The Tolerance of Uncontrollability and Psychopathology: The Roles of Maladaptive Emotion Regulation Strategies and Negative Problem Orientation

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The Tolerance of Uncontrollability and Psychopathology: The Roles of Maladaptive Emotion Regulation Strategies and Negative Problem Orientation

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To my mom and dad

ABSTRACT

Tolerance of Uncontrollability and Psychopathology: The Roles of Maladaptive Emotion Regulation Strategies and Negative Problem Orientation

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Tolerance of uncontrollability (TOU) can be defined as the ability to endure the discomfort resulting from uncontrollable events. In the absence of perceived control, people utilize strategies that regulate and enhance the inner perception of control. Repetitive negative thinking (RNT) and thought suppression (TS) are some of the strategies that give illusory control in the short-term. However, many studies revealed that these strategies increase distress in the long term. Another concept closely related to tolerance is negative problem orientation (NPO), which describes individuals' belief in self-efficacy in problem-solving. The present study aimed to explore the relationship between TOU, RNT, TS, NPO, depression, and anxiety. It was anticipated that TOU would be associated with depression and anxiety, and RNT and TS would mediate these relationships. Moreover, NPO was hypothesized to moderate the relationship of TOU with other study variables. A sample of 448 participants aged between 17 and 56 (80.4% females) completed measures assessing TOU, RNT, TS, NPO, depression, and anxiety. Findings showed that higher levels of TOU were associated with low levels of depression and anxiety, but when anxiety was controlled, the correlation with depression disappeared. While RNT was the mediator in both outcomes, TS mediated only the relationship between TOU and anxiety. NPO did not show any moderating effect, except for the relationship between TOU and anxiety. The current study emphasizes that TOU can be a concept specific to anxiety and highlights one of the mechanisms behind TOU and psychological distress.

Keywords: uncontrollability, repetitive negative thinking, thought suppression, psychological distress

ÖZETÇE

Kontrol Edilemezliğe Tolerans ve Psikopatoloji: Maladaptif Duygu Düzenleme Stratejileri ve Olumsuz Sorun Yöneliminin Rolleri

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Kontrol edilemezliğe tolerans (KET) kişilerin kontrol edilemeyen olayların sonucu olan rahatsızlık hissine katlanabilme becerisi olarak tanımlanabilir. Algılanan kontrol hissinin yokluğunda, bireyler içsel algılanan kontrol hissini düzenlemek ve arttırmak için bazı stratejiler uygularlar. Tekrarlayıcı düşünme ve düşünce bastırma kısa vadede kontrol illüzyonu yaratan stratejilerden bazılarıdır. Ancak birçok çalışma bu stratejilerin uzun vadede stresi arttırdığını göstermiştir. Tolere etme becerisine yakın olan bir diğer kavram, olumsuz sorun yönelimi, bireylerin sorun çözmedeki öz-yeterlilik inancı olarak tarif edilebilir. Bu çalışma, KET, tekrarlayıcı düşünme, düşünce bastırma, olumsuz sorun yönelimi, depresyon ve anksiyete arasındaki ilişkiyi incelemeyi amaçlamıştır. KET'in depresyon ve anksiyete ile ilişkili olması, bu ilişkide tekrarlayıcı düşünme ve düşünce bastırmanın aracı rolü oynaması beklenmiştir. Aynı zamanda, olumsuz sorun yöneliminin KET ve diğer değişkenler arasındaki ilişkiyi düzenlemesi beklenmiştir. 17-56 (80.4% kadın) yaş arası 448 kişiden oluşan örneklem KET, tekrarlayıcı düşünme, düşünce bastırma, olumsuz sorun yönelimi, depresyon ve anksiyete ölçeklerini doldurmuştur. Bulgular yüksek düzey KET'in düşük düzey depresyon ve anksiyete ile ilişkili olduğunu, ancak anksiyete kontrol edildiğinde, depresyonla ilişkinin kaybolduğunu göstermiştir. Tekrarlayıcı düşünme her iki sonuç değişkeni için de aracı değişken olurken, düşünce bastırma sadece KET ve anksiyete arasındaki ilişkide aracı değişken rolü oynamıştır. Olumsuz sorun yönelimi, KET ve anksiyete arasındaki anlamlı ilişki hariç düzenleyici değişken rolü oynamamıştır. Bu çalışma KET'in anksiyeteye özel bir kavram olabileceğini vurgulamış ve KET ile psikolojik sıkıntı arasındaki önemli mekanizmalardan birine değinmiştir.

Anahtar Kelimeler: Kontrol edilemezlik, tekrarlayan olumsuz düşünme, düşünce bastırma, psikolojik sıkıntı

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ABBREVIATIONS

EFS	Emotion-Focused Strategies
ER	Emotion Regulation
GAD	Generalized Anxiety Disorder
IU	Intolerance of Uncertainty
NMRE	Negative Mood Regulation Expectancies
NPO	Negative Problem Orientation
OCD	Obsessive Compulsive Disorder
PTSD	Post-Traumatic Stress Disorder
RNT	Repetitive Negative Thinking
TMT	Terror Management Theory
TOU	Tolerance of Uncontrollability
TS	Thought Suppression

Chapter 1:
INTRODUCTION

Transdiagnostic factors, which refer to common mechanisms observed in multiple disorders, are crucial for both research and practice in clinical psychology since they are helpful for creating roadmaps for practitioners by highlighting certain mechanisms that can be set as treatment targets (Mansell et al., 2009). As an essential advantage, transdiagnostic factors can effectively explain comorbid conditions, and interventions targeting the transdiagnostic mechanisms provide promising results regarding the treatment of psychological disorders, including comorbid conditions (McEvoy et al., 2009). Therefore, underscoring transdiagnostic risk factors will expand the knowledge about the common mechanisms shared by the different disorders and contribute to developing treatments for psychological disorders. Some of the well-studied transdiagnostic risk factors include intolerance of uncertainty (Einstein, 2014), maladaptive emotion regulation strategies (Aldao & Nolen-Hoeksema, 2010), and negative problem orientation (Fergus et al., 2015). In that sense, tolerance of uncontrollability (TOU) promises hope as a transdiagnostic factor. In the current study, the relationship between TOU and other factors and psychopathology was explored profoundly.

1.1 Ambiguity and Distress

"One fear to rule them all, one fear to find them, one fear to bring them all and in the black box bind them" (Carleton, 2016a, p. 5). As in Carleton's (2016a) statement about the fear of the unknown, discomfort towards the uncertainty, and uncontrollability are fundamental and challenging experiences for everyone. Uncertainty plays a significant role in perception of threat, attachment, and temperament (for review, see Carleton,

2016b) giving high motivation for humans to avoid it. Similarly, chasing after the feeling of control is a way of mastering the environment, satisfying need for competence (Skinner, 1996) and increasing self-efficacy (Stillman & Baumeister, 2009). Considering their significant associations with psychological distress, these constructs have been one of the central themes in psychology research (for review, see Carleton, 2016b). The role that these factors play in the development and maintenance of psychopathology has been put forward in many studies (for reviews, see McEvoy & Mahoney, 2011; Radomsky, 2022). Therefore, the individual differences in how one deals with uncertainty and uncontrollability gained significance in understanding pathways leading to psychopathology.

Concepts such as ambiguity, uncertainty, unpredictability, and uncontrollability are closely connected and need further elaboration. Starting from the broadest concept, ambiguity refers to situations that are new, uncertain, unpredictable, complex, and difficult to explain (Grenier et al., 2005). One of the elements involved in ambiguous situations, unpredictability, includes randomness and difficulty in estimating the probability regarding the features of the situation, such as time or place of occurrence (Grupe & Nitschke, 2013). Uncertainty, defined based on the ambiguity literature, explains conditions or situations that cannot be anticipated (Carleton, 2012). While ambiguity comprises the present conditions, uncertainty is described based on future-related ambiguity (Carleton, 2012). For example, a noise coming from the street *right now* can be both ambiguous (What is happening? Why?) and unpredictable, and this ambiguous situation still includes uncertainty (How will it turn out?). Apart from these concepts shaped around the ambiguous nature of the event, uncontrollability is characterized as the lack of resources that will be used to eliminate the adversities caused by the event (Carleton, 2016b). Unsurprisingly, uncontrollability and uncertainty

can be shared dimensions of the same event since both have dynamics that nurture each other. To illustrate, an undiagnosed illness is an incident that is both uncertain and beyond organisms' control. Therefore, it is crucial to notice that due to the conceptual overlap between these concepts, controllability can include implicit or explicit components of uncertainty.

Studies focusing on "uncontrollability" gained speed with the emergence of the models focusing on learned helplessness (Seligman, 1975), attribution (Heider, 1958), and locus of control (Rotter, 1966). In these earlier theories, control of the individual is defined as the impact of the individual over the environment (Rothbaum et al., 1982). This approach was revisited and expanded by Rothbaum et al. (1982), who postulated an additional mechanism beyond active control, called perceived control, in which individuals acquire a sense of control by adapting to the environment. Indeed, it was suggested that when active control is not possible, individuals attempt to regulate their internal reactions in a way that gives them a sense of control. Accumulated findings revealed that perceived control was associated with decreased anxiety and depression symptoms, physical complaints, and probable disorders such as heart disease or cancer (Reich & Infurna, 2017). Following the seminal work of Rothbaum et al. (1982), preliminary cognitive models of depression and anxiety also included the sense of uncontrollability as an essential target in psychotherapy (e.g., Barlow, 1991).

As previous theorists suggested, a situation can be appraised as "beyond control" despite the individuals' resources or can literally exceed the resources, interfering with the individuals' agency. One of the novel constructs that extends the literature is "tolerance of uncontrollability" (TOU). TOU refers to individuals' ability to tolerate discomfort in response to an event or situation that is *actually* out of the individuals' control (Hay et al., 2022). In uncontrollable situations, the affect is the combination of

many factors: the affect situation aroused, not necessarily negative, and affect aroused by the uncontrollability, uncertainty, and unpredictability, as such. For example, a reaction towards a wedding or a break-up can be determined by the combination of emotions triggered by the event, such as positive, negative, or neutral, and the emotions triggered by the individual's sense of control. TOU implies the attitudes and reactions towards the uncontrollability of the event, apart from the predictability or emotional valence. Hay et al. (2022) suggested that the construct will be closely associated with other controllability-related constructs, such as distress tolerance, locus of control, and intolerance of uncertainty (IU). However, preliminary findings demonstrated a moderate correlation between TOU and IU, a weak correlation with the locus of control, and no association with distress tolerance, indicating a notable overlap between TOU and IU. Therefore, understanding and distinguishing these two concepts became essential for the underlying mechanisms of disorders and improvement of the TOU concept.

On the other hand, intolerance of uncertainty (IU) has different conceptualizations emphasizing the distinct features of this construct, but, in basic terms, it is defined as the dispositional tendency to evaluate uncertain situations and their consequences negatively (Carleton, 2012). People with a low tolerance for uncertainty experience uncertain situations as upsetting and unfair, automatically labeling uncertain situations as negative that should be avoided, and experience problems in taking action (Buhr and Dugas, 2002). IU bears two dimensions: as "prospective IU" to explain the inability to tolerate the uncertainty of the future and "inhibitory IU" to delineate the cognitive and behavioral inhibition deriving from current uncertainty (Birrell et al., 2011). Initially, IU was perceived as a critical determinant in anxiety disorders, and especially in a clinical sample, IU was found to be associated with panic disorder and agoraphobia, GAD, social phobia, and OCD (Dugas

et al., 1998; McEvoy & Mahoney, 2011; Zemestani et al., 2022). Recent studies, on the other hand, demonstrated IU's association with depression in both clinical and community samples (Carleton, 2012; Saulnier et al., 2019) and PTSD (Fetzner et al., 2013; Raines et al., 2019). suggesting that IU is not a unique factor in anxiety but a shared factor across emotional disorders. Additionally, extant literature demonstrated that IU was related to symptoms of psychological disorders even after controlling for other trait-based and cognitive vulnerability factors, such as anxiety sensitivity (Boelen & Reijntjes, 2009), neuroticism (Boelen & Reijntjes, 2009; McEvoy & Mahoney, 2011), and metabeliefs (de Bruin et al., 2007), indicating that IU has the potential of maintaining psychological distress regardless of other factors.

In both TOU and IU, the source of the distress is generated by something about the future (especially in prospective IU; Hay et al., 2022). However, one of the crucial differences is that TOU refers to beliefs and reactions to the lack of control regardless of the uncertainty of the event (Hay et al., 2022). However, in IU, the uncertain nature of the event causes discomfort and distress (Dugas et al., 2004). To demonstrate, an expected Marmara earthquake can be a source of stress caused by the uncontrollability over the event or due to the uncertainty of the time of the occurrence (intolerance of uncertainty). However, more research is needed to explore the conceptual differences between TOU and IU, as well as other ambiguity concepts.

1.2 The Proposed Models for the Sense of Uncontrollability and Psychological Distress

Many models were proposed to explain pathways underlying the association of intolerance of uncertainty and perceived uncontrollability with psychological distress, including coping and emotion regulation styles (Barlow et al., 2021; Lazarus &

Folkman, 1984). Especially it was suggested that in uncontrollable situations, coping strategies aiming to regulate emotions will allow individuals to achieve stability and provide the opportunity to use other instruments (Folkman & Moskowitz, 2004). However, prolonged engagement with emotion-focused strategies (EFS) is deemed maladaptive since this pattern fails to change the situation, increases the isolation from the problem, and thus sustains distress (Ben-Zur, 2009). Therefore, for uncontrollable situations, individuals can benefit from EFS, but as they use them as a primary coping strategy, EFS will nurture distress and, in turn, psychological disorders.

Another explanation proposed by Barlow et al. (2021) emphasizes that the aversive reaction to uncontrollability or unpredictability determines the coping strategies. Authors defined the sense of uncontrollability as an "unhelpful belief about one's own self-efficacy to tolerate or influence personally salient events and outcomes" (Barlow et al., 2021, p. 411) that leads to aversive reactions towards events, such as intolerance of uncertainty (Sauer-Zavala & Barlow, 2021). As a result, individuals engage in emotion-motivated avoidant strategies, namely behavioral or cognitive avoidance, to escape the aversive emotional experiences. "Cognitive avoidance strategies," the main interest of this paper, are repetitive negative thinking and suppression, including thought and emotional suppression (Sauer-Zavala & Barlow, 2021). Researchers argue that after employing these strategies, people have an illusion of perceived control accompanied by short-term relief, which later fosters the utilization of this pathway in the presence of negative affect. Barlow et al. (2021) proposed this model as the basis for the development of emotional disorders (Figure 1). From a similar perspective, it can be expected that when the sense of uncontrollability cannot be tolerated, as an aversive reaction (intolerance), people will be more inclined to benefit from the cognitive avoidance strategies, which will result in emotional disorders.

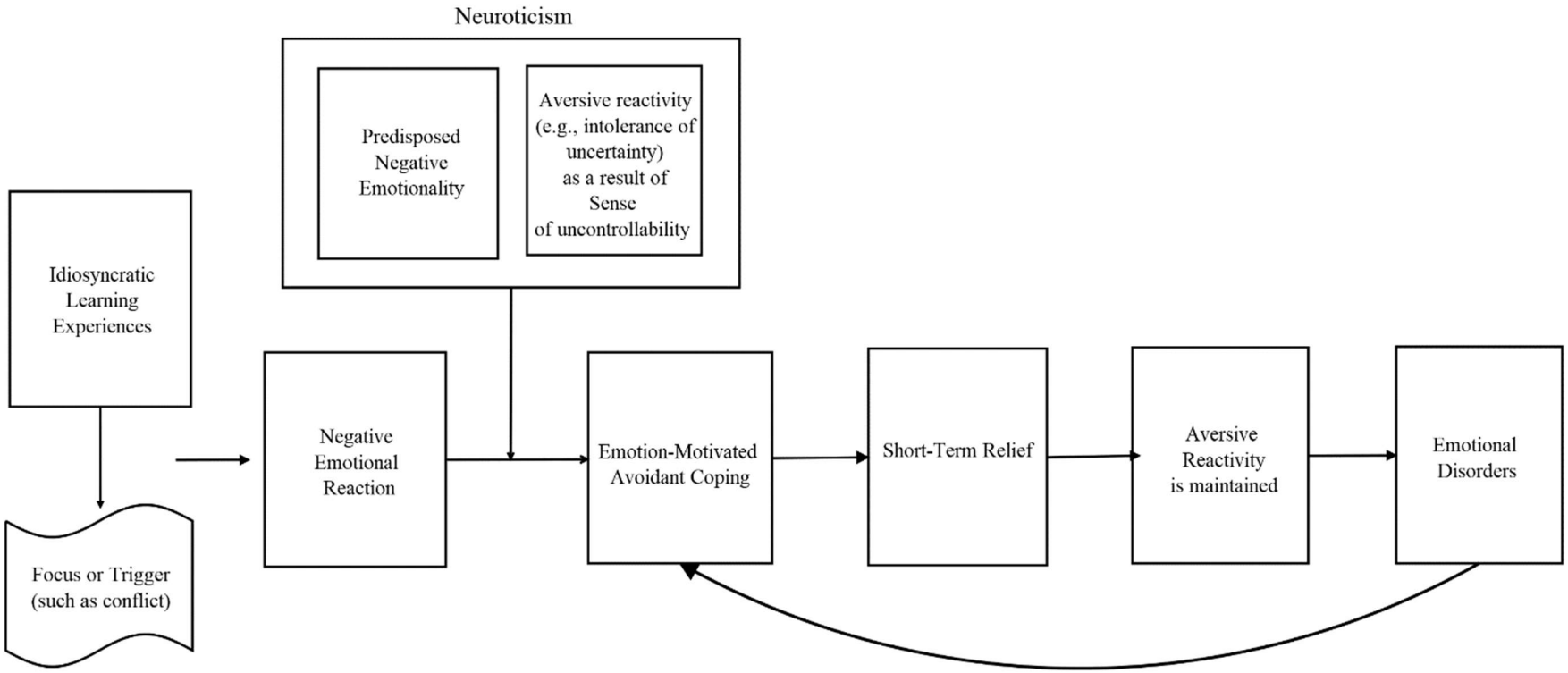

Figure 1: Barlow et al. (2021) model for emotional disorders.

Note. Adapted from Barlow et al. (2021). The reactions of people with high neuroticism when they experience negative emotions were described. Neuroticism was defined as the combination of predisposed negative emotionality and aversive reaction towards the sense of uncontrollability.

In sum, models posited the idea that how people deal with uncertain or uncontrollable situations and how long they apply that strategy fosters distress. It can also be stated that in the case of low tolerance of uncontrollability, engaging in attempts to regulate emotions for a long time actually creates distress or interacts with other risk factors.

1.3 Repetitive Negative Thinking and Controllability

Ehring and Watkins (2008) defined repetitive negative thinking (RNT) as thinking repetitively and unproductively about the adverse life events that happened or are expected to happen. RNT episodes occupy a part of the mental capacity, yet they do not provide any answer or solution, and individuals experience challenges in terminating thoughts (Ehring et al., 2011). As a form of maladaptive ER strategy, RNT has been reported as directly or indirectly influential on depression, anxiety, psychosis, eating disorders, and alcohol dependence (Luca, 2019).

Previous studies tackled RNT in the context of disorder-specific forms, such as rumination, generally observed in depression, and worry, mainly specific to affective disorders (Topper et al., 2010). Accumulated evidence showed that rumination plays a critical role in the occurrence and maintenance of depression as well as treatment response (Nolen-Hoeksema et al., 2008; Watkins, 2008). Like rumination, worry is associated with heightened depressed mood and negative affect (McLaughlin et al., 2007), and extreme levels of worry indicate generalized anxiety disorder (Dugas et al., 1998). Recent studies revealed that rumination and worry share many similarities by being repetitive, abstract, and over-general, elevating both depression and anxiety by keeping negative content alive (Nolen-Hoeksema et al., 2008). The only difference between rumination and worry found across studies is the time orientation of the

thought content as past and future, respectively (Ehring & Watkins, 2008). This similarity promoted a new approach as RNT, freeing the concept from the content but focusing on the style of the repetitiveness of negative thinking (Joormann & D'Avanzato, 2010). In fact, findings point out that RNT, as a way of thinking style, predicts depression and anxiety stronger than conceptualizations focusing on the content as rumination and worry (Spinhoven et al., 2015), indicating that shared elements of rumination and worry explain depression and anxiety better than disorder-specific conceptualizations.

RNT does not necessarily yield maladaptive outcomes (Watkins & Roberts, 2020). More specifically, RNT starts as a normal and adaptive process (Mehu & Sherer, 2015). That is, following an adverse life event or a negative emotion, individuals utilize rumination intending to solve the problem and decrease the discrepancy between the current situation and the goal (Watkins, 2016) by understanding the reasons and consequences of the event repetitively and passively (Nolen-Hoeksema et al., 2008). In this case, RNT is expected to terminate after the problem is solved. However, cognitive vulnerabilities related to problem-solving make individuals susceptible to excessive and prolonged repetitive negative thinking while resolving the problem (Watkins, 2016). For example, people can have unattainable or ill-defined goals, such as aiming to solve a problem beyond their control, that make problem-solving challenging. Alternatively, they can lack knowledge or problem-solving ability, which results in increased efforts to understand the situation. Overfocusing on the meaning of the situation (Why it happened? What does it mean for me?) causes generalization, complicates problem-solving, and leads individuals to get stuck in a maladaptive pattern. More specifically, cognitive vulnerabilities, including low attentional control, impaired inhibition, and shifting ability, and low working memory capacity, were proposed as perpetuating

factors (Curci et al., 2013; Koster et al., 2011; Yang et al., 2017). It was suggested that challenges in executive functions cause individuals to be unable to stop the negative thought content and switch to a different topic, which increases pondering on the topic even after the problem is solved (Yang et al., 2017). All these explanations are, in fact, quite useful in explaining the link between RNT and psychopathology.

Individuals may have different motivations for engaging in RNT. For example, some individuals may engage in RNT as an attempt to understand the situation profoundly or to speculate other people's views and criticisms (Watkins, 2016). People can even perceive RNT as a positive coping mechanism that helps them to understand and solve the problem (Kingston et al., 2013). In fact, it was demonstrated that people who ruminate believed in the possibility of suddenly gaining insight into the problems (Lyubomirsky & Nolen-Hoeksema, 1993). Furthermore, RNT can be a strategy to have control over feelings by contemplating the situation and directing the unbearable emotions to different sources (Watkins, 2016). To illustrate, following a rumination episode, a person may decide the failure is caused by another person's mistake, which converts feelings of incompetency to anger. In a similar vein, according to Nolen-Hoeksama et al. (2008), rumination and worry nurture individuals' perceived control over the situation. They posited that worry is utilized when individuals cannot foresee their capacity to control the events, but they perceive the worry as an effort and strategy to exert control. Individuals who are intolerant of future uncertainty engage in an attempt to "control" the situation by mentally "preparing" for future threats (Carleton, 2012; Nolen-Hoeksema et al., 2008; Wells, 1995). In contrast, in rumination, people are aware that events are beyond their control, and they engage in rumination to justify their coping behaviors, such as avoidance of uncontrollable events. These functions and so-

called benefits are the maintaining features of the RNT, preventing individuals from utilizing different strategies for emotion regulation.

Supporting the maladaptive nature of RNT, literature pointed out that RNT has a predictive role in the etiology of psychological disorders, including depression and anxiety (Kertz et al., 2015; Raes, 2012; Spinhoven et al., 2018). Studies mainly focusing on rumination showed that RNT keeps the negative content in the consciousness for longer periods of time and in a more intense way (Nolen-Hoeksema et al., 2008) and thus is linked with increased negative affect and negative cognitions (Watkins & Roberts, 2020), and weakened problem-solving ability (Donaldson & Lam, 2004), which are main symptoms of both depression and anxiety. RNT also mediated the relationship between different risk factors and psychological disorders, such as attention control (Koster et al., 2011), neuroticism (Roelofs et al., 2008), negative affectivity (Iqbal & Dar, 2015), and intolerance of uncertainty (Liao & Wei, 2011). Therefore, it can be concluded that RNT is an important mechanism not only in directly affecting distress but also in interacting with other factors that contribute to psychopathology.

1.4 Thought Suppression

Another maladaptive way of dealing with emotions is thought suppression, which corresponds to attempting to remove thoughts related to an unwanted or bothering event for the individual (Wegner et al., 1987). Individuals can suppress their thoughts for many reasons: Thoughts on some topics can be considered unacceptable; suppression can be considered beneficial in adjustment, or people may lack the utilization of other emotion regulation skills for coping (Salters-Pedneault et al., 2010). Different strategies can be used to avoid focusing on stressful material, such as cognitive or behavioral distractions or thought-stopping (Purdon, 2020). Thought

suppression can bring relief if conducted successfully, but some studies demonstrated that unsuccessful suppression is one of the critical mechanisms that pave the way for distress (Aldao & Nolen-Hoeksema, 2010). More specifically, Ryckman and Lambert (2015) revealed that people who suppress their thoughts unsuccessfully had higher levels of intrusions, rumination, and neuroticism compared to non-suppressors or successful suppressors. It is possible that unsuccessful suppression arouses higher levels of thoughts about unwanted material, and these intrusions might increase rumination and neuroticism.

The mechanisms governing the efficacy of suppression were explained in Wegner's (1992) “ironic process theory of mental control.” According to Wegner (1992), two distinct mechanisms cooperate for successful suppression: A conscious, effortful mechanism attempting to suppress the unwanted material and an unconscious, automated mechanism that is responsible for monitoring the material (Wegner & Zanakos, 1994). In the case of successful suppression, individuals can get rid of the unwanted material at the conscious level. However, in the presence of high cognitive load or voluntary termination of suppression, the conscious mechanism has been stopped; yet the monitoring mechanism preserves its functions (Wenzlaff & Wegner, 2000). As a result, unsuccessful suppression gives rise to the intrusions despite the aim, known as the paradoxical effect (Wegner, 1992). The occurrence of intrusions during the suppression is called the "immediate enhancement effect," whereas the reemergence of the thoughts with greater intensity following the suppression attempt is referred to as the "rebound effect" (Wenzlaff & Wegner, 2000).

In the almost last three decades following Wegner's proposition, studies have failed to replicate the ironic effect of thought suppression consistently. A comprehensive meta-analysis by Magee et al. (2012) revealed no significant difference

in intrusions caused by thought suppression between clinical and non-clinical groups. On the other hand, a recent meta-analysis demonstrated that attempts to suppress the material are one of the main reasons for the rebound effect and the initial enhancement effect in the case of high cognitive load (Wang et al., 2020). In other words, regardless of the cognitive load, as people suppress their thoughts, thoughts tend to approach and reach the surface more often, and in the case of high levels of mental load, these intrusions start even during the suppression period.

Thought suppression is mainly studied in the context of anxiety disorders, showing its exacerbating role in the emergence and maintenance of anxiety symptoms (Amstadter, 2008). Nevertheless, findings demonstrated that thought suppression is a notable risk factor for depression as well (for review, see Purdon, 1999; Wenzlaff & Wegner, 2000). It has been argued that thought suppression interrupts the habituation process and makes individuals more vulnerable to depression-related thoughts (Wegner & Zanakos, 1994; Wenzlaff & Wegner, 2000). Additionally, the ironic effect of thought suppression in depression might pave the way for increased access to negative thought content (Dalgleish & Yiend, 2006), leading individuals to employ repetitive negative thinking as a co-emotion regulation strategy (Wenzlaff & Luxton, 2003).

Like RNT, TS was also demonstrated to mediate the association of distal factors, such as attachment style, negative mood, or irrational beliefs, with psychological distress (Murray et al., 2021; Rosenthal et al., 2006; Szentagotai, 2006). More specifically, in the context of intolerance of uncertainty, Jaso et al. (2021) demonstrated that RNT and TS mediate the relationship of affect intolerance with both depression and anxiety. Notably, affect intolerance was operationally defined as a latent variable comprising distress tolerance, intolerance of uncertainty, and anxiety sensitivity. While this finding presents a deeper perspective, the role of RNT and TS between tolerance of

uncontrollability and psychopathology remains unclear. The current study aims to focus on the mediator role of repetitive negative thinking and thought suppression between tolerance of uncontrollability and psychopathology. It was suggested that the decrease in the TOU will be associated with greater engagements of RNT and TS. Both will increase the sense of control and, in turn, the coping with the discomfort aroused by the uncontrollability. However, these strategies will also sustain the distress by making the content available in the consciousness and allocating the cognitive resources, which, in turn, will be associated with higher levels of depression and anxiety.

1.5 Negative Problem Orientation as Moderator

Problem orientation, individuals' cognitive and emotional schemas towards problems (D'Zurilla et al., 2004), represents the motivational part of problem-solving (Eskin, 2013). Problem orientation is the sum of the evaluation of individuals' inner and outer resources and the evaluation of the problem based on the difficulty (D'Zurilla et al., 2004). Two independent but related approaches were proposed: People can perceive daily problems as a part of daily life that are solvable and bring positive outcomes when solved, called positive problem orientation (PPO), or as threats that are unsolvable and exceed individuals' resources, called negative problem orientation (NPO) (D'Zurilla et al., 2011). As expected, PPO motivates individuals to solve problems, while NPO leads to less willingness to take necessary steps for problem-solving (Nezu, 2004).

In the case of high NPO, the individual does not only perceive problems as challenging but also sees themselves as incapable of solving them, which facilitates worry and a more pessimistic approach towards problematic situations in life (Eskin, 2013). This conceptualization overlaps with self-efficacy (Zumberg et al., 2008), which is used to characterize individuals' beliefs regarding their capability of achieving goals

(Bandura, 1986). Especially, generalized self-efficacy is a broader term comprising problem orientation, which can be stated as self-efficacy related to problem-solving (Zumberg et al., 2008). NPO can also be understood from the point of view of negative mood regulation expectancies (NMRE). NMRE refers to individuals' anticipation of the regulation of negative affect (Mazur-Socha & Przepiorka, 2021), and increased NMRE is positively related to the inclination to comfort emotions, adaptive coping, and emotion regulation and negatively to depression and anxiety (Mazur-Socha & Przepiorka, 2021). Ray-Yol and Altan-Atalay (2022) also demonstrated that low confidence in one ability to regulate negative emotions was associated with psychological distress. In sum, all three concepts indicate that the belief in coping efficacy constitutes the following reactions to overcome problems.

The literature showed that NPO plays a key role in the severity of depression and anxiety (Becker-Weidman et al., 2010; Dugas et al., 2007). Specifically, Spence et al. (2002) reported that in the case of high adverse life events, having high levels of NPO was associated with high levels of depression both cross-sectionally and retrospectively. This finding is supported by Becker-Weidman et al. (2010), who demonstrated that NPO is positively associated with depression severity. For anxiety, NPO is considered a risk factor that plays a role in the etiology of generalized anxiety disorder (Dugas et al., 1998). Furthermore, few studies examining the relationship between NPO and other anxiety disorders revealed an association with social anxiety but not with obsessive-compulsive disorder, panic disorder, and agoraphobia (Fergus et al., 2015). Findings also pointed out that NPO is highly related to symptoms of utilizing maladaptive emotion regulation strategies (Söğüt et al., 2021), greater levels of worry (Clarke et al., 2017; Fergus et al., 2015), rumination (Hasegawa et al., 2018), and intolerance of uncertainty (Clarke et al., 2017).

Beyond its correlates, negative problem orientation strengths the relationship between risk factors and distress. For example, Londahl et al. (2005) revealed the moderator role of NPO in the relationship between interpersonal conflict and internalizing symptoms. In fact, researchers demonstrated that for the high NPO group, romantic relationship conflict demonstrated more robust associations with anxiety. Also, NPO moderated the relationship between stress and externalizing symptoms (Bell & D'Zurilla, 2009). Based on the aforementioned study, for men, not for women, with high NPO, the link between stress and exhibiting externalizing symptoms, such as aggression, was stronger. Moreover, a more recent study by Kantarcı (2023) revealed that in the case of high NPO, greater levels of looming cognitive style were associated with elevation in anxiety.

Findings revealed accumulated evidence for the relationship between negative problem orientation and rumination, worry, and distress disorders. The present study will investigate the moderator role of negative problem orientation on the link between TOU and other study variables. It is expected that for high levels of NPO, since people will have lower levels of self-efficacy in dealing with the uncontrollability, the relationship between TOU with RNT, TS, depression, and anxiety will be stronger.

1.6 The Current Study and Hypotheses

The current study aims to examine the relationship between tolerance of uncontrollability, negative problem orientation, thought suppression, and repetitive negative thinking and their association with depression and anxiety. As the tolerance of uncontrollability decreases, individuals will engage in different attempts to either increase the perception of control over the situation or try to cope with the feelings induced by uncontrollability. In this situation, RNT and TS will satisfy the individual's

need for control by creating a false sense of mastery. Although both strategies may be effective and beneficial under certain circumstances and bring short-term relief, their frequent use will relate to elevations in depression and anxiety. Furthermore, the tendency to utilize RNT and TS will be much higher if the individuals also have negative emotional-cognitive schemas towards problems. For individuals with low levels of tolerance of uncontrollability and inclination to have negative problem orientation, engagement in RNT or TS will be higher. The proposed model for the study can be found in Figure 2.

The hypotheses of the study are as follows:

(1) Tolerance of uncontrollability will be negatively associated with both depression (1a) and anxiety (1b).

(2) The relationship between tolerance of uncontrollability and depression will be mediated by the RNT (2a) and TS (2b).

(3) The relationship between tolerance of uncontrollability and anxiety will be mediated by the RNT (3a) and TS (3b).

(4) For depression, negative problem orientation will moderate the relationship between tolerance of uncontrollability with both repetitive negative thinking (4a) and thought suppression (4b). For individuals who have high levels of NPO, the relationship between TOU with RNT and TS will be stronger.

(5) For anxiety, negative problem orientation will moderate the relationship between tolerance of uncontrollability with repetitive negative thinking (5a) and thought suppression (5b). For individuals with high levels of NPO, the relationship between TOU with RNT and TS will be stronger.

(6) Negative problem orientation will moderate the relationship between tolerance of uncontrollability and psychological distress. That is, for individuals with

high levels of NPO, the relationship between TOU with depression (6a) and anxiety (6b) will be stronger.

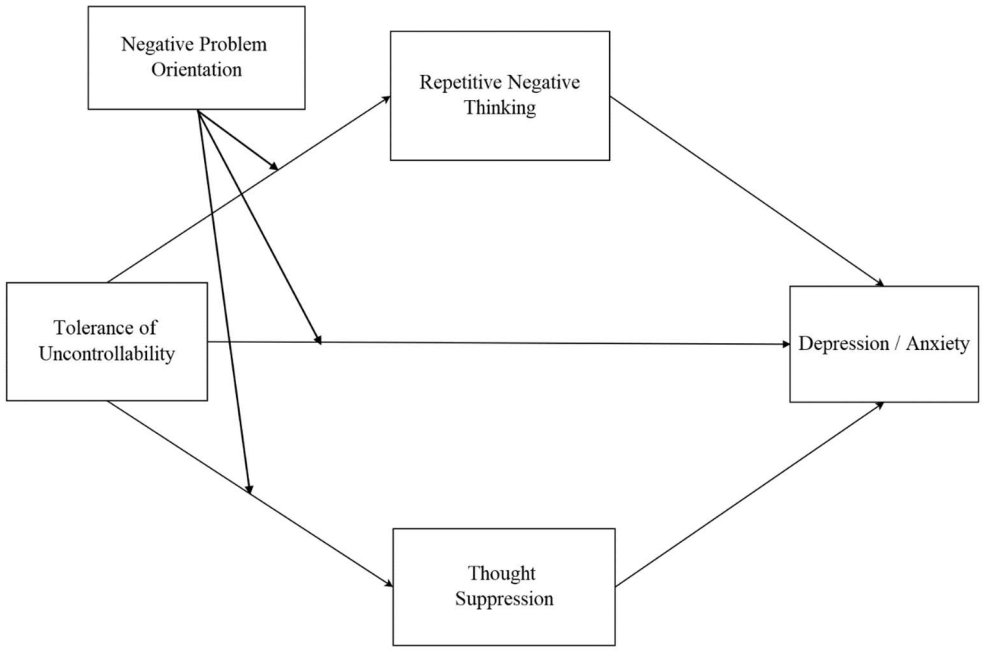

Figure 2: Proposed model: The proposed relationship between TOU, RNT, TS, NPO, depression and anxiety.

Chapter 2:
METHOD

2.1. Participants

Initially, 450 participants completed the study. As a result of multivariate outlier analyses, data from two participants were excluded. Univariate outlier analyses did not result in the deletion of participants. The final sample was reduced to 448 participants between the ages of 17 and 56 (80.4% females and 19% males; M_{age}= 23.41, SD=5.25). Participants were mainly university students and graduates (%72.8), followed by high school (%14.5), post-graduate (%11.6), and only five participants selected "other" (%1.1). Among the five categories, a large portion of participants reported their socioeconomic status as middle (36.2%), followed by middle-to-high (29.9%) and low-to-middle (20.3%). Only 13.6% of participants classified themselves as low (6.7%) and high (6.9%). Sample characteristics can be found in Table 1.

Table 1: Demographic characteristics of the sample.

Sample Characteristics	N	%	Mean Age	SD_{age}
Gender			23.41	5.25
Men	85	19	23.05	5.64
Women	360	80.4	23.52	5.17
Unspecified	2	.4	21.00	1.41
Other	1	.2		
Education				
Primary School	-	-		

Secondary	-	-
School		
High School	65	14.5
University	326	72.8
Post-graduate	52	11.6
Other	5	1.1
SES		
Low	30	6.7
Low-to-middle	91	20.3
Middle	162	36.2
Middle-to-high	134	29.9
High	31	6.9

2.2. Measures

2.2.1. Demographic Form

The demographic form consisted of questions about age, gender, education level, and SES. Both education level and SES were provided as categories, and participants were requested to place themselves. Participants provided information about the presence of mental disorder diagnosis and medication. (Appendix B).

2.2.2. Tolerance of Uncontrollability Questionnaire (TOUQ)

The Tolerance of Uncontrollability Questionnaire (TOUQ) was developed by Hay et al. (2022) to measure the tolerance level of people when they are confronted with uncontrollable events in life. It is a self-report scale that is comprised of a unifactorial structure and 19 items, rated from 1 (totally disagree) to 7 (totally agree). The scale

includes items such as "I usually don't mind when I have to give up control" or "Nobody is in complete control over one's life, and that's okay." The original scale showed excellent internal validity and reliability (.96 total). The scale was adapted to Turkish by Doğan et al. (2022). Like the original scale, the Turkish version demonstrated high internal consistency (.93). It was also shown that TOU adaptation in the context of Turkey measures tolerance of uncontrollability for both clinical and non-clinical groups (Tosun Altınöz et al., 2023). (Appendix C).

2.2.3. Repetitive Thinking Questionnaire-10 (RTQ-10)

The scale was designed by McEvoy et al. (2010) and adapted to Turkish by Kaçar-Başaran et al. (2023) to measure content-independent repetitive negative thinking. The questionnaire includes ten items measuring the process of RNT, such as "You had thoughts or images about all your shortcomings, failings, faults, mistakes" or "You had thoughts or images about turning the clock back to do something again but do it better." Items that are rated between 1 (not at all true) and 5 (very true), and the scale has a unifactorial structure. Both the original scale and the Turkish version of the scale revealed similar internal consistencies for total scores (.89 for the original and .93 for the Turkish version). The original version was correlated with worry, rumination, anxiety, and depression. (Appendix D)

2.2.4. White Bear Suppression Inventory (WBSI)

Designed by Wegner and Zanakos (1994), the White Bear Suppression Inventory (WBSI) measures the tendency of through suppression. It includes items assessing both thought suppression attempts and the intrusions after the suppression. Suppression attempts were measured with items such as “I often do things to distract myself from my thoughts” or “There are things that I try not to think about.”, while for intrusions, items like “My thoughts frequently return to one idea.” were used. The self-report

inventory has a unifactorial structure including 15 questions that are rated on a 5-point Likert-type scale between 1, indicating "strongly disagree," and 5, indicating "strongly agree." Researchers demonstrated that the scale showed internal consistencies differing between .87 and .89 for different samples. The scale was adapted to Turkish by Altın and Gençöz (2009). Moreover, Turkish adaptation has sufficient reliability (.90) and good test-rest reliability after the four-week time interval (.80). Also, WBSI scores were also significantly correlated with obsessive-compulsive symptoms, depressive symptoms, and trait anxiety. (Appendix E)

2.2.5. Social Problem-Solving Inventory-Revised (SPSI-R)

Social Problem-Solving Inventory-Revised (SPSI-R) was developed by D'Zurilla et al. (2002) and adapted to Turkish by Eskin and Aycan (2009) to investigate the problem-solving style and problem orientation of participants by focusing on social problems. Two versions, short and long, were developed and adapted, yet the long version with 52 questions was used in the current study. The scale includes a five-factor structure, whose three include problem-solving styles as rational problem-solving style (20 items), impulsive-careless problem-solving style (10 items), avoidant problem-solving style (7 items), and two motivational aspects as positive problem orientation (5 items) and negative problem orientation (10 items). The scale was rated on a 5-point Likert-type scale between 0 (not at all true of me) and 4 (extremely true of me). SPSI-R subscales showed Cronbach's alpha between .79 and .95. Eskin and Aycan (2009) demonstrated that internal consistencies of Turkish adaptation ranged from .62 to .92, and both scales showed satisfactory validity. In the current study, only the ten items assessing NPO was administered. Example items for NPO are “I felt threatened and afraid when I have an important problem to solve.” or “When my first efforts to solve a

problem fail, I get very frustrated." The Cronbach's alpha for the NPO subscale was .93 for the current study. (Appendix F)

2.2.6. Patient Health Questionnaire (PHQ)

The Patient Health Questionnaire was originated by Kroenke et al. (2001) to assess depression symptoms (based on DSM -IV criteria), such as anhedonia, depression, and appetite, experienced by people during the last two weeks. It is a short self-report form that includes nine questions rated between 1 (never) and 4 (nearly every day). In the current study, Cronbach's alpha was measured as .88. The scale, adapted to Turkish by Sarı et al. (2016), also revealed satisfactory internal consistency and validity. (Appendix G)

2.2.7. Generalized Anxiety Disorder (GAD-7)

GAD-7 was developed by Spitzer et al. (2006) to assess the generalized anxiety level of people based on DSM-IV-TR criteria. It includes seven items assessing symptoms as restlessness or worrying too much, and people consider the last two weeks while rating the frequency of symptoms between 0 (never) and 3 (almost every day). Additionally, it includes one question assessing the functionality. Researchers uncovered that the scale shows excellent reliability (.92 for total) and validity. For the Turkish version (Konkan et al., 2013), the total value of Cronbach's alpha was found as .85, and the test showed associations with state and trait anxiety. (Appendix H)

2.3. Procedure

The ethical approval of the current study was obtained from the Koç University Committee on Human Research (2022.291.IRB3.126). Convenience sampling was used while collecting data, and participants were reached through social media and e-mails.

Participants who signed informed consent (Appendix A) were requested to fill out the questionnaires given in the materials. They received no credit in return for their participation. The whole study lasted 40 minutes.

2.4. Data Analysis

The analyses were conducted by using IBM SPSS v28.0. Initially, outlier analyses were conducted, and for multivariate outliers, the Mahalanobis distance was calculated. After cleaning the data, Pearson correlations were computed between age, gender, tolerance of uncontrollability, repetitive negative thinking, thought suppression, negative problem orientation, depression, and anxiety. Later, the mediation and moderation analyses were conducted using PROCESS (Hayes, 2013). PROCESS is a data-analysis program that can be conjoint with SPSS and allows to conduct mediation and moderation analyses by using 5000 bootstrap samples with a 95% confidence interval. For parallel mediation analyses, to test the mediator role of RNT and TS between TOU and psychopathology, Model 4 was used, and both RNT and TS were added to the model. While anxiety is included as a covariate when the outcome is depression; gender, and depression were included as covariates for anxiety due to the high correlation between variables. Moderation analyses to compute moderation of paths a, b, and c' by the negative problem orientation, Model 8 was used.

Chapter 3:
RESULTS

3.1. Descriptive Variables and Zero-order Correlations

The descriptive statistics, skewness, and kurtosis were examined, and Pearson correlation coefficients were computed to explore the relationship between age, gender, and study variables. Among demographic variables, only gender was inversely correlated with study variables, except TOU (r = .107, $p < .05$) and depression (r = -.037, $p = .44$), whereas age revealed associations with none of the variables. Tolerance of uncontrollability showed negative significant associations between repetitive negative thinking (r = - .360, $p < .01$), thought suppression (r = -.286, $p < .01$), depression (r = -.244, $p < .01$), and anxiety (r = -.392, $p < .01$), supporting Hypothesis 1a and 1b. Repetitive negative thinking, thought suppression, depression, and anxiety related to each other positively and significantly (See Table 2).

Table 2: Zero Order Correlations among Study Variables.

	M	SD	α	Age	Gender	TOU	RNT	TS	NPO	Depression
Age	23.41	5.25		--						
Gender	4.21	.44		-.050	--					
TOU	69.42	23.79	.96	.067	.107*	--				
RNT	34.33	9.80	.94	-.086	-.114*	-.360**	--			
TS	53.54	11.25	.90	-.090	-.131**	-.286**	.687**	--		
NPO	31.14	9.70	.93	-.084	-.180**	-.364**	.644**	.543**	--	
Depression	19.54	6.34	.88	-.006	-.037	-.244**	.581**	.529**	.517**	--
Anxiety	15.40	5.50	.91	-.043	-.132**	-.392**	.600**	.541**	.584**	.702**

Note. * p<.05; ** p< .01

TOU=Tolerance of Uncontrollability; RNT=Repetitive Negative Thinking; TS=Thought Suppression; NPO= Negative Problem Orientation.

3.2. Mediation Analyses

Two mediation analyses were performed separately with outcome variables of depression and anxiety to examine the mediator role of repetitive negative thinking and thought suppression between TOU and psychological distress. Since it allows to analyze the significance of parallel mediation, Model 4 in PROCESS was used.

Surprisingly, there was no significant total effect for depression while controlling for anxiety (b = .01, SE= .01, 95%CI [-.01, .03]). When the mediators included in the model, the direct effect (c') was significant (b =.02, SE=.01, $p < .05$). For the indirect effects, only RNT was ended up being significant (b = -.01, SE= .003, 95%CI [-.01, -.002]). TS did not have a significant mediator role in this relationship since the confidence interval for the indirect effect of TS included zero (b = -.002, SE= .002 .01 95%CI [-.01, .000]), showing that the relationship between TOU and depression was maintained through repetitive negative thinking (Figure 3). Therefore, mediation analyses failed to support Hypothesis 2b in contrast to Hypothesis 2a.

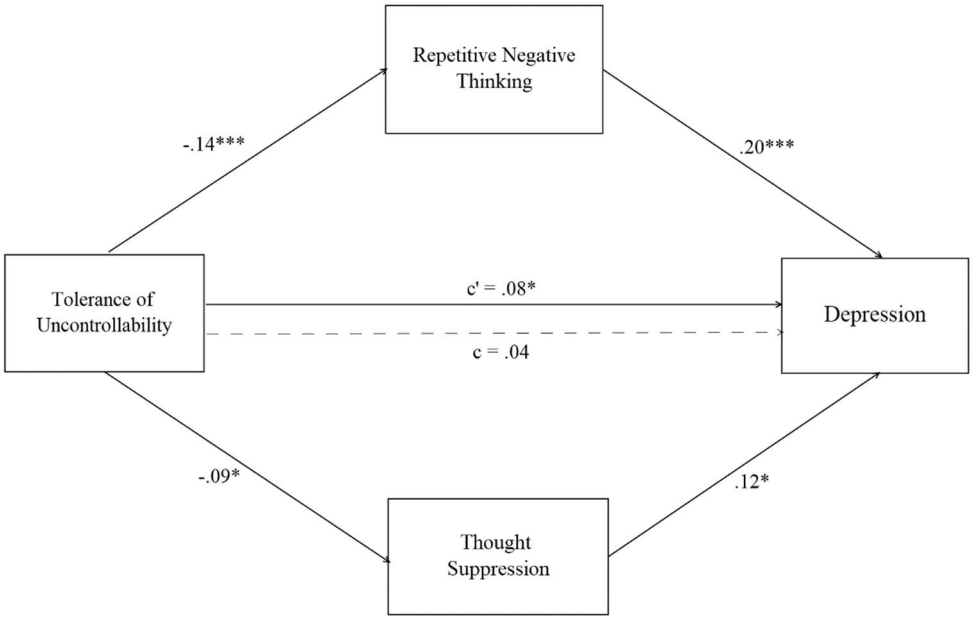

Figure 3: Standardized regression coefficients for the relationship between TOU and depression as mediated by RNT and TS.

Note. N=446; Covariates: Anxiety. *p<.05 *** p< .001

The results of the same analysis with this time anxiety serving as the outcome variable (and depression as the control variable) indicated that the total effect for the relationship between TOU and anxiety, controlling for depression and gender, was significant (b = -.05, SE= .01, p < .0001). With the inclusion of mediators, the direct effect (c') was significant (b = -.05, SE= .01, p < .001). For indirect effects, both RNT (b = -.01, SE= .003, 95%CI [-.02, -.003]) and TS (b = -.003, SE= .002, 95%CI [-.01, -.000]) significantly mediated the relationship between TOU and anxiety (Hypotheses 3a and 3b) (Figure 4)

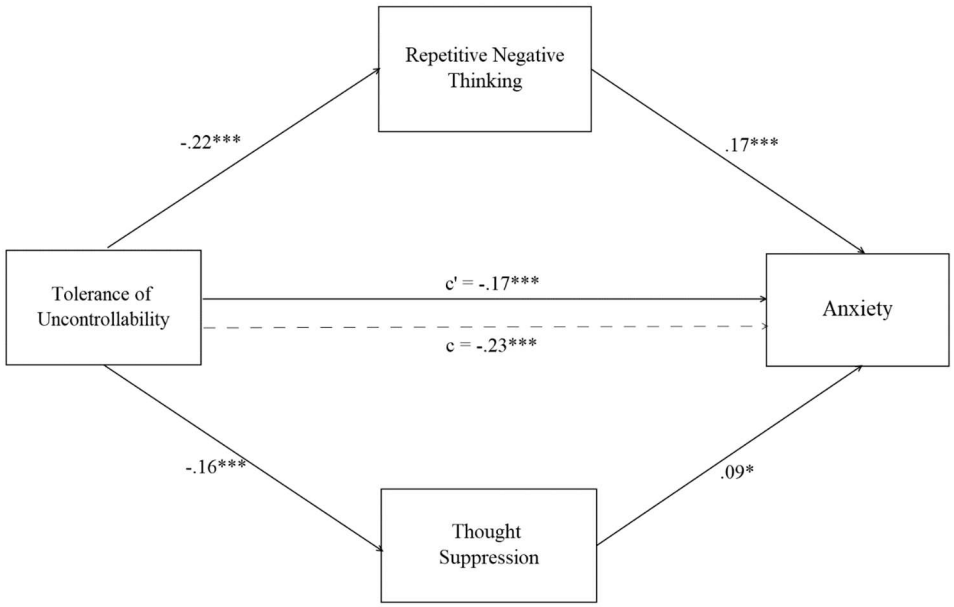

Figure 4*:* Standardized regression coefficients for the relationship between TOU and anxiety as mediated by RNT and TS.

Note. N=446; Covariates: Depression, Gender. *p<.05 *** p< .001

3.3. Moderation Analyses

The effect of interaction between tolerance of uncontrollability and negative problem orientation on RNT, TS, depression, and anxiety was analyzed by using PROCESS (Model 8). The negative problem orientation is expected to strengthen the relationship between TOU with RNT, TS, depression, and anxiety.

For depression, NPO did not moderate the relationship between TOU with RNT (*b* = .00, SE=.00, *p* =.36), TS (*b* = .001, SE= .002, *p*=.47*)* and depression (*b* = .001, SE=.001, *p* =.59), indicating that even though RNT is a crucial mediator, NPO does not have any effect on the strength of the relationship contrary to expectations (Table 3).

Table 3: Moderation analysis exploring the relationship between TOU, NPO, RNT, and TS when the outcome is depression.

Variable	B	SE	T	*P*	95%CI LL	95%CI UL	F	R^2
Outcome: RNT							109.03	.50
TOU	-.03	.02	-3.54	.07	-.06	.00		
NPO	.43	.04	10.14	<.001	.35	.52		
Anxiety	.58	.08	7.60	<.001	.43	.73		
TOU X NPO	.00	.00	.92	.36	-.001	.004		
Outcome: TS							65.31	.37
TOU	-.02	.02	-.79	.43	-.06	.02		
NPO	.39	.05	7.12	<.001	.28	.50		
Anxiety	.68	.10	6.93	<.001	.49	.87		
TOU X NPO	.001	.002	.72	.47	-.002	.01		
Outcome: Depression							87.88	.55
TOU	.02	.01	2.47	.01	.004	.04		
RNT	.11	.03	3.33	<.001	.05	.18		
TS	.06	.03	2.33	.02	.01	.11		
NPO	.04	.03	1.51	.13	-.01	.10		
Anxiety	.62	.05	12.11	<.001	.52	.72		
TOU X NPO	.001	.001	.53	.59	-.001	.002		

Note. N=445; Covariates= Anxiety; RNT=Repetitive Negative Thinking; TOU=Tolerance of Uncontrollability; NPO=Negative Problem Orientation; TS=Thought Suppression.

For anxiety, moderation analyses did not yield a significant interaction between TOU and NPO on RNT (*b*= .000, SE=.001, *p* =.71) and TS (*b* = .000, SE=.001, *p* =.84). However, the interaction between TOU and NPO was significantly associated with anxiety, *b* = -.001, SE = .001, *p*<.05 (Table 4).

Table 4: Moderation analysis exploring the relationship between TOU, NPO, RNT, and TS when the outcome is anxiety.

					95%CI			
Variable	*B*	SE	T	*P*	LL	UL	F	R^2
Outcome: RNT							91.99	.51
TOU	-.05	.01	-3.29	.001	-.08	-.02		
NPO	.43	.04	10.35	<.001	.35	.51		
Depression	.51	.06	8.47	<.001	.39	.63		
GENDER	-.22	.75	-.29	.77	-1.69	1.26		
TOU X NPO	.000	.001	.37	.71	-.002	.003		
Outcome: TS							55.37	.39
TOU	-.04	.02	-2.03	.04	-.07	-.001		
NPO	.38	.05	7.12	<.001	.28	.49		
Depression	.60	.08	7.65	<.001	.44	.75		
GENDER	-1.33	.97	-1.37	.17	-3.22	.57		
TOU X NPO	.000	.001	.21	.84	-.003	.004		
Outcome: Anxiety							96.49	.61
TOU	-.04	.01	-4.89	<.001	-.05	-.02		

RNT	.06	.03	2.27	.02	.01	.12
TS	.04	.02	1.77	.08	-.004	.08
NPO	.09	.02	3.74	<.001	.04	.14
Depression	.41	.03	12.23	<.001	.34	.48
GENDER	-.61	.38	-1.60	.11	-1.35	.14
TOU X NPO	-.001	.001	-2.45	.01	-.003	-.000

Note. N=446; Covariates= Depression, Gender; RNT=Repetitive Negative Thinking; TOU=Tolerance of Uncontrollability; NPO=Negative Problem Orientation; TS=Thought Suppression.

Post-hoc analyses run to understand the interaction effect revealed that for high levels of negative problem orientation, there is a significant negative association between TOU and anxiety (t=-5.05, SE=.01, $p < .001$). For low levels of negative problem orientation, a significant negative relationship was also observed (t=-2.03, SE=.01, $p < .05$). In significant moderation, one of the slopes should be significant while the other one is nonsignificant (Holmbeck, 2002). Since there is no difference in the association between TOU and anxiety in high and low levels of NPO, and both slopes were significant, it can be assumed that this significant results from the additive effect of NPO and TOU, not the moderation. It can be argued that there is a trend showing that as negative problem orientation increases, the strength of the relationship between TOU and anxiety increases (Figure 5). The hypotheses anticipating the moderation of NPO, hypotheses 4,5, and 6, were refuted.

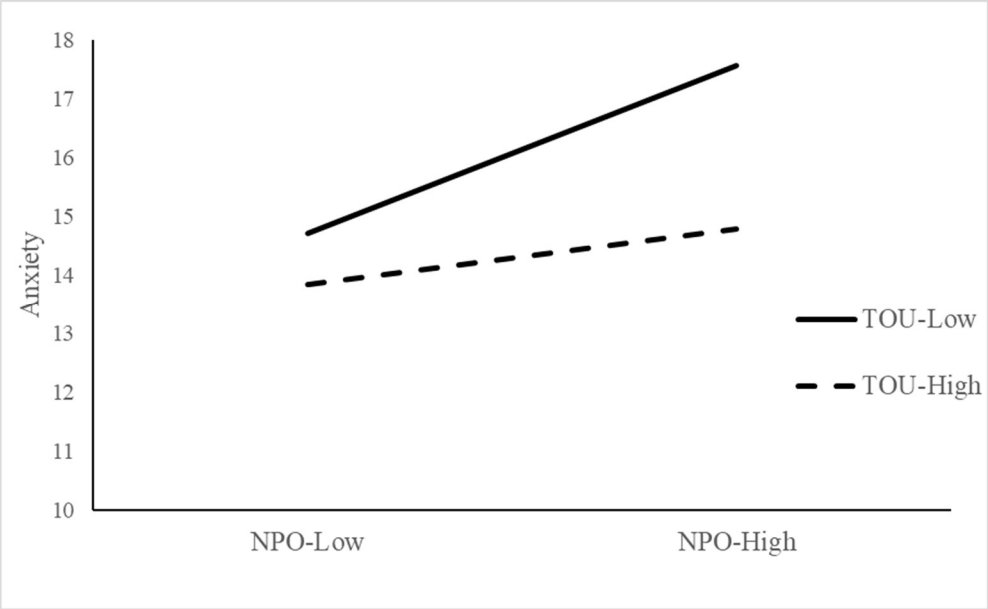

Figure 5: Interaction of tolerance of uncontrollability and negative problem orientation on anxiety.

In sum, TOU showed a significant negative relationship with depression and anxiety. Both RNT and TS mediated the relationship between TOU and anxiety, while the only mediator role of RNT was found between TOU and depression. NPO failed to moderate the relationships between TOU and other variables. Therefore, only hypotheses 1, 2a, and 3 were supported in the current study.

Chapter 4:
DISCUSSION

The current study explored the relationship between tolerance of uncontrollability, repetitive negative thinking, thought suppression, negative problem orientation, depression, and anxiety. More specifically, the mediator role of repetitive negative thinking and thought suppression between the relationship tolerance of uncontrollability with depression and anxiety was investigated. Additionally, the current study aimed to examine the moderator role of negative problem orientation on the relationship between TOU with RNT, TS, depression, and anxiety. Findings showed that TOU was correlated with depression and anxiety, as expected. It was also revealed that both RNT and TS mediated the relationship between TOU and anxiety. However, only the mediator role of RNT was significant for the association between TOU and depression. Results also indicated that the moderation hypotheses were refuted, except for the interaction of tolerance of uncontrollability and negative problem orientation on anxiety.

The results revealed that higher levels of TOU were significantly associated with lower levels of both depression and anxiety. Within the framework of previous findings revealing the relationship between lack of perceived control and psychological distress (Reich & Infurna, 2017), it can be concluded that as people deal with emotions and discomfort triggered by uncontrollable situations, they will experience higher levels of perceived control and lower levels of depression and anxiety. This finding partially replicated the results of Hay et al. (2022), who reported nonsignificant associations between TOU and depression. Despite the significant association between depression and TOU, when anxiety was controlled, this association was not replicated. One the other hand, TOU and anxiety continued to show a significant relationship, even after

controlling for depression and gender. This demonstrates that TOU might be a concept explaining the variance in anxiety more than it does in depression. More specifically, people who are intolerant of uncontrollable events might be more inclined to have higher levels of anxiety rather than depression, which makes sense considering the conceptualization of TOU. The distress caused by uncontrollability in TOU stems from a future event that has a chance of harboring uncontrollable elements (Hay et al., 2022). According to Eysenck et al. (2006), one of the differentiations between anxiety and depression comes from the timing of the event causing emotional distress, predominantly the future for the former and the past for the latter. Therefore, it is not surprising that future-oriented stress caused by uncontrollability is related to anxiety more than depression.

Previous research shows that both RNT and TS were transdiagnostic risk factors that are involved in the etiology of both depression and anxiety (Aldao & Nolen-Hoeksema, 2010). For depression, when the RNT and TS were added as mediators to the TOU and depression relationship, RNT mediated the relationship between TOU and depression. As aligned with the previous findings (Wenzlaff & Wegner, 2000), thought suppression demonstrated associations with higher levels of depression. However, the hypothesis regarding the mediator role of TS was not supported. That is, as people are less tolerant of uncontrollable events, they are more inclined to utilize repetitive negative thinking, which in turn increases depression. As Weisz (1986b, as cited in Compas et al., 1991) proposed, it is critical that the emotion-focused strategy should increase the sense of controllability in the short-term for effective results. It is possible that RNT may have more impact on the sense of control compared to TS, causing individuals to engage in RNT more than TS. Another explanation can be a possible bidirectional relationship between depression and TOU. That is, depressed people may

be less tolerant of uncontrollability and may have challenges in suppressing their thoughts due to the depletion of cognitive resources in the depression (Silva et al., 2018). As a result, they will experience more intrusions related to uncontrollable events as they attempt to suppress and use depressive rumination (Wenzlaff & Luxton, 2003). Therefore, for depressed individuals, low levels of TOU can drive people to benefit from RNT more than TS, leading to elevations in depressive state.

Notably, the relationship between TOU and anxiety was mediated by both RNT and TS, controlling for depression and gender. The less tolerance for uncontrollability was associated with utilizing both RNT and TS more intensely and, in turn, elevated anxiety levels. This model is in line with the propositions of Barlow et al. (2022), who stated that when individuals cannot tolerate an external uncontrollable event, they attempt to increase the perception of control by using emotion-motivated avoidant coping strategies, including RNT and TS, which gives the illusion of "being in control." However, this attempt will lead individuals to dwell on thoughts about the uncontrollable event through both intrusions and repetitive thinking about the topic. Thinking about how to exert control over the situation may bring short-term relief but has a high chance of causing higher levels of anxiety in the long-run. It also supports Ben-Zur (2009) by revealing that despite the short-term positive effects of EFS in uncontrollable situations, the long-term utilization of emotion-focused strategies will have an adverse effect and increase distress.

In contrast to the expectations, negative problem orientation did not moderate the relationship of TOU with RNT, TS, and depression. In other words, it did not lessen or strengthen the relationship between TOU and other variables except anxiety. One reason for nonsignificant interaction might be that uncontrollable events can awake a similar approach in every person regardless of the problem orientation. To clarify, in

TOU, individuals are well aware that the situation is beyond their control, and their additional resources cannot compensate for this loss of control. The conceptualization of NPO includes the assessment of the problem as well as the resources (Eskin, 2013). Therefore, even though an individual has predominantly positive problem orientation, in the face of an uncontrollable situation, she will experience problems beyond resources and perceive the situation as challenging. Therefore, although NPO showed associations with all variables, it may not strengthen the relationship between TOU and other variables, in contrast to expectations. An alternative explanation that is not tested in the current study is that NPO may be a distal factor leading to the development of tolerance levels toward uncontrollability. The second facet of the NPO corresponds to self-efficacy or NMRE, which describes the evaluation of people's belief in their capabilities in different aspects (Zumberg et al., 2008), such as problem-solving in NPO. In terms of TOU, the tolerance capacity might stem from how people assess their resources for coping, and NPO might be the basis factor for the development of a lack of TOU.

Moderation analysis put forward that NPO moderated the relationship between TOU and anxiety. However, post-hoc analysis revealed that low and high levels of NPO, TOU, and anxiety demonstrate similar associations. More specifically, for people with high and low negative problem orientation, their anxiety levels decrease as they become more tolerant of uncontrollability. This significance can yield from the additive effect of NPO and TOU on anxiety rather than their interaction, causing groups to not differ from each other. This means that the effect of both TOU and NPO leads to increases in anxiety and appears as if moderation is significant, but this elevation actually results from the effect of NPO and TOU on anxiety. Additionally, this additive effect may support the previous argument suggesting that NPO may be a distal factor

determining TOU. Therefore, rather than interaction, we observed their additive effect on anxiety.

Overall, despite the significant number of shared processes between depression and anxiety, these findings did not provide satisfactory evidence to suggest that TOU is a shared risk factor for both depression and anxiety. Findings suggested that TOU explains more variance in anxiety, and the proposed model is more applicable to anxiety than depression. Despite the high correlation between depression and anxiety (.70 in the present study), the study of Hay et al. (2022), which revealed a significant association between TOU and prospective anxiety, not depression, is partially supported in the current study. Findings indicated that TOU is possibly a concept that is more closely associated with anxiety than depression. Since TOU was conceptualized around future-related stress and anxiety was aroused by future events, it is possible that TOU shows significant associations more with anxiety than depression. It should also be noted that TOU is still a promising transdiagnostic factor critical for the development and maintenance of psychopathology. Further improvements in the construct and its relationship with different transdiagnostic processes can yield different implications than the present study.

Additionally, in both models, RNT was found to be a common mediator. It may increase the perceived control more than TS, yet more evidence is needed to understand the TOU-RNT and TOU-TS relationship and its moderators. Also, NPO did not show any moderating effect contrary to expectations. It was proposed that NPO may not moderate the relationship between TOU and other variables, but rather, NPO may be the distal factor that also leads to elevations in TOU. This pathway is pending to be explored thoroughly in future research.

4.1. Strengths, Limitations, and Future Directions

The current study is the first to demonstrate the relationship between TOU, RNT, TS, NPO, and psychopathology. It deepens the understanding of TOU, which is a new and promising construct in literature focusing on control and puts forward the role of RNT, TS, and NPO in this relationship. It also bears some limitations that need to be considered in the evaluation of findings. First, it was a correlational study and, open to self-report biases and blind to causation. Secondly, the sample was a community sample reached though social media and comprised of predominantly females, leading to some questions regarding generalizability. Further, the tolerance of uncontrollability is a new construct, and more research regarding its operational definition and distinctions from related concepts were needed. The NPO scale used in the current study measures both emotional and cognitive schemas of the problem orientation, and assessments predicated on different conceptualizations, such as problem-solving confidence, can yield different results. Even though this study provides some information regarding the utilization of RNT and TS, it does not include other strategies that might be involved in coping with uncontrollability.

Future studies should focus on clinical populations to shed better light on the transdiagnostic role of TOU as well as its relationship with different constructs. The tolerance level of uncontrollability can also be measured experimentally instead of self-report measures. Future research should also explore the role of TOU in different anxiety disorders and include the concept in interventions. Since NPO did not yield an interaction effect, other factors affecting the strength of the relationship in the proposed models should also be explored. Besides, the relationship between TOU and NPO should be studied in anxiety disorders with experimental studies to understand the

validity of the predictions presented in this paper. Future studies should also aim to deepen and clarify the conceptualization of TOU. Improvements in conceptualization can open the way for more different associations than this study suggested. For example, the IU concept initially referred to cognitive, emotional, and behavioral reactions to uncertainty, while later this definition was expanded in a way that it comprises coping beliefs with uncertainty (for review, see Carleton, 2012). Likewise, clarifying the consequences of TOU cognitively, behaviorally, and emotionally and expanding the concept can show associations with depression or distinct psychopathologies.

4.2. Clinical and Theoretical Implications

The present study contributes to the conceptualization of TOU and shows its relationship with various transdiagnostic risk factors. It puts forward a significant mechanism in which TOU alleviates anxiety though RNT and TS. It contributes literature focusing on uncertainty, showing that while IU is a transdiagnostic factor related to multiple disorders and risk factors, TOU differentiates from it by creating risk mainly in anxiety. It also replicates previous studies arguing that maladaptive strategies that increase the illusory sense of control are robustly related to psychological distress (Barlow, 2021). Besides its theoretical implications, the current study reveals that as the tolerance level increases, the utilization of maladaptive regulatory strategies, in this case RNT and TS, will be less, and thus experience lower anxiety. Therefore, interventions aiming to increase TOU and teach adaptive emotion-regulation strategies for uncontrollability can be one of the treatment choices for people with anxiety. For example, the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders (UP), which built upon the neuroticism model presented in this paper (Barlow, 2021),

targets tolerance of discomfort aroused by uncontrollability or unpredictability (Sauer-Zavala & Barlow, 2021). UP was shown to be effective in decreasing the intolerance of uncertainty (Miller & McGuire, 2023), and future interventions should explore its impact on tolerance of uncontrollability. Lastly, in clinical practice, emotion-focused goals can be more suitable for coping with uncontrollability and decrease its impact.

Chapter 5:
CONCLUSION

In the literature, there is a lack of evidence showing the correlates of tolerance of uncontrollability and pathways leading to psychopathology. TOU was negatively related to depression and anxiety, but when covariates were included, only anxiety ended up being significant. While the relationship between TOU and depression was mediated by RNT, both RNT and TS mediated the TOU and anxiety relationship. NPO did not show any expected moderator effect in these relationships except the relationship between TOU and anxiety. In conclusion, it is possible that TOU may be an idiosyncratic factor in anxiety rather than depression. In the treatment of anxiety, one of the targets can be increasing the tolerance level of the individual and teaching more adaptive coping strategies against the discomfort and aversive reaction created by uncontrollability.

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Appendix A: Informed Consent

Bilgilendirilmiş Gönüllü Olur Formu

Değerli Katılımcı,

Koç Üniversitesi Sosyal Bilimler Araştırmaları Etik Kurulu'nun **2022.291.IRB3.126** sayılı onayı ile izin verilen bu araştırma, Koç Üniversitesi Klinik Psikoloji Yüksek Lisans öğrencisi Gamze Şener tarafından, Sosyal Bilimler Enstitüsü öğretim üyesi Dr. Ayşe Altan-Atalay danışmanlığında yürütülen bir tez çalışmasıdır. Araştırmaya katıldığınız için teşekkür ederiz. Çalışmanın amacı, kontrol edilemezliğe tahammülsüzlük, duygu düzenleme becerileri ve olumsuz sorun yöneliminin depresyon ve anksiyete üstündeki etkilerinin araştırılmasıdır. Bu nedenle bu konulardaki eğiliminizi ölçmeye yönelik sorulardan oluşan anket formlarını doldurmanız istenmektedir.

Çalışmaya katılım tamamıyla gönüllülük esasına dayanmaktadır. Ankette, sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecek ve elde edilecek bilgiler bilimsel yayınlarda kullanılacaktır. Araştırmanın sonuçları açısından sağlıklı bilgiler edinilmesi için yönergelerin dikkatlice okunması, verilen cevaplarda samimi olunması ve cevaplandırılmamış soru bırakılmaması son derece önemlidir. Sorulara verdiğiniz cevapların herhangi bir olumsuz duruma neden olması beklenmemektedir. Ancak, bir rahatsızlık hissedilmesi durumunda istediğiniz takdirde araştırmacıya başvurabilirsiniz. Katılım sırasında sorulardan ya da herhangi bir başka nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini herhangi bir yaptırımla karşılaşmadan yarıda bırakmakta serbestsiniz. Çalışmanın yaklaşık 40 dakika sürmesi beklenmektedir. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Bu araştırma ile ilgili soru veya endişeleriniz varsa lütfen araştırmacıyla iletişime geçiniz.

Gamze Şener

Koç Üniversitesi Psikoloji Bölümü

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip bırakabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı olarak kullanılmasını kabul ediyorum.

☐ Evet ☐ Hayır

Appendix B: Demographic Form

1. Yaşınız:_____
2. Cinsiyetiniz:

☐ Kadın ☐ Erkek ☐ Diğer ☐ Belirtmek istemiyorum

3. Medeni durumunuz:

☐ Bekar ☐ Evli ☐ Boşanmış ☐ Diğer:_____

4. Eğitim Durumunuz:

☐ İlkokul ☐ Lisans
☐ Ortaokul ☐ Yüksek Lisans
☐ Lise ☐ Doktora
☐ Diğer:_____

5. Mesleğiniz: _____

6. Şu anda kiminle yaşıyorsunuz?

☐ Anne ve babanızla ☐ Evde tek başına
☐ Annenizle ☐ Evde arkadaşlarla
☐ Babanızla ☐ Yurtta
☐ Akrabaların yanında ☐ Diğer (lütfen açıklayın) _____

7. Aylık gelir seviyenizi nasıl değerlendirirsiniz?

☐ Alt ☐ Alt-Orta ☐ Orta ☐ Üst-Orta ☐ Üst

8. Şimdiye kadar hiç psikolojik bir rahatsızlık geçirdiniz ya da bir psikolojik rahatsızlık tanısı aldınız mı?

□ Evet □ Hayır

9. Eğer 8. Soruyu "Evet" olarak yanıtladıysanız lütfen tanınızı aşağıdaki boşluğa yazınız: _____

10. Şu anda herhangi bir psikolojik rahatsızlıktan dolayı ilaç kullanıyor musunuz?

□ Evet □ Hayır

11. Eğer 10. Soruyu “Evet” olarak yanıtladıysanız lütfen ilacın ismini aşağıdaki boşluğa yazınız: _____

Appendix C: Tolerance of Uncontrollability Questionnaire (TOUQ)

Lütfen aşağıdaki ifadelerden size en size en uygun ifadeyi düşünerek işaretleyiniz.

	(1) Kesinlikle Katılmıyorum	(2) Katılmıyorum	(3) Ne katılıyorum ne katılmıyorum	(4) Katılıyorum	(5) Kesinlikle Katılıyorum
1. Sonuçları kontrol edemediğimde genellikle iyiyim.					
2. Hayatın nasıl geliştiği üzerinde tam kontrole sahip değilim ve bu benim için sorun değil.					
3. Bana ne olduğunu her zaman kontrol edemem ve bu sorun değil.					
4. Hayatın kontrol edilemez olduğunu kabul ediyorum.					
5. Kontrol edilemeyenleri kontrol etme teşebbüslerimizi bırakmak bazen önemlidir.					
6. Hayatın kontrol edilemez olduğu bir gerçektir.					
7. Hayatı kontrol etmek genellikle zordur ve bu benim için sorun değil.					
8. Bazen bazı şeylerin benim kontrolüm dışında olması sorun değil.					
9. Her şey olduğu gibi olacak ve sorun değil.					

10. Kontrolden vazgeçmem gerektiğinde genelde umursamıyorum.					
11. Bir şeyleri kontrol edememek beni çok fazla rahatsız etmiyor.					
12. Hayattaki birçok şey kontrolümün dışında ve sorun değil.					
13. Gelecekte ne olacağı üzerinde kontrol sahibi olmamak benim için sorun değil.					
14. Hayattaki şeyleri her zaman kontrol edemem ve bunda bir sorun yok.					
15. Kontrolsüzlüğe toleranslıyım.					
16. Her şey olacağına varır.					
17. Hayatta bazı şeyler kontrol edilemez ve bu benim için sorun değil.					
18.Hiç kimse kendi hayatı üzerinde tam kontrole sahip değildir ve bu sorun değil.					
19. Kontrolüm dışında gelişen olaylardan çok rahatsız olmam.					

Appendix D: Repetitive Thinking Questionnaire-10 (RTQ-10)

Bu ankette sizi rahatsız eden durumlara nasıl tepki verdiğinizi anlamaya çalışıyoruz. Lütfen, kendinizi sıkıntılı veya üzgün hissettiğinizde nasıl tepki verdiğinizi hatırlayın.

Sıkıntılı veya üzgün olduğunuzda yaşadığınız deneyimleri düşünün. Bu anlarda aklımızdan bazı düşünceler geçer. Bu düşünceler bazen sözel (bir cümle şeklinde) bazen de görsel (gözümüzün önüne gelen bazı görüntüler veya sahneler şeklinde) olabilir.

Bu deneyimlerle ilgili olarak aşağıdaki ifadelerin her birinin sizin için ne kadar doğru olduğunu 1 (hiç doğru değil) ile 5 (çok doğru) arasında işaretleyiniz.

	1 Hiç doğru değil	2	3 Biraz doğru	4	5 Çok doğru
1. Tüm yetersizliklerim, başarısızlıklarım, kusurlarım ve hatalarımla ilgili düşünce ya da görüntüler aklımdan geçer.					
2. Olanları tekrar düşünmek istemesem bile, olaylara dair düşünce ya da görüntüler aklıma gelir.					
3. "Kendimi çok kötü hissettiğim için işimi gücümü yapamayacağım" şeklinde düşünce ya da görüntüler aklımdan geçer.					
4. Unutması zor olan düşünce ya da görüntüler aklımdan geçer.					
5. Olanları düşünmeye bir kere başlayınca kendimi durduramam.					
6. Kendimi, olanları düşünürken bulurum.					
7. Düşünmemeye çalıştığımda bile, bazı düşünce ya da görüntüler aklıma gelir.					
8. Sürekli olarak, yaşadığım durumu düşünürüm.					
9. Durumu düşünmemem gerektiğini bilirim, ama buna engel olamam.					
10. Olanlarla ilgili bazı düşünce ya da görüntüler aklıma gelir ve keşke her şey daha iyiye gitseydi diye düşünüp dururum.					

Appendix E: White Bear Suppression Inventory (WBSI)

Aşağıda bazı düşünce ve davranışlara ilişkin ifadeler yer almaktadır. Lütfen her bir ifadeyi dikkatle okuduktan sonra bu ifadeye ne kadar katıldığınızı yanındaki rakamlardan uygun olanı yuvarlak içine alarak belirtiniz. Doğru ya da yanlış cevap yoktur. Hiçbir maddeyi boş bırakmamaya özen gösteriniz.

1 = Kesinlikle Katılmıyorum

2 = Katılmıyorum

3 = Fikrim Yok ya da Bilmiyorum

4 = Katılıyorum

5 = Kesinlikle Katılıyorum

1. Bazı şeyleri düşünmemeyi tercih ederim.
2. Bazen düşündüğüm şeyleri neden düşündüğümü merak ederim.
3. Kendimi düşünmekten alıkoyamadığım düşüncelerim var.
4. Aklıma geliveren ve bir türlü kurtulamadığım imgeler/görüntüler var.
5. Dönüp dolaşıp yine aynı şeyi düşünüyorum.
6. Keşke bazı şeyleri düşünmekten vazgeçebilsem.
7. Bazen düşüncelerim o kadar hızlı değişiyor ki onları durdurmak istiyorum.
8. Her zaman sorunları aklımdan çıkarmaya çalışırım.
9. İstemeden birden bire aklıma gelen düşünceler var.
10. Düşünmemeye çalıştığım bazı şeyler var.
11. Bazen gerçekten aklımdakileri düşünmekten vazgeçebilsem diyorum.
12. Sık sık kendimi düşüncelerimden uzaklaştıracak şeyler yaparım.
13. Uzaklaşmaya çalıştığım düşüncelerim var.
14. Kimseye söylemediğim bir sürü düşüncem var.
15. Bazen bazı düşüncelerin zihnimi meşgul etmesini önlemek için başka şeylerle uğraşırım.

Appendix F: Social Problem-Solving Inventory-Revised (SPSI-R)

Aşağıda, insanların günlük yaşamda sorunlarla karşılaştıkları zaman gösterebilecekleri bazı düşünce, duygu ve davranış biçimleri verilmektedir. Bu ankette geçen, ***"sorun"*** kelimesi ile yaşamınızda önemli bulduğunuz ve sizi çok rahatsız eden ama nasıl düzelteceğinizi bilmediğiniz durumlar kastedilmektedir. Sorun, sizin kendinizle (düşünceleriniz, duygularınız, davranışınız, sağlığınız veya görünümünüz ve benzeri), diğer insanlarla olan ilişkilerinizle (aile, arkadaş, öğretmen, veya patron ve benzeri), veya çevreniz ve sahip olduklarınızla (ev, araba, mülk, veya para ve benzeri) ilgili olabilir. Lütfen aşağıdaki her bir ifadeyi dikkatlice okuyunuz ve o ifadenin sizin için ne derece geçerli olduğuna karar veriniz. Burada verilebilecek cevapların doğrusu veya yanlışı yoktur. Sorunlarla karşılaştığınızda nasıl düşündüğünüzü, hissettiğinizi ve davrandığınızı hayal ediniz. Sizin için en geçerli cevabı yansıtan kutunun içine şu şekilde (X) bir çarpı işareti koyunuz. Her bir soruyu cevaplamaya çalışınız.

	Benim için hiç doğru değil	Benim için birazcık doğru	Benim için kısmen doğru	Benim için çok doğru	Benim için tamamen doğru
1. Sorunlarımı çözmeye çalışacağım yerde onlar hakkında endişelenerek çok zaman harcıyorum.					
2. Çözmem gereken önemli bir sorunum olduğunda, kendimi tehdit edilmiş ve korkmuş hissederim.					
3. Karar verirken, bütün seçenekleri yeterince dikkatli bir şekilde değerlendirmem.					
4. Bir karar almam gerektiği zaman, kararla ilgili her bir seçeneğin diğer insanlar üzerindeki olası etkilerini göz önüne alamam.					

5. Bir sorunu çözmeye çalıştığım zaman, farklı çözümleri düşünür ve daha sonra bunların bazılarını daha iyi bir çözüme ulaşmak için birleştirmeye çalışırım.					
6. Önemli bir karar almam gerektiği zaman kendimi gergin hissederim ve kendimden emin olamam.					
7. Bir sorunu çözmek için ilk baştaki çabalarım başarısız olduğunda, vazgeçmeyip kolayca pes etmezsem sonunda iyi bir çözüm bulacağımın farkındayımdır.					
8. Bir sorunu çözmeye çalışırken aklıma ilk gelen düşünceyle hareket ederim.					
9. Bir sorunum olduğunda, çözülebileceğine inanırım.					
10. Kendim çözmeye çalışmadan önce, bir sorunun kendiliğinden çözülüp çözülmeyeceğini görmek için beklerim.					
11. Çözmem gereken bir sorunum olduğunda yaptığım şeylerden biri, durumu incelemek ve elde etmek istediğim sonucun önünde ne tür engellerin olduğunu bulmaya çalışmaktır.					
12. Bir sorunu çözmede ilk çabalarım başarısız olduğu zaman çok fazla hayal kırıklığı yaşarım.					
13. Zor bir sorunla karşılaştığımda, ne kadar çok çalışırsam çalışayım kendi başıma çözebileceğimden şüphe ederim.					

14. Hayatımda bir sorun ortaya çıktığında, çözmeye çalışmayı olabildiğince ertelerim.					
15. Bir sorunun çözümüyle uğraşırken çözümün doğuracağı olası bütün sonuçları dikkatlice değerlendirmek için zaman harcamam.					
16. Sorunlarla uğraşmaktan kaçınmak için hayatımın akışını değiştiririm.					
17. Zor sorunlar beni üzer ve telaşlandırır.					
18. Vermem gereken bir karar olduğunda, her seçeneğin olumlu ve olumsuz sonuçlarını tahmin etmeye çalışırım.					
19. Hayatımda sorunlar ortaya çıktığında, mümkün olan en kısa süre içerisinde onları çözmek isterim.					
20. Bir sorunu çözmeye çalıştığım zaman, yaratıcı olmaya ve yeni veya orijinal çözümler düşünmeye çalışırım.					
21. Bir sorunu çözmeye çalıştığımda, aklıma gelen ilk iyi fikirle hareket ederim.					
22. Bir sorun için olası farklı çözüm seçeneklerini düşünmeye çalıştığımda aklıma çok fazla fikir gelmez.					
23. Hayatımdaki sorunları çözmek yerine onları düşünmekten uzak durmayı tercih ederim.					
24. Bir karar verirken her seçeneğin hem kısa hem de uzun vadeli sonuçlarını göz önüne alırım.					
25. Bir sorunu çözdükten sonra neyin doğru neyin yanlış gittiğini incelerim.					

26. Bir sorunun çözümünden sonra, duygularımı gözden geçirir ve iyi yönde ne kadar değiştiklerini değerlendiririm.					
27. Bir sorunu çözmeden önce, başarı şansımı arttırmak için çözümün alıştırmasını yaparım.					
28. Zor bir sorunla karşılaştığımda, yeterince gayretli çalışırsam onu tek başıma çözebileceğime inanırım.					
29. Çözmem gereken bir sorun olduğunda, ilk yaptığım işlerden birisi sorun hakkında olabildiğince fazla bilgi toplamaktır.					
30. Hayatımdaki sorunları çözmeyi, bıçak kemiğe dayanıncaya kadar ertelerim.					
31. Sorunlardan kaçmaya onları çözmekten daha fazla zaman harcıyorum.					
32. Bir sorunu çözmeye çalıştığımda, öylesine telaşlanıyorum ki net düşünemiyorum.					
33. Bir sorunu çözmeye çalışmadan önce, tam olarak neye ulaşmak istediğimi bilebilmek için kendime bir hedef belirlerim.					
34. Bir karar vermem gerektiği zaman, her bir seçeneğin olumlu ve olumsuz yönlerini düşünmek için zaman harcamam.					
35. Bir sorunu çözdüğümde sonuç tatmin edici değilse, neyin yanlış gittiğini bulmaya çalışırım ve yeniden denerim.					

36. Yaşamımdaki sorunları çözmek zorunda olmaktan nefret ediyorum.					
37. Bir sorunu çözdüğümde, sorunla ilgili durumun olumlu yönde ne kadar değiştiğini olabildiğince dikkatli bir biçimde değerlendirmeye çalışırım.					
38. Bir sorunum olduğunda, sorunu olumlu yönde faydalanılabilecek bir fırsat olarak görmeye çalışırım.					
39. Bir sorunu çözmeye çalıştığımda, olabildiğince fazla çözüm seçeneği düşünmeye çalışırım; ta ki aklıma başka bir düşünce gelmeyinceye kadar.					
40. Karar almam gerektiğinde, her bir seçeneğin sonuçlarını değerlendirip birbirleriyle karşılaştırırım.					
41. Önemli bir sorunu çözmem gerektiğinde üzüntülü, bezgin ve hareketsiz olurum.					
42. Zor bir sorunla karşılaştığımda, çözmek için birilerinden yardım isterim.					
43. Bir karar vereceğim zaman, her bir seçeneğin duygularım üzerindeki olası etkisini hesaba katarım.					
44. Çözmem gereken bir sorunum olduğunda, çevremdeki hangi etmen ve koşulların sorunun oluşmasına katkıda bulunduğunu araştırırım.					
45. Karar alırken, her seçeneğin sonuçlarını düşünmeden içimden gelen duygularla hareket ederim.					
46. Karar alırken, seçenekleri değerlendirmek ve birbiriyle					

karşılaştırmak için sistematik bir yöntem kullanırım.					
47. Bir sorunu çözmeye çalışırken, amacımın ne olduğunu sürekli aklımda tutarım.					
48. Bir problemi çözmeye çalışırken, soruna olabildiğince değişik açılardan bakarım.					
49. Bir problemi anlamada sıkıntıya düşersem, soruna özgü ve sorunu netleştirmeye yarayacak somut bilgiler edinmeye çalışırım.					
50. Bir sorunu çözmede ilk çabalarım başarısız olursa, cesaretim kırılır ve moralim bozulur.					
51. Uyguladığım bir çözüm sorunumu tatminkâr bir biçimde çözmezse, neden o çözümün işe yaramadığını araştırmak için zaman harcamam.					
52. Karar vermem söz konusu olduğunda çok fazla düşünmeden hareket ederim.					

Appendix G: Patient Health Questionnaire (PHQ)

Son iki hafta içinde aşağıdaki problemler size ne sıklıkla rahatsız etti?

		Hiç	Birkaç gün	Günlerin yarısından fazlasında	Hemen hemen her gün
1	Bir şey yapmak konusunda ilgisizlik veya zevk almamak				
2	Üzgün, depresif veya umutsuz hissetmek				
3	Uykuya dalmada veya uyumaya devam etmekte zorluk veya çok fazla uyumak				
4	Yorgun hissetmek veya enerjinizin az olması				
5	İştahsızlık veya çok fazla yemek				
6	Kendinizi kötü hissetmeniz veya kendinizi başarısız ya da kendinizi veya ailenizi hayal kırıklığına uğrattığınızı düşünmeniz.				
7	Gazete okumak veya televizyon seyretmek gibi faaliyetlerde dikkatinizi toparlamakta güçlük çekmeniz				
8	Başkalarının farkedeceği kadar yavaş hareket etmeniz veya konuşmanız. Veya tam aksine-normalden çok daha fazla hareket edecek kadar kıpır kıpır ve huzursuz olmanız.				
9	Ölmüş olsanız daha iyi olacağınız veya bir şekilde kendinize zarar verme düşünceleri				

Bu sorunlardan herhangi birini işaretlediyseniz, bu sorunlar işinizi yapmanızda, evinizle ilgili işleri halletmenizde veya diğer insanlarla olan ilişkilerinizde ne kadar zorluk yarattı?

Hiç zorluk yaratmadı Oldukça zorluk yarattı Çok zorluk yarattı Aşırı derecede zorluk yarattı

Appendix H: Generalized Anxiety Disorder (GAD-7)

Son bir hafta içinde aşağıdaki problemler size ne sıklıkla rahatsız etti?

		Hiç	Birkaç gün	Günlerin yarısından fazlasında	Hemen hemen her gün
1	Kendini sinirli, kaygılı veya çok gergin hissetme				
2	Kaygılarını durduramama veya kontrol edememe				
3	Farklı şeylerden çok fazla endişelenme				
4	Gevşemede güçlük çekme				
5	Sakince oturamayacak kadar kendini huzursuz hissetme				
6	Kolayca kızma ve asabileşme				
7	Sanki çok kötü bir şey olacakmış gibi korku duyma				

Herhangi bir problem işaretlediyseniz, bu problemler sizin için şıunları ne kadar zorlaştırdı: İşinizi yapmak, evdeki işleri yapmak veya başkalarıyla geçinmek

Hiç	**Biraz**	**Çok**	**Aşırı Derece**