POSSIBLE UNDERLYING MECHANISMS OF THOUGHT-ACTION FUSION AND RELATED APPRAISAL PROCESSES AS A FUNCTION OF PERSEVERATIVE OBSESSIVE-COMPULSIVE-LIKE REASONING

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ABSTRACT

POSSIBLE UNDERLYING MECHANISMS OF THOUGHT-ACTION FUSION AND RELATED APPRAISAL PROCESSES AS A FUNCTION OF PERSEVERATIVE OBSESSIVE-COMPULSIVE-LIKE REASONING

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The current study aims to simulate a thought-action fusion (TAF) experience observed in obsessive compulsive (OC) patients and its accompanying appraisal processes in students with low and high OC-symptomatology, and in OC patients. A novel paradigm, integrating TAF induction with perseverative reasoning was utilized. Participants were 131 university students, and 52 OC patients. Students were screened and assigned to the low and high OC symptomology group according to their Padua Inventory-Washington State University Revision (PI-WSUR) scores. Firstly, participants read the vignette. Next, they were trained for perseverative reasoning which was followed by a task in which they were asked to link two OC-like feared situations perseveratively in a cause-and-effect relation. Later, for the psychoeducation (PE) manipulation, while half of the participants read psychoeducational information about TAF, while the other half read the psychoeducational information about stress, which was the control condition. Appraisal ratings such as credibility, uncertainty, responsibility, regret, guilt, distress, the urge for suppression and lastly likelihood and morality components of TAF for the causal link between situations were assessed before and after perseverative reasoning, and after the psychoeducation. In general, scores for the

high OC and OCD-patient groups were higher than that of the low OC group. The effect of PE was observed in a group of dependent variables but not others, which is discussed in detail. Results and their clinical implications are discussed related to the current literature.

Key words: obsessive compulsive disorder, thought-action fusion, perseverative reasoning, psychoeducation, appraisal processes.

ÖZ

OBSESİF KOMPULSİF BENZERİ TEKRARLI AKIL YÜRÜTMEYE BAĞLI OLARAK DÜŞÜNCE EYLEM KAYNAŞMASI VE İLİŞKİLİ DEĞERLENDİRME SÜREÇLERİNİN TEMELİNDEKİ OLASI MEKANİZMALAR

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Bu çalışma Obsesif kompulsif (OK) hastalarda gözlenen düşünce eylem kaynaşması ile ilgili deneyimin ve buna eşlik eden değerlendirme süreçlerinin bir benzerini 131 düşük ve yüksek semptomatoloji gösteren öğrencide ve 52 OK hastada oluşturmayı amaçlamaktadır. Bu amaç çerçevesinde, katılımcıların düşünce eylem kaynaşması deneyimine neden olan bir durum içine girdikleri ve durumun içinde tekrarlı bir şekilde aklı yürüttükleri bütünleştirilmiş yeni bir paradigma kullanılmıştır. Öğrenci grubu Padua Envanteri – Washington Eyalet Üniversitesi Revizyonu uygulanarak taranmış ve semptomatoloji düzeylerine göre düşük ve yüksek gruba atanmışlardır. Öncelikle, tüm katılımcılardan bir kısa hikaye okumaları istenmiştir. Sonrasında tekrarlı akıl yürütme görevi için eğitilmişlerdir. Bu eğitimi baz alarak OK benzeri korkulan iki durumu birbirine tekrarlı şekilde neden sonuç ilişkisi içinde bağlamaları istenmiştir. Sonra, katılımcıların yarısı düşünce eylem kaynaşmasına yönelik bir psikoeğitim (PE) almışlardır. Diğer yarısı da, kontrol koşulu olarak, stresle ilgili PE almışlardır. Katılımcıların olaylar arası nedensel ilişkiye ne derece inandıkları, ne derece belirsizlik yaşadıkları, durumlar arası nedensellikle ilgili hissettikleri sorumluluk, pişmanlık, suçluluk ve rahatsızlık düzeyleri ve katılımcıların ne oranda düşüncelerini bastırma ile ilgili bir dürtü

hissettikleri ile ve düşünce eylem kaynaşmasının bileşenleri ile ilgili değerlendirme süreçleri tekrarlı akıl yürütmeden önce ve sonra ve PE'den sonra olmak üzere ölçülmüştür. Genel olarak, yüksek OK grubunda ve hasta grubundaki puanlar düşük OK grubundan yüksektir. PE'in etkisi bazı bağımlı değişkenlerde gözlenmiştir ancak bazılarından bu etki gözlenmemiştir. Tüm bu sonuçlar güncel literatür eşliğinde tartışılmıştır.

Anahtar kelimeler: Obsesif kompulsif bozukluk, düşünce eylem kaynaşması, tekrarlı akıl yürütme, psikoeğitim, değerlendirme süreçleri.

To my dear wife

and

To our beloved son, Ahmet Barış,

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LIST OF ABBREVIATIONS

AG	Altruistic Guilt
BDI	Beck Depression Inventory
CA	Car accident
CBT	Cognitive-Behavioral Therapy
DG	Deontological Guilt
ERP	Exposure and Ritual Prevention
HA	Heart Attack
IBA	Inference-based Approach
III	Interpretation of Intrusions Inventory
NJRE	Not Just Right Experiences
OCCWG	Obsessive Compulsive Cognitions Working Group
OCD	Obsessive-Compulsive Disorder
PI-WSUR	Padua Inventory-Washington State University Revision
PR	Perseverative Reasoning
TAF-PE	Pscyhoeducation about TAF
PE	Psychoeducation
Stress-PE	Psychoeducation about Stress
TTF	Thought-Thought Fusion
TAF	Thouhgt-Action Fusion
UIT	Unwanted Intrusive Thought
VT	Vignette Type
VAS	Visual Analogue Scales

CHAPTER 1

INTRODUCTION

"If you would be a real seeker after truth,
it is necessary that at least once in your life you doubt, as far as possible, all things"
Rene Descartes, Principles of Philosophy

1.1. General Characteristics of Obsessive Compulsive Disorder (OCD)

OCD is a chronic disorder which has been recognized for more than 300 years (Salzman and Thaler, 1981). The disorder is characterized by frequent obsessions and compulsions. These obsessions and compulsions are often categorized according to four dimensions: (1) contamination and washing, (2) checking, (3) symmetry and ordering, and (4) sexual, religious, and violent obsessions (Mataix-Cols, Rosario-Campos, & Leckman, 2005). OCD is a disorder with an incapacitating effect on patients' global functioning and well-being (Rachman, 1997; Salkovskis, 1985). In other words, regarding its basic characteristics, OCD is a prevalent and costly psychiatric condition (Leon, Portera, & Weissman, 1995; Weismann et al., 1994) causing significant functional impairment (de Silva, 2003), and reducing the quality of life (Koran, Thienemann, & Davenport, 1996; Skoog & Skoog, 1999). On the other hand, it is the fourth-most-common mental disorder with a prevalence rate ranging from 1 to 4 % (Leonard, Ale, Freeman, Garcia, Ng, 2005).

Regarding the etiology of OCD, several theories have been proposed to date, including psychogenic factors, learning theory, neurological and biological models. However, they regrettably fail to explain the underlying mechanisms of the pathological processes observed in this disorder (Altın & Gençöz, 2011).

There are various findings in the literature concerning the treatment issue. It is suggested that exposure and response prevention (ER/P) technique is partially effective for many patients with OCD. However, it is also proposed that there is a high drop-out rate and poor treatment compliance in OCD (Clark & Purdon, 1993). Although most patients benefit from the treatment, significant residual symptoms are left for a large proportion of patients, some patients may not improve at all (Fisher and Wells, 2005). However, there is still a long way to go in having a complete understanding of the phenomenology of OCD (Lind & Boschen, 2007).

The current dissertation is proposed based on this hopeful argument in order to further the understanding of OCD. The main theme of the dissertation is related to OCD and specifically Thought Action Fusion (TAF), which is a type of cognitive distortion related to OCD. The basic aim is to simulate OC-like reasoning in the context of TAF, and to evaluate the associated appraisal processes. The organization of the literature review emphasizes this basic aim. It starts with a general description of the characteristics of OCD and the cognitive model of OCD. Then TAF-Induction literature together with perseverative reasoning in accordance with the concept of doubt is reviewed. Alongside this route, the appraisal processes including credibility, guilt, responsibility, regret, and accompanying neutralization/suppression urge in the face of TAF-Induction is also discussed. Lastly, the review focuses on imagination and its relations to TAF, followed by the main aim of the study.

1.1.1. The Phenomenology of OCD

Obsessions (e.g. personally obnoxious thoughts of harming loved ones) are defined as disturbing thoughts, images, or urges intruding into the individual's stream of consciousness (APA, 2000). Rachman (1998) notes that the themes of all obsessions fall into three main categories, namely, aggression, sexuality, and blasphemy. Compulsions, on the other hand, are repetitive behaviors or mental acts which the individual feels compelled to perform, usually with a desire to resist in order to avert the feared event or to reduce distress. Compulsions are, nevertheless,

disproportionate or not realistically connected to what they are intended to prevent (APA, 2000).

The phenomenological perspective offers a distinct viewpoint for OCD, expanding the established perspective designed for this disorder (Denys, 2011). Two new terms were offered to this aim: *obsessionality* and *compulsivity*. The former is derived from a Latin word *obsidere* which means being taken into possession, being occupied or preoccupied. Contrary to what the term suggests, this concept is not specific to obsessions. It also belongs to compulsions (Denys, 2011). According to this perspective, every specific mental act has a particular intentionality and a certain orientation. However, the normal kind of intentionality is distorted in obssesionality. A patient, for instance, may be both obsessed by an intrusive thought and also be obsessed by the behavioral act. But the main point here is his/her attention is confined to a limited area of single thought and/or action. In this way, the rest of the world seems to be meaningless to patients due to this confined attention. This is thought to result in the feeling that the patient themselves are alone fully responsible for the dangers, contamination, accidents, etc. (Denys, 2011).

The latter concept, compulsivity, derived from again the Latin word, *compellere* means feeling forced or to be cornered. Patients feel that something determines what to think and how to act. That situation seems to lead to the feeling of losing control of the self. Similar to the former concept, compulsivity is also recognizable both in obsessions and compulsions. A patient can feel compelled to think a strange thought and also feel compelled to act in a straightforward and ritualistic manner. However, there emerges a difference between these two symptoms, in that, compulsivity has an immediate effect on obsessions but it has a much more gradual effect on compulsions (Denys, 2011).

Understanding obsessions and compulsions, which are inevitably interconnected with each other, is challenging for all schools of thought (Hallam & O'Connor, 2002). Regarding their ego-dystonic nature, obsessions are generally defined as unacceptable and/or unwanted, intrusive, repetitive thoughts, images, or impulses, and they generate a subjective resistance (Rachman & Hodgson, 1980).

Intriguingly, obsessions are meaningful but they are also irrational; they are part of the self but at the same time they are alien; they are thought to be self-created yet unwanted (Hallam & O'Connor, 2002). They seem to include two ostensibly contradictory features simultaneously.

1.1.2. Issues in Treatment of OCD

Regarding treatment options, OCD is accepted to be a highly treatment resistant disorder; however, researchers progressed in identifying effective treatments for this disorder over the last three decades. Controlled clinical trials revealed that cognitive-behavioral therapy (CBT) substantially reduces symptoms of OCD (Franklin and Foa, 2002). CBT has the basic assumption that emotional disorders are maintained by cognitive and behavioral factors. Another related and crucial assumption of CBT is that psychological treatment through cognitive and behavioral techniques results in changes in cognitive and behavioral factors (Beck and Emery, 2005).

CBT based on these assumptions mainly focuses on exposure and ritual prevention (ERP; Greist et al., 2003). It is used either alone or especially in more severe cases in combination with pharmacological treatment (March, Frances, Carpenter, & Kahn, 1997). It is accepted as being the psychological treatment of choice for OCD (NICE, 2006), including gradual prolonged exposure to fear-eliciting stimuli in combination with instructions for abstaining from compulsive behavior (van Oppen et al., 1995; Wilhelm et al., 2005).

Specifically, based on the treatment outcome studies, Abramowitz (1997) suggested that ERP was highly effective in reducing OCD symptoms. A meta-analitic study found significantly greater effect sizes for ERP when compared with serotonin reuptake inhibitors for the treatment of OCD (Kobak, Greist, Jefferson, Katzelnick, Henk1998). It is indicated that ERP is effective for OCD, even in the following three years (Abramowitz, 2006). One specific review of 16 controlled studies regarding ERP for adult OCD patients found that average OCD symptom reduction across studies was %48 (Abramowitz, Franklin, Foa., 2002). Besides, meta-analyses estimated 75-85% of patients benefit from CBT for OCD.

(Abramowitz, 1996, 1997, 1998; Steketee & Shapiro, 1993; Hiss, Foa, & Kozak, 1994; Van Balkom et al., 1994). However, 40% of OCD patients refuse treatment or drop out of the treatment (Steketee, 1993). Investigating these seemingly high levels of drop out rates, in the last decades, theorists are inclined to search the underlying cognitive processes of OCD to explain the underlying mechanisms of this disorder (Clark & Purdon, 1993). Subsequent sections review these efforts for the understanding of OCD.

1.2. Cognitive Models for OCD

Current cognitive approaches predominantly suggest that obsessions' origin is in unwanted intrusive thoughts. It is proposed from a general viewpoint that if they are appraised negatively, then this appraisal leads to the neutralization behaviors (Rachman, 1997; Salkovskis, 1985).

The basic notions in investigating obsessions on the basis of cognitive conceptualization are *negative intrusions* and *appraisal*. Regarding the former, they are described as (statistically) normal unwanted thoughts, images, or impulses. They are experienced by most people at one time or another (Salkovskis, 1985, 1989; Salkovskis, Westbrook, Davis, Jeavons, & Gledhill, 1997; Salkovskis, Shafran, Rachman & Freeston, 1999; Rachman & De Silva, 1978). Obsessions and intrusions are proposed to be similar in terms of content but the difference is that obsessions are more severe, frequent, and upsetting (Hallam & O'Connor, 2002). Besides, they are viewed as the outcome of an automatic process. (Salkovskis, 1989; Salkovskis et al., 1997, Salkovskis, 1999). Other viewpoints regard intrusions as mental flotsam (Rachman, 1994). These viewpoints will be discussed in detail later.

Appraisal is the other term for cognitive model of obsessions. Intrusions are in the first stage and misinterpretation of these negative intrusions (in other words, appraisal) is in the second stage. These misinterpretations are proposed to be strongly related to the assumption of personal responsibility for harmful the outcomes (Hallam & O'Connor, 2002).

Regarding the underlying factors for obsessions and compulsions, current cognitive models of OCD suggest that they result from certain types of dysfunctional beliefs, appraisals and behaviors such as inflated responsibility, thought action fusion, and thought suppression (Altın & Gençöz, 2011). These domains will be discussed in detail later in this chapter.

In their cognitive–behavioral models of OCD, Salkovskis, Forester, and Richards (1998) propose that obsessive and compulsive symptoms are the consequence of an attributed meaning to an intrusive thought. When these thoughts are appraised in a negative fashion accompanied with a specific emphasis on increased personal responsibility, there arises an experience of anxiety which increases the likelihood of neutralizing behaviors. Specifically, Salkovskis advocated in his comprehensive cognitive model that cognitive intrusions are universal phenomena; but, they become a problem for persons only when they are appraised as having important negative effects on them. In this way, he specifies the structure of the obsessive type of beliefs in OCD (Salkovskis, 1985; 1989).

What is the result of this mentioned type of appraisal, which is core to Salkovskis' model? It is suggested that following the appraisal one has a more adverse mood such as anxiety and depression. Associated with it, this appraisal leads to engaging in neutralization behaviors to decrease the effects of the adverse mood. Performing the neutralizing behaviors intensifies the likelihood of additional intrusions and increases the perceived threat, and accordingly feeling of being *responsible* (Altın & Gençöz, 2011). Rachman (1997), on the other hand, suggested that obsessions are caused by catastrophic misinterpretations of the significance of one's intrusive thoughts (images, impulses). In other words, the persistence of obsessions is related to the attached misinterpretation to the intrusive thoughts.

1.3. Specific Belief Domains in OCD

Cognitive behavioral models of OCD hold that negative interpretations of obsessive intrusions have a pivotal role regarding the maintenance of OCD (Salkovskis, 1985). However, more recent theories propose six belief domains

having a more specific role in OCD; namely, need for perfectionism, intolerance for uncertainty, inflated responsibility, overestimation of threat, overimportance of thoughts, and the need to control thoughts (Obsessive Compulsive Cognitions Working Group (OCCWG), 1997). The Obsessive Beliefs Questionnaire (OBQ) was developed by the OCCWG in order to assess these domains. According these analyses, it is offered that there are three correlated factors: (a) Inflated responsibility and overestimation of threat (b) perfection and intolerance of uncertainty; and (c) overimportance and need to control one's thoughts (Taylor et al., 2010).

Whether these belief domains have an effect on OCD symptomatology altogether or they have a fragmented effect on OCD symptoms is a controversial topic, which falls beyond the scope of this dissertation. In short, some theorists suggest that these beliefs have a total effect on OCD; however, some theorists argued that they have an effect only according to the symptom type (Fitch & Cougle, 2013). In fact, these mentioned chief cognitive models of OCD based on specific belief domains are established on Beck's (1976) cognitive specificity hypothesis. It offers that specific kinds of psychopathology derive from specific types of dysfunctional beliefs. For instance, depression is associated with beliefs about loss, failure, or self-denigration; social anxiety is related to beliefs about rejection or ridicule by others (Beck, 1976).

The first domain related to OCD is *inflated responsibility*, which is the belief that persons have a special power to cause and to prevent negative outcomes (Tayloret al., 2010). To be more specific, OCCWG (1997) advocated that OCD patients are inclined to believe that they are equally responsible for errors of omission as for errors of commission while normal people hold the belief that they are to blame for errors of commission, rather than for errors of omission (Emmelkamp & Aardema, 1999).

The second belief domain is *overestimation of threat*. This domain suggests that negative events are more likely to occur and that their occurrence would have awful consequences (Tayloret al., 2010).

The third domain is as the *need to control thoughts*. It is the belief that full control over one's thoughts is both necessary and possible (Taylor, Coles, Abramowitz, McKay, Se Kang, & Carmin, et al., 2010). Purdon and Clark (2002) suggest that people with OCD have beliefs about the need to control one's thoughts, and an inclination for the misinterpretations of the failure to control one's thoughts (Altın & Gençöz, 2011).

The fourth domain, *perfectionism*, is the belief that mistakes and imperfection are unacceptable. Although OCD is thought to be related to the concept of perfectionism, there is much doubt for its ability to discriminate OCD from other diagnoses. Therefore, perfectionism is a dispositional trait for the development of psychopathology rather than having a particular effect on OCD (Emmelkamp & Aardema, 1999).

The fifth domain, *intolerance of uncertainty (IOU)*, is the belief asserting that it is necessary and possible to be entirely certain. In this way, one could prevent negative outcomes (Taylor et al., 2010). Intolerance of Uncertainty (IOU) is one of the main domains for OCD (OCCWG, 1997; Sarawgi, Oglesby & Cougle, 2013). Since uncertainty is one of the main concepts of the current study IOU will be explained in more detail. IOU is defined as having negative beliefs about uncertainty itself, its costs, and the beliefs about one's ability to cope with uncertainty (Dugas & Robichaud, 2007). OCCWG, on the other hand, describes IOU as "beliefs about the necessity of being certain, about the capacity to cope with unpredictable change, and about adequate functioning in situations which are inherently ambiguous" (OCCWG, 1997, p. 678). In a historical context, IOU has been seen as a cognitive bias that guides individuals to evaluate uncertain situations as negative (Ladouceur, Talbot, & Dugas, 1997; Koerner & Dugas, 2008). It is offered that high levels of IOU might lead to the experiences of negative future events as threatening and also unacceptable regardless of the probability of events actually occurring (Dugas, Gosselin, & Ladouceur, 2001). The relationship between this catastrophizing tendency and uncertainty will be discussed later throughout the dissertation.

The association between IOU and obsessive-compulsive symptoms has already been consistently demonstrated in the literature (e.g., Boelen & Reijntjes, 2009; Dugas2001; Norton, Sexton, Walker, & Norton, 2005). These findings have also been repeated in a variety of samples including patient groups, general community, and student samples (Gentes & Ruscio, 2011). Regarding the behaviors in the face of uncertainty, it is proposed that numerous futile behaviors like reassurance seeking, hypervigilance, or excessive checking are frequently seen in anxiety disorders aimed at reducing uncertainty (Krohne, 1993). Specifically, it is also offered that IOU leads to hypervigilance and subsequently, this situation results in elevated negative emotional arousal. Therefore, individuals attempt to avoid uncertainty to be kept away from the experience of aversive emotional arousal and negative feelings. In short, this model points out that both high level of vigilance and increased arousal produces *anxiety* on the basis of negative beliefs about the aftermath of uncertainty (Krohne, 1989).

Recently, IOU is progressively more conceptualized as a *transdiagnostic* feature underlying both anxiety disorders and depression (Mahoney & McEvoy, 2012). This construct seems to be uniquely predictive of OCD symptoms beyond other cognitive processes such as estimation of threat and beliefs related to responsibility (Fergus & Wu, 2010). Lee and Kwon (2003) suggest a difference between reactive and autogenous obsessions, in that, while the former, which is associated with more overt, observable compulsive behaviors and control strategies, follows specific and external stimuli (e.g. checking, ordering, etc.); the latter which is associated with internal/mental compulsions as control strategies, follows any identifiable stimuli (e.g. harm-related obsessions). After all these conceptualizations, IOU appears to be more connected to these concrete and overt compulsions, which are interconnected with reactive obsessions than autogenous obsessions. That is, IOU is found to be unrelated to obsessional distress and/neutralization activity.

The last domain, *overimportance of thoughts*, is related to the belief that the mere presence of a thought specifies that the thought is significant. In other words,

it is the belief that the thought has ethical or moral outcomes or that only thinking the thought increases the probability of the event (Taylor et al., 2010).

1.4. Thought Action Fusion (TAF)

TAF is one of the forms of the belief domain *overimportance* of thoughts (Rachman, Shafran, Mitchell, Trant, & Teachman, 1996; Shafran, Thodarson, & Rachman, 1996). Putting it in another way, TAF is defined as the belief that one's specific intrusive thoughts can directly influence the relevant external events and/or the belief that having these intrusive thoughts is morally comparable to carrying out a prohibited act (Rachman and Shafran, 1999). It is proposed that TAF is not exclusive to OCD, being a set of cognitive distortions about the relationship between mental events and behaviors (Abramowitz, Wheaton, Pardue, Fabricant, 2011; Berle & Starcevic, 2005), it can also be observed in other anxiety disorders (Berle & Starcevic, 2005). For instance, TAF-likelihood is prominent in generalized anxiety disorder and panic disorder (Hazlett-Stevens, Zucker, & Craske, 2002). In addition, TAF-morality was also found to be related to depression (Abramowitz, Whiteside, Lynam, & Kalsy, 2003; Yorulmaz, Karanci, Başţuğ, Kısa, Göka, 2008).

In TAF, patients with OCD think that their popping intrusive thoughts must be important. This type of cognitive bias, TAF, includes two categories of beliefs, namely, TAF-Likelihood and TAF-Morality (Rachman, Thordarson, Shafran and Woody, 1995). TAF is such an important aspect of OCD that it might increase both the psychological distress and the likelihood of neutralization behaviors; which in turn, increases OCD symptoms (Yorulmaz, Gençöz, Woody, 2009). Specifically, in Turkish culture, that the likelihood component was found to be more related to OCD in Western countries (Rassin, 2001; Shafran, Thordarson, & Rachman, 1996), while morality dimension of TAF also had an important role in OCD symptoms (Yorulmaz, Yılmaz, & Gençöz, 2004). This may be the result of differing patterns of religiosity between Western and Turkish cultures (Yorulmaz et al., 2004).

All in all, Shafran and her colleagues (1996) proposed that TAF is a sort of a cradle for perceived responsibility and a stimulant for the catastrophic

misinterpretation. Therefore, it is reported that perceived responsibility and TAF together endorse feelings of guilt (Rachman, 1997). Taking into account the interactions between these belief domains, it is argued (Rachman, 1993, 1997; Salkovskis, 1989, 1993) that patients have an inclination for misinterpreting certain conditions. They might think that they are responsible for possible negative consequences and if they do not take precaution then they start to think that these bad consequences will happen. This misinterpretation, in turn, increases personal responsibility (Yorulmaz et al., 2009). Misinterpretation of being responsible for possible negative consequences seems to imply the interaction of inflated responsibility and TAF. Regarding the relationship between guilt and TAF, it is proposed that patients who have high scores in both dimensions of TAF are more likely to experience greater guilt than someone who does not hold that belief about TAF (Rachman & Shafran, 1999). Moreover, patients' neutralization behaviors are already aiming at reducing the feelings of guilt (Reynolds and Salkovskis 1991; Shafran et al., 1996). When investigating the triple interaction of guilt, responsibility and TAF, they are thought to be related each other, in that, if a person feeling responsible for having specific thoughts or for not preventing harm associated with these thoughts, then s/he also would be likely to experience some guilt (Berle & Starcevic, 2005). Guilt also seems to increase when TAF is induced (Rachman et al., 1996).

1.4.1. Magical Thinking and TAF

Magical thinking is another construct which is prevalent in OCD symptomatology. One of the main characteristics of this thinking style is that people with OCD focus on improbable and also implausible events. For instance, patients with OCD might check whether they knock over a person while walking or they may start to fear a car accident merely because they have thought of that event (Bocci & Gordon, 2007). In both of the examples above, there is no reasonable connection between the feared outcome and the supposed cause. These types of connections are known as magical thinking. Magical thinking is also seen in the neutralizing ritual-type of behaviors in OCD such as counting, positioning objects,

repeating some phrases, etc. to provide protection for the feared event (Bocci & Gordon, 2007).

Magical thinking is a belief in a person's power in controlling external events. Yet, this thinking style is beyond culturally and rationally agreed ways of causality (Woolley, 1997). It involves several kinds of paranormal beliefs such as spirit influences, astrology, clairvoyance, good luck charms and energy transfer among people (Chapman & Chapman, 1985). It may become a substitute way of coping under stress in order for preventing possible harm (Moulding & Kyrios, 2006). TAF is a form of magical thinking (Amir, Freshman, Ramsey, Neary, & Brigidi, 2001, Einstein & Menzies, 2004a, 2004b, 2006).

1.4.2. Unwanted Intrusive Thoughts (UIT)

Since cognitive models stress the misinterpretation of intrusive thoughts the nature of these intrusive thoughts as well as the difference between these thoughts with clinical obsessions will be discussed. Generally speaking, unwanted cognitive activity often intrudes into the flow of human thought. Worry, mind wandering, obsessive thought, and rumination are the examples of that kind of unwanted cognitive activity which is thought to create cognitive interference. Normal intrusive thought is another type of this unwanted cognitive activity, which the clinical psychology literature gives particular significance. It is assumed to play a significant role in the development of a number of psychological disorders Sarason, Pierce, & Sarason, 1996; Klinger, 1996). To be more specific UITs are said to be common across numerous disorders from generalized anxiety and OCD to depression (Clark, 2005). UITs' nature is thought to be nonvolitional, ego-dystonic, distracting, discomforting, and difficult to control.

Specifically, according to cognitive-behavioral models of OCD, it is suggested that normal intrusive thoughts provide a basis for obsessions. Cognitive-behavioral models suggest that some cognitive factors, such as beliefs about intrusive thoughts and maladaptive coping strategies, lead to the escalation of intrusive thoughts into obsessions (Clark & Purdon, 1993; Rachman, 1993). These models propose that whether an UIT escalates into a clinical obsession depends on

how this specific intrusive thought is appraised, and whether it is accompanied by a neutralization response (Clark, 2005). The current study mainly focuses on the cognitive factors rather than the maladaptive coping strategies.

Unwanted intrusive thoughts, images, or impulses are thought to be self-oriented and emotionally charged. Moreover, they capture attention and compel person in order for the control the associated distress. Interestingly, although these thoughts, images, or impulses are thought to be originated from inside, they are specified as unwanted. The term *unwanted* is used in order to distinguish this condition from various types of welcomed cognitive intrusions such as inspiration, pleasant daydreams, or fantasy (Clark, 2005). Particularly, clinically relevant unwanted intrusive thought is described as "any distinct, identifiable cognitive event that is unwanted, unintended, and recurrent. It interrupts the flow of thought, interferes in task performance, is associated with negative affect, and is difficult to control." (Clark, 2005, p. 4). All these characteristics will be discussed in detail in the following sections.

1.4.3. Normal Intrusions vs. Clinical Obsessions

The primary difference between unwanted intrusive thoughts in clinical and nonclinical samples is one of degree rather than kind. In other words, the discrepancy seems to be of quantitative rather than qualitative. To be more specific, the primary difference between nonclinical individuals and OCD patients is that the latter group experience more frequent, distressing, uncontrollable, time-consuming and dominating conscious awareness and unacceptable intrusions and perceive these thoughts to be less controllable than the individuals in the former group (Calamari & Janeck, 1997; Janeck & Calamari, 1999; Rachman & de Silva, 1978; Clark, 2004). Additionally, OCD patients more strongly counterattack their obsessions than nonclinical comparison groups do. Also, they are more likely to have neutralization behaviors, have a higher level of tendency to use maladaptive thought control strategies and perceive these control efforts to be less successful than the comparison group (Amir, Cashman, & Foa, 1997; Ladouceur et al., 2000).

Besides, clinical obsessions are thought to be associated with stronger levels of feelings of guilt than the unwanted mental intrusions (Clark, 2004).

Clinical obsessions are experienced as more intense, frequent, and discomforting than normal intrusions. There are two theories that explain the escalation of normal intrusions to clinical obsessions. First, cognitive theory suggests that the catastrophic interpretation of the intrusive thoughts is the main determinant in the process of clinical obsessions. In effect, this interpretation is thought to result from cognitive biases. This flawed type of interpretation, according to the theory, raises a group of symptoms including the increased levels of responsibility, anxiety, feeling discomfort, guilt, and the urge to engage in neutralizing behaviors (in other words, compulsions). According to clinical psychology literature, most of these cognitive biases seem to involve responsibility bias in one way or another (Rassin, 2001).

TAF is sometimes used interchangeably with responsibility appraisal. Regarding the interconnectedness between these cognitive belief domains/biases, Rachman et al. (1995) offer a proposal including an attempt in combining inflated responsibility and TAF. They argue that there are two types of responsibility bias related to clinical obsessions. The first one is morality bias, which is the belief that thinking that thoughts and overt actions are morally equivalent. The other is probability/likelihood bias, which is, it is the belief that thinking of a particular event (e.g., a loved one being involved in a car crash) increases the likelihood that this event will actually happen. On the grounds that both of these biases share the notion that thoughts and actions are closely related, they are named as TAF (Shafran et al., 1996).

Second, there is another theory about the cultivation of normal intrusions to clinical obsessions. In the face of intrusions, people take coping strategies such as thought suppression which becomes a counterproductive strategy (Rassin, 2001). Wegner, Schneider, Carter, and White (1987) offered the augmented level of intrusive thoughts due to the thought suppression strategy. Increased level of intrusive thoughts is found in both during these attempts and after the suppression period. This effect is called rebound effect of thought suppression. This effect is

thought to elicit discomfort. Wegner (1989) suggests as a result that paradoxical effect of this suppression activity lead to obsessions.

As revealed earlier, the nature of distressing intrusions is often aggressive, sexual or blasphemous in OCD patients (van den Hout, Kindt, Weiland, & Peters, 2002). In their seminal paper, however, Rachman and de Silva (1978) argued that the content of these obsessional intrusions was not different from the negative thoughts experienced by non-patients. The main difference between normal and abnormal intrusions is the response to which people give. As mentioned earlier, the literature of clinical psychology seems to converge upon the concept of interpretation of the intrusions. Whereas persons without any psychopathology evaluate these as harmless and morally irrelevant, OCD patients are inclined to interpret the nature of these intrusions as being highly negative. For instance, people may take the responsibility for that intrusive thought and/or people may interpret these intrusive thoughts as being the indicator of an impending a catastrophic event. When having such alarming interpretations for the meaning of thoughts, OCD patients try to deactivate the presumed threat.

1.5. TAF-Induction and Related Appraisal Processes

TAF beliefs are thought to be involved in the mentioned escalation process from *intrusive thoughts* towards *obsessions*. TAF is described as the tendency to fuse one's thoughts with overt behaviors. As stated earlier, it is believed that TAF has two distinct components. The likelihood component involves the belief that thinking about an unacceptable event can increase the probability that the event will actually occur, causing harm to oneself and others. The morality component refers to the belief that thinking about an unacceptable action is morally equivalent to actually performing the specific unacceptable action (Shafran et al., 1996).

The majority of research on TAF is based on the self-report methods and this methodology is thought to be inadequate to assess a situation which is analogous to obsessive-compulsive (OC) experience (de Silva, 2003). In addition, in OCD research, which depends largely on self-report measures is thought to subject to bias (Sarawgi, Oglesby & Cougle, 2013). On the other hand,

experimental studies are assumed to be more preferable when assessing TAF. Rachman and his colleagues (1996) invented a paradigm named the Sentence Completion Task to induce the likelihood component of TAF, and to evaluate the appraisal processes (for instance, the anxiety level of the participants and level of urge to neutralize the distress caused by TAF-Induction) (Rachman et al., 1996). In this paradigm, participants are asked to write the name of a loved one in a distressing sentence "I hope _____ is in a car accident" and afterwards visualize the event (Marino-Carper, Negy, Burns & Lunt, 2010). According to the results of experimental manipulation known as TAF-Induction, it is suggested that after participants contemplated this negative event in the experimental manipulation, they reported increased levels of distress, feelings of responsibility, guilt, and urges to neutralize the effects of contemplation (Rachman et al., 1996). On the other hand, educational intervention programs might result in a substantial change in TAF, distress and need for neutralization (Zucker, Craske, Barrios, & Holguin, 2002).

1.5.1. Guilt

Guilt, including a process about which one's internal rules are violated, (Beck, 1976) is supposed to be very much related to TAF. Guilt, which is also a phenomenological feature of OCD (Tallis, 1995), is thought to be the emotion resulting from an appraisal of responsibility for a negative outcome (McGraw, 1987, Shaver & Down, 1986; Miceli, 1991). Therefore, this appraisal is thought to increase the avoidance of guilt-provoking situations, decrease the resistance to compulsions, and make the unwanted intrusions more salient (Shafran, Watkins & Charman, 1996). Guilt, appears to be closely related to inflated responsibility, in that, patients with OCD have a tendency to amplify the potential harm of the negative events (Tallis, 1995), which in turn contributes to inflated sense of guilt (Shafran et al., 1996). It is suggested that both responsibility and guilt play a fundamental role in the development and maintenance of this disorder (Gangemia, Mancini, Macaluso, Caltagirone & Bozzali, 2013).Guilt is thought to be associated with TAF-likelihood component more than other feelings. TAF-Likelihood beliefs

lead individuals to think that intrusive thoughts increase the likelihood of causing harm. In essence, obsessions in combination with TAF-Likelihood beliefs are thought to generate feelings of guilt because TAF-Likelihood beliefs signal impending harmful events (Valentiner & Smith, 2008).

Guilt is thought to play a major role in both the occurrence and the maintenance of OCD. There are two main sorts of guilt identified. One is from the transgression of a moral rule (deontological guilt (DG)), another (altruistic guilt (AG)) relies on the assumption of having compromised a personal altruistic goal. Clinical evidence suggests that OCD patients are particularly sensitive to DG, but not AG (Basile et al., 2013). Guilt is also suggested as a factor in impacting patients' clinical severity and treatment outcome in a negative manner (Mancini and Gangemi 2004; Nissenson 2006).

1.5.2. Not Just Right Experiences (NJREs)

NJREs signal and represent a mismatch between one's performance and the individual's accepted standards (Mancinia, Gangemia, Perdighea & Marini, 2008). Thus, people with OCD frequently have uncomfortable sensations of things being not quite right (Coles, Frost, Heimberg, & Rheaume, 2003; Coles, Heimberg, Frost, & Steketee, 2005). Moreover, these individuals typically perform a certain action, which is characteristically a ritualistic compulsion, in order to reduce this uncomfortable feeling and reach a level where people with OCD feel things being just right (Mancinia, Gangemia, Perdighea & Marini, 2008). Researchers ask why these NJREs are so persistent. The answer might be the link between NJREs and intense feelings of guilt or fear of guilt since patients with OCD experience guilt in a chronic fashion (Mancini & Gangemi, 2004b; Niler & Beck, 1989; Rachman, 1993; van Oppen & Arntz, 1994; Mancini, 2001, cited in Mancinia et al., 2008) in that guilt feelings start to affect the sensation of things being not just right (Gangemi, Mancini, & van den Hout, 2007; Mancini & Gangemi, 2005, cited in Mancinia et al., 2008).

On the other hand, it is suggested that obsessions and compulsions are the consequence of excessive scrupulousness and an exaggerated tendency towards

feeling guilty (Mancini & Gangemi, 2006). Van Oppen and Arntz (1994) claimed that OCD is regarded as a disorder determined by the fear of guilt. When do people feel guilty? In clinical psychology literature, it is proposed that if one is below the level of attaining the prescribed goal, then they will feel guilty of acting irresponsibly, in that, they will take into account whether their performance met the sense of duty or not (Mancini & Gangemi, 2006).

1.5.3. Regret

Regret is conceptualized as a negative emotion accompanied by a counterfactual inference, which is about a personal action that could result in a different and more desirable outcome. Numerous studies have shown that regret has an essential construct linked to decision making, coping, and learning (Inman, Dyer, & Jia, 1997; Zeelenberg & Pieters, 2007). According to Landman (1993), regret is a cognitive and emotional condition of feeling sorry for misfortunes, limitations, losses, transgressions, shortcomings, or mistakes. Matters of regret could be sins of commission as well as sins of omission. The range for this emotion of regret is from voluntary to uncontrollable deeds. They might be actually executed actions or fully mental ones. A distinction between hot and wistful regret has been offered by Kahneman (1995). The former is the more intense one, coded as outright losses. The latter is less intense, induced by thoughts of foregone gains. It is argued that the former is of short-term experience of regret and the latter is of long-term experience of regret. The feeling of disappointment emerges when the obtained outcome is worse than expected. Regret is thought to have an additional component when compared to disappointment. This component is responsibility or self-blame for the obtained outcome (Chua, Gonzalez, Taylor, Welsh & Liberzon, 2009). In the emotion of regret, evaluations about the quality of one's decision come into the scene on the grounds that a different option could have been chosen (Connolly and Zeelenberg, 2002). Therefore, regret contains a desire to correct a mistake, undo the experience and get a second chance (Zeelenberg et al., 1998a, 1998b). Patients with OCD are thought to have an inflated sense of personal responsibility, exacerbating the experience of regret (Salkovskis et al., 2000;

Zeelenberg, van der Pligt, de Vries, 2000,). Regarding the relationship between guilt and regret, guilt is thought to be an emotional response which is based on obsessive thinking. Moreover, guilt is strengthened by feelings of regret. They are both thought to explain compulsive behaviors and decision-making dysfunctions (Basile et al., 2013).

1.5.4. Neutralization and Suppression

Returning to the coping strategies used in the face of such distressing thoughts, as a way of deactivating presumed threat, persons are inclined to use these coping strategies to manage these unwanted thoughts and associated unpleasant emotions. However, this specific maneuver seems to be futile as well as counterproductive (Najmi, Riemann & Wegner, 2009; Wells & Davies, 1994).

One possible strategy to suppress these intrusive thoughts is suppression. Yet, thought suppression is futile as well as counterproductive, in that, efforts to suppress these thoughts result in an increase the probability of intrusions and accompanying negative affect. Another way to handle both the intrusions and attached negative affect is to try to neutralize the content of the intrusive thought. For example, after having a improper thought, OCD patient might try to re-think that specific thought a for fixed number of times. It is argued that this neutralization activity resembles behavioral acts aiming at reducing the associated negative affect (van den Hout, Kindt, Weiland, & Peters, 2002).

There is a theoretical discrepancy between suppression and neutralization, in that, while the former aims at getting rid of the unpleasant thoughts, the latter seeks to undo the anticipated consequences of the same unpleasant thought (see Rachman et al., 1996). From another point of view, the thought suppression activity is believed to be a form of the neutralization activity, which is an attempt to alleviate and even nullify the discomfort brought about by an intrusive thought. Praying, performing a nonsensical activity, or confessing one's thoughts are accepted as the common forms of this neutralization, which aim at negating the possible damage arising from the intrusive thought. This type of harm avoidance strategy is thought to be a reflection of an inclination of fusion between thoughts

and the actions in the real world (Rachman et al., 1996; Amir, Freshman, Ramsey, Neary, & Brigidi, 2001).

When neutralization and suppression issue are added to the relationship between TAF and responsibility and OCD symptoms, it can be suggested that people experiencing TAF tend to either feel as being excessively responsible for some negative consequences or they try to suppress these disturbing and upsetting thoughts in order to avoid the distress, which in turn seem to exacerbate their symptoms (Altın & Gençöz, 2011). Next section gives information about interventions designed specifically for TAF.

1.5.5. Psychoeducation (PE) and TAF

Focusing on interventions about TAF, however, Rassin, Diepstraten, Merckelbach, Muris (2001) argued that cognitive-behavioral interventions seem to reduce TAF in patients with anxiety disorders. Relatedly, Rassin, Muris, Schmidt, and Merckelbach (2000) advocated that TAF begets thought suppression, which in turn, predicts more obsessive compulsive symptoms. Zucker, Craske, Barrios, Holguin (2002) firstly investigated that psychoeducational intervention is effective for minimizing the endorsement of TAF.

In their study, participants were randomly assigned to two groups; namely an experimental and a control group. The former group heard psychoeducational message regarding TAF emphasizing the normality and irrelevance of intrusive thoughts. And the latter group heard a message concerning stress, its consequences and techniques for alleviating it. Zucker et al. (2002) concluded that the results offer that *mere* PE has an impact on participants' appraisals of distressing intrusive thoughts.

1.5.6. Doubt

After stating TAF-Induction and its accompanying appraisal processes from a cognitive perspective, it is time to go over the concept of decision making difficulties seen in OCD. These processes are thought to be very much related to appraisal processes mentioned above. A growing body of evidence suggest that

patients with OCD have difficulties related to decision-making (de Silva, 2003; Coles, Radomsky, & Horng, 2006; Radomsky, Gilchrist, & Dussault, 2006; Tolin, Abramowitz, Brigidi, Amir, Street, & Foa, 2001; Tuna, Tekcan, & Topcuoglu, 2005; van den Hout & Kindt, 2003b, 2004). All people experience certain difficulties in decision making process because our environment is by nature *ambiguous*. Eventually the decision maker has to utilize his/her individual and executive preferences. For the majority, that process is in a spontaneous and adaptive fashion. Yet, for the OCD patients, this is not the case. Mineka and Sutton (1992) suggest that OCD patients are inclined to struggle to find the *correct* answer in their decision process. Therefore, they postpone the decision making process (Harkin & Mayes, 2008).

Regarding the concept of doubt, it is proposed that OCD patients are more doubtful than people without OCD. OCD is generally appraised as the *disorder of doubt*. Therefore, doubt is a hallmark of in OCD (Moritz, Rietschel, Jelinek & Bäuml, 2011). On the other hand, some articles advocate that excessive doubt in OCD is confined to cognitions which are relevant to OCD like situations, triggering OCD-related beliefs such as inflated responsibility (Cougle, Salkovskis, & Wahl, 2007; Moritz, Wahl, Zurowski, Jelinek, Hand, & Fricke, 2007; Moritz et al., 2011).

In this respect, pathological doubt is a central focus of OCD research, although the data have proved to be far from unequivocal. For example, an abundance of studies argue for both the presence (Coles, Frost, Heimberg & Rheaume, 2003; Hermans, Martens, De Cort, Pieters, & Eelen, 2003; Radomsky & Rachman, 1999) and absence (Constans, Foa, Franklin, & Mathews, 1995; MacDonald, Antony, MacLeod, & Richter, 1997; Moritz, Jacobsen, Willenborg, Jelinek, & Fricke, 2006) of general memory biases and deficits that are associated with OCD. Metamemory theories have proved to be a useful way to understand doubt in OCD, where there is a deficit in the confidence in one's memory rather than memory performance per se (Dar, 2004; Hout van den & Kindt, 2003a, 2003b; MacDonald et al., 1997; Moritz et al., 2006).

1.5.7. Indecisiveness

Regarding indecisiveness, OCD patients, compared to non-anxious controls usually need more information and show longer response latencies to make a decision in low-risk and OCD-relevant situations, but not for high-risk situations. This pattern is explained by the interaction between experienced anxiety and the level of perceived uncertainty/risk in the related context (Foa et al., 2003). Consequently, it is suggested that difficulty in decision making when facing with ambiguity may reflect the need for certainty (Harkin & Mayes, 2008). However, Dar (2004) stated that the process of memory and judgment are in fact hardly verifiable and our confidence in these processes is, to an extent, an illusion.

Turning to the phenomenological perspective, although there is a variety of symptom types related to OCD, it is advocated that almost all themes in OCD are reduced into the problem of certainty and control. During obsessionality, patients are no longer able to distinguish the difference between possibility and reality and also between thought and action and for that reason they persistently try to achieve the level of certainty about the external events. Yet, at the same time obsessions are also thought to persist because there is no absolute security in terms of certainty. Yet, OCD patients generally develop their symptoms to the extent that there is no certainty and to the extent that the patient is sure for losing control such as the areas like sexuality, sickness, danger, death and love. In addition to these, absolute certainty cannot be gained. In fact, the core nature of certainty is that it is not based on objective knowledge or in external reality. Contrary to what is believed, the whole mental process is based on a feeling (rather than cognitive and rational argumentation). It is recommended that control and certainty are an illusion which human beings have to believe in at times to safeguard the self from being aware of the volatile nature of life (Densy, 2011).

1.5.8. Perseveration and OCD

The main point related to nature of obsessions is that they are recurrent and persistent (Giele, van den Hout, Engelhard, Dek, Hoogers, Wit, 2013). Also, these obsessions are typically related to harm. Similarly, compulsions which are aimed at

preventing or neutralizing appraised negative outcomes associated with obsessions are still in a perseverative nature. Related to OCD, specifically perseverative nature of compulsions is the most attention grabbing aspect of the disorder. Related to this context, it is put forward that although the goal of the compulsion is reached, patients prolong their compulsive behaviors (e.g., Giele, van den Hout, Engelhard, Dek, & Hofmeijer, 2011).

There seems to be a complex relationship between perseveration and certainty, in that, perseveration is thought to stem from uncertainty (e.g., ‘‘is the gas knob really off?’’; Rachman, 2002); but the results of studies suggest that OC-like perseveration, ironically, increases uncertainty (Van den Hout and Kindt, 2003b, 2004). Moreover, this effect is not confined to repeated checking. Besides, after participants repeatedly visually fix on objects (‘‘Is the knob I see really off?’’), uncertainty about perception is prompted (van den Hout, Engelhard, de Boer, du Bois, & Dek, 2008; cited in Giele et al., 2013).Thus far, the organization of dissertation is determined according to the perspective of cognitive model of OCD. The next section will focus on another approach related to the understanding of OCD.

1.6. Inference-based Approach (IBA)

IBA is one of the main approaches to OCD. Contrary to the cognitive model, it explains the underlying mechanisms of obsessions as well as the maintenance of obsessions. With this aim, IBA criticizes the argument of normality of intrusions. Several studies suggest that intrusive cognitions are similar in content in normal and OCD groups. Moreover they offer that intrusions are universal and normal. However, IBA puts forward that any intrinsic value associated with content of the thought has been overlooked. The researchers in this approach argue that intrusive ideas are thematic and person-specific (O’Connor, 2002). Moreover, with reference to the context, they argue that intrusions in OCD population are generated in more inappropriate contexts than the intrusions in non-OCD population (O’Connor, Julien, & Aardema, 2006).

They continue their argumentation by proposing that obsessions are an inference process. Accordingly, obsessions are in the continuation of internal or external events which are the result of prior reasoning. In this model, obsessions are spontaneous and all obsessions occur in the inferential process. They suggest the term *inferential confusion* referring to a condition where a person mistakes a remote possibility for a real probability (Aardema & O'Connor, 2007). In the case of an obsession without overt compulsion, they argue that the person is only imagining the possibility of having that thought rather than actually having the thought. They offer a term of thought-thought fusion (O'Connor & Aardema, 2003) referring to a confusion of an inability to distinguish between the level of cognitive and metacognitive states of mind. In fact, the imaginary scenario and the feared motivated intent are interlaced eventually. Immediately, these thoughts result in an urge to control and suppress. In reality, it is argued that persons try to eliminate the motivated thoughts that are not there. Ultimately, persons turn out to be victims of their minds. This occurs because of the reconstructive nature of our thought processes. Why does it occur? They answer this question by referring the limitation of ourselves that not all mental processes are in our conscious awareness. They suggest that a person constructs a narrative about every situation by taking what one knows and filling the gaps about what one does not know. In OCD, that kind of a narrative construction is thought to be in use; however, a narrative which is special to OCD including reasoning errors leads to people to treat a possibility as the reality. It is proposed that in the end there develops an inferential confusion.

Regarding the construction of the self in OCD, the proponents of IBA offer that people with OCD start to fear of who they might become (*self-as-could-be*) rather than their true self (*self-as-is*). This kind of a distrust of self provides a fertile ground for obsessional narratives. In this way, people with OCD cannot realize that they are actively imagining this scenario and also they aim to avoid the distressing thoughts by repeatedly imagining the scenarios in an elaborated manner to find a resolution. All in all, IBA offers that persons with OCD have these so-called intrusions not from their divided self or a part of their self but from their imagined

self. Therefore, these cognitions are accepted as being within their self (Aardema & O'Connor, 2007).

1.6.1. Doubt and OCD According to IBA

In clinical psychology literature, it has been suggested that intrusive thoughts, or obsessions, often present themselves in the form of doubt. These thoughts are argued to focus on possibilities (e.g. "I might have left the stove on", "I might be contaminated", "I might be dangerous") (O'Connor, 2002). In the last decade, experimental research on OCD started to investigate the role of doubt in OCD in the context of memory distrust (Ashbaugh & Radomsky, 2007; Dar, Rish, Hermesh, Fux, & Taub, 2000; van den Hout & Kindt, 2003a, 2004). IBA considers doubt a principal characteristic of OCD (O'Connor, Aardema, & Pélissier, 2005) and it equates obsessions with doubt. Doubt is thought to be a form of inference characterized by both the distrust of the senses and an overreliance on imagination. These two inferential elements dismiss the reality and favor the hypothetical possibilities leading to inferential confusion. This term yields higher levels of *credibility* for a specific doubt in spite of the lack of evidence in reality (Aardema & O'Connor, 2012).

The hallmark of obsessions is the hypothetical possibilities, which are in the form of maybes in the everyday language and thinking style of patients. These maybe forms are thought to replace the confidence in the senses and also in the self with remote possibilities. Therefore, patients start to get further away from the common sense approach (Inference based Therapy (IBT); see O'Connor, Aardema, 2011; O'Connor, Koszegi, Aardema, Van Niekerk, & Taillon, 2009). According to IBA, obsessions have their own reality value emerging from the effect of possibility. They argue that obsessions are so powerful because they cannot be easily dismissed (Aardema & O'Connor, 2012). Appraisal and inference based models in understanding OCD are different, in that, while the former is mostly about the interpretation of an intrusion *after* the event, the latter is about the perceived likelihood of the relevant hypothetical events *at the time* of the intrusion (Clark & O'Connor, 2005).

There are different views between appraisal and inference based models about the origins and maintenance of intrusions. Appraisal based models are mostly about the interpretation of an intrusion *after* the event, IBA is about the perceived likelihood of the relevant hypothetical events *at the time* of the intrusion (Clark & O'Connor, 2005). The former sees the intrusion as an automatic phenomenon while the latter considers the intrusion always involving the element of doubt which is inherently emotionally charged and personally significant. This initial doubt is named as *primary inference* (O'Connor, 2002). In addition to this argumentation, intrusions are also discussed to be emerged in the fruitful ground of idiosyncratic obsessional narratives, which resulted in general self-doubt (Aardema & O'Connor, 2007).

Thus far, covering the main concepts related to TAF, the next part will give information about two main lines of experimental researches related to TAF. One major line of research uses Rachman's paradigm for induction of TAF, which is investigated earlier. The other line is regarding perseverative reasoning (PR), which will be held in the next section.

1.7. Perseverative Reasoning

Regarding PR, it is suggested that patients may distrust the conclusion about the outcome of a certain state of affairs is safe. In order to be prepared for the perceived threat, patients start with an event and culminate in an awesome catastrophe. Therefore, it is suggested that OC patients have a tendency to reason in a chain of small steps between a seemingly neutral given situation and a highly improbable catastrophe in a lengthy and piecemeal manner. Eventually, it is proposed that this kind of perseverative reasoning process increases the subjective likelihood/credibility of this improbable outcome (Giele et al., 2011).

Moreover, perseverative OC-like reasoning seems to have enough power to make an unlikely catastrophe more credible (Giele et al., 2011). In their specific article, the authors use seemingly neutral (imaginal) vignettes and each vignette is followed by an OC-like harmful outcome. An example for this kind of vignette is as follows: "Imagine that it's Saturday night and you're babysitting your niece of nine

months old. You're watching television while she sits on your lap. Your niece starts to cry. Because you want to comfort her, you give her a pacifier, but it accidentally falls on the ground. You wipe it off very carefully and then give it to your niece". This vignette comes to an end with an OC-like harmful outcome telling that "One day later your niece dies and you feel guilty" (Giele et al., 2011, p. 294).

Participants in this study are asked to make step-wise reasoning between a neutral situation and an OC-like harmful outcome or doing a word puzzle in a given time period. According to the results of this specific study, participants making step-wise reasoning think that the given situation might lead to the given OC-like outcome in a more credible fashion than the participants making any step-wise reasoning (Giele et al., 2011). Nevertheless, although this study seems to increase the credibility for the causal link between the given neutral situation (as being the cause) and the OC-like harmful outcome (as being the effect), the vignette used in this study appears to have *no* such TAF induction type of experimental manipulation. Similarly, it is also suggested that TAF-Induction procedure lacks perseverative reasoning procedure.

Therefore, the current study aims to integrate the powerful aspects of TAF-Induction and perseverative reasoning together into one paradigm in order to overcome the insufficiency observed in OCD research. Imaginal vignettes are chosen for this integrated paradigm. It is argued that if these powerful aspects are integrated in one study, then a better simulation for OC-like experience could be reached in a way that the concepts of both ambivalence and ego-dsytonicity would be embedded in the current experimental manipulation. From this point of view, the emphasis of the present study is also on the establishment of the concepts of ambivalence and ego-dystonicity.

Ambivalence is the core concept in understanding OC experiences. It is defined as having two opposing tendencies, feelings, desires, and drives with respect to an object simultaneously (Larsen, 2007). For example, Reed (1985) interviewed clinical checkers and concluded that the uncertainty was ambivalence of a peculiar nature. He gave some examples about the checking experience for these patients. The checkers report that "It is as though the memory is there but it is

not definite enough", "I remember doing it in a way, but it is all fuzzy", "Usually I can remember that I have done it, but the memory is not clear somehow"). Regarding ego-dystonicity, many researchers suggest that one key distinctive feature of unwanted intrusive thoughts may be their inconsistency with one's morals, values, goals, and preferences (Clark & O'Connor, 2005). In other words, if a thought is experienced as *ego-dystonic*, it will draw particular attention and priority (Clark, 2004; Purdon, 2001). Only when participants have a distressing thought about an event together with an increased probability for the event, then this type of thought content would be evaluated as inconsistent with their morals, values, and goals. Ego-dystonicity means that the person regards the obsessions as unreasonable but simultaneously s/he could not distance him or herself from them. However, it should be stated that the degree of ego-dystonicity is in essence a variable condition in and out of the OCD contexts. In fact, patients may feel stronger than the obsession in one time; but, they might start to experience a full-blown obsessional episode (Grenier & O'Connor, 2007; cited in Aardema & O'Connor, 2007). In other words, ego-dystonia, a vital concept in understanding OCD, means that a behavior, a desire, a dream, or a thought cannot be recognized as your own. It is the conflict between an experience and our self-image (Aardema & O'Connor, 2007). This incongruence is based on the patient's evaluation concerning the level of ego-dystonicity. It is defined as subjective discordance. However, there is another type of discordance: objective discordance where the obsession is assessed always incongruent with the person (Aardema & O'Connor, 2007). Historically, regarding the intrusive cognitions as a basis for obsessions, the proposal of the current cognitive models of OCD seems to resemble earlier historical arguments, suggesting that obsessions are the results of devilish influences. In fact, the term intrusive indicates a thought which comes from *elsewhere*. Current models argue that they are spontaneous and there is not any rational explanation for them. The metaphor of internal or external devil seems to be out of use but that metaphor's impact appears to be continued (Aardema & O'Connor, 2007). All in all, the integration of these two paradigms mentioned

above would be helpful for inducing ambivalence and ego-dsytonicity in the participants.

Regarding ambivalence and ego-dystonicity, it is also suggested that if and only if a participant considers a thought about a certain event as distressing together with an increased probability/likelihood for the same event, then this type of thought content is evaluated as inconsistent with his/her morals, values, and goals. . As mentioned earlier, ego-dystonicity means that the person regards the obsessions as unreasonable but simultaneously s/he cannot distance him or herself from them.

In other words, in order to establish both ambivalence and ego-dystonicity the participant should have both a crediting and a discrediting standpoint for the presented material simultaneously because OC-like experience is ambivalent in nature. That is, it has both crediting and discrediting tendencies, simultaneously. In other words, patients see obsessions as likely/probable/meaningful (the crediting aspect) and as irrational (the discrediting aspect) at the same time.

From the current study's point of view, participants' ambivalence should be built up with the help of the increased levels of the likelihood/credibility component included in the perseverative reasoning paradigm. However, in TAF-Induction procedure, the likelihood component in the procedure of induction of TAF seems to be somewhat *overlooked*. That is, no research to date has investigated this likelihood component in the face of TAF except for Marcks & Woods (2007). According to their results while the participants' post induction appraisal ratings, such as level of anxiety and guilt appear to be relatively high; their score for the 'likelihood of an accident occurring in next 24 hours seems to be relatively quite low. That is, participants seem to become anxious and guilty due to the fact that they engage in a distressing thought via the experimental manipulation of TAF-Induction; however, they do find the probability of this situation's occurring in the following 24-hour-period very low (Marcks & Woods, 2007). Nevertheless, the assessment of the component of likelihood of accident occurring in next 24 hour as an appraisal rating used in this study is not *equal* to assessment of the TAF-likelihood because the question was "What is the likelihood of the event occurring in the next 24 hours?" By this question, they evaluated a different construct which

is not an *equivalent* of TAF-Likelihood. In addition to these, as a manipulation check, they asked their participants to indicate how *believable* they found the car accident scenario. This question seems to assess how much credible they found the likelihood of accident; however, in fact, this question is pertinent to the instruction given participants after TAF-Induction procedure. The instruction in their study is as follows: "Close your eyes and take a few moments to visualize your loved one's car accident. It is important that you have a clear and vivid image of your loved one and the car accident in mind. Visualize what the accident scene looks like; for instance, the location of the accident, time of day, what your loved one looks like, the nature of your loved one's involvement in the accident, and the severity of the accident. Once you have a clear and vivid image in mind of both your loved one and the car accident, please open your eyes." (Marcks & Woods, 2007, p.2643). Assessment regarding believability is not an assessment for TAF-Induction procedure.

Although this specific study assesses TAF-Induction procedure, it could not properly evaluate the TAF-likelihood. This component is evaluated in Giele et al.'s (2011) study as mentioned earlier. This study appropriately evaluates credibility component (that is crediting aspect). However, it lacks TAF-Induction procedure. That is, in this study, as mentioned earlier, there was no TAF-Induction, which is the core aspect of the experimental manipulations regarding OCD. In fact, there was an action-action fusion, in that it was asked in one of their vignettes to link the accidental fall of a pacifier and dying of the niece. However, in addition, perseverative reasoning paradigm has an advantage for assessing the effects of repetition upon appraisal processes.

All in all, because it lacks the increased likelihood component, it could be concluded that this type of experimental manipulation (TAF-Induction manipulation) does not reliably simulate the OC-like experience. From the current study's point of view, participants' ambivalence should be built up with the help of the increased levels of the likelihood/credibility component. Accordingly, the next section covers the methodological bases of the current study.

1.8. Methodological Insufficiencies and New Developments in OCD Research

Despite the improvements in understanding OCD in terms of appraisal models, a substantial proportion of patients with OCD do not respond to treatments (Abramowitz, 1997). Insufficiency in treatment effectiveness is thought to be due to methodological insufficiencies. In this respect, for the further understanding of OCD, it is argued that using self-report questionnaires which lacks ecological validity and being unable to dealing with dynamic, recurrent and time-consuming type of thinking processes in OCD are not sufficient for tapping the phenomenal subjective experience of patients with OCD.

For instance, Thought Action Fusion Scale (TAFS) is thought to be a reputable but inadequate instrument, measuring this construct. Items in TAFS can assess the hypothetical agreement but cannot assess the actual beliefs, emotions and also behavioral indicators. Additionally, participants while filling the scale transform themselves and underreport in the items in TAFS (Berle & Starcevic, 2005). Therefore, instead, behaviorally based assessment which has in vivo type of evaluation is advised while investigating this construct. Also, it is suggested that imaginal narratives of people with OCD could be studied (Brown, MacLeod, Tata, and Goddard, 2002; Keen, Brown, Wheatley, 2008). It is also thought that imaginal narratives are closely related to the concept of inferential confusion in which a remote possibility is interfused with real possibility. By these imaginal narratives, people with OCD act as if the narratives are real and they also try to work on these narratives (Keen et al., 2008).

It is argued that patients' subjective experience of this disorder (namely the imagination) is much more important in OCD research: however, most of earlier research did not refer to this crucial aspect to date. Reminding this essence of this approach, it is suggested that remote possibility is conflated with a real possibility by reasoning errors based on the self-generated narratives which are completely fictional. Finally, what people with OCD only imagine turns out to be a real possibility for them (Keen et al., 2008). This perspective focuses on the role of *imagination* in OCD research because it argues that people with OCD are disturbed with imaginal and mostly unlikely outcomes (Jakes, 1996). Wheatley (2000)

proposed that the main cognitive approaches are inclined to neglect the role of imagination in the maintenance of OCD. Butler & Mathews (1983) proposed that imagery and imagination could be linked with increased subjective probabilities for imagined negative events in OCD. In the generation of imaginal vignettes, respondents were given the beginning of an imaginary vignette and the end of the scenario and they were asked to breed a step-by-step account of what would happen in between these two. For instance, one of the contexts is as follows: 'I am going to describe to you the beginning of a future situation and the end of the situation and I want you to tell me what you imagine the middle will be. At the beginning of the situation you have just been served your main course at a restaurant and have begun eating, when you realize that your waitress has just used the toilet before serving you. Take a moment to imagine that. At the end of the situation it is the next morning and you feel distinctly unwell. Now go back to the beginning of the situation, where you have just been served your main course, and describe step-by-step exactly what will happen from that point onwards.' (Keen et al., 2008, p. 268).

In the context of methodological difficulties in OCD research, it was mentioned that using imaginal vignettes is preferred for the simulation of OC-like experience. Based on these considerations above, the rest of the introduction part is focused on the role of imagination in OC-like experience since imagination is one of the core dimensions for understanding OC-like experience.

1.9. Anxiety Disorders and Imagination

It is important to apply those considerations about imagination to psychopathology, particularly to anxiety disorders since imagination is thought to be particularly central in patients with anxiety disorders, producing more vivid imagery for negative future consequences than either healthy controls or patients with major depressive disorder (Morina, Deeprose, Pusowski, Schmid, & Holmes, 2011). According to the cognitive model, people sometimes fall into errors (cognitive distortions) when representing the reality. One classical type of distortion related to the anxiety disorders is *catastrophizing*, which means predicting future in a negative manner without considering other more likely

consequences (Beck, 1995). Imagination might be a facilitator in generating escalating type of scenarios in terms of experiencing catastrophe. This issue is also applied to the subjective likelihood of negative events seen in anxiety. Raune and MacLeod (2005) point out two important findings. One is related to anxious participants' ratings. They are high about negative events, meaning that these events are accepted as more likely to happen to them. The second one is related to their higher levels for ability in construction explanations for why the events would happen. In the same line, also, it is regarded as important that pessimism about the future is a chief component of anxiety. Numerous studies have shown that anxious participants, compared with non-anxious counterparts, overestimate the likelihood of future negative events occurring to them (MacLeod, Tata, Kentish, Carroll & Hunter, 1997). Accordingly, for instance, imagined scenarios in anxious patients are thought to have power to take off the control of the patients and obviously exert a pull stronger than the patients (O'Connor & Aardema, 2005).

It is argued that a theory should take imagination into account in order to understand the core mechanisms in anxiety disorders. This is so since without having a contact with and tapping the concept of imagination, theories about anxiety disorders would be insufficient. In self-report techniques, there is no room for assessing the nature and features of imagination. Using imaginal vignettes could give a possibility for researchers to assess the role of imagination for anxiety disorders.

1.9.1. Imagination

The main aim of the current study is to combine TAF-Induction and perseverative reasoning paradigms to investigate their effects on appraisal processes. However, when inspecting the literature closely, it is determined that the concepts of imagination and reasoning are discussed in an interconnected manner. Also, it is argued that imagination is closely linked to the level of plausibility and credibility about occurring of an event.

Accordingly, IBA model equates obsessions with doubts. Doubt is thought to be a combination of both a distrust of the senses and an overreliance on

imagination. These elements dismiss the reality and favor the hypothetical possibilities in the frame of inferential confusion. In this respect, imagination yields higher levels of credibility for a specific doubt in spite of the lack of evidence in reality. Eventually, according to IBA, obsessions (doubts) have their own reality value emerging from the effect of possibility. This crediting tendency is argued to be linked to imagination.

Regarding the concept of magination, Neisser (1976) asserts that images are not pictures in the head. He regards images as plans for obtaining information from the environment (cited in O'Connor & Aardema, 2005). Although the role of imagination in the working principles of human system is overlooked in clinical psychology literature; perception and imagination are accepted to work together to form awareness at all times (O'Connor & Aardema, 2005).

It is regarded as sure that during the whole day, the majority of one's waking hours are spent thinking of a time other than present. Therefore, our present seems to be filled with reminders of the past and reflections of the possible future (Robin & Moscovitch, 2014). Regarding the reflections of the possible future, human beings are thought to possess a stunning skill, which is *imagining* the future. The reason why people are equipped with this skill is that because no one has the ability to see future. Imagination is defined as an ability to generate images, stories and projections of things not currently present in order both to plan the future and to regulate the self (Taylor, Pham, Rivkin & Armor, 1998). Regarding the boundary between reality and imagination, individuals function neither entirely in reality nor in the imagination but somewhere in between (O'Connor & Aardema, 2005). This feature of imagination in conjunction with reality shall be discussed in the frame of the role of possibility, contributing to the understanding the OC-like experience.

Generally speaking, research related to the use of imagination has shown that people imagining hypothetical events are more likely to endorse future occurrence of these events than people not imagining such events (Anderson, 1983; Carroll, 1978; Gregory, Cialdini, & Carpenter, 1982; Hirt & Sherman, 1985; Sherman, Cialdini, Schwartzman, & Reynolds, 1985; Sherman, Skov, Hervitz, & Stock, 1981; see Koehler, 1991 for review). Moreover, numerous researchers have

shown that simulating future consequences of hypothetical events results in a subjective feeling that these events are more likely to occur. In addition, this could be strengthened through repeated imagination, which will be discussed later (Szpunar & Schacter, 2013). Specifically, several experiments showed that people imagining committing a crime, winning a prize, or contracting a disease later evaluated their possibility that they were more likely to experience similar events in the future than people not imagining these events (Gregory, Cialdini, & Carpenter, 1982; Sherman, Cialdini, Schwartzman, & Reynolds, 1985; Szpunar & Schacter, 2013). In the same way, there is evidence to argue that participants imagining experiencing the symptoms associated with a particular illness believed it was more likely that they would contract than participants simply reading a description of the same symptoms (Sherman, Cialdini, Schwartzman, & Reynolds, 1985).

Researchers argue that, in addition to increasing the possibility of future events imagination also modifies our present behavior and beliefs. Specifically, participants imagining being involved in a car accident indicated greater agreement with a number of traffic safety items than participants imagining irrelevant scenarios (Gregory, Burroughs, & Ainslie, 1985). It could be argued based on this finding that participants in the first group should have feared of being involved in an accident more possibly than these in second group. In this way, their future behavior was affected by mere imagination. In a similar vein, Mickel (1998) investigated the possible effects of imagination on health behavior. In the study, people imagining drinking water and flossing teeth reported engaging in this behavior more than people not imagining this behavior. In addition to these, researchers found that the estimates of performance increased with the number of imaginings (cited in Thomas, Hannula, Loftus, 2007).

1.9.2. Repeated Imagination

Anderson (1983) demonstrated that if people often imagine performing some action, then their belief about carrying out this action in the future will be increased (Szpunar & Schacter, 2013). However, no study to date has examined the effects of repeatedly simulating the same episode on subjective evaluations of

future occurrence (Szpunar & Schacter, 2013). Regarding this aspect, it is proposed in an explicit manner that perceived plausibility of imagined future events increases with repeated simulations (Anderson, 1983; Carroll, 1978; Gregory et al., 1982; Sherman et al., 1985; Szpunar & Schacter, 2013).

In the context of repeated imagination, researchers suggest that people in episodic counterfactual thinking contrast/compare generated counterfactual alternative with the true, known, and normal representation (in other words, with memory). The deviation is thought to be minimal; therefore, perceived plausibility of the counterfactual seems to be high (De Brigard, Szpunar, and Schacter, 2011). However, when people, with repetition, are thought to allocate more attention to greater details, divergence between counterfactual and actual memory appears to be increased, rendering the counterfactual less plausible (Byrne, 1997, 2002; Johnson-Laird & Byrne, 2002). Nevertheless, in the case of future thinking, there is no representation for comparison. Therefore, there is no such thing like mentioned divergence seen in counterfactual thinking (De Brigard, Szpunar& Schacter, 2011). In this way, repetition in imagination seems to have a kind of divergent character between episodic future thinking and episodic counterfactual thinking. Whereas repeatedly imagining appears to decrease the plausibility ratings in episodic counterfactual thinking, it seems to increase the plausibility ratings in episodic future thinking (Schacter, Benoit, De Brigard & Szpunar, 2014).

1.10. Aims of the Current Study

In the light of the mentioned course of literature, the main aim of the current study is to test whether OC-like step by step reasoning stimulates the feelings of uncertainty and increases the level of probability/credibility for this outcome for the causal link between the situation 1 (the cause) and situation 2 (the effect) in the imaginal vignettes both before and after the step-wise reasoning and after PE. The second aim of the study is to assess other related appraisal ratings of the participants (e.g. in the areas of feeling responsibility, regret, guilt, and neutralization and suppression urges) for the causal link both before and after the step-wise reasoning and after PE. Besides, the current study tries to compare the

effects of differential types of PE on their appraisal processes. A third aim is to investigate any differences between high OC group, low OC group and OCD-patient group in terms of mentioned appraisal processes.

1.11. The Hypotheses of the Current Study

1.11.1. Hypotheses Regarding Credibility

For credibility, it is hypothesized for uncertainty that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

It is hypothesized for credibility that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in credibility than the high OC group, which in turn will have higher scores in credibility that the scores in the low OC group.

For credibility, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.2. Hypotheses Regarding Uncertainty

For uncertainty, it is hypothesized for uncertainty that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

It is hypothesized for uncertainty that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in uncertainty than the high OC group, which in turn will have higher scores in uncertainty that the scores in the low OC group.

For uncertainty, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.3. Hypotheses Regarding TAF-Likelihood

For TAF-likelihood, it is hypothesized for TAF-Likelihood that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

It is hypothesized for TAF-Likelihood that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in credibility than the high OC group, which in turn will have higher scores in credibility that the scores in the low OC group.

For TAF-Likelihood, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.4. Hypotheses Regarding TAF-Morality

It is hypothesized for TAF-Morality that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in TAF-Morality than the high OC group, which in turn will have higher scores in responsibility that the scores in the low OC group.

For TAF-Morality, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.5. Hypotheses Regarding Regret

It is hypothesized for regret that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in regret than the high OC group, which in turn will have higher scores in regret that the scores in the low OC group.

For regret, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.6. Hypotheses Regarding Guilt

It is hypothesized for guilt that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in guilt than the high OC group, which in turn will have higher scores in guilt that the scores in the low OC group.

For guilt, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.7. Hypotheses Regarding Distress

It is hypothesized for distress that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in distress than the high OC group, which in turn will have higher scores in distress that the scores in the low OC group.

For distress, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR

and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.8. Hypotheses Regarding Responsibility

It is hypothesized for responsibility that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in responsibility than the high OC group, which in turn will have higher scores in responsibility that the scores in the low OC group.

For responsibility, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.9. Hypotheses Regarding Self-relevant Causes

It is hypothesized for self-relevant causes that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in self-relevant causes than the high OC group, which in turn will have higher scores in responsibility that the scores in the low OC group.

For self-relevant causes, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.10. Hypotheses Regarding Self-irrelevant Causes

It is hypothesized for self-irrelevant causes that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in self-irrelevant causes than the high OC group, which in turn will have higher scores in responsibility that the scores in the low OC group.

For self-irrelevant causes, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

1.11.11. Hypotheses Regarding total score of III

It is hypothesized for total score of III that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in total score of III than the high OC group, which in turn will have higher scores in total score of III that the scores in the low OC group.

For total score of III, it is hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE condition. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

CHAPTER 2

METHODS

2.1. Overview and Orientation of the Current Study

There were two main stages in the procedure of the current study: The screening phase and the main study phase. The study had a 3(Group: Low OC group, High OC Group, OCD-patient group) X 2(PE: PE-TAF, PE-Stress) X 3(Time: Before PR, After PR, After PE) mixed design; group and PE were between-subjects factors, time was a within-subjects factor. Dependent variables (DVs), all of which were related to the causal link in the vignettes, were Credibility, Uncertainty, TAF-Likelihood, TAF- Morality, Regret, Guilt, Distress, Responsibility, Self-relevant Causes and Self-irrelevant causes. And the last DV was the total score of Interpretations of Intrusions Inventory (III). Table 1 summarizes the whole procedure of the current study.

Table 1. A Flowchart for the Procedure of the Main Study

1. Sign the informed consent
2. Fill out the Screening questionnaires
3. Read the main vignette
4. First Assessment of DVs
5. Example PR
6. Actual PR
7. Second Assessment of DVs
8. PE
9. Third Assessment of DVs
10. Debriefing

2.2. Screening

2.2.1. Participants

Five hundred and seventeen (327 female) university students at Middle East Technical University (mean age= 22.17) participated in the study in exchange for bonus course credit.

2.2.2. Materials

2.2.2.1. Demographic Information Form

Demographic information form was administered in order to obtain information about age, gender, education level of the participants and whether they use psychotropic medication and/or psychological intervention. The form is given in Appendix A.

2.2.2.2. Beck Depression Inventory (BDI)

The BDI is a 21-item self-report scale assessing the severity of affective, cognitive, motivational, vegetative, and psychomotor components of depression. The BDI has excellent psychometric qualities in terms of reliability and validity and is widely used in clinical research (Beck, Steer, & Garbin, 1988). Turkish adaptation of this inventory was developed by Hisli (1988; cited in Şahin and Savaşır, 1997). Split-half reliability of the Turkish version is .74 and test-retest reliability is between .74 and .86. BDI was administered in order to screen severe levels of depression (the range of the raw score was between 30 and 63) and exclude those participants from the main study (Beck, Steer & Garbin, 1988). In the present study, the Cronbach Alpha score of BDI is .86. The scale is given in Appendix A.

2.2.2.3. Padua Inventory-Washington State University Revision (PI-WSUR)

The PI-WSUR is an abbreviated version of the Padua Inventory (Sanavio, 1988). It is a self-report questionnaire evaluating the frequency and severity of

obsessions and compulsions (Burns, Keortge, Formea, & Sternberger, 1996). Scores for each item range from 0 (not at all) to 4 (very much). Subscales are Obsessional Thoughts of Harm to Self/Others Subscale (7 items), Obsessional Impulses of Harm to Self/Others Subscale (9 items), Contamination Obsessions and Washing Compulsions Subscale (10 items), Checking Compulsions Subscale (10 items), and Dressing/Grooming Compulsions Subscale (3 items) (Jonsdottir & Smari, 2000). The PI-WSUR is thought to have acceptable reliability (α = .92; Burns et al., 1996), and test–retest reliability (α= .72) (Jacobi, Calamari & Woodard, 2006). The scale was adapted to Turkish by Yorulmaz, Dirik, Karancı and Burns (2006). The Turkish version of the scale and its subscales show high internal consistency (α = .93 - .73) and high test-retest reliability (α = .91 - .77). The Cronbach Alpha score of PI-WSUR in the present study is .93. The scale is given in Appendix A.

2.2.2.4. Thought Action Fusion Scale (TAFS)

TAFS is developed by Shafran, Thodarson and Rachman (1996) to assess the psychological fusion of thoughts and actions with 19 self-report items on a five-point scale. The scale has 3 subscales, namely, TAF-Likelihood-self, TAF-Likelihood-others and TAF-Morality. The scores range from 0 to 76, with higher scores indicating stronger TAF. TAF Scale has acceptable psychometric properties. The Turkish version of TAFS had also good psychometric properties. That is, internal consistency for the whole scale is .86 and Gutman split half reliability score of TAFS is .92 (Yorulmaz et al., 2004). In the current study, its Cronbach Alpha score is .91. The scale is given in Appendix A.

2.2.3. Procedure

Participants reached via convenience sampling were given an informed consent both before and after the screening phase. Informed consents are given in Appendix A. After signing the informed consent form, participants filled out the PI-WSUR, TAFS, BDI. After filling out these questionnaires, they were contacted via their frequently used e-mail addresses in order to participate in the main study.

2.2.4. Results

Eleven participants were excluded due to head injury history. An additional 30 participants were excluded because of current use of psychotropic drugs.

Based on remaining 476 students' scores on PI-WSUR, 122 participants who scored half standard deviation (SD = 10.05) above the mean of PI-WSUR (Mean = 36.08) were determined as "High PI-WSUR group" (See Table 2).

Table 2
Sample Characteristics in Screening Phase (High PI-WSUR group)

Variables	(n)	Mean	SD	Min.	Max.
BDI	122	14.525	8.639	0	38
PI-WSUR	122	63.754	14.492	47	116
TAFS	122	28.472	13.231	0	61
Age	122	21.08	1.524	18	27

Note: SD: Standard Deviation; Min.: Minimum; Max.: Maximum

Based on PI-WSUR, 173 participants who scored half standard deviation below the mean of the PI-WSUR were determined as "Low PI-WSUR group" (See Table 3).

Table 3
Sample Characteristics in Screening Phase (Low PI-WSUR group)

Variables	(n)	Mean	SD	Min.	Max.
BDI	173	7.671	5.705	0	27
PI-WSUR	173	17.867	5.91	0	26
TAFS	173	15.163	11.638	0	69
Age	173	21.13	2.275	18	39

Note: SD: Standard Deviation; Min.: Minimum; Max.: Maximum

2.3. The Main Study

2.3.1. Participants

From the 517 students that participated in the screening part of the current study, 295 participants were contacted via their frequently used e-mail addresses and 131 participants returned and participated in the main study. Seventy of them from the Low PI-WSUR group formed Low OC group. Table 4 displays the sample characteristics.

Table 4
Sample Characteristics in Main Study (Low OC Group)

Variables	(n)	Mean	SD	Min.	Max.
BDI	70	7.970	5.41	0	23
PI-WSUR	70	17.665	5.873	0	26
TAFS	70	14.177	10.961	0	54
Age	70	20.69	1.46	18	24
Education level	70	12.957	1.122	12	17

Note: SD: Standard Deviation; Min.: Minimum; Max.: Maximum

Also, 47 of them were from the High PI-WSUR group formed High OC Group. Table 5 contains information about characteristics for the group.

Table 5
Sample Characteristics in Main Study (High OC Group)

Variables	(n)	Mean	SD	Min.	Max.
BDI	47	13.668	6.410	1	29
PI-WSUR	47	65.799	19.366	47	123
TAFS	47	28.361	12.454	0	61
Age	47	20.960	1.367	18	25
Education level	47	12.869	0.884	12	15

Note: SD: Standard Deviation; Min.: Minimum; Max: Maximum

Regarding the *OCD patient group*, 52 patients with OC symptomatology who respectively applied to the outpatient clinic of Psychiatry Department of Hacettepe University Medical Faculty Hospital participated in the study. Patients' diagnosis of OCD was confirmed by a clinical interview made by a senior psychiatry resident according to DSM-IV-TR. The exclusion criteria were having brain damage, psychosis, any substance use disorder, and history of a neurological disorder. The demographic characteristics of the participants are given in Table 6 below.

Table 6
Sample Characteristics in Main Study (OCD-patient Group)

Variables	(n)	Mean	SD	Min.	Max.
BDI	52	18.144	10.364	0	42
PI-WSUR	52	53.955	29.937	12	127
TAFS	52	28.405	18.819	0	75
Age	52	31.35	9.626	18	54
Education level	52	12.442	3.460	4	17

Note: SD: Standard Deviation; Min.: Minimum; Max.: Maximum

2.3.2. Materials

2.3.2.1 Vignettes

There were 4 types of vignettes, two of them were main vignettes (either car accident or the heart attack) and the other two were vignettes used in training phase. In each vignette, participants were asked to imagine themselves vignette specific situation given in the vignette. In both vignettes, there were two events. In the first event, participants hoped something to be occurred. In the second event, they were informed that their wish came true. The full procedure of the main study for the car accident vignette is given in Appendix B and the sample for the vignette of heart attack is also given in Appendix in B.

These 4 types of experiment material were counterbalanced before the random assignment of the participants.

2.3.2.2. PE Material

There were two types of PE materials namely, TAF and Stress. The PE texts were taken from Zucker et al. (2002) and translated into Turkish. PE about TAF (TAF-PE) contains information about the normality" of intrusive thoughts and their "irrelevance" with outside of events and PE about stress (stress-PE) includes information about the effects of stress. Stress-PE was used as a control condition for the TAF-PE. The TAF-PE is given in Appendix B and stress-PE is also given in Appendix B. Table 7 displays distribution of 4 types of material (combining vignette types with PE types) amongst three groups.

Table 7
Four Types of Experiment Material across Groups

	Total	HA/Stress	CA/TAF	CA/Stress	HA/TAF
Low OC Group	70	18	18	17	17
High OC Group	47	12	12	12	11
OCD-Patient	52	13	13	14	12
Total	169	43	43	43	40

Note: HA: Heart Attack; CA: Car Accident

2.3.2.3. Assessment of Appraisal Processes

In order to assess the appraisal processes of the participants regarding the causal link in the given vignettes throughout the study, a set of questions coupled with the Interpretation of Intrusions Inventory (III) were used. Participants were asked to indicate how credible (Item 1-Credibility) they found the causal link between the two given events in each vignette and their uncertainty level about the causal link between the two events (Item 2-Uncertainty). Also, they were assessed about TAF induction (Items 3-TAF-Likelihood) and (Item 4-TAF-Morality). Their appraisal processes about the vignette upon feelings of regret (Item 5), guilt (Item 6), responsibility (item 7), self-relevant causes (item 8), self-irrelevant causes (which was a reversed item) (item 9) and distress (Item 10) were also evaluated. Lastly, the urge to neutralize and suppress the thoughts emerging from the themes in the vignettes was measured. A five-point Likert scale was used for the first 10 items; the last item was a yes/no question. The questions are given in Table 8.

In the assessment phases, participants' scores regarding the first 9 statements were assessed via 5-point Likert Type scale. In this scale, 1 means that "I totally disagree with the statement" and 5 means that "I totally agree with the statement". For distress, they were asked to indicate how much distress they felt at the very exact moment via 5 point Likert type scale. 1 means that "I felt no distress" and 5 means that "I feel very intense distress". On the other hand, question for neutralization and/or suppression was a yes/no question. Participants were asked to indicate their urge to neutralize and/or suppress their distress. If yes, they were asked to write down what they did for this purpose.

III is designed to evaluate the negative appraisals of intrusive thoughts, images, and impulses. Participants firstly read examples of intrusive thoughts. Then, they specify their own examples of intrusions that they have recently experienced. Following this, they identify their agreement level with 31 items regarding the intrusions. Strength of their belief is graded from 0 (‘‘I did not believe this idea at all’’) to 100 (‘‘I was completely convinced this idea was true’’). OCCWG (2005) suggests that only single factor exist. III is developed by OCCWG in 2001. Yorulmaz and Gençöz (2008) adapted this inventory into Turkish. It has satisfactory psychometric properties about the internal consistency (Cronbach Alpha = .94). It is concluded that III is a reliable and valid inventory.

Instead of the mainstream usage of this inventory, in this study, the first part of III is excluded and main vignette is replaced with the main vignette of the current study. The second part, which was the agreement level, remained intact and in this second part participants were asked to indicate their answers by associating it with their wish in the main vignette.

In general, participants were asked to report their beliefs about each statement in the assessment phase focusing on their very exact moment while reading the statements.

Table 8. Statements Used in Assessment Regarding Appraisal Processes

1. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmasını inandırıcı bulurum.	1	2	3	4	5
2. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmış olabileceğini düşünürüm.	1	2	3	4	5
3. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirme riskini arttırdığını düşünürüm.	1	2	3	4	5
4. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmam kadar kötü olduğunu düşünürüm.	1	2	3	4	5
5. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı pişmanlık duyarım.	1	2	3	4	5
6. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi suçlu hissederim.	1	2	3	4	5
7. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi sorumlu hissederim.	1	2	3	4	5
8. Tanıdığım kişinin kaza geçirmesinin benden kaynaklı olduğunu düşünürüm.	1	2	3	4	5
9. Tanıdığım kişinin kaza geçirmesinin benden başka nedenleri olduğunu düşünürüm.	1	2	3	4	5
10. Şu anda hissettiğiniz rahatsızlık düzeyinizi en iyi yansıttığını düşündüğünüz rakamı aşağıdaki derecelendirme ölçeğinde işaretleyiniz.	1	2	3	4	5
11. Eğer rahatsızlık hissettiyseniz bu rahatsızlığı azaltmak ya da ortadan kaldırmak için herhangi bir şey yaptınız mı? (örneğin herhangi bir davranışta bulunmak ya da herhangi bir düşünceyi aklınıza getirmek gibi)	EVET			HAYIR	

2.3.3. Summary for the Procedure

Primarily, participants were asked to sign the informed consent for the main study. This informed consent is given in Appendix B. In this phase, participants firstly read the main vignette. Then, they took the first assessment. Next, participants passed to PR phase, which included two sections: example and real PR. Subsequently, they took the second assessment. Afterwards, they were given PE texts containing two types of texts. Then, they took the third assessment. Lastly, they were debriefed about the whole procedure of the current study. This debriefing material is given in Appendix B. Following parts will give more detailed information about each mentioned step.

2.3.3.1. Procedure

Firstly, the vignettes were developed by subject matter experts and finalized via the pilot study. Pilot study was run with 38 participants via convenience sampling. The aim of the pilot study was to make sure the experiment material and the procedure was clear and easy to follow for the participants. The final version of the material and the experimental procedure were approved by METU Ethics Committee and the Head of Hacettepe University Faculty of Medicine, Psychiatry Department.

The high and low OC groups were tested in the Psychology Laboratory at METU; the OCD-patient group was tested in the Psychiatry Clinic at Hacettepe University Medical Faculty Hospital. Each participant was tested individually. After coming to the lab and signing the consent form, participants read the main vignette (either car accident or the heart attack), which was followed by the first assessment (before PR). Two types of vignettes were given in a counterbalanced manner. After reading the main vignette, participants underwent the imagination part, in which they were asked to indicate the time and place of the event (about car accident or heart attack) in the imaginal vignette. Also, they were asked to report where they were when they were informed about the car accident/heart attack within the instructions of the imaginal vignette. Lastly, they were asked to indicate how much they were close to this person in the vignette via visual analogue scale (VAS) between 0 (meaning that being moderately close) and 100 (meaning that being close). The continuum started with being moderately close; in this way, participants were not allowed to indicate a person who was distant to them.

After the first assessment, participants were trained in step-wise PR with the two training vignettes. First, they were given the *food vignette* with an example of perseverative reasoning which included three constructed explanations between *wishing for* and *getting* food. In each explanation, there had to be a minimum of 1 step and at most three steps between the two events. Participants were asked to read these three explanations which were constructed according to the question of "in what way(s) does your thought/wish result in a getting food?". In the first training vignette, they were asked to read a general rule for PR. Secondly, they were given

the *friend vignette,* this time they were required to construct and write down the explanations in the expected way between *wishing for* and *coming across* a friend. In other words, they were asked to construct and write down a causal link between two events in the vignette, according to some given criteria: their thought/wish should be the *only determinant* for this event and no other explanations including coincidence were allowed.

Next, they took the real PR. In this stage, they were asked to read the main vignette and to imagine as if they were experiencing these events in the vignettes. The imagination part of the text was given to participants to refresh their memory. Next, they were asked to make step-by-step PR and took the second assessment, which was identical to the first assessment. There was an additional instruction at the beginning of the second assessment phase. It reminded participants that the statements were same with first assessment phase. Next, they were given the main vignette for a second time, and they were instructed to link the two events in the vignette by constructing 3 different explanations with the *same* procedure in training phase. This was followed by the second assessment (Time2). Later, half the participants were given the stress-PE, and the other half was given the TAF-PE. Lastly, all participants took the third assessment (Time3).

All participants were debriefed at the end of the experiment about the nature of the experiment. They were provided with information about TAF. Each participant was checked for their level of distress and was offered to discuss any concerns about the study. The experimenter also provided his contact details in case of any future distress caused by the experiment protocol.

CHAPTER 3

RESULTS

In this chapter, the main findings of the study are presented. Analyses revealed three shared results for most of the DVs; the interaction effect between time and PE, the main effect of group, and the main effect of time. That is, certain dependent variables showed similar patterns of results around these three observed effects.

3.1. Data Cleaning

Ten participants were excluded from the analysis since they did not comply with the instructions. Additional 4 cases were detected as univariate outlier and they were excluded from further analysis. Missing cases were replaced by Expectation Maximization Technique (Garson, 2012). Only significant results are reported.

3.1.1. Manipulation Check for Components of TAF

For the absence of manipulation check for TAF-Induction, it seems to lower the reliability of the measurement. On the other hand, this manipulation check could easily give away the main purpose of the study. In order to overcome this adversity, it is thought to investigate the correlation between TAFS and TAF-Likelihood/TAF- Morality. According to correlational analyses, relationship between TAFS scores in screening phase and TAF-Likelihood scores before PR in the main study was investigated using Pearson product-moment correlation coefficient. There was a positive correlation between two types of scores, $r = .424$, $n = 169$, $p < .01$, with higher levels of TAFS was associated with higher levels of TAF-Likelihood. Similarly, according to correlational analyses, relationship

between total TAFS scores in screening phase and TAF-Morality scores before PR in the main study was investigated using Pearson product-moment correlation coefficient. There was a positive correlation between two types of scores, r =.341, n=169, p<.01, with higher levels of TAFS was associated with higher levels of TAF-Morality.

Relatedly, for the scores after PR, according to correlational analyses, relationship between total TAFS scores in screening phase and TAF-Likelihood scores after PR in the main study was investigated using Pearson product-moment correlation coefficient. There was a strong and positive correlation between two types of scores, r =.541, n=169, p<.01, with higher levels of TAFS was associated with higher levels of TAF-Likelihood. Similarly, according to correlational analyses, relationship between total TAFS scores in screening phase and TAF-Morality scores after PR in the main study was investigated using Pearson product-moment correlation coefficient. There was a strong and positive correlation between two types of scores, r =.447, n=169, p<.01, with higher levels of TAFS was associated with higher levels of TAF-Morality.

3.2. General Results

The study had a 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 2 (Vignette Type: Car accident, Heart Attack) X 3(Time: Before PR, After PR, After PE) mixed design; group, PE and vignette type (VT) were between-subjects factors, time was a within-subjects factor. Dependent variables (DVs), all of which were related to the causal link in the vignettes, were Credibility, Uncertainty, TAF-Likelihood, TAF- Morality, Regret, Guilt, Distress, Responsibility, Self-relevant Causes and Self-irrelevant causes. And the last DV was the total score of Interpretations of Intrusions Inventory (III).

First, a 4-way 3(Group: Low OC group, High OC Group, OCD-patient Group) X 2(PE: TAF-PE, Stress-PE) X 2 (VT: Car accident, Heart Attack) X 3(Time: Before PR, After PR, After PE) ANOVA was run for each dependent

variable. Alongside the text, all mean comparisons were made by using Bonferroni correction.

If the main effect of vignette type was not significant, the variable was pooled and a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) ANOVA was run in turn. This was not the case for "credibility". The main effect of VT was significant for credibility $F(1, 157) = 4.256$, $MSE = 3.534$, $p < .05$, $\eta_p^2 = .026$. Participants had significantly higher scores on credibility for the accident vignette ($M = 2.447$) than the heart attack vignette ($M = 2.098$).

3.2.1. Credibility

As stated earlier, it is hypothesized for credibility that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

Moreover, it is hypothesized for credibility that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in credibility than the high OC group, which in turn will have higher scores in credibility that the scores in the low OC group.

It is also hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For credibility, a 4-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 2 (Vignette Type: Car accident, Heart Attack) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 7.197$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.957$). Table 9 displays means and standard deviations of credibility

scores as a function of VT (Accident vs Heart attack), group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.914, 300.453) = 8.109$, $MSE = 0.368$, $p < .001$, $\eta_p^2 = .049$. Credibility scores were significantly higher after PR ($M = 2.417$) than before PR ($M = 2.242$) and those scores were significantly higher after PR ($M = 2.417$) than after PE ($M = 2.158$).

The results also revealed that the main effect of group was significant, $F(2, 157) = 7.298$, $MSE = 0.534$, $p < .001$, $\eta_p^2 = .085$: Participants with high OC group had significantly higher credibility ratings ($M = 2.575$) than participants with low OC group ($M = 1.848$). Moreover, OCD-patient group had significantly higher credibility scores ($M = 2.394$) than participants with low OC group ($M = 1.848$).

Time and PE interaction was also significant, $F(1.914, 300.453) = 9.307$, $MSE = 0.368$, $p < .001$, $\eta_p^2 = .056$. In TAF-PE, participants' scores before PR ($M = 2.218$) were significantly higher on credibility ratings than the scores after PE ($M = 1.899$). Also, scores after PR ($M = 2.412$) were significantly higher than the scores of participants after PE ($M = 1.899$). Furthermore, after PE, participants' scores in stress-PE ($M = 2.417$) were significantly higher than participants' scores in TAF-PE ($M = 1.899$).

Lastly, there was a three-way interaction between time, group and PE type, $F(3.827, 300.453) = 2.826$, $MSE = 0.368$, $p = .027$, $\eta_p^2 = .035$. Amongst participants with high OC group, after PE, participants in Stress-PE ($M = 2.875$) had significantly higher credibility scores than participants in TAF-PE ($M = 2.125$). Similarly, amongst OCD-patient group, after PE, credibility scores in stress-PE ($M = 2.685$) were significantly higher than those in TAF-PE ($M = 1.827$).

Moreover, for the high OC group who were in TAF-PE, credibility scores after PR ($M = 2.648$) were significantly higher than scores before PR ($M = 2.220$) and credibility scores after PR ($M = 2.648$) were significantly higher than those after PE ($M = 2.125$).

Investigating patients' scores on credibility in TAF-PE, scores before PR (*M* = 2.401) were significantly higher than scores after PE (*M* = 1.827) and also scores after PR (*M* = 2.561) were significantly higher than scores after PE (*M* = 1.827).

For credibility scores of participants in stress-PE condition before PR, participants with high OC group had significantly higher scores on credibility (*M* = 2.792) than participants with low OC group (*M* = 1.727). In the same way, for the credibility scores in stress-PE condition after PR, participants with high OC group scores had significantly higher scores on credibility (*M* = 2.792) than participants with low OC group (*M* = 1.863). Likewise, after PE, regarding participants in stress-PE, participants with high OC group had significantly higher scores on credibility (*M* = 2.875) than participants with low OC group (*M* = 1.691). Additionally, OCD-patient group' scores were significantly higher (*M* = 2.685) than participants with low OC group (*M* = 1.691).

As a summary, for credibility, hypotheses for main effect of time and interaction effect between time and PE were (fully) confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 1).

Table 9.
Means and Standard Deviations of Credibility Scores as a Function of VT (CA vs HA), Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

			Before PR	After PR	After PE
VT	Group	PE			
CA	Low	Stress-PE	1.94(0.966)	2.06(1.09)	1.88(1.11)
		TAF-PE	2.12(1.32)	2.06(1.26)	1.67(0.970)
	High	Stress-PE	3.00(1.28)	2.92(1.24)	3.08(1.24)
		TAF-PE	2.17(1.34)	2.75(1.48)	2.25(1.22)
	OCD	Stress-PE	2.64(1.28)	3.14(1.17)	3.29(1.32)
		TAF-PE	2.38(1.56)	2.54(1.45)	2.15(1.34)
HA	Low	Stress-PE	1.51(0.718)	1.67(0.907)	1.50(0.857)
		TAF-PE	1.94(1.09)	2.00(1.22)	1.82(1.24)
	High	Stress-PE	2.58(1.64)	2.67(1.30)	2.67(1.07)
		TAF-PE	2.27(1.27)	2.55(1.37)	2.00(1.00)
	OCD	Stress-PE	1.92(1.19)	2.08(1.19)	2.08(1.44)
		TAF-PE	2.42(1.64)	2.58(1.16)	1.50(0.798)

Standard deviation scores are in parenthesis.

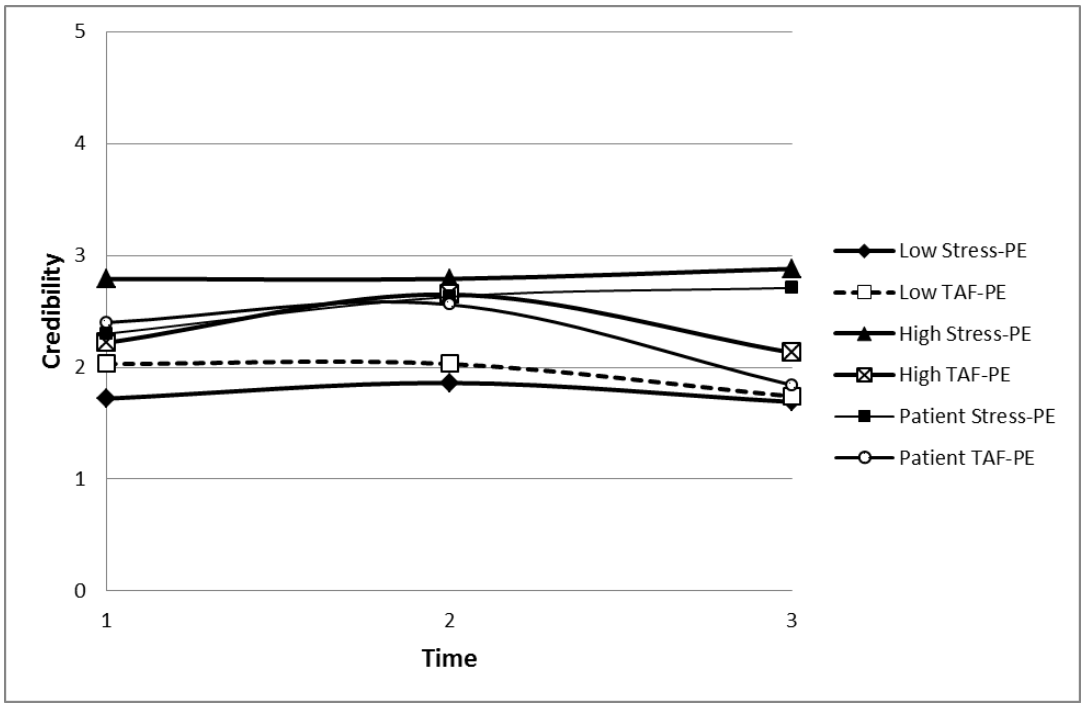

Figure 1. Interaction Effect between Group, PE and Time for Credibility

3.2.2. Uncertainty

As stated earlier, it is hypothesized for uncertainty that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

Moreover, it is hypothesized for uncertainty that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in uncertainty than the high OC group, which in turn will have higher scores in uncertainty that the scores in the low OC group.

It is also hypothesized for uncertainty that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For uncertainty, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After

PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 21.507$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.889$). Table 10 displays means and standard deviations of uncertainty scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.779, 289.953) = 9.734$, $MSE = 0.434$, $p < .001$, $\eta_p^2 = .056$. Uncertainty scores were significantly higher after PR ($M = 2.562$) than before PR ($M = 2.388$) and those scores were significantly higher after PR ($M = 2.562$) than after PE ($M = 2.261$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 9.342$, $MSE = 3.778$, $p < .001$, $\eta_p^2 = .103$: Participants with high OC group had significantly higher uncertainty ratings ($M = 2.832$) than participants with low OC group ($M = 1.933$). Moreover, OCD-patient group had significantly higher uncertainty scores ($M = 2.445$) than participants with low OC group ($M = 1.933$).

Time and PE interaction was also significant, $F(1.779, 289.953) = 8.757$, $MSE = 0.434$, $p < .001$, $\eta_p^2 = .051$. In TAF-PE, participants' scores before PR ($M = 2.432$) were significantly higher on uncertainty ratings than the scores after PE ($M = 2.026$). Also, scores after PR ($M = 2.529$) were significantly higher than the scores of participants after PE ($M = 2.026$). Furthermore, after PE, participants' scores in stress-PE ($M = 2.495$) were significantly higher than participants' scores in TAF-PE ($M = 2.026$). In addition, in stress-PE, participants' scores after PR ($M = 2.595$) were significantly higher on uncertainty ratings than the scores before PR ($M = 2.344$).

As a summary, for uncertainty, hypotheses for main effect of time and interaction effect between time and PE were (fully) confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 2).

Table 10
Means and Standard Deviations of Uncertainty Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	1.86 (1.00)	1.91 (0.919)	1.77 (0.973)
	TAF	2.20 (1.32)	2.09 (1.09)	1.77 (1.06)
High	Stress	2.92 (1.14)	3.17 (1.27)	3.08 (1.32)
	TAF	2.70 (1.52)	2.78 (1.48)	2.35 (1.23)
Patient	Stress	2.26 (1.40)	2.70 (1.30)	2.63 (1.36)
	TAF	2.40 (1.22)	2.72 (1.46)	1.96(1.27)

Standard deviation scores are in parenthesis.

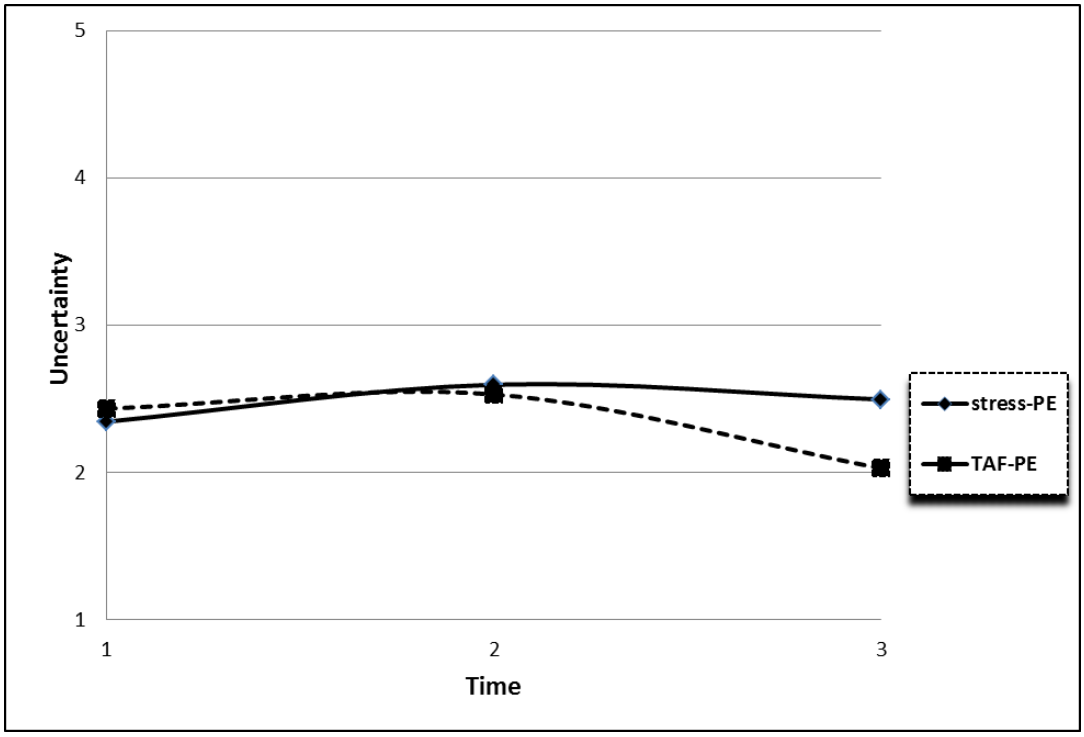

Figure 2. Interaction Effect between PE and Time for Uncertainty

3.2.3. TAF-Likelihood

As stated earlier, it is hypothesized for TAF-Likelihood that there will be a significant main effect of time, in that, in general, scores after PR (Time2) will be higher than scores before PR (Time1); and scores after PE (Time3) will be lower than the scores after PR (Time2).

Moreover, it is hypothesized for TAF-Likelihood that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in TAF-Likelihood than the high OC group, which in turn will have higher scores in TAF-Likelihood that the scores in the low OC group.

It is also hypothesized for TAF-Likelihood that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For likelihood, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 23.585$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.881$). Table 11 displays means and standard deviations of TAF-Likelihood scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.761, 287.102) = 10.734$, $MSE = 0.496$, $p < .001$, $\eta_p^2 = .062$. TAF-Likelihood scores were significantly higher after PR ($M = 2.642$) than before PR ($M = 2.449$) and those scores were significantly higher after PR ($M = 2.642$) than after PE ($M = 2.305$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 7.435$, $MSE = 4.021$, $p < .001$, $\eta_p^2 = .084$: Participants with high OC group had significantly higher TAF-Likelihood ratings ($M = 2.909$) than participants with low OC group ($M = 2.067$).

Time and PE interaction was also significant, $F(1.761, 287.102) = 9.565$, $MSE = 0.496$, $p < .001$, $\eta_p^2 = .055$. In TAF-PE, participants' scores before PR ($M = 2.492$) were significantly higher on TAF-Likelihood ratings than the scores after PE ($M = 2.044$). Also, scores after PR ($M = 2.617$) were significantly higher than the scores after PE ($M = 2.044$). Furthermore, after PE, participants' scores in stress-PE

(*M* = 2.566) were significantly higher than participants' scores in TAF-PE (*M* = 2.044). In addition, In Stress-PE, participants' scores after PR (*M* = 2.667) were significantly higher on TAF-Likelihood ratings than the scores before PR (*M* = 2.406).

As a summary, for TAF-Likelihood, hypotheses for main effect of time and interaction effect between time and PE were (fully) confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 3).

Table 11
Means and Standard Deviations of TAF-Likelihood Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	1.89 (1.22)	2.00 (1.03)	2.00 (1.00)
	TAF	2.34 (1.30)	2.34 (1.30)	1.83 (1.07)
High	Stress	3.00 (1.25)	3.33 (1.34)	3.29 (1.30)
	TAF	2.65 (1.40)	2.87 (1.46)	2.30 (1.29)
Patient	Stress	2.33 (1.52)	2.67 (1.30)	2.41 (1.47)
	TAF	2.48 (1.29)	2.64 (1.41)	2.00 (1.38)

Standard deviation scores are in parenthesis.

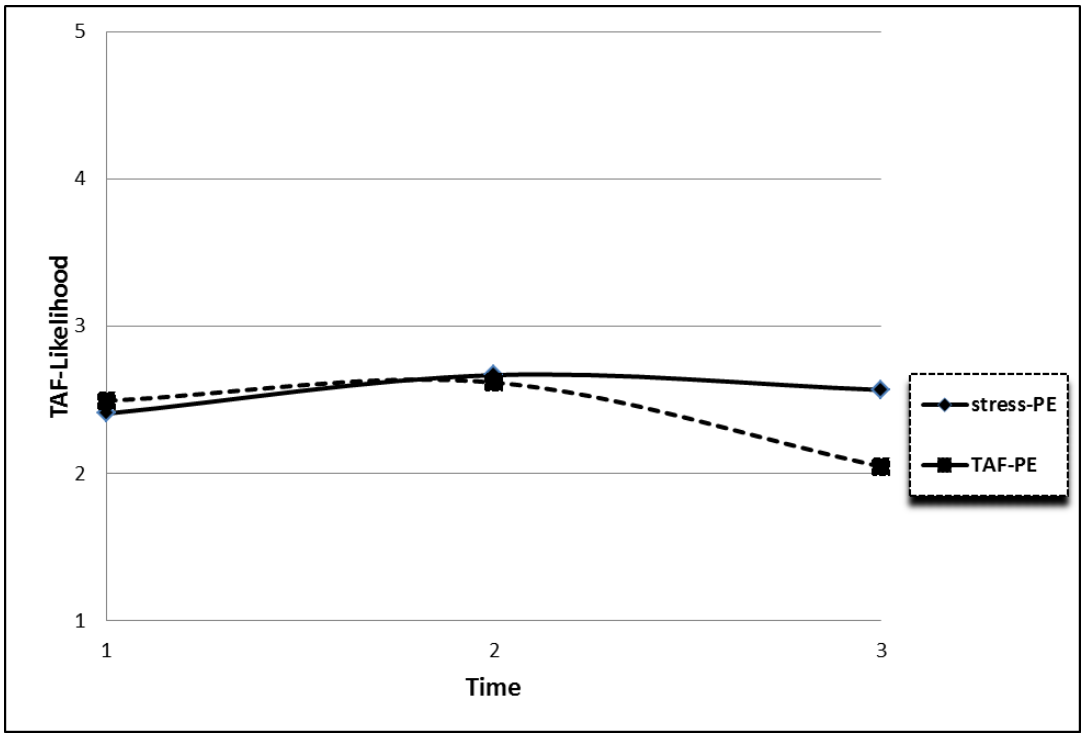

Figure 3. Interaction Effect between PE and Time for TAF-Likelihood

3.2.4. TAF-Morality

As stated earlier, it is hypothesized for TAF-Morality that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in TAF-Morality than the high OC group, which in turn will have higher scores in TAF-Morality that the scores in the low OC group.

It is also hypothesized for TAF-Morality that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For TAF-Morality, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 9.514$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.946$). Table 12 displays means and standard

deviations of TAF-Morality scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.892, 308.409) = 4.627$, $MSE = 0.626$, $p < .05$, $\eta_p^2 = .028$. TAF-Morality scores were significantly higher before PR ($M = 3.512$) than after PE ($M = 3.272$) and those scores were significantly higher after PR ($M = 3.475$) than after PE ($M = 3.272$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 11.872$, $MSE = 4.326$, $p < .001$, $\eta_p^2 = .127$: Participants with high OC group had significantly higher TAF-Morality ratings ($M = 3.993$) than participants with low OC group ($M = 2.890$) and also OCD-patient group ($M = 3.376$).

As a summary, for TAF-Morality, hypothesis for the interaction effect between time and PE was not confirmed. However, the hypothesis for main effect of group was partially confirmed.

Table 12
Means and Standard Deviations of TAF-Morality Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	3.14 (1.38)	2.94 (1.47)	2.86 (1.44)
	TAF	2.94 (1.41)	3.03 (1.29)	2.43 (1.31)
High	Stress	4.08 (0.881)	3.96 (1.08)	3.92 (1.32)
	TAF	3.91 (1.24)	4.21 (1.09)	3.87 (1.29)
Patient	Stress	3.59 (1.39)	3.74 (1.40)	3.48 (1.58)
	TAF	3.40 (1.47)	2.96 (1.46)	3.08 (1.53)

Standard deviation scores are in parenthesis.

3.2.5. Regret

As stated earlier, it is hypothesized for regret that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in regret than the high OC group, which in turn will have higher scores in regret than the low OC group.

It is also hypothesized for regret that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For regret, a 4-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 14.854$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.919$). Table 13 displays means and standard deviations of regret scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.839, 299.738) = 22.645$, $MSE = 0.470$, $p < .001$, $\eta_p^2 = .122$. Scores of regret were significantly higher before PR ($M = 3.909$) than after PR ($M = 3.730$) and those scores were significantly higher after PR ($M = 3.730$) than after PE ($M = 3.426$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 9.140$, $MSE = 4.193$, $p < .101$, $\eta_p^2 = .085$: Participants with high OC group had significantly higher regret ratings ($M = 4.079$) than participants with low OC group ($M = 3.176$). Moreover, OCD-patient group had significantly higher regret scores ($M = 3.809$) than participants with low OC group ($M = 3.176$).

As a summary, for regret, hypothesis for the interaction effect between time and PE was not confirmed. However, the hypothesis for main effect of group was partially confirmed.

Table 13
Means and Standard Deviations of Regret Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	3.60 (1.29)	3.23 (1.37)	2.97 (1.27)
	TAF	3.31 (1.28)	3.14 (1.24)	2.80 (1.32)
High	Stress	4.58 (0.778)	4.33 (0.761)	4.17 (0.761)
	TAF	4.04 (1.31)	3.87 (1.36)	3.52 (1.44)
Patient	Stress	3.91 (1.41)	3.93 (1.52)	3.81 (1.59)
	TAF	4.04 (1.31)	3.88 (1.24)	3.28 (1.54)

Standard deviation scores are in parenthesis.

3.2.6. Guilt

As stated earlier, it is hypothesized for guilt that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in guilt than the high OC group, which in turn will have higher scores in guilt than the low OC group.

It is also hypothesized for guilt that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For guilt, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 6.186$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.964$). Table 14 displays means and standard deviations of guilt scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.928, 314.277) = 21.086$, $MSE = 0.635$, $p < .001$, $\eta_p^2 = .115$. Guilt scores were significantly higher

before PR (*M* = 3.543) than after PE (*M* = 2.989) and those scores were significantly higher after PR (*M* = 3.346) than after PE (*M* = 2.989).

The results also revealed that the main effect of group was significant, *F*(2, 163) = 3.381, *MSE* = 0.635, *p*< .001, η_p^2 = .076: Participants with high OC group had significantly higher credibility ratings (*M* = 3.656) than participants with low OC group (*M* = 2.881).

Time and group interaction was also significant, *F*(3.856, 314.277) = 9.307, *MSE* = 0.368, *p*< .05, η_p^2 = .040. In time 2, participants with high OC group had significantly higher guilt ratings (*M* = 3.721) than participants with low OC group (*M* = 2.857). Moreover, OCD-patient group had significantly higher guilt scores (*M* = 3.459) than participants with low OC group (*M* = 2.857). Similarly, after PE, participants with high OC group had significantly higher guilt ratings (*M* = 3.380) than participants with low OC group (*M* = 2.429). Moreover, OCD-patient group had significantly higher guilt scores (*M* = 3.159) than participants with low OC group (*M* = 2. 429).

In addition, amongst participants with low OC group, scores of guilt were significantly higher before PR (*M* = 3.357) than after PR (*M* = 2.857) and those scores were significantly higher after PR (*M* = 2.857) than after PE (*M* = 2.429). Likewise, amongst participants with high OC group, scores of guilt were significantly higher before PR (*M* = 3.866) than after PE (*M* = 3.380).

As a summary, for guilt, hypothesis for the interaction effect between time and PE was not confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 4).

Table 14
Means and Standard Deviations of Guilt Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

Group	PE	Time 1	Time 2	Time 3
Low	Stress	3.40 (1.12)	2.97 (1.27)	2.69 (1.32)
	TAF	3.31 (1.25)	2.74 (1.36)	2.17 (1.18)
High	Stress	4.17 (0.936)	3.83 (1.01)	3.50 (1.06)
	TAF	3.57 (1.31)	3.61 (1.44)	3.26 (1.48)
Patient	Stress	3.37 (1.64)	3.52 (1.37)	3.52 (1.50)
	TAF	3.44 (1.47)	3.40 (1.38)	2.80 (1.41)

Standard deviation scores are in parenthesis.

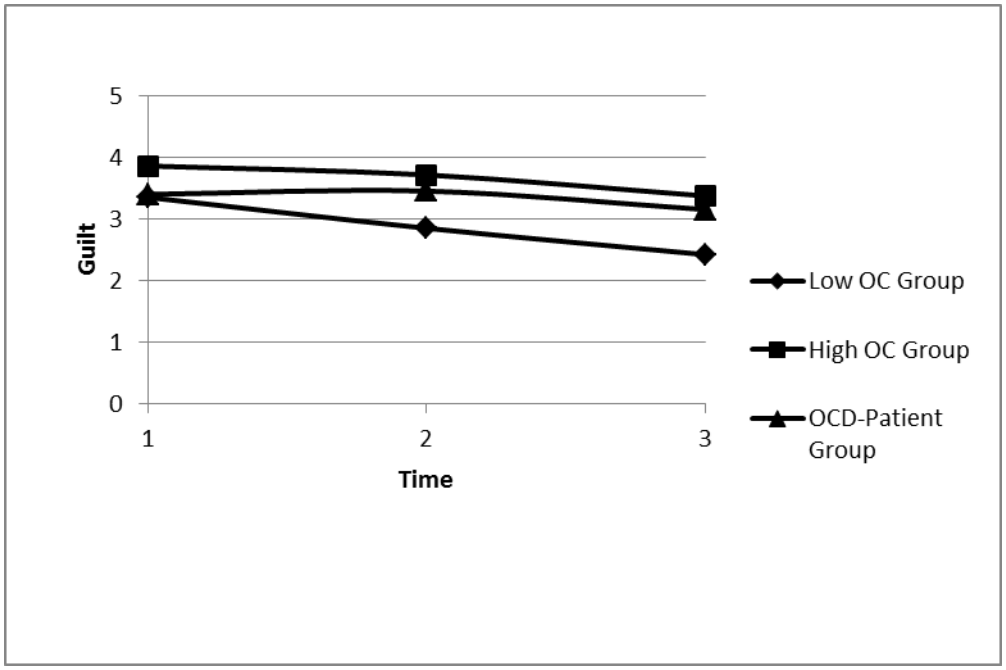

Figure 4. Interaction Effect between Group and Time for Guilt

3.2.7. Distress

As stated earlier, it is hypothesized for distress that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in distress than the high OC group, which in turn will have higher scores in distress than the low OC group.

It is also hypothesized for distress that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will

have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For distress, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 8.581$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.951$). Table 15 displays means and standard deviations of distress scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.902, 310.007) = 18.826$, $MSE = 0.366$, $p < .001$, $\eta_p^2 = .104$. Distress scores were significantly higher before PR ($M = 2.473$) than after PE ($M = 2.220$) and those scores were significantly higher after PR ($M = 2.615$) than after PE ($M = 2.220$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 8.701$, $MSE = 3.786$, $p < .001$, $\eta_p^2 = .096$: Participants with high OC group had significantly higher distress ratings ($M = 2.688$) than participants with low OC group ($M = 1.948$). Moreover, OCD-patient group had significantly higher distress scores ($M = 2.672$) than participants with low OC group ($M = 1.948$).

Time and PE interaction was also significant, $F(1.902, 310.007) = 7.664$, $MSE = 0.434$, $p < .001$, $\eta_p^2 = .045$. In TAF-PE, participants' scores before PR ($M = 2.411$) were significantly higher on distress ratings than the scores after PE ($M = 1.983$). Also, scores after PR ($M = 2.626$) were significantly higher than the scores of participants after PE ($M = 1.983$). Furthermore, after PE, participants' scores in stress-PE ($M = 2.457$) were significantly higher than participants' scores in TAF-PE ($M = 1.983$).

As a summary, for distress, hypothesis for the interaction effect between time and PE was fully confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 5).

Table 15
Means and Standard Deviations of Distress Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

Group	PE	Time 1	Time 2	Time 3
Low	Stress	2.09 (1.12)	2.18 (1.12)	1.86 (1.12)
	TAF	1.89 (1.25)	2.11 (1.11)	1.57 (0.884)
High	Stress	2.67 (1.17)	2.75 (1.07)	2.63 (1.13)
	TAF	2.83 (1.11)	3.04 (1.26)	2.21 (1.09)
Patient	Stress	2.85 (1.41)	2.89 (1.55)	2.89 (1.60)
	TAF	2.52 (1.36)	2.72 (1.40)	2.16 (1.18)

Standard deviation scores are in parenthesis.

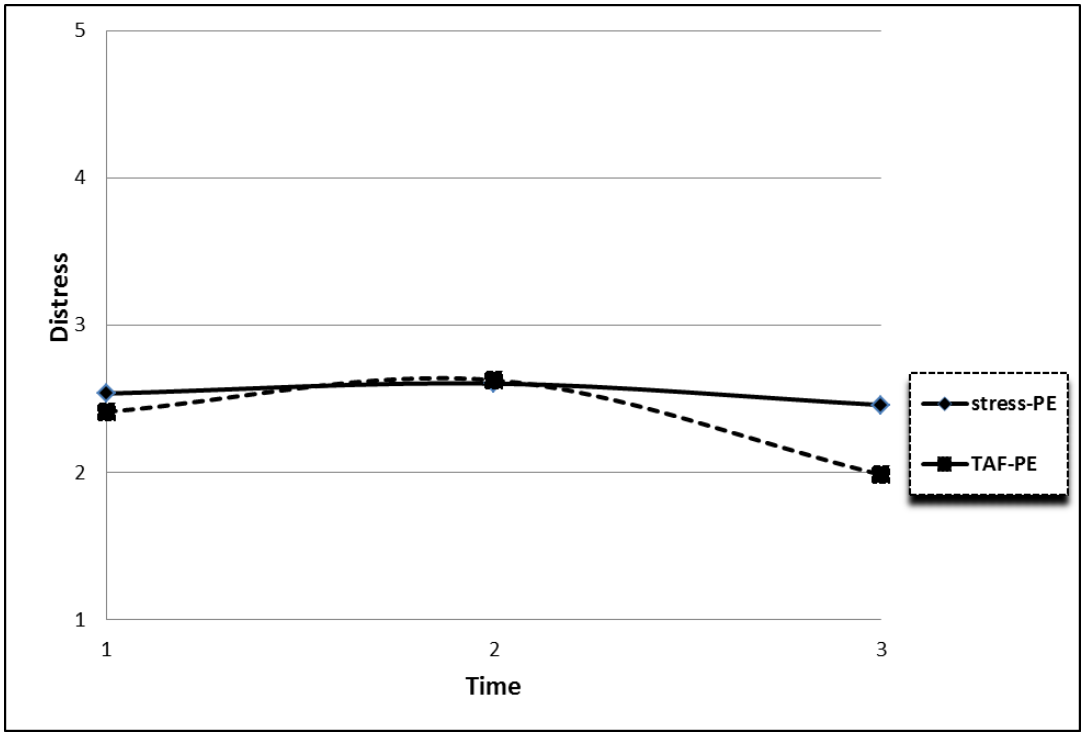

Figure 5. Interaction Effect between PE and Time for Distress

3.2.8. Responsibility

As stated earlier, it is hypothesized for responsibility that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in responsibility than the high OC group, which in turn will have higher scores in responsibility than the low OC group.

It is also hypothesized for responsibility that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE

condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For responsibility, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 24.179$, $p < .001$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.878$). Table 16 displays means and standard deviations of responsibility scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.756, 286.304) = 17.231$, $MSE = 0.468$, $p < .001$, $\eta_p^2 = .096$. Responsibility scores were significantly higher before PR ($M = 2.888$) than after PE ($M = 2.528$) and those scores were significantly higher after PR ($M = 2.886$) than after PE ($M = 2.528$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 11.675$, $MSE = 4.425$, $p < .001$, $\eta_p^2 = .125$: Participants with high OC group had significantly higher responsibility ratings ($M = 3.057$) than participants with low OC group ($M = 2.157$). Moreover, OCD-patient group had significantly higher responsibility scores ($M = 3.088$) than participants with low OC group ($M = 2.157$).

Time and PE interaction was also significant, $F(1.756, 286.304) = 8.911$, $MSE = 0.468$, $p < .001$, $\eta_p^2 = .052$. In TAF-PE, participants' scores before PR ($M = 2.817$) were significantly higher on responsibility ratings than the scores after PE ($M = 2.212$). Also, scores after PR ($M = 2.842$) were significantly higher than the scores of participants after PE ($M = 2.212$). Furthermore, after PE, participants' scores in stress-PE ($M = 2.843$) were significantly higher than participants' scores in TAF-PE ($M = 2.212$).

As a summary, for responsibility, hypothesis for the interaction effect between time and PE was fully confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 6).

Table 16
Means and Standard Deviations of Responsibility Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	2.00 (0.907)	2.17 (1.12)	2.06 (1.11)
	TAF	2.43 (1.29)	2.40 (1.33)	1.89 (1.05)
High	Stress	2.58 (1.21)	3.25 (1.22)	3.25 (1.33)
	TAF	2.78 (1.44)	3.09 (1.41)	2.39 (1.27)
Patient	Stress	3.30 (1.61)	3.37 (1.62)	3.22 (1.60)
	TAF	3.24 (1.36)	3.04 (1.49)	2.36 (1.50)

Standard deviation scores are in parenthesis.

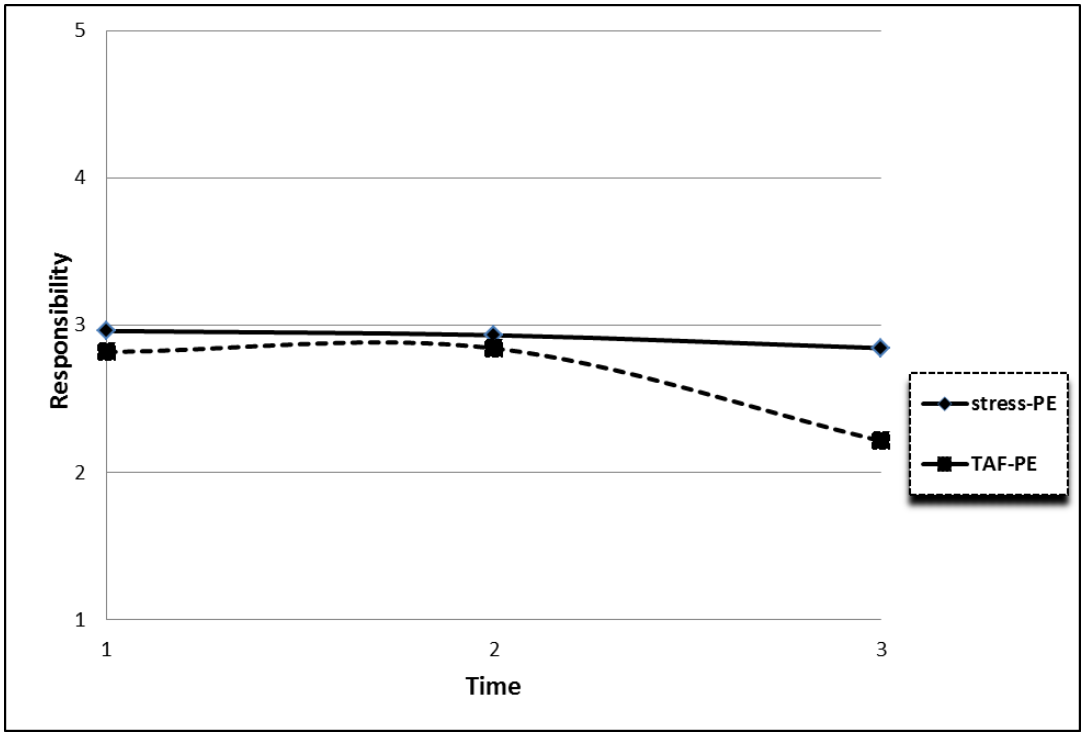

Figure 6. Interaction Effect between PE and Time for Responsibility

3.2.9. Self-relevant Causes

As stated earlier, it is hypothesized for self-relevant causes that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in self-relevant causes than the high OC group, which in turn will have higher scores in self-relevant causes than the low OC group.

It is also hypothesized for self-relevant causes that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For self-relevant causes, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 7.651$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.956$) Table 17 displays means and standard deviations of self-relevant causes scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.912, 311.624) = 30.209$, $MSE = 0.428$, $p < .001$, $\eta_p^2 = .062$. Self-relevant causes scores were significantly higher before PE ($M = 2.402$) than after PE ($M = 2.140$) and those scores were significantly higher after PR ($M = 2.440$) than after PE ($M = 2.140$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 7.705$, $MSE = 3.224$, $p < .001$, $\eta_p^2 = .086$: Participants with high OC group had significantly higher self-relevant causes ratings ($M = 2.668$) than participants with low OC group ($M = 1.924$). Moreover, OCD-patient group had significantly higher self-relevant causes scores ($M = 2.390$) than participants with low OC group ($M = 1.924$).

Also, there was a main effect of PE, $F(1, 163) = 4.081$, $MSE = 3.224$, $p < .05$, $\eta_p^2 = .024$. Self-relevant causes scores were significantly higher in Stress-PE ($M = 2.491$) than in TAF-PE ($M = 2.164$).

Time and PE interaction was also significant, $F(1.912, 311.624) = 4.128$, $MSE = 0.428$, $p < .05$, $\eta_p^2 = .025$. In TAF-PE, participants' scores before PR ($M = 2.266$) were significantly higher on self-relevant causes ratings than the scores after

PE (M = 1.864). Also, scores after PR (M = 2.361) were significantly higher than the scores of participants after PE (M = 1.864). Furthermore, after PE, participants' scores in stress-PE (M = 2.415) were significantly higher than participants' scores in TAF-PE (M = 1.864).

As a summary, for self-relevant causes, hypothesis for the interaction effect between time and PE was fully confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 7).

Table 17
Means and Standard Deviations of Self-relevant Causes Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	1.97 (0.923)	1.97 (0.891)	1.86 (1.00)
	TAF	2.00 (1.14)	2.09 (1.17)	1.66 (0.873)
High	Stress	3.13 (1.19)	2.92 (1.28)	2.83 (1.20)
	TAF	2.48 (1.08)	2.48 (1.27)	2.17 (1.19)
Patient	Stress	2.52(1.37)	2.67 (1.30)	2.56 (1.25)
	TAF	2.32 (1.31)	2.52 (1.33)	1.76 (1.27)

Standard deviation scores are in parenthesis.

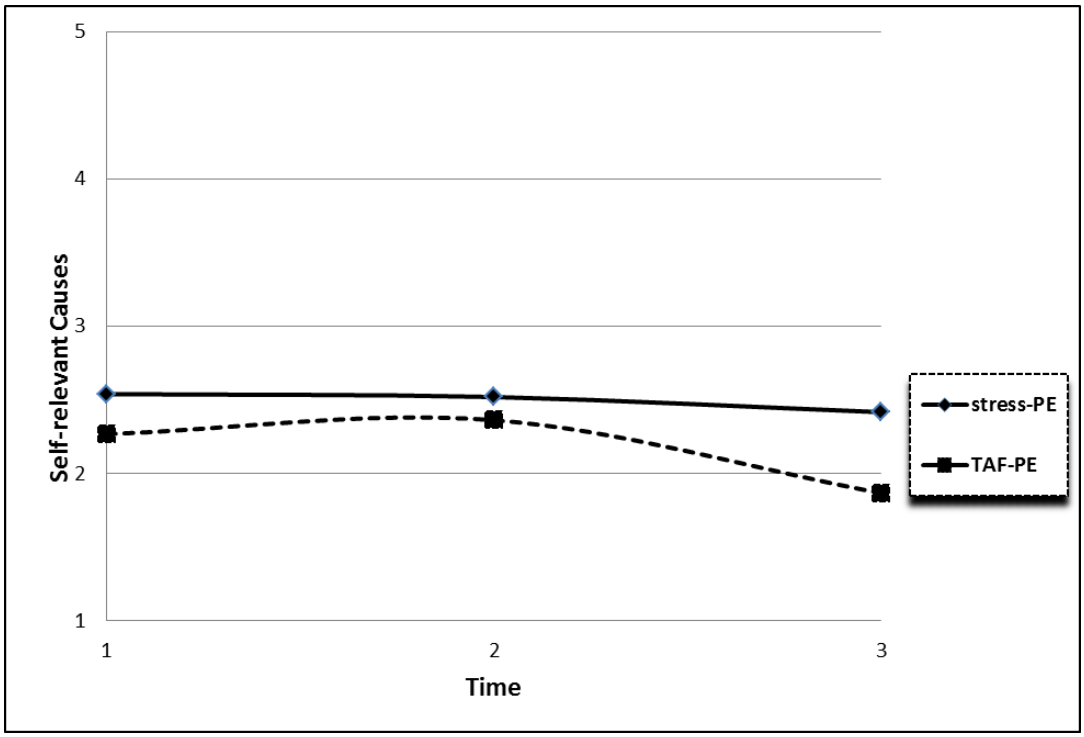

Figure 7. Interaction Effect between PE and Time for Self-relevant Causes

3.2.10. Self-irrelevant Causes

As stated earlier, it is hypothesized for self-irrelevant causes that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in self-irrelevant causes than the high OC group, which in turn will have higher scores in self-irrelevant causes than the low OC group.

It is also hypothesized for self-irrelevant causes that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For self-irrelevant causes, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Table 18 displays means and standard deviations of self-irrelevant causes scores as a function of group (low OC group, High OC group, OCD-patient

group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(2, 326) = 17.712$, $MSE = 0.351$, $p < .001$, $\eta_p^2 = .098$. Self-irrelevant causes scores were significantly higher before PR ($M = 2.037$) than after PE ($M = 1.669$) and those scores were significantly higher after PR ($M = 1.962$) than after PE ($M = 1.669$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 3.194$, $MSE = 1.715$, $p < .05$, $\eta_p^2 = .038$: Moreover, OCD-patient group had significantly higher self-irrelevant causes scores ($M = 2.078$) than participants with low OC group ($M = 1.728$).

Also, there was a main effect of PE, $F(1, 163) = 5.332$, $MSE = 1.715$, $p < .05$, $\eta_p^2 = .032$. Self-irrelevant causes scores were significantly higher in Stress-PE ($M = 2.026$) than in TAF-PE ($M = 1.753$).

Time and PE interaction was also significant, $F(2, 326) = 4.266$, $MSE = 0.351$, $p < .05$, $\eta_p^2 = .026$. In TAF-PE, participants' scores before PR ($M = 1.891$) were significantly higher on self-irrelevant causes ratings than the scores after PE ($M = 1.442$). Also, scores after PR ($M = 1.926$) were significantly higher than the scores of participants after PE ($M = 1.442$). Furthermore, after PE, participants' scores in stress-PE ($M = 1.896$) were significantly higher than participants' scores in TAF-PE ($M = 1.442$). In addition, in Stress-PE, participants' scores before PR ($M = 2.183$) were significantly higher on self-irrelevant causes ratings than the scores after PE ($M = 1.896$).

Also, group and PE interaction was significant, $F(2, 163) = 3.660$, $MSE = 1.715$, $p < .05$, $\eta_p^2 = .043$. In Stress-PE, OCD-patient group ($M = 2.383$) had significantly higher on self-irrelevant causes ratings than the scores of participants with low OC group ($M = 1.667$). Furthermore, amongst OCD-patient group, participants' scores in stress-PE ($M = 2.383$) were significantly higher than participants' scores in TAF-PE ($M = 1.773$).

Lastly, there was a three-way interaction between time, group and PE type, $F(4,326) = 3.388$, $MSE = 0.351$, $p < .05$, $\eta_p^2 = .040$. In stress-PE, in time 1,

participants with high OC group had significantly higher self-irrelevant causes scores (M = 2.375) than participants with low OC group (M = 1.544). Moreover, OCD-patient group had significantly higher self-irrelevant causes scores (M = 2.630) than participants with low OC group (M = 1.544). In stress-PE, after PE, OCD-patient group had significantly higher self-irrelevant causes scores (M = 2.222) than participants with low OC group (M = 1.714).

Amongst participants with high OC group, before PR, people in Stress-PE (M = 2.630) had significantly higher self-irrelevant scores than participants in TAF-PE (M = 1.760). Similarly, amongst OCD-patient group, after PE, credibility scores in stress-PE (M = 2.222) were significantly higher than those in TAF-PE (M = 1.480).

Also, amongst participants with low OC group, before PR, people in Stress-PE (M = 2.000) had significantly higher self-irrelevant scores than participants in TAF-PE (M = 1.544). Similarly, amongst participants with high OC group, after PE, credibility scores in stress-PE (M = 1.750) were significantly higher than those in TAF-PE (M = 1.304).

Moreover, for the low OC group who were in TAF-PE, self-irrelevant scores before PR (M = 2.000) were significantly higher than scores after PE (M = 1.543). Also, for the high OC group who were in Stress-PE, self-irrelevant scores before PR (M = 2.375) were significantly higher than scores after PE (M = 1.750). In addition, for the high OC group who were in TAF-PE, self-irrelevant scores before PR (M = 1.913) were significantly higher than scores after PE (M = 1.304). Moreover, for the high OC group who were in TAF-PE, self-irrelevant scores after PR (M = 1.870) were significantly higher than scores after PE (M = 1.340).

For the OCD-patient group who were in the TAF-PE, self-irrelevant scores after PR (M = 2.080) were significantly higher than scores after PE (M = 1.480). Also, for OCD-patient group who were in Stress-PE, self-irrelevant scores before PR (M = 2.630) were significantly higher than scores after PR (M = 1.222).

As a summary, for self-irrelevant causes, hypothesis for the interaction effect between time and PE was fully confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 8).

Table 18
Means and Standard Deviations of Self-irrelevant Causes Scores as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	1.54 (0.781)[a]	1.74 (0.852)	1.71 (0.860)[f]
	TAF	2.00 (1.03)[b]	1.83 (0.985)	1.54 (0.701)[e]
High	Stress	2.38 (0.824)[a]	1.96 (1.08)	1.75 (0.737)[c]
	TAF	1.91 (1.04)[c]	1.87 (1.01)[c]	1.30 (0.559)[d]
Patient	Stress	2.63(1.21)[b]	2.30 (0.869)	2.22 (0.892)[e]
	TAF	1.76 (0.723)	2.08 (1.12)[a]	1.48 (0.586)[f]

Standard deviation scores are in parenthesis.
Different letters in pair-wise comparison indicate significant differences

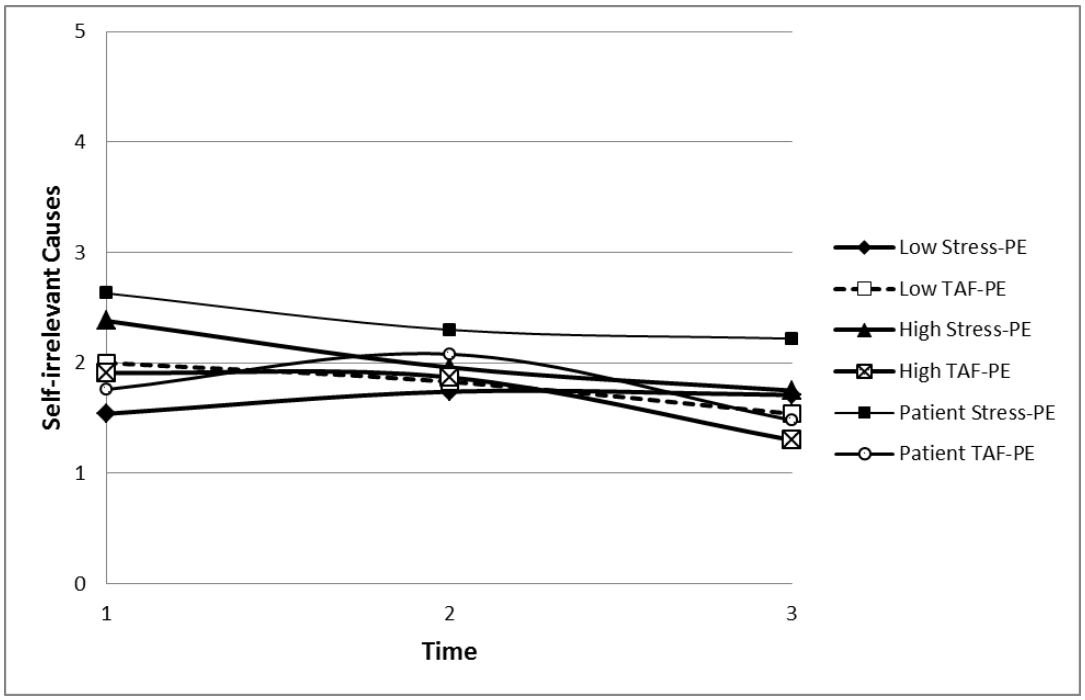

Figure 8. Interaction Effect between Group, PE and Time for Self-irrelevant Causes

3.2.11. Interpretations of Intrusions Inventory (III)

As stated earlier, it is hypothesized for total score of III that there will be a significant main effect of group, in that, in general, the OCD-patient group will have higher scores in total score of III than the high OC group, which in turn will have higher scores in total score of III than the low OC group.

For total score of III, it is also hypothesized that there will be a significant interaction between time and PE, in that, after PE, participants in the TAF-PE condition will have lower scores than participants in the stress-PE group. However, before PR and after PR, there will be no difference in terms of participants' scores in the TAF-PE and the stress-PE conditions.

For III, a 3-way 3(Group: Low OC group, High OC Group, OCD-Patient Group) X 2(PE: TAF-PE, Stress-PE) X 3(Time: Before PR, After PR, After PE) mixed ANOVA with repeated measures on the last factor was conducted. Mauchly's test indicated that the assumption of sphericity had been violated ($\chi^2(2) = 10.383$, $p < .05$), therefore degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\varepsilon = 0.942$) Table 19 displays means and standard deviations of III scores as a function of group (low OC group, High OC group, OCD-patient group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE).

According to the results, there was a main effect of time, $F(1.883, 306.944) = 30.209$, $MSE = 0.119$, $p < .001$, $\eta_p^2 = .156$. III scores were significantly higher before PR ($M = 2.143$) than after PE ($M = 1.923$) and those scores were significantly higher after PR ($M = 2.193$) than after PE ($M = 1.923$).

The results also revealed that the main effect of group was significant, $F(2, 163) = 19.384$, $MSE = 3.265$, $p < .001$, $\eta_p^2 = .192$: Participants with high OC group had significantly higher III ratings ($M = 2.511$) than participants with low OC group ($M = 1.413$). Moreover, OCD-patient had significantly higher III scores ($M = 2.335$) than participants with low OC group ($M = 1.413$).

Also, there was a main effect of PE, $F(1, 163) = 5.607$, $MSE = 3.265$, $p < .05$, $\eta_p^2 = .033$. III scores were significantly higher in Stress-PE ($M = 2.279$) than in TAF-PE ($M = 1.894$).

Time and PE interaction was also significant, $F(1.883, 306.944) = 15.053$, $MSE = 0.119$, $p < .001$, $\eta_p^2 = .085$. In TAF-PE, participants' scores before PR ($M = 2.035$) were significantly higher on III ratings than the scores after PE ($M = 1.618$). Also, scores after PR ($M = 2.028$) were significantly higher than the scores of

participants after PE (*M* = 1.618). Furthermore, after PE, participants' scores in stress-PE (*M* = 2.228) were significantly higher than participants' scores in TAF-PE (*M* = 1.618). In addition, In Stress-PE, participants' scores after PR (*M* = 2.359) were significantly higher on III ratings than the scores after PE (*M* = 2.228).

As a summary, for total score of III, hypothesis for the interaction effect between time and PE was fully confirmed. However, the hypothesis for main effect of group was partially confirmed (See Figure 9).

Table 19
Means and Standard Deviations of Total Score of III as a Function of Group (Low OC Group, High OC Group, OCD-patient Group), PE type (Stress-PE vs. TAF-PE) and Time (Before PR, After PR, After PE)

		Time 1	Time 2	Time 3
Group	PE			
Low	Stress	1.55 (0.687)	1.58 (0.908)	1.39 (0.840)
	TAF	1.52 (0.925)	1.46 (0.981)	0.983 (0.712)
High	Stress	2.60 (0.828)	2.82 (0.962)	2.72 (0.969)
	TAF	2.41 (1.14)	2.49 (1.24)	2.03 (1.20)
Patient	Stress	2.60 (1.25)	2.68 (1.37)	2.57 (1.30)
	TAF	2.18 (1.27)	2.14 (1.38)	1.85 (1.46)

Standard deviation scores are in parenthesis.

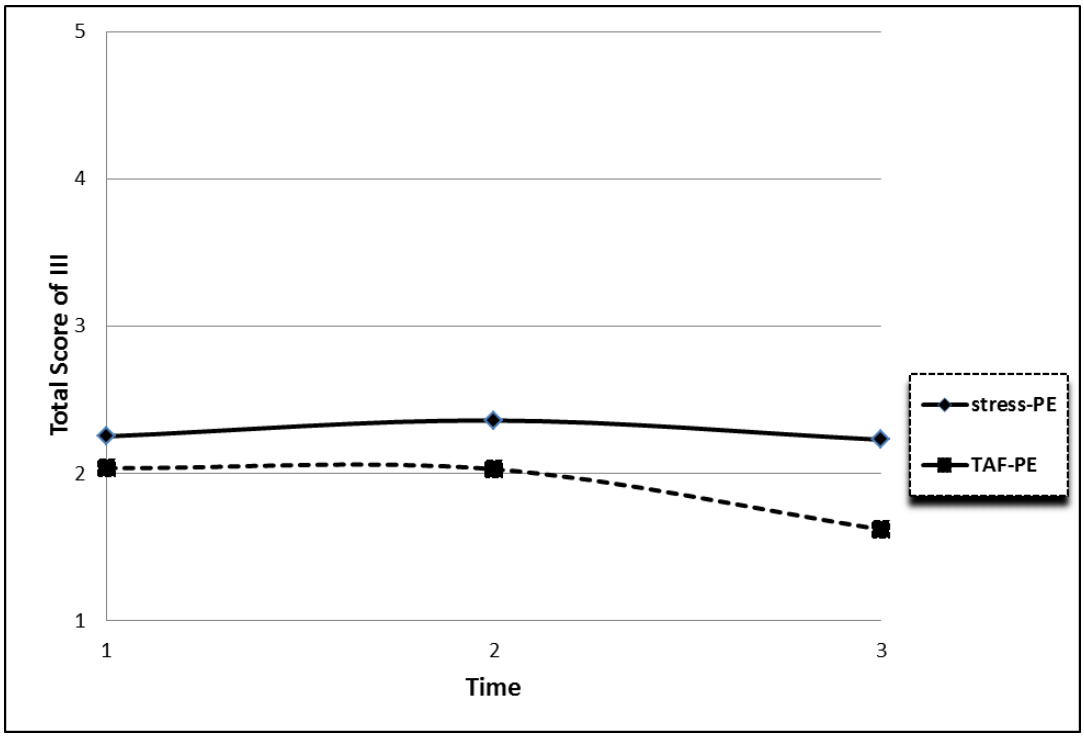

Figure 9. Interaction Effect between PE and Time for Total Score of III

CHAPTER 4

DISCUSSION

4.1. Overview

In this chapter, the main findings of the study are discussed and clinical implications, together with future suggestions, are offered. Analyses revealed three shared results for most of the DVs; namely the main effect of group, the interaction effect between time and PE, and the main effect of time. That is, certain dependent variables showed similar patterns around these three observed effects. Although results for the interaction effect between time and PE encompasses results for the main effect of time, results for main effect of time will be discussed separately because according to the design of the current study the procedure in the stages before PR and after PR were identical for all participants. The differentiation started with the stage after PE.

Next section evaluates imaginal vignettes in terms of their congruency with the literature of *imagination*. Following sections will include discussions of the shared results around these mentioned effects together with proposed clinical implications. Subsequently, the discussion part has a further suggestion section for the (possible) basic understanding of obsessions. Afterwards, discussion part ends with limitations of the current study.

4.2. General Characteristics of the Imaginal Vignettes

This part focuses on the role of imagination for the vignettes used in the current study. It evaluates the congruency of vignettes of current study with the literature of imagination. Remembering the literature review regarding imagination, if a person repeatedly imagines performing an action, this increases the probability of constructing false memories of actually having performed that action (Goff & Roediger, 1998). From this point of view, one could assert that participants in the

current study might have constructed false memories about having experienced the events in the vignette. In the study, participants are asked to imagine experiencing the event in the vignette. They start to imagine this event, knowing that they have no memory for such an event in the given vignette. Still, they try to construct this requested scene based upon the relevant and related memory processes that they had. Interestingly, this event in the vignette may gradually start to turn out to be a kind of recollection for this specific participant. This interpretation shall be discussed in the frame of the repeated imagination later in this chapter.

Another important aspect is the content of the material asked to be imagined. Gregory, Cialdini, & Carpenter (1982), suggested that the more self-relevant the imagined scenarios are, the more likely a change would be observed in behavior. Accordingly, people in their everyday life recurrently imagine or simulate experiences which might occur in their personal futures and those experiences generally revolve around interactions with others (D'Argembeau, Renaud, & Van Der Linden, 2011; for recent reviews, see Schacter, Addis, & Buckner, 2008; Szpunar, 2010). In addition to these, this mentioned effect of imagination on the belief about its occurrence seems to be so strong that it is valid for both personal and nonpersonal events. According to the results of Szpunar & Schacter (2013), repeated simulation resulted in increased levels of the perceived plausibility of future interpersonal experiences. Those experiences are found to be in only emotional events compared to neutral ones. In this specific study, researchers compared the simulations of four times with simulations with one time. This finding is congruent with prior findings of similar effects for nonpersonal and general personal events (Anderson, 1983; Carroll, 1978; Gregory et al., 1982; Sherman, Cialdini, Schwartzman, & Reynolds, 1985). Moreover, it is regarded as important to assert that one chief characteristic of majority of everyday future simulations is being emotionally arousing (positive or negative) (D'Argembeau, Renaud, and Van der Linden, 2011). Furthermore, a main outcome of mental simulation is thought to bring about cognitive representations as well as strong emotions (Taylor, Pham, Rivkin & Armor, 1998). Likewise, it is found that emotionally charged future simulations are evaluated as more important than non-

emotional ones (Szpunar, Addis, & Schacter, 2012). Applying the information above to the vignettes in the present study, one could argue that the construction of the vignettes is congruent with the literature for increasing levels of plausibility, in that, they are *self-relevant, interpersonal* and *emotional* events.

Focusing on yet another aspect of the current study, when people are asked to imagine something in the near future, they are much more likely to place this event in a familiar location and context (Arnold, McDermott & Szpunar, 2011). In this way, it could be asserted that participants in the current study might have imagined the event in a familiar location or context because they were asked to imagine the second event in the vignette in the near future. Besides, according to the research about imagination of familiar/unfamiliar contexts, it is found that proposed events in familiar/common locations are imagined more clearly and easily, have more sensory details and stronger feelings of experiencing these imaginary events and thus are much more rich mental operations (Vito, Gamboz, and Brandimonte, 2012). One can apply this reasoning line to the current study that imaginary events in the present study are constructed more easily.

On the other hand, there is a general observation of the experimenter while conducting the study. The majority of the participants had a need for expressing that they did not agree with the instructions in the vignettes. They seemed to have a need for asserting their claim that they found the vignettes as irrational. One could speculate on this observation that the participants may have seen the events in the vignettes as probable in one way or another. The crucial question is as follows: Are those interpretations a kind of suppression and/or neutralization activity arisen by TAF-Induction with/out perseverative reasoning/imagining the events in the vignettes? A possible answer to this question is that people might have been affected by the possibility of harming a loved one only through their wish. In fact, this possibility is only written in the paper; however, just reading and reflecting upon this possibility seems to have somewhat triggering magic-like power that majority of them have an urge-like motive to indicate that they are not in line with the written text. Indeed, this is the summary of TAF-Induction literature that TAF induction inevitably begets thought suppression (Marcks & Woods, 2007)

It is possible that people in such encounters start to automatically imagine the events occurring based on generated mental models (MMs) as suggested by Jahonson & Bairds (1983). It is asserted that people *normally* and inevitably generate MMs in the face of such instances. If some of the generated models are catastrophic, then action is taken in order to cope with this turbulence by rejecting the possibility of the imagined event. However, the crucial question remains overlooked: how do people reject this possibility without accepting it? Therefore, one could argue that people firstly seem to accept/own this possibility and then reject it.

The vignettes used in the current study seems to be accepted as *plausible* on the grounds that TAF-Induction literature firmly states that this induction procedure generates avoidance behavior such as suppression and neutralization urges and tendencies (Marks & Woods, 2007). Similarly, regarding the current study, one could argue based on the literature on imagination that if participants read and imagine properly (unfortunately there is no assessment for the accuracy and validity of the imagination process in the current study), then their beliefs (specifically their appraisal processes) and accompanying behaviors (namely suppression/neutralization urge) related to the vignette would also automatically be affected by the (imagining the vignette) experiment process accordingly.

Subsequent part focuses on discussion of results of current study.

4. 3. Discussion of the Shared Results

Remembering the aims of the current study, the first aim was to test the effectiveness of the TAF-PE over stress-PE on the appraisal processes about the causal link between the two events in the vignette. This aim was related to the assessment scores after PR and after PE. The second aim was to investigate the possible differentiation in terms of appraisal processes amongst the three groups, namely, low and high OC group and OCD-patient group. The last, but not the least, aim was to test whether the OC-like step by step reasoning had an effect on the level of probability/credibility and uncertainty for the causal link, together with other appraisal processes, such as the feelings of responsibility, regret, guilt,

distress before and after the step-wise reasoning task. This aim was related to the assessment across the time course between before PR and after PR. Individual analyses for each DV revealed three shared results, in that, the pattern of results obtained for certain dependent variables were similar for the interaction effect between time and PE, the main effect of group, and the main effect of time. These results are discussed further below.

4.3.1. The Main Effect of Group

For the majority of the DVs (credibility, uncertainty, responsibility, distress, regret, self-relevant causes and lastly the total score of III), scores in high OC group are consistently higher than the scores in the low OC group. Similarly, scores in the OCD-patient group are consistently higher than the scores in the low OC group. However, this consistency was absent in some of the DVs such as TAF-Likelihood, TAF-Morality, and guilt. Participants in the high OC group had significantly higher scores than the participants in the low OC group in terms of the DVs of TAF-Likelihood, TAF-Morality, and guilt. This could imply that the high OC group appears to be inclined to have higher TAF scores and higher levels of guilt about the causal link in the vignette. Based on these results, one could argue that participants in the high OC group have a tendency to take on the burden of the causal link in the vignettes when compared the other two groups.

Moreover, participants in the OCD-patient group had significantly higher scores than the participants in the low OC group in terms of the DV of self-irrelevant causes. This could imply that the patient group appears to be inclined to have an externalization tendency about the causal link in the vignette. Moreover, participants in the OCD-patient group seem to be much more efficient in evading responsibility.

On the other hand, participants in the high OC group have significantly higher scores than participants in the OCD-patient group, in terms of mean scores in PI-WSUR. Regarding this difference, it could be stated that an ongoing pharmacological treatment might have an alleviating-like effect upon the OC symptomatology for the OCD-patient group when compared with the scores of high

OC group, in that, patients might have a much more crystallized clinical outlook than the high OC group.

When working with obsessions without overt neutralization, clinicians could give priority to the concept of TAF and accompanying feelings of guilt while having sessions with *subcinical* OCD. In this way, they might have chance to prevent these clients from exacerbating the OC symptoms. However, when working with patients with OCD, clinicians would prefer to focus on this mentioned externalization tendency. It could be worked through via the concept of responsibility.

If these findings are replicated and, in this way, consolidated, then clinicians could use this type of dissociation for adapting their treatment plans for persons with high OC symptomatology and for patients with OCD separately. Therefore, they could prevent persons from escalation of their symptoms. Similarly, they could also have a chance to downgrade the symptoms of patients with OCD.

4.3.2. Time and PE Interaction

Consistently, for DVs of credibility, TAF-likelihood, uncertainty, responsibility, self-relevant causes, self-irrelevant causes, distress and total score of III, there is a specific interaction effect between time and PE. In that, for scores of participants after PE, scores in the stress-PE condition are significantly higher than scores of participants in the TAF-PE condition. However, on the other hand, for DVs of regret, guilt and TAF-Morality, there is no such interaction effect between PE and time.

In other words, participants in the TAF-PE condition seem to regard the causal link in the vignette less credible and likely than participants in the stress-PE condition. Also, participants in the TAF-PE condition felt less uncertain, distressed and responsible about the causal link than participants in stress-PE. Moreover, they find the causal link less relevant to themselves. In addition to these, participants in the TAF-PE condition seem to have lower scores in III than participants in the stress-PE condition.

However, TAF-PE appears to have no such effect on the feelings of regret and guilt about the causal link. Further, participants in both conditions seem to have similar scores in TAF-Morality dimension about the causal link. Although information in PE associated with TAF is alleviating-like, participants seem not to benefit from this effect of TAF-PE in terms of emotional aspects like regret and guilt. On the other hand, perhaps these emerging feelings after the TAF-Induction and perseverative OC-like reasoning could be so strong that this PE is not sufficient for these core emotions of the participants in the study. Based on this line of reasoning, although TAF-Morality is assumed to be a cognitive construct, this variable in this frame of interaction effect could have more connection with emotional variables like regret and guilt than the other variables like TAF-Likelihood, credibility, uncertainty, responsibility, etc.

As a clinical application, one could propose that currently used TAF-PE is insufficient in terms of strong feelings such as regret and guilt. Also, it seems to have no adequate effect upon TAF-Morality. Putting it in another way, this currently used TAF-PE appears to dissolve TAF-Likelihood component; yet, it has no effect on TAF-Morality. Accordingly, another PE should be constructed to have an effect upon these unaffected DVs.

In the future, this new PE about TAF could help patients (and/or subclinical participants) since new sentences about the mechanisms produced for alleviating components of TAF-Morality, guilt and regret. Besides, new sentences could orient towards the ego-dystonic nature of those experiences could shed more light upon this complicated relationship between TAF-Morality and TAF-Likelihood (this complicated relationship will be explained in the general discussion chapter). Therefore, patients could understand the underlying mechanisms for construct of TAF more fully via this novel PE.

Remembering the clinical outlook of TAF in Turkish culture, it was put forward that while the likelihood component was found to be more related to OCD in Western cultures (Rassin, 2001; Shafran et al., 1996), the morality dimension of TAF also had an important role in OCD symptoms in the Turkish culture (Yorulmaz et al., 2004). Besides, an important cross-cultural study reveals that

when compared to the likelihood component, the morality component has been a more prevalent belief for Muslim groups and this belief domain showed a stronger association with OCD symptoms. Moreover, even low religious Muslims had higher scores on TAF-Morality than low religious Christians. Therefore, it can be proposed that Turkish people might be quite sensitive to their immoral thoughts and instead of just trying to suppress these thoughts, they may feel inflated responsibility about having these thoughts. Accordingly, these feelings of inflated responsibility might induce high levels of anxiety; this brings about neutralization behavior such as trying to replace the negative intrusive thought with a more pleasant thought (Yorulmaz et al., 2009).

Upon these considerations above, it could be asserted for the Turkish culture and specifically for the current study that TAF-Morality seems not to be affected by TAF-PE since Turkish culture is more sensitive to the morality component and the vignette also contains immoral-like thoughts. In addition, the behavior of guilt and accompanying regret in the frame of this mentioned interaction effect could be explained by the idea that TAF-Morality, accepted as a cognitive construct, might be a sufficient cognitive ground for emerging of these emotions. This possible explanation could be done based upon the cognitive theory of the relationship between cognitions and emotions.

4.3.3. The Main Effect of Time (The Effect of PR)

"*Modest doubt is called the beacon of the wise*"

William Shakespeare, Troilus and Cressida

The third shared result is related to the main effect of *time*, which mainly focuses on the difference between scores before PR and after PR. Three groups emerge when inspecting individual analyses based on the 10 DVs.

According to the first group, particularly, dependent variables of credibility, uncertainty and TAF-Likelihood appear to form a group. The scores of participants in these DVs after PR are higher than scores before PR and the scores after PR are higher than the scores after PE. Participants apart from their group and PE

condition start to find the causal link between the given two events in the vignettes much more credible and likely and also they become more uncertain about that link after PR.

Another group of DVs (responsibility, distress, regret, self-irrelevant causes, self-relevant causes, guilt, TAF-Morality and lastly the total scores of III) seems to be more stable in terms of the causal link in the vignette. In other words, reasoning has no effect upon this group of DVs across before PR (Time1) and after PR (Time2), in that, the mean scores do not increase in this time period. A closer look at this group of DVs reveals some having a cognitive others having an affective nature. Dependent variables of responsibility, self-irrelevant causes, self-relevant causes and TAF-Morality seem to be in the *cognitive* domain, in that; they were conventionally scrutinized as being in cognitive in nature. On the other hand, the dependent variables of guilt, distress, and regret seem to be in the *affective* domain, in that; they were conventionally investigated as being affective in nature. Consequently, these two areas appear to form second and third groups, respectively.

Focusing on the difference between before PR and after PR, the first group seems to be increased and the other two groups seem to be stable across this time period. This divergence will be discussed in the next part.

4.3.3.1. Divergence between Groups of DVs

4.3.3.1.1. Ambivalence/Ego-dystonicity and OCD

As mentioned in the introduction part, it is suggested that obsessions are both "meaningful" and "irrational". Applying this information to the current study, regarding the main effect of time, participants seem to *own* the thought in TAF-Induction procedure. That is, they find it meaningful by *implying* that "my thought might cause accident/heart attack". It is indicated by the increment in the group including credibility-uncertainty-TAF-likelihood from Time1 (before PR) to Time2 (after PR). At the same time, they seem also to *reject* this owning by *implying* that "I am not responsible for it", which is indicated by the and stability in group including TAF-Morality, Responsibility, Self-irrelevant causes and Self-relevant causes from Time1 (before PR) to Time2 (after PR).

Remembering the ambivalence issue, it is suggested that there *should* be both crediting and discrediting tendency simultaneously in order to have OC-like experience. Relatedly, there seems to emerge the "*crediting*" tendency via the variables of credibility-uncertainty-TAF-likelihood. On the other hand, stability in variables including TAF-Morality, Responsibility, Self-irrelevant causes and Self-relevant causes in terms of the causal link in the vignette across Time1 and Time2 might imply that there emerges a "*discrediting*" tendency. If these stable scores had increased, then it would have suggested a crediting tendency. However, these scores remain somewhat stable between before PR and after PR.

As a clinical implication, based on the dissociation, clinicians could give information to patients/clients that human mind has power for owning and rejecting the causation between the wish and realization of the wish at the same time. This possibility of being able to reject this causation could make clients/patients be more *aware* about the mechanisms of the human mind. Also, it could generate *hope* for recovery. In this way, patients/clients would feel much more free and powerful for handling the distressing intrusive thought and participate in psychotherapy more willingly. Particularly, clinical psychologists could also use giving information for both sides of the human mind in the face of an intrusive thought as a *normalization* procedure that patients'/clients' (possible) resistance could be in this way resolved that in this way drop-out rates could be minimized.

In the long run, clinical psychologists could communicate with rejecting side of the patient/client that they could aptly use coping skills with distress caused by obsessions. This intervention could direct patients for using acceptance-based coping strategies instead of ineffective coping strategies like neutralization, suppression, etc.

4.3.3.1.2. Divergence among TAF-Likelihood and TAF-Morality

For a further discussion about the mentioned dissociation among the group of DV, it could be also argued that TAF-Likelihood and TAF-Morality components have different results in terms of main effect of time. That is, investigating the results of TAF-Likelihood and TAF-Morality either in terms of the main effect of

time or the interaction effect between time and PE, one could suggest that these two components behave *differently* in the face of given vignettes. Therefore, such a divergence in terms of likelihood and morality components deserves further investigation. That is, TAF-Likelihood has more connection to the crediting aspect and TAF-Morality has more connection to the discrediting aspect. Therefore, it could be suggested that if there is no difference between these constructs, then there is no such obsessive compulsive type of ego-dystonic feature in the concept of TAF. These two components together seem to build this mentioned phenomenological stance.

Regarding their difference, TAF-Likelihood seems to be a component related to a condition in which a person thinks a possibility and this person starts to fear of its realization. However, TAF-Morality appears to encompass this mentioned fear and progress to a further condition. That is, this same person *also* fears of being affected by this realization. Particularly, this person assumes himself/herself as if s/he has immoral qualities. Hence, TAF-Morality seems to be much more multidimensional component as compared with TAF-Likelihood. Therefore, TAF-PE seems to decrease the scores of TAF-Likelihood when compared with Stress-PE; it has no effect upon TAF-Morality.

In order to overcome this difficulty, a new TAF-PE would be prepared to address this type of multilayered condition. In this way, new TAF-PE could contain more information concerning this mentioned difference between these two components. Also, it could include information about TAF-Morality highlighting its differential condition from TAF-Likelihood.

4.3.3.2. Proposed Explanation for the Increment in Credibility, Uncertainty, and TAF-Likelihood from Time1 to Time2

4.3.3.2.1. Prologue

For explanation about this mentioned increment, there is a need for covering some basic assumptions. Firstly, it is proposed that outer reality is by its nature *ambiguous*, however, human beings re-present this information by using

representations in their minds. Mental representations are based on dichotomies in concepts; that is, in binary oppositions. Accordingly, ambiguity is thought to be ever present around us, because there is no ground where certainty can be achieved. Therefore, the mind continually produces alternatives in decision making processes in order to adapt to the ever ambiguous outer reality. Consequently, *certainty* is argued to be replaced by *possibility* in the face of this kind of ambiguous conditions. Besides, the concept of possibility is not only applied to what might be but also it is applied to what is here now. Putting it in another way, possibility is applied to future and also to present (O'Connor & Aardema, 2005). The outer reality appears to be presented itself in more than one form rather than the only one specific form. In this way, mechanisms of human mind are structured according to ambiguous manner that it generates mental models (MMs) to handle the reality and to make the representation which is very akin to the reality. Therefore, generation of more than one MM is thought to be inevitable.

Intrusive thoughts on the other hand are an essential part of the current dissertation. Contrary to earlier clinical psychology literature, it is suggested in a nutshell that intrusive thoughts might *not* be *automatic* processes that we see in appraisal models of OCD. Moreover, intrusions including elements of doubt may *not* be only a *primary inference* as suggested in the IBA approach.

This short proposal about intrusive thoughts will be held in detail later. Next, the discussion on the main effect of time continues with a different view for unwanted intrusive thoughts.

4.3.3.2.2. Salkovskis' Generic Idea

Regrettably, the origin and the role of intrusive thoughts in normal functioning have not been investigated fully in the frame of the two basic models mentioned above, namely, appraisal and inference-based approaches. Salkovskis (1988), one of the few theoreticians reflecting upon this vital point, reasoned that unwanted intrusive thoughts are an inherent feature of generating ideas for problem solving. He highlights the *brainstorming* tool for human problem solving, in that, all kinds of ideas should be generated (including unwanted mental intrusions)

without censorship in order to contemplate all possible solutions in the face of a problem. Thus, unwanted mental intrusions are only one group of the generated ideas by the mind. Accordingly, it is found that nonclinical individuals have both positive (pleasant) and negative (unpleasant) intrusions experienced in a similar manner as an evidence for Salkovskis' reflection (cited in Clark, 2005). Salkovskis' generic idea about unwanted intrusions is crucial, in that, he seems to contemplate on intrusions in a more positive connotation. This *positive* connotation will be discussed later.

4.3.3.2.3. The Relationship between Mental Representations and Doubt

Mental representation in philosophy of mind, cognitive psychology, neuroscience, and cognitive science is simply defined as a hypothetical internal cognitive symbol that represents external reality (Smith, 1996). According to the dialectical logic of consciousness, it is argued that what is clear is qualified by what is unclear, what is seen is defined by what is not. It is proposed that the seen is partially defined by the surrounding unseen. Each concept is always established with its opposite. For instance, "present" and "absent" always go hand in hand like "right" and "wrong"; "dirty" and "clean"; "day" and "night", etc. Putting it in another way, binary opposition rooted in Saussurean structuralist theory in which each unit is defined in reciprocal determination with another term. The relation between those two terms is accepted as not contradictory but *complementary* (Strauss, 1955). Concerning mental representation, when looking closely to this specific word, "re-presentation", one could realize that it involves repeated presentation (Erten, 2008; cited in Taşdelen, 2010).

Imagination is suggested to play a role in the active exploration of the unseen area. Upon all these considerations, it is also argued that what is seen is defined by what is not seen implies that what is seen is defined by what could be. This possibility as a construct highlights the important role of imagination as stated earlier. The main reason behind this motivation is that outer reality is discussed to be possibilistic in nature. Non-obsessive persons seem to have a higher level of

threshold for tolerating this possibilistic nature; yet, obsessive persons try to cover all these possibilities using generated too many mental models.

4.3.3.2.4. The Cluster Analogy

Based on the vital role of the dichotomous nature of the human mind in representing outer reality, the concept of *cluster* used in mathematics could help us in exemplifying the development of repeated thoughts, in this way, the development of doubt. Let us think a cluster A and cluster B, pointing out the dichotomous structure of the mind. There is also an encompassing cluster, which is the universe. If our system tends to have mostly cluster A type thoughts (for instance, while one is daydreaming), metacognitive processes come in to play in an attempt to gain homeostasis by introducing cluster B type of thoughts. Therefore, human mind seems to sustain two types of thoughts together to represent the reality via having optimum level of categorization.

Providing that there is no interference, this balanced process sustains itself with the help of metacognitive processes. However, sometimes this is not the case in practice. Thought suppression impedes this *equilibrium*. In other words, without suppression, the system finds its *equilibrium* in one way or another. However, this process is disrupted by thought suppression, which becomes a futile activity due to its backfiring effect. The more one tries to ignore and suppress the "unwanted" material the more that material wants to establish itself until this dichotomous nature is reconstructed.

After suppression, for instance, if cluster A type of thought is suppressed, then cluster A type of thought will become dominant in the persons and cluster B type of thoughts starts to fade. In this way, the new dichotomy emerges in between cluster A type of thought and cluster A' (not A) type of thought.

All in all, the ability of the human mind to represent outer reality is higher before suppression (A-B) than after suppression (A-A'). Before suppression, regarding the transition from intrusive thoughts to obsessions (concerning contamination), it could be proposed that whereas a thought such as "my hand is clean (A)" is an instantiation of cluster A type of thought, a thought of "my hand is

dirty (B)" is an instantiation of cluster B type of thought. In this respect, remembering the contradictory but complementary nature of binary oppositions, the concept of dirty is defined by the concept of clean and vice versa.

In this case, the system faces with an ambiguous situation, in that, the hand is by no means dirty and clean at the same time. Thus, the human mind itself purposely generates the doubt in the form of "is my hand clean or dirty?" to resolve this ambiguity in the situation. With the help of this *generated* doubt, ambiguity in the face of these two contradictory propositions is resolved. That is, this generated doubt appears to encompass the two seemingly contradictory propositions. This proposal is one of the backbones of this discussion.

After suppression, instantiation of these thoughts in the mind change. Whereas a thought such as "my hand is clean (A)" is an instantiation of cluster A type of thought, a thought of "my hand is not clean (A')" is accepted as an instantiation of cluster A' type of thought. However, facing with ambiguity and the need to resolve this ambiguity *continue*. This time, the mind itself purposely generates doubt in the form of "is my hand clean or not?" in order to resolve this ambiguity in the situation. That is, again, this generated doubt seems to encompass the seemingly opposing propositions. Therefore, one could state that the essential motivation is the representation of the outer reality via having a dichotomy in the mind, which seems to be always on duty.

Surely, it is of upmost importance that although this scenario-like explanation seems to be internally consistent, one could not state fully the exact explanation for the beginning point of the obsession and/or intrusion. It could be asserted that researchers might be making mistakes while inspecting the obsessions in the form of doubt. They mostly examine the doubtful individual via mostly self-report tasks and then make so-called valid inferences about the emergence time of doubt. This error is analogous to that of an archeologist who finds an ancient civilization and makes inferences about this civilization's foundation via the remnants of this civilization. Indeed, the time of the foundation and time of collapse for a civilization should not and need not to be similar.

4.3.3.2.5. The Cluster Analogy and Obsessions

While the appraisal model considers intrusion as automatic process, the IBA approach regards intrusion as doubt in the form of "maybe", suggesting that it is an inference process. IBA seems to further the understanding by asserting the inference explanation. With the current study, this dissertation, looks behind those two approaches. In short, this dissertation proposes that doubt might be itself as an inference of two seemingly contradictory propositions as mentioned earlier, for example in the form of "my hand is clean" and "my hand is dirty".

IBA suggest, regarding doubt that our system starts to distrust the senses as a result of reasoning errors and at the end it ends up in inferential confusion. In addition, while inferential confusion regards the doubt about contamination (is it clean or not?) as an *inference process*, the proposal in this dissertation considers this very same doubt as an *effort for resolving the ambiguity* resulting from intrusive thoughts. Moreover, it could be argued that the increased level of doubt might also be an effort in order to represent the outer reality. However, alongside the increased level of doubt, the structure of the mind is assumed to be much more unified rather than dichotomous after suppression (A-A') than before suppression (A-B).

According to IBA, regarding the information coming from the senses, OCD patients act as if their hands are dirty in the absence of any empirical evidence. Therefore, it is argued that correctly perceived sense information is replaced by doubt generated through inferential confusion. In this respect, a person having this type of contamination obsession experiences a thought of "my hand is dirty" and also this person sees that this proposition is not valid. The endpoint of these two experiences is having a thought of "is my hand is clean or dirty?". This endpoint thought is a compromise between intrusive thought and information coming from her/his senses.

According to our proposal, our system does *not* distrust and thus it does not *replace* the information coming from senses with the doubt generated through inferential confusion. In fact, for example, our system in the face of contamination obsessions takes two different types of information together into account while

determining an immediate judgment in the face of ambiguity. One type is the decision about contamination (which is in the cognitive level) and the other is information coming from senses (which is in the perceptual level). Therefore, information from the senses is evaluated in the light of the "dirty-clean" dichotomy and the person determines whether which category the visual information is belonged to. Up till now, it is the proposed explanation before suppression. After suppression, on the other hand, using these two kinds of information together (decision about contamination and information coming from senses) is much more difficult while making a decision in the light of the "dirty-not dirty" dichotomy.

As cited earlier, the fact that the number of intrusive thoughts increases when suppressed is a very well-known finding in clinical psychology literature. After suppression, according to our proposal, the question is changed from "is my hand clean or dirty?" to "is my hand clean or not?" Accordingly, based on the phenomenological perspective, it is stated in the introduction part that the people's attention is confined to a limited area of single thought and/or action in obsessionality. This cluster analogy seems to be a suitable tool for explaining the possible reasons for the limited area of a single thought/action in the frame of obsessionality.

The IBA approach, argues that the person is only imagining the possibility of having that thought rather than actually having the thought. It is offered a term as thought-thought fusion (TTF) (Aardema & O'Connor, 2003; O'Connor & Aardema, 2003). Referring the example above, A-A' dichotomy is much more akin to TTF than A-B dichotomy.

Moreover, keeping in mind that obsessions occur always in a context, not in a vacuum, it is also argued that intrusions in OCD population are generated in more inappropriate contexts than the intrusions in non-OCD population (O'Connor, Julien, & Aardema, 2006; cited in Aardema & O'Connor, 2007). Based on this explanation, when investigating two types of dichotomies above, one could state that whereas obsessions in A-B dichotomy occur more frequently in *appropriate* contexts, obsession in A-A' dichotomy occur more frequently in *inappropriate* contexts because people in the latter are much more focused on establishing a dual

structure only in cognitive level rather than in perceptual level. In this way, environmental cues seem to be insignificant. Therefore, the final output in the second dichotomy seems to be freer from environmental features.

Applying all these concepts to imaginal vignettes, one could infer that while the dichotomy in Time1 (before PR) could be exemplified as and seems to approximate to one of "The cause of car accident is my wish"-"The cause of car accident is others", dichotomy in Time2 (after PR) could be exemplified as and seems to approximate to one of "The cause of car accident is my wish"-"The cause of car accident is *not* my wish".

4.3.3.2.6. A Philosophical Perspective on Doubt

"*Madness is the result not of uncertainty but of certainty*"
Friedrich Nietzsche, Ecce Homo

This section will give a general viewpoint about handling doubt. In philosophical texts, doubt is discussed in a much more *positive* and *favorable* human capability. For instance, Taşdelen (2010) summarizes the reflections about doubt. Starting with Aristotle, he firstly informs that Aristotle accepted the *will to know* as a normal tendency like influx of water or like falling of a stone. According to Aristotle, doubt is emerged in conjunction with will to know. The emergence of doubt is explained by this desire to know and understand outer/inner reality. It is thought that doubt is normally there, having the mission for provoking this desire to know. In other words, doubt fuels the will to know. Moreover, according to Taşdelen, people doubt because they want to have a *self-specific area*. Doubt is *for* searching and finally finding this area. In this respect, doubt is regarded as an existential attitude (Aristoteles, 1985; cited in Taşdelen, 2010). Similarly, it is suggested that there is a space constructed in between what is (seen) and what could be (unseen), named as *possibilistic space*. Imagination is thought to fill up this possibilistic space by imagining what is not there. Imagination is reasoned to help us in constructing this possibilistic space (O'Connor & Aardema, 2005).

One could draw a parallel between the constructions of these two areas (self-specific area and possibilistic space) that there is *uncertainty* in both conditions. Regarding this similarity, one could suggest that uncertainty seems to be diffused in the presented material belonging to the outer reality. Due to the fact that presented and represented materials are interconnected, re-presentation is not free from this state of uncertainty. On the other hand, pursuing the same line of reasoning of Taşdelen (2010), doubt could not be admitted as being a final judgment when considered the possibilistic space; on the contrary, it is accepted as being an *alternative* suggestion for representing and understanding the outer reality. Therefore, doubt is thought to be conducive to knowing things from another viewpoint. In this respect, Descartes asserts that if all things were "clear and distinct", then there would be no need for doubting. In this mentioned existential style, doubt is asserted to be a motive for knowing things/ourselves from another façade/viewpoint (Descartes, 1984; cited in Taşdelen, 2010).

As mentioned earlier, doubt is judged to be always secondary, not primary. At first hand, a person asks a question and answers it in any way/manner. Then, doubt comes afterwards, aiming at directing person to an alternative way for the answer. In this way, doubt; causes people reevaluate the conditions that they experience (Taşdelen, 2010). Relatedly, Wittgenstein suggests that doubt is present *only if* there is a question. If there is not any question; there is no uncertainty at all. Therefore, doubt is also absent. (Wittgenstein, 1961; cited in Taşdelen, 2010). What is the possible facilitator for generation of doubt? Possibly, the need for certainty ironically generates doubt. (Taşdelen, 2010).

From another viewpoint, according to the philosophical negotiations, doubt has two ends. The first one is the *object* of doubt, a thing for which people doubt. The other is the *subject* of doubt, related to the agent who doubts. Therefore, it is suggested that doubt is come into existence in the area of these ends. Doubtful conditions are thought to be affected by these two main components. The ratio of these two components determines the nature of doubt. If doubt is mostly grounded upon the *subject of doubt*, then it is proposed that people start to be restless and anxious. On the other hand, if doubt is mostly grounded upon the *object of doubt*,

then people's well-being is thought to be increased that their general level of functionality is optimum and their everyday activities continue in a stable manner (Taşdelen, 2010).

Moreover, when evaluated proposed cluster analogy above in the light of Taşdelen's view of doubt (2010), one could state that doubt is much more based on "object of doubt" in the meantime before suppression. However, doubt is much more based on "subject of doubt" in the meantime after suppression. Therefore, after PR, participants are thought to be much more inclined to have pathological and groundless anxiety than participants who were in the time period of before PR.

This discussion could pave the way for a seemingly new concept: *obsessive realism*. Outer reality seems to be ambiguous by nature. People generate MMs in order to handle this ambiguity. On the other hand, people use mental short-cuts in order to increase the level of functionality; otherwise people cannot generate any decisions. Remembering the discussion of ratio of double-edged doubt, it could be proposed that if people generate too many MMs, then they have jeopardy in outweighing of the subject of doubt over object of doubt. In this way, generating too many mental models could result in high levels of NJREs for the obsessive people.

The next section will give examples which are based on literature of clinical psychology as supporting documents for the proposal and combine the reflections and discussions in a more harmonious point.

4.3.3.2.7. Repetition, Category Representations and OCD

Upon these considerations about intrusive thoughts and mainly about doubt, when investigating the experiences of patients with OCD, Reed (1985) argued that OCD is a disorder of making ineffective categorization of their experiences. When compared with non-anxious counterparts, patients with OCD are more cautious, spend more time in making categorization and are more doubtful in their decisions. Afterwards, over-structuring is coming to the scenery as a compensatory mechanism (Foa, Amir, Bogert, Molnar, & Przeworski, 2001; Frost & Shows, 1993; Reed, 1985, cited in Tolin, Abramowitz, Brigidi, Amir, Street, & Foa, 2001).

It seems that healthy mental representations and/or binary oppositions are impaired in patients with OCD.

Relevantly, Rachmann (2002) argued that obsessions and compulsive behaviors occur when people are in their own home, they are alone and depressed. These three conditions point out that these obsessive compulsive symptoms tend to increase when experiences start to be routine and almost *identical*. In this way, people appear to have blurred mental representation of outer reality and dichotomous structure seems to be impaired due to repetitive mental material. It is reported that compulsive behaviors in patients with OCD decrease when they are on holiday or during the first days in an inpatient ward. After adapting to relatively novel places, the frequency of compulsive behavior increases (van den Hout, Emmelkamp, Kraaykamp, & Griez, 1998; Moritz, Jacobsen, Willenborg, Jelinek, & Fricke, 2006; Rachman, 2002). What are the factors, affecting the change in compulsive behaviors? It is argued about this question that a relatively different perceptual scene, cognition and/or emotion are obtained in holiday period or in the first days of inpatient ward that this novelty would construct a fruitful ground for terminating the chain of similarity.

What is the relationship between repetition and categorization? Repetition seems to make the (mental) representation of the outer reality blurred and make the categorized cognitive material *unified*. Therefore, remembering and processing information starts to be gradually difficult with repetition (Preminger, Sagi & Tsodyks, 2007). That is, the incongruence between presented and represented tends to increase with repetition.

Applying all these to the current study, participants' categories in their minds about the causal link might be blurred gradually during the transition period from Time1 to Time2 via the repeated imagination manipulation. Also, ability to categorize efficiently seems to decrease gradually during this transition. That is, for example, one could remember the suggestion that while the dichotomy in Time1 could be exemplified as and resembled to "The cause of car accident is my wish vs. The cause of car accident is others", the dichotomy in Time2 could be exemplified

as and resembled as “The cause of car accident is my wish vs. The cause of car accident is *not* my wish”.

4.3.3.2.8. Decision Making Processes and Inductive Reasoning

Reasoning difficulties are one of the main explanations for development and maintenance of obsessions in the context of OCD. OCD patients, compared to a control group, have been shown to gather evidence before their decisions to an abnormal extent (Milner, Beech, and Walker. 1971; cited in Pe´lissier, O’Connor, Dupuis, 2008). Similarly, Reed (1977) proposes that OCD patients need more information before drawing conclusions and they are more cautious (cited in Pe´lissier, O’Connor, Dupuis, 2008). Mineka and Sutton (1992) suggest that OCD patients are inclined to struggle to find the ‘correct’ answer in their decision process. Therefore, they postpone the decision making process (Harkin & Mayes, 2008). Accordingly, OCD patients are thought to be impaired in terms of inductive reasoning, in that, they are much more cautious in constructing *basic premise* about propositions while reasoning, which directs patients to inferential confusion. That is, OCD patients confuse remote possibilities with reality as a result of impairment in inductive reasoning strategies. (O’Connor and Robillard, 1995, 1999; Aardema, O’Connor, Emmelkamp, Marchand, & Todorov, 2005; O’Connor & Aardema, 2003). It is concluded that patients with OCD produce too many alternative mental models. Thus, their certainty level decreases (Pe´lissier, O’Connor, Dupuis, 2008).

Regarding the difficulty of OCD patients in reaching a basic premise in inductive reasoning, for instance, it could be discussed that in the beginning, the person in the earlier example has a general category of cleanness while having thoughts of “my hand is dirty” and “my hand is clean”. After a while, that general dual category starts to fade since thoughts start to be in the form of “my hand is dirty” and “my hand is not dirty”. In this way, the proposal might explain the underlying mechanisms of documented impairment in inductive reasoning seen in OCD patients. Although generated MMs in the face of reality is accepted as a natural phenomenon, it is suggested as mentioned earlier that OCD patients produce too many alternative mental models, resulting in decreased level of confidence.

All in all, in the light of cluster analogy, decision making for participants of current study is thought to be much more difficult in A/B dichotomy than in A/A' dichotomy due to the fact that in the former, participants have a much more *specified* basic premise; however, in the latter, participants have a much more *indefinite* basic premise.

In conclusion, in this way, it could be suggested that OC-like experience is constructed via this integrated paradigm using both TAF-Induction literature and perseverative reasoning/imagination literature.

4.3.4. Limitations of the Current Study and Further Suggestions

Based upon the idea that TAF is seen in psychopathologies other than OCD, one would argue that this specific methodology used in the current study could be used in other clinical diagnoses. Therefore adding other clinical populations, such as panic disorder, social anxiety disorder, generalized anxiety disorder and/or participants with symptoms of major depressive disorder would further the present results.

As for the ecological validity of the basic instruments, another more spontaneous intervention could be used. This would enable researchers to have chance to understand this OC-like experience. The lack of a manipulation check for TAF-Induction lowers the reliability of the measurement. On the other hand, as mentioned earlier, this manipulation check could easily give away the main purpose of the study.

Another limitation is about the identification of the groups. High OC and low OC groups were identified by using only PI-WSUR. This is another threat for internal validity of the current study. Further studies could use other scales and/or questionnaires for screening phase of the groups. In addition to these, participants might have filled the questionnaires in a social desirable manner.

Concerning the specific procedure of the current study, integrating other seemingly related constructs with this current procedure shall give researchers a chance to investigate this specific OC-like experience more closely.

In the main study, participants were asked to imagine the place, time of the accident/heart attack and their thoughts about proximity level of the participants for acquaintance in the vignette. However, there was no documented record about this part. Checking whether imagination actually served the expected purpose could have made this aspect more reliable.

Most of the DVs in the current study were assessed by one statement. This sounds that it reduces the reliability and validity which are core concepts in the methodology of psychology. However, very prominent studies using similar methodology including imaginal vignettes apart from self-report inventories utilize such DVs compromised of *one statement*. In this way, they could assess the constructs like regret, guilt, responsibility, credibility, distress, etc. via one sentence. For instance, in Marcks and Woods' (2007) *credited* study, they prefer to design their assessment phase via statements/questions including one sentence like "How much do you feel right now? Or "How strong is your urge to do something to reduce or cancel the effects of thinking about this event?" on Visual Analogue Scales (VAS) (Marcks & Woods, 2007, p. 2644). Similarly, Giele et al. (2011) prefer to ask their participants to indicate their scores for their manipulation about how their participants found credible that the given situation might lead to the given OC-like harmful outcome via VAS, running from absolutely not credible to very credible. (p. 294).

On the other hand, an inventory or a questionnaire assessing each construct could have some disadvantages. For instance, participants could become distanced from the purpose of the *situational* assessment in that while assessing guilt via a questionnaire about guilt, participants could become distanced about the procedure of imaginal vignette and in this way; participants could become distanced also about other constructs such as responsibility, regret, credibility accordingly.

Additionally, there was no recoding in the procedure of the current study for the condition of comorbidity for OCD patients, which is another limitation of the present study. This type of record would enhance the quality of the present analyses. Also, there was no organized information about the treatment history of OCD-patient group. Besides, there was any record regarding the subtypes of OC

symptoms participants had. Embodying these aspects also would enrich both methodology of the further researches and deepen the discussion of the results.

As mentioned earlier, example and real PR sections were in a forced nature. As a limitation, the manipulation in the current study is lacking a natural simulation for OC-like experience that unfortunately all the results would be discussed via the viewpoint of this drawback.

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APPENDICES

APPENDIX A: MATERIALS USED IN SCREENING

INFORMED CONSENT (Before Screening)

Az sonra katılacağınız çalışma, Orta Doğu Teknik Üniversitesi öğretim görevlilerinden Yrd. Doç. Dr. Mine Mısırlısoy'un danışmanlığında ve Prof. Dr. A. Nuray Karancı'nın yardımcı danışmanlığında yürütülmekte olan deneysel nitelikte bir çalışmadır. Bu çalışma genel itibarıyla ısrarlı düşüncelerin insan zihni üzerindeki etkilerini incelemeyi planlamaktadır. Çalışmanın bu aşamasının amacı, katılımcıların genel duygu durumları ile ilgili olarak bilgi toplamaktır. Bu çalışmadan elde edilecek veriler temelinde araştırmanın 2. aşaması olarak deneysel bir çalışma yürütülecektir. Sizleri çalışmanın deneysel bölümüne davet edebilmemiz için kişisel bilgi olarak **en sık kullandığınız e-posta adresiniz ve okul numaranız istenmektedir.** Vereceğiniz bilgiler tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler ise sadece bilimsel yayınlarda kullanılacaktır.

Çalışmaya katılım tamamıyla gönüllük temelinde olmalıdır. Ankette, sizden kimlik belirleyici hiçbir bilgi istenmemektedir. Cevaplarınız tamimiyle gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler bilimsel yayımlarda kullanılacaktır. Anket, genel olarak kişisel rahatsızlık verecek soruları içermemektedir. Ancak katılım sırasında sorulardan ya da herhangi bir başka nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Böyle bir durumda anketi uygulayan kişiye, anketi tamamlamadığınızı söylemek yeterli olacaktır. Anket sonunda, bu çalışmayla ilgili sorularınız cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Şimdi lütfen, eğer bu çalışmaya tamamen gönüllü olarak katılıyorsanız aşağıdaki formu doldurunuz. Çalışmaya yönelik sorularınızı Psikoloji bölümü öğretim üyelerinden Yrd. Doç. Dr. Mine Mısırlısoy'a (Oda: B:128; Tel: 210 51 07; e-posta: mmine@metu.edu.tr), Prof. Dr. A. Nuray Karancı'ya (Oda: 214, Tel: 210

31 27; e-posta: karanci@metu.edu.tr) ya da Uzm. Psk. Talat Demirsöz'e iletebilirsiniz. (e-posta: talatdemirsoz@gmail.com)

Bu çalışmaya katıldığınız için çok teşekkür ederiz!

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

İsim Soy isim Tarih İmza

INFORMED CONSENT (After Screening)

Bu çalışma daha öncede belirtildiği gibi Orta Doğu Teknik Üniversitesi öğretim görevlilerinden Yrd. Doç. Dr. Mine Mısırlısoy'un danışmanlığında ve Prof. Dr. A. Nuray Karancı'nın yardımcı danışmanlığında yürütülmekte olan deneysel nitelikte bir çalışmadır. Araştırmanın temel amacı bir sonraki adımdaki deneysel çalışmaya çağırmak için, katılımcıların genel duygu durumları hakkında ve günlük hayattaki ısrarcı düşünce ve davranışları hakkında bilgi toplamaktır. Bu amaçla, "Beck Depresyon Envanteri", "Padua Envanteri-Washington Eyalet Üniversitesi Revizyonu" ve "Düşünce Eylem Kaynaşması Ölçeği" kullanılmıştır.

Bu çalışmanın verilerinin 2013 yılının Eylül ayının sonuna kadar elde edilmesi amaçlanmaktadır. Elde edilen bilgiler sadece Uzm. Psk. Talat Demirsöz'ün doktora tezinde ve/veya bilimsel kongre ve yayınlarda kullanılacaktır. Çalışmanın sonuçlarını öğrenmek ya da bu araştırma hakkında daha fazla bilgi almak için Psikoloji bölümü öğretim üyelerinden Yrd. Doç. Dr. Mine Mısırlısoy'a (Oda: B:128; Tel: 210 51 07; e-posta: mmine@metu.edu.tr), Prof. Dr. A. Nuray Karancı'ya (Oda: 214, Tel: 210 31 27; e-posta: karanci@metu.edu.tr) ya da Uzm. Psk. Talat Demirsöz'e başvurabilirsiniz (e-posta: talatdemirsoz@gmail.com).

Bu araştırmaya katıldığınız için tekrar çok teşekkür ederiz.

DEMOGRAPHIC INFORMATION FORM

Anketi doldurmadan önce lütfen aşağıdaki boşlukları doldurunuz.

Okul Numaranız: _____

En sık kullandığınız e-posta adresiniz:

_____

Telefon numaranız: _____

(Araştırmanın 2. aşamasındaki çalışmaya çağrılabilmeniz için okul numaranız ve en sık kullandığınız e-posta adresiniz bizim için çok önemlidir.)

Yaşınız:_____

Cinsiyetiniz:_____

Bölümünüz / Sınıfınız:_____

Şimdiki akademik ortalamanız: _____

Herhangi bir nedene bağlı kafa travması geçirdiniz mi? Evet _____ Hayır _____

Sürekli ilaç almayı gerektiren kronik bir rahatsızlığınız var mı? Evet ____ Hayır ____

Herhangi bir psikiyatrik ilaç kullanıyor musunuz? Evet _____ Hayır _____

Cevabınız evet ise lütfen ilacın adını aşağıdaki boşluğa yazınız.

_____

__

Bu ilacı ne kadar süredir kullanıyorsunuz?

_____

BECK DEPRESSION INVENTORY (BDI)

Aşağıda kişilerin ruh durumlarının ifade ederken kullandıkları bazı cümleler verilmiştir. Her madde, bir çeşit ruh durumunu anlatmaktadır. Her maddede o ruh durumunun derecesini belirleyen 4 seçenek vardır. Lütfen bu seçenekleri dikkatle okuyunuz. Son bir hafta içindeki (şu an dahil) kendi ruh durumunuzu göz önünde bulundurarak, size en uygun olan ifadeyi bulunuz. Daha sonra, o maddenin yanındaki harfin üzerine (x) işareti koyunuz.

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) Gelecekten umutsuz değilim.
   (b) Geleceğe biraz umutsuz bakıyorum.
   (c) Gelecekten 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 başarısızlığımın olduğunu görüyorum.
   (d) Kendimi tümüyle başarısız bir insan olarak görüyorum.

4. (a) Her şeyden eskisi kadar zevk alabiliyorum.
   (b) Her şeyden eskisi kadar zevk alamıyorum.
   (c) Artık hiçbir şeyden gerçek bir zevk alamıyorum.
   (d) Bana zevk veren hiçbir şey yok. Her şey 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) Cezalandırılacağımı düşünmüyorum.
   (b) Bazı şeyle için cezalandırılabileceğimi hissediyorum.
   (c) Cezalandırılmayı bekliyorum.
   (d) Cezalandırılacağımı 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 çoğu 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 bulsam kendimi öldürürdüm.

10. (a) Her zamankinden daha fazla ağladığımı sanmıyorum.
(b) Eskisine göre şu sıralarda daha fazla ağlıyorum.
(c) Şu sıralarda her an ağlıyorum.
(d) Eskiden ağlayabilirdim, ama şu 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 ilgili 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 düşünüyor ve üzülüyorum.
(c) Dış görünüşümde artık değiştirilmesi mümkün olmayan olumsuz değişikler

olduğunu hissediyorum.
(d) Çok çirkin olduğumu düşünüyorum.

15. (a) Eskisi kadar iyi çalışabiliyorum.
(b) Bir işe başlayabilmek 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 sıralarda eskisi kadar rahat uyuyamıyorum.
(c) Eskisine göre 1 ve ya 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) Şu 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) Şu sıralarda iştahım 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 istemediğim halde beş kilodan fazla kaybettim.
(d) Son zamanlarda istemediğim halde yedi kilodan fazla kaybettim.
Daha az yemeye çalışarak kilo kaybetmeye çalışıyorum. Evet ( ) Hayır ( )

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 başka şeyleri düşünmek zor geliyor.
(d) Bu tür sıkıntılar beni öylesine endişelendiriyor ki, artık başka hiçbir şey düşünemiyorum.

21. (a) son zamanlarda cinsel yaşantımda dikkatimi çeken bir şey yok.
(b) Eskisine oranla cinsel konularda daha az ilgileniyorum.
(c) Şu sıralarda cinsellikle pek ilgili değilim.
(d) Artık, cinsellikle hiçbir ilgim kalmadı.

PADUA INVENTORY-WASHINGTON STATE UNIVERSITY-REVISION (PI-WSUR)

Aşağıdaki ifadeler, günlük hayatta herkesin karşılaşabileceği düşünce ve davranışlar ile ilgilidir. Her bir ifade için, bu tür düşünce ve davranışların sizde yaratacağı rahatsızlık düzeyini göz önüne alarak size en uygun olan cevabı seçiniz. Cevaplarınızı aşağıdaki gibi derecelendiriniz:

0 = Hiç 1 = Biraz 2 = Oldukça 3 = Çok 4 = Çok Fazla

	Hiç	Biraz	Oldukça	Çok	Çok Fazla
1. Paraya dokunduğum zaman ellerimin kirlendiğini hissederim					
2. Vücut sıvıları (ter, tükürük, idrar gibi) ile en ufak bir temasın bile giysilerimi kirleteceğini ve bir şekilde bana zarar vereceğini düşünürüm					
3. Bir nesneye yabancıların ya da bazı kimselerin dokunduğunu biliyorsam, ona dokunmakta zorlanırım					
4. Çöplere veya kirli şeylere dokunmakta zorlanırım.					
5. Kirlenmekten ya da hastalanmaktan korktuğum için umumi tuvaletleri kullanmaktan kaçınırım.					
6. Hastalıklardan veya kirlenmekten korktuğum için umumi telefonları kullanmaktan kaçınırım					
7. Ellerimi gerektiğinden daha sık ve daha uzun süre yıkarım					
8. Bazen kendimi, sırf kirlenmiş olabileceğim ya da pis olduğum düşüncesiyle yıkanmak ya da temizlenmek zorunda hissediyorum					
9. Mikrop bulaşmış veya kirli olduğunu düşündüğüm bir şeye dokunursam hemen yıkanmam veya temizlenmem gerekir					
10. Bir hayvan bana değerse kendimi kirli hissederim ve hemen yıkanmam ya da elbiselerimi değiştirmem gerekir					
11. Giyinirken, soyunurken ve yıkanırken kendimi belirli bir sıra izlemek zorunda hissederim					
12. Uyumadan önce bazı şeyleri belli bir sırayla yapmak zorundayım					
13. Yatmadan önce, kıyafetlerimi özel bir şekilde asmalı					

ya da katlamalıyım					
14. Doğru dürüst yapıldığını düşünebilmem için yaptıklarımı bir kaç kez tekrarlamam gerekir					
15. Bazı şeyleri gereğinden daha sık kontrol etme eğilimindeyim					
16. Gaz ve su musluklarını, elektrik düğmelerini kapattıktan sonra tekrar tekrar kontrol ederim					
17. Düzgün kapatılıp kapatılmadıklarından emin olmak için eve dönüp kapıları, pencereleri ve çekmeceleri kontrol ederim					
18. Doğru doldurduğumdan emin olmak için formları, evrakları ve çekleri ayrıntılı olarak tekrar tekrar kontrol ederim					
19. Kibrit, sigara vb'nin iyice söndürüldüğünü görmek için sürekli geri dönerim					
20. Elime para aldığım zaman birkaç kez tekrar sayarım.					
21. Mektupları postalamadan önce birçok kez dikkatlice kontrol ederim					
22. Aslında yaptığımı bildiğim halde, bazen yapmış olduğumdan emin olamam					
23. Okurken, önemli bir şeyi kaçırdığımdan dolayı geri dönmem ve aynı pasajı iki veya üç kez okumam gerektiği izlenimine kapılırım					
24. Dalgınlığımın ve yaptığım küçük hataların felaketle sonuçlanacağını hayal ederim					
25. Bilmeden birini incittiğim konusunda çok fazla düşünürüm veya endişelenirim					
26. Bir felaket olduğunu duyduğum zaman onun bir şekilde benim hatam olduğunu düşünürüm					
27. Bazen sebepsiz yere kendime zarar verdiğime veya bir hastalığım olduğuna dair fazlaca endişelenirim					
28. Bıçak, hançer ve diğer sivri uçlu nesneleri gördüğümde rahatsız olur ve endişelenirim					
29. Bir intihar veya cinayet vakası duyduğumda, uzun süre üzülür ve bu konuda düşünmekten kendimi alamam					
30. Mikroplar ve hastalıklar konusunda gereksiz endişeler yaratırım					
31. Bir köprüden veya çok yüksek bir pencereden aşağı baktığımda kendimi boşluğa atmak için bir dürtü hissederim					
32. Yaklaşmakta olan bir tren gördüğümde, bazen kendimi trenin altına atabileceğimi düşünürüm					
33. Bazı belirli anlarda umuma açık yerlerde kıyafetlerimi yırtmak için aşırı bir istek duyarım					
34. Araba kullanırken, bazen arabayı birinin veya bir					

şeyin üzerine sürme dürtüsü duyarım					
35. Silah görmek beni heyecanlandırır ve şiddet içeren düşünceleri aklıma getirir					
36. Bazen hiçbir neden yokken bir şeyleri kırma ve zarar verme ihtiyacı hissederim					
37. Bazen işime yaramasa da, başkalarına ait olan şeyleri çalma dürtüsü hissederim					
38. Bazen süpermarketten bir şey çalmak için karşı konulmaz bir istek duyarım					
39. Bazen savunmasız çocuklara ve hayvanlara zarar vermek için bir dürtü hissederim					

THOUGHT-ACTION FUSION SCALE (TAFS)

Aşağıda bazı düşünce ve davranışlara ilişkin ifadeler yer almaktadır. Her ifadeyi dikkatlice okuduktan sonra bu ifadeye ne kadar katıldığınızı belirtiniz. **Tamamen katılıyorsanız 4, Hiç katılmıyorsanız 0** rakamını işaretleyiniz. Doğru ya da yanlış cevap
yoktur. Hiçbir maddeyi boş bırakmamaya özen gösteriniz.

Hiç Katılmıyorum Tamamen Katılıyorum

0 1 2 3 4

1. Eğer birinin zarar görmesini istersem, bu neredeyse ona zarar vermem kadar kötüdür.	0 4	1	2	3
2. Bir akrabamın ya da arkadaşımın trafik kazası geçirdiğini düşünürsem, bu onun kaza geçirme riskini arttırır.	0 4	1	2	3
3. Düşerek yaralandığımı düşünürsem, bu benim düşüp yaralanma riskimi arttırır.	0 4	1	2	3
4. Din karşıtı bir düşünceye sahip olmak, bence neredeyse böyle davranmak kadar günahtır.	0 4	1	2	3
5. Başka birine küfretmeyi akıldan geçirmek, bence neredeyse gerçekten küfür etmek kadar kabul edilemez bir durumdur.	0 4	1	2	3
6. Bir arkadaşım hakkında kaba şeyler düşündüğümde, ona neredeyse kaba davranmış kadar vefasızlık etmiş olurum.	0 4	1	2	3
7. Bir insanla ilişkimde onu kandırmayı düşünmek, bence neredeyse gerçekten kandırmak kadar ahlaksızlıktır.	0 4	1	2	3
8. Bir akrabamın ya da arkadaşımın işini kaybettiğini düşünürsem, bu onun işini kaybetme riskini arttırır.	0 4	1	2	3
9. Bir başkasıyla ilgili müstehcen şeyler düşünmem, neredeyse bu şekilde davranmam kadar kötüdür.	0 4	1	2	3
10. Bir akrabamın ya da arkadaşımın hastalandığını düşünürsem, bu onun hastalanma riskini arttırır.	0 4	1	2	3
11. Saldırganlık içeren düşüncelere sahip olmak, bence neredeyse saldırgan	0 4	1	2	3

davranmak kadar kabul edilemez bir durumdur.				
12. Kıskançlık içeren bir düşüncem olduğunda, bu durum neredeyse bunu söylemiş olmamla aynıdır.	0 4	1	2	3

13. Trafik kazası geçirdiğimi düşünürsem, bu benim kaza geçirme olasılığımı arttırır.	0 4	1	2	3
14. Bir başkasına müstehcen hareketler yapmayı düşünürsem, bu neredeyse öyle davranmam kadar kötüdür.	0 4	1	2	3
15. Kutsal yerlerde müstehcen şeyler düşünmek, bence kabul edilemez bir durumdur.	0 4	1	2	3
16. Bir akrabamın ya da arkadaşımın düşerek yaralandığını düşünürsem, bu onun düşüp yaralanma riskini arttırır.	0 4	1	2	3
17. Hastalandığımı düşünürsem, bu benim hasta olma riskimi arttırır.	0 4	1	2	3
18. Bir arkadaşa olumsuz bir eleştiride bulunmayı akıldan geçirmek, bence neredeyse bunu söylemek kadar kabul edilemez bir durumdur.	0 4	1	2	3
19. Kutsal yerlerde müstehcen şeyler düşünmem, neredeyse oralarda böyle şeyleri gerçekten yapmam kadar günahtır.	0 4	1	2	3

APPENDIX B:

MATERIALS USED IN MAIN STUDY

INFORMED CONSENT (Before Main Study)

Az sonra katılacağınız çalışma, Orta Doğu Teknik Üniversitesi öğretim görevlilerinden Yrd. Doç. Dr. Mine Mısırlısoy'un danışmanlığında ve Prof. Dr. A. Nuray Karancı'nın yardımcı danışmanlığında yürütülmekte olan deneysel nitelikte bir çalışmadır. Bu çalışma genel itibarıyla tekrarlayıcı tipteki düşüncelerin insan zihni üzerindeki etkilerini incelemeyi planlamaktadır. Vereceğiniz bilgiler tamamıyla gizli tutulacak ve sadece araştırmacılar tarafından değerlendirilecektir; elde edilecek bilgiler ise sadece bilimsel yayınlarda kullanılacaktır. Çalışmaya katılım tamamıyla gönüllük temelinde olmalıdır. Ankette, sizden kimlik belirleyici hiçbir bilgi istenmemektedir.

Katılım sırasında çalışmanın içeriğinden ya da herhangi bir başka nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakıp çıkmakta serbestsiniz. Böyle bir durumda çalışmayı uygulayan kişiye, çalışmayı tamamlamadığınızı söylemek yeterli olacaktır. Çalışma sonunda ilgili sorularınız cevaplanacaktır. Bu çalışmaya katıldığınız için şimdiden teşekkür ederiz. Şimdi lütfen, eğer bu çalışmaya tamamen gönüllü olarak katılıyorsanız aşağıdaki formu doldurunuz. Çalışmaya yönelik sorularınızı Psikoloji bölümü öğretim üyelerinden Yrd. Doç. Dr. Mine Mısırlısoy'a (Oda: B:128; Tel: 210 51 07; e-posta: mmine@metu.edu.tr), Prof. Dr. A. Nuray Karancı'ya (Oda: 214, Tel: 210 31 27; e-posta: karanci@metu.edu.tr) ya da Uzm. Psk. Talat Demirsöz'e iletebilirsiniz. (e-posta: talatdemirsoz@gmail.com)

Bu çalışmaya katıldığınız için çok teşekkür ederiz!

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

İsim Soy isim Tarih İmza

INFORMED CONSENT (After Main Study)

Bu çalışma daha öncede belirtildiği gibi Orta Doğu Teknik Üniversitesi öğretim görevlilerinden Yrd. Doç. Dr. Mine Mısırlısoy'un danışmanlığında ve Prof. Dr. A. Nuray Karancı'nın yardımcı danışmanlığında yürütülmekte olan deneysel nitelikte bir çalışmadır. Bu çalışma çerçevesinde katılımcıların tekrarlayıcı tipteki akıl yürütmelerinin insan zihni üzerindeki etkileri incelenmeye çalışılmıştır.

Öte yandan, çalışmanın içeriği ile ilgili herhangi bir rahatsızlığı önleyebilmek amacıyla kimi katılımcıya sunulan ama deneyin deseni gereği kimi katılımcılara sunulmayan bilgileri çalışma sonrasında tüm katılımcılara sunmak istiyoruz. Şimdi içeriği trafik kazası geçirmek olan hikayedeki bilgiyi size sunuyoruz:

"İnsanın aklına birdenbire bazı hoşuna gitmeyen düşünceler gelebilir. İnsanların %80-90'ının aklına bu tür düşüncelerin geldiği tahmin edilmektedir. Örneğin, çok yüksek bir yerden aşağıya baktığınızda kendinizi boşluğa atmakla ilgili aklınızdan anlık bir düşünce geçebilir. Ya da bazen savunmasız bir kişiye zarar vermeyle ilgili aklınıza bir düşünce gelebilir. Akla böylesine can sıkıcı ve tedirgin edici düşünceler geldiğinde, insanlar genellikle bir şekilde bu düşüncelerin, düşündükleri şeyin olma olasılığını arttıracağını hissederler. Ancak bu düşünce şekli yanlıştır. Bu düşünce şekli neden yanlıştır? Çünkü örneğin bir arkadaşınızın ya da bir aile üyenizin trafik kazası geçirmesini istemekle o kişinin trafik kazası geçirme olasılığını arttıramazsınız. Düşüncelerinizin o kişinin kaza geçirmesi konusunda böyle bir etkisi yoktur. Ayrıca, aklınıza böyle düşüncelerin gelmesi sizin kötü bir insan olduğunuzu da göstermez. Az önce dediğimiz gibi bu türdeki düşüncelerin insanın aklına gelmesi tamamen normal bir şeydir. Bu tip düşüncelerin dışarıdaki olaylar üzerine herhangi bir etkisi yoktur."

Şimdi içeriği kalp krizi geçirmek olan hikayedeki bilgiyi size sunuyoruz:

"İnsanın aklına birdenbire bazı hoşuna gitmeyen düşünceler gelebilir. İnsanların %80-90'ının aklına bu tür düşüncelerin geldiği tahmin edilmektedir. Örneğin, çok yüksek bir yerden aşağıya baktığınızda kendinizi boşluğa atmakla ilgili aklınızdan anlık bir düşünce geçebilir. Ya da bazen savunmasız bir kişiye zarar vermeyle ilgili aklınıza bir düşünce gelebilir. Akla böylesine can sıkıcı ve

tedirgin edici düşünceler geldiğinde, insanlar genellikle bir şekilde bu düşüncelerin, düşündükleri şeyin olma olasılığını arttıracağını hissederler. Ancak bu düşünce şekli yanlıştır. Bu düşünce şekli neden yanlıştır? Çünkü örneğin bir arkadaşınızın ya da bir aile üyenizin kalp krizi geçirmesini istemekle o kişinin kalp krizi geçirme olasılığını arttıramazsınız. Düşüncelerinizin o kişinin kalp krizi geçirmesi konusunda böyle bir etkisi yoktur. Ayrıca, aklınıza böyle düşüncelerin gelmesi sizin kötü bir insan olduğunuzu da göstermez. Az önce dediğimiz gibi bu türdeki düşüncelerin insanın aklına gelmesi tamamen normal bir şeydir. Bu tip düşüncelerin dışarıdaki olaylar üzerine herhangi bir etkisi yoktur."

Bu çalışmanın prosedürünün herhangi bir rahatsızlık oluşturduğuna dair bilgiye literatürde rastlanmamaktadır. Ancak yine de kısa süreli de olsa olası bir rahatsızlık durumuna yönelik bu bilgilerin bu olası rahatsızlık durumunu ortadan kaldırmaya yardımcı olması beklenmektedir. Ancak olası bir rahatsızlık durumunun sürmesi halinde ek bilgiler almak için ve/ya olası endişelerinizi aktarabilmek için Uzm. Psk. Talat Demirsöz'e (e-posta: talatdemirsoz@gmail.com) başvurabilirsiniz.

Bu çalışmanın verilerinin 2013 yılının Eylül ayının sonuna kadar elde edilmesi amaçlanmaktadır. Elde edilen bilgiler sadece Uzm. Psk. Talat Demirsöz'ün doktora tezinde ve/veya bilimsel kongre ve yayınlarda kullanılacaktır. Çalışmanın sonuçlarını öğrenmek ya da bu araştırma hakkında daha fazla bilgi almak için Psikoloji bölümü öğretim üyelerinden Yrd. Doç. Dr. Mine Mısırlısoy'a (Oda: B:128; Tel: 210 51 07; e-posta: mmine@metu.edu.tr), Prof. Dr. A. Nuray Karancı'ya (Oda: 214, Tel: 210 31 27; e-posta: karanci@metu.edu.tr) ya da Uzm. Psk. Talat Demirsöz'e başvurabilirsiniz (e-posta: talatdemirsoz@gmail.com).

Bu araştırmaya katıldığınız için tekrar çok teşekkür ederiz

EXPERIMENT MATERIAL USED IN MAIN STUDY

Çalışmamıza hoş geldiniz.
Bu çalışmada size kısa bir hikaye içinde **iki olay** sunulacaktır**.** Sizden beklenen bu olayları **okumanız** ve ardından gelen soruları **cevaplandırmanızdır.**
Lütfen aşağıdaki iki olayı dikkatle okuyun ve **sanki** *sizin başınızdan geçiyormuş gibi* **gözünüzde canlandırın!**

Birinci Olay: Diyelim ki hafta sonu tanıdığınız birisiyle birlikte vakit geçiriyorsunuz. Bir süre sonra, tanıdığınız bu kişiyle tartışmaya başlıyorsunuz. Karşılıklı olarak birbirinizi suçluyorsunuz. Daha sonra, bulunduğunuz ortamdan uzaklaşıyorsunuz. Sonra, aklınızdan tanıdığınız bu kişiyle ilgili "trafik kazası geçirir inşallah" diye bir düşünce geçiyor.
İkinci Olay: Çok kısa bir süre sonra bu tanıdığınız kişinin trafik kazası geçirdiğini öğreniyor ve kendinizi suçlu hissediyorsunuz.

Şimdi lütfen aşağıdaki sorulara yanıt veriniz.

1. Sizce trafik kazası günün hangi saatinde olmuştur?

_____

2. Sizce trafik kazası nerede gerçekleşmiştir?

_____
_____

3. Sizce kazayı öğrendiğinizde neredesiniz?

_____
_____

4. Sizce bu tanıdığınız kişiyle ne kadar yakınsınız?

   Yakınlık derecenizi belirlemek için aşağıdaki ölçeği kullanınız. Yakınlık derecenizi **en iyi yansıttığını** düşündüğünüz sayıyı **yuvarlak** içine alınız.
   0 10 20 30 40 50 60 70 80 90 100

   _____
   Orta düzeyde yakın Yakın Çok yakın

(Lütfen bir sonraki sayfaya geçin)

Şimdi aşağıdaki **9 ifadeyi** dikkatlice okuyunuz**.** Her bir ifade ile ilgili **düşüncenizi en iyi yansıtan rakamı** yuvarlak içine alınız**.**

Alttaki 9 ifadenin her biriyle ilgili düşüncenizi **en iyi yansıtan rakamı** belirlemek için aşağıdaki **derecelendirme ölçeğini** kullanınız**:**

1	2	3	4	5
Hiç Katılmıyorum	Biraz katılıyorum	Orta derecede katılıyorum	Oldukça katılıyorum	Tamamen Katılıyorum

Lütfen hiçbir ifadeyi cevapsız bırakmayınız.

1. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirme riskini arttırdığını düşünürüm.	1	2	3	4	5
2. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmış olabileceğini düşünürüm.	1	2	3	4	5
3. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmasını inandırıcı bulurum.	1	2	3	4	5
4. Tanıdığım kişinin kaza geçirmesinin benden başka nedenleri olduğunu düşünürüm.	1	2	3	4	5
5. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi suçlu hissederim.	1	2	3	4	5
6. Tanıdığım kişinin kaza geçirmesinin benden kaynaklı olduğunu düşünürüm.	1	2	3	4	5
7. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmam kadar kötü olduğunu düşünürüm.	1	2	3	4	5
8. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı pişmanlık duyarım.	1	2	3	4	5
9. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi sorumlu hissederim.	1	2	3	4	5

(Lütfen bir sonraki sayfaya geçin)

Lütfen şimdi aşağıdaki sorulara cevap veriniz.

SORU 1:

Şu anda hissettiğiniz "**rahatsızlık**" düzeyinizi **en iyi yansıttığını düşündüğünüz rakamı** aşağıdaki derecelendirme ölçeğinde **işaretleyiniz**!

1	2	3	4	5
Hiç hissetmiyorum	Biraz hissediyorum	Orta derecede hissediyorum	Yoğun şekilde hissediyorum	Çok yoğun hissediyorum

Eğer birinci soruya cevabınız "1" ise, ikinci soruyu cevaplamayın lütfen!

SORU 2:
Eğer rahatsızlık hissettiyseniz bu rahatsızlığı azaltmak ya da ortadan kaldırmak için **herhangi bir şey yaptınız mı?** (örneğin herhangi bir davranışta bulunmak ya da herhangi bir düşünceyi aklınıza getirmek gibi)
Evet _____ Hayır _____
Cevabınız evet ise **ne yaptığınızı** yazar mısınız?
_____
_____
_____
_____
_____

(Lütfen bir sonraki sayfaya geçin)

Az önce okuduğunuz hikayeden hatırlayacağınız gibi aklınızdan tanıdığınız kişiyle ilgili "**trafik kazası geçirir inşallah**" düşüncesi geçmişti.
Aşağıdaki her bir ifade insanın aklına gelebilecek **bu tipteki rahatsız edici düşüncelerle** ilgilidir.
Aşağıdaki her bir ifadeye **ne kadar katıldığınızı** lütfen derecelendiriniz. Her bir ifadeyle ilgili fikrinizi **en iyi temsil ettiğini düşündüğünüz rakamı yuvarlak** içine alınız.
Derecelendirme için aşağıdaki ölçeği kullanınız:

0 10 20 30 40 50 60 70 80 90 100

Hiç katılmıyorum Orta düzeyde katılıyorum Tamamen katılıyorum

1. Bu düşünceye karşı kontrolümü geri kazanmalıyım	0 10 20 30 40 50 60 70 80 90 100
2. İstenmeyen bir düşünceye sahip olmak, o düşünce doğrultusunda davranacağım anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
3. Gerçekleşebilecek kötü şeyleri düşündüğüm için onları önlemek üzere harekete geçmem gerekir.	0 10 20 30 40 50 60 70 80 90 100
4. Bu düşünceye sahip olmam, düşüncenin önemli olduğu anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
5. Zihnimdeki bu düşünceden kurtulabilmeliyim.	0 10 20 30 40 50 60 70 80 90 100
6. Bu düşüncenin aklımdan geçmesi, onun gerçekleşmesine yol açabilir.	0 10 20 30 40 50 60 70 80 90 100
7. Bu düşünce bir işaret (alamet) olabilir	0 10 20 30 40 50 60 70 80 90 100
8. Bu düşünceye sahip olduğum için yaptıklarım mahvolacaktır.	0 10 20 30 40 50 60 70 80 90 100
9. Bu düşünce doğrultusunda bir şey yapmazsam ve kötü bir şey olursa, bu benim hatam olur.	0 10 20 30 40 50 60 70 80 90 100

10. Bu istenmeyen düşünceye karşı koymazsam ben sorumsuz biriyim demektir.	0 10 20 30 40 50 60 70 80 90 100
11. Bu düşünce benim zihnimden kaynaklandığına göre, bu düşünceyi istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
12. Bu istenmeyen düşünceyi görmezden gelmek hata olur.	0 10 20 30 40 50 60 70 80 90 100
13. Bu düşünceyi kontrol edemediğim için zayıf bir insanım.	0 10 20 30 40 50 60 70 80 90 100
14. Bu düşüncenin gerçekleşmesi riskini göze alamam.	0 10 20 30 40 50 60 70 80 90 100
15. Yanlış gidebilecek bir şey düşündüğüme göre artık onun gerçekleşmeyeceğinden emin olma konusunda ben sorumluyum.	0 10 20 30 40 50 60 70 80 90 100
16. Bu düşünceye sahip olduğuma göre gerçekleşmesini istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
17. Bu düşünceye sahip olmam, zihnimin kontrolünü kaybedeceğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
18. Bu düşünce üzerinde daha fazla kontrol sahibi olsam daha iyi bir insan olurdum.	0 10 20 30 40 50 60 70 80 90 100
19. Bu düşünce sonucunda kötü bir şey olmayacağına dair emin olmam gereklidir.	0 10 20 30 40 50 60 70 80 90 100
20. Bu düşünce insanlara zarar verebilir.	0 10 20 30 40 50 60 70 80 90 100
21. Bu düşünceye sahip olmak kontrolü kaybettiğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100

22. Bu düşünceye sahip olmak tuhaf ve anormal olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
23. Bu düşünceyi görmezden gelirsem sorumsuz biri olurum.	0 10 20 30 40 50 60 70 80 90 100
24. Bu düşünceye sahip olmak korkunç bir insan olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100

25. Bu istenmeyen düşünceyi kontrol edemezsem kötü bir şeyin olması kaçınılmazdır.	0 10 20 30 40 50 60 70 80 90 100
26. Bu düşünce üzerinde kontrol sahibi olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
27. Bu gibi şeyler üzerinde ne kadar çok düşünürsem, gerçekleşme riski o kadar artar.	0 10 20 30 40 50 60 70 80 90 100
28. Bu düşünceye dair bir şey yapmazsam kendimi suçlu hissederim.	0 10 20 30 40 50 60 70 80 90 100
29. Bu tür bir şeyi düşünmemem gerekir.	0 10 20 30 40 50 60 70 80 90 100
30. Bu düşünceyi kontrol etmezsem cezalandırılırım.	0 10 20 30 40 50 60 70 80 90 100
31. Bu düşünceyi göz ardı edersem sonrasında ortaya çıkabilecek ciddi bir sonuçtan ben sorumlu olabilirim.	0 10 20 30 40 50 60 70 80 90 100

(Lütfen bir sonraki sayfaya geçin)

Şimdi sizden daha sonra yapmanızı isteyeceğimiz şeyin bir **örneğini** sunuyoruz. **3 sayfa boyunca** hem size sorulacak **soruların** hem de bu sorulara **cevap veriliş şeklinin** bir örneğini göreceksiniz.
Lütfen şimdi **soruları** ve **cevapları** dikkatle okuyunuz. **Şimdilik** sizden aşağıdaki sorulara bir cevap vermenizi **beklemiyoruz.**

BU BİR ÖRNEKTİR. DİKKATLE OKUYUNUZ!

Lütfen aşağıdaki size sunulan hikaye içindeki iki olayı dikkatle okuyun ve **sanki** *sizin başınızdan geçiyormuş gibi* **gözünüzde canlandırın!**

Birinci Olay: Diyelim ki canınız bir anda çok sevdiğiniz ancak uzun süredir de yemediğiniz bir yiyeceği çekiyor. "Keşke şu anda o yiyeceği yiyebilsem" diye düşünmeye başlıyorsunuz.
İkinci Olay: Çok kısa bir süre sonra bir tanıdığınız o canınızın çektiği yiyeceği size ikram ediyor ve siz de buna çok seviniyorsunuz.

Bu hikayedeki iki olayın arası **eksik** bırakılmıştır. Şimdi sizden bu eksiği iki olayın arasına en fazla 3 cümle yazarak **tamamlamanız** istenmektedir.
Bu tamamlamanın nasıl olacağı aşağıda açıklanmaktadır:

Eksik olan kısmı öyle tamamlayın ki o yiyecek size **sırf** "o yiyeceği yemeyi" AKLINIZDAN GEÇİRDİNİZ VE İSTEDİNİZ diye ikram ediliyor olsun.

Yani, eksik kısma yazacağınız en fazla 3 cümlelik **açıklama** şu aşağıdaki soruya **cevap** veriyor olsun**.**

Soru şudur: "Bu düşünceniz/isteğiniz nasıl olur da o canınınız çektiği yiyeceğin ikram edilmesine sebep olur?"

Sizden istediğimiz şey hikayedeki eksik kısmı tamamlama şekliniz size "KOMİK, SAÇMA YA DA MANTIKSIZ GELSE BİLE" bu eksik kısmı belirtilen şekilde tamamlamanızdır.

Ancak **DİKKAT** etmenizi istediğimiz bir şey var: Sizden bu hikayeyi sadece 1 açıklamayla değil **birbirinden farklı 3 AÇIKLAMAYLA** tamamlamanızı isteyeceğiz.

SONRAKİ SAYFA bu açıklamaları yazmanız için AYRILMIŞTIR.

Unutmayınız: Bu yazacağınız her biri en fazla 3 cümlelik açıklamalar birbirinden epey farklı da olabilir, birbirine benzeyebilir de. YETER Kİ oluşturacağınız 3 açıklama birbiriyle KELİMESİ KELİMESİNE AYNI OLMASIN!!!

(Lütfen bir sonraki sayfadaki örneği okumaya devam edin.)

BU BİR ÖRNEKTİR. OKUMAYA DEVAM EDİNİZ!

Aşağıda hikayedeki eksik kısma **3 açıklama yazınız.** Her bir açıklama **en fazla 3 cümleden** oluşsun. Her bir açıklama **"Bu düşünceniz/isteğiniz nasıl olur da o canınınız çektiği yiyeceğin ikram edilmesine sebep olur?"** sorusuna cevap versin.

Şimdi 3 açıklamayla hikayeyi tamamlamanın **örneğini** göreceksiniz.

BİRİNCİ AÇIKLAMA

Birinci Olay: **C**anınız bir anda çok sevdiğiniz ancak uzun süredir de yemediğiniz bir yiyeceği çekti. "Keşke şu anda o yiyeceği yiyebilsem" diye düşünmeye başladınız.

1. Cümle: Çok istediğimden bu bir dua gibi oldu benim için.
2. Cümle: Sonra Allah da duamı kabul etti.

İkinci Olay: Ve çok kısa bir süre sonra tanıdığım bir kişi o canımın çektiği yiyeceği bana ikram etti ve ben de buna çok sevindim.

İKİNCİ AÇIKLAMA

Birinci Olay: **C**anınız bir anda çok sevdiğiniz ancak uzun süredir de yemediğiniz bir yiyeceği çekti. "Keşke şu anda o yiyeceği yiyebilsem" diye düşünmeye başladınız.

1. Cümle: Bu düşünce ile evrene pozitif enerji göndermiş oldum.
2. Cümle: Sonra, bu enerji de olacak olayları etkiledi herhalde.
3. Cümle: Sonunda, bu pozitif enerjiden tanıdığım o kişi de etkilenmiş olmalı.

İkinci Olay: Ve çok kısa bir süre sonra tanıdığım bir kişi o canımın çektiği yiyeceği bana ikram etti ve ben de buna çok sevindim.

ÜÇÜNCÜ AÇIKLAMA

Birinci Olay: **C**anınız bir anda çok sevdiğiniz ancak uzun süredir de yemediğiniz bir yiyeceği çekti. "Keşke şu anda o yiyeceği yiyebilsem" diye düşünmeye başladınız.

1. Cümle: Kalbi temiz biri olduğum için olmalı umutlarım boşa çıkmadı.

İkinci Olay: Ve çok kısa bir süre sonra tanıdığım bir kişi o canımın çektiği yiyeceği bana ikram etti ve ben de buna çok sevindim.

(Lütfen bir sonraki sayfadaki örneği okumaya devam edin.)

BU BİR ÖRNEKTİR. OKUMAYA DEVAM EDİNİZ

Okuduğunuz örnekte dikkat etmenizi istediğimiz **en önemli 2 şey** şunlardır:

- Her 3 cevapta da o yiyecek size **tesadüfen** ikram **edilmemiştir.**

- Canınızın çektiği şeyin size ikram edilmesinde her 3 açıklamada da sizin ya da başka birisinin **fiziksel** anlamda herhangi bir müdahalesi **olmamıştır**. Örneğin, siz tanıdığınız kişiyi telefonla arayıp canınızın çektiği yiyecekle ilgili herhangi bir şey söylemediniz.

Lütfen dikkat edin: Bu örnekte h*er 3 açıklamada da* o yiyeceğin size ikram edilmesinin **tek nedeni** o yiyeceği yemeyi aklından geçirmeniz ve onu yemeyi istemiş olmanızdır.

Hikayedeki **eksiğin tamamlanma biçimi** aşağıdaki şekilde de gösterilmektedir. Lütfen okumaya devam ediniz.

(Diğer sayfaya geçebilirsiniz)

ŞİMDİ SIRA SİZDE!!!

Burada sizden aşağıda kutu içinde okuyacağınız **başka** bir eksik hikayeyi **ÖRNEKTEKİ GİBİ 3 farklı açıklama oluşturarak** tamamlamanızı istiyoruz.

Lütfen aşağıdaki size sunulan hikaye içindeki iki olayı dikkatle okuyun ve **sanki** *sizin başınızdan geçiyormuş gibi* **gözünüzde canlandırın!**

Birinci Olay: Diyelim ki hafta sonu dışarıya dolaşmaya çıkıyorsunuz. Birden aklınıza çok sevdiğiniz ancak uzun zamandır görüşmediğiniz bir arkadaşınız geliyor. "Keşke onunla bir görüşebilsem" diye aklınızdan geçirmeye başlıyorsunuz.
İkinci Olay: Çok kısa bir süre sonra bu arkadaşınızla yolda karşılaşıyor ve buna çok seviniyorsunuz.

Unutmayın: Bu hikayedeki iki olayın arasındaki "**eksik**" olan kısmı öyle tamamlayın ki arkadaşınızla yolda karşılaşmanız **sırf** "arkadaşınızla karşılaşmayı" AKLINIZDAN GEÇİRDİNİZ VE İSTEDİNİZ diye olsun.

Yazacağınız en fazla 3 cümleden oluşacak açıklama şu soruya cevap veren bir açıklama olsun.
Soru şudur: "Bu düşünceniz/isteğiniz nasıl olur da arkadaşınızla yolda karşılaşmanıza sebep olur?"

Ancak **DİKKAT** etmenizi istediğimiz bir şey var: Sizden bu aynı hikayeyi sadece 1 açıklamayla değil **birbirinden farklı 3 AÇIKLAMAYLA** tamamlamanızı isteyeceğiz.

3 açıklamayı oluştururken okuduğunuz örnekten YARARLANABİLİRSİNİZ.

Hatırlatma: Bu 3 açıklamanın her biri en fazla 3 cümleden oluşsun.

Her bir açıklamada arkadaşınızla karşılaşmanızın **tek nedeni** bu karşılaşmayı aklınızdan geçirmeniz ve istemeniz olsun!

Yazacağınız açıklamaların hiçbirinde arkadaşınızla yolda karşılaşmanız **tesadüfen olmasın**. Ayrıca, arkadaşınızla yolda karşılaşmanızda sizin ya da başka birisinin **fiziksel bir müdahalesi de olmasın.**

SONRAKİ SAYFA 3 farklı açıklama için ayrılmıştır.

Lütfen **SONRAKİ SAYFADA** hikayedeki eksik kısım için 3 açıklama yazmış olun.

Aşağıda hikayedeki eksik kısma **3 açıklama yazınız.** Her bir açıklama **en fazla 3 cümleden** oluşsun. Her bir açıklama **"<u>Bu düşünceniz/isteğiniz nasıl olur da arkadaşınızla yolda karşılaşmanıza sebep olur?</u>"** sorusuna cevap versin.

BİRİNCİ AÇIKLAMA

<u>Birinci Olay</u>: hafta sonu dışarıya dolaşmaya çıktım. Birden aklına çok sevdiğim ancak uzun zamandır görüşmediğim bir arkadaşım geldi. "Keşke onunla bir görüşebilsem" diye aklımdan geçirmeye başladım.

1.Cümle:_____

2.Cümle:_____

3.Cümle:_____

<u>İkinci Olay</u>: Ve çok kısa bir süre sonra arkadaşımla yolda karşılaştım ve buna çok sevindim.

İKİNCİ AÇIKLAMA

<u>Birinci Olay</u>: hafta sonu dışarıya dolaşmaya çıktım. Birden aklına çok sevdiğim ancak uzun zamandır görüşmediğim bir arkadaşım geldi. "Keşke onunla bir görüşebilsem" diye aklımdan geçirmeye başladım.

1.Cümle:_____

2.Cümle:_____

3.Cümle:_____

<u>İkinci Olay</u>: Ve çok kısa bir süre sonra arkadaşımla yolda karşılaştım ve buna çok sevindim.

ÜÇÜNCÜ AÇIKLAMA

<u>Birinci Olay</u>: hafta sonu dışarıya dolaşmaya çıktım. Birden aklına çok sevdiğim ancak uzun zamandır görüşmediğim bir arkadaşım geldi. "Keşke onunla bir görüşebilsem" diye aklımdan geçirmeye başladım.

1.Cümle:_____

2.Cümle:_____

3.Cümle:_____

<u>İkinci Olay</u>: Ve çok kısa bir süre sonra arkadaşımla yolda karşılaştım ve buna çok sevindim.

(Açıklamaları yazdıktan sonra bir sonraki sayfaya geçebilirsiniz.)

Çalışmanın bu kısmında sizden istenen bir önceki kısımlarda yaptığınıza **çok benzer** bir görevdir. Şimdi size aşağıda kutu içinde çalışmanın EN BAŞINDA KARŞILAŞTIĞINIZ kısa hikaye hatırlatma amacıyla TEKRAR sunulacak. Sizden **az önceki örnekte gördüğünüz gibi** hikayenin eksik kısmını **3 farklı açıklama oluşturarak** tamamlamanız beklenmektedir.

Lütfen size tekrar sunulan hikayeyi dikkatle okuyun ve **sanki** *sizin başınızdan geçiyormuş gibi* **gözünüzde canlandırın!**

Birinci Olay: Diyelim ki hafta sonu tanıdığınız birisiyle birlikte vakit geçiriyorsunuz. Bir süre sonra, tanıdığınız bu kişiyle tartışmaya başlıyorsunuz. Karşılıklı olarak birbirinizi suçluyorsunuz. Daha sonra, bulunduğunuz ortamdan uzaklaşıyorsunuz. Sonra, aklınızdan tanıdığınız bu kişiyle ilgili "trafik kazası geçirir inşallah" diye bir düşünce geçiyor.
İkinci Olay: Çok kısa bir süre sonra bu tanıdığınız kişinin trafik kazası geçirdiğini öğreniyor ve kendinizi suçlu hissediyorsunuz.

Şimdi **1. sayfada** yazdığınız **kazanın ayrıntılarına bir kez daha göz atmanızı** istiyoruz. Lütfen bu ayrıntılara **bir kez daha** bakınız ve bu iki olayı **sanki** *sizin başınızdan geçiyormuş gibi* **gözünüzde canlandırınız.**

(**İlk sayfaya göz attıktan sonra** bir sonraki sayfaya geçebilirsiniz.)

Unutmayın: Bu hikayedeki iki olayın arasındaki "eksik" kısmı öyle tamamlayın ki trafik kazası **sırf** siz "tanıdığınız kişinin trafik kazası geçirmesini" AKLINIZDAN GEÇİRDİNİZ VE İSTEDİNİZ diye gerçekleşmiş olsun.

Yazacağınız en fazla 3 cümleden oluşacak açıklama şu soruya cevap veren bir açıklama olsun.

Soru şudur: "Bu düşünceniz/isteğiniz nasıl olur da tanıdığınız kişinin trafik kazası geçirmesine sebep olur?"

Ancak **DİKKAT** etmenizi istediğimiz bir şey var: Sizden bu aynı hikayeyi az önceki örneklerde olduğu gibi sadece 1 açıklamayla değil **birbirinden farklı 3 AÇIKLAMAYLA** tamamlamanızı isteyeceğiz.

Hatırlatma: Bu 3 açıklamanın her biri en fazla 3 cümleden oluşsun.

Her bir açıklamada trafik kazasının **tek nedeni** bu kazayı aklınızdan geçirmeniz ve istemeniz olsun**!!!**

Yazacağınız açıklamaların hiçbirinde tanıdığınız kimsenin trafik kazası geçirmesi **tesadüfen olmasın.** Ayrıca, tanıdığınız kişinin trafik kazası geçirmesinde sizin ya da başka birisinin **fiziksel bir müdahalesi de olmasın.**

"SONRAKİ 2 SAYFA" 3 farklı açıklama için ayrılmıştır.

Lütfen "**SONRAKİ 2 SAYFADA"** hikayedeki eksik kısım için 3 açıklama yazmış olun.

Aşağıda hikayedeki eksik kısma **3 açıklama yazınız.** Her bir açıklama **en fazla 3 cümleden** oluşsun. Her bir açıklama **"<u>Bu düşünceniz/isteğiniz nasıl olur da tanıdığınız kişinin trafik kazası geçirmesine sebep olur?</u>"** sorusuna cevap versin.

BİRİNCİ AÇIKLAMA

<u>Birinci Olay:</u> Bir hafta sonu tanıdığım birisiyle birlikteyim. Bir süre sonra, tanıdığım kişiyle tartışmaya başladım. Karşılıklı olarak birbirimizi suçladık. Daha sonra, bulunduğum ortamdan uzaklaştım. Sonra, aklımdan tanıdığım bu kişiyle ilgili "trafik kazası geçirir inşallah" diye bir düşünce geçti.
1.Cümle:_____
_____
_____
2.Cümle:_____
_____
_____
3.Cümle:_____
_____
_____
<u>İkinci olay:</u> Ve çok kısa bir süre sonra bu tanıdığım kişinin trafik kazası geçirdiğini öğrendim ve kendimi suçlu hissettim.

İKİNCİ AÇIKLAMA

<u>Birinci Olay:</u> Bir hafta sonu tanıdığım birisiyle birlikteyim. Bir süre sonra, tanıdığım kişiyle tartışmaya başladım. Karşılıklı olarak birbirimizi suçladık. Daha sonra, bulunduğum ortamdan uzaklaştım. Sonra, aklımdan tanıdığım bu kişiyle ilgili "trafik kazası geçirir inşallah" diye bir düşünce geçti.
1.Cümle: _____
_____
_____
_____
2.Cümle:_____
_____
_____
3.Cümle:_____
_____
_____
<u>İkinci olay:</u> Ve çok kısa bir süre sonra bu tanıdığım kişinin trafik kazası geçirdiğini öğrendim ve kendimi suçlu hissettim.

(Lütfen diğer sayfadaki **üçüncü açıklamayı da** yazınız**)**

Aşağıda hikayedeki eksik kısma **3 açıklama yazınız.** Her bir açıklama **en fazla 3 cümleden** oluşsun. Her bir açıklama **"<u>Bu düşünceniz/isteğiniz nasıl olur da tanıdığınız kişinin trafik kazası geçirmesine sebep olur?</u>"** sorusuna cevap versin.

ÜÇÜNCÜ AÇIKLAMA

<u>Birinci Olay:</u> Bir hafta sonu tanıdığım birisiyle birlikteyim. Bir süre sonra, tanıdığım kişiyle tartışmaya başladım. Karşılıklı olarak birbirimizi suçladık. Daha sonra, bulunduğum ortamdan uzaklaştım. Sonra, aklımdan tanıdığım bu kişiyle ilgili "trafik kazası geçirir inşallah" diye bir düşünce geçti.

1.Cümle:_____
_____
_____

2.Cümle:_____
_____
_____

3.Cümle:_____
_____
_____

<u>İkinci olay:</u> Ve çok kısa bir süre sonra bu tanıdığım kişinin trafik kazası geçirdiğini öğrendim ve kendimi suçlu hissettim.

(Açıklamaları yazdıktan sonra bir sonraki sayfaya geçebilirsiniz.)

UNUTMAYINIZ: 5 sayfa boyunca göreceğiniz ifadeler ve sorular sizin daha önceden karşılaştığınız ifadeler ve sorulardır. İnsanların bu ifadeleri ve soruları cevaplandırma şekilleri zaman içinde **değişebilmektedir.** Şimdi vereceğiniz cevaplar öncekilerin aynısı da olabilir, onlardan farklılaşabilir de. O yüzden daha önceki cevaplandırma şeklinizi **hatırlamaya çalışmayınız!!!**

Şimdi aşağıdaki **9 ifadeyi** dikkatlice okuyunuz**. Her bir ifade** az önce okuduğunuz hikayeyle ilgilidir. Her bir ifade ile ilgili **düşüncenizi en iyi yansıtan rakamı** yuvarlak içine alınız**.**

Alttaki 9 ifadenin her biriyle ilgili düşüncenizi **en iyi yansıtan rakamı** belirlemek için aşağıdaki **derecelendirme ölçeğini** kullanınız**:**

1	2	3	4	5
Hiç Katılmıyorum	Biraz katılıyorum	Orta derecede katılıyorum	Oldukça katılıyorum	Tamamen Katılıyorum

Lütfen hiçbir ifadeyi cevapsız bırakmayınız.

1. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirme riskini arttırdığını düşünürüm.	1	2	3	4	5
2. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmış olabileceğini düşünürüm.	1	2	3	4	5
3. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmasını inandırıcı bulurum.	1	2	3	4	5
4. Tanıdığım kişinin kaza geçirmesinin benden başka nedenleri olduğunu düşünürüm.	1	2	3	4	5
5. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi suçlu hissederim.	1	2	3	4	5
6. Tanıdığım kişinin kaza geçirmesinin benden kaynaklı olduğunu düşünürüm.	1	2	3	4	5
7. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmam kadar kötü olduğunu düşünürüm.	1	2	3	4	5
8. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı pişmanlık duyarım.	1	2	3	4	5
9. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi sorumlu hissederim.	1	2	3	4	5

(Lütfen bir sonraki sayfaya geçin)

Lütfen şimdi aşağıdaki sorulara cevap veriniz.

SORU 1:

Şu anda hissettiğiniz "**rahatsızlık**" düzeyinizi **en iyi yansıttığını düşündüğünüz rakamı** aşağıdaki derecelendirme ölçeğinde **işaretleyiniz**!!!.

1	2	3	4	5
Hiç hissetmiyorum	Biraz hissediyorum	Orta derecede hissediyorum	Yoğun şekilde hissediyorum	Çok yoğun hissediyorum

Eğer birinci soruya cevabınız "1" ise, ikinci soruyu cevaplamayın!

SORU 2:
Eğer rahatsızlık hissettiyseniz bu rahatsızlığı azaltmak ya da ortadan kaldırmak için **herhangi bir şey yaptınız mı?** (örneğin herhangi bir davranışta bulunmak ya da herhangi bir düşünceyi aklınıza getirmek gibi)
Evet _____ Hayır _____
Cevabınız evet ise **ne yaptığınızı** yazar mısınız?
_____
_____
_____
_____
_____

(Lütfen bir sonraki sayfaya geçin)

Az önce okuduğunuz hikayeden hatırlayacağınız gibi aklınızdan tanıdığınız kişiyle ilgili "**trafik kazası geçirir inşallah**" düşüncesi geçmişti.
Aşağıdaki her bir ifade insanın aklına gelebilecek **bu tipteki rahatsız edici düşüncelerle** ilgilidir.
Aşağıdaki her bir ifadeye **ne kadar katıldığınızı** lütfen derecelendiriniz. Her bir ifadeyle ilgili fikrinizi **en iyi temsil ettiğini düşündüğünüz rakamı yuvarlak** içine alınız.
Derecelendirme için aşağıdaki ölçeği kullanınız:

0 10 20 30 40 50 60 70 80 90 100

Hiç katılmıyorum Orta düzeyde katılıyorum Tamamen katılıyorum

1. Bu düşünceye karşı kontrolümü geri kazanmalıyım	0 10 20 30 40 50 60 70 80 90 100
2. İstenmeyen bir düşünceye sahip olmak, o düşünce doğrultusunda davranacağım anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
3. Gerçekleşebilecek kötü şeyleri düşündüğüm için onları önlemek üzere harekete geçmem gerekir.	0 10 20 30 40 50 60 70 80 90 100
4. Bu düşünceye sahip olmam, düşüncenin önemli olduğu anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
5. Zihnimdeki bu düşünceden kurtulabilmeliyim.	0 10 20 30 40 50 60 70 80 90 100
6. Bu düşüncenin aklımdan geçmesi, onun gerçekleşmesine yol açabilir.	0 10 20 30 40 50 60 70 80 90 100
7. Bu düşünce bir işaret (alamet) olabilir	0 10 20 30 40 50 60 70 80 90 100
8. Bu düşünceye sahip olduğum için yaptıklarım mahvolacaktır.	0 10 20 30 40 50 60 70 80 90 100
9. Bu düşünce doğrultusunda bir şey yapmazsam ve kötü bir şey olursa, bu benim hatam olur.	0 10 20 30 40 50 60 70 80 90 100
10. Bu istenmeyen düşünceye karşı koymazsam ben sorumsuz biriyim	0 10 20 30 40 50 60 70 80 90 100

demektir.	
11. Bu düşünce benim zihnimden kaynaklandığına göre, bu düşünceyi istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
12. Bu istenmeyen düşünceyi görmezden gelmek hata olur.	0 10 20 30 40 50 60 70 80 90 100
13. Bu düşünceyi kontrol edemediğim için zayıf bir insanım.	0 10 20 30 40 50 60 70 80 90 100
14. Bu düşüncenin gerçekleşmesi riskini göze alamam.	0 10 20 30 40 50 60 70 80 90 100
15. Yanlış gidebilecek bir şey düşündüğüme göre artık onun gerçekleşmeyeceğinden emin olma konusunda ben sorumluyum.	0 10 20 30 40 50 60 70 80 90 100
16. Bu düşünceye sahip olduğuma göre gerçekleşmesini istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
17. Bu düşünceye sahip olmam, zihnimin kontrolünü kaybedeceğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
18. Bu düşünce üzerinde daha fazla kontrol sahibi olsam daha iyi bir insan olurdum.	0 10 20 30 40 50 60 70 80 90 100
19. Bu düşünce sonucunda kötü bir şey olmayacağına dair emin olmam gereklidir.	0 10 20 30 40 50 60 70 80 90 100
20. Bu düşünce insanlara zarar verebilir.	0 10 20 30 40 50 60 70 80 90 100
21. Bu düşünceye sahip olmak kontrolü kaybettiğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
22. Bu düşünceye sahip olmak tuhaf ve anormal olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
23. Bu düşünceyi görmezden gelirsem	0 10 20 30 40 50 60 70 80 90

sorumsuz biri olurum.	100
24. Bu düşünceye sahip olmak korkunç bir insan olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100

25. Bu istenmeyen düşünceyi kontrol edemezsem kötü bir şeyin olması kaçınılmazdır.	0 10 20 30 40 50 60 70 80 90 100
26. Bu düşünce üzerinde kontrol sahibi olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
27. Bu gibi şeyler üzerinde ne kadar çok düşünürsem, gerçekleşme riski o kadar artar.	0 10 20 30 40 50 60 70 80 90 100
28. Bu düşünceye dair bir şey yapmazsam kendimi suçlu hissederim.	0 10 20 30 40 50 60 70 80 90 100
29. Bu tür bir şeyi düşünmemem gerekir.	0 10 20 30 40 50 60 70 80 90 100
30. Bu düşünceyi kontrol etmezsem cezalandırılırım.	0 10 20 30 40 50 60 70 80 90 100
31. Bu düşünceyi göz ardı edersem sonrasında ortaya çıkabilecek ciddi bir sonuçtan ben sorumlu olabilirim.	0 10 20 30 40 50 60 70 80 90 100

(Lütfen bir sonraki sayfaya geçin)

Lütfen şimdi aşağıdaki kutu içindeki size verdiğimiz bilgileri lütfen **tüm dikkatinizi** toplayarak okuyunuz.

"İnsanın aklına birdenbire bazı hoşuna gitmeyen düşünceler gelebilir. İnsanların %80-90'ının aklına bu tür düşüncelerin geldiği tahmin edilmektedir. Örneğin, çok yüksek bir yerden aşağıya baktığınızda kendinizi boşluğa atmakla ilgili aklınızdan anlık bir düşünce geçebilir. Ya da bazen savunmasız bir kişiye zarar vermeyle ilgili aklınıza bir düşünce gelebilir. Akla böylesine can sıkıcı ve tedirgin edici düşünceler geldiğinde, insanlar genellikle bir şekilde bu düşüncelerin, düşündükleri şeyin olma olasılığını arttıracağını hissederler. Ancak bu düşünce şekli yanlıştır. Bu düşünce şekli neden yanlıştır? Çünkü örneğin arkadaşınızın, bir aile üyenizin ya da tanıdığınız birisinin trafik kazası geçirmesini istemekle o kişinin trafik kazası geçirme olasılığını arttıramazsınız. Düşüncelerinin o kişinin kaza geçirmesi konusunda böyle bir etkisi yoktur. Ayrıca, aklınıza böyle düşüncelerin gelmesi sizin kötü bir insan olduğunuzu da göstermez. Az önce dediğimiz gibi bu türdeki düşüncelerin insanın aklına gelmesi tamamen normal bir şeydir. Bu tip düşüncelerin dışarıdaki olaylar üzerine herhangi bir etkisi yoktur."

(Lütfen bir sonraki sayfaya geçin)

<u>UNUTMAYINIZ</u>: 5 sayfa boyunca göreceğiniz ifadeler ve sorular sizin daha önceden karşılaştığınız ifadeler ve sorulardır. İnsanların bu ifadeleri ve soruları cevaplandırma şekilleri zaman içinde **değişebilmektedir.** Şimdi vereceğiniz cevaplar öncekilerin aynısı da olabilir, onlardan farklılaşabilir de. O yüzden daha önceki cevaplandırma şeklinizi **<u>hatırlamaya çalışmayınız!!!</u>**

Şimdi aşağıdaki **<u>9 ifadeyi</u>** dikkatlice okuyunuz**.** Her bir ifade şimdiye kadar size **2 defa sunulan hikaye** hakkındadır. Her bir ifade ile ilgili **<u>düşüncenizi</u> en iyi yansıtan rakamı** yuvarlak içine alınız**.**

Alttaki 9 ifadenin her biriyle ilgili düşüncenizi **<u>en iyi yansıtan rakamı</u>** belirlemek için aşağıdaki **derecelendirme ölçeğini** kullanınız**:**

1	2	3	4	5
Hiç Katılmıyorum	Biraz katılıyorum	Orta derecede katılıyorum	Oldukça katılıyorum	Tamamen Katılıyorum

Lütfen hiçbir ifadeyi cevapsız bırakmayınız.

1. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirme riskini arttırdığını düşünürüm.	1	2	3	4	5
2. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmış olabileceğini düşünürüm.	1	2	3	4	5
3. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmasını inandırıcı bulurum.	1	2	3	4	5
4. Tanıdığım kişinin kaza geçirmesinin benden başka nedenleri olduğunu düşünürüm.	1	2	3	4	5
5. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi suçlu hissederim.	1	2	3	4	5
6. Tanıdığım kişinin kaza geçirmesinin benden kaynaklı olduğunu düşünürüm.	1	2	3	4	5
7. Bu kazayı istemiş olmamın tanıdığım kişinin kaza geçirmesine yol açmam kadar kötü olduğunu düşünürüm.	1	2	3	4	5
8. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı pişmanlık duyarım.	1	2	3	4	5
9. Bu kazayı istemiş olmamdan ve ardından tanıdığım kişinin kaza geçirmesinden dolayı kendimi sorumlu hissederim.	1	2	3	4	5

(Lütfen bir sonraki sayfaya geçin)

Lütfen şimdi aşağıdaki sorulara cevap veriniz.

SORU 1:

Şu anda hissettiğiniz "**rahatsızlık**" düzeyinizi **en iyi yansıttığını düşündüğünüz rakamı** aşağıdaki derecelendirme ölçeğinde **işaretleyiniz**!!!.

1	2	3	4	5
Hiç hissetmiyorum	Biraz hissediyorum	Orta derecede hissediyorum	Yoğun şekilde hissediyorum	Çok yoğun hissediyorum

Eğer birinci soruya cevabınız "1" ise, ikinci soruyu cevaplamayın lütfen!

SORU 2:
Eğer rahatsızlık hissettiyseniz bu rahatsızlığı azaltmak ya da ortadan kaldırmak için **herhangi bir şey yaptınız mı?** (örneğin herhangi bir davranışta bulunmak ya da herhangi bir düşünceyi aklınıza getirmek gibi)
Evet _____ Hayır _____
Cevabınız evet ise **ne yaptığınızı** yazar mısınız?
_____
_____
_____
_____
_____

(Lütfen bir sonraki sayfaya geçin)

Az önce okuduğunuz hikayeden hatırlayacağınız gibi aklınızdan tanıdığınız kişiyle ilgili "**trafik kazası geçirir inşallah**" düşüncesi geçmişti.
Aşağıdaki her bir ifade insanın aklına gelebilecek **bu tipteki rahatsız edici düşüncelerle** ilgilidir.
Aşağıdaki her bir ifadeye **ne kadar katıldığınızı** lütfen derecelendiriniz. Her bir ifadeyle ilgili fikrinizi **en iyi temsil ettiğini düşündüğünüz rakamı yuvarlak** içine alınız.
Derecelendirme için aşağıdaki ölçeği kullanınız:

0 10 20 30 40 50 60 70 80 90 100

Hiç katılmıyorum Orta düzeyde katılıyorum Tamamen katılıyorum

1. Bu düşünceye karşı kontrolümü geri kazanmalıyım	0 10 20 30 40 50 60 70 80 90 100
2. İstenmeyen bir düşünceye sahip olmak, o düşünce doğrultusunda davranacağım anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
3. Gerçekleşebilecek kötü şeyleri düşündüğüm için onları önlemek üzere harekete geçmem gerekir.	0 10 20 30 40 50 60 70 80 90 100
4. Bu düşünceye sahip olmam, düşüncenin önemli olduğu anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
5. Zihnimdeki bu düşünceden kurtulabilmeliyim.	0 10 20 30 40 50 60 70 80 90 100
6. Bu düşüncenin aklımdan geçmesi, onun gerçekleşmesine yol açabilir.	0 10 20 30 40 50 60 70 80 90 100
7. Bu düşünce bir işaret (alamet) olabilir	0 10 20 30 40 50 60 70 80 90 100
8. Bu düşünceye sahip olduğum için yaptıklarım mahvolacaktır.	0 10 20 30 40 50 60 70 80 90 100
9. Bu düşünce doğrultusunda bir şey yapmazsam ve kötü bir şey olursa, bu benim hatam olur.	0 10 20 30 40 50 60 70 80 90 100
10. Bu istenmeyen düşünceye karşı koymazsam ben sorumsuz biriyim demektir.	0 10 20 30 40 50 60 70 80 90 100

11. Bu düşünce benim zihnimden kaynaklandığına göre, bu düşünceyi istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
12. Bu istenmeyen düşünceyi görmezden gelmek hata olur.	0 10 20 30 40 50 60 70 80 90 100
13. Bu düşünceyi kontrol edemediğim için zayıf bir insanım.	0 10 20 30 40 50 60 70 80 90 100
14. Bu düşüncenin gerçekleşmesi riskini göze alamam.	0 10 20 30 40 50 60 70 80 90 100
15. Yanlış gidebilecek bir şey düşündüğüme göre artık onun gerçekleşmeyeceğinden emin olma konusunda ben sorumluyum.	0 10 20 30 40 50 60 70 80 90 100
16. Bu düşünceye sahip olduğuma göre gerçekleşmesini istiyor olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
17. Bu düşünceye sahip olmam, zihnimin kontrolünü kaybedeceğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
18. Bu düşünce üzerinde daha fazla kontrol sahibi olsam daha iyi bir insan olurdum.	0 10 20 30 40 50 60 70 80 90 100
19. Bu düşünce sonucunda kötü bir şey olmayacağına dair emin olmam gereklidir.	0 10 20 30 40 50 60 70 80 90 100
20. Bu düşünce insanlara zarar verebilir.	0 10 20 30 40 50 60 70 80 90 100
21. Bu düşünceye sahip olmak kontrolü kaybettiğim anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
22. Bu düşünceye sahip olmak tuhaf ve anormal olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100
23. Bu düşünceyi görmezden gelirsem sorumsuz biri olurum.	0 10 20 30 40 50 60 70 80 90 100

24. Bu düşünceye sahip olmak korkunç bir insan olduğum anlamına gelir.	0 10 20 30 40 50 60 70 80 90 100

25. Bu istenmeyen düşünceyi kontrol edemezsem kötü bir şeyin olması kaçınılmazdır.	0 10 20 30 40 50 60 70 80 90 100
26. Bu düşünce üzerinde kontrol sahibi olmalıyım.	0 10 20 30 40 50 60 70 80 90 100
27. Bu gibi şeyler üzerinde ne kadar çok düşünürsem, gerçekleşme riski o kadar artar.	0 10 20 30 40 50 60 70 80 90 100
28. Bu düşünceye dair bir şey yapmazsam kendimi suçlu hissederim.	0 10 20 30 40 50 60 70 80 90 100
29. Bu tür bir şeyi düşünmemem gerekir.	0 10 20 30 40 50 60 70 80 90 100
30. Bu düşünceyi kontrol etmezsem cezalandırılırım.	0 10 20 30 40 50 60 70 80 90 100
31. Bu düşünceyi göz ardı edersem sonrasında ortaya çıkabilecek ciddi bir sonuçtan ben sorumlu olabilirim.	0 10 20 30 40 50 60 70 80 90 100

VIGNETTE FOR HEART ATTACK

Birinci Olay: Diyelim ki hafta sonu tanıdığınız birisiyle birlikte vakit geçiriyorsunuz. Bir süre sonra, tanıdığınız bu kişiyle tartışmaya başlıyorsunuz. Karşılıklı olarak birbirinizi suçluyorsunuz. Daha sonra, bulunduğunuz ortamdan uzaklaşıyorsunuz. Sonra, aklınızdan tanıdığınız bu kişiyle ilgili "kalp krizi geçirir inşallah" diye bir düşünce geçiyor.

İkinci Olay: Çok kısa bir süre sonra bu tanıdığınız kişinin kalp krizi geçirdiğini öğreniyor ve kendinizi suçlu hissediyorsunuz.

PE FOR TAF

"İnsanın aklına birdenbire bazı hoşuna gitmeyen düşünceler gelebilir. İnsanların %80-90'ının aklına bu tür düşüncelerin geldiği tahmin edilmektedir. Örneğin, çok yüksek bir yerden aşağıya baktığınızda kendinizi boşluğa atmakla ilgili aklınızdan anlık bir düşünce geçebilir. Ya da bazen savunmasız bir kişiye zarar vermeyle ilgili aklınıza bir düşünce gelebilir. Akla böylesine can sıkıcı ve tedirgin edici düşünceler geldiğinde, insanlar genellikle bir şekilde bu düşüncelerin, düşündükleri şeyin olma olasılığını arttıracağını hissederler. Ancak bu düşünce şekli yanlıştır. Bu düşünce şekli neden yanlıştır? Çünkü örneğin arkadaşınızın, bir aile üyenizin ya da tanıdığınız birisinin kalp krizi geçirmesini istemekle o kişinin kalp krizi geçirme olasılığını arttıramazsınız. Düşüncelerinin o kişinin kalp krizi geçirmesi konusunda böyle bir etkisi yoktur. Ayrıca, aklınıza böyle düşüncelerin gelmesi sizin kötü bir insan olduğunuzu da göstermez. Az önce dediğimiz gibi bu türdeki düşüncelerin insanın aklına gelmesi tamamen normal bir şeydir. Bu tip düşüncelerin dışarıdaki olaylar üzerine herhangi bir etkisi yoktur."

PE FOR STRESS

İnsanlarda yüksek düzeyde strese yol açan birçok durum vardır. Bu durumlara tıkanan bir trafikte bulunmak, işten kovulmak, üniversiteye başlamak örnek verilebilir. Tüm dünyaya baktığımızda insanlar genellikle az ya da çok stres yaşarlar diyebiliriz. İnsanlar kendilerinde stresli hissettiklerinde buna eşlik eden baş ağrısı, kas gerginliği ve mide ağrısı gibi fiziksel sorunlar yaşayabilirler. Hatta bazen stres yüksek tansiyon ve ülser gibi daha ciddi sorunlara da yol açabilir. Çoğu zaman insanlar bu türden fiziksel problemler yaşadıklarında bunların stresle alakalı olduğunu fark etmezler. Her ne kadar stres gündelik hayattan tamamen çıkartılamazsa da insanlar yaşadıkları stresi en az düzeye indirebilmek için stresle baş etme tekniklerini kullanabilirler. Bu teknikler egzersiz, sağlıklı beslenme ve düzenli uyku uyuma gibi çeşitli yaşam tarzı değişikliklerini amaçlar. Stresle daha iyi baş ederek insanlar hayat kalitelerini arttırabilirler.

APPENDIX C

CURRICULUM VITAE

Personal Information

Surname, Name: Demirsöz, Talat

E-mail: talatdemirsoz@gmail.com

Language Skills

Good command of English

Computer Skills

MS Office

Statistical Package for Social Sciences

Lisrel

Education

PhD., Clinical Psychology, 2014, Middle East Technical University, Ankara, Turkey. CGPA: 4.00 / 4 (Official Transcript available upon request)

M.S., Clinical Psychology, 2007, Middle East Technical University, Ankara, Turkey. CGPA: 3.64 / 4 (Official Transcript available upon request)

B.S., Department of Psychology, 2005, Middle East Technical University, Ankara, Turkey. CGPA: 3.58 / 4 (Official Transcript available upon request)

Internships

Ege University Faculty of Medicine, Psychiatry Clinic, July, 2004, İzmir

Thematic Apperception Test (TAT) Training by Associate Proffesor Azmi Varan

Transactional Analysis Training by Associate Professor Azmi Varan

Yıldırım Beyazıd Education and Research Hospital, Dışkapı, Ankara, February, 2005- May 2005, Ankara

Psychological Assessment:

MMPI

Beier Sentence Completion Test (BSCT)

WICS-R

WAIS-R

Psychological Consultancy and Guidance Unit (PCGU), METU, September, 2006-December, 2006, Ankara

Conducting Psychotherapy under Supervision

Psychological Assessment

Gülhane Military Medical Academy, Child Psychiatry Clinic, February 2007- May 2007, Ankara

Observation of Play Therapy Sessions

Observation of the Psychological Assessment Procedure of Children

Hacetepe University Hospital, Psychiatry Clinic, Ankara, September 2011- January 2012

Conducting Psychotherapy and Psychological Assessments

Conducting CBT for patients of Anxiety/Eating Disorders

Carrying out/Evaluating Psychological Tests (e.g. MMPI, Rorschach, WAIS, Neuropsychological Tests)

Hacetepe University Hospital, Child Psychiatry Clinic, Ankara, February 2012 – May 2012

Observation of Play Therapy Session

Observation of the Psychological Assessment Procedure of Children

Professional Experience

Duyum Special Education and Rehabilitation Center, Ankara, September 2005- May 2006

Treatment of Children with Speech Disorders; e.g. Stuttering, Articulation Disorder

75. Yıl Special Education and Rehabilitation Center, Ankara, January 2008- July 2008

Treatment of Children with Speech Disorders, e.g. Stuttering, Articulation Disorder.

Yankı Psychological Counselling Center, Ankara, January 2008- July,

Carrying out Psychological Assessment

Conducting Psychotherapy

Hacetepe University Hospital, Psychiatry Clinic, Ankara, August 2008- to date

Participating in Training Program of Psychiatry Assisstants

Supervised in Cognitive-Behavioral Therapy by Prof. Elif Barışkın (August 2008- to date)

Supervised in Pscyhodynamic Psychotherapy by Prof. M. Kazım Yazıcı (August 2008 – to date)

Supervised in Gestalt Therapy by Prof. Suzan Özer (August, 2011- to date)

Conducting Cognitive Behavioral Therapy (CBT)

Conducting CBT for patients of Anxiety Disorders, Eating Disorders, Mood Disorders

Conducting CBT for Patients with Psychosis

Psychological Assessment

Carrying out/Evaluating Psychological Tests (e.g. MMPI, Rorschach, WAIS, Neuropsychological Tests)

Reviewing Articles in Turkish Journal of Psychiatry (October, 2008- to date)

Conference Presentations

Demirsöz, T**.** & Ayvaşık, B. (July 2011). Underlying Possible Mechanisms of Memory Distrust As a Function of Repeated Checking In a Nonclinical Student Sample. (Oral Presentation).12 th European Congress of Psychology (ECP 2011), Lütfü Kırdar Congress Center, Istanbul, Turkey.

Haldun, S., Demirsöz, T., Taş, C., Yazıcı, A. (October 2011). Cognitive Behavioral Therapy in Schizophrenia. In Current Approaches towards Schizophrenia (Panel). 47 th National Congress of Psychiatry, Antalya, Turkey

APPENDIX D

TURKISH SUMMARY

1. Giriş

İstenmeyen bilişsel aktivite sıklıkla insanın düşünce akışında 'davetsiz misafir' olarak belirir. Bilişsel bir gözlükle endişe, obsesif düşünce, ruminasyon bu istenmeyen tipteki aktivitenin örneklerindedir. Normal olarak kabul edilen istenmeyen düşünceler de yine klinik psikolojinin özel bir önem verdiği istenmeyen tipteki bilişsel aktivitenin bir başka çeşididir. Bu son düşünce çeşidinin birçok psikolojik bozukluğun gelişiminde önemli role sahip olduğu düşünülmektedir (Clark, 2005).

Özellikle, Obsesif Kompulsif Bozukluğun (OKB) bilişsel davranışçı modellerine göre, normal kabul edilen bu düşüncelerin obsesyonlara temel teşkil ettiği önerilmektedir. Bu modellerde bu istenmeyen tipteki düşüncelerle ilgili inançların ve işlevsel olmayan baş etme stratejileri gibi bazı faktörlerin istenmeyen düşüncelerden obsesyonlara dönüşte etkili olduğu ileri sürülmektedir (Clark & Purdon, 1993; Rachman, 1993). Bu modeller istenmeyen düşüncelerin obsesyonlara varıp varmamasının özel olarak bu istenmeyen düşüncenin nasıl değerlendirildiğine ve bu düşünceye eşlik eden bir etkisizleştirme tepkisinin var olup olmamasına bağlı olduğunu öne sürmüşlerdir (Clark, 2005). Bu çalışma ağırlıklı olarak, işlevsel olmayan baş etme stratejilerinden ziyade bilişsel faktörlere odaklanacaktır.

1.1. Düşünce Eylem Kaynaşması (DEK)

Bu bilişsel faktörlerle ilgili olarak, düşünce eylem kaynaşmasına (DEK) yönelik inançların bahsi geçen gidişatta rol oynadığı düşünülmektedir. DEK kişinin düşünceleriyle eylemlerini birleştirme eğilimi olarak tanımlanmaktadır. Bu kavramın birbirinden ayrı iki bileşeni olduğu iddia edilmektedir. Olabilirlik bileşeni kabul

edilemez bir olayla ilgili düşünmenin o olayın gerçekte olma ihtimalini arttırdığı ve kişinin kendisine ve diğerlerine yönelik bir zarara yol açtığına dair inancı kapsar. Ahlak bileşeninde ise kabul edilemez bir davranışın düşünülmesinin özel olarak o davranışın yapılmasıyla eş değer tutulduğuna bir atıf söz konusudur (Shafran, Thordarson, & Rachman, 1996).

DEK'le ilgili çalışmalara dair araştırmaların büyük çoğunluğunun özbildirim yöntemlerine dayalı olduğu kabul edilmektedir ve bu yöntemin obsesif kompulsif (OK) deneyime benzer bir deneyimi ölçebilme konusunda yetersiz olduğu düşünülmektedir (de Silva et al., 2003). Öte yandan, bu kavramın ölçülmesi konusunda deneysel çalışmaların daha çok tercih edildiği kabul edilmektedir. Bu noktada, Rachman ve arkadaşları (1996) DEK'in olabilirlik bileşenini teşvik etmek için ve katılımcıların değerlendirme/takdir etme süreçlerini ölçebilmek amacıyla Cümle Tamamlama Ödevi olarak isimlendirilen bir paradigma icat etmişlerdir (Rachman, Shafran, Mitchell, Trant, & Teachman, 1996). Bu paradigmada, katılımcılardan "İnşallah _____ trafik kazası geçirir." sıkıntı oluşturan cümlesine sevdikleri birinin ismini yazmaları istenmektedir ve hemen adından bu olayı gözlerinin önünde canlandırmaları istenmektedir (Marino-Carper, Negy, Burns & Lunt, 2010).

Bu paradigm içinde en önemli yeri kaplayan bileşen girici/mütecaviz düşüncedir. Mütecaviz düşüncelerle ilgili literatür incelendiğinde, bu düşünceler istenmeyen ve tekrarlı olan herhangi bir belirgin derecede farklı/müstakil bilişsel olgu olarak tanımlanmıştır. Önemli özelliklerine bakıldığında belirgin derecede farklı olan düşüncenin zihnin bilinçli farkındalık ortamına çok "ani" şekilde giriş yaptığını belirtilmektedir. Ayrıca, herhangi bir düşüncenin, imajın ya da dürtünün bu grubun içinde yer aldığı bildirilmektedir (Clark, 2005).

Beck'in (1976) önerdiği gibi, bazı bozukluklarda bazı tip düşünce içeriklerine daha sık rastlanmaktadır. Örnek olarak, kayıp ve başarısızlık içerikli düşüncelerin depresif durumlarda, tehdit ve kırılganlık içerikli düşüncelerin anksiyeteli durumlarda

ve haksızlık ve adaletsizlik algısının daha baskın olduğu düşünce içeriğinin de kızgınlık ve öfkeyle ilgili durumlarda baskın olduğunu söyleyebiliriz.

Devam edildiğinde, mütecaviz düşünceler içsel bir kaynağa atfedilirler. Bu düşünceler ayrıca kabul edilemez ve istenmeyen düşünceler olarak yaşanmaktadır. Hatta bu düşünce grubu bu yolla ilham, gündüz düşleri, hayal gibi *istendik* bilişsel olgularla (düşüncelerle) ayrıştırılabilmektedir. Ek olarak, bu düşünce çeşidinin bir özelliği de süregiden bilişsel ve davranışsal aktiviteyi kesintiye uğratmasıdır. Böyle olduğu için de kişinin dikkatini var olan bilişsel uğraşıdan başka bir yöne sevk etmektedir. Bu düşünceler farkındalık alanına bir kez girdiler mi kişinin bu düşünceleri yok saymasının çok zor olduğu da bahsedilen özellikler içindedir. Bu noktadan devam edildiğinde bu düşünceler olumsuz duygulanımla eşleştirildiğinden ve kişinin iradesinin dışında oluştuğundan yine kişiyi bu düşünceleri kontrol etmeye yönlendirdiği belirtilmektedir (Clark, 2005). Ancak, kontrol etme kişinin çok başarılı olduğu bir uğraşı olamamaktadır. Bu da bu grup düşüncenin önemli bir özelliği olarak kaydedilebilir.

Yapılan araştırmalara baktığımızda normal kabul edilen kişilerin birçoğunun (yaklaşık %80-90'ı) obsesyonlara çok benzer *içerikte* mütecaviz düşünceler yaşadığı bildirilmiştir (de Silva, 2003). Normal kabul edilen bu tür düşüncelerle klinik obsesyonlar arasında nitelik farkından çok derece farkı olduğunu belirtebiliriz. Klinik obsesyonların daha sık, daha sıkıntı verici, daha kontrol edilemez ve daha kabul edilemez algılandığı söylenebilir (Clark, 2005). Ayrıca bu tür obsesif nitelikteki düşüncelerin normal kabul edilen mütecaviz nitelikteki düşüncelerden daha kolay bir şekilde o andaki faktörlerden etkilendiği bildirilmektedir. Bu algılanma biçimdeki farklılık kişilerin klinik obsesyonlara verdiği tepkide de farklılığa yol açtığı literatürde tartışılmaktadır. Obsesyonlara daha fazla direnme, nötralizasyon denilen obsesyonların yol açtığı sıkıntıyı bertaraf etmeye çabalamada artma, nafile diye tanımlanabilecek düşünceyi kontrol etme stratejilerine yönelme gibi tepkiler örnek olarak verilebilir.

Ayrıca, klinik obsesyonların daha çok suçluluk hissiyle birlikte olduğunu belirtilmektedir.

Özet olarak, mütecaviz düşünceler üzerine söz söyleyen yorumlama modeli düşüncenin içeriğine ve yorumlanma sürecine vurgu yapmaktadır. Yani bu herkeste olabilecek mütecaviz düşüncelerin hatalı şekilde yorumlanması ve bu sürecin sonuçları tartışmalarda geniş yer kaplamaktadır. Başka bir açıdan mütecaviz düşünceleri ele alan bir diğer yaklaşım "çıkarımsal karmaşa" denilen kavramı ön plana getirmektedir. Tanım olarak, bu, mütecaviz düşünceyle ya da obsesyonla (örneğin, elbiselerim kirlendi mi?) ortaya çıkan bir olasılığın duyu organları tersini işaret etse de gerçek olarak kabul edilip kişinin ona göre davranmasıdır. Kişi o sırada orada olana değil, olabilecek olana tepki vermektedir, denilmektedir. Buradaki kişinin çıkarımı duyu organlarının söylediği şeyden uzak ve öznel bir çıkarım olmaktadır.

1.2. Obsesif kompulsif hastaların deneyiminin benzerini oluşturmak

Bahsedilen literatüre ek olarak, bu çalışma sıkıntı veren istem dışı düşünceyi deneyimleyen (örneğin, ya yakından tanıdığım biri trafik kazası/kalp krizi geçirirse?) ve hemen ardından korkulan durumla ilgili olabilirlik düzeyinde bir artış algılayan OK hastanın durumunu taklit etmeye çalışacaktır. Bu deneyimle ilgili iki önemli kısım göze çarpmaktadır. Biri böyle bir olayla alakalı istenmeyen düşünce, diğeri ise bu olayın inanılırlığıyla ilgili kişinin değerlendirmesidir.

Hastanın deneyiminin benzerini oluşturma durumuyla ilgili, rahatsız edici bir düşünceye ilişkin DEK kavramının teşvik edilmesi ve bu durumun değerlendirilmesine yönelik süreçler konuyla bağlantılı görünen bir yön olarak ortaya çıkmaktadır. Ancak, DEK içeren bir düşünce içeriğindeki olayla ilgili olayın olabilirliğine yönelik kişinin inanılırlık düzeyini hesaba katarsak bu DEK kavramının teşvikinin hastaların durumlarının benzerini oluşturma konusunda yetersiz kaldığı düşünülebilir (Marcks & Woods, 2007). Bu açıdan, konuyla bağlantılı bir başka yöne ihtiyaç duyulmaktadır. O

yön de olayın olabilirlik düzeyindeki artıştır. Bu yönün literatüre dayanarak tekrarlayıcı tipteki akıl yürütme süreçleriyle güçlendirilebileceği düşünülmüştür.

1.3. DEK-Teşviki ve Tekrarlayıcı tipteki akıl yürütme

Tekrarlayıcı tipteki akıl yürütme konusuyla ilgili OK hastaların içinde bulundukları koşullarla ilgili güvensizlik yaşayabileceği öne sürülmektedir. Algıladıkları tehdit durumlarına yönelik hazırlıklı olabilmek için hastaların düşünmeye bir olayla başlayıp düşünce süreçlerini insanı dehşete düşüren bir felaket durumuyla sonuçlandırdıkları bildirilmektedir. O açıdan, OK hastaların görünürde nötr bir durumla olası görünmeyen bir felaket arasında parça parça, uzun bir şekilde ve adım adım akıl yürütme eğiliminde oldukları belirtilmektedir. En sonunda da, bu tekrarlayıcı tipteki akıl yürütme sürecinin bu ihtimal dışı sonucun öznel ihtimalini/inanılırlığını arttırdığı ileri sürülmektedir (Giele, van den Hout, Engelhard, Dek, & Hofmeijer, 2011).

Tekrar DEK kavramına dönüldüğünde, bu konuyla ilgili iki araştırma hattı göze çarpmaktadır. Biri DEK kavramını teşvik etmek için Rachman'ın paradigmasını kullanan hattır. Bu paradigmayı kullanan araştırmalarda bu kavramın teşviki sırasında *olabilirlik* bileşeni bir şekilde göz ardı edilmiş görünmektedir. Örneğin, bir çalışmada bu kavramın teşvikinden sonraki kaygı ve suçluluk düzeyleri gibi katılımcıların süreci değerlendirmeleriyle ilgili derecelendirmeleri görece yüksekken katılımcıların kazanın 24 saat içindeki gerçekleşme olasılığına verdikleri puan yine görece olarak bir hayli düşük görünmektedir. Bu bilgilerle denilebilir ki katılımcılar deneysel manipülasyonla rahatsız edici bir düşünceyle meşgul olabildikleri için kendilerini kaygılı ve suçlu hissedebiliyorlar ancak rahatsız edici düşüncelerinin içeriğindeki olayın 24 saat içindeki olma olasılığını çok düşük görmektedirler (Marcks & Woods, 2007). Ancak bu sorunun tam olarak DEK kavramının olabilirlik boyutunu ölçemediği düşünülmüştür.

Diğer taraftan, tekrarlayıcı tipteki akıl yürütmeyi kullanan başka bir araştırma hattı daha vardır. Yukarıda bahsedildiği gibi, OK benzeri tekrarlayıcı tipteki akıl yürütmenin ihtimal dışı olan felaketleri daha inanılır hale getirdiği belirtilmektedir (Giele ve ark., 2011). Makalelerinde, yazarlar görünüşte nötr kısa hikayeler kullanmışlardır ve her bir kısa hikayeyi OK benzeri kötü bir sonuç takip etmiştir. Bu kısa hikâye bir örnek şöyledir: "Gözünüzün önünde canlandırın ki bir Cumartesi gecesi 9 aylık yeğeninize bakıyorsunuz. O sizin kucağınızda otururken siz de televizyon izliyorsunuz. Yeğeniniz ağlamaya başlıyor. Onu rahatlatmak için emziğini veriyorsunuz. Ancak kazara yere düşüyor. Çok dikkatli şekilde emziği siliyorsunuz ve yeğeninize veriyorsunuz." Bu kısa hikâye OK benzeri şöyle kötü bir sonuçla bitmiştir: "Bir gün sonra yeğeniniz ölüyor ve kendinizi suçlu hissediyorsunuz." (Giele ve ark., 2011).

Bu çalışmada katılımcılardan verilen zaman diliminde ya nötr durum ve OK benzeri kötü sonuç arasında adım adım akıl yürütme yapmaları ya da bulmaca çözmeleri istenmiştir. Bu makalenin bulgularına göre, adım adım akıl yürütme yapan katılımcılar böyle bir akıl yürütme yapmayanlara göre kısa hikayede verilen durumun OK benzeri kötü sonuca yol açtığına daha çok inanmışlardır (Giele ve ark., 2011). Bununla birlikte, bu çalışma sunulan nötr durum (neden olarak) ile OK benzeri kötü sonuç (sonuç olarak) arasındaki nedensel ilişki için inanılırlığı arttırıyor görünse de bu çalışmadan kullanılan bu kısa hikaye ve sonucunda DEK'e yönelik bir teşvikin olduğu bir deneysel manipülasyon yoktur.

1.4. Ambivalans ve Egoya yabancılık

Bu yüzden, şimdiki çalışma bu iki araştırma hattının güçlü yönlerini birleştirmeye amaçlamaktadır. Bu çalışma DEK teşviki ile tekrarlayıcı akıl yürütme süreçlerini tek bir metodoloji içinde bir araya getirmeye çabalamaktadır. Bu yapılabilirse hem ambivalans hem de egoya yabancılık kavramları deneysel manipülasyona eklenebilecek ve böylece OK benzeri bir deneyimin taklit edilmesi

kolaylaşacak diye düşünülmektedir. Bu bakış açısı ile şimdiki çalışmanın vurgusu bu iki kavram üzerindedir.

OKB alanında birçok tanınmış yazar istenmeyen düşüncelerin ayırt edici olmasını ve ayrıca en önemli görünen özelliği olarak bu düşüncelerin kişinin ahlaki değerleriyle, amaçlarıyla ve tercihleriyle uyumsuzluk içinde olmasını görmektedirler (Clark & O'Connor, 2005). Başka bir deyişle, bir düşünce egoya yabancı şekilde deneyimlenirse o zaman daha özel olarak dikkat çeker ve önem arz eder (Clark, 2004; Purdon, 2001).

Bu çalışmanın amacı çerçevesinde bir örnek vermek gerekirse, bir düşünce içeriğinin bu şekilde kişinin ahlaki değerleriyle ve amaçlarıyla tutarsızlık içinde olması için ancak kişilerin hem rahatsız edici bir düşünceyle meşgul olmaları hem de o düşünce içeriğindeki olayla ilgili artmış bir *olabilirlik* seviyesine sahip olmaları gerekmektedir. Az önce yukarıda bahsedilen 2 güçlü yönün birleştirilmesinin kişilerde/katılımcılarda egoya yabancılık deneyimini oluşturmaya katkı sağlayabileceği düşünülebilir.

Ayrıca, ambivalan OK deneyimi anlayabilme noktasında çok merkezi bir terimdir. Ambivalan dürtü aynı anda bir nesneye iki birbirinin zıddı eğilim, duygu, istek ve dürtüye sahip olunmasıdır (Larsen, 2007). Örneğin, Reed (1985) klinik düzeyde kontrol kompulsiyonları olan kişilerle yaptığı görüşmelerden belirsizliğin ambivalan bir doğada olduğu sonucuna varmıştır. Reed bu görüşmelerde hastaların "hafızam yerinde ama yine de net değil", "Bunu yaptığımı hatırlıyorum bir şekilde ama çok flu bir şekilde hatırlayabiliyorum", "bunu yaptığımı genelde hatırlarım ama hafızam bir şekilde net değil işte" dediklerini bildirmişlerdir (Reed, 1985; aktaran van den Hout & Kindt, 2004).

Şimdiki çalışmanın bakış açısından denilebilir ki katılımcıların ambivalansı olabilirlik/inanılırlık bileşeni yardımıyla oluşturulabilir. Bu çalışmadaki deneysel manipülasyon içerisinde ambivalan bir doğa yakalayabilmek için katılımcılar aynı anda manipülasyonun içeriğine hem itibar etmeliler hem de itibar etmemelilerdir. Tekrarlı

tipteki akıl yürütme ile artmış düzeyde bir inanılırlık düzeyi yakalanabilirse o zaman katılımcıların manipülasyonun başlarında sahip oldukları düşünce içeriğine olabilirlik açısından itibar etmeme pozisyonlarının yanına yine düşünce içeriğine olabilirlik açısından itibar ettikleri bir pozisyonun eklenebileceği öne sürülebilir.

Literatür bilgileri ışığında, çalışmanın amacı (bir neden olarak) durum 1'in (bir sonuç olarak) durum 2'ye olan nedensel ilişkisi için görünüşte nötr bir durumdan mümkün görünmeyen OK benzeri korkulan bir sonuca doğru OK benzeri adım adım akıl yürütmenin belirsizlik hislerini harekete geçirip geçirmeyeceği ve bu sonuç için inanılırlık düzeyini arttırıp arttırmayacağını test etmektir. Burada zaman içindeki (olası) değişime odaklanacaktır.

Ayrıca, çalışmanın bir diğer amacı değerlendirme zamanlarında (üç kez) nedensel ilişki ile ilgili (sorumlu, pişman, suçlu hissetmeleri, kısa hikayelerdeki temalarla ilgili düşüncelerin etkilerini bastırma ve etkisizleştirme dürtülerinin olup olmadığı gibi konularda) katılımcıların değerlendirmelerini ölçebilmektir. Ayrıca, 3. zamanda verilen bu çalışma farklı tipteki verilen psikoeğitimlerin katılımcıların değerlendirme dereceleri üzerindeki olası etkilerini değerlendirmeyi amaçlamaktadır. Bu çalışma bünyesinde öğrenci örnekleminden gelen verilerin OKB örneklemiyle kıyaslanması amaçlanmaktadır.

1.5. Çalışmanın Hipotezleri

Nedensel ilişkinin inanılırlığı, nedensel ilişki hakkında belirsizlik, düşünce eylem kaynaşmasının olabilirlik alt boyutu değişkenleriyle ilgili çalışmanın hipotezleri çok benzer şekilde kurulmuştur. Bu yüzden hipotezler sadece nedensel ilişkinin inanılırlığı değişkeni esas alınarak açıklanacaktır.

1. Çalışmanın hipotezine göre zamanın ana etkisi anlamlı olacaktır. Şöyle ki, katılımcıların ikinci değerlendirme zamanındaki nedensel ilişkinin inanılırlığı puanları üçüncü değerlendirme zamanındaki puanlarından anlamlı derecede yüksek olacaktır. Ayrıca, katılımcıların ikinci değerlendirme zamanındaki

puanları birinci değerlendirme zamanındaki puanlarından anlamlı derecede yüksek olacaktır.

2. Ayrıca, yine çalışmanın hipotezine göre grubun ana etkisi anlamlı olacaktır. Şöyle ki, OKB gruplarındaki katılımcıların nedensel ilişkinin inanılırlığına ait puanları yüksek OK grubundaki katılımcılardan anlamlı ölçüde daha fazla olacaktır. Benzer şekilde, yüksek OK grubundaki katılımcıların aynı değişkendeki puanları düşük OK grubu katılımcılardan anlamlı derecede yüksek olacaktır.
3. Çalışmanın hipotezine göre psikoeğitimin ana etkisi anlamlı olacaktır. Şöyle ki, DEK'le ilgili bilgilendirme koşulundaki katılımcıların nedensel ilişkinin inanılırlığına ait puanları stresle ilgili bilgilendirme grubundaki katılımcıların puanlarından anlamlı derecede yüksek olacaktır.

Katılımcıların sorumlu, rahatsız, pişman, suçlu hissetme ve düşünce eylem kaynaşmasının ahlakilik alt boyutu gibi diğer alanlarla ilgili değerlendirmelerle ile ilgili derecelendirmelerinde hipotezler birbirine benzer şekilde kurulmuştur. O yüzden, tüm hipotezler katılımcıların sorumlu hissetme derecesi temel alınarak sunulacaktır.

1. Çalışmanın hipotezine göre grubun ana etkisi anlamlı olacaktır. Şöyle ki, OKB gruplarındaki katılımcıların nedensel ilişkiyle ilgili sorumluluk hissine ilişkin puanları yüksek OK grubundaki katılımcılardan anlamlı ölçüde daha fazla olacaktır. Benzer şekilde, yüksek OK grubundaki katılımcıların aynı değişkendeki puanları düşük OK grubu katılımcılardan anlamlı derecede yüksek olacaktır.
2. Çalışmanın hipotezine göre psikoeğitimin ana etkisi anlamlı olacaktır. Şöyle ki, DEK'le ilgili bilgilendirme koşulundaki katılımcıların nedensel ilişkiyle ilgili sorumluluk hissine ilişkin puanları stresle ilgili bilgilendirme grubundaki katılımcıların puanlarından anlamlı derecede yüksek olacaktır.

2. Yöntem

2.1. Tarama

Bu çalışmanın materyalinin anlaşılabilir hale gelmesi için 38 kişiyle pilot çalışma yürütülmüştür. Metnin son hali ve tüm diğer protokol Orta Doğu Teknik Üniversitesi Uygulamalı Etik Araştırma Merkezi insan araştırmaları etik kurulu tarafından ve Hacettepe Üniversitesi Tıp Fakültesi Psikiyatri Anabilim Dalı tarafından onaylanmıştır.

2.2. Katılımcılar

Orta Doğu Teknik Üniversitesi'nin çeşitli bölümlerinden 517 (327'si kadın olmak üzere) öğrenci çalışmaya katılmıştır. Kafa travmasının bulunması, düzenli ilaç kullanmayı gerektirecek kronik hastalık öyküsü ve hâlihazırda psikotrop ilaç kullanımı çalışmanın dışlama kriterlerini oluşturmaktadır.

2.3. Araçlar

Çalışmanın deney aşamasındaki grupları belirlemek için Padua Envanteri-Washington Eyalet Üniversitesi Revizyonu (PE-WEÜR), Düşünce Eylem Kaynaşması Ölçeği (DEKÖ), Beck Depresyon Envanteri (BDE) ile Demografik Bilgi Formu kullanılmıştır.

2.3.1. Demografik Bilgi Formu

Katılımcıların yaş, cinsiyet, eğitim durumu, psikotrop ilaç kullanım ve/veya psikolojik hizmet alıp almadığı ile ilgili bilgileri alabilmek için katılımcılara demografik bilgi formu verilecektir. Ayrıca, kafa travması ve düzenli ilaç kullanmayı gerektirecek kronik hastalık öyküsü de demografik bilgi formunda yer almıştır.

2.3.2. PE-WEÜR (Burns, Keortge, Formea, Sternberger, 1996)

PE-WEÜR Padua Envanterinin kısaltılmış formudur (Sanavio, 1988). PE-WEÜR bir öz bildirim ölçeği olup obsesyonların ve kompulsiyonların sıklığını ve şiddetini değerlendirir (Burns, Keortge, Formea, & Sternberger, 1996) 39 maddesinde her bir ifade 0 (Hiç) ile 4 (Çok fazla) arasında puanlanır. PE-WEÜR'nun alt ölçekleri kişinin kendisine/başkalarına verebileceği zarar ile ilgili obsesyonel düşünceler alt ölçeği (7 madde), kişinin kendisine/başkalarına verebileceği zarar ile ilgili obsesyonel dürtüler alt ölçeği (9 madde), Kirlenme obsesyonları ve temizlik kompulsiyonları alt ölçeği (10 madde), kontrol etme kompulsiyonları alt ölçeği (10 madde), Giyinme/yavaşlık kompulsiyonları alt ölçeği (3 madde) şeklinde dağılmıştır (Jonsdottir & Smari, 2000). PE-WEÜR'nun kabul edilebilir düzeyde güvenilirliğe (α = .92; Burns ve ark., 1996) ve test-tekrar test güvenirliğine (α= .72) (Jacobi, Calamari & Woodard, 2006) sahip bir ölçek olduğu düşünülmektedir. Ölçeğin Türkçe'ye Yorulmaz, Dirik, Karancı and Burns (2006) tarafından adaptasyonu yapılmıştır. Ölçek ve alt maddelerinin yüksek düzeyde iç tutarlılığa (α = .93 - .73) ve yüksek düzey test-tekrar test güvenirliğine sahip olduğu belirtilmektedir (α = .91 - .77) (Yorulmaz, Dirik, Karancı & Burns, 2006).

2.3.3. DEKÖ (Shafran, Thodarson and Rachman, 1996).

Shafran, Thodarson and Rachman (1996) tarafından geliştirilen ölçek düşüncelerle eylemler arasındaki psikolojik düzeydeki kaynaşmayı ölçmeyi hedeflemektedir. Bir öz bildirim ölçeği olan DEKÖ 19 maddeden oluşmaktadır ve her bir madde 0 (tamamen katılıyorum) ile 4 (hiç katılmıyorum) puan arasında değerlendirilmektedir. DEKÖ puanları 0 ile 76 arasında değişmektedir. Yüksek puanlar güçlü düşünce eylem kaynaşmasına işaret etmektedir. DEKÖ'nin kabul edilir psikometrik özellikleri vardır. Türkçe'ye adaptasyonun da psikometrik özelliklerinin iyi düzeyde olduğu bildirilmiştir (Yorulmaz, Yılmaz & Gençöz, 2004).

2.3.4. BDE (Beck & Steer, 1984)).

Beck Depresyon Envanteri 21 maddelik öz bildirim ölçeğidir. Bilişsel, duygusal, somatik alanlardaki depresif belirtilerin var olup olmadığını ve ciddiyet derecesini değerlendirir. Beck depresyon envanterinin her bir maddesi 4 ifadeden oluşmaktadır. Bu ifadeler nötr bir durumdan başlayan ve maksimum ciddiyet düzeyine tedrici şekilde geçiş yapan ifadelerdir. Bu envanter hem klinik hem de klinik olmayan gruplarda yeterli düzeydeki psikometrik özellikleriyle yaygın şekilde kullanılan bir envanterdir (Beck & Steer, 1984). Envanterin Türkçe adaptasyonu Hisli tarafından geliştirilmiştir. Türkçe adaptasyonun psikometrik özellikleri tatmin edici düzeyde bulunmuştur (1988; alıntılandı Şahin & Savaşır, 1997).

2.3.5. İstem Dışı Düşünceleri Yorumlama Envanteri (İDDYE) (Obsesif Kompulsif Bilişleri Çalışma Grubu (OKBÇG), 2005))

31 maddelik bir öz bildirim ölçeği olan İDDYE istem dışı düşüncelerin olumsuz değerlendirilmesini incelemektedir. Öncelikle ölçeğin verildiği kişilerden kendi istem dışı düşüncelerine bir ya da iki örnek oluşturmaları istenmektedir. Daha sonra bu kişiler istem dışı düşünceleriyle ilgili inançlarının düzeyini 0 (Bu düşünceye hiç inanmadım) ile 100 (Bu düşüncenin doğruluğuna tamamen inandım) puanları arasında derecelendirmeleri istenecektir. Bu ölçek güçlü geçerlik ve güvenirlik değerleriyle birlikte iyi düzeyde psikometrik özellik gösterdiği bildirilmiştir (OKBÇG, 2005).

Bu ölçeğin Türkçeye adaptasyonu Yorulmaz & Gençöz (2008) tarafından gerçekleştirilmiştir. Bu adaptasyonun da yine iyi düzeyde psikometrik özellik gösterdiği bulunmuştur (Yorulmaz & Gençöz, 2008).

2.4. Ana Çalışma

Metnin onaylanmasından sonra amaçlara uygunluk örneklemesi yöntemiyle katılımcılara ulaşılmıştır. Çalışmanın herhangi bir kısmıyla ilgili yüksek düzeyde stres

yaşadıkları anda çalışmadan çekilebileceklerinin bilgisini içeren tarama öncesi katılımcı bilgi formunu verilmiştir. Bunun ardından katılımcılar tarama envanterlerini doldurmuşlardır. Katılımcılar tarama envanterlerini doldurduktan sonra tarama sonrası katılımcı bilgi formunu almışlardır.

Bu envanterlerin doldurulmasını takiben katılımcıların PE-WEÜR'den aldıkları puanları temel alarak PE-WEÜR'nın ortalama değerinin yarım standart sapma üzerinde puan alan katılımcılar "yüksek PE-WEÜR grubu"na, bu envanterin ortalama değerinin yarım standart sapma altında puan alan katılımcılar "düşük PE-WEÜR grubu"na atanmışlardır.

2.4.1. Katılımcılar

295 öğrenci e-mail yoluyla çalışmanın ana kısmına davet edilmiştir. Ana çalışmaya gelen katılımcılara çalışma öncesi katılımcı bilgi formu verilmiştir. Deney sonrasında ise katılımcılara çalışma sonrası katılımcı bilgi formu verilmiştir. Yüksek PE-WEÜR grubundan olan katılımcılar ana çalışmaya geldiklerinde gruplarının ismi yüksek OK grubu, düşük PE-WEÜR grubundan olan katılımcılar ana çalışmaya geldiklerinde gruplarının ismi düşük OK grubu olarak isimlendirilmiştir.

Ek olarak, Hacettepe Üniversitesi Tıp Fakültesi Psikiyatri Bölüm Başkanlığının izniyle Hacettepe Üniversitesi Tıp Fakültesi Psikiyatri Polikliniğine başvuran 52 hasta çalışmaya katılmışlardır. OKB örneklemi için (bir diğer adıyla OKB hasta grubu için) prosedür yukarıda açıklanan öğrenci örneklemi için olanla aynıdır. Hastaların OKB tanıları DSM-IV-TR'ye göre kıdemli bir psikiyatri bölümü asistanı tarafından klinik görüşme ile teyit edilmiştir.

Bunun yanı sıra, çalışmadan dışlama kriteri hastada kafa travması öyküsü bulunması, psikoz, bipolar bozukluk, herhangi bir madde kullanım bozukluğu, organik mental bozukluk ve nörolojik bozukluk öykülerinin bulunması olarak kararlaştırılmıştır.

Hastanın OKB ile ilgili tanısı belirlendikten sonra, hastalar ana çalışma aşaması öncesinde tarama envanterlerini doldurmuşlardır. Tarama envanterlerini doldurmadan önce hastalara tarama öncesi katılımcı bilgi formu verilmiştir. Envanterler doldurulduktan sonra da hastalara tarama sonrası katılımcı bilgi formu verilmiştir.

Hastaların ana çalışma aşamasına girmeden yine bilgilendirilmiş onamları alınmıştır. Ayrıca deney sonrası da hastalara deneyle ilgili bilgilendirme yapılmıştır.

2.4.2. Araçlar

Her bir katılımcı standart laboratuvar koşullarında tek başına test edilmiştir. Birinci çalışmada katılımcılara iki deney grubu için de *dengelenmiş* bir şekilde durumları (durum 1) ve OK benzeri kötü sonuçları (durum 2) içinde barındıran iki birbirinden farklı kısa hikaye verilmiştir. Kısa hikayelerden birinde tema trafik kazası geçirmeyle ilgilidir. Diğerinde ise kısa hikaye teması kalp krizi geçirmeyle ilgilidir.

2.4.3. İşlem

Öncelikle katılımcılar ana çalışma sırasında kısa hikaye okumuşlar sonrasında ilk değerlendirmeye tabi tutulmuşlardır. Sonrasında, eğitim aşamasında, tüm katılımcılardan iki durumu içeren kısa bir hikaye okumaları bu hikâye içindeki durumları gözlerinde canlandırmaları istenmiştir. Öyle ki, birinci durumdaki gibi bir istek duymaları ve bu isteklerinin gerçekleştiğini göz önünde canlandırmışlardır.

Böylece, eğitim aşamasında, katılımcılar adım adım akıl yürütme konusunda eğitilmişlerdir. Şöyle ki, öncelikle standart bir metin üzerinden katılımcılar sadece istenen şeyin nasıl sırf onlar istedikleri için gerçekleştiğini okuyarak öğrenmişler. Sonra da eğitim aşamasının ikinci kademesinde katılımcılara nötr durum ile (durum 1) bu durumun göreceli şekilde nötr sonucu (durum 2) arasında 3 farklı biçimde olmak üzere bu isteğin nasıl gerçekleştiğini düşünmüşler ve kendi açıklamalarını yazmışlardır.

Sonra, katılımcılardan yine bir durum (durum 1) ile bu durumun sonucunu (durum 2) yukarıda bahsedilen aynı ilkelere dayanarak bu iki durumu birbirine 3 farklı açıklama oluşturmaları istenmiştir. Ancak bu kısımda önemle vurgulanması gereken şey katılımcılardan bu iki durumu birbirine "birbirinin aynısı olmayan 3 yoldan" bağlamaları istenmiştir. Katılımcılar bu aşamada birinci ve ikinci durumlar arasında çok farklı akıl yürütme yapmamaları yerine oluşturacakları açıklamalarda küçük adaptasyonlar yapmaları istenmiştir.

Eğitim aşamasının ardından, adım adım akıl yürütme safhasında katılımcılardan yine durum 1 ile durum 2 arasında bu iki durumu birbirine bağlayan 3 açıklamadaki basamakları (en çok 3 basamak olacak şekilde) oluşturmaları istenmiştir (Buradaki durumlar katılımcıların çalışmanın hemen başında karşılaştıkları durumların aynısıdır.)

Ek olarak, tüm katılımcılardan adım adım akıl yürütme sırasında durum 1 ile durum 2 arasında gerçekleşecek olan tekrarlayıcı tipteki akıl yürütme basamaklarını *o anda* yazmaları istenmiştir.

Katılımcılar birbirinin aynısı olmayan 3 yoldan basamakları oluşturduktan sonra ikinci değerlendirme aşamasını tamamlamışlardır.

Adım adım akıl yürütme görevinden sonra katılımcılar seçkisiz olarak iki gruba atanmışlardır. İlk grupta yani DEK'le ilgili bilgilendirilme grubunda katılımcılara bir bilgilendirme metnini okumaları istenmiştir. Bu materyal istem dışı düşüncelerin olağan olduğu ve bu düşüncelerin dış dünyadaki olaylarla ilgisiz olacağı bilgilerini içermektedir. İkinci grupta yani sadece Stresle ilgili bilgilendirme grubunda katılımcılar bilgilendirme ile akıl yürütme grubundaki katılımcılara sunulan prosedürün aynısından geçmişlerdir. Bu iki grubun prosedürel bakımdan tek farkı sadece akıl yürütme grubundaki katılımcıların bilgilendirmeyle akıl yürütme grubundaki katılımcıların düşünce eylem kaynaşmasıyla ilgili bilgi aldıkları yerde stresle ilgili bilgi almalarıdır. Her bir koşuldaki bilgilendirme metni Zucker, Craske, Barrios, and Holguin (2002)'in kullandıkları bir bilgilendirme metnidir.

Sonrasında, katılımcılar birinci ve ikinci değerlendirme aşamalarında kullanılan üçüncü bir değerlendirme aşamasına geçmişlerdir.

Tüm katılımcılar deney sonunda deneyin doğası ile ilgili bilgilendirilmişlerdir. Düşünce eylem kaynaşması ile ilgili ve özellikle bu kavramın olasılık boyutuyla ilgili bir bilgilendirme metni katılımcılara sunulmuştur. Her bir katılımcı çalışmanın prosedürüyle ilgili olası endişeleriyle ilgili konuşulabileceğine yönelik kendilerine öneride bulunulmuştur. Buna ek olarak, deneyci deney protokolünden kaynaklanabilecek herhangi bir sıkıntıya yönelik katılımcılara iletişim bilgilerini sağlamıştır.

2.4.4. Değerlendirme

Nedensel ilişkinin inanılırlığı

İnanılırlık 5'li Likert tipi ölçek üzerinden aşağıdaki ifade ile değerlendirilmiştir. 5'li Likert tipi ölçekte 1 Hiç katılmıyorum manasına gelirken 5 Tamamen katılıyorum ifadesini kapsamaktadır.

"Bu kalp krizini istemiş olmamın tanıdığım kişinin kalp krizi geçirmesine yol açmasını inandırıcı bulurum."

Nedensel ilişki hakkında belirsizlik

Belirsizlik 5'li Likert tipi ölçek üzerinden aşağıdaki ifade ile değerlendirilmiştir. 5'li Likert tipi ölçekte 1 Hiç katılmıyorum manasına gelirken 5 Tamamen katılıyorum ifadesini kapsamaktadır.

"Bu kalp krizini istemiş olmamın tanıdığım kişinin kalp krizi geçirmesine yol açmış olabileceğini düşünürüm."

Düşünce Eylem Kaynaşması

Düşünce eylem kaynaşmasının iki bileşeni (olabilirlik ve ahlak) sırasıyla 5'li Likert tipi ölçek üzerinden aşağıdaki ifadelerle değerlendirilmiştir. 5'li Likert tipi ölçekte 1 Hiç katılmıyorum manasına gelirken 5 Tamamen katılıyorum ifadesini kapsamaktadır.

“Bu kalp krizini istemiş olmamın tanıdığım kişinin kalp krizi geçirme riskini arttırdığını düşünürüm.”

“Bu kalp krizini istemiş olmamın tanıdığım kişinin kalp krizi geçirmesine yol açmam kadar kötü olduğunu düşünürüm.”

Katılımcılardan 5’li Likert tipi ölçeği kullanarak aşağıdaki ifadelere cevap vermeleri istenmektedir. 5’li Likert tipi ölçekte 1 Hiç katılmıyorum manasına gelirken 5 Tamamen katılıyorum ifadesini kapsamaktadır.

“Bu kalp krizini istemiş olmamdan ve ardından tanıdığım kişinin kalp krizi geçirmesinden dolayı kendimi sorumlu hissederim.”

“Bu kalp krizini istemiş olmamdan ve ardından tanıdığım kişinin kalp krizi geçirmesinden dolayı pişmanlık duyarım. “

“Bu kalp krizini istemiş olmamdan ve ardından tanıdığım kişinin kalp krizi geçirmesinden dolayı kendimi suçlu hissederim.”

“Tanıdığım kişinin kalp krizi geçirmesinin benden kaynaklı olduğunu düşünürüm.”

“Tanıdığım kişinin kalp krizi geçirmesinin benden başka nedenleri olduğunu düşünürüm.”

Herhangi bir etkisizleştirme ve/ya bastırma dürtüsüyle ilgili bilgi

Şu anda hissettiğiniz “rahatsızlık” düzeyinizi en iyi yansıttığını düşündüğünüz rakamı aşağıdaki derecelendirme ölçeğinde işaretleyiniz!

Eğer rahatsızlık hissettiyseniz bu rahatsızlığı azaltmak ya da ortadan kaldırmak için herhangi bir şey yaptınız mı? (örneğin herhangi bir davranışta bulunmak ya da herhangi bir düşünceyi aklınıza getirmek gibi)

Cevabınız evet ise ne yaptığınızı yazar mısınız?” sorusuyla değerlendirilecektir.

İstem Dışı Düşünceleri yorumlama Envanteri

Bu envanterin içindeki katılımcıların kendi istem dışı düşünceleri ürettikleri kısım çıkartılarak bu bahsedilen envanter kısmi olarak kullanılmıştır. Bu çıkarılan kısmın yerine katılımcılardan yukarıda bahsedilen durumları içeren kısa hikaye yoluyla

akıllarından geçirdikleri yakınlarının trafik kazası/kalp krizi geçirmeleriyle ilgili düşünce üzerine düşünmeleri ve İDDDE'nin maddelerini cevaplarken bu düşünceye atıf yapmaları istenmiştir.

2.4.5. Deneysel desen

Çalışmanın deseni 3 (Grup: düşük OK grubu, yüksek OK grubu ve OKB hasta grubu) X 2 (Psikoeğitim: DEK ile ilgili bilgilendirme ve Stresle ilgili bilgilendirme) X 3 (Zaman: birinci zaman, ikinci zaman ve üçüncü zaman) Karma Desen olarak belirlenmiştir.

3. Bulgular

Öncelikle veri temizliği yapılmıştır. Sonrasında ise 10 katılımcının ana çalışma verisi adım adım olan akıl yürütme kısmında istenen kriterlerine uymadıkları için analizden çıkartılmıştır. Kalan katılımcılarla yürütülen analizde her bir bağımlı değişken baz alınarak ayrı ayrı (tekil) varyans analizleri yürütülmüştür. Bu tekil analizler incelendiğinde 3 etkinin hemen hemen tüm analizlerde görüldüğü tespit edilmiş ve tartışma bu etkiler üzerinden yapılmıştır. Bu etkiler zamanın ve grubun ana etkisi ve psikoeğitim ve zamanın ortak etkisidir.

Grubun ana etkisindeki bulgular tutarlılık cinsinden düşük düzeyde bulunmuştur. Zamanın ve Psikoeğitimin ortak etkisinde bulgular şöyle özetlenebilir: 3. zamandaki DEK'e yönelik bilgilendirme pişmanlık, suçluluk hisleri ve DEK-Ahlak bileşenindeki skorları Stres'e gore düşürmezken, aynı bilgilendirme diğer bağımlı değişkenlerde skorların anlamlı düzeyde azalmasına yol açmıştır. Bu sonuçlar DEK-Ahlak bileşenin Türkiye toplumundaki yerini hesaba katarak tartışılabilir. Literatüre gore, Türkiye'deki insanların ahlaki olmayan düşüncelere daha hassas oldukları ve DEK-Ahlak bileşeninin en az DEK-olabilirlik bileşeni kadar OKB'de belirleyici olduğu öne sürülmektedir.

Zamanın ana etkisi özellikle ilk iki zamandaki ölçümlere odaklanılarak analizler ortak sonuçlar üzerinden tartışılmıştır. Nedensel ilişkinin inanılırlık ve belirsizlik ile ilgili bağımlı değişkenlerde ve DEK'in olabilirlik alt boyutundaki bağımlı değişkenlerin birbirlerine çok yakın/benzer davrandıkları; diğer bağımlı değişkenlerin de kendi içlerinde çok benzer şekilde davrandıkları tespit edilmiştir. Böylece iki öbek sonuç ortaya çıkmış görünmektedir. Sonrasında ikinci öbeğin de kendi içinde bilişsel (sorumluluk kavramıyla ilgili maddeler ve DEK'in ahlak alt boyutu) ve afektif (pişmanlık, suçluluk, rahatsızlık) olarak ikiye ayrılarak incelenebileceği düşünülmüştür.

Sonuçlar incelendiğinde ilk iki zaman içinde katılımcıların kısa hikayelerdeki iki durumun arasındaki nedensel ilişkiye ait inanılırlık, DEK-olabilirlik, şüphe gibi skorlarında anlamlı bir artış olurken bir taraftan da katılımcıların bu ilişkinin bilişsel ve duygusal açıdan değerlendirmelerine ilişkin skorları daha stabil görünmektedir, yani skorlarında anlamlı bir artış görün*me*mektedir. Başka türlü ifade edilirse, bir taraftan böyle bir nedensel ilişkinin olabilirliğine inançları artmakta ancak bu artmış inancın hemen yanında da bu nedensel ilişkinin olabilirliğine inan*ma*maktadırlar. Bu açıdan katılımcıların yaşadıkları durum daha önceden bahsedilen egoya uyumsuz durumla aynı durumdur. Bu açıdan OK benzeri bir deneyimin oluşturulabildiği düşünülmüştür.

4. Tartışma

4. 1. Bulguların Özetlenmesi ve Tartışılması

Zamanla ilgili olan analizlerin sonuçları özetlendiğinde, tekrarlı akıl yürütme öncesinde ve sonrasındaki katılımcıların skorları incelendiğinde, manipülasyon sonrasında katılımcılar hikayelerdeki nedensel ilişkinin katılımcılarla ilişkilendirilmesi hakkında skorlar artarken katılımcılar bu ilişkiyi hem bilişsel hem de duygusal açıdan kendilerinden uzaklaştırmaya/yok saymaya çalışmaktadır.

Bu deneysel desen temelinde katılımcılarda OK benzeri bir deneyimin oluşturulmasına gayret gösterilmişti. Verinin bu ikili davranışı egoya yabancı bu OK benzeri deneyimin oluşturulduğuna kanıt olarak verilebilir.

Bu OK deneyimin bir tarafı mütecaviz düşüncenin teşvik edilmesidir. Ancak girici/mütecaviz düşüncelerin kökeni bu noktada en az çalışılmış ve üstüne düşünülmüş alandır. Salkovskis 1988 yılında mütecaviz düşünceleri sorun çözmek amaçlı fikir üretmenin bir yönü olarak algılamıştır. Bu düşüncelere problem çözme anındaki beyin fırtınası oluşturmak metaforuyla yaklaşmaktadır. Kişinin problem çözerken tüm alternatifleri görebilmesine yardımcı olarak mütecaviz düşünceleri algılamaktadır. Bu bağlamda Salkovskis bu düşünceleri zihinde yer alan bir "hipotez üreticisinin" işi olarak düşünmektedir. Salkovskis bu öneriyle mütecaviz düşünceye karşı geliştirilen hakim olumsuz yargıdan uzaklaşmıştır.

Özellikle birinci gruptaki artış ve ikinci ve içinci gruplardaki stabilite bulguları konusundaki tartışmalara geçildiğinde, öncelikle denilebilir ki, dış dünya belirsiz/birden fazla anlama gelen yapı içindedir. Bu denli belirsiz bir dünyada karar vermek herkes için zordur. Ancak OKB hastaları için bu süreç daha da zor olmaktadır. Bu belirsizlik içinde ikili zıtlıklardan müteşekkil yapıdaki zihinsel temsiller insanın (herkesin) işini kolaylaştırır görünmektedir. Bu çerçevede tartışmayı derinleştirme amacıyla psikolojideki temsil kavramı bu tartışma hattına dahil edilebilir. Psikolojinin temel sorusunu temel sorularından birisi "dış dünyanın temsil edilme süreci nasıldır?" sorusudur. Bu temsili İngilizcedeki "representation" kelimesinin karşılığı olarak kullanılmaktadır. Öncelikle sunulmuş, takdim edilmiş (presented) bir dış dünyadan bahsedilmektedir. Sonrasında da insanlar onu tekrardan kendilerine takdim ediyorlar, denilmektedir (re-presenatition).

Burada insan sistemine yardım eden mekanizma "kategorize etme yeteneği"dir denilebilir. Takdim edilmiş doğanın çeşitli yönlerine bakıldığında gece-gündüz, var olmak-yok olmak, kirli-temiz, doğru-yanlış gibi ikilikler/zıtlıklar kendisini gösteriyor

denilebilir. Bu kategorizasyon dış dünyayı temsil ederken insan sistemine yardımcı olarak görünmektedir.

İnsan zihni *bu yolla* birbirinden farklılaşmış/ayrık/müstakil bilişsel materyallerden oluşabilmektedir. Benzer şekilde, OKB'li hastalarla yapılan çalışmalara bakıldığında bu hasta grubundaki kişilerin karşılaştırılan diğer gruplardan daha çok temkinli olduklarını, verilen materyalleri daha uzun zamanda kategorize edebildiklerini, böylelikle kararlarının doğruluğu konusunda daha çok şüphe içine düştüklerini, kesinliğe daha çok ihtiyaç duymaktadırlar. Reed bundan seneler önce 1985'te OKB'deki temel konunun kişinin kendi deneyimlerini kategorize etmekteki güçlüğü olarak açıklamıştır. Reed'e göre bu kişiler bir telafi mekanizması kullanarak yine bir farklı zihin durumları elde edebilmek için deneyimlerini fazlasıyla/gereğinden fazla düzenlemeye/kategorize etmeye çalışırlar. Başka bir teorisyen de, Rachman (2002) OKB'li kişilerle ilgili obsesyonlarının arttığı durumları açıklarken bu kişilerin kendi evlerinde ve yalnız olduğu durumları ve bu kişilerin depresif olduğu zamanları belirtmiştir. Yani bu aktarılan durumlar ve zamanlar kişilerin takdim edilen dünyaları bakımından ve dolayısıyla tekrardan takdim edilen dünyaları bakımından da bir farklılık bulunamayacak durumları ve zamanları kapsamakta görünmektedir. Burada kişilerin yaşadığı şeye bakıldığında tekrarlı bir yapı göze çarpmaktadır: Tekrarlı şekilde ortaya çıkan depresif ve obsesif nitelikte düşünceler ve yine tekrarlı şekilde ortaya çıkan kişinin yalnız olduğu zamanları.

Literatürden gelen başka bir bilgi de OKB'li kişilerin tatile çıktıklarında veya hastaneye yatırıldıklarındaki semptomlarındaki belirgin azalma ve bir vakit geçtikten sonra semptomların eski haline dönmesi bilgisi. Burada da yine kısa süreliğine elde edilen müstakil/kategorize edilebilmiş zihinsel materyal bu azalmadan sorumludur denilebilir.

Bu noktada *tekrarın* insan zihnindeki temsili flulaştırdığını/bulanıklaştırdığını ve farklı ve birbirinden bağımsız olan zihinsel malzemeyi tek bir kategoriden müteşekkil hale getirdiğini söyleyebiliriz. Böylelikle bu farklı malzemenin

hatırlanması ve insan zihninin bunun üstünde çalışması da zorlaşmaktadır. Bu durumdaki temsilin de insan zihin sistemi için "gerçeği/dış dünyayı temsil etme gücü düşük bir temsil" olacağı iddia edilebilir.

Bu tartışmaya ek olarak, literatürden bilindiği kadarıyla rahatsız edici olarak kabul edilen tekrarlı bir nitelik gösteren düşüncelerle karşı karşıya kalan bir kişinin yapabildiği şey onları bastırmaya ve yok saymaya çalışmaktır. Ancak bu uğraşı nafile bir uğraşı olarak tanımlanmaktadır.

Bastırmanın nafile olması takdim edilen doğanın özünde var olan ikilikler/zıtlıklardan kaynaklanmaktadır, denilebilir. Denilebilir ki kişi bu zıtlıklardan bir tanesini yok saymaya çalışırken zıtlığın diğer kısmı da kendisini hissettirmeye çalışmaktadır. Belki de bu yolla varlığın/doğanın özünde olduğu iddia edilen ikili durum tekrardan tesis edilmeye çalışmakta olduğu yönünde bir tartışma yürütülebilir. Ayrıca bu bahsedilen tekrarla ve bunu takiben ortaya çıkan bastırmayla insan zihin sisteminin kategorize etme eyleminin gücünün düştüğü önerilebilir. 1. ve 2. zamanki katılımcıların skorları göz önünde bulundurulduğunda 2. zamandaki kategorize etme gücünün 1.'ye göre daha düşük olduğu iddia edilebilir. Bu güç düşüklüğü insan zihin sisteminin karar verme yetisinde de düşüklüğe yol açtığı belirtilebilir.

Bu tartışmalar eşliğinde 1. ve 2. zamana bakıldığında ilk grupta bir artış göze çarpmaktadır. Tekrarlı akıl yürütme çalışmasından sonra katılımcılar hikayelerdeki nedensel ilişkiyi *anlamlı* olarak daha çok inanılır/olası bulmuşlardır. Bu ilk gruptaki artış tekrardan kaynaklanmaktadır, denilebilir. Ancak bir diğer taraftan, katılımcıların ikinci ve üçüncü gruptaki puanlarında artış görünmemektedir (bu gruplardaki puanlar daha stabil bir özellik göstermektedir). Varlığın ikili doğası hakkındaki tartışma hatırlandığında bu dikotomik zihin yapısı gruplar arasındaki farklılaşmayla kendisini tesis ediyor, denilebilir.

Verideki bu farklı davranış OKB'deki ambivalan ve ego-distonik tutumla daha iyi anlaşılabilir diye düşünülmüştür. İlk gruptaki artış DEK'in teşvikine katılımcıların

inandığını, itibar ettiklerini; diğer gruplardaki stabil hal de yine aynı katılımcıların DEK'in teşviki konusunda aynı anda bu itibarı göstermediklerini düşündürmüştür.

Buradan yola çıkarak bu bilgi klinisyenlerin hastalarıyla bir normalleştirme süreci dahilinde birlikte konuşabilecekleri, tartışabilecekleri bir bilgi olarak kullanılabilir. Şöyle ki; hastalar kendi içlerindeki bu ikili yapıyı daha iyi anlayabilip bunun farkında olabilirlerse, o vakit tedaviye direnç azaltılabilir. Şüpheye daha olumlu bir yaklaşım bu normalleştirme süreci içinde hastaların tedaviye daha çok katılabilecekleri bir zemini oluşturabilir.

4.2. Çalışmanın sınırlılıkları ve gelecekteki çalışmalar için öneriler

Bu tez çerçevesinde OK benzeri bir deneyimin oluşturulduğu ve manipüle edildiği düşünülmüştür. Bu manipülasyon çerçevesinde insan sisteminin teşvik edilmeye çalışılan mütecaviz bir düşünceyi bir taraftan sahiplenirken diğer taraftan da bu düşüncenin sorumluluğunu ittiğine ilişkin bazı bulgular dikkati çekmiştir.

DEK'in başka psikopatolojilerde görünmesi temelinde bu çalışma panik bozukluğu, genellenmiş anksiyete bozukluğu, sosyal anksiyete bozukluğu, majör depresif bozukluk gibi diğer psikopatoloji gruplarında da yinelenmelidir. DEK'in teşvikinin daha spontan şekilde olmasına çalışılmalıdır. DEK'le ilgili herhangi bir manipülasyon kontrolü yapılmamıştır. Bunun yapılması çalışmanın verilerini kuvvetlendirebilirdi. Ancak diğer taraftan da bu kontrol katılımcıların çalışma hakkında ön bilgilerinin olmasına yol açabilir ve çalışmanın gidişatını olumsuz etkileyebilirdi. Gelecek çalışmalar bu noktanın da üzerinde durmalıdır.

Grupların belirlenmesi çalışmanın başka bir sınırlılığıdır. Gruplar sadece bir envanter tarafından belirlenmiştir. Başka araçlardan da yararlanılması çalışmanın gücünü arttırabilir.

Prosedürü göz önüne alındığında başka kavramların da bu paradigmaya eklenmesinin OK deneyimin anlaşılmasına çok daha fazla yarar sağlayacağı düşünülmüştür.

APPENDIX E

TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü [ ]

Sosyal Bilimler Enstitüsü [X]

Uygulamalı Matematik Enstitüsü [ ]

Enformatik Enstitüsü [ ]

Deniz Bilimleri Enstitüsü [ ]

YAZARIN

Soyadı : Demirsöz
Adı : Talat
Bölümü : Psikoloji

TEZİN ADI (İngilizce): Possible Underlying Mechanisms of Thouhgt-Action Fusion (TAF) and Related Appraisal Processes as a Function of Perseverative Obsessive-Compulsive-Like Reasoning

TEZİN TÜRÜ : Yüksek Lisans [ ] Doktora [X]

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. [X]
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. [ ]
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. [ ]

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: