kısmi olarak aracılık etmiştir. Roemer, Salter, Raffa ve Orsillo (2005) çalışmalarında yaşantısal kaçınma ve endişenin genel kaygı bozukluğu semptomatolojisinin yordayıcısı olduğunu bildirmişlerdir. Fakat ikinci çalışmalarında yaşantısal kaçınma endişe ile ilişkisiz, depresyonla ilişkili olarak rapor edilmiştir. Bu durum ikinci çalışmanın örnekleminin (N=19) küçük oluşuyla açıklanmıştır.

## **5. Üstbilgi : Yaşantısal Kaçınmaya Benzer Bir Kavram**

Yaşantısal kaçınmaya benzer olarak Wells'in üstbilişsel yaklaşımı (2000; 2009) her insanın olumsuz bilişsel deneyimleri olsa da ve hatta bu deneyimlere inansalar da herkesin uzun süreli duygusal problemler geliştirmedeğini vurgulamaktadır. Üstbilişsel yaklaşıma göre insanların "ne" düşündüğünün yanısıra duygularıyla ilgili "nasıl" düşündükleri ve onlar üzerindeki kontrolleri de önemlidir (Wells, 2009). Üstbilgi bilgi/inançlar, deneyimler ve stratejiler olarak üç sınıfa ayrılabilir (Wells 2000; 2009). Üstbilişsel bilgi açık ve örtük bilgi olmak üzere ikiye ayrılır. Açık bilgi bilinçli ve sözel olarak ulaşılabilir olan bilgidir. Örtük bilgi ise bilinçli ve sözel olarak ulaşamazdır. Üstbilişsel bilgiye ek olarak olumlu ve olumsuz olmak üzere iki üstbilişsel inanç içerik alanı vardır. Olumlu inançlar, duygusal

bozuklukları devam ettiren ve olumsuz düşünceleri güçlendiren tepkilerin faydaları ve avantajları ile ilgilidir. Olumsuz inançlar ise psikolojik olayların kontrol edilemezliği, tehlikesi, önemi ve anlamı ile ilgilidir (Wells, 2009). Üstbilişsel deneyim ise ruhsal durumun bilinçli ve durumsal olarak etiketlenmesi ve yorumlanmasıdır. Örneğin, bilişsel deneyimlerin yanlış yorumlanması ve endişe ile ilgili endişelemek üstbilişsel deneyim olarak düşünülebilir (Wells, 2009). Üstbilişsel stratejiler duygusal ve bilişsel öz-denetim amacıyla bilişsel sisteme verilen tepkilerdir. Üstbilişsel stratejiler bilişsel deneyimleri bastırmayı, şiddetlendirmeyi ve doğalarını değiştirmeyi hedefleyebilir (Wells, 2000; 2009). Üstbilişsel yaklaşıma göre düşünceler ve inançlar nesne ve üstbilişsel olmak üzere iki farklı modda deneyimlenebilir. Nesne modunda insanlar düşünce ve inançlarını dünyanın ve benliklerinin direkt deneyimiymişcesine deneyimlerler. Öte yandan, üstbilişsel modda insanlar, bilinçli bir şekilde düşüncelerini özel yaşantılar olarak benliklerinden ve dünyadan bağımsız olarak gözlerler (Wells, 2009).

## **6. Üstbiliş: Araştırma**

Literatürde, üstbilişsel inançların obsesif kompulsif semptomlar (örn., Hermans, Martens, De cort, Pieters, & Elen, 2003; Wells & Papageorgiou, 1998), patolojik endişe ve hipkondriya (örn., Boumann & Meijer, 1999), alkol problemleri (örn., Spada & Wells, 2005), halüsinasyonlara yatkınlık (örn., Morrison, Wells & Nothard, 2002), depresyon (Papageorgiou & Wells, 2003), sorunlu internet

kullanımı (Spada, Langston, Nikcevic, & Monetai, 2008), sigara bağımlılığı (Spada, Nikcevic, Moneta, & Wells, 2007) ve Parkinson hastalığı (Allott, Wells, Morrison & Walker, 2005) ile ilişkili olduğu rapor edilmiştir. Buna ilaveten literatürde üstbiliş aracı değişken olarak da incelenmiştir: Örneğin, duygular ve sigara bağımlılığı arasındaki ilişkide üstbilişin aracı rolü Spada ve arkadaşları (2007) tarafından araştırılmıştır. Çalışmada olumlu inançlar, tehlike ve kontrol edilemezlik, bilişel güvenin eksikliği ile ilgili üstbilişsel inançların sigara bağımlılığı ile pozitif bir ilişki içinde olduğu ve genel üstbilişsel gizil değişkeninin ise duygular ve sigara bağımlılığı arasında kısmi aracı rolü oynadığı belirtilmiştir. Bir başka çalışmada ise genel üstbilişsel gizil değişkenin olumsuz duyguların sorunlu internet kullanımı üzerindeki etkisine üstbilişin aracılık ettiği belirtilmiştir (Spada ve ark., 2008). Literatürde, öncü sonuçlar üstbilişin nedensellik teşkil eden durumunu desteklemektedir (örn., Nassif 1999; Yılmaz, Gençöz, & Wells 2007a). Nassif'in çalışmasında (1999 akt. Wells, 2009), genel kaygı bozukluğunun gelişimi bir kaç hafta öncesinde kontrol edilemezlik ve tehlike ile ilgili olumsuz üstbilişsel inançlarla yordayabildiği belirtilmiştir. Ayrıca, Yılmaz ve arkadaşları (2011) stresli yaşam olaylarının ötesinde üstbilişsel inançların 6 ay sonraki depresyon ve kaygı semptomlarını yordayabildiğini belirtmişlerdir. Son olarak, Yılmaz ve arkadaşları (2007b), ruminasyon ile ilgili olumlu ve olumsuz üstbilişsel inançların üstbilişsel depresif semptomların varyansını açıklarken işlevsel olmayan tutumların depresyonda anlamlı bir varyans açıklayamadığını belirtmişlerdir. Sonuçlar,

üstbilişin, bilişsel içeriğe nazaran, depresyona daha çok katkısı olduğu fikrini desteklemektedir.

## **7. Araştırmanın Amaçları**

Bu araştırmanın amacı öz-şefkat ve psikopatoloji arasındaki ilişkinin yaşantısal kabul ve üstbilişsel faktörler gibi psikolojik kabul aracı değişkenleri ile birlikte incelenmesidir. İlk olarak Kabul ve Eylem Ölçeğinin (Hayes, Strosahl, Wilson, Biesset, Toarmino ve ark., 2004) psikometrik özellikleri incelenecektir. Daha sonra öz-şefkatin depresyon ve kaygı ile olan ilişkisi yaşantısal kaçınma ve üstbilişsel faktörler gibi aracı değişkenlerle birlikte incelenecektir. Öz-şefkatin depresyon ve kaygı ile olumsuz bir ilişki içinde olacağı beklenmektedir. Ayrıca Öz-şefkatin üstbilişsel faktörler ve yaşantısal kaçınma ile de olumsuz bir ilişki içinde olacağı beklenmektedir. Dolayısı ile üstbilişsel faktörler ve yaşantısal kaçınmanın depresyon ve kaygı ile olumlu bir ilişki içinde olacağı beklenmektedir. Aracı değişkenli modele göre öz-şefkatin, daha şefkatli bir bağlama ortam hazırlayarak, kişilerin özel yaşantılarına nazik, kabul edici ve aynagönüllü bir şekilde yaklaşmalarını sağlayacağı öne sürülmektedir. Dahası, gözleyici bakış açısı ve olumsuz yaşam olayları ve deneyimlerinin insan olma halinin ortak paylaşımı olduğunun anlaşılmasıyla da bireyin psikolojik kabulü yükselirken yaşantısal kaçınmalarının düşeceği ve kabul ile birlikte, bireylerin iyi-oluşlarının daha da artacağı beklenmektedir.



## 8. Yöntem

**Katılımcılar:** 434 üniversite öğrencisi çalışmaya katılmıştır. 216 katılımcıya anketler psikoloji ve bilişim sistemleri bölümlerinin derslerinde kağıt kalem formatında uygulanmıştır. Diğer 218 katılımcı ise anketleri internet ortamında doldurmuşlardır. Çeşitli bölümlerin öğrencilerinden oluşan örneklemin % 67.3'ü kadın, % 32.7'si erkek olup katılımcıların yaş ortalaması 22.23'tür. Katılımcılarla ilgili bilgiler Tablo 1'de verilmiştir.

**Gereçler:** Araştırma anketi iki bölümden oluşmaktadır. Birinci bölüm olan demografik bilgi kağıdı, katılımcıların yaşı, cinsiyeti, bölümü, doğdukları ve yaşadıkları yerle ilgili soruları kapsamaktadır. İkinci bölüm ise 5 ölçekten oluşmaktadır. Öz-Anlayış Ölçeği (Deniz ve ark., 2008) olarak dilimize çevrilen öz-şefkat ölçeği Neff (2003b) tarafından geliştirilmiş olup 26 maddelik likert tipi bir ölçektir. Ölçek dilimize iki farklı araştırmacı grubu tarafından çevrilmiştir. Öveç ve arkadaşları (2007) ölçeği altı faktör olarak birinci düzen doğrulayıcı faktör analiziyle incelemiş, Deniz ve arkadaşları (2008) ise ölçeği açımlayıcı faktör analizi ile tek faktör üzerinden değerlendirmişler ve bu çalışmada ölçekteki iki madde düşük faktör yükleri nedeniyle atılmıştır. Bu çalışmada tek faktör üzerinden değerlendirilen ve geçerlilik çalışmaları yapılan Deniz ve arkadaşlarının (2008) Öz-Anlayış Ölçeği kullanılmıştır. Kabul ve Eylem Ölçeği ise tek faktörlü ve likert tipi

dokuz sorudan oluşan, ilişkisel çerçeve teorisi temelli bir yaşantısal kaçınma ölçeğidir (Hayes ve ark. 1996; Hayes ve ark. 2001). Kabul ve Eylem ölçeği daha önce Hollandaca (Boelen & Reijntjes, 2008) ve İspanyolcaya (Mairal, 2004) çevrilmiş ve ölçeğin hem Amerikan (Hayes ve ark. 1996) hem de diğer ülkelerdeki (Boelen & Reijntjes, 2008; Mairal, 2004) örneklemelerde geçerlilik ve güvenilirliği kontrol edilmiştir. Bu ölçek bu çalışmada ilk kez Türk örnekleme ile birlikte kullanılacaktır. Üst-Biliş Ölçeği 30, Cartwright-Hatton ve Wells tarafından 1997 yılında geliştirilen 65 maddelik ölçeğin yine aynı kişiler tarafından kısaltılmış 30 likert tipi maddeden oluşan versiyonudur. Ölçek, endişe ile ilgili olumlu inançlar, kontrol edilemezlik ve tehlike ile ilgili olumsuz inançlar, bilişsel güven, düşünceleri kontrol edememenin sonuçları ile ilgili olumsuz inançlar ve bilişsel öz bilinçlilik şeklindeki beş faktörden oluşmaktadır. Ölçeğin bugüne kadar çeşitli araştırmacılar tarafından patolojik endişeden (Wells & Papageorgiou, 1998) işitsel halüsinasyona (Morrison, Wells, & Nothard, 2000) pek çok çalışmada patoloji ile olumlu ilişkide olduğu rapor edilmiştir. Ölçeğin Türkçe versiyonunun geçerlilik ve güvenilirlik çalışmaları Yılmaz, Gençöz ve Wells tarafından 2008 yılında tamamlanmıştır. 1978 yılında Beck, Rush, Shaw ve Emery tarafından geliştirilip 1997 yılında Savaşır ve Şahin tarafından Türkçeye adapte edilen 21 maddelik Beck Depresyon Ölçeği, katılımcıların depresyon seviyelerini ölçmek için ankete dahil edilmiştir. Kişilerin kaygı düzeylerini ölçümlenmek amacıyla ise Durumluk-Sürekli Kaygı Envanterinin (Spielberger ve ark. 1970; Öner &

LeCompte, 1985) 20 maddelik Sürekli Kaygı Envanteri kullanılmıştır. Son olarak da, Kabul ve Eylem ölçeğinin geçerlilik testinde kullanılmak üzere, sürekli endişe düzeyini ölçmeyi hedefleyen, likert tipi 16 maddelik tek faktörlü Penn State Endişe Ölçeği (Meyer, Miller, Metzger, & Borkovec, 1990; Yılmaz, Gençöz & wells, 2008) kullanılmıştır.

**Prosedür:** Uygulama öncesinde araştırma ile ilgili bilgi ve araştırmada kullanılacak gereçler Orta Doğu Teknik Üniversitesi (ODTÜ) Sosyal Bilimler Entitüsü Etik Komitesine sunularak komitenin onayı alınmıştır. Anketler uygulanacak sınıfın eğitmeninden alınan izin sonrasında araştırmacı tarafından dersin ilk 20 dakikasında uygulanmıştır. Katılımcılar katılımları için bonus puanlar almışlardır. Bilgisayar tabanlı versiyonunu dolduran öğrencilere ise çevrimiçi sosyal ağ sitelerinden ve e-posta yolu ile araştırmanın bağlantısının ODTÜ öğrencilerinin diğer ODTÜ öğrencileri ile paylaşması ile ulaşılmıştır. Çalışmadan önce Kabul ve Eylem ölçeği iki dilli bir İngilizce dilbilgisi öğretmeni ve bir de araştırmacı tarafından Türkçeye çevrilmiştir. Uygulama öncesinde çevrilen ölçek 2 psikolog tarafından kontrol edilmiştir.

**Veri Analizi:** Veri analizi SPSS 13.0 ve Lisrel 8.80 programlarıyla yapılmış ve tespit edilen 15 kayıp vaka araştırmadan çıkartılarak son tahlilde örneklem büyüklüğü 419 olmuştur. Çalışmada tek ve çok değişkenli aykırı değerler tespit edilmemiş, normallik ile ilgili varsayımlar karşılanmıştır. Daha sonra iki

örneklem (kağıt-kalem ve internet) depresyon, kaygı, öz-şefkat, yaşantısal kaçınma ve üstbilis puanlarının denkliği açısından bağımsız t-testlerle test edilmiştir. Esas analiz öncesinde öz-şefkat ve yaşantısal kaçınma ile ilgili ölçekler faktör yapısı doğrulayıcı faktör analiziyle test edilmiş, ayrıca test tekrar test güvenilirlikleri, iç tutarlılıkları ve eşzamanlı geçerlilikleri çalışmadaki diğer değişkenler de kullanılarak test edilmiştir. Son olarak, bir dizi yapısal eşitlik modellemeleri ile aracı değişkenli modeller kullanılarak öz-şefkat ve psikolojik iyi-oluş arasındaki ilişki, yaşantısal kaçınma ve üstbilis faktörlerin aracı rolleri ile birlikte test edilmiştir.

## 9. SONUÇLAR

**Kabul ve Eylem Ölçeğinin (KEÖ) Psikometrik Özellikleri:**419 katılımcıdan oluşan örnekleme dayanılarak doğrulayıcı faktör analizi ile tek faktörlü model test edilmiştir. Tüm değişkenler arasında hiç bir korelasyonun olmadığını iddia eden bağımsızlık modeli kolayca reddedilmiştir. Tüm madde yükleri istatistiki olarak anlamlı bulunmuş, fakat model zayıf uyum değerleri göstermiştir. Daha sonrasında negatif yük alan 4. madde ve en düşük yüke sahip olan 1. ve 6. maddeler ölçekten atılarak analiz tekrar edilmiştir. 6 maddeli ölçek iyi uyum değerleri göstermiş ve analizde 6 madde olarak kullanılmıştır. Ölçeğin güvenilirliği açısından ölçek maddelerinin düzeltilmiş madde-toplam korelasyonları .20'nin üstünde bulunmuştur. Ayrıca ölçeğin 3 haftalık test tekrar test korelasyonu, iç tutarlılık katsayısı ve iki-yarı güvenilirliği kabul edilebilir düzeylerde bulunmuştur. Ayrıca

ölçeğin çakışmalı geçerliliğini test etmek amacıyla KEÖ ve sürekli kaygı, depresyon, üstbilişsel faktörler, sürekli endişe arasındaki korelasyonlara bakılmıştır. KEÖ, üstbilişsel faktörlerden bilişsel öz bilinçlilik ve olumlu inançlar faktörleri dışında tüm değişkenlerle ortadan güçlüye doğru olumlu bir korelasyona sahip olmuştur. Kısmi korelasyon açısından ise KEÖ, sürekli endişenin açıkladığı varyans kontrol edildiğinde depresyon ve sürekli kaygı ile, üstbilişsel faktörlerin açıkladığı varyans kontrol edildiğinde ise sürekli endişe, depresyon ve sürekli kaygı ile anlamlı ve olumlu bir korelasyona sahip olmuştur.

**Öz-Şefkat Ölçeğinin (ÖŞÖ) Psikometrik Özellikleri:** 419 katılımcıdan oluşan örnekleme dayanılarak 24 maddeden oluşan ÖŞÖ'nün doğrulayıcı faktör analizi ile birinci düzende birbirleriyle ilişkili altı faktörlü, ikinci düzende ise tek kapsayıcı faktör yapısı test edilmiştir (bkz. s.64). İlk analizde tüm faktör yükleri anlamlı olsa da varsayılan model zayıf uyum değerleri vermiştir. Bunun üzerine daha iyi uyum değerleri elde etmek amacıyla yapılan değişimlerde çeviri hatası bulunan 20. madde çıkarılmış ve her faktörde bulunan madde sayısının dengelenmesi için ÖŞÖ'nün 12 maddelik kısa formunda (Raes ve ark., baskıda) yer alan maddeler ve en yüksek yükü alan maddelerden oluşan ÖŞÖ'nün 18 maddelik değiştirilmiş sürümü oluşturulmuştur. Yapılan ikinci analizde değiştirilmiş modelde de tüm faktör yükleri anlamlı bulunmuş ve model kabul edilebilir uyum değerleri vermiştir. İkinci düzen doğrulayıcı faktör analizinde birinci düzendeki altı faktörü kapsayan tek bir ikinci düzen faktörü olan öz-şefkat

faktörü test edilmiştir. İkinci düzen doğrulayıcı faktör analizi kabul edilebilir uyum değerleri vermiştir. Neff (2003) tarafından rapor edilen ikinci düzen doğrulayıcı faktör analizi uyum değerleri ile bu çalışmada rapor edilen değerlerin paralel olduğu rapor edilmiştir. Ölçeğin güvenilirliği açısından ölçek maddelerinin düzeltilmiş madde-toplam korelasyonları .20'nin üstünde bulunmuştur. Ayrıca ölçeğin 3 haftalık test tekrar test korelasyonu, iç tutarlılık katsayısı ve iki-yarı güvenilirliği kabul edilebilir düzeylerde bulunmuştur. Ayrıca ölçeğin çakışmalı geçerliliğini test etmek amacıyla ÖŞÖ ve sürekli kaygı, depresyon, üstbilişsel faktörler, sürekli endişe arasındaki korelasyonlara bakılmıştır. ÖŞÖ bilişsel özbilinçlilik hariç tüm üstbilişsel faktörler, depresyon ve sürekli kaygı ile anlamlı ve olumsuz, bilişsel özbilinçlilik ile anlamlı ve olumlu bir ilişki içinde olmuştur. Kısmi korelasyon açısından ise ÖŞÖ, sürekli endişenin açıkladığı varyans kontrol edildiğinde depresyon ve sürekli kaygı ile, üstbilişsel faktörlerin açıkladığı varyans kontrol edildiğinde ise sürekli endişe, depresyon ve sürekli kaygı ile anlamlı ve olumsuz bir korelasyona sahip olmuştur.

**Yapısal Regresyon, Öz-Şefkat ve Psikolojik İyi-Oluş:** Baron ve Kenny'nin (1986) aracı değişken testi ile ilgili birinci koşulunu test etmek amacıyla model testleri öncesinde öz-şefkatin yordayıcı, kaygı ve depresyonun ise sonuç değişkenleri olduğu direkt etki modeli test edilmiştir. İlk olarak ölçüm modeli test edilmiştir ve model iyi uyum değerleri vermiştir, ayrıca tüm faktör yükleri anlamlı bulunmuştur. Cinsiyet ve Depresyon gizil değişkenleri dışında tüm gizil

değişkenler arasındaki korelasyonlar anlamlı bulunmuştur. Yapısal modelden önce, ortak yöntem varyansı ithimali üzerine test edilen Tek Faktör Harman Model ise kolaylıkla reddedilmiştir. Yapısal model (bkz. Şekil 5) test edildiğinde ise iyi uyum değerleri vermiştir. Öz-şefkat kaygı ve depresyon gizil değişkenlerini anlamlı olarak yordamıştır.

**Model Testi 1, Yaşantısal Kaçınma:** Önerilen tam aracılı modelde (bkz. Şekil 6) öz-şefkat yaşantısal kaçınmayı (aracı değişken) olumsuz olarak yordamakta ve aracı değişken de sonuç değişkenleri olan depresyon ve kaygıyı olumlu olarak yordamaktadır. Ayrıca bu ve diğer tüm modellerde, sadece kaygı gizil değişkeninin göstergeleriyle korale olan cinsiyet değişkeni ile kaygı gizil değişkeni arasına direkt bir yol eklenmiştir. Bu ve diğer model testleri üç basamaklı olarak gerçekleştirilmiştir. Birinci basamakta ölçüm modeli, ikinci basamakta yapısal model test edilmiş ve son basamakta ise önerilen model doyum modeli ve sadece direkt etki modeli gibi alternatif ampirik modellerle karşılaştırılmıştır. Ölçüm modeli test edilmiş ve tüm faktör yükleri anlamlı çıkan model iyi uyum değerleri vermiştir. İkinci basamakta yapısal model iyi uyum değerleri vermiştir. Aracı değişken yordayıcı değişken tarafından anlamlı ve olumsuz olarak yordanırken sonuç değişkenlerini anlamlı ve olumlu olarak yordamıştır. Üçüncü basamakta ilk olarak doyum, ya da kısmi aracılı, modeli test edilmiş ve model iyi uyum değerleri vermiş olmasına karşın önerilen modelle karşılaştırıldığında doyum modeli anlamlı bir şekilde gelişmemiştir. İkinci olarak

sadece direkt etki modeli test edilmiş ve model iyi uyum değeri vermiştir. Sadece direkt etki modelinin önerilen modelle karşılaştırıldığında ise önerilen modele nazaran anlamlı olarak gelişkin olmadığı bulunmuştur.

**Model Testi 2, üstbilişsel Faktörler:** Önerilen tam aracılı modelde (bkz. Şekil 11) öz-şefkat aracı değişkenler olan üstbilişsel faktörleri (endişe ile ilgili olumlu inançlar, endişe ile ilgili olumsuz inançlar, bilişsel güven eksikliği, kontrol ihtiyacı ve bilişsel özbilinçlilik) olumsuz olarak yordamakta ve aracı değişkenler de sonuç değişkenleri olan depresyon ve kaygıyı olumlu olarak yordamaktadır. Ölçüm modeli test edilmiş ve tüm faktör yükleri anlamlı çıkan model iyi uyum değerleri vermiştir. İkinci basamakta yapısal model kabul edilebilir uyum değerleri vermiştir. Bilişsel özbilinçlilik dışındaki tüm aracı değişkenler yordayıcı değişken tarafından anlamlı ve olumsuz olarak yordanmıştır. Sonuç değişkenleri ise sadece endişe ile ilgili olumsuz inançlar ve kontrol ihtiyacı aracı değişkenleri tarafından anlamlı ve olumlu olarak yordanmıştır. Bu modelde birden fazla aracı değişken olduğu için model karşılaştırmalarının öncesinde sadece anlamlı aracı değişkenlerin modelde kaldığı kırılmış model test edilmiş ve bu model iyi uyum değerleri vermiştir. Dördüncü basamakta ilk olarak doyum, ya da kısmi aracılı, modeli test edilmiş ve model iyi uyum değerleri vermiş olup önerilen modelle karşılaştırıldığında doyum modeli anlamlı bir şekilde gelişmiştir. İkinci olarak sadece direkt etki modeli test edilmiş ve model iyi uyum değeri vermiştir. Sadece direkt etki modeli önerilen modelle karşılaştırıldığında ise önerilen modele nazaran alternative modelin anlamlı olarak gelişkin olduğu bulunmuştur.



**Model Testi 3, Üstbiliş:** Önerilen tam aracılı modelde (bkz. Şekil 6) öz-şefkat toplam üstbiliş faktörünü (aracı değişken) olumsuz olarak yordamakta ve aracı değişken de sonuç değişkenleri olan depresyon ve kaygıyı olumlu olarak yordamaktadır. İlk olarak ölçüm modeli test edildiğinde üstbiliş gizil değişkeninin göstergelerinden biri olan bilişsel öz bilinçlilik değişkeninin faktör yükünün anlamsız olması dolayısıyla modelden çıkartılmıştır. Daha sonra ölçüm modeli tekrar test edilmiş ve tüm faktör yükleri anlamlı çıkan model iyi uyum değerleri vermiştir. İkinci basamakta yapısal model iyi uyum değerleri vermiştir. Aracı değişken yordayıcı değişken tarafından anlamlı ve olumsuz olarak yordanırken sonuç değişkenlerini anlamlı ve olumlu olarak yordamıştır. Üçüncü basamakta ilk olarak doyum, ya da kısmi aracılı, modeli test edilmiş ve model iyi uyum değerleri vermiş olup önerilen modelle karşılaştırıldığında doyum model anlamlı bir şekilde gelişmiştir. İkinci olarak test edilen sadece direkt etki modeli test edilmiş ve model iyi uyum değeri vermiştir. Sadece direkt etki modeli önerilen modelle karşılaştırıldığında ise önerilen modele nazaran alternatif modelin anlamlı olarak gelişkin olduğu bulunmuştur. Fakat yapılan karşılaştırmada sadece direkt etki modelinin yine bir aracı değişkenli model olan doyum modelinden anlamlı biçimde daha gelişkin olmadığı saptanmıştır.

## **10. TARTIŞMA**

Çalışma sonuçları genel olarak gözden geçirildiğinde ilk olarak, yaşantısal kaçınma ile ilgili KEÖ'nin öz-şefkat ile olumsuz; depresyon, kaygı, bilişsel özbilinçlilik ve endişe ile ilgili olumlu inançlar hariç diğer üstbilişsel faktörlerle olumlu bir ilişki içinde olduğu bulunmuştur. İkinci olarak, KEÖ'nün bu çalışmada Hayes ve arkadaşlarının (2004) 9 maddeli tek faktörlü çözümüne benzer bir sonuç ortaya çıkarmadığı görülmüş; bunun üzerine modifiye edilen KEÖ'nün Türkçe sürümü 6 madde ile iyi psikometrik özellikler göstermiştir. Üçüncü olarak, çalışmada öz-şefkat, sonuç değişkenleri olan depresyon ve kaygıyı anlamlı ve olumsuz olarak yordamıştır. Dördüncü olarak, yaşantısal kaçınma ve bilişsel faktörler sonuç değişkenlerini anlamlı ve olumlu olarak yordamıştır. Beşinci olarak öz-şefkatin üstbilişsel faktörler ve yaşantısal kaçınma ile olumsuz ilişki içinde olduğu bulunmuştur. Son olarak çalışmada aracı değişkenler olan yaşantısal kaçınma ve üstbilişsel faktörlerin açıkladıkları varyans kontrol edildiğinde öz-şefkat ve sonuç değişkenleri olan kaygı ve depresyon arasındaki ilişkinin zayıfladığı gözlenmiştir.

**Kabul ve Eylem Ölçeğinin Psikometrik Özellikleri:** Doğrulayıcı faktör analizi ile tek faktörlü model test edilmiştir. Tüm madde yükleri istatistiki olarak anlamlı bulunmuş olsa da model zayıf uyum değerleri göstermiştir. Daha sonrasında negatif yük alan 4. madde ve en düşük yüke sahip olan 1. ve 6. maddeler ölçekten atılarak analiz tekrar yürütülmüştür. 6 maddeli ölçek iyi uyum değerleri göstermiş ve analizde 6 maddeli hali kullanılmıştır. Ölçeğin güvenilirliği için ölçek maddelerinin düzeltilmiş

madde-toplam korelasyonları, 3 haftalık test tekrar test korelasyonu, iç tutarlılık katsayısı ve iki-yarı güvenilirliği gözden geçirilmiş ve kabul edilebilir düzeylerde bulunmuştur. Ayrıca ölçeğin çakışmalı geçerliliğini test etmek amacıyla KEÖ ve sürekli kaygı, depresyon, üstbilişsel faktörler, sürekli endişe arasındaki korelasyonlara bakılmış, ölçeğin bu değişkenlerle olan korelasyonu ortadan güçlüye doğru ve beklenen yönde (olumsuz) olmuştur.

**Öz-Şefkat Ölçeğinin Psikometrik Özellikleri:** 24 maddeden oluşan ÖŞÖ'nün doğrulayıcı faktör analizi ile birinci düzende birbirleriyle ilişkili altı faktör; ikinci düzende ise tek kapsayıcı faktör yapısı test edilmiştir. İlk analizde tüm faktör yükleri anlamlı bulunsa da önerilen model zayıf uyum değerleri vermiştir. Sonrasında iyi uyum değerleri elde etmek amacıyla yapılan değişimlerde çeviri hatası olduğu saptanan 20. madde çıkarılmış ve her faktörde bulunan madde sayısının dengelenmesi için ÖŞÖ'nün 12 maddelik kısa formunda (Raes ve ark., baskıda) yer alan maddeler ve en yüksek yükü alan maddelerden oluşan ÖŞÖ'nün 18 maddelik değiştirilmiş sürümü oluşturulmuştur. Yapılan ikinci analizde değiştirilmiş model tüm faktör yüklerinin anlamlı olmasının yanı sıra kabul edilebilir uyum değerleri vermiştir. İkinci düzen doğrulayıcı faktör analizinde birinci düzendeki altı faktörü kapsayan tek bir ikinci düzen faktörü olan öz-şefkat faktörü test edilmiştir. İkinci düzen doğrulayıcı faktör analizi kabul edilebilir uyum değerleri vermiştir. Neff (2003) tarafından rapor edilen ikinci düzen uyum değerleri ile bu çalışmada rapor edilen değerlerin paralel olduğu görülmektedir. Ölçeğin güvenilirliği için ölçek maddelerinin düzeltilmiş madde-toplam korelasyonları, 3 haftalık test tekrar test korelasyonu, iç tutarlılık katsayısı ve

iki-yarı güvenilirliği gözden geçirilmiş ve kabul edilebilir düzeylerde bulunmuştur. Ayrıca ölçeğin yakınsak geçerliliğini test etmek amacıyla ÖŞÖ ve sürekli kaygı, depresyon, üstbilişsel faktörler, sürekli endişe arasındaki korelasyonlara bakılmış ölçeğin bu değişkenlerle olan korelasyonu ortadan güçlüye doğru ve olumlu bir ilişkiye sahip olduğu bilişsel özbilinçlilik hariç diğer değişkenlerle beklenen yönde (olumsuz) olmuştur.

**Öz-Şefkat, Yaşantısal Kaçınma ve Psikolojik Sağlık:** Test edilen ilk modelde öz-şefkatin psikolojik sağlık ile ilgili değişkenler (depresyon ve kaygı) üzerindeki etkisi yaşantısal kaçınmanın aracı değişken rolüyle birlikte incelenmiştir. Yaşantısal Kaçınma, kökleri işlevsel bağlamsal davranışçı bilim felsefesine dayanan ilişkiyel çerçeve teorisi ve kabul ve sadakat yaklaşımının temel kavramıdır (Hayes et al., 1999; Törneke, 2010). Bu bilim felsefesine göre herkes belli bir bağlam içerisinde eylemde bulunur. Bu bağlam fiziksel ve mekansal olduğu kadar sosyo-sözel ya da psikolojiktir de. Dolayısıyla yaşantısal kaçınma işlevsel sınıfta gruplanacak davranışlar, psikolojik yaşantıların sebep olarak görüldüğü, psikolojik yaşantılarla kaynaşıldığı ve psikolojik yaşantıların kontrol edilmeye çalışıldığı belirli sosyo-sözel bağlamlarda ortaya çıkar (Hayes, Kohlenberg, & Melancon, 1989). Test edilen modelde farkındalığı, ortak insanlık bilinci ve öz-nezaketi yüksek olan insanların daha az yaşantısal kaçınmacı olacağı ve daha az psikolojik rahatsızlık rapor edeceği iddia edilmiştir. Model testi bu iddiayı ve tam aracılı modeli desteklemiştir. Sonuçlar öz-şefkatli bireylerin olumsuz yaşam olaylarına karşı daha fazla tahammül edebildikleri

(Tate ve ark., 2007) ve yaşantısal kaçınmalarının daha az olması sebebiyle travmatik yaşantılar karşısında TSSB'na karşı daha dayanıklı oldukları (Thompson & Waltz, 2008) gibi bilgilere paraleldir. Ayrıca Raes (2010), öz-şefkat ile depresyon arasındaki ilişkiye ruminasyonun, öz-şefkat ile kaygı arasındaki ilişkiye ise endişenin aracılık ettiğini bulmuştur. İşlevsel bakış açısından bakıldığında formları farklı olsa da endişe ve ruminasyon işlevsel olarak aynı sınıfın üyeleridir ve bu sınıf yaşantısal kaçınmadır. Dolayısıyla, Raes (2010) çalışmasında yaşantısal kaçınmanın benzer paradoksal etkisini raporlamıştır.

Bu çalışmada, literatürde ilk kez öz-şefkatin aracılı bir modelde yaşantısal kaçınma ve psikolojik sağlık ile ilişkisi incelenmiştir. Ayrıca literatürdeki diğer çalışmaların aksine sadece tam aracılı değişkenli modeli test edilmemiş önerilen model diğer alternatif ampirik modellerle kıyaslanmıştır.

**Öz-Şefkat, Üstbiliş ve Psikolojik Sağlık:** Bu çalışmada üstbilişin aracı değişkenliğinde öz-şefkatin depresyon ve kaygıyla olan ilişkisi iki ayrı modelle test edilmiştir. Birinci modelde üstbilişsel faktörler 5 farklı aracı değişken olarak modele eklenirken ikinci modelde üstbilişsel faktörler bileşik bir kavram olarak modele dahil edilmiştir. İlk modelde öz-şefkat ve kaygı bilişsel özbilinçlilik dışındaki tüm üstbilişsel faktörlerle anlamlı olarak ilişkili bulunmuştur. Ayrıca depresyon, tehlike ve kontrol edilemezlik ile ilgili olumsuz düşünceler, bilişsel güven yetersizliği ve düşünceleri kontrol etme ihtiyacıyla anlamlı olarak ilişkili bulunmuştur. Önerilen modelin yapısal model testinde öz-şefkatin ilişkili olduğu üstbilişsel faktörleri anlamlı

bir şekilde yordadığı; fakat bu üstbilişsel faktörlerden sadece depresyon ve kaygıyı anlamlı bir şekilde yordayan iki faktörün (tehlike ve kontrol edilemezlik ile ilgili olumsuz düşünceler ve düşünceleri kontrol etme ihtiyacı) aracı değişken rolü oynadığı tespit edilmiştir. Bu üstbilişsel faktörler literatürde daha önce pek çok psikopatolojiyle ilişkili bulunmuştur. Tehlike ve kontrol edilemezlik ile ilgili olumsuz düşünceler halüsinasyona yatkınlık (Morrison et al., 2000), patolojik endişe, sürekli kaygı (Wells & Papageorgiou, 1998b), obsesif kompulsif semptomatoloji (Hermans, 2003; Myers & Wells, 2005) ve stres semptomları (Roussis & Wells, 2006) için anlamlı bir yordayıcı olarak rapor edilmiştir. Ayrıca literatürde, düşünceleri kontrol etme ihtiyacı da halüsinasyonlar (Baker and Morrison, 1998), obsesif kompulsif semptomatoloji (Wells & Papageorgiou, 1998b; Gwilliam et al., 2004), sürekli kaygı (Davis & Valentiner, 2000), stres semptomları (Roussis & Wells, 2006) ve depresyon (Spada et al., 2008) için anlamlı bir yordayıcı olarak belirtilmiştir. Daha sonra anlamlı çıkmayan önerilmiş aracı değişkenlerin kırıldığı model test edilmiş ve bu model alternatif ampirik modellerle karşılaştırılmıştır. Sadece direkt etki ve doyum modelleri önerilen modele nazaran anlamlı derecede gelişkin bulunmuşlardır. Doyum modelinde öz-şefkat ve kaygı arasındaki ilişki anlamsız çıkmış ve kaygı ile öz-şefkat arasında tam aracılı model desteklenmiştir. Öz-şefkat ve depresyon arasındaki ilişkide ise öz-şefkatin depresyon üzerindeki etkisi yapısal regresyon modeli ile kıyaslandığında % 47 azalmıştır. İkinci modelde, üstbilişsel faktörler bileşik bir aracı değişken olarak modele dahil edilmiştir. İkinci model kabul edilebilir uyum değerleri sunmuş ve farkındalığı, ortak insanlık bilinci ve öz-nezaketi yüksek insanların üstbilişsel

inançlarının daha az olabileceğini önermiştir. Ayrıca model ortak insanlık bilinci, şefkat, nezaket ve farkındalık ile ilgili bilginin üstbilişsel amaç ve planların seçiminde önemli bir rol oynayabileceğini ileri sürmektedir. Literatürde ilk kez test edilen bu model diğer alternatif ampirik modellerle kıyaslanmıştır. Bu kıyaslama neticesinde de model tam aracılı önerilen modelden kısmi aracılı doyum modeline dönüştürüldüğünde modelin uyum değerleri daha da gelişmiştir. Karşılaştırmalarda direkt etki modeli ile doyum modeli tam aracılı modele göre anlamlı derecede gelişkin olsa da direkt etki modeli doyum modelinden anlamlı derece gelişkin çıkmamıştır.

**Araştırmanın Sınırlılıkları ve Güçlü Yönleri:** Araştırmanın sınırlılıkları örneklem yanlılığı, öz-bildirim metodolojisi, çalışmada kullanılan yaşantısal kaçınma ile ilgili ölçeğin zayıflığı ve çalışmanın kesitsel dizaynı olabilir. Bu çalışmanın güçlü yönlerinden biri, çalışmanın uygulanışdır. Çalışmanın örnekleminin büyüklüğü yeterlidir, katılımcıların kimlikleri gizlenmiştir ve verilerin toplanişı ölçeklerin seçkisiz olarak sıralanışıyla kontrol edilmiştir. Ayrıca, ODTÜ'nün 40 farklı bölümünün pek çoğundan veri toplanmıştır. Bu çalışma öz-şefkat, üstbiliş/yaşantısal kaçınma, depresyon ve kaygı arasındaki ilişkileri inceleyen ilk çalışma olmakla kalmayıp iki güncel psikoterapi okulunu (üstbilişsel ve işlevsel bağlamcı yaklaşımlar) öz-şefkat açısından inceleyerek önerdiği modelleri hem test edip hem de alternatif ampirik modellerle karşılaştırmıştır.

**Gelecek Arařtırmalar İin neriler:** Bu alıřma z-řefkatin depresyon ve kaygı zerindeki etkisini aracı deęiřkenlerle incelemiřtir. Buna benzer olarak Raes (2010) alıřmasında depresyon ve kaygıyı sonu deęiřkeni olarak almıřtır. Gelecekteki alıřmalarda daha farklı rneklemeler kullanılabilir. rneęin stbiliřsel modelin daha nce test edildięi sorunlu internet kullanımı (Spada et al., 2008), alkol problemi (Spada & Wells, 2005), sigara baęımlılıęı (Spada et al., 2007), parkinson hastalığı (Allott et al., 2005), stress semptomları (Spada et al., 2008) rneklemeleri ya da dięer kronik hastalık rneklemeleri kullanılabilir. Dahası bu model, bireysel psikolojik sorunların tesinde ift sorunları ve iliřki doyumunu gibi konuları da ele alabilir. Ayrıca yetiřkinlerin dıřında bu model ergenler ya da ocuklarda da test edilebilir. Bununla birlikte, ileriki alıřmalarda z-bildirim lmleri dıřında z-eleřisel ya da řefkatli yz ifadelerinin kodlanarak lmlenmesi dřnlebilir. Nedensel sonulara ulařabilmek amacıyla ileriki alıřmalarda boylamsal dizaynların korelasyonel kesit dizaynlarına tercih edilmesi gerekmektedir.



## **APPENDIX K**

### **CURRICULUM VITAE**

#### **PERSONAL INFORMATION**

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#### **EDUCATION**

<b>Degree</b>	<b>Institution</b>	<b>Year of Graduation</b>
BS	METU Psychology	2006
High School	Ankara Atatürk High School	2000

## **WORK EXPERIENCE**

<b>Year</b>	<b>Place</b>	<b>Enrollment</b>
2010 Sep- 2011 Jan	Gazi University, School of Medicine Child Psychiatry Department	Intern Clinical Psychologist
2010 Feb-2010 June	Ankara Numune Education and Research Hospital	Intern Clinical Psychologist
2008 Sep- 2009 Aug	METU Clinical Psychology Unit (UYAREM)	Psychotherapist
2008 Feb- 2008 June	METU Health and Counseling Center	Trainee Clinical Psychologist
2007 Sep- 2008 Jan	Hacettepe University School of Medicine Child Psychiatry Department	Trainee Clinical Psychologist

2007 Feb – 2007 June     Ankara University     Trainee Clinical  
   School of Medicine     Psychologist  
   Consultation Liaison  
   Psychiatry  
   Department

### **FOREIGN LANGUAGES**

Advanced English

### **PUBLICATIONS**

1. Bayramođlu, A. (2007). Dissociative identity disorder: "Psycho" and others. In F. Gençöz (Ed.), *PSinema: Psychological Disorders in Cinema and Cinematherapy* (pp. 63-109). Ankara: HYB.

### **HOBBIES**

Making stand-up comedy, playing guitar, writing songs, drawing cartoon, philosophy, cinema, owning [www.youtube.com/alibayramoglu](http://www.youtube.com/alibayramoglu) (over 143,000 hits).