PERCEIVED PARENTAL REARING BEHAVIORS, RESPONSIBILITY ATTITUDES AND LIFE EVENTS AS PREDICTORS OF OBSESSIVE COMPULSIVE SYMPTOMATOLOGY: TEST OF A COGNITIVE MODEL

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ABSTRACT

PERCEIVED PARENTAL REARING BEHAVIORS, RESPONSIBILITY ATTITUDES AND LIFE EVENTS AS PREDICTORS OF OBSESSIVE COMPULSIVE SYMPTOMATOLOGY: TEST OF A COGNITIVE MODEL

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The main objective of this study was to examine the vulnerability factors of Obsessive Compulsive Symptomatology (OCS) in a non-clinical sample. On the basis of Salkovskis' cognitive model of OCD, the present study aimed to investigate the role of perceived parental rearing behaviors, responsibility attitudes, and life events in predicting OCS. Furthermore, the mediator role of responsibility attitudes in the relationship between perceived parental rearing behaviors and OCS was examined. Finally, the specificity of these variables to OCS was evaluated by examining the relationship of the same variables to depression and trait anxiety. Analysis of covariance results showed that subjects with higher OCS scores perceived their mothers' and fathers' rearing behaviors as more overprotective than

the subjects with lower OCS scores. The results of the regression analysis showed that perceived mother overprotection, responsibility attitudes and life events significantly predicted OCS. Furthermore, responsibility attitudes mediated the relationship between perceived mother overprotection and OCS. The predictive role of perceived mother overprotection was found to be OCS specific. On the other hand, for depression, perceived mother rejection and father emotional warmth, and for trait anxiety, perceived mother emotional warmth had significant predictive effects. While responsibility attitudes were found to be a common predictor for OCS and trait anxiety, its mediator role was OCS specific. OCS, depression and trait anxiety were all significantly predicted by life events. The results of the study were discussed within the relevant literature, and limitations of the study, suggestions for future studies, and clinical implications of the findings were presented.

Keywords: Obsessive Compulsive Symptoms, Vulnerability Factors, Perceived Parental Rearing Behaviors, Responsibility Attitudes, Life Events.

ÖZ

ALGILANAN ANNE-BABA TUTUMLARI, SORUMLULUK ALGISI VE YAŞAM OLAYLARININ OBSESİF KOMPULSİF BELİRTİLERİ YORDAMA GÜCÜ: BİLİŞSEL MODELİN SINANMASI

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Bu çalışmanın temel amacı klinik dışı bir örneklemde Obsesif Kompulsif Semptomatolojiye (OKS) yatkınlıkla ilişkili faktörleri incelemektir. Bu çalışmada, OKB' nin Salkovskis tarafından geliştirilen bilişsel modeli temel alınarak, algılanan anne-baba yetiştirme tutumları, sorumluluk algısı ve yaşam olaylarının OKS'yi yordamadaki rolü araştırılmıştır. Buna ek olarak, algılanan anne-baba yetiştirme tutumları ve OKS arasındaki ilişkide sorumluluk algısının aracı rolü incelenmiştir. Son olarak bu değişkenlerin OKS'ye özgü olup olmadığını değerlendirmek amacıyla aynı değişkenlerin depresyon ve sürekli kaygı ile olan ilişkileri incelenmiştir. Kovaryans analizinin sonuçları yüksek düzeyde OKS'ye sahip katılımcıların düşük düzeyde OKS'ye sahip katılımcılara kıyasla anne-baba yetiştirme tutumlarını daha koruyucu olarak algıladıklarını göstermiştir. Regresyon analizlerinin sonuçları

annenin algılanan aşırı koruyuculuğu, sorumluluk algısı ve yaşam olaylarının anlamlı düzeyde OKS'yi yordayıcı etkisi olduğunu göstermiştir. Bununla birlikte, annenin algılanan aşırı koruyuculuğu ve OKS arasındaki ilişkide sorumluluk algısının aracı değişken olduğu bulunmuştur. Annenin algılanan aşırı koruyucu tutumunun OKS'ye özgü olduğu dikkati çekerken depresyon için annenin algılanan reddedici tutumu ve babanın algılanan duygusal sıcaklığı, sürekli kaygı için ise annenin algılanan duygusal sıcaklığının yordayıcı etkiye sahip olduğu bulunmuştur. Sorumluluk algısı hem OKS hem de sürekli kaygı için ortak bir yordayıcı iken, sorumluluk algısının, algılanan anne-baba yetiştirme tutumları ve semptomatoloji arasındaki ilişkide aracı değişken rolünün OKS'ye özgü olduğu dikkati çekmektedir. Yaşam olayları ise OKS, depresyon ve sürekli kaygının her biri için anlamlı düzeyde yordayıcı etkiye sahiptir. Araştırmanın sonuçları ilgili literatür eşliğinde tartışılmış, çalışmanın kısıtlılıklarına, gelecek çalışmalar için önerilere ve bulguların klinik göstergelerine değinilmiştir.

Anahtar Kelimeler: Obsesif Kompulsif Semptomlar, Yatkınlık Faktörleri, Algılanan Anne-Baba Yetiştirme Tutumları, Sorumluluk Algısı, Yaşam Olayları

To my parents Cemal & Şengün Kargı

To my sister Neva Erhan

&

To my lovely husband Murat Hacıömeroğlu

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CHAPTER I

INTRODUCTION

Obsessive Compulsive Disorder (OCD) is an anxiety disorder mainly characterized by persistent, intrusive, and distressing thoughts, images or impulses (obsessions) and by repetitive or ritualistic actions (compulsions). The concepts of obsessions and compulsions have a rich history. They were first described at the beginning of the nineteenth century as unusual expressions of melancholia. In the early twentieth century, with the development of psychoanalysis, the focus shifted to psychological explanations based on unconscious conflicts. In the 1960s and1970s, under the impact of learning theories, effective behavioral treatments were developed for OCD (Fineberg & Roberts, 2001). Cognitive factors in OCD have also gained considerable interest in the recent past, leading to the growing importance of cognitive factors for understanding and treating OCD (Steketee, Frost, & Cohen, 1998).

The cognitive model of Salkovskis (1985, 1989) is the most comprehensive and widely accepted model of OCD. In this model, responsibility attitudes and the role of early experiences in the formation of responsibility attitudes are emphasized in the development and maintenance of OCD. The aim of the present study is to examine the vulnerability factors of Obsessive Compulsive Symptomatology (OCS) in a non-clinical sample. On the basis of Salkovskis' cognitive model of OCD, the core elements in the development and maintenance of the disorder; namely perceived

parental rearing behaviors, responsibility attitudes, and life events will be examined. In addition to this, the specificity of these factors to OCS will be investigated by examining the relationship of these factors to depression and trait anxiety.

In this section, the literature review about the clinical features and the phenomenology of OCD, the cognitive theories of OCD, cognitive distortions related to OCD, the role of responsibility attitudes, perceived parental rearing behaviors and life events in OCD will be presented. Then, the aims of the study and the specific hypotheses will be presented.

1.1 Obsessive Compulsive Disorder (OCD)

Clinical features and phenomenology of obsessive compulsive disorder, the cognitive models proposed for OCD and some cognitive distortions related to OCD will be reviewed in this section.

1.1.1 Clinical Features and Phenomenology of OCD

Obsessive compulsive disorder is currently classified as an anxiety disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV, American Psychiatric Association, APA, 1994). The DSM-IV defines obsessions as recurrent and persistent thoughts, impulses, or images a) that are experienced as intrusive and inappropriate and that cause marked anxiety or distress, b) that are not simply excessive worries about real life problems, and c) that make the person attempt to ignore or suppress them, or to neutralize them with some other thoughts or actions. Compulsions are repetitive behaviors or mental acts in response to obsessions aimed to prevent or reduce distress caused by obsessions (APA, 1994). The most common

obsessions include thoughts about contamination, pathological doubt, order/symmetry, sexual imagery, and aggressive or horrific impulses (e.g. hurting a loved one). The most common compulsions are checking, washing, counting, need to ask or confess symmetry and precision (Eisen & Rasmussen, 2002). People with OCD often avoid things and situations that trigger their obsessions and compulsions which makes the avoidance behavior as the central feature of the disorder. Obsessions and compulsions are time consuming, lead to marked distress and seriously interfere with daily functioning (Bartz & Hollander, 2006). By reducing the quality of life, OCD is considered as one of the most disabling anxiety disorders (Eisen et al., 2006).

OCD has been thought to be a relatively rare disorder. However, recent epidemiological studies, in which the diagnosis depends on structured or semi-structured instruments rather than clinical judgment alone, showed that OCD is a common disorder (Fontenelle, Mendlowicz, & Versiani, 2006) even found to be the fourth most prevalent disorder with a lifetime prevalence of 2.5% (Karno, Golding, Sorenson, & Burnam, 1988). In another study, Weissman et al. (1994) found that the prevalence rates in seven countries were ranging from 1.9% to 2.5% for life time prevalence, and from 1.1% to 1.8% for annual prevalence. Despite the concerns about the inconsistent findings related to the prevalence rates, many studies showed that obsessive compulsive disorder is a common disorder among adults as well as among children and adolescents (Stein, 2002).

Studies have shown that OCD is found equally among men and women, or slightly higher in women (Lochner & Stein, 2001). In clinical samples, the male and female distributions are equal (Rasmussen & Eisen, 1992), however in

epidemiological studies females showed slightly higher rates than males (Bebbington, 1998; Karno, Golding, Sorenson, & Burnam, 1988; Weissman et al., 1994).

The age of onset of OCD is usually in early adulthood. Black (1974) reported that the mean age of onset for OCD was in the early 20s; over half of the patients become symptomatic by the age of 25 and three quarters by the age of 30, and less than 5% had onset after 40s. Similarly, Rachman and Hodgson (1980) found that 65% of their sample had onset prior to 25 years of age, and in another study the mean age of onset was found as 25.6 (Thyer, Parrsh, Curtis, Neese, & Cameron, 1985).

Although the disorder usually begins in early adulthood, it may begin in adolescence and even in childhood. The age of onset can differ depending on the gender, the subtype of OCD and the comorbid disorder. Clinical studies usually confirmed earlier age of onset of OCD for males compared to females (Lochner & Stein, 2001). Male gender was found to be a significant predictor of earlier age of onset, more insidious onset, and greater chronicity of the course (Bogetto, Venturello, Albert, Maina, & Ravizza, 1999). Consistent with the findings of a higher prevalence of childhood OCD in males, it was found a significant earlier age of onset for males (20 years old) versus females (25 years old) (Minichiello, Baer, Jenike, & Holland, 1990).

Lochner and Stein (2001) reviewed many studies about the gender differences among the symptom profiles, and supported the finding that cleaning and washing symptoms were reported to be more common in females, while primary obsessive slowness, symmetry and exactness, numbers, touching rituals, sexual symptoms or odd symptoms, and checking rituals were more common in males with OCD.

Rachman and Hodgson (1980) found different sex ratios between two subgroups: 80% of the cleaners and 50% of the checkers were female. They also indicated rapid onset in cleaners and slow onset in checkers. Patients with obsessions only or cleaning rituals only had later ages of onset (mean age 27) while patients with checking rituals only or mixed rituals had earlier onset (mean age 18-19), supporting the mean age of onset difference among the subtypes of OCD (Minichiello, Baer, Jenike, & Holland, 1990). This finding also supports earlier mean age of onset for males who mostly suffer from checking compulsions, and later mean age of onset for females who mostly suffer from cleaning compulsions.

Many studies supported the finding that women display more washing and cleaning rituals while men are more likely to suffer from sexual and symmetry obsessions, and checking rituals (Matsunaga et al., 2000; Okasha, Saad, & Khalil, 1994; Shooka, Al-Haddad, & Raees, 1998). The higher incidence of contamination obsessions and cleaning/washing compulsions in women was attributed to the social role differences between men and women in several studies across different cultures ranging from Western to non-Western countries (Akhtar et al., 1978; Castle et al., 1995; Dowson, 1977; Eğrilmez et al., 1997; Ghassemzadeh et al., 2002; Shooka et al., 1998; cited in Karadağ, Oğuzhanoğlu, Özdel, Ateşçi, & Amuk, 2006).

Although DSM-IV defined OCD as a unitary syndrome and gave a general definition of OCD including the obsessions and/or compulsions, the clinical manifestation of the symptoms varies a lot from patient to patient. There is a broad range of symptoms in OCD, and the recognition of specific types of symptoms which are less responsive to available treatments led the researchers to think that there should be subtypes within the disorder. While the research on dimensions of OCD

has been primarily based on symptoms, other methods of subtyping also exist, for example subtyping depending on age of onset, family history of OCD, the presence of other psychiatric disorders or gender differences which have been less examined (McKay et al., 2004).

Most of the researches on dimensions of OCD have been primarily based on symptoms. The typical symptom dimensions are aggressive, sexual, religious, somatic, symmetry, contamination and hoarding obsessions; and checking, ordering, counting, repeating, cleaning, and collecting compulsions (Taylor, 2005). This kind of subtyping relies mostly on overt symptoms (e.g. classifying patients as washers, checkers, or hoarders, etc.). These dimensions have been found in both clinical and nonclinical samples (McKay et al., 2004).

In terms of contamination obsessions and washing/cleaning compulsions, Feinstein, Fallon, Petkova and Liebowitz (2003) identified two distinct groups of OCD patients with washing rituals: patients who report feeling of discomfort and contamination without fears of harm, and other patients with specific fears of harm to self or others as a result of contamination. Patients in the first category focus on the feeling of contamination, report less obsessions and wash or clean excessively to reduce the contamination. Patients in the second group mostly focus on the threatening consequences of contamination which includes responsibility for spreading contamination to others, and washing or checking rituals are performed to eliminate this perceived danger.

Harm/aggressive obsessions and checking compulsions is a more heterogeneous subtype in terms of the diversity of the obsessional content and related checking behavior (Feinstein, Fallon, Petkova, & Liebowitz, 2003). Intrusions

related to harm (e.g. fire, theft, flood) make the person feel responsible for the feared events, so checking rituals decrease the perceived responsibility for the likelihood of the feared events, and the vulnerability of self and others (Rachman, 1997, 1998; Sookman & Pinard, 2002; McKay et al., 2004). Unwanted aggressive or sexual thoughts or images lead the person to check their behavior to decrease their doubts (e.g. "Did I run over anyone on the street?) (McKay et al., 2004), and this leads to a paradoxical increase in the frequency of these intrusions (Salkovskis & Campell, 1994). Cognitive characteristics of OCD patients, such as overestimation of threat, intolerance of uncertainty, overimportance/control of thoughts, responsibility for harm, perfectionism, and perceived inability to cope with anxiety can all be observed in this subgroup (Obsessive Compulsive Cognitions Working Group, 2001, 2003).

Another group of patients are the ones who have obsessions without overt compulsions. McKay et al. (2004) stated that 25% of OCD patients report distressing obsessions without overt compulsions. Common obsession themes in this group are sex, harm/violence, and religion/blasphemy. This group of patients often appraises their distressing thoughts as dangerous, and overly important, so they try to control such thoughts (Obsessive Compulsive Cognitions Working Group, 2001). Mental rituals and neutralizing such as saying a good word after a bad thought, praying, counting are all carried out to decrease the anxiety associated with the involuntary and overwhelming intrusions. Thought-action fusion is one of the cognitive characteristics of the patients in this group; they often avoid the triggering situations, for example avoiding an attractive woman on the street, since a sexual thought is appraised by them as equivalent to actually carrying out a behavior (McKay et al.,

2004). Newth and Rachman (2001) stated that this group of patients might be reluctant to report their intrusions due to the feelings of shame and guilt.

One of the most disabling forms of OCD is the hoarding, which is the acquisition of items that appear worthless to other people and having difficulty in discarding them (Frost & Hartl, 1996; Frost, Steketee, Williams, & Warren, 2000; McKay et al., 2004). This group of patients report higher anxiety and depression, poorer insight or more overvalued ideas, and severe psychosocial consequences compared to the patients in other subtypes (Frost & Gross, 1993; Frost, Steketee, Williams, & Warren, 2000; Greenberg, 1987; McKay et al., 2004). These patients report obsessional fears of loosing items or possessions, have excessive attachment to the items, have beliefs about the importance of items, have problems with decision making, categorization and organization, have perfectionist characteristics and show behavioral avoidance (Frost & Hartl, 1996).

Ball, Baer, and Otto (1996) examined the prevalence of different OCD subtypes and found that patients with cleaning and/or checking rituals are the most prevalent ones, comprising 75% of the sample. Patients with multiple rituals or patients with exactness, counting, repeating, symmetry, slowness or hoarding were underrepresented, as only 12% of the sample which is less than the findings of the epidemiological studies.

Although the creation of subgroups of OCD depending on the symptom groups seems easy, allocation of individuals with OCD to just one specific symptom type is not an easy one. Not only the symptoms might have different courses, they may also be comorbid with other OCD symptoms or other disorders (McKay et al., 2004). In clinics and hospital settings, it is not uncommon to see more complex

obsessions and compulsions, which makes it difficult to assign a patient to a single subtype of OCD. Radomsky and Taylor (2005) gave an example of a typical manifestation of OCD with a patient who checks the knobs on their stove frequently to be able sure that they are exactly symmetrical, clean and off, until the patient feels safe, protected from various disasters such as fire, burglary, disease, and some unknown danger, and until the horrible images of their children being burned are neutralized. It was proposed that one of the solutions to the problem about determining the subtypes is allocating individuals to specific subtypes depending on the functions that their symptoms serve, in other words, depending on the cognitive aspects associated with the symptoms. This provides deeper information which might be required in the treatment of the disorder. New theories and cognitive models are now available for compulsive checking, compulsive hoarding, and obsessions without compulsions which lead to the development of new symptom specific treatment strategies (Radomsky & Taylor, 2005).

Lee and Kwon (2003) conducted a study in which they investigated whether there could be a meaningful distinction between different types of obsessions in OCD. They combined the results of factor analytic investigations of symptom measures with the data from measures that assess interpretations, appraisals, and beliefs about thoughts. They categorized obsessions into two types as autogenous and reactive obsessions, which are different from each other in terms of identifiability of their evoking stimuli, subjective experiences, contents, and subsequent cognitive processes. They stated that autogenous obsessions tend to come abruptly into consciousness without identifiable evoking stimuli, which are perceived as ego-dystonic and aversive enough to be resisted. These types of obsessions

include sexual, aggressive, and immoral thoughts or impulses. On the other hand, reactive obsessions are evoked by identifiable external stimuli, which are perceived as relatively realistic and rational enough to do something toward the stimuli, and include thoughts about contamination, mistake, accident, asymmetry, loss, and etc. They found differences between the two types of obsessions in terms of their frequency, subjective experiences, subsequent appraisal, and control strategies. Autogenous obsessions led to high appraisals on "control over thought" and "importance of thought" and frequent use of "avoidant control strategies". However, reactive obsessions were found to be linked with high appraisal on "responsibility" and frequent use of "confrontational control strategies".

In addition to the heterogeneity within the disorder, the comorbidity with other disorders makes the OCD cases even more complex. OCD has a high comorbidity with other anxiety and mood disorders. Most recent investigations with relatively large numbers (Brown et al., 2001; Denys et al, 2004; Fireman et al., 2001; LaSalle et al., 2004; Nestadt et al., 2001; cited in Bartz & Hollander, 2006) showed that among the Axis I disorders, major depressive disorder was the most common additional diagnosis with prevalence rates ranging from 20.7% to 22% and from 54% to 66% for additional current and lifetime diagnosis, respectively. Social phobia was found to be the most common co-morbid anxiety disorder, ranging from 3.6% to 26% and from 23% to 36% for additional current and lifetime diagnosis, respectively. The prevalence rates for other anxiety disorders ranged from 0% to 12% for current diagnosis, and from 1% to 23% for lifetime diagnosis. LaSalle et al. (2004) found that affective disorders are 4 to 5 times, panic disorder, agoraphobia, and GAD are 3.5 to 4 times, social phobia is 2 times more prevalent in individuals

with OCD compared to the general population. Denys, Tenney, van Megen, de Geus and Westenberg (2004) investigated the onset of comorbid disorders, and found that OCD precedes rather than follows depression, indicating that depression is a likely result of OCD.

Some of the etiological studies pointed to gender differences in the etiology of OCD, and proposed that females generally have later onset than males and more frequently have depression as a comorbid disorder, however, males have an early expression of a more severe organic type of disorder (Castle et al., 1995; Horwath & Weissman, 2000; Lensi et al., 1996; Noshirvani et al., 1991; Zohar et al., 1999; cited in Karadağ, Oğuzhanoğlu, Özdel, Ateşçi, & Amuk, 2006).

OCD shows comorbidity with another group of disorders called obsessive compulsive spectrum disorders. Hypochondriasis, body dysmorphic disorder, trichotillomania, and compulsive buying had the highest lifetime prevalence rates (Denys et al., 2004; du Toit et al., 2001; Jaisoorya et al., 2003; LaSalle et al., 2004; cited in Bartz & Hollander, 2006). Eating disorders were found to be eight times more prevalent in individuals with OCD compared to the general population (Denys, Tenney, van Megen, de Geus, & Westenberg, 2004). The frequency of impulse control disorders in OCD patients was investigated and found that 16.4% of OCD patients had a life time prevelance and 11.6% had a current diagnosis of impulse control disorders such as skin picking, nail biting, and trichotillomania (Grant, Mancebo, Pinto, Eisen, & Rasmussen, 2006).

Childhood onset OCD has been found to be more comorbid with tic disorders such as Tourette's syndrome (Geller et al., 2001). Aggressive, sexual, symmetry, and exactness obsessions were claimed to be more common in OCD with comorbid tics.

Tic like compulsions such as touching, blinking, rubbing, tapping, staring are more common in OCD patients with comorbid tics (Miguel et al., 1997). Leckman et al. (1995) found that males and individuals with an early OCD onset are overrepresented among the tic related subtype. Neurobiological differences are also observed in this subtype (Hanna, McCracken, & Cantwell, 1991).

Comorbidity of OCD with Axis II disorders is also common. Although some studies reported high rates of obsessive personality traits in OCD patients (Honjo et al. 1989; cited in Spitzer & Sigmund, 1997), other studies found little evidence for this relation (Black et al., 1989, 1993; Rapoport et al., 1981; cited in Spitzer & Sigmund, 1997). Inconsistent results might be due to the confusion of OCD with Obsessive Compulsive Personality Disorder. However, patients with OCD also have some compulsive personality traits, and roughly 6% of OCD patients meet the criteria for Obsessive Compulsive Personality Disorder when assessed by a standardized structured interview (Baer et al., 1990).

In terms of the course of OCD, there have not been many studies that investigated the longitudinal course of OCD. There are suggestions that symptom types fluctuate over time (Rachman & Hodgson, 1980), for example an individual may experience compulsive checking at the beginning of the disorder, but later in life it may be replaced with compulsive counting (McKay et al., 2004). In a study, the outcome predictors of 476 patients with severe OCD were investigated (Stewart, Yen, Stack, & Jenike, 2006). 59% of the sample who responded to the residential treatment was characterized by less severe OCD at admission and a better psychosocial functioning. Non responders were more likely to be male and have a tic disorder. In their behavior therapy study, Foa and Goldstein (1978; cited in McKay et

al., 2004) found that the type of compulsion (washing versus checking) was not a predictor of treatment response. On the other hand, in other studies, at a one year follow up, women with washing compulsions were found to be better responders to treatment than men with checking ritual (Başoğlu, Lax, & Marks, 1988; Boulougouris, 1977; cited in McKay et al., 2004). Hoarding symptoms (Abramowitz et al., 2003; Baer, 1994; Barolo et al. 1988; Black et al., 1998; Mataix-Cols et al., 1999; Saxena et al., 2002; Winsberg, Cassic, & Koran, 1999; cited in McKay et al., 2004) and the obsessive thoughts without compulsive behavior (Alonso et al., 2001; Christensen, Hadzi-Pavlovic, Andrews, & Mattick, 1987; cited in McKay et al., 2004) have shown poorer responses to treatments. Although the combination of behavioral and pharmacological treatments lead to successful results in the treatment of OCD, obsessions and compulsions can continue with different degrees of intensity over time. In general, OCD is a chronic illness that shows a waxing and waning course (Jenike, 2001).

The epidemiological studies show that the basic phenomenological features of OCD are similar across cultures. Studies in Western and Eastern countries indicated that the most common obsessions are related with dirt and contamination, followed by harm or aggression, somatic issues, religious issues and finally sexual issues (Eğrilmez et al., 1997; Mataix-Cols et al., 1999, 2002; Sasson et al., 1997; cited in Karadağ, Oğuzhanoğlu, Özdel, Ateşçi, & Amuk, 2006). In a recent study with a Turkish sample, Karadağ, Oğuzhanoğlu, Özdel, Ateşçi, and Amuk (2006) supported that the phenomenological features and the overall symptom profile in Turkish culture was not different from other cultural settings. They found that the onset of OCD was earlier in males than females as consistent with the relevant literature. The

most prevalent comorbid diagnosis was found to be depression (30.5%). Depressive disorders were more common in females and the longer duration of illness and the more severe OCD symptoms were associated with depressive disorders. The overall pattern of OCD phenomenology was found to be consistent with Western culture and with some Eastern countries. Dirt and contamination (56.7%) and aggression obsessions (48.9%) were found to be the most frequent obsessional themes followed by somatic (24.1%), religious (19.9%), sexual (18.4%), and symmetry obsessions (15.6%). Symmetry and sexual obsessions and checking compulsions were found to be more common in male patients, on the other hand dirt and contamination obsessions and washing compulsions were found to be slightly more common in females. Majority of patients with religious obsessions (83%) and half of the patients with sexual obsessions had compulsions related with religious practices, and these patients were found to have delayed seeking professional help.

1.1.2 Cognitive Theories of OCD

During 1950s and early 1960s, psychoanalytic view about the obsessions was based on the assumption that OCD patients have weak ego boundaries and obsessional rituals were important defense mechanisms which help to strengthen these boundaries. Therefore rituals should not be interrupted or prevented otherwise this will result in a breakdown of ego boundaries and may push the patient into a psychosis (Salkovskis, 1999).

In the 1970s, Rachman and his colleagues (Rachman, Hodgson, & Marks, 1971; Rachman, Marks, & Hodgson, 1973; cited in Salkovskis, 1999) started to apply the behavioral techniques derived from two process theory to obsessional

problems, based on the earlier work of Meyer (1966; cited in Salkovskis, 1999). These techniques were exposure and response prevention.

OCD was first conceptualized in a cognitive model by Carr (1974; cited in Van Oppen & Arntz, 1994) who emphasized the OCD patients' unrealistic threat appraisals. The overestimation of both the probability and the cost of the occurrence of undesired outcomes lead to a high degree of perceived threat. A number of situations lead to a high level of anxiety for the person; consequently, obsessive compulsive rituals are developed and reinforced by anxiety reduction. However, the reason of the patients' overestimation of the probability and the cost of undesired outcomes remains unclear in this model.

In 1979, McFall and Wollersheim emphasized the mediator role of cognitions for compulsions. In their model, they focused on the factors which might be influential in the subjective unrealistic estimates of catastrophic outcomes. According to their model, the individual estimates the danger of an event and threat is generated during this primary appraisal. Consequently, anxiety rises and obsessive compulsive behavior starts as a result of the person's secondary appraisal in which he evaluates his efforts to cope with the threat. They proposed some unreasonable beliefs which are influential in the primary and secondary appraisal processes; such as for primary appraisal, perfectionist thoughts, fear of punishment due to mistakes, the thought of being powerful enough to initiate or prevent the occurrence of undesired outcomes, unacceptance of certain thoughts and feelings which might lead to catastrophic outcomes; and for secondary appraisal, fear of feeling upset due to dangerous outcomes, prevention of feared outcomes by magical rituals and compulsions, the preference of rituals and obsessions over the confrontation of one's

thoughts/feelings, intolerance of uncertainty and loss of control. Since the patients feel helplessness about the perceived threat because of these beliefs, they continue rituals and try to protect themselves from the guilt feelings related to the possibility of unacceptable outcomes (McFall & Wollersheim, 1979; cited in Van Oppen & Arntz, 1994).

The third model was proposed by Salkovskis (1985, 1989) which has been accepted as the most comprehensive one for the cognitive explanation of OCD. Previous models were criticized for not distinguishing the threat appraisal in OCD patients from the threat appraisal in other patients. Salkovskis proposed a cognitive hypothesis of obsessional problems by using Beck's (1976) model which proposes that emotional responses such as anxiety occur when the stimuli or the situation is interpreted in a negative way (Salkovskis, 1999). The central idea in this model is that not the event (nor the thought), but the person's appraisal of the event leads to anxiety. These appraisals are influenced by pre-existing beliefs and attitudes. Appraisals and emotional responses have a reciprocal relationship, so that the behavior of the person has an effect on appraisal and vice versa.

According to Salkovskis (1985, 1989) obsessional thoughts have its origins in normal intrusive thoughts. These intrusive cognitions can be ideas, thoughts, doubts, images or impulses which are upsetting, unacceptable or unpleasant for the person. The difference between normal intrusive thoughts and obsessional intrusive thoughts is in the interpretation of the occurrence and/or content of the intrusion. Salkovskis proposed that if the appraisal focuses on harm or danger then the emotional reaction will be anxiety. On the other hand, if the appraisal focuses entirely on loss, then the reaction is likely to be depression. According to this cognitive model, an obsessional

pattern would occur if intrusive cognitions, which are also common in other people, were interpreted as an indication that the person might be responsible for harm for oneself and/or other people. Therefore, the responsibility appraisals link the intrusive thoughts to the discomfort experienced and the following neutralizing behaviors. In other words, intrusive cognitions in the form of thoughts, images, impulses, and/or doubts are interpreted as the person might be responsible for harm to himself or others. This type of interpretations leads to a) negative mood changes such as distress, anxiety and depression, b) the motivation to engage in overt or covert neutralizing behaviors such as washing, checking, mental argument, and reassurance seeking, c) counterproductive safety strategies such as avoidance of situations related to obsessions, thought suppression, putting impossible criteria for oneself, and d) attention and reasoning biases such as looking for trouble. However, although the neutralizing response, which is the voluntary activity, is conducted to reduce the perceived responsibility, it actually leads to a temporary reduction in discomfort and increases the salience of the intrusive thought. In turn this leads to a vicious cycle of negative thinking, maintenance of negative beliefs, neutralizing and the likelihood of increase in further intrusions and doubt.

Intrusive cognitions are the basis and the key elements of obsessive compulsive disorder. These unwanted thoughts, impulses or images are the raw material of the obsessions, highly universal and experienced by nearly everyone (Rachman, 1997). For example; “What if the door is not locked?” kind of doubts are experienced by most people from time to time. On the other hand, intrusive cognitions have also been seen as an adaptive aspect of human nature since they are

associated with creativity, inspiration, problem solving, productive work, and social interaction (Salkovskis, 1989).

Intrusive thoughts were defined by Rachman (1981) as repetitive, unwanted and unacceptable thoughts, images or impulses that interrupt the ongoing activity of the person. Intrusive thoughts are internally attributed and difficult to control. Rachman and de Silva (1978) were the first who showed that non-clinical subjects also experience unwanted intrusive thoughts which are similar to clinical obsessions in terms of their form and content, and such intrusions occur in 80% of a non-clinical sample. Similar studies with non-clinical samples have replicated these findings that 80-99% of non-clinical subjects experience unwanted and unacceptable intrusive thoughts, images or impulses (Clark & de Silva, 1985; Edwards & Dickerson, 1987; England & Dickerson, 1988; Freeston, Ladouceur, Thibodeau & Gagnon, 1991; Niler & Beck, 1989; Parkinson & Rachman, 1981; Purdon & Clark, 1993; Salkovskis & Harrison, 1984; cited in Clark & Purdon, 1995). However, besides the similarities between unwanted intrusive thoughts and clinical obsessions in terms of their form and content, clinical obsessions were found to be more intense, longer lasting, more insistent, more distressing and anxiety provoking than unwanted intrusive thoughts (Rachman & de Silva, 1978). Rachman (1997) claimed that what transforms the normal intrusive thought to a clinical obsession lies under Salkovskis' emphasis about the meaning of the thought for the person; that is the misinterpretation of the intrusive thought as being important, personally significant, and threatening. These appraisals all have a contribution in this transformation. In other words, pre-existing dysfunctional beliefs make the person more prone to appraise the intrusions as threatening and uncontrollable so that these intrusive cognitions become clinical

obsessions which are more frequent and severe than universally experienced unwanted intrusive cognitions.

In his cognitive model of OCD, Salkovskis (1985, 1989) made a critical differentiation between unwanted intrusive thoughts and negative automatic thoughts. According to the cognitive theory, negative automatic thought is described as the outcome of the appraisal of the events (Beck, 1976). In the cognitive behavioral formulation of OCD, negative automatic thoughts are the individuals' appraisals or interpretations of the occurrence of the obsessional intrusions. Therefore, intrusive thoughts and negative automatic thoughts, which are the interpretation of these intrusions, are totally different from each other. Salkovskis (1985) stated that the main difference between negative automatic thoughts and the obsessions are the perceived intrusiveness, accessibility, and the extent to which they are seen as being consistent with the individual's belief systems. Obsessions are unacceptable (ego-dystonic), irrational, highly intrusive and accessible, and implausible. On the other hand, negative automatic thoughts are acceptable (ego-syntonic), rational, less intrusive, more difficult to access, and they are plausible. Salkovskis (1985) stated that obsessional thoughts are the stimuli which might provoke a particular type of automatic thoughts. Although intrusions frequently occur in normal individuals without causing any serious disturbance, for some individuals it becomes a persistent source of mood disturbance when unacceptable intrusions interact with the individual's belief system and lead to negative automatic thoughts. The intrusions will produce distress if they have some meaning for the person who experiences them, in other words, the intrusions should match with the pre-existing dysfunctional beliefs. For example, if the person has dysfunctional

responsibility beliefs, the images of harming his/her children (intrusion) might lead to the appraisals such as "This means that I want to do these things, I am evil" (negative automatic thoughts). This leads to the affective disturbance which was actually caused by the negative automatic thoughts rather than the intrusion itself (Salkovskis, 1985).

Rachman (1998) stated that when a person makes catastrophic appraisals about the significance of the unwanted intrusive thoughts, a great number of stimuli are converted to threat signs although they were neutral before. For example; for individuals who have intrusive thoughts about harming other people, formerly neutral stimuli such as a sharp object become potential threats. Repeated avoidance of sharp objects also intensifies and strengthens the assumption of "I am a dangerous person". Therefore this assumption remains unchallenged and unchanged. Besides the effects of external cues, Rachman (1998) proposed that the internal stimuli/sensations are also interpreted as signs of threat and may lead to avoidance. For example, when a person interprets his intrusive thoughts as he is a dangerous person and he may give harm to someone, the sensation of discomfort or anxiety (e.g. trembling, sweating) in the presence of a significant cue (e.g. a sharp object) will reinforce his negative assumption that he is a dangerous person. In other words, the catastrophic misinterpretation of the intrusive thoughts can combine with the catastrophic misinterpretation of the person's anxiety, such as "If I am anxious, this means there is a danger". Rachman (1998) associated this situation with so called "ex-consequenta reasoning" term which is making deductions of threat from the feeling of anxiety (Arntz, Rauner, & van den Hout, 1995). This is also similar to

Clark's model (1986) about panic disorder which stress the misinterpretations of certain bodily sensations.

Rachman (1998) argued that although many people experience unwanted intrusive thoughts, only a small number of people develop clinically significant obsessions; this small group is vulnerable to develop OCD because of their pre-existing beliefs and cognitive biases. For OCD patients, the intrusive thoughts have exaggerated significance. These individuals usually regard them as horrific, threatening, repugnant and dangerous, and describe them as immoral, sinful, disgusting, threatening, insane, criminal, and etc. When the main content of obsessions such as aggression, sex and blasphemy are important in moral system of the person, this leads to an inflation of personal significance. Patients with obsessional thoughts then interpret the intrusive thoughts, images and urges as the hidden elements in their character, such as being an immoral, unreliable, or sinful person. They can also have some interpretations about the specific consequences, such as causing serious harm for other people, going to Hell, being rejected by other people, or being punished. When people have these kinds of interpretations and anticipated consequences, which are very intense and anxiety provoking, the attempts to resist or remove the obsessions are very meaningful (Rachman, 1997).

Salkovskis (1985) stated that if the person who experiences intrusive thoughts believes that odd thoughts with an unpleasant content can occur but they do not have any implications, the process terminates there for that person. However, if the intrusive thoughts have important implications for that person, then negative automatic thoughts will arise as a function of pre-existing beliefs. Dysfunctional

assumptions related with responsibility, blame or control interact with the content of the intrusive thought, and lead to negative automatic thoughts.

Neutralizing behaviors then emerge to "put the things right"; either to neutralize the perceived negative consequences of the obsessions or to neutralize the feelings of distress, anxiety or guilt which are emerged from the obsessions (Rachman, 1998). Neutralizing behaviors can either be overt (e.g. washing or checking compulsions) or covert (e.g. mental arguments, thinking a "good" thing after having a "bad" thought). Neutralization has several functions; first of all, it usually leads to reduced discomfort. So, by acting as a negative reinforcement, neutralizing behaviors continue and sometimes generalized as a coping strategy to deal with anxiety and stress. Secondly, neutralization is followed by non-punishment; the person attributed the non-occurrence of the feared consequences to the neutralization behavior. Since neutralization behaviors lead to relief of anxiety, the person believes that his/her beliefs about the intrusive thoughts were true, and the neutralizing behavior is the correct way to prevent the undesirable outcomes. Finally, the neutralizing behaviors themselves become powerful triggering stimuli for the unwanted intrusive thoughts since paradoxically they reinforce the individual's dysfunctional belief system (Salkovskis, 1985). Although in the short term, neutralization is anxiety relieving, it paradoxically contributes to the maintenance of the disorder. The cycle of obsession, neutralization, relief, and confirmation of the belief is strengthened by repetition (Rachman, 1998).

Besides neutralizing behaviors, the other reaction to obsessions is avoidance behavior. With the same mechanism explained for the neutralizing behaviors, the fact that no feared consequences occur is attributed to the avoidance of the anxiety

provoking stimuli. However, similar to the neutralization, avoidance also contributes to the catastrophic misinterpretation of the obsessions remain unchallenged and unchanged (Rachman, 1998).

Thought suppression is another counterproductive safety strategy used by some of the OCD patients (Salkovskis et al., 2000). Unfortunately, as Rachman (1998) stated, the deliberate attempts to suppress the unwanted intrusive thoughts can lead to a paradoxical increase in their frequency which is known as the "white bear effect". It was found that when the subjects were instructed to not to think about white bears, this caused a paradoxical increase in the frequency of related thoughts (Wegner & Pennebaker, 1993; Wegner et al., 1987; cited in Rachman, 1998). In a similar way when the patient tries to fight the unwanted intrusive thoughts, this increases the frequency of the obsessions, and contributes to the maintenance of the whole process (Rachman, 1998).

Reassurance seeking has also been accepted as one of the neutralizing behaviors, which was displayed by many patients. The main logic under the reassurance seeking is providing a way of spreading the responsibility. For patients who have harm or aggression obsessions, the act of reassurance seeking, by making sure that others know, leads to the reduction of the feeling of responsibility and consequent anxiety (Salkovskis, 1985).

In conclusion, according to the cognitive theories of OCD (Rachman, 1997, 1998; Salkovskis, 1985, 1989), the obsessions which are intrusive, repetitive and unwanted in nature cause anxiety and distress if these obsessions interact with the person's pre-existing dysfunctional belief domains, mainly related with responsibility attitudes about causing harm to oneself or other people. The person, who has the

dysfunctional belief domain related with the intrusive thought, catastrophically interprets the significance and occurrence of the obsessions. These are the negative automatic thoughts related with responsibility, guilt or shame. Therefore, not the intrusive thoughts but the negative automatic thoughts about these intrusions lead the person to experience mood changes, and motivate the person to neutralize, avoid and use other safety strategies. However, they all in turn lead to an increase in the frequency of the obsessions and faulty verification of the catastrophic misinterpretations of the obsessions. So, according to the cognitive models of OCD, dysfunctional belief domains and misinterpretations of the intrusions are the core features of OCD and contribute to the maintenance of the disorder.

1.1.3 Cognitive Distortions Related to OCD

Cognitive factors have been accepted as the core elements in the development and the maintenance of the disorder in the cognitive models of OCD. As the importance of dysfunctional beliefs and faulty appraisals has been emphasized, the modification of these dysfunctional beliefs has become the focus of the treatment of OCD (Rachman, 1997, 1998; Salkovskis, 1985, 1989).

In the etiology of OCD, many belief domains took the attention of researchers. In 1997, Obsessive Compulsive Cognitions Working Group (OCCWG) identified six belief domains that are most relevant to OCD. These are 1) inflated responsibility; 2) thought-action fusion and other beliefs concerning the over importance of the consequences of one's thoughts; 3) excessive concern about the importance of controlling one's thoughts; 4) overestimation of the probability and the severity of threat; 5) intolerance of uncertainty; and 6) perfectionism. It was reported

that there is a high degree of association between the identified belief domains and obsessive compulsive symptoms.

Inflated responsibility is the main belief domain in Salkovskis' cognitive model of OCD (1985, 1989). The intrusive thoughts, images or impulses are interpreted as the person might be responsible for harm to oneself or others. Negative automatic thoughts related to harm or danger lead to mood changes and the person engages in neutralizing behaviors to reduce the discomfort and responsibility.

Overimportance of thoughts was defined as the belief that the presence of a thought indicates that it is important (OCCWG, 1997). Beliefs related to thought-action fusion (TAF) and magical thinking was also included in this domain. TAF can be seen in two forms; moral TAF which indicates that thoughts are morally equivalent to actions (e.g. "If I think about it, this means I want to do it and it is morally wrong"), and likelihood TAF which indicates that thinking about something increases the likelihood of its occurrence (e.g. "If I continue to think about it, it will happen"). Both forms involve the misinterpretation of one's thoughts (Rachman, 1997). Thought-action fusion was found to increase the person's perceived responsibility for negative outcomes and this in turn leads to the increase of guilt feeling (Rachman, 1993). Shafran, Thodarson and Rachman (1996) stated that TAF is the tendency to make an incorrect association between one's thoughts and external reality. Since TAF increase the person's perceived sense of responsibility for his/her thoughts, intrusive thoughts are transformed into obsessions. If the person has such an inflated sense of responsibility, TAF will cause more distress and anxiety than for the persons who does not have inflated responsibility.

The domain of excessive concern about the importance of controlling one's thoughts indicates the person's overvaluation of importance of having control over the intrusive thoughts, images and impulses. The person also believes that this control is possible and desirable (OCCWG, 1997). Clark and Purdon (1993) proposed that people with OCD excessively monitor the mental intrusions, have beliefs about moral consequences of not controlling the thoughts, have beliefs about the responsibility for harm because of not controlling the thoughts and have beliefs about the efficacy of control. For example, "I would be a better person if I gained control over my thoughts", or "I must know what is going on in my mind all the time so I can control my thoughts" (OCCWG, 1997). However, Wegner (1989; cited in Steketee, Frost, & Cohen, 1998) showed that the attempts to control the intrusive thoughts, such as by thought suppression, paradoxically increase their frequency. Salkovskis (1989) also proposed that meta-cognitive beliefs about controlling one's thoughts affect the appraisal of intrusive thoughts and lead to the development and maintenance of OCD. Obsessive compulsive belief domains are related to each other, for example, if a person believes that unwanted thought inevitably leads to unwanted acts (thought-action fusion) and the consequences would be unacceptable, than the person believes that it is very important to have control over the thoughts (OCCWG, 1997).

Overestimation of threat reflects the exaggeration of the probability or severity of harm (OCCWG, 1997). The person with OCD overvalues the likelihood of aversive events and their severity. Foa and Kozak (1986) proposed that people with OCD have a tendency to see situations as dangerous until it is proven as safe, contrary to most other people who would assume the opposite. However, the

overestimation of threat was also found in other anxiety disorders, although the OCD patients score higher than patients with other anxiety disorders (Steketee, Frost, & Cohen, 1996), indicating that overestimation of threat might be the general characteristic of anxiety disorders. Overestimation of threat and beliefs about harm is also related with thought-action fusion, perfectionism, intolerance of uncertainty, and low tolerance for anxiety and discomfort (OCCWG, 1997).

Intolerance of uncertainty is composed of three beliefs; necessity of being certain, poor capacity to cope with unpredictable change, and difficulty of adequate functioning in ambiguous situations (OCCWG, 1997). People with OCD have been observed as having difficulty in making decisions, as being more cautious, requiring information to be repeated more in many studies (OCCWG, 1997). Frost and Shows (1993) found that in terms of the correctness of their decisions, OCD patients had greater doubt than control subjects. Intolerance of uncertainty can be reflected as "It is possible to be absolutely certain about the things I do if I try hard enough" or "If I am not absolutely sure of something, I can make a mistake" (OCCWG, 1997).

Perfectionism was defined as the tendency to believe there is a perfect solution to every problem, that doing something perfectly (mistake free) is not only possible but also necessary, and that even minor mistakes will have serious consequences (OCCWG, 1997). Especially excessive concern over mistakes has been found to be correlated with obsessive compulsive symptoms (Ferrari, 1995; Rheaume, Ladouceur, Freeston, & Letarte, 1995). Perfectionist patients were also found to have increased responsibility attitudes (Rheaume et al., 2000). Yorulmaz, Karancı, and Tekok-Kılıç (2006) investigated the mediator role of inflated responsibility for the effects of perfectionism on checking and cleaning compulsions.

Responsibility attitudes were found to mediate the effects of self oriented and socially prescribed perfectionism on checking and the effect of socially prescribed perfectionism on cleaning.

OCCWG (1997) claimed that inflated responsibility, overimportance of thoughts, beliefs about the importance of controlling one's thoughts, overestimation of threat and intolerance of uncertainty domains all have a central importance for OCD. On the other hand, perfectionism was stated as having an important role in OCD but may not be specific or unique to OCD. Salkovskis et al. (2000) stated that inflated responsibility, overimportance of thoughts and beliefs about the importance of controlling one's thoughts are all related with the responsibility for harm. However, intolerance of uncertainty and, in particular, overestimation of threat might be more general vulnerability factors which may contribute to the misinterpretation of the intrusions in an important but less specific ways. These beliefs can be seen in psychological problems other than OCD; such as overestimation of threat in other anxiety disorders, and intolerance of uncertainty in obsessive compulsive personality disorder or dependent personality disorders. Finally, perfectionism is defined as a more enduring personality type characteristic which might interact with the appraisal of the intrusions especially when the intrusions are related with the completion/non completion of certain actions.

Steketee, Frost, and Cohen (1998) compared OCD patients, patients with other anxiety disorders and control subjects in terms of responsibility for harm, need to control thoughts, overestimation of threat, intolerance of uncertainty, beliefs about the consequences of anxiety and capacity to cope. They found that OCD patients scored higher than anxiety and normal control groups in all of the belief domains.

However, responsibility for harm, need to control thoughts, overestimation of threat, and intolerance of uncertainty were found to be most relevant to OCD than to other anxiety disorders.

1.2 Responsibility Attitudes and OCD

Among the belief domains that were explained previously, responsibility attitudes and interpretations have been the focus of many researchers in the cognitive explanation of OCD (Rachman, 1993, 1997, 1998; Salkovskis, 1985, 1989, 1999).

Salkovskis (1985, 1989) was the first who developed a cognitive model of OCD in which responsibility attitudes and interpretations had the core feature in the development and maintenance of the disorder. According to this model, the occurrence and/or content of the intrusions (thoughts, images, impulses and/or doubts) are interpreted (appraised) as indicating that the person might be responsible for harm to oneself and/or others. This type of interpretation leads to both adverse mood (discomfort, anxiety and depression) and motivation to engage in neutralizing behaviors (e.g. compulsive washing, checking, covert ritualizing, mental arguments, reassurance seeking, and etc.). This adverse mood and neutralizing behaviors in turn increase the likelihood of further intrusions, because perceived threat and perceived responsibility are reinforced and lead to a cycle of negative thinking and neutralizing. The interpretation of intrusions as indicating personal responsibility not only leads to adverse mood and neutralizing behaviors, but also increased attention for the intrusions and stimuli related to intrusions (e.g. attention and reasoning biases such as searching for trouble), and some counterproductive safety strategies developed by the person to decrease the personal responsibility (e.g. thought suppression and

avoidance). Each of these responses contributes to the maintenance of negative beliefs and appraisals because they are not challenged or changed.

In this model, Salkovskis et al. (2000) not only deals with factors related to the maintenance of the disorder but also delineates factors which might be influential in the development of the OCD. The misinterpretations (appraisals) of intrusions arise from learned assumptions (responsibility beliefs about harm), which depend on early experiences. When the responsibility assumptions (beliefs), which make the person more prone to develop obsessional problems, is activated by a critical incident, the intrusive thoughts are misinterpreted as indicating personal responsibility for harm. This leads to adverse mood, neutralizing behaviors, attention and reasoning biases, and counterproductive safety strategies. The whole model proposed by Salkovskis et al. (2000) is depicted in Figure 1.

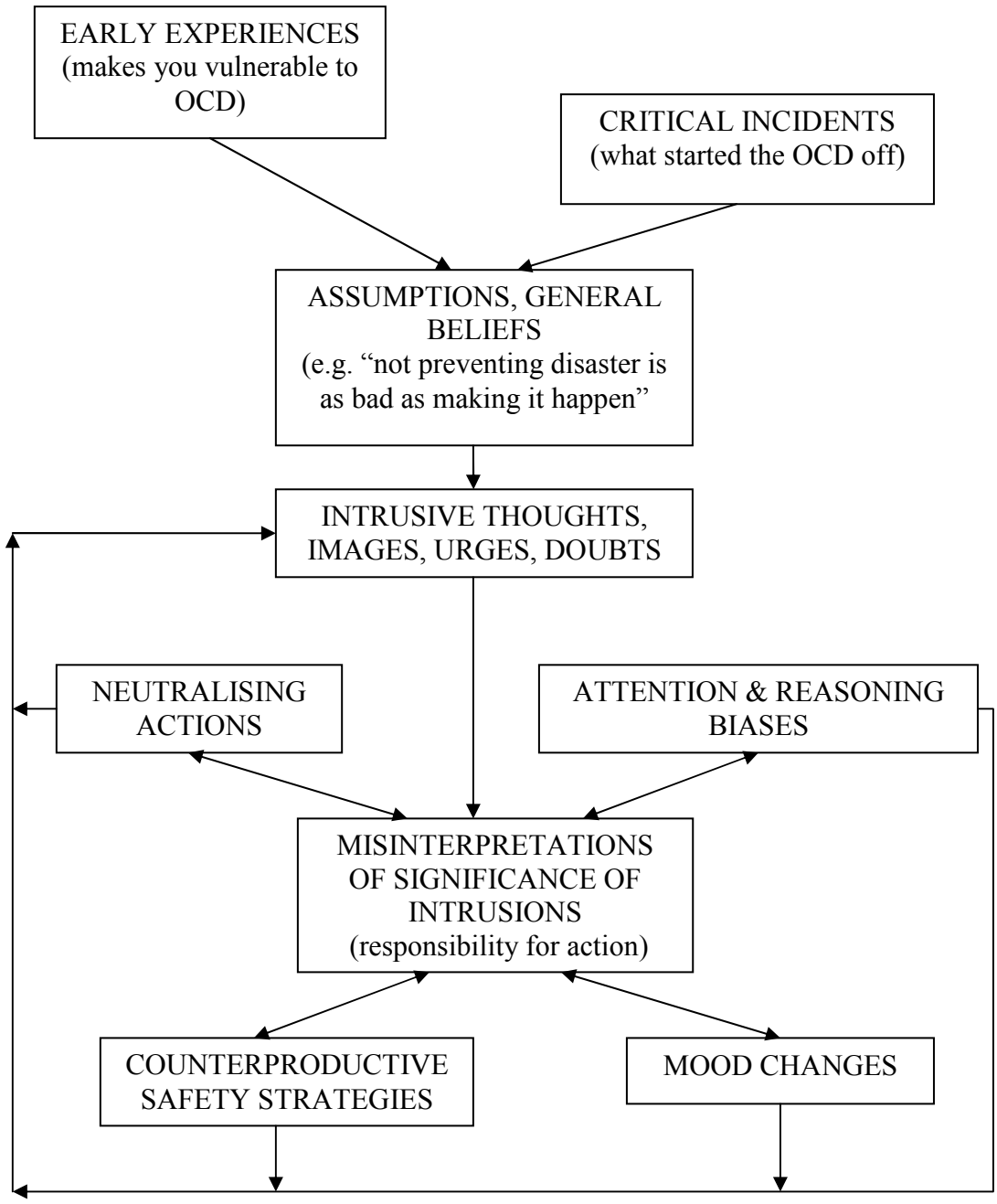

Figure 1 Cognitive Model of Obsessive Compulsive Disorder

Salkovskis (1985) proposed that if the appraisals (negative automatic thoughts) arising from intrusive thoughts do not have the possibility of being responsible in some way, then the neutralizing does not take place and the respond is likely to be anxiety or depression rather than the obsessional problem. Therefore, the

interpretation of the intrusion in the domain of responsibility is crucial and this leads to the development and maintenance of OCD.

According to Salkovskis' model (1985, 1989), if a person has a pre-existing assumption or belief, such as "Not preventing disaster is as bad as making it happen", then an intrusive thought or a doubt such as "Did I turn off the stove" is immediately misinterpreted/appraised as "I will cause a fire". This misinterpretation of the significance of the intrusive thought might lead to neutralizing behavior (repeated checking), discomfort, and/or reassurance seeking from other people. However, if the person does not have a belief domain concerning exaggerated responsibility and harm concern, this kind of intrusive thought would not lead to negative automatic thoughts about responsibility for harm to oneself or others since the same stimuli was not filtered through a schema dominated by fear of causing harm.

As can be understood from the cognitive model of OCD, Salkovskis et al. (2000) mentioned two levels of responsibility cognitions: responsibility assumptions (attitudes) and responsibility appraisals (interpretations). They stated that responsibility appraisals (interpretations) are more specific than responsibility assumptions (attitudes) which are more distant to the experience of obsessional symptoms. Responsibility attitudes reflect more generalized tendency to assume responsibility in a given situation. It might be possible that these attitudes are less specific to OCD and might also be associated with guilt and depression. In order to test the specificity of responsibility cognitions to OCD, Salkovskis et al. (2000) compared OCD patients with anxiety disorders control group and non-clinical control group in terms of their responsibility assumptions and responsibility

appraisals. They found that obsessional patients were more likely to show general responsibility attitudes than non-obsessionals, and they also were more likely to make responsibility related appraisals of intrusive thoughts about possible harm. Obsessional patients differed significantly from anxious and non-clinical controls in terms of responsibility cognitions, indicating the specificity of responsibility for OCD. They found strong associations between responsibility and obsessionality, however this association was less strong for depression and anxiety.

Wilson and Chambless (1999) aimed to examine the relationship between pervasive responsibility (responsibility schema in Salkovskis' model), automatic thoughts related to causing harm and OC symptom severity. They found that pervasive responsibility significantly contributes to the prediction of OC symptoms. Moreover, this relation appeared to be mediated by automatic thoughts related to causing harm in OCD contexts. These findings supported Salkovskis' model and indicated that schemas work through automatic thoughts to yield their effects on OCD severity.

Responsibility attitudes which characterize the obsessional problems were defined as the belief that the person has the power which is pivotal to bring about or prevent subjectively crucial negative outcomes. These outcomes are perceived as essential to prevent. They may be actual, that is having consequences in the real world, and/or at a moral level (Salkovskis et al., 2000). This definition of responsibility in OCD was formed to decrease the ambiguity that may arise from the term responsibility in everyday usage.

The type of threat appraisals is determined by some factors: a) the perception of the likelihood of danger, b) the perception of the seriousness of the consequences.

It is typical for an OCD patient to believe that although the probability of the danger/its occurrence is low, when it occurs the outcome would be horrible. Therefore, the person feels extremely anxious since he has an inflated sense of responsibility for harm and its prevention. The person believes that risking harm to others is unacceptable, so he would be sensitive to the ideas of causing harm (Salkovskis, Shafran, Rachman, & Freeston, 1999).

The three elements in the definition of responsibility appraisal (personal responsibility, likelihood of danger, and consequences of that danger) were also examined before by Rheaume, Ladouceur, Freeston, and Letarte (1995). They evaluated responsibility across obsession related situations, such as contamination, verification, somatic concerns, loss of control, making errors, sexuality and magical thinking. Participants were asked to define the possible negative outcome, and then rate this outcome in terms of probability, severity, influence, and pivotal influence. Participants also rated their perceived responsibility and personal relevance. Results showed that influence and pivotal influence were better predictors of perceived responsibility than probability and severity of the negative outcome.

A cognitive model for compulsive checking was proposed by Rachman (2002). In this model, it was proposed that people with compulsive checking believe that they have a special and elevated responsibility for preventing harm. Compulsive checking occurs when they feel unsure that a perceived threat has been adequately reduced or removed. Therefore, people with high responsibility repeatedly check for safety to achieve certainty about the absence or unlikelihood of harm occurring. However, paradoxically checking behaviors turn into a self-perpetuating mechanism. Rachman (2002) also proposed some multipliers that intensify the checking behavior.

One important multiplier is the person's perceived responsibility. Second multiplier is the perceived probability of the feared harmful event occurring. Third multiplier is the perceived severity or cost of the feared harmful event. An increase in each of the multiplier individually leads to an increase in the checking behavior. When these three multipliers interact, any change in the first, second, third or all of them lead to increase or decrease in the checking compulsion. However, only the first multiplier, perceived responsibility, is essential for the equation, meaning that if the person's perceived responsibility is reduced or removed, little or no checking behaviors take place, regardless of the level of the other two multipliers.

Rachman (1993) stated that inflated sense of responsibility in OCD can have various forms; such as being too extensive, too intense, too personal, or too exclusive depending on the individual patient. The sense of responsibility can be so intense that, for example, some patients feel very distressed and anxious about the accidents that they have little or no knowledge. The feelings of guilt and shame usually accompany the inflated sense of responsibility.

Salkovskis, Shafran, Rachman, and Freeston (1999) proposed that faulty appraisals of responsibility lead to an urge to engage in various compulsions, such as checking repeatedly the safety of the situation, which is carried out to prevent misfortune that might bring harm to other people. Accompanying other cognitive biases, such as thought-action fusion, make the appraisal of inflated responsibility more complex. For, example if a person with OCD has obsessions about his relatives having a car accident, he feels and believes that having this kind of unwanted thought increases the risk for them to be injured in a car accident.

Lee and Kwon (2003) proposed a distinction between obsessions as autogenous obsessions and reactive obsessions, and they claimed that these two groups of obsessions are different in their subsequent appraisals and control strategies. Autogenous obsessions (e.g. sexual, aggressive and immoral thoughts or urges) may lead to high appraisal on importance of thought and control over thought. On the other hand, reactive obsessions (e.g. contamination, mistake, accident) may lead to high appraisal on responsibility which is the belief that the person has power to cause or prevent negative outcomes.

The relationship between inflated perception of responsibility and OCD symptoms has been investigated in many studies with clinical and non-clinical samples, and in experimental studies. Results from studies using self report questionnaires have been consistent with the model of Salkovskis, indicating the association between inflated responsibility beliefs and OCD (Freeston, Ladouceur, Gagnon, & Thibodeau, 1993; Freeston, Ladouceur, Thibodeau, & Gagnon, 1992; Rheaume, Ladouceur, Freeston, & Letarte, 1995).

In terms of experimental studies, Rachman and his colleagues were the first who conducted a series of experiments in which they found that when obsessional fears are experimentally elicited, compulsive behavior leads to an immediate reduction in discomfort. On the other hand, prevention of compulsive behavior leads to a slower spontaneous reduction in discomfort. These experiments (Hodgson & Rachman, 1972; Roper, Rachman, & Hodgson, 1973; Rachman, de Silva, & Roper, 1976; cited in Salkovskis, 1999) shaped the basis of the exposure and response prevention techniques which are widely used in the treatment of OCD today. In one of their studies, Roper and Rachman (1976; cited in Salkovskis, 1999) observed that

it was hard to elicit discomfort in subjects with checking compulsions when the experimenter is present during the provocation phase. They concluded that there might be a transfer of some responsibility from the checker to the experimenter, so that any responsibility for harm is shared with the other person. This explanation formed the basis of the cognitive understanding of the obsessional problems.

Rachman (1993) reported his clinical observation indicating the role of responsibility in OCD. He stated that OCD in-patients showed a decrease in their compulsions when they are recently admitted to the hospital. However, as they become more familiar with the hospital environment, their checking and washing compulsions increase and return to pre-hospitalization level. Rachman interpreted his observation as the patients' sense of responsibility increases as they develop a sense of belonging and become part of the hospital setting.

Lopatka and Rachman (1995) conducted an experimental manipulation of responsibility among subjects with OCD. All subjects were exposed to increased and decreased responsibility situations. In decreased responsibility situation, the experimenter assumed the responsibility for all potential negative consequences, and in the increased responsibility situation the subject assumed the entire responsibility. The findings showed that in the decreased responsibility situation, urge to check, perceived length of time to check, and discomfort significantly decreased. In a similar study, Shafran (1997) manipulated the degree of responsibility by the presence or absence of the experimenter during a task. In high responsibility condition, there was an increment in perceived responsibility for threat, urge to neutralize, discomfort, and estimated probability of threat.

Ladouceur et al. (1995) manipulated responsibility in a non-clinical population to demonstrate the link between different levels of perceived responsibility and checking behaviors. It was found that the subjects in the increased responsibility condition checked more during the classification task and they reported more discomfort and preoccupation with making errors than subjects in the decreased responsibility condition.

An experimental study was carried out to test the effects of personal influence and perceived negative consequences on perceived responsibility and checking behavior during a classification task (Laudouceur, Rheaume, & Aublet, 1997). Subjects were divided into influence condition, negative consequences condition, combined condition and control condition. Then they were asked to classify capsules in semi-transparent bottles. The results of the study showed that personal influence was the best predictor of perceived responsibility. Although perceived negative consequences were found to trigger hesitations, combined personal influence and negative consequences were necessary to produce modifications.

Some studies have proposed that responsibility is more salient for certain types of OC symptoms, for example for checking as opposed to cleaning (Lopatka & Rachman, 1995; Rheaume, Ladouceur, Freeston, & Letarte, 1995). Wilson and Chambless (1999) disagreed with that view and proposed that for checkers the presence of another person reassure the checker because the accompanying person can confirm that the action was carried out, however for cleaners if the case is infection by invisible germs the observer may provide less reassure for the person. So, responsibility might be more consistent for a cleaner than a checker who can at least experience a period of relief when others are present. Wilson and Chambless

(1999) empirically investigated whether responsibility has a greater importance for checking compulsions rather than cleaning compulsions. They found that correlations between responsibility and contamination fears are not less than the one for checking behaviors, indicating that responsibility is equally relevant for checking and washing compulsions.

The importance of responsibility attitudes and appraisal, which have gained considerable support from empirical studies in terms of their developing and maintaining role in OCD, have also been emphasized in the treatment processes (Rachman, 2002; Salkovskis, 1999; Sookman & Pinard, 1999; Van Oppen & Arntz, 1994). In their study, Ladouceur, Leger, Rheaume, and Dube (1996) evaluated the efficacy of cognitive treatment of OCD by correcting inflated responsibility attitudes. They reported that after the treatment there was a clinically significant decrease in perceived responsibility and checking behaviors of the patients and the gains were found to be maintained at 6 and 12 months follow-up. They concluded that evaluating and challenging responsibility cognitions is crucial in the treatment process of OCD.

In conclusion, responsibility attitudes and appraisal have an important role in the cognitive explanation of OCD. In the elaboration of the development and the maintenance of the disorder, inflated responsibility attitudes remain to be one of the most explanatory factors. However, besides the role of responsibility attitudes as a vulnerability factor to OCD, it is also important to investigate whether this vulnerability factor is OCD specific or not.

Moreover, although there have been many studies which focused on the distorted belief domains (e.g. responsibility attitudes), the origins and the formation

of these beliefs domains have gained less interest. Therefore, it is also important to examine the developmental factors in the etiology of OCD.

1.3 Perceived Parental Rearing Behaviors and OCD

A range of etiological factors, including biological, genetic, neuropsychological, psychological and environmental factors, have been proposed in the development of obsessive compulsive disorder. Among these etiological theories of OCD, cognitive behavioral models have generated strong empirical support and lead to the development of effective treatment strategies (Doron & Kyrios, 2005). However, while cognitive models have facilitated knowledge and treatment of OCD, it has been criticized that most of the research have focused on the factors related to the maintenance and exacerbation rather than the development of the disorder (Doron & Kyrios, 2005; Salkovskis, Shafran, Rachman, & Freeston, 1999). In other words, although it has been known that some belief domains (e.g. inflated responsibility) play a crucial role in obsessional problems, the origins and the development of these distorted belief domains, which make the person more vulnerable to obsessive compulsive symptoms, have not been systematically studied yet.

Doron and Kyrios (2005) argued that there has been a neglect of developmental issues, such as early attachment and parenting behaviors (Guidano & Liotti, 1983; Safran, 1990), and their role in the development and maintenance of the dysfunctional beliefs related to OCD. Cognitive, developmental, and attachment researches have shown that enduring cognitive-affective structures, such as internal representation of the self and the world, might be important determinants of cognitive vulnerability to OCD. There is a strong link between internal

representations (internal working models) and early parent-child interactions, showing that early attachment experiences are closely related to the later development of self-concept (Bowlby, 1969, 1973).

Attachment theory is one of the most widely recognized theories which emphasize the importance of early experiences predisposing the individual to psychological health or psychopathology. The attachment system is accepted as a basic, inborn, and adaptive motivational system which leads the infant to seek help from primary caregiver (the attachment figure) in case of need or danger. The interactions between the attachment figure and the infant determine the quality of attachment. The accessible and responsive attachment figure to the emotional signals of the infant is important for the organization and regulation of the infant's emotional experience. The internal representations of "self" and "other" based on this emotional bond between the infant and the main caregiver. An experience of emotionally available, responsive and supportive parent forms a lovable and competent self model. On the other hand, experience of rejection, emotional unavailability, and lack of support forms an unlovable, unworthy, and incompetent self model. The internal representations of self and other, which are shaped by these early experiences, are accepted to affect later social and psychological life of the infant (Bowlby, 1969, 1973).

Attachment classification was investigated in a series of separation and reunion experiences, Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). In secure attachment, children showed signs of distress when left alone with a stranger, sought the mother when she returns, held her for a period of time, and returned to play in the presence of mother. These children sought pleasurable,

comforting contact with the caregiver. Insecure attachment classified into two groups: avoidant and anxious/ambivalent attachment. Avoidant style was characterized by distress during separation followed by lack of acknowledgment or rejection of the mother when she returned. These infants were indifferent to or ignored the mother. Anxious/ambivalent children showed a high level of distress during separation followed by a mixture of approach and rejection behaviors when the mother returns. These infants requested contact with the caregiver, but resisted it when offered and failed to be comforted. Additional category of insecure attachment style was proposed by Main, Kaplan and Cassidy (1985) and named as disorganized attachment. This group of infants did not show a coherent strategy for responding to separation and reunion in Strange Situation.

Insecure attachment representations have been found to be associated with the development of various childhood and adulthood psychopathologies such as depression, anxiety, eating disorders, and low self-esteem. This indicates that internal representations of attachment relationships, which are mostly shaped as a result of parent-child interactions, have a significant effect on adult behavior, and the development and maintenance of psychological dysfunctions (Doron & Kyrios, 2005).

Ambivalent/anxious attachment style is characterized as insecure parent child transactions in which the child is not certain about the degree to which he/she is loved, wanted or worthy. This kind of attachment style leads to concurrent experience of validation and rejection, so the child experiences difficulties to integrate opposing self perceptions, such as being lovable/unlovable, and wanted/ unwanted (Guidano & Liotti, 1983). Development of impaired representations of the

self and the world in this kind of ambivalent attachment experience might be one of the important determinants of cognitive vulnerability to OCD (Doron & Kyrios, 2005).

Perception of the world has also significant effect on the development of OCD (Doron & Kyrios, 2005; Guidano & Liotti, 1983; Salkovskis, Shafran, Rachman, & Freeston, 1999). Guidano and Liotti (1983) proposed that perception of the world as being threatening but controllable leads to active attempts to control the environment in individuals suffering from OCD. This kind of world perception depends on early insecure attachment experiences. Examination of the individual's assumptions related to the world may lead to a better understanding of general vulnerability to OCD (Doron & Kyrios, 2005).

Rosenstein and Horowitz (1996) stated that pathologic outcomes from an insecure attachment organization show developmental continuity in the mental organization of attachment. The quality of attachment was found to be stable at age 6 to age 10 and through mid adolescence. In their study, they examined the relationship between attachment classification, psychopathology and personality traits in a group of psychiatrically hospitalized adolescents. The results showed that adolescents showing preoccupied attachment organization, which is parallel to the ambivalent/anxious attachment in childhood, more likely to have anxious and dysthymic personality traits.

Guidano and Liotti (1983) proposed one of the earliest theories about the relationship between parenting styles and the development of OCD. Mostly affected by the attachment theory, they suggested that parenting of individuals with OCD might be characterized by contradictory communication style. For instance,

expression of intense interest in the child's development without expression of emotional warmth might lead the child to have a rigid self image that needs certainty and perfection.

Craske (1999) has proposed a theoretical model that helps to specify the role that parenting may play in the development and maintenance of childhood anxiety. It was proposed that parenting might be related to childhood anxiety in two ways. In the first way, frequent parental criticism could increase child's attention and influence the perception of the self and the world in a negative manner (e.g. cognitive features of trait anxiety). In the second way, among children with trait anxiety, specific parenting practices or behaviors promote or reinforce child's experiences of anxiety in specific situations. This may contribute to the development of a particular anxiety disorder by centering beliefs about threat. It was proposed that although general patterns of parenting style may lead to a non-specific influence on child's trait anxiety, situationally and behaviorally-specific parenting behaviors may account for the development of specific anxiety disorder.

In their comprehensive cognitive model of OCD, Salkovskis, Shafran, Rachman and Freeston (1999) have also focused on the effects of early experiences and parenting influence in the development of OCD related belief domains. Similar to other researchers (Doron & Kyrios, 2005) they stated that there has been relatively less interest in researching the origins or development of OCD related beliefs. Although there has been growing empirical support indicating the importance of responsibility attitudes in OCD, there is less systematically collected data about the development of these responsibility attitudes. The origin of responsibility beliefs which may predispose the person to develop the disorder is crucial to understand the

vulnerability factors for the disorder (Salkovskis, Shafran, Rachman, & Freeston, 1999).

Beck (1976) proposed that early experiences, usually the ones in the childhood and/or adolescence, are important in the formation of many attitudes which become dysfunctional later in the person's life. Salkovskis, Shafran, Rachman, and Freeston (1999) suggested that if the factors which predispose the person to obsessional thinking can be identified, then this information would be valuable in therapy and in the prevention programs. On the other hand, they also pointed out some difficulties and mentioned that development of beliefs is complex and hard to detect. In order to understand the possible origins and development of inflated responsibility beliefs, they proposed some factors which can be obtained on the basis of person's retrospective self report.

First possible factor in the development of responsibility beliefs is the sense of responsibility which was developed early in childhood and deliberately or implicitly encouraged by significant others. This may lead to enduring and justified beliefs about the importance of responsibility. For example, some people are obliged to have responsibility at an unusually early age (e.g. being responsible for taking care of the siblings). The other parental influence on the development of inflated responsibility might be due to the faulty parental communication (e.g. scapegoat the child for negative outcomes). The child can believe that he is responsible for negative outcomes although he has actually little or no control. All these might contribute to the development of inflated sense of responsibility and personal influence on the negative outcomes. As a result, the person may develop high social conscientiousness and standards of work. The behavior primarily derived by desire to

prevent failure rather than to promote success (Salkovskis, Shafran, Rachman, & Freeston, 1999).

Second possible factor in the development of inflated responsibility might be the rigid and extreme rules related with behaviors and duty. If the rules concerning the standards of thinking and behaving are rigid, this might also contribute to the development of inflated responsibility attitudes. These beliefs can develop within the family environment or at school (Salkovskis, Shafran, Rachman, & Freeston, 1999).

The third possibility in the development of responsibility beliefs is the development of responsibility ideas without being confronted with it because of overprotective parents. The parents intentionally or unintentionally withheld responsibility from the child because they are actually themselves excessively anxious with a sense of danger is "just around the corner" (Salkovskis, Shafran, Rachman, & Freeston, 1999, p. 1062) and the child is incompetent to deal with such danger. Sometimes this may involve the patterns of over indulgence. In other cases, the overprotective parents become models for the behaviors related to responsibility, and the child develops inflated beliefs about prevention and safety (e.g. "Being safe is better than being sorry", "Prevention is better than cure"). Sometimes over protection can combine with repeated parental criticism of the child because of the failures to take necessary precautions to prevent potential dangers. So, over protective type of rearing behaviors might be another important route to the development of an inflated sense of responsibility (Salkovskis, Shafran, Rachman, & Freeston, 1999).

The fourth possible factor in the development of inflated responsibility can be experiencing event/s in which the person's action or inaction actually contributed in

a significant way to the health and welfare of oneself or others. After this kind of a critical incident inflated responsibility can arise suddenly, especially if the person believes that he has a crucial role in the occurrence or none prevention of the event (Salkovskis, Shafran, Rachman, & Freeston, 1999).

Lastly, the fifth possible factor in the development of inflated responsibility can be experiencing event/s in which it wrongly appeared that the person's thoughts, actions or inactions contributed to harm to oneself or others although the events were only coincidental. However, the person believes that he has an influence on the negative outcome (e.g. wishing somebody to be dead, and by unfortunate coincidence, death of the person) (Salkovskis, Shafran, Rachman, & Freeston, 1999).

The fourth and fifth possibilities can be both the origin of the responsibility beliefs or can play a role as critical incidents for people who have a previous vulnerability. It was emphasized that the proposed factors are neither necessary nor sufficient for the development of OCD, but rather they can be crucial in the development of exaggerated responsibility beliefs. Once these responsibility beliefs are present, they can interact with a range of other factors such as life events, prolonged distress, and depressed mood to produce obsessional problems. It was stated that there should be systematic collection of information from affected people in order to validate the proposed factors related to parental rearing behaviors and their effects on the development of inflated responsibility beliefs and OCD (Salkovskis, Shafran, Rachman, & Freeston, 1999).

Parental behaviors, with the ability to express affection and emotional warmth and to avoid excessive protection, control and criticism seem to be important in the development of a healthy personality. Rejecting and controlling parenting styles have

been found to be associated with many forms of psychopathology, such as depression, schizophrenia, anxiety disorders, substance abuse, oppositional child behavior and eating disorders (De Rutter, 1994; Gerlsma & Emmelkamp, 1990; Parker et al., 1987; cited in Alonso et al., 2004; Rapee, 1997).

Rapee (1997) described two main child rearing factors in the literature review about parental rearing behaviors and psychopathologies. The first one is rejection which includes behaviors and attitudes related to negative or hostile feelings toward the child. The second factor is parental control or protection which includes behaviors designed to protect the child from possible harm. A rearing style characterized by low parental affection and high parental control and rejection appears to be related to depression and anxiety disorders. Data appear to indicate relatively stronger relationship between parental rejection and depression, and between parental control and anxiety. While family factors including parental modeling of depressive behaviors and cognitions, abandonment and rejection (Petti, 1989) might lead to the development of depression; encouragement of making threatening interpretations of ambiguous situations might be related to the development of anxiety (Dadds, Sheffield, & Holbeck, 1990).

Many measures have been proposed for assessing parental rearing behaviors; some of them involve direct observations, the others require retrospective recall by either parents and/or their children. Egna Minnen Betraffande Uppfostran (EMBU) (Perris, Jacobsson, Lindström, von Knorring, & Perris, 1980) is among the most widely used measure for the assessment of adult perceptions of their parents' rearing behaviors in childhood (Rapee, 1997). Although it is not a direct measure of parenting, it is supported that perception of events and assimilation of them into

existing schemata can be as important as the events themselves (Crick & Dodge, 1994). Short form of EMBU (s-EMBU) (Arrindel et al., 1999) consists of three scales which stresses the three main aspects of parental rearing behaviors: Emotional Warmth, Rejection and Overprotection. These three parenting styles show high levels of cross-national invariance and internal consistency across national samples Rejection reflects perceived parental rejection, such as being punitive, shaming, favoring siblings over the child, rejection through criticism, rejection of the child as an individual, and being abusive. Emotional Warmth reflects perceived parental warmth in interactions with the child; such as being affectionate, stimulating and praising. Overprotection reflects the level of perceived parental control and intrusion; such as being fearful and anxious for the child's safety, intrusive and overinvolved (Arrindel et al., 1999).

Most of the studies about parental rearing behaviors have focused on the relationship between anxiety disorders, depression and parenting. In their meta-analysis of 47 studies, McLeod, Wood, and Weisz (2007) examined the association between parenting and childhood anxiety. The analysis revealed that parental control was more strongly associated with child anxiety than was parental rejection. In another study, which reviewed the studies about parenting and childhood anxiety, indicated similar results. The results of the parent-child interactions in laboratory tasks showed that greater observed parental control was consistently linked with more child shyness and a higher risk for meeting criteria for an anxiety disorder in children and adolescents (Wood, McLeod, Sigman, Hwang, & Chu, 2003).

Although there are many studies concerning the impact of parenting in the development of anxiety, there are few studies concerning the impact of early

parenting behaviors and attitudes specifically in the development of OCD. Studies with sub-clinical obsessive-compulsive subjects have found that subjects reported their parents as more overprotective, rejecting and less emotionally warm than normal controls (Cavedo & Parker, 1994; Ehiobuche, 1988; Kimidis et al., 1992; cited in Alonso et al., 2004). In another study with a student sample, psychologically manipulative and controlling parenting style was found to be associated with OCD symptoms. Psychological control was defined as being guilt inducing and hypercritical which might lead to the development of guilt-ridden, perfectionist personality features, and contribute to the development of OCD (Ayçiçeği, Harris & Dinn, 2002).

There are mixed results obtained from clinical samples. Hafner (1988; cited in Alonso et al., 2004) found high levels of perceived parental overprotection in 81 adult OCD patients, however the absence of comparison with a specific group was the weakness of this study. In another study, OCD subjects reported to perceive their parents as being more rejecting and less emotionally caring than healthy controls. Only compulsive washers reported high levels of parental overprotection (Hoekstra et al., 1989; cited in Alonso et al., 2004). Alonso et al. (2004) compared OCD patients and healthy controls and found no significant difference between the two groups in terms of parental overprotection. However, OCD patients perceived their fathers as more rejecting compared to healthy controls. In another study, OCD patients, patients with panic disorder with agoraphobia, and non-anxious control subjects were compared in terms of their perceived parental rearing behaviors. OCD and panic disorder patients did not significantly differ from each other in any of the parental rearing dimensions. Both group of patients with anxiety disorders reported

their mothers and fathers as being more over protective than non-anxious group. There was no significant difference between anxious and non-anxious groups in terms of their perceived parental emotional warmth, rejection and care scores (Turgeon, O'Connor, Marchand, & Freeston, 2002).

In general, studies show that parents of OCD patients, as well as parents of individuals displaying sub-clinical OC symptoms, are overprotective, perfectionist, demanding, critical and employ guilt induction in their parenting style. Parents' expressed hostility, criticism, and emotional over-involvement might play a role in the development of OCD (Bressi & Guggeri, 1996; Frost, Lahart & Rosenblate, 1991; Frost, Steketee, Cohn & Griess, 1994), and this type of parenting style may affect the development of OCD through an increase in responsibility attitudes.

In overprotective type of parenting style, parents might model fearfulness, caution and avoidance, and reinforce threat interpretations. Krohne (1990) proposed two-stage model in the development of anxiety. First, children develop negative expectancies about the future and their own competencies due to the parental feedback. In the second stage, if the feedback is unpredictable or aversive, the child's negative expectancies lead to anxiety. That is, when parents are extremely controlling, then the child doubts his own competencies. This is similar to the parenting style proposed by Salkovskis, Shafran, Rachman, and Freeston (1999) in which the world is perceived as threatening and dangerous and the self is perceived as incompetent to deal with such danger due to the parental overprotection, control and criticism.

As a summary, the development of OCD symptoms might result from the interaction of inherited predisposition and some psychological variables. One of the

psychological vulnerability factors to develop OCD is parenting styles and early parenting massages which are important in the formation of the belief domains. Therefore, it is important to investigate perceived parental rearing behaviors as a vulnerability factor to OCD in adult samples. Moreover, it is also important to examine whether a perceived parental rearing style is OCD specific or not.

Perceived parental rearing behaviors regarding responsibility and threat might put the person at risk to respond to commonly occurring negative thought intrusions as threatening. The presence of stressful life events, and the increase in anxious or depressed mood might also contribute to the frequency of these intrusions.

1.4 Life Events and OCD

The role of recent life events, as being one of the environmental factors, in precipitating psychological disorders has been widely examined. Stressful life events (SLE) have been studied under several approaches (Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). One of these approaches is the general quantitative theory which states that the amount and weight of the SLE, not their meaning, are related to psychopathology (Holmes & Rahe, 1967; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). Second approach is the general qualitative theory which emphasizes the non-specific undesirability or threatening quality of the events (Sarason et al., 1985; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). Third approach is the specific qualitative approach which emphasizes that specific events are important for specific pathologies (Vedhara, 2000; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004).

Many studies have been conducted to examine the relationship between life events and anxiety disorders in adults. The results of these studies showed that adults with panic disorder (Horesh, Amir, Kedem, Goldberger, & Kotler, 1997), generalized anxiety disorder (Newman & Bland, 1994), agoraphobia (Franklin & Andrews, 1999) and social phobia (Brown, Juster, Heimberg, & Winning, 1998) were reported to experience significantly more total life events, perceive them as being more stressful and adapted to them less well than normal controls, supporting the quantitative and qualitative approaches. In many cases, most of the events occurred in childhood and adolescence, either long before the onset of the anxiety disorder or during the year before its onset (Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004).

There are relatively less empirical studies which specifically investigated the occurrence of stressful and potentially triggering events in people suffering from OCD (Ingram, 1961; Lo, 1967; Neziroğlu et al., 1992; Pollitt, 1957; Rasmussen & Tsuang, 1986; Rudin, 1953; cited in Maina, Albert, Bogetto, Vaschetto, & Ravizza, 1999). Similar to the patients in other anxiety disorders, OCD patients also reported more total life events (Brown, Juster, Heimberg, & Winning, 1998) and more stressful life events (McKeon, Roa, & Mann, 1984) than normal controls. Obsessive patients were found to report significantly more events over the year prior to the onset of the disorder compared to healthy subjects. Serious illnesses in the subjects and/or in their close relatives, arguments, and birth of a child were found to be the most frequently reported events (McKeon, Roa, & Mann, 1984).

Other studies have also found supportive results for specific qualitative approach indicating that certain specific stressors are more common in anxiety

disorders, such as severe danger (Valleni-Basile et al., 1996), illness or death of a family member or friend, romantic disappointments (Horesh, Amir, Kedem, Goldberger, & Kotler, 1997), threats to loved ones, health and economic security problems (Franklin & Andrews, 1999).

Among the life events, pregnancy and/or delivery appear to influence the OCD course, and in some cases related to its onset. OCD patients and non-clinical control subjects were compared in terms of life events. Not the number of events but the type of events (e.g. pregnancy and/or delivery) was found to be significantly different in OCD patient group and non-clinical control group. Subjects with postpartum OCD had higher rates of aggressive obsessions to harm the new born than the comparison group (Maina, Albert, Bogetto, Vaschetto, & Ravizza, 1999).

Children and adolescents with OCD were found to have significantly more total life events and more negative life events both life time and one year prior to the onset of the disorder than normal controls. The children and adolescents with OCD perceived life events as having more impact, and their anxiety scores were positively correlated with the perceived impact. The only specific life event that was significantly more common in children with OCD and with other anxiety disorders than normal controls was the major illness or injury in a relative. Moreover, children with OCD and other anxiety disorders scored higher than normal controls in terms of harm avoidance. Harm avoidance scores were found to be correlated positively and significantly with the occurrence of negative life events and their perceived impact (Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004).

McLaren and Crowe (2003) investigated the controllability factor in life events. Although in some events change is quite controllable, in others there is little

or no perceived capacity to control events. They argued that OCD patients perceive themselves as lacking mental control, and tend to suppress their thoughts as a coping strategy. They proposed that in OCD patients, uncontrollable stressful life events could lead to heightened levels of fear and anxiety, and heightened sense of subjective threat relative to controllable life events. If such an uncontrollable life event is combined with a tendency towards thought suppression, then OCD can be a predictable outcome. They investigated the impact of controllable versus uncontrollable stressful life events and low versus high thought suppression on OC symptoms in both clinical and non-clinical sample. The results showed that strong efforts to suppress thoughts coupled with a low perceived capacity to control a recent stressful life event are associated with increased OCD symptoms. The researchers interpreted the findings as people who experience stressful life events, which are perceived as being difficult to control, might attempt to employ more mental control through increased thought suppression in order to compensate for a less controllable external environment.

In the cognitive explanation of OCD, occurrence of a particular incident or a series of incidents might have the effect of activating the pre-existing assumptions related to responsibility. Especially, if the quality of the event fits to the distorted responsibility assumptions, this would then leads to the neutralizing or avoidance behaviors in order to prevent harm to oneself or others. For example, if a person has an inflated sense of responsibility about harm concern and has a belief that every necessary precautions should be taken to prevent harm to others, then birth of a child would be a critical event for this person for the activation or triggering the OCD. Besides this, for people who have already been predisposed for OCD, situational

increase in the level of responsibility for example changing environment by marriage, changing job, or leaving home can also be a precipitating factor (Salkovskis, Shafran, Rachman, & Freeston, 1999).

In conclusion, life events have been accepted as important environmental factors which have a role as triggering the onset of OCD or worsening the existing symptoms. If the person has vulnerability for developing OCD, a life event could be a potential precipitating factor for the development of OCD and/or triggering the existing OCD symptoms.

1.5 Aims of the Study

The main aim of this study is to examine the vulnerability factors of Obsessive Compulsive Symptomatology (OCS) in a non-clinical sample. On the basis of Salkovskis' cognitive model of OCD, the core elements in the development and maintenance of the disorder; namely, perceived parental rearing behaviors as early experiences, responsibility attitudes, life events, and their relationship to OCS will be examined. Although many studies have investigated the impact of these variables on OCD separately, to our knowledge, there has been no study which tested the whole model. Therefore, the present study aimed;

1) to examine the role of perceived parental rearing behaviors, responsibility attitudes, and life events in predicting OCS.
2) to evaluate the mediator role of responsibility attitudes in the relationship between perceived parental rearing behaviors and OCS.
3) to find out the specificity of these variables to OCS by examining the relationship of the same variables to depression and trait anxiety.

The hypotheses of the present study are as follows:

1) Responsibility attitudes will be a significant predictor for obsessive compulsive symptoms (OCS).
2) Responsibility attitudes will not be a significant predictor for depression and trait anxiety. In other words, predictor role of responsibility attitudes will be specific to OCS, but not to depression and trait anxiety.
3) Among the perceived parental rearing behaviors, perceived parental overprotection will be a significant predictor for OCS.
4) Among the perceived parental rearing behaviors, perceived parental rejection will be a significant predictor for depression, and perceived parental overprotection will be a significant predictor for trait anxiety. In other words, perceived parental overprotection will be a significant predictor both for OCS and trait anxiety, but not for depression.
5) Perceived parental overprotection will have an effect on OCS through responsibility attitudes. In other words, responsibility attitudes will be a mediator between perceived parental overprotection and OCS.
6) Responsibility attitudes will not be a mediator between perceived parental rearing behaviors and depression, nor between perceived parental rearing behaviors and trait anxiety. In other words, mediator role of responsibility attitudes will be specific to OCS, but not to depression and trait anxiety.
7) Life events will be a significant predictor for OCS.
8) Life events will be a significant predictor for depression and trait anxiety. In other words, life events will be a significant predictor not only for OCS, but also for depression and trait anxiety.

CHAPTER II

METHOD

2.1 Participants

A total of 300 university students from various departments of Middle East Technical University participated in this study. The sample consisted of 153 (51%) males and 147 (49%) females with a mean age of 19.55 years (SD = 1.79; range: 17-27 years). Some other characteristics of the subjects are presented in Table 1.

2.2 Instruments

The research instrument was prepared as a booklet consisting of Informed Consent Form (see Appendix A), Demographic Information Form (see Appendix B), Padua Inventory-Washington State University Revision (see Appendix C), Responsibility Attitudes Scale (see Appendix D), s-EMBU (Egna Minnen Betraffande Uppfostran- My memories of upbringing) (see Appendix E), Life Events Inventory for University Students (see Appendix F), Beck Depression Inventory (see Appendix G), and State-Trait Anxiety Inventory-Trait Form (see Appendix H). The scales were given in a randomized order in order to prevent the ordering effects.

Table 1 Socio-Demographic Characteristics of the Sample

		N	%
Faculty	Fac. of Architecture	36	12
	Fac. of Arts & Sciences	31	10.33
	Fac. of Econ.&Adm.Scien.	34	11.33
	Fac. of Education	27	9
	Fac. of Engineering	159	53
Marital Status	Single	297	99
	Married	3	1
Family income	500 YTL and below	11	3.7
	500-1000 YTL	84	28.6
	1000-2000 YTL	111	37.8
	2000 YTL and above	88	29.9
Current Residency	Living with family	123	41.1
	Living with friends or alone	38	12.7
	Living in dormitory	138	46.2
Education level of mother	Primary school	52	17.6
	Secondary school	16	5.4
	High school	94	31.8
	University	127	42.9
	Post graduate	7	2.4
Education level of father	Primary school	33	11
	Secondary school	11	3.7
	High school	67	22.4
	University	163	54.5
	Post graduate	25	8.4
Number of siblings	One	38	12.7
	Two	181	60.3
	Three	57	19
	Four or more	24	8
Birth order of the subject	First	174	58
	Second	90	30
	Third	21	6.7
	Fourth or above	16	5.4
Marital status of the parents	Married with each other	269	89.7
	Divorced	15	5
	One of the parents is dead	16	5.3

2.2.1 Demographic Information Form

Demographic Information Form was developed by the researcher. It includes two parts consisting of questions about the demographic characteristics of the subject and his/her family. In the first part, the subject's age, gender, marital status, department, GPA, level of income, current residency, presence of any previous psychiatric problems, if any the diagnosis, and the kind of treatment taken were questioned. In the second part, the questions were related with the family, such as education level and employment status of the parents, total number of siblings, birth order of the subject among the siblings, and presence of any psychiatric problems in the family members (see Appendix B for the Demographic Information Form).

2.2.2 Padua Inventory-Washington State University Revision (PI-WSUR)

Padua Inventory-Washington State University Revision (PI-WSUR) was used in order to assess the level of obsessive compulsive symptoms. Padua Inventory (PI) was originally developed by Sanavio (1988) on the basis of information gathered from OCD and other neurotic patients, in order to assess the degree of disturbance related to a range of obsessive compulsive symptoms. The factor analysis of PI revealed 4 subscales (i.e., impaired control over mental activities, contamination, checking, and urges and worries about losing control of motor behavior) (Sanavio, 1988). However, factors evaluating obsessional symptoms were reported to be problematic in differentiating obsessions from worry (Freeston et al., 1994). In 1996, the inventory was revised by excluding problematic items, and was suggested a 39-item version, called Padua Inventory-Washington State University Revision (PI-

WSUR) (Burns, Keortge, Formea, & Sternberger, 1996). In this scale, self report items were rated on 5-point Likert type scale where 0 stands for ”not at all” and 4 for “very much”. 5-factorial dimensions of the new inventory were obsessional thoughts of harm to self/others, obsessional impulses of harm to self/others, checking compulsions, contamination obsessions and washing compulsions, and dressing/grooming compulsions.

The reliability and validity study of the Turkish version of PI-WSUR in a university student sample was conducted by Yorulmaz, Dirik, Karancı and Burns (2006). They found 5 factors which were similar to the original one. The factors were checking compulsions, contamination obsessions and washing compulsions, obsessional impulses of harm to self/others, dressing/grooming compulsions, and obsessional thoughts of harm to self/others. The total internal consistency coefficient for the student sample was .93, and .91 for checking compulsions, .87 for contamination obsessions and washing compulsions, .84 for obsessional impulses of harm to self/others, .73 for dressing/grooming compulsions, and .75 for obsessional thoughts of harm to self/others subscales. Test-retest reliability coefficient was .86 for the total scale. For the concurrent validity, the correlation coefficient between the total scores of PI-WSUR and Moudsley Obsessive Compulsive Inventory (MOCI) was .76. Thought Action- Fusion Scale (TAF), and TAF-Morality and TAF-Likelihood subscales had also high and/or moderate correlations with the total scale and its subscales.

In the present study, the cronbach alpha coefficient for the total scale was found to be .91, indicating high internal consistency of the scale. The total scale score was used to asses the level of obsessive compulsive symptomatology in this

study. The higher total score taken from the scale demonstrated higher severity of the obsessive compulsive symptomatology (see Appendix C for the PI-WSUR).

2.2.3 Responsibility Attitude Scale (RAS)

In order to assess the general attitudes and beliefs related to responsibility and harm concern in OCD, Responsibility Attitudes Scale (RAS) was used which was originally developed by Salkovskis and his friends (2000). RAS is a 7-point Likert type scale with 26 items, where 1 stands for ”totally disagree”, 4 stands for “neutral” and 7 stands for “totally agree”. The higher score obtained from the scale indicates higher responsibility attitudes.

The scale was adapted into Turkish by Yorulmaz (2002). Cronbach alpha coefficient of RAS was found to be .88, supporting the internal consistency of the scale. The test-retest and split half reliabilities were .55, and .86, respectively. In terms of concurrent validity, the correlation coefficient between RAS and MOCI was .60, and in terms for construct validity, low and high obsessive compulsive symptom groups were found to be significantly different in terms of their RAS scores.

In the present study, the reliability analysis for internal consistency showed that the cronbach alpha coefficient was .92 (see Appendix D for RAS).

2.2.4 Short-EMBU (Egna Minnen Betraffande Uppfostran- My Memories of Upbringing)

In order to assess the subjects’ perceptions of their parents’ child rearing behaviors, short-EMBU (s-EMBU) was used (Arrindell et al., 1999). It is a 23-item short form scale which was developed from the original 81-item version (Perris,

Jacobsson, Lindström, von Knorring, & Perris, 1980). s-EMBU is a 4-point Likert type scale, where 1 stands for "never" and 4 stands for "most of the time". The items are responded separately for perceived mother's and father's behaviors towards the subject. s-EMBU has three factors: Rejection (i.e., punitive, shaming, favoring siblings over the subject, rejection through criticism, rejection of the subject as an individual and abusive), Emotional Warmth (i.e. affectionate, stimulating, praising), and (Over) Protection (i.e. fearful and anxious for subject's safety, intrusive, and over involved). 6 subscale scores (3 for mothers and 3 for fathers) are obtained from the scale, and higher scores indicate higher perceived parental rearing behaviors in that specific subscale.

The adaptation study of the Turkish version of s-EMBU was carried out by Karancı et al. (2006) as part of a wide cross-cultural study. 3 factors (Rejection, Emotional Warmth, and (Over) Protection) were found both for mothers and fathers, showing the same factor structure to the original scale. In terms of internal consistency, alpha coefficients of the subscales for mother Rejection, Emotional Warmth, and (Over) Protection were found to be .80, .76, and .76, respectively. For the fathers, the alpha coefficients for Rejection, Emotional Warmth, and (Over) Protection were found to be .82, .79, and .79 respectively, indicating high internal consistencies. The correlations between s-EMBU subscales and short-Bem Sex Role Inventory (s-BSRI) (Bem, 1981) indicated that both perceived mother and father Emotional Warmth were correlated positively with Masculinity and Femininity. Mother and father Rejection were found to be negatively correlated with Femininity, and Rejection by mothers was negatively correlated with Masculinity. However, in

terms of (Over) Protection, no significant correlations were found between mother and father (Over) Protection and Masculinity and Femininity.

In the present study, six factors found by Karancı et al. (2006) were used in order to assess subjects' perceptions about their parents' child rearing behaviors. Cronbach alpha coefficients were found to be .77, .58, and .76, respectively for mother Emotional Warmth, mother Rejection, and mother (Over) Protection; and were found to be .82, .60, and .74, respectively for father Emotional Warmth, father Rejection, and father (Over) Protection, in this study (see Appendix E for s-EMBU).

2.2.5 Life Events Inventory for University Students (LEIU)

In order to assess the negative life events and daily hassles experienced by the subjects, Life Events Inventory for University Students (LEIU) was used (Dinç, 2001). The original scale was developed by Oral (1999), and most of the items in this scale overlapped with the stress factors specific to university students which were found in another study (Şahin, Rugancı, Taş, Kuyucu, & Sezgin, 1991). The original scale (Oral, 1999) is a 49 item 5-point Likert type scale where 1 stands for "never" and 5 stands for "always" indicating the frequency of the life events within the last month. Oral (1999) found a high reliability and validity coefficients for LEIU in a Turkish university student sample. The internal consistency was found to be .90, and item total correlation of the items ranged from .19 to .64. The correlation between LEIU and Beck Depression Inventory was found to be .52.

Dinç (2001) modified the scale by adding several items for the purpose of addressing the underrepresented domains, and formed the 54-item scale. Moreover, in addition to the frequencies of the life events, the intensity of the event or the stress

caused by the event was also scored. The frequency of the events were rated from 1 (never) to 5 (always) and the intensity of the events were rated from 1 (not at all) to 5 (very much). After the factor analysis of the scale, two factors named as "achievement related life events" and "social life events" were obtained. Alpha coefficients for the "achievement related life events" and "social life events" were found to be .88 and .86, respectively. Internal consistency for the total scale was .90.

In this study, the scores obtained for the frequency and intensity of the items were multiplied, and used as a single score in the analyses. The cronbach alpha coefficient for the total scale was found to be .92 in the current study (see Appendix F for LEIU).

2.2.6 Beck Depression Inventory (BDI)

In order to assess the level of depressive symptoms of the subjects, Beck Depression Inventory (Beck, Steer, & Garbin, 1988) was used. It is a 21-item self-report scale in which items are rated between 0 and 3. The higher total score taken from the scale demonstrates higher severity of the depressive symptomatology.

Two adaptation studies were conducted for the Turkish form of BDI (Tegin, 1980; Hisli, 1988, 1989). The revised form adapted by Hisli (1988, 1989) was used in this study. The cronbach alpha and split half reliabilities of BDI were found to be .74 and .74, respectively. The scale was found to be highly correlated with the depression subscale of MMPI.

In the present study the cronbach alpha coefficient for the scale was found to be .82 (see Appendix G for BDI).

2.2.7 State-Trait Anxiety Inventory-Trait Form (STAI-T)

In order to assess the level of trait anxiety of the subjects, trait form of STAI was used (Spielberg, Gorsuch, & Lushere, 1970). STAI is a 40 item self-report scale in which items are rated between 1 to 4, where 1 stands for "almost never", 2 stands for "sometimes", 3 stands for "mostly", and 4 stands for "almost always". It has two parts each consisting of 20 questions for assessing state and trait anxiety. In this study, only the Trait form of STAI (STAI-T) was used in order to asses the long-term anxiety levels of the subjects, rather than the situational ones.

The scale was adapted into Turkish by Öner and Le Compte (1985). Internal consistency of trait anxiety inventory ranged from .83 to .87, and the one for state anxiety inventory ranged from .94 to.96. Test-retest reliability of the trait anxiety inventory was found to be between .71 and .86, and for state anxiety inventory it was found to be between .26 and .68. The criterion and construct validities of the scale were also found to be satisfactory.

In the present study, the cronbach alpha coefficient for the scale was found to be .86 (see Appendix H for STAI-T).

2.3 Procedure

The research scales were prepared as a booklet consisted of the Informed Consent form, Demographic Information Form, PI-WSUR, RAS, s-EMBU, LEIU, BDI, and STAI-T. The booklet was given to the students from various departments of Middle East Technical University in 2006-spring semester. After taking the instructors' and the participants' consent, the instruments were administered during regular class hours. Before the administration, the participants were informed about

the aims of the study. The questionnaires were administered in a randomized sequence in order to eliminate the sequencing effect. The administration took approximately 30-40 minutes.

2.4 Data Screening and Statistical Analysis

In the present study, the statistical analyses were performed by using the Statistical Package for the Social Sciences (SPSS) Programme (Green, Salkind, & Akey, 1997). Before the analyses, data were examined for accuracy of data entry, missing values, and assumptions of multivariate analyses. Among a total of 319 cases, 11 cases were removed from the data due to a large number of missing values. Mean substitution was used for the variables which had missing values on less than 5% of the items. 8 cases were deleted since they were identified as multivariate outliers through Mahalanobis distance, with $p < .001$. As a result, a total of 300 cases remained for the subsequent analysis. These cases were checked for the assumptions of multivariate statistics and were found to be satisfactory.

Prior to the main analysis, reliability analyses were performed for the s-EMBU, PI-WSUR, RAS, LEIU, BDI and STAI-T. Then, high and low obsessive compulsive symptom groups were formed by using the score distribution on the PI-WSUR. These extreme groups were compared in terms of their perceived parental rearing behaviors, after controlling for depression and trait anxiety scores, by using a 2 (high and low OCS groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor. In addition to this, in order to examine the specificity of the findings to OCS, two more ANCOVAs were performed; one for examining the high and low Depression group differences in

terms of perceived parental rearing behaviors after controlling for OCS and trait anxiety scores, and the other for examining the high and low Trait Anxiety group differences in terms of perceived parental rearing behaviors after controlling for OCS and depression scores.

Then the hypotheses of the study were tested through separate regression analysis. In the light of the research questions about the predictors of Obsessive Compulsive Symptomatology (OCS), a hierarchical multiple regression analysis was conducted in order to examine the role of perceived parental rearing behaviors, responsibility attitudes and life events in predicting OCS after controlling for the effects of depression and trait anxiety. In order to examine the specificity of the findings to OCS, two more regression analysis were performed; one for examining the predictor role of these variables for depression after controlling for OCS and trait anxiety, and the other for predicting trait anxiety from the same variables after controlling for OCS and depression.

While examining the predictors of OCS, the mediation analysis, which explains how or why a predictor variable affects the criterion variable (Baron & Kenny, 1986), was preferred. The aim of using mediation analysis in this study was to explain how the effects of perceived parental rearing behaviors occur on OCS. Here, responsibility attitudes were proposed to have a mediator role in the relationship between perceived parental rearing behaviors and OCS, in other words, perceived parental rearing behaviors were expected to affect OCS via responsibility attitudes. In order to satisfy the criteria of mediation analysis, the following assumptions must be met (Baron & Kenny, 1986): Fist of all, perceived parental rearing behaviors and responsibility attitudes should significantly predict OCS.

Secondly, perceived parental rearing behaviors should significantly predict responsibility attitudes to be able to call responsibility attitudes as a mediator. Finally, the effects of perceived parental rearing behaviors on OCS should become non significant or decrease significantly when responsibility attitudes enter into the regression equation.

CHAPTER III

RESULTS

In this section, firstly, the descriptive statistics for the major variables of the study will be presented. Then, the differences between high and low Obsessive Compulsive Symptom (OCS) groups, depression groups and trait anxiety groups will be examined in terms of perceived parental rearing behaviors. Finally perceived parental rearing behaviors, responsibility attitudes and life events will be examined as the predictors of obsessive compulsive symptomatology, depression and trait anxiety.

3.1 Descriptive Statistics for the Major Variables of the Study

In order to see the descriptive information for the variables used in the study, the means and the standard deviations of the measures were computed, which are presented in Table 2.

Six subscale scores of s-EMBU were obtained by summation of the items for the subscale divided by the number of items in each subscale. For the scores of RAS, PI-WSUR, and STAI-T, the mean total scores were computed, whereas for BDI, the total score was used. For LEIU, the frequency and intensity scores of the items were multiplied to create a single score, and then the mean total score was computed.

All of the major variables were normally distributed, except for the mother rejection, father rejection, PI-WSUR and BDI scores which were positively skewed.

The examination of the mean and skewness scores of these variables showed that the distribution of the scores on these scales tended to cluster at the lower scores which is an expectable finding for a non-clinical university student sample.

Table 2 Means and Standard Deviations of the Major Variables of the Study

Variable	Mean	Standard Deviation	Range	Possible Range
Mother Emotional Warmth	3.17	0.56	1.5 – 4	1 – 4
Mother Rejection	1.22	0.24	1 - 2.29	1 – 4
Mother (Over)Protection	2.16	0.51	1 – 3.67	1 – 4
Father Emotional Warmth	2.93	0.65	1.17 – 4	1 – 4
Father Rejection	1.20	0.24	1 – 2.29	1 – 4
Father (Over)Protection	1.97	0.48	1 – 3.67	1 – 4
RAS	3.58	1.01	1 – 5.92	1 – 7
LEIU	6.56	2.68	1.87 – 14.26	1 – 25
PI-WSUR	0.95	0.50	0 – 2.85	0 – 4
STAI-T	2.39	0.25	1.80 – 3.15	1 – 4
BDI	9.35	6.31	0 – 33	0 – 63

Note: RAS: Responsibility Attitude Scale, LEIU: Life Events Inventory for University Students, PI-WSUR: Padua Inventory-Washington State University Revision, STAI-T: State Trait Anxiety-Trait Form, BDI: Beck Depression Inventory.

3.2 Differences between High and Low Obsessive Compulsive Symptom (OCS) Groups, Depression Groups and Trait Anxiety Groups in Terms of Perceived Parental Rearing Behaviors

In order to examine whether the subjects who have high OCS scores would differ from the subjects who have low OCS scores in terms of their perceived parental rearing behaviors, a 2 (high and low OCS groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last

factor was conducted after controlling for the depression and trait anxiety scores. In order to examine the specificity of the findings to OCS, extreme depression groups were also formed and examined in terms of their perceived parental rearing behaviors by using another 2 (high and low depression groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor after controlling for the OCS and trait anxiety scores. Finally, in the same way, the differences between high and low trait anxiety groups were created and examined in terms of their perceived parental rearing behaviors by using another 2 (high and low trait anxiety groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor after controlling for the OCS and depression scores.

3.2.1 Differences between High and Low Obsessive Compulsive Symptom Groups in Terms of Perceived Parental Rearing Behaviors

In order to analyze the differences between the high and low obsessive compulsive symptom groups in terms of their perceived parental rearing behaviors, a 2 (high and low OCS groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor was conducted after controlling for the depression and trait anxiety scores. The six factors of s-EMBU were mother emotional warmth, mother rejection, mother (over)protection, father emotional warmth, father rejection and father (over)protection. High and low obsessive compulsive symptom groups were determined by using the score distribution on PI-WSUR. The upper 25% of the score distribution for PI-WSUR (the cut-off point was 1.21 and above) formed the high obsessive compulsive symptom

group (n=69), where as the lower 25% of the score distribution for PI-WSUR (the cut-off point was 0.59 and below) formed the low obsessive compulsive symptom group (n=74). In order to investigate whether the categorization of participants according to upper and lower 25% was appropriate or not, the mean difference between high and low OCS groups was examined by using an independent sample t-test. The results showed that there was a significant difference between high and low OCS groups in terms of PI-WSUR scores ($t(141) = -27.51$, $p < .001$). This indicated that the subjects in high OCS group had significantly higher PI-WSUR scores ($M = 1.68$) than the subjects in the low OCS group ($M = .41$).

Table 3 Analysis of Covariance for OCS Groups and Factors of s-EMBU

Source	df	SS	MS	F
OCS groups	1	1.59	1.59	5.6*
Error	139	39.48	.28	
Factors of s-EMBU	5	.80	.16	.86
Factors of s-EMBU X OCS groups	5	3.27	.65	3.49**
Error	695	130.05	.19	

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

As presented in Table 3, the ANCOVA results revealed significant main effect for OCS groups, $F(1, 139) = 5.6$, $p < .05$, but no significant main effect for factors of s-EMBU, $F(5, 695) = .86$ (n.s.). The interaction effect of factors of s-EMBU and OCS groups was also significant, $F(5, 695) = 3.49$, $p < .01$.

Table 4 Mean Scores of s-EMBU subscales for High and Low OCS Groups

	Mother Emotional Warmth	Mother Rejection	Mother (Over) Protection	Father Emotional Warmth	Father Rejection	Father (Over) Protection
Low OCS Group	3.20^{a}	1.19^{b}	1.99^{c}	3.00^{ae}	1.14^{b}	1.90^{c}
High OCS Group	3.17^{a}	1.24^{b}	2.37^{d}	2.93^{e}	1.25^{b}	2.12^{f}

Note: The mean scores that do not share the same subscript on the same row or on the same column are significantly different from each other according to Fisher LSD and Tukey's HSD at .05 alpha level.

Post-hoc analyses were conducted in order to examine the interaction effect of the factors of s-EMBU and the OCS groups, $F(5, 695) = 3.49$, $p < .01$. As can be seen from Table 4, the results of the post-hoc analyses by using Fisher LSD at .05 alpha level revealed that the subjects in the high OCS group (M= 2.37) received significantly higher scores on Mother (Over) protection subscale than the subjects in the low OCS group (M= 1.99). In addition to this, the subjects in high OCS group (M= 2.12) also received significantly higher scores on Father (Over) protection subscale than the subjects in the low OCS group (M= 1.90). However, there were no significant difference between high and low OCS groups in terms of their Mother Rejection (M= 1.24, and M= 1.19, respectively for high and low OCS groups), Father Rejection (M= 1.25, and M= 1.14, respectively for high and low OCS groups), Mother Emotional Warmth (M= 3.17, and M= 3.20, respectively for high and low OCS groups), and Father Emotional Warmth (M= 2.93, and M= 3.00, respectively for high and low OCS groups) subscale scores. Thus, the significant interaction effect of ANCOVA indicated that after controlling for depression and trait anxiety scores, the subjects who had higher scores on OCS perceived their

mothers' and fathers' rearing behaviors as being more (over) protective than did the subjects who had lower scores on OCS. However, there was no significant difference between high and low OCS groups in terms of their perceived mother and father rejection and emotional warmth scores.

Furthermore, post-hoc analysis by using Tukey's HSD at .05 alpha level revealed that in low OCS group, Mother Emotional Warmth (M= 3.20) scores were significantly higher than Mother (Over) protection (M= 1.99) scores which was also significantly higher than Mother Rejection (M= 1.19) scores. Similarly, in low OCS group, Father Emotional Warmth (M= 3.00) scores were significantly higher than Father (Over) protection (M= 1.90) scores which was also significantly higher than Father Rejection (M= 1.14) scores. This significant interaction effect revealed that the subjects who had lower OCS scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. There were no significant difference between Mother Emotional Warmth (M= 3.20) and Father Emotional Warmth (M =3.00), between Mother (Over) protection (M= 1.99) and Father (Over) protection (M= 1.90), and between Mother Rejection (M= 1.19) and Father Rejection (M= 1.14) scores, indicating to no significant difference between the mothers and fathers in terms of the same type of rearing behaviors in the low OCS group.

In high OCS group, Mother Emotional Warmth (M= 3.17) scores were significantly higher than Mother (Over) protection (M= 2.37) scores which was also significantly higher than Mother Rejection (M= 1.24) scores. Similarly, Father Emotional Warmth (M= 2.93) scores were significantly higher than Father (Over) protection (M= 2.12) scores which was also significantly higher than Father

Rejection (M= 1.25) scores. This significant interaction effect showed that, similar to the findings for low OCS group, subjects who had higher OCS scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. Contrary to the findings for low OCS group, subjects in high OCS group rated Mother (Over) protection (M= 2.37) subscale significantly higher than Father (Over) protection (M= 2.12) subscale. They also rated Mother Emotional Warmth (M= 3.17) subscale significantly higher than Father Emotional Warmth (M= 2.93) subscale. However, there was no significant difference between Mother Rejection (M= 1.24) and Father Rejection (M= 1.25) scores in high OCS group. So, these interaction effects revealed that subjects who had higher OCS scores perceived their mothers' rearing behavior as being more overprotective and emotionally warm compared to their fathers' same type of rearing behaviors.

3.2.2 Differences between High and Low Depression Groups in Terms of Perceived Parental Rearing Behaviors

In order to analyze the differences between the high and low depression groups in terms of their perceived parental rearing behaviors after controlling for the OCS and trait anxiety scores, a 2 (high and low depression groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor was conducted. The six factors of s-EMBU were mother emotional warmth, mother rejection, mother (over)protection, father emotional warmth, father rejection and father (over)protection. High and low depression groups were determined by using the score distribution on BDI. The upper 25% of the score distribution for BDI (the cut-off point was 13 and above) formed the high depression

group (n=79), where as the lower 25% of the score distribution for BDI (the cut-off point was 4 and below) formed the low depression group (n=72). In order to investigate whether the categorization of participants according to upper and lower 25% was appropriate or not, the mean difference between high and low depression groups was examined by using an independent sample t-test. The results showed that there was a significant difference between high and low depression groups in terms of BDI scores ($t(149) = -25.81$, $p < .001$). This indicated that the subjects in high depression group had significantly higher BDI scores ($M = 17.83$) than the subjects in the low depression group ($M = 2.46$).

Table 5 Analysis of Covariance for Depression Groups and Factors of s-EMBU

Source	Df	SS	MS	F
Depression groups	1	.28	.28	.70
Error	147	57.55	.39	
Factors of s-EMBU	5	.13	.03	.12
Factors of s-EMBU X Depression groups	5	13.74	2.75	12.59*
Error	735	160.38	.22	

*p<.001

As presented in Table 5, the ANCOVA results revealed there were no significant main effects for Depression groups, $F(1, 147) = .70$ (n.s.) and for factors of s-EMBU, $F(5, 735) = .12$ (n.s.). However, the interaction effect of factors of s-EMBU and Depression groups was significant, $F(5, 735) = 12.59$, $p < .001$.

Table 6 Mean Scores of s-EMBU subscales for High and Low Depression Groups

	Mother Emotional Warmth	Mother Rejection	Mother (Over) Protection	Father Emotional Warmth	Father Rejection	Father (Over) Protection
Low Depression Group	3.30[a]	1.15[b]	2.11[cf]	3.08[a]	1.13[b]	1.95[c]
High Depression Group	2.93[d]	1.33[e]	2.28[f]	2.60[g]	1.31[e]	2.05 [c]

Note: The mean scores that do not share the same subscript on the same row or on the same column are significantly different from each other according to Fisher LSD and Tukey's HSD at .05 alpha level.

Post-hoc analyses were conducted in order to examine the interaction effect of the factors of s-EMBU and the Depression groups, $F(5, 735) = 12.59$, $p < .001$. As can be seen from Table 6, the results of the post-hoc analyses by using Fisher LSD at .05 alpha level revealed that the subjects in the high Depression group received significantly lower scores on Mother Emotional Warmth (M= 2.93) subscale and significantly higher scores on Mother Rejection (M= 1.33) subscale than the subjects in the low Depression group (M= 3.30, and M= 1.15, respectively for Mother Emotional Warmth and Mother Rejection). Similarly, the subjects in high Depression group received significantly lower scores on Father Emotional Warmth (M= 2.60) subscale and significantly higher scores on Father Rejection (M= 1.31) subscale than the subjects in the low Depression group (M= 3.08, and M= 1.13, respectively for Father Emotional Warmth and Father Rejection). However, there were no significant difference between high and low Depression groups in terms of their Mother (Over) protection (M= 2.28, and M= 2.11, respectively for high and low Depression groups), and Father (Over) protection (M= 2.05, and M= 1.95, respectively for high

and low Depression groups) subscale scores. Thus, the significant interaction effects of ANCOVA indicated that after controlling for OCS and trait anxiety scores, the subjects who had higher depression scores perceived their mothers' and fathers' rearing behaviors as being more rejecting and less emotionally warm than did the subjects who had lower depression scores. However, there was no significant difference between the high and low Depression groups in terms of their perceived mother and father overprotection scores.

Furthermore, post-hoc analysis by using Tukey's HSD at .05 alpha level revealed that in low Depression group, Mother Emotional Warmth (M= 3.30) scores were significantly higher than Mother (Over) protection (M= 2.11) scores which was also significantly higher than Mother Rejection (M= 1.15) scores. Similarly, in low Depression group, Father Emotional Warmth (M= 3.08) scores were significantly higher than Father (Over) protection (M= 1.95) scores which was also significantly higher than Father Rejection (M= 1.13) scores. These significant interaction effects revealed that the subjects who had lower depression scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. There were no significant difference between Mother Emotional Warmth (M= 3.30) and Father Emotional Warmth (M =3.08), between Mother (Over) protection (M= 2.11) and Father (Over) protection (M= 1.95), and between Mother Rejection (M= 1.15) and Father Rejection (M= 1.13) scores, indicating to no significant difference between the mothers and fathers in terms of the same type of rearing behaviors in the low Depression group.

In high Depression group, Mother Emotional Warmth (M= 2.93) scores were significantly higher than Mother (Over) protection (M= 2.28) scores which was also

significantly higher than Mother Rejection (M= 1.33) scores. Similarly, Father Emotional Warmth (M= 2.60) scores were significantly higher than Father (Over) protection (M= 2.05) scores which was also significantly higher than Father Rejection (M= 1.31) scores. This significant interaction effect showed that, similar to the findings for low Depression group, subjects who had higher Depression scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. Furthermore, subjects in high Depression group rated Mother Emotional Warmth (M= 2.93) subscale significantly higher than Father Emotional Warmth (M= 2.60) subscale. They also rated Mother (Over) protection (M= 2.28) subscale significantly higher than Father (Over) protection (M= 2.05) subscale. However, there was no significant difference between Mother Rejection (M= 1.33) and Father Rejection (M= 1.31) scores in high Depression group. So, these interaction effects revealed that subjects who had higher Depression scores perceived their mothers' rearing behavior as being more emotionally warm and overprotective compared to their fathers' same type of rearing behaviors.

3.2.3 Differences between High and Low Trait Anxiety Groups in Terms of Perceived Parental Rearing Behaviors

In order to analyze the differences between the high and low trait anxiety groups in terms of their perceived parental rearing behaviors after controlling for the OCS and depression scores, a 2 (high and low trait anxiety groups) X 6 (factors of s-EMBU) mixed design analysis of covariance (ANCOVA) with repeated measure on the last factor was conducted. The six factors of s-EMBU were mother emotional

warmth, mother rejection, mother (over)protection, father emotional warmth, father rejection and father (over)protection. High and low trait anxiety groups were determined by using the score distribution on STAI-T. The upper 25% of the score distribution for STAI-T (the cut-off point was 2.55 and above) formed the high trait anxiety group (n=73), where as the lower 25% of the score distribution for STAI-T (the cut-off point was 2.23 and below) formed the low trait anxiety group (n=86). In order to investigate whether the categorization of participants according to upper and lower 25% was appropriate or not, the mean difference between high and low trait anxiety groups was examined by using an independent sample t-test. The results showed that there was a significant difference between high and low trait anxiety groups in terms of STAI-T scores ($t(157) = -33.11$, $p < .05$). This indicated that the subjects in high trait anxiety group had significantly higher STAI-T scores ($M = 2.71$) than the subjects in the low trait anxiety group ($M = 2.07$).

Table 7 Analysis of Covariance for Trait Anxiety Groups and Factors of s-EMBU

Source	df	SS	MS	F
Trait Anxiety groups	1	2.26	2.26	6.31*
Error	155	55.61	.36	
Factors of s-EMBU	5	106.18	21.24	104.28**
Factors of s-EMBU X Trait Anxiety groups	5	2.73	.55	2.68*
Error	775	157.81	.20	

**p<.001, *p<.05

As presented in Table 7, the ANCOVA results revealed significant main effects for Trait Anxiety groups, $F(1, 155) = 6.31$, $p < .05$, and for factors of s-

EMBU, F (5, 775) = 104.28, p< .001. The interaction effect of factors of s-EMBU and Trait Anxiety groups was also significant, F (5, 775) = 2.68, p< .05.

Table 8 Mean Scores of s-EMBU subscales for High and Low Trait Anxiety Groups

	Mother Emotional Warmth	Mother Rejection	Mother (Over) Protection	Father Emotional Warmth	Father Rejection	Father (Over) Protection
Low Trait Anxiety Group	2.99^{a}	1.23^{b}	2.19^{c}	2.77^{d}	1.22^{b}	1.99^{cg}
High Trait Anxiety Group	3.27^{e}	1.25^{b}	2.29^{c}	3.06^{f}	1.21^{b}	2.01^{g}

Note: The mean scores that do not share the same subscript on the same row or on the same column are significantly different from each other according to Fisher LSD and Tukey's HSD at .05 alpha level.

The significant interaction effect of the Trait Anxiety groups and the factors of s-EMBU, F (5, 775) = 2.68, p< .05, was examined by post-hoc analysis. As can be seen from Table 8, the results of the post-hoc analyses by using Fisher LSD at .05 alpha level revealed that the subjects in the high Trait Anxiety group received significantly higher scores on Mother Emotional Warmth (M= 3.27) subscale than the subjects in the low Trait Anxiety group (M= 2.99). Similarly, the subjects in the high Trait Anxiety group received significantly higher scores on Father Emotional Warmth (M= 3.06) subscale than the subjects in the low Trait Anxiety group (M= 2.77). However, there were no significant differences between high and low Trait Anxiety groups in terms of their Mother (Over) protection (M= 2.29, and M= 2.19, respectively for high and low Trait Anxiety groups), Father (Over) protection (M= 2.01, and M= 1.99, respectively for high and low Trait Anxiety groups), Mother

Rejection (M= 1.25, and M= 1.23, respectively for high and low Trait Anxiety groups), and Father Rejection (M= 1.21, and M= 1.22, respectively for high and low Trait Anxiety groups) subscales. Thus, the significant interaction effects of ANCOVA indicated that after controlling for OCS and depression scores, the subjects who had higher trait anxiety scores perceived their mothers' and fathers' rearing behaviors as being more emotionally warm than the subjects who had lower trait anxiety scores. However, there was no significant difference between the high and low trait anxiety groups in terms of their perceived mother and father overprotection and rejection scores.

Furthermore, post-hoc analysis by using Tukey's HSD at .05 alpha level revealed that in low Trait Anxiety group, Mother Emotional Warmth (M= 2.99) scores were significantly higher than Mother (Over) protection (M= 2.19) scores which was also significantly higher than Mother Rejection (M= 1.23) scores. Similarly, in low Trait Anxiety group, Father Emotional Warmth (M= 2.77) scores were significantly higher than Father (Over) protection (M= 1.99) scores which was also significantly higher than Father Rejection (M= 1.22) scores. These significant interaction effects revealed that the subjects who had low trait anxiety scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. Furthermore, subjects in low Trait Anxiety group rated Mother Emotional Warmth (M= 2.99) subscale significantly higher than Father Emotional Warmth (M= 2.77) subscale. However, there were no significant difference between Mother (Over) protection (M= 2.19) and Father (Over) protection (M= 1.99), and between Mother Rejection (M= 1.23) and Father Rejection (M= 1.22) scores, indicating to no significant difference between the

mothers and fathers in terms of the same type of perceived rearing behaviors in the low Trait Anxiety group.

In high Trait Anxiety group, Mother Emotional Warmth (M= 3.27) scores were significantly higher than Mother (Over) protection (M= 2.29) scores which was also significantly higher than Mother Rejection (M= 1.25) scores. In addition to this, Father Emotional Warmth (M= 3.06) scores were significantly higher than Father (Over) protection (M= 2.01) scores which was also significantly higher than Father Rejection (M= 1.21) scores. This interaction effect showed that, similar to the findings for low Trait Anxiety group, subjects who had higher Trait anxiety scores perceived their mothers' and fathers' rearing behaviors mostly as being emotionally warm, then overprotective and least as rejecting. Furthermore, subjects in high Trait Anxiety group rated Mother Emotional Warmth (M= 3.27) subscale significantly higher than Father Emotional Warmth (M= 3.06) subscale. They also rated Mother (Over) protection (M= 2.29) subscale significantly higher than Father (Over) protection (M= 2.01) subscale. However, there was no significant difference between Mother Rejection (M= 1.25) and Father Rejection (M= 1.21) scores in high Trait Anxiety group. So, these interaction effects revealed that subjects who had higher Trait Anxiety scores perceived their mothers' rearing behavior as being more emotionally warm and overprotective compared to their fathers' same type of rearing behaviors.

3.2.4 The Summary of the ANCOVA Results: The Differences between High and Low OCS, Depression and Trait Anxiety Groups in Terms of Perceived Parental Rearing Behaviors

The ANCOVAs were mainly conducted to investigate the group differences in terms of perceived parental rearing behaviors. Therefore, the interaction effects related to the difference between high and low symptomatology groups, rather than the within group differences, were summarized. The results of the three ANCOVAs are presented in Table 9.

Table 9 Mean Scores of the Factors of s-EMBU for High and Low OCS, Depression and Trait Anxiety Groups

	OCS		**Depression**		**Trait Anxiety**	
	Low	**High**	**Low**	**High**	**Low**	**High**
Mother Emotional Warmth			M=3.30	M=2.93	M=2.99	M=3.27
Mother Rejection			M=1.15	M=1.33		
Mother (Over) Protection	M=1.99	M=2.37				
Father Emotional Warmth			M=3.08	M=2.60	M=2.77	M=3.06
Father Rejection			M=1.13	M=1.31		
Father (Over) Protection	M=1.90	M=2.12				

Note: The high and low symptom groups under the same symptomatology are significantly different from each other in terms of the given factors of s-EMBU at .05 alpha level of Fisher LSD.

As can be seen from Table 9, for Obsessive Compulsive Symptomatology, perceived mother and father (Over)protection subscale scores were the only factors which differentiated the high and low OCS groups. The results of the ANCOVA revealed that after controlling for depression and trait anxiety scores, the subjects who had higher OCS scores perceived their mothers' and fathers' rearing behaviors as more overprotective than the subjects who had lower OCS scores. However, there was no significant difference between high and low OCS groups in terms of their perceived mother and father rejection and emotional warmth scores.

On the other hand, for Depression, mother and father Rejection and Emotional Warmth subscale scores were significantly different for the high and low depression groups. The results of the ANCOVA revealed that after controlling for OCS and trait anxiety scores, the subjects who had higher depression scores perceived their mothers' and fathers' rearing behaviors as more rejecting and less emotionally warm than the subjects who had lower depression scores. However, contrary to the findings for OCS, there was no significant difference between the high and low Depression groups in terms of their perceived mother and father overprotection scores.

For Trait Anxiety, high and low trait anxiety groups were significantly different from each other only on the mother and father Emotional Warmth subscale scores. The results of the ANCOVA revealed that after controlling for OCS and depression scores, the subjects who had higher trait anxiety scores perceived their mothers' and fathers' rearing behaviors as more emotionally warm than the subjects who had lower trait anxiety scores. However, there was no significant difference

between the high and low trait anxiety groups in terms of their perceived mother and father overprotection and rejection scores.

To sum up, the subjects scoring high on OCS perceived their mothers' and fathers' rearing behaviors as more overprotective, where as the subjects scoring high on depression perceived their mothers' and fathers' rearing behaviors as more rejecting and less emotionally warm. On the other hand, subjects scoring high on trait anxiety perceived their mothers' and fathers' rearing behaviors as more emotionally warm which is contrary to the findings for depression.

3.3 Correlations among the Variables Used in Regression Analysis

Pearson correlation coefficients were computed for the variables that were used in the regression analyses. Table 10 shows the Pearson correlation coefficients.

When demographic variables were taken into account, gender (1= female, 2= male) was negatively correlated with trait anxiety, perceived mother and father emotional warmth, and life events. On the other hand, gender was positively correlated with perceived father rejection. In addition to this, age was positively related with responsibility attitudes and life events.

In terms of the correlations between the subscales of s-EMBU, mother emotional warmth, (over) protection, and rejection scores were positively and respectively correlated with father emotional warmth, (over) protection, and rejection scores. Mother and father emotional warmth scores were negatively correlated with mother and father rejection scores. In addition to this, mother and father (over) protection scores were positively correlated with mother and father rejection scores. Besides these significant correlations, there was also a significant negative

correlation between mother (over) protection and father emotional warmth, indicating that when father emotional warmth scores decrease, mother (over) protection scores increase.

Correlation analysis revealed that responsibility attitudes scores were positively correlated with mother (over) protection, mother rejection, father (over) protection, father rejection, life events, OCS, depression, and trait anxiety scores.

OCS scores were positively correlated with responsibility attitudes, life events, mother (over) protection, mother rejection, father (over) protection, father rejection, depression and trait anxiety scores.

Depression scores were positively correlated with trait anxiety, life events, responsibility attitudes, OCS, mother (over) protection, mother rejection, father (over) protection, father rejection, and negatively correlated with mother and father emotional warmth scores. On the other hand, trait anxiety scores were positively correlated with depression, life events, responsibility attitudes, OCS, mother emotional warmth and mother (over) protection scores.

Table 10 Correlation Coefficients among the Variables Used in Regression Analysis

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.Gender													
2.Age	**-.22****												
3. BDI	-.03	-.001											
4. STAI	**-.32****	.09	**.32****										
5. M-EW	**-.24****	.03	**-.17****	**.19****									
6. M-OP	.07	-.08	**.24****	**.20****	-.09								
7. M-R	.05	-.004	**.31****	.11	**-.39****	**.40****							
8. F-EW	**-.33****	.05	**-.25****	.11	**.77****	**-.16***	**-.33****						
9. F-OP	.02	-.03	**.11***	.09	-.11	**.76****	**.29****	-.06					
10. F-R	**.21****	.02	**.27****	.07	**-.29****	**.40****	**.58****	**-.44****	**.42****				
11. RAS	.01	**.14***	**.33****	**.45****	.02	**.34****	**.19****	-.04	**.16****	**.20****			
12. LEIU	**-.14***	**.25****	**.60****	**.49****	-.02	**.22****	**.24****	-.09	**.11***	**.19****	**.40****		
13. PI-WSUR	-.06	.05	**.38****	**.47****	.06	**.31****	**.21****	.02	**.19****	**.22****	**.44****	**.44****	

* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .01 level (2-taied).

Note: BDI: Beck Depression Inventory, STAI-T: State Trait Anxiety-Trait Form, M-EW: Mother Emotional Warmth, M-OP: Mother (Over) Protection, M-R: Mother Rejection, F-EW: Father Emotional Warmth, F-OP: Father (Over) Protection, F-R: Father Rejection, RAS: Responsibility Attitude Scale, LEIU: Life Events Inventory for University Students, PI-WSUR: Padua Inventory-Washington State University Revision.

3.4 Predictors of Obsessive Compulsive Symptomatology, Depression and Trait Anxiety

A series of multiple regression analyses were conducted in order to examine the hypotheses of this study. The role of perceived parental rearing behaviors, responsibility attitudes and life events in predicting Obsessive Compulsive Symptomatology (OCS) was examined by using multiple regression analysis. Besides the unique contribution of these variables in predicting OCS, the mediator role of responsibility attitudes in the relationship between perceived parental rearing behaviors and OCS was also examined. In order to evaluate the specificity of the findings to OCS, the same regression analyses were repeated to examine the predictor role of these variables for depression and trait anxiety by treating them as dependent variables in separate regression analysis.

3.4.1 Predictors of Obsessive Compulsive Symptomatology (OCS): Perceived Parental Rearing Behaviors, Responsibility Attitudes and Life Events

It was hypothesized that perceived parental overprotection, responsibility attitudes and life events would significantly predict OCS. In addition to this, it was proposed that responsibility attitudes would be a mediator between perceived parental overprotection and OCS. In other words, perceived parental overprotection would affect OCS through responsibility attitudes. The proposed predictors of OCS and the mediation model are depicted in Figure 2. It is a fully recursive model showing the relationship between perceived parental overprotection, responsibility attitudes, life events and OCS.

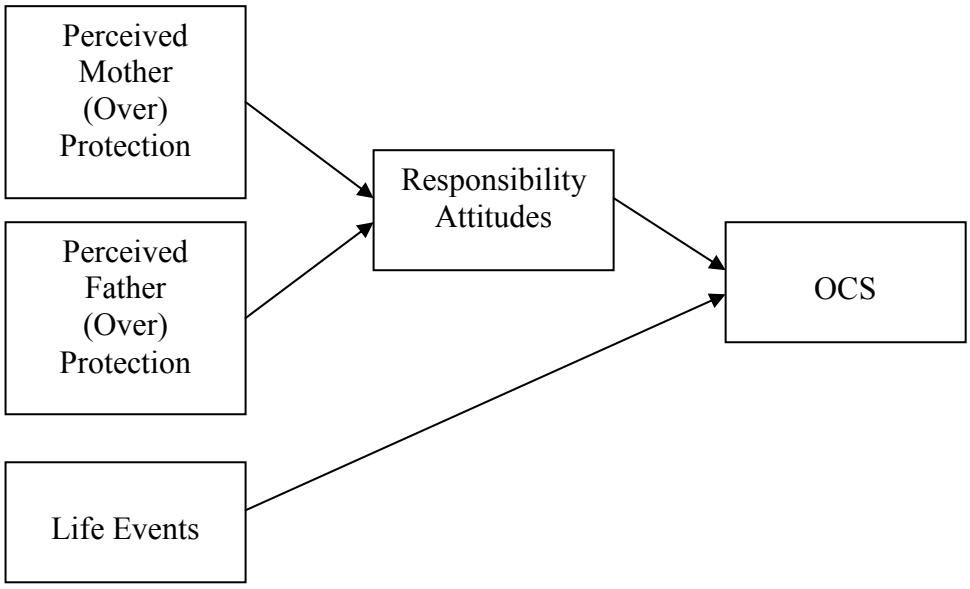

Figure 2 The proposed predictors of OCS and the mediation model

Two multiple regression analyses were performed in order to test the hypotheses. By these regression analyses, not only the unique contribution of parental rearing behaviors, responsibility attitudes, and life events, but also the mediator role of responsibility attitudes in predicting OCS was examined.

In mediation analysis there are some criteria (Baron & Kenny, 1986) which must be satisfied to call a variable a "mediator". By these two regression analyses, the assumptions of the mediation analysis, which are presented below, were also checked. The method recommended by Baron and Kenny (1986) was used to test the mediational pathway. According to this method a mediator is identified when the following four criteria are met:

1) Perceived parental overprotection (IV) should significantly predict OCS (DV).
2) Responsibility attitudes (Mediator) should significantly predict OCS (DV).

3) Perceived parental overprotection (IV) should significantly predict responsibility attitudes (Mediator).
4) Finally, the effects of perceived parental overprotection (IV) on OCS (DV) should become non significant or decrease significantly when responsibility attitudes (Mediator) enter into the regression equation.

In the first regression analysis, first, second, and the fourth criteria were tested. As presented in Table 11, in this regression analysis age, gender, depression, and trait anxiety scores were entered into the equation in the first step as control variables by using "enter". In the second step, subscale scores of s-EMBU (emotional warmth, (over) protection, and rejection scores for mothers and fathers), in the third step, responsibility attitudes scores, and in the fourth step life events scores were entered in to the equation by using "enter". The OCS scores obtained from PI-WSUR were used as dependent variable. In order to satisfy the assumptions of mediation analysis, the direct effect of perceived mother and father overprotection (in the second step) and responsibility attitudes (in the third step) on OCS should be significant. Moreover, the effect of perceived mother and father overprotection on OCS should decrease significantly or become non-significant when responsibility attitudes are entered into the equation (in the third step).

In the second regression analysis, the third criterion was tested. As presented in Table 12, in this regression analysis, responsibility attitudes scores were used as dependent variable. In the first step, as control variables age, gender, depression, and trait anxiety scores, in the second step subscale scores of s-EMBU were entered by using "enter". In order to call the responsibility attitudes a mediator, perceived

mother and father overprotection should significantly predict the responsibility attitudes.

Table 11 The Sequence of Variables Entered in the First Regression Analysis

Predictor Variables
Step 1: Age Gender BDI STAI-T
Step 2: Mother Emotional Warmth Mother Rejection Mother (Over) Protection Father Emotional Warmth Father Rejection Father (Over) Protection
Step 3: RAS
Step 4: LEIU
Dependent Variable: PI-WSUR

Table 12 The Sequence of Variables Entered in the Second Regression Analysis

Predictor Variables
Step 1: Age Gender BDI STAI-T
Step 2: Mother Emotional Warmth Mother Rejection Mother (Over) Protection Father Emotional Warmth Father Rejection Father (Over) Protection
Dependent Variable: RAS

The results of the first regression analysis are presented in Table 13. In the first step, age, gender, depression and trait anxiety scores (F (4, 293) = 29.51, $p<$ .001) together explained 29% of the total variance in OCS. In the second step, when perceived parental rearing behaviors ($F\Delta$ (6, 287) = 3.49, $p<$ .01) were entered into the equation, explained total variance increased to 34%. In the third step, adding the responsibility attitudes ($F\Delta$ (1, 286) = 9.73, $p<.01$), 36% of the total variance in OSC was explained. In the fourth step, when life events ($F\Delta$ (1, 285) = 6.93, $p<$ .01) was entered into the equation, explained total variance increased to 37%.

Examination of the beta weights (see Table 13) showed that, in the second step, among the perceived parental rearing behaviors, only Mother (Over) Protection (Beta = .23, $p <.01$) had significant direct effect on OCS. On the other hand, the other parental rearing behaviors were not found to be significantly related to OCS. In the third step, responsibility attitudes (Beta = .18, $p <.01$), and finally, in the fourth step, life events (Beta = .18, $p <.01$) significantly predicted OCS. Significant direct effects of mother (over) protection (in the second step) and responsibility attitudes (in the third step) on OCS satisfied the first and second criteria of the mediation analysis which were mentioned before.

Table 13 Predictors of Obsessive Compulsive Symptomatology

Steps	Variables	β	t	R^2	df	FΔ
1	Age	.03	.50			
	Gender	.08	1.50			
	BDI	.25***	4.69			
	STAI-T	.42***	7.59	.29	4, 293	29.51***
2	Age	.04	.69			
	Gender	.07	1.29			
	BDI	.22***	4.01			
	STAI-T	.37***	6.59			
	Mother Emotional Warmth	-.06	-.69			
	Mother Rejection	.01	.13			
	Mother (Over) Protection	.23**	2.84			
	Father Emotional Warmth	-.18	-1.76			
	Father Rejection	.12	1.74			
	Father (Over) Protection	.09	1.16	.34	6, 287	3.49**
3	Age	.01	.12			
	Gender	.04	.78			
	BDI	.19***	3.52			
	STAI-T	.30***	5.09			
	Mother Emotional Warmth	-.05	-.59			
	Mother Rejection	.01	.07			
	Mother (Over) Protection	.17*	2.04			
	Father Emotional Warmth	-.16	-1.65			
	Father Rejection	.11	1.55			
	Father (Over) Protection	.06	.76			
	RAS	.18**	3.12	.36	1, 286	9.73**
4	Age	-.03	-.64			
	Gender	.04	.76			
	BDI	.11	1.67			
	STAI-T	.26***	4.18			
	Mother Emotional Warmth	-.06	-.76			
	Mother Rejection	.02	.31			
	Mother (Over) Protection	.17*	2.09			
	Father Emotional Warmth	-.16	-1.66			
	Father Rejection	.11	1.64			
	Father (Over) Protection	.06	.83			
	RAS	.17**	2.88			
	LEIU	.18**	2.63	.37	1, 285	6.93**

***p <.001, **p<.01, *p <.05

The results of the second regression analysis, which was conducted to test the third criterion of the mediation analysis, are presented in Table 14. In the first step, age, gender, depression and trait anxiety scores ($F(4, 293) = 27.97$, $p < .001$) together explained 28% of the total variance in responsibility attitudes. In the second step, when perceived parental rearing behaviors ($F\Delta (6, 287) = 4.21$, $p < .001$) were entered into the equation, 34% of the total variance in responsibility attitudes was explained. Among the perceived parental rearing behaviors only Mother (Over) Protection (Beta = .35, $p < .001$) and Father (Over) Protection (Beta = .18, $p < .05$) significantly predicted the responsibility attitudes. Therefore, Mother (Over) Protection satisfied the third criterion of mediation analysis. However, although Father (Over) Protection significantly predicted the responsibility attitudes (satisfying third criterion), it did not have a significant direct effect on OCS (not satisfying first criterion) as presented in the first regression analysis (see Table 13). Therefore, among the perceived parental rearing behaviors, only mother (over) protection satisfied the assumptions of mediation analysis since it had significant direct effects on both responsibility attitudes and OCS.

Table 14 Predictors of Responsibility Attitudes

Steps	Variables	β	t	R^2	df	FΔ
1	Age	.14**	2.77			
	Gender	.19**	3.46			
	BDI	.19***	3.69			
	STAI-T	.43***	7.69	.28	4, 293	27.97***
2	Age	.16**	3.16			
	Gender	.16**	2.84			
	BDI	.15**	2.74			
	STAI-T	.37***	6.66			
	Mother Emotional Warmth	.04	.55			
	Mother Rejection	.02	.28			
	Mother (Over) Protection	.35***	4.26			
	Father Emotional Warmth	.10	1.22			
	Father Rejection	.08	1.13			
	Father (Over) Protection	.18*	2.23	.34	6, 287	4.21***

***p <.001, **p<.01, *p <.05

In order to satisfy the fourth criterion of the mediation analysis, in the first regression analysis (see Table 13), the effect of Mother (Over) Protection on OCS should decrease significantly or become non-significant when responsibility attitudes was entered into the equation in the third step. As can be seen in Table 13, the direct effect of Mother (Over) Protection (Beta = .23, p <.01) on OCS in the second step was reduced (Beta = .17, p <.01) in the third step when responsibility attitudes were entered into the equation. In order to test whether this reduction was significant or not, Sobel test (Preacher and Leonardelli, 2006) was used. The significant z-result (z = 2.61, p< .01) yielded that the effect of Mother (Over) Protection on OCS decreased significantly when responsibility attitudes entered into the regression equation, satisfying the fourth criterion of the mediation analysis. In other words, responsibility attitudes partially mediated the relationship between Mother (Over) Protection and

OCS. The indirect effect of Mother (Over) Protection via responsibility attitudes was .09, and the total causal effect was .26.

To sum up, multiple regression analyses showed that among the perceived parental rearing behaviors only mother overprotection was significantly related to OCS. On the other hand, as expected, perceived parental rejection and emotional warmth were not found to be related to OCS. Responsibility attitudes and life events were both positively and significantly related to OCS. Moreover, mediational relationship showed that perceived mother overprotection was related to OCS through responsibility attitudes. In conclusion, as in line with the expectations perceived mother overprotection, responsibility attitudes and life events were all significant predictors of OCS, and responsibility attitudes mediated the relationship between perceived mother over protection and OCS.

3.4.2 Predictors of Depression: Perceived Parental Rearing Behaviors, Responsibility Attitudes and Life Events

For the purpose of examining the specificity of the previous findings to obsessive compulsive symptomatology, the same multiple regression analysis was repeated for predicting the depression scores.

A multiple regression analysis was performed to see the unique contribution of perceived parental rearing behaviors, responsibility attitudes, and life events in predicting depression, and the mediator role of responsibility attitudes between perceived parental rearing behaviors and depression. It was hypothesized that among the perceived parental rearing behaviors, perceived parental rejection would be a significant predictor for depression. Moreover, life events were proposed to be a

significant predictor for depression. However, it was hypothesized that responsibility attitudes would not be a significant predictor for depression, and also would not be a mediator between perceived parental rearing behaviors and depression.

In the multiple regression equation, same steps were followed which was used in predicting OCS (see Table 11, page 93). However, this time the scores obtained from Beck Depression Inventory (BDI) were used as dependent variable, and OCS and trait anxiety scores were controlled. In the first step, age, gender, OCS and trait anxiety scores were entered into the equation as control variables by using "enter". In the second step, subscale scores of s-EMBU (emotional warmth, (over) protection, and rejection scores for mothers and fathers), in the third step, responsibility attitudes scores, and in the fourth step life events scores were entered in to the equation by using "enter".

The results of the regression analysis are presented in Table 15. In the first step, age, gender, OCS and trait anxiety scores ($F(4, 293) = 15.28$, $p < .001$) together explained 17% of the total variance in depression. In the second step, when perceived parental rearing behaviors ($F\Delta(6, 287) = 6.58$, $p < .001$) were entered into the equation, explained total variance increased to 27%. In the third step, adding the responsibility attitudes ($F\Delta(1, 286) = 3.94$, $p < .05$), 28% of the total variance in depression was explained. In the fourth step, when life events ($F\Delta(1, 285) = 92.48$, $p < .001$) was entered into the equation explained total variance increased to 46%.

Examination of the beta weights (see Table 15) showed that in the second step, among the perceived parental rearing behaviors, only Mother Rejection (Beta = .15, $p < .05$) and Father Emotional Warmth (Beta = -.22, $p < .05$) had significant direct effects on depression. On the other hand, the other perceived parental rearing

behaviors were not found to be significantly related to depression. In the third step, responsibility attitudes (Beta = .12, n.s.) did not have a significant effect on depression. In the fourth step, life events (Beta = .54, $p < .001$) significantly predicted depression.

To sum up, multiple regression analysis showed that among the perceived parental rearing behaviors, perceived mother rejection was positively, and perceived father emotional warmth was negatively related to depression. As expected, contrary to the findings for OCS, perceived parental overprotection was not found to be related to depression. Moreover, as hypothesized, responsibility attitudes did not significantly predict depression, meaning that it did not have a direct effect on depression. Therefore, responsibility attitudes could not a mediator in the relationship between perceived parental rearing behaviors and depression, contrary to the findings for OCS. Finally, life events were positively and significantly related to depression, and appeared to be an important predictor for depression.

Table 15 Predictors of Depression

Steps	Variables	β	t	R^2	df	FΔ
1	Age	-.02	-.41			
	Gender	.05	.94			
	PI-WSUR	.28***	4.69			
	STAI-T	.21***	3.23	.17	4, 293	15.28***
2	Age	-.03	-.49			
	Gender	-.04	-.72			
	PI-WSUR	.24***	4.01			
	STAI-T	.19**	3.08			
	Mother Emotional Warmth	.004	.05			
	Mother Rejection	.15*	2.07			
	Mother (Over) Protection	.09	.98			
	Father Emotional Warmth	-.22*	-2.36			
	Father Rejection	.03	.42			
	Father (Over) Protection	-.08	-.96	.27	6, 287	6.58***
3	Age	-.04	-.84			
	Gender	-.06	-1.01			
	PI-WSUR	.22**	3.52			
	STAI-T	.15*	2.32			
	Mother Emotional Warmth	.01	.09			
	Mother Rejection	.15*	2.08			
	Mother (Over) Protection	.05	.53			
	Father Emotional Warmth	-.23*	-2.43			
	Father Rejection	.02	.32			
	Father (Over) Protection	-.06	-.71			
	RAS	.12	1.88	.28	1, 286	3.94*
4	Age	-.15**	-3.19			
	Gender	-.05	-.92			
	PI-WSUR	.09	1.67			
	STAI-T	-.002	-.03			
	Mother Emotional Warmth	-.04	-.49			
	Mother Rejection	.07	1.05			
	Mother (Over) Protection	.06	.71			
	Father Emotional Warmth	-.12	-1.52			
	Father Rejection	.04	.63			
	Father (Over) Protection	-.07	-.88			
	RAS	.06	1.13			
	LEIU	.54***	9.62	.46	1, 285	92.48***

***p <.001, **p<.01, *p <.05

3.4.3 Predictors of Trait Anxiety: Perceived Parental Rearing Behaviors, Responsibility Attitudes and Life Events

For the purpose of examining the specificity of the previous findings to obsessive compulsive symptomatology, the same multiple regression analysis was repeated for predicting the trait anxiety scores.

A multiple regression analysis was performed to see the unique contribution of perceived parental rearing behaviors, responsibility attitudes, and life events in predicting trait anxiety, and the mediator role of responsibility attitudes between perceived parental rearing behaviors and trait anxiety. It was hypothesized that among the perceived parental rearing behaviors, perceived parental overprotection would be a significant predictor also for trait anxiety. Moreover, life events were proposed to be a significant predictor for trait anxiety. However, it was hypothesized that responsibility attitudes would not be a significant predictor for trait anxiety, and also would not have a mediator role between perceived parental rearing behaviors and trait anxiety.

In the regression equation, same steps were followed which was used in predicting OCS (see Table 11, page 93). However, this time trait anxiety scores obtained from STAI-T were used as dependent variable, and OCS and depression scores were controlled. In the first step, age, gender, OCS, and depression scores were entered into the equation as control variables by using “enter”. In the second step, subscale scores of s-EMBU (emotional warmth, (over) protection, and rejection scores for mothers and fathers), in the third step, responsibility attitudes scores, and in the fourth step life events scores were entered in to the equation by using “enter”.

The results of the regression analysis are presented in Table 16. In the first step, age, gender, OCS and depression scores (F (4, 293) = 36.34, p< .001) together explained 33% of the total variance in trait anxiety. In the second step, when perceived parental rearing behaviors (FΔ (6, 287) = 2.17, p< .05) were entered into the equation, explained total variance increased to 36%. In the third step, adding the responsibility attitudes (FΔ (1, 286) = 26.67, p<.001), 42% of the total variance in trait anxiety was explained. In the fourth step, when life events (FΔ (1, 285) = 16.66, p< .001) was entered into the equation explained total variance increased to 45%.

Examination of the beta weights (see Table 16) showed that in the second step, among the perceived parental rearing behaviors, only Mother Emotional Warmth (Beta = .23, p <.01) had significant direct effects on trait anxiety. However, parental (over) protection and rejection were not found to be significantly related to trait anxiety. In the third step, responsibility attitudes (Beta = .28, p <. 001), and in the fourth step, life events (Beta = .26, p <.001) significantly predicted trait anxiety.

Since mother emotional warmth and responsibility attitudes had significant direct effects on trait anxiety, which satisfied the first and second criteria of mediation analysis (Baron & Kenny, 1986), the second regression analysis was conducted to test the third criterion to examine whether mother emotional warmth would significantly predict responsibility attitudes. In this regression analysis, responsibility attitudes scores were used as dependent variable. In the first step, as control variables age, gender, OCS, and depression scores, and in the second step subscale scores of s-EMBU were entered by using “enter”. In order to call the responsibility attitudes a mediator, mother emotional warmth should significantly predict the responsibility attitudes. As can be seen from Table 17, among the

perceived parental rearing behaviors only Mother (Over) Protection (Beta = .35, p <.001) and Father (Over) Protection (Beta = .18, p <.05) significantly predicted the responsibility attitudes. However, Mother Emotional Warmth (Beta = .04, n.s.) did not have a significant effect on responsibility attitudes. Therefore, since the third criterion of mediation analysis was not met, responsibility attitudes were not a mediator between perceived mother emotional warmth and trait anxiety.

To sum up, multiple regression analysis showed that among the perceived parental rearing behaviors, only perceived mother emotional warmth was positively related to trait anxiety. However, contrary to the expectations, perceived parental (over) protection was not found to be related to trait anxiety. Similar to the findings for OCS, responsibility attitudes also significantly predicted trait anxiety. However, responsibility attitudes were not a mediator in the relationship between mother emotional warmth and trait anxiety, indicating the specific mediator role of responsibility attitudes only for OCS. Finally, similar to the findings for OCS and depression, life events positively related to trait anxiety.

Table 16 Predictors of Trait Anxiety

Steps	Variables	β	t	R^2	df	FΔ
1	Age	.01	.32			
	Gender	-.28***	-5.79			
	PI-WSUR	.39***	7.59			
	BDI	.17**	3.23	.33	4, 293	36.34***
2	Age	.03	.50			
	Gender	-.27***	-5.17			
	PI-WSUR	.36***	6.59			
	BDI	.17**	3.08			
	Mother Emotional Warmth	.23**	2.83			
	Mother Rejection	.04	.61			
	Mother (Over) Protection	.09	1.08			
	Father Emotional Warmth	-.11	-1.25			
	Father Rejection	-.01	-.16			
	Father (Over) Protection	-.04	-.45	.36	6, 287	2.17*
3	Age	-.02	-.41			
	Gender	-.29***	-5.73			
	PI-WSUR	.28***	5.09			
	BDI	.12*	2.32			
	Mother Emotional Warmth	.22**	2.83			
	Mother Rejection	.04	.66			
	Mother (Over) Protection	-.01	-.07			
	Father Emotional Warmth	-.12	-1.44			
	Father Rejection	-.03	-.39			
	Father (Over) Protection	.01	.08			
	RAS	.28***	5.16	.42	1, 286	26.67***
4	Age	-.08	-1.55			
	Gender	-.28***	-5.57			
	PI-WSUR	.23***	4.18			
	BDI	-.002	-.03			
	Mother Emotional Warmth	.19*	2.45			
	Mother Rejection	.02	.29			
	Mother (Over) Protection	.004	.05			
	Father Emotional Warmth	-.09	-1.12			
	Father Rejection	-.01	-.21			
	Father (Over) Protection	-.004	-.05			
	RAS	.25***	4.68			
	LEIU	.26***	4.08	.45	1, 285	16.66***

***p <.001, **p<.01, *p <.05

Table 17 Predictors of Responsibility Attitudes

Steps	Variables	β	T	R^2	df	FΔ
1	Age	.14**	2.69			
	Gender	.07	1.41			
	PI-WSUR	.37***	6.66			
	BDI	.19**	3.48	.25	4, 293	23.74***
2	Age	.16**	3.06			
	Gender	.06	1.13			
	PI-WSUR	.29***	5.13			
	BDI	.16**	2.83			
	Mother Emotional Warmth	.04	.40			
	Mother Rejection	.01	.08			
	Mother (Over) Protection	.35***	3.91			
	Father Emotional Warmth	.04	.46			
	Father Rejection	.06	.75			
	Father (Over) Protection	.18*	2.12	.30	6, 287	3.55**

***p <.001, **p<.01, *p <.05

3.4.4 The Summary of the Regression Analyses for All Dependent Variables

The significant predictors for all of the dependent variables are summarized in Table 18.

As can be seen from Table 18, the results of the regression analysis showed that perceived mother overprotection, responsibility attitudes and life events were all significant predictors of obsessive compulsive symptomatology. Subjects who perceived their mothers' rearing behaviors as more overprotective, who had more responsibility attitudes and who experienced more life events tended to have more obsessive compulsive symptoms. Moreover, the regression results yielded that responsibility attitudes were predicted only by perceived parental over protection, however perceived parental rejection and emotional warmth did not have any significant effects on responsibility attitudes. In terms of OCS, one of the important

findings was the mediator role of the responsibility attitudes; indicating that perceived mother overprotection affected obsessive compulsive symptomatology by increasing the responsibility attitudes in the subject. The predictors of OCS and the mediational relationship are depicted in Figure 3.

Table 18 Summary of the Significant Predictors for All Dependent Variables

	OCS	Depression	Trait Anxiety	Responsibility Attitudes
Mother Emotional Warmth			β = .23**	
Mother Rejection		β = .15*		
Mother (Over) Protection	β = .23**			β = .35***
Father Emotional Warmth		β = -.22**		
Father Rejection				
Father (Over) Protection				β = .18*
Responsibility Attitudes	β = .18**		β = .28***	
Life Events	β = .18**	β = .54***	β = .26***	

***p <.001, **p<.01, *p <.05

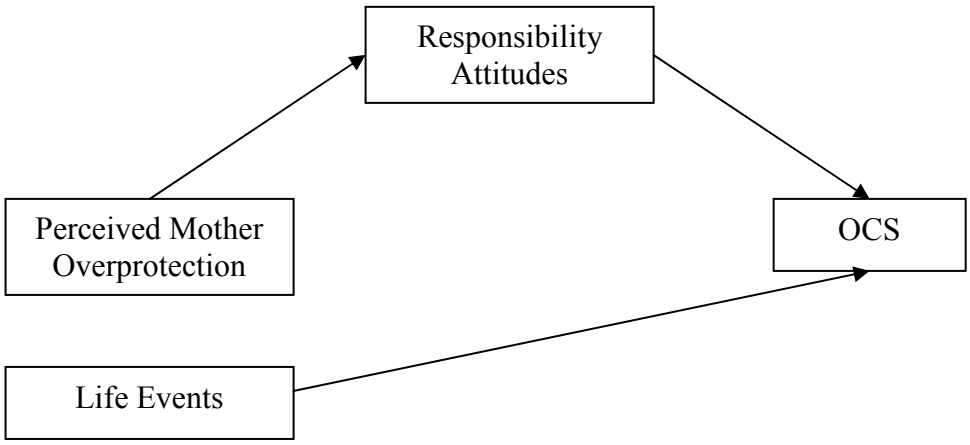

Figure 3 Predictors of OCS

On the other hand, in terms of depression, perceived mother rejection, perceived father emotional warmth and life events were found to be the significant predictors of depression. Perceived mother rejection and life events were positively and perceived father emotional warmth was negatively related to depression. Subjects who perceived their mother's rearing behaviors as more rejecting and father's rearing behaviors as less emotionally warm and who experienced more life events tended to have more depressive symptoms. The results of the regression analyses showed that while perceived maternal over protection was an important predictor for OCS, perceived maternal rejection and paternal emotional warmth were important predictors for depression. In addition to this, contrary to the findings for OCS, responsibility attitudes were not a significant predictor for depression.

In terms of trait anxiety, perceived mother emotional warmth, responsibility attitudes and life events were significant predictors for trait anxiety. Perceived mother emotional warmth was positively related to trait anxiety, indicating that subjects who had more trait anxiety tended to perceive their mother's rearing behaviors as more emotionally warm. On the other hand, perceived parental over protection and rejection were not significant predictors for trait anxiety. Similar to the findings for OCS, responsibility attitudes and life events were also significant predictors of trait anxiety. Subjects who had more responsibility attitudes and who experienced more life events tended to have more trait anxiety. However the mediator role of responsibility attitudes was not found for trait anxiety. This result indicated that although responsibility attitudes were a common significant predictor for both OCS and trait anxiety, its mediator role between the parental rearing behaviors and symptomatology was OCS specific.

CHAPTER IV

DISCUSSION

The main objective of this study was to examine the vulnerability factors of Obsessive Compulsive Symptomatology (OCS) in a non-clinical sample. On the basis of Salkovskis' cognitive model of OCD (1985, 1989), the present study aimed to investigate the effects of perceived parental rearing behaviors, responsibility attitudes, and life events on OCS. Furthermore, it was aimed to find out how perceived parental rearing behaviors have an effect on OCS; therefore responsibility attitudes were proposed as a mediator between perceived parental rearing behaviors and OCS. Finally, the present study aimed to examine whether the effects of the above variables were OCS specific or not; therefore the relationship of the same variables to depression and trait anxiety were also examined. To sum up, in the light of Salkovskis' cognitive model of OCD, this study investigated the effects of some vulnerability factors of OCS, the way they affect OCS, and their specificity to OCS.

In this section, the findings of the study, which were presented in the results section, will be discussed in the light of the relevant literature. The sequence of the discussion will be as follows: firstly, the predictive role of responsibility attitudes for OCS, the predictive role of perceived parental rearing behaviors for OCS, the mediator role of responsibility attitudes between perceived parental rearing behaviors and OCS, and the predictive role of life events for OCS will be discussed by including the findings for depression and trait anxiety. Then, support for the

hypotheses of the study, the limitations of the study and suggestions for future studies, and finally clinical implications of the study will be presented.

4.1 Responsibility Attitudes and OCS

One of the aims of this study was to examine the responsibility attitudes as a vulnerability factor for OCS. In the first hypothesis, it was proposed that responsibility attitudes would be a significant predictor for obsessive compulsive symptoms. The results of the regression analysis supported this hypothesis. Responsibility attitudes were found to be a significant predictor for OCS, after controlling for the effects of depression and trait anxiety. There was a significant positive relationship between responsibility attitudes and OCS, indicating that higher levels of responsibility attitudes were associated with higher levels of obsessive compulsive symptoms. In other words, subjects who reported more responsibility attitudes tended to have more OCS.

The findings of the present study about responsibility attitudes are consistent with the findings in the literature. In Salkovskis' cognitive model of OCD (1985, 1989), responsibility attitudes play a crucial role both in the development and maintenance of the disorder. In this model, responsibility attitudes were proposed to make the person more prone to develop obsessional problems. If the person has inflated responsibility attitudes (assumptions/beliefs) about harm concern, the occurrence and/or content of intrusive thought, images, or impulses are misinterpreted/appraised as indicating personal responsibility for harm to oneself or others. Then, this kind of negative automatic thoughts related to personal responsibility lead to adverse mood (distress, anxiety, and etc.), neutralizing

behaviors (washing, checking, mental arguments, and etc.), and avoidance behaviors. Each of these responses contributes to the maintenance of the disorder because they lead to temporary relief of anxiety related to personal responsibility of harm to oneself and/or others. Therefore, perceived threat and perceived responsibility are reinforced and lead to a cycle of negative thinking and neutralizing. As a result, beliefs and appraisals about responsibility are not challenged or changed. In the cognitive explanation of OCD, it was proposed that, not the intrusive thought itself, but how the intrusive thought is interpreted is important. Here, a faulty belief domain about inflated responsibility is crucial. If the person does not have a belief domain concerning inflated responsibility and harm concern, the intrusive thoughts will not be negatively appraised as personal responsibility for harm to oneself or others, then the neutralizing behaviors will not take place. In other words, if the stimuli (intrusive thought) are filtered through a schema dominated by responsibility and fear of causing harm, then this leads to the misinterpretation of the intrusive thought. The findings of the present study supported the cognitive explanation of OCD since responsibility attitudes significantly contributed to the prediction of obsessive compulsive symptoms. The results of this study related to responsibility attitudes are not only consistent with Salkovskis' cognitive model of OCD, which is the framework that this study was based on, but also consistent with many other studies with clinical and non-clinical samples (Freeston, Ladouceur, Gagnon, & Thibodeau, 1993; Freeston, Ladouceur, Thibodeau, & Gagnon, 1992; Rheaume, Ladouceur, Freeston, & Letarte, 1995), and the studies with experimental designs (Ladouceur et al., 1995; Ladouceur, Rheaume, & Aublet, 1997; Lopatka & Rachman, 1995;

Shafran, 1997) which aimed to investigate the relationship between responsibility attitudes and OCD.

In obsessive compulsive disorder, there is a broad range of symptoms, and the manifestation of these symptoms can vary from person to person. Therefore, there is a general subtyping of symptoms such as contamination obsessions and cleaning/washing compulsions; aggressive, sexual, religious obsessions and checking, repeating compulsions, mental arguments, and etc.; symmetry obsessions and ordering, counting, and repeating compulsions; hoarding obsessions and collecting compulsions (Taylor, 2005). Some researchers (Lee & Kwon, 2003) proposed a distinction between different types of obsessions such as; autogenous (sexual, aggressive, and immoral thoughts and impulses) and reactive obsessions (thoughts about contamination, mistake, accident, and asymmetry). The two obsession groups were proposed to be different in terms of their subsequent cognitive processes. Autogenous obsessions were found to be linked with appraisals about "control over thought" and "importance of thought", and frequent use of "avoidant control strategies". On the other hand, reactive obsessions were found to be linked with appraisals about "responsibility" and frequent use of "confrontational control strategies". In the present study, obsessive compulsive symptomatology was investigated as a whole symptom profile rather than the subtypes, and responsibility attitudes were found to be related to general obsessive compulsive symptomatology. The relation of responsibility attitudes to different symptom groups can also be investigated in future studies in order to gain a more comprehensive understanding of obsessive compulsive symptomatology. Moreover, besides inflated responsibility cognitions, which have been widely accepted as having a central importance for

OCD, other belief domains such as thought-action fusion, overimportance of thoughts, and excessive concern about controlling thoughts can also be investigated. Especially obsessions about sexual, aggressive, and religious thoughts or impulses might be better explained by the inclusion of these belief domains in addition to responsibility attitudes. In conclusion, the findings of the present study supported the predictive role of responsibility attitudes for general obsessive compulsive symptomatology.

In addition to the aim of investigating the predictive role of responsibility attitudes for OCS, the present study also aimed to examine whether this predictive role is specific to OCS or not. Therefore, in the second hypothesis, it was proposed that responsibility attitudes would not be a significant predictor for depression and trait anxiety. In other words, responsibility attitudes would be a specific predictor for OCS, but not for depression and trait anxiety.

In terms of trait anxiety, the second hypothesis was not supported. The results of the regression analysis showed that responsibility attitudes were also a significant predictor for trait anxiety, even after controlling for the effects of OCS and depression. There was a significant positive relationship between responsibility attitudes and trait anxiety, indicating that higher levels of responsibility attitudes were associated with higher levels of trait anxiety. In other words, subjects who reported more responsibility attitudes tended to have more trait anxiety.

In the literature, studies investigating the specificity of responsibility attitudes to OCD have mixed results, but generally support the view that responsibility cognitions are more closely related to obsessional problems than to anxiety and depression. In one of these studies (Salkovskis et al., 2000), a group of OCD patients

were compared to a group of patients with other anxiety disorders (panic disorder with and without agoraphobia, social phobia, and generalized anxiety disorder) and a group of non-clinical participants in terms of responsibility attitudes and responsibility appraisals. The result of this study indicated that responsibility attitudes and appraisals were stronger and primary predictors of obsessionality. On the other hand, responsibility measures were less strongly associated to anxiety and depression. In another study (Steketee, Frost, & Cohen, 1998), OCD patient group was found to have significantly higher scores than the group with other anxiety disorders and the control group in terms of responsibility beliefs. On the other hand, in another study (Foa, Amir, Bogert, Molnar, & Przeworski, 2001) the specificity of responsibility attitudes to OCD was partially supported. In this study, OCD group exhibited greater responsibility about low-risk and OC relevant situations than did anxious control group with social phobia and non-anxious group. However, anxious control group also expressed a greater sense of responsibility than non-anxious control group on OC relevant situations but not on low risk situations. It was suggested that the tendency for inflated responsibility can vary with the content of the situation. The findings that socially anxious individuals also show inflated responsibility did not support the unique status of inflated responsibility in OCD. The researchers proposed that an elevated sense of responsibility might be common to individuals with anxiety disorders, with the obsessive compulsive patients being on the high end of the continuum.

In the present study, the results related to significant prediction of trait anxiety by responsibility attitudes is consistent with the findings of the last study. Results of the current study indicated that, contrary to the expectations, responsibility

attitudes were not only a significant predictor for OCS, but also for trait anxiety. One of the reasons of this finding might be due to the fact that in this study responsibility cognitions were measured in the level of assumptions. Salkovskis et al. (2000) specified two levels of responsibility related cognitions: responsibility assumptions (attitudes/beliefs) and responsibility appraisals (interpretations). Responsibility appraisals are the meanings given to a specific intrusion; these can be expectations or interpretations consequent on intrusive thoughts. Responsibility attitudes, on the other hand, can be less specific and more distant from the experience of obsessional symptoms. These assumptions reflect more generalized tendency to assume responsibility in a given situation. Responsibility assumptions might be less specific to OCD, and can be related to guilt, anxiety and mood disorders. Therefore, since responsibility cognitions were measured only in the level of assumptions in this study, this can be a possible explanation of the finding that responsibility attitudes were also a predictor for trait anxiety. The results of the present study indicated that responsibility attitudes are not limited to people with OCS, they may also found in people with long term anxiety levels who might be also at risk for developing OCS.

However, here the findings of the study should be evaluated cautiously because the current study sample did not consist of clinical subjects, contrary to the studies presented above, and only general anxiety levels of the subjects, in other words, trait anxiety was measured. Therefore, the distinctions between trait anxiety and anxiety disorders should be taken into account. Trait anxiety is viewed as negative affect, consisting of non-specific symptoms of fear, worry, and other negative mood states which are not unique to a single disorder. Moreover, trait anxiety is viewed as a continuous characteristic, that when increased, represents a

general vulnerability to mood disorders, but may not cause clinically significant functional impairment by itself. On the other hand, anxiety disorders represent specific anxiety symptom clusters that cause distress or impairment (Craske, 1999; Wood, McLeod, Sigman, Hwang, & Chu, 2003). Therefore, further studies with clinical samples and control groups may indicate more representative and comparative results related to the specificity of responsibility attitudes to OCD and other anxiety disorders.

To sum up, with the findings of this study, it can be concluded that responsibility attitudes might be the cognitions which can be a common cognitive vulnerability for OCS and trait anxiety.

In terms of depression, in the second hypothesis, it was proposed that responsibility attitudes would not be a significant predictor for depression. This hypothesis was supported for depression. In line with the expectations, the results of the regression analysis showed that responsibility attitudes were not a significant predictor for depression, after controlling for the effects of OCS and trait anxiety.

According to cognitive theory of depression, themes of failure and loss are uniquely prominent in depressed individuals' thinking. Many studies have supported that beliefs related to failure, loss, inadequacy or hopelessness are overrepresented in the thoughts of depressive individuals. While depression is characterized by high levels of loss or failure cognitions, anxiety disorders are generally characterized by high levels of danger or threat related thoughts (Beck, 1987). Responsibility attitudes are faulty beliefs about having the power to cause and/or prevent a negative outcome related with harm to oneself and/or others. Intrusive thoughts which are interpreted through this kind of threat appraisal and harm concern lead the person to feel

extremely anxious about the personal influence for the occurrence of feared negative outcome. Therefore, responsibility attitudes are the cognitions highly shaped by threat and danger beliefs. So, in this study it was proposed that responsibility attitudes would not be a significant predictor for depression. Since depressive symptoms are highly comorbid with anxiety and OCS, the effects of trait anxiety and OCS were controlled in order to see the predictive role of responsibility attitudes for depression. As expected, results of the regression analysis revealed that responsibility attitudes did not have any significant effect in the prediction of depressive symptoms. The findings of this study, once more supported the cognitive theory about the importance of different faulty belief domains specific to different psychopathologies. Consistent with the cognitive theory, depression was not predicted by responsibility attitudes which are highly dominated by threat schema.

Overall, the findings of the present study supported the crucial explanatory role of responsibility attitudes for obsessive compulsive symptomatology. However, the hypothesis related to the specificity of responsibility attitudes to OCS was partially supported. Responsibility attitudes were found to be a predictor not only for OCS but also for trait anxiety. On the other hand, consistent with the expectations, responsibility attitudes distinctively did not predict depression.

4.2 Perceived Parental Rearing Behaviors and OCS

Another aim of this study was to examine the perceived parental rearing behaviors as a vulnerability factor for OCS. In the third hypothesis, it was proposed that among the perceived parental rearing behaviors, perceived parental overprotection would be a significant predictor for OCS.

The proposed relationship between perceived parental overprotection and OCS was supported by the results of both analysis of covariance (ANCOVA) and regression analysis. First of all, ANCOVA was conducted to see whether the subjects scoring high and low on OCS would differ in terms of their perceived parental rearing behaviors. The results of the ANCOVA revealed that after controlling for depression and trait anxiety scores, subjects with high OCS scores were significantly different from the subjects with low OCS scores only in terms of their perceived mother and father overprotection scores. Subjects in the high OCS group perceived their mothers' and fathers' rearing behaviors as more overprotective than did the subjects in the low OCS group. However, there was no significant difference between the two groups in terms of their perceived mother and father rejection and emotional warmth scores. The findings of this analysis indicated that perceived parental overprotection was a significant factor for differentiating the subjects with high and low obsessive compulsive symptoms. As expected, higher levels of perceived parental overprotection was associated with higher levels of obsessive compulsive symptoms. Moreover, subjects in the high OCS group perceived their mothers' rearing behaviors more overprotective than their fathers' rearing behaviors. As in line with the ANCOVA results, the regression analysis supported the hypothesis that perceived parental overprotection is a significant predictor for OCS. Subjects who reported more perceived mother overprotection tended to have more OCS, after controlling for the effects of depression and trait anxiety.

The finding of the present study about the significant effect of perceived mother overprotection in the prediction of OCS is consistent with the findings in the literature. Although there are studies investigating the impact of parenting in the

development of anxiety, few of them examined the impact of early parenting behaviors and attitudes specifically in the development of OCD. Among the studies related to OCD, a study with a non-clinical student sample found that psychologically manipulative and controlling parenting style was associated with OCD symptoms (Ayçiçeği, Harris & Dinn, 2002). High levels of perceived parental overprotection was also found to be related with OCD in a study with 81 adult OCD patients, however the absence of comparison with a specific group was the weakness of this study (Hafner ,1988; cited in Alonso et al., 2004). In another study, OCD patients, patients with panic disorder with agoraphobia, and non-anxious control subjects were compared in terms of their perceived parental rearing behaviors. OCD and panic disorder patients did not significantly differ from each other in any of the parental rearing dimensions. Both group of patients with anxiety disorders reported their mothers and fathers as being more over protective than non-anxious group. However, there was no significant difference between anxious and non-anxious groups in terms of their perceived parental emotional warmth, rejection and care scores (Turgeon, O'Connor, Marchand, & Freeston, 2002). So, in this study, the significant predictive effect of perceived mother overprotection, and nonsignificant predictive effect of perceived parental rejection and emotional warmth on OCS supported the findings of the above studies stressing the importance of parental overprotection in the development of OCD.

Parental behaviors, with the ability to express affection and emotional warmth and to avoid excessive protection, control, criticism, and rejection seem to be important in the development of a healthy personality. Overprotective type of parenting style is characterized as being fearful and anxious for the child's safety,

being intrusive and overinvolved (Arrindel et al., 1999). With this type of parenting style, the child may perceive the world as threatening and dangerous and may perceive the self as being incompetent to deal with such danger due to the parental overprotection and control. Sometimes over protection and control can combine with repeated parental criticism of the child because of the failures to take necessary precautions to prevent potential dangers (Salkovskis, Shafran, Rachman, & Freeston, 1999). Moreover, in overprotective type of parenting style, parental behaviors may also model for fearfulness, caution and avoidance behaviors and may reinforce threat interpretations. Therefore, early parent child interactions and continuous experiences of overprotection, control, and criticism can be a developmental factor that makes the person more vulnerable to develop OCD. In the current study, unique predictor role of perceived maternal overprotection for OCS also supported the views about overprotective parenting style as a developmental vulnerability for OCD.

In addition to the aim of investigating the predictive role of perceived parental overprotection for OCS, the present study also aimed to examine whether this predictive role is specific to OCS or not. In the fourth hypothesis, it was proposed that among the perceived parental rearing behaviors, perceived parental rejection would be a significant predictor for depression, and perceived parental overprotection would be a significant predictor for trait anxiety. In other words, perceived parental overprotection would be a significant predictor both for OCS and trait anxiety, but not for depression.

In terms of trait anxiety, the fourth hypothesis was not supported. First of all, ANCOVA was conducted to see whether the subjects scored high and low on trait anxiety would differ in terms of their perceived parental rearing behaviors. The

results of the ANCOVA revealed that after controlling for OCS and depression scores, subjects with high trait anxiety scores were significantly different from the subjects with low trait anxiety scores only in terms of their perceived mother and father emotional warmth scores. This was one of the interesting and unexpected findings of this study because there was a significant positive relationship between trait anxiety and perceived parental emotional warmth. Subjects in the high trait anxiety group perceived their mothers' and fathers' rearing behaviors as more emotionally warm than did the subjects in the low trait anxiety group. However, there was no significant difference between the two groups in terms of their perceived mother and father overprotection and rejection scores. The findings of this analysis indicated that perceived parental emotional warmth was a significant factor for differentiating the subjects with high and low trait anxiety. As in line with the ANCOVA results, the regression analysis revealed that perceived mother emotional warmth was a significant predictor for trait anxiety, after controlling for the effects of OCS and depression. In other words, subjects who reported more perceived mother emotional warmth tended to have more trait anxiety. However, contrary to the expectations, perceived parental overprotection was not a significant predictor for trait anxiety.

This finding related to the prediction of trait anxiety by higher levels of perceived mother emotional warmth was an interesting and unexpected finding because studies in the literature have indicated a strong relationship between parental control and anxiety. A meta-analysis of 47 studies revealed that parental control was more strongly associated with child anxiety than was parental rejection (McLeod, Wood, & Weisz, 2007). In another study, the results of the parent-child interactions

in laboratory tasks showed that greater observed parental control was consistently linked with more child shyness and a higher risk for meeting criteria for an anxiety disorder in children and adolescents (Wood, McLeod, Sigman, Hwang, & Chu, 2003).

Therefore, in the light of the above studies and many others, this study proposed that perceived parental overprotection would be a significant predictor not only for OCS but also for trait anxiety because parental overprotection was viewed as a general developmental vulnerability factor for all anxiety symptomatology as a spectrum. However, the findings of the current study supported this view for OCS, but not for trait anxiety.

One of the reasons of this unexpected finding might be due to the potential limitations of using a measure depending on retrospective reports. The subjects' evaluations of their childhood memories about upbringing might be affected by their current experiences and interactions with their mothers. The sample of this study was consisted of university students. Subjects who had higher trait anxiety scores might be currently experiencing supportive, affectionate and praising attitudes from their mothers. These current warm interactions might intervene with the subjects' evaluations of their childhood experiences. Therefore, trait anxiety and perceived mother emotional warmth might be found to be positively related with each other in this sample.

However, this kind of limitation due to retrospective reports was not only valid for the results concerning the relation between perceived parental rearing behaviors and trait anxiety but also for the results concerning OCS and depression. Therefore, it is equally possible that the results of the study actually reflect the real

relationship between perceived parental rearing behaviors and trait anxiety, and may not be affected by the memory bias due to the retrospective reports.

In the literature, it has been pointed out that the direction of effects between parent and child behaviors is difficult to determine (Jacobi, Calamari, & Woodard, 2006). It is highly possible that an anxiety prone child may change family interactions and parental rearing behaviors. Therefore, if the child has an anxious characteristic, this may in turn affect the parental attitudes in the direction of being supportive, affectionate, and praising. Therefore, it is plausible that higher levels of perceived mother and father emotional warmth were found to be related to higher levels of trait anxiety, and trait anxiety was significantly predicted by perceived mother emotional warmth in this study.

In terms of depression, in the fourth hypothesis, it was proposed that perceived parental rejection would be a significant predictor for depression. This hypothesis was supported for depression. First of all, ANCOVA was conducted to see whether the subjects scored high and low on depression would differ in terms of their perceived parental rearing behaviors. The results of the ANCOVA revealed that after controlling for OCS and trait anxiety scores, subjects with high depression scores were significantly different from the subjects with low depression scores in terms of their perceived mother and father rejection and emotional warmth scores. Subjects in the high depression group perceived their mothers' and fathers' rearing behaviors as more rejecting and less emotionally warm than did the subjects in the low depression group. However, there was no significant difference between the two groups in terms of their perceived mother and father overprotection scores. The findings of this analysis indicated that perceived parental rejection and emotional

warmth were significant factors for differentiating the subjects with high and low depressive symptoms. As expected, higher levels of depressive symptoms was associated with higher levels of perceived parental rejection and with lower levels of perceived parental emotional warmth. As in line with the ANCOVA results, the regression analysis supported the hypothesis that perceived parental rejection would be a significant predictor for depression. Specifically, perceived mother rejection and perceived father emotional warmth were found to be significant predictors for depression, after controlling for the effects of OCS and trait anxiety. In other words, subjects who reported more perceived mother rejection and less perceived father emotional warmth tended to have more depressive symptoms.

The findings of the present study about the significant effects of perceived mother rejection and perceived father emotional warmth in the prediction of depression is consistent with the findings in the literature. As mentioned before, data appear to indicate relatively stronger relationship between parental rejection and depression, and between parental control and anxiety. A meta-analysis of 45 studies revealed that parental rejection, especially with parental hostility toward the child, is most strongly related to child depression (McLeod, Weisz, & Wood, 2007). Depressed children reported feelings of less pride and less support in their families than did anxious children, and they believed that their family members are less likely to show respect and loyalty. These findings might also be due to the negative manner of the depressed children which is congruent with their depressed mood and perceptions of the world (Kashani, Suarez, Jones, and Reid, 1999). However, studies including the parents and parent child interactions also supported the presence of a more rejecting and less emotionally warm family environment for depressed

children. In one of these studies, it was found that mothers of depressed children rewarded their children less than did mothers of non-depressed children (Cole & Rehm, 1986). Fathers of depressed children were found to provide less positive messages to their children about themselves, the world, and the future than did fathers of anxious children (Stark, Humphrey, Crook, & Lewis, 1990). So, the findings of the current study obtained from adult subjects are consistent with the ones obtained from child and adolescent subjects.

Rejecting type of parenting style is characterized as being punitive, shaming, favoring siblings over the child, rejection through criticism, rejection of the child as an individual, and being abusive. Emotionally warm parenting style, on the other hand, is characterized by supportive, affectionate, stimulating and praising interactions with the child (Arrindel et al., 1999). So, parenting style and continuous parent child interactions including rejecting attitudes and/or lack of emotionally warm attitudes might contribute to the development of some faulty belief domains related with self esteem, failure, loss, inadequacy or hopelessness which are the specific cognitions of depressive individuals. Therefore, parental rejection and family factors including parental modeling of depressive behaviors and cognitions were proposed to be related with the development of depression (Petti, 1989). So, the findings of this study about high levels of perceived mother rejection and low levels of perceived father emotional warmth as significant predictors of depression supported the views about the specific role of parental rejection and emotional warmth as a developmental vulnerability factor for depression. Moreover, perceived parental overprotection did not have any prediction effect on depression, supporting

the theories suggested that depression may be more related to perceived rejection and absence of perceived care rather than the perceived overprotection.

The other notable finding of the current study was that in regression analysis predominantly perceived mother rearing behaviors rather than the father rearing behaviors were found to be significant predictors, especially for OCS, and trait anxiety. In depression, perceived parental rearing behaviors of both of the parents (high degree of perceived mother rejection and low degree of perceived father emotional warmth) seemed to have an explanatory role in depression. However for OCS and trait anxiety, explanatory effect of perceived father rearing behaviors was not significant. One of the reasons of this finding might be a general explanation that mothers have the traditional role of being the primary caregiver in the child upbringing process. However, specifically for OCS, there might be another reason for the mothers' predominant effect in the prediction of obsessive compulsive symptomatology. It was proposed that mothers' psychological control was more strongly associated with OCD symptoms, while fathers' psychological control was more strongly associated with OC personality traits. Ayçiçeği, Harris, and Dinn (2002) proposed that mothers' traditional housekeeping duties put them in the role of monitoring cleanliness and safety issues; on the other hand, fathers are seemed to have a moral authority role in the household. In other words, while mothers may usually focus on avoiding domestic accidents and disasters, fathers may focus on more abstract emphasis on obeying rules, and the ways to do the things. Therefore, mothers' overprotective, controlling and critical attitudes (e.g. about being clean and tidy, keeping the doors locked, keeping the appliance off, and etc.) might lead an increased attention in the child about responsibility for causing and/or preventing

harm which is closely linked to OCD. On the other hand, fathers' over controlling or critical attitudes (e.g. about moral issues, or a single right way to do the things) might lead to the development of inflexible, rigid and perfectionist characteristics in the child which are closely linked to OC personality traits. The findings of the current study about perceived mother overprotection and obsessive compulsive symptomatology was consistent with this view. However, in future studies, the different effects of maternal and paternal rearing behaviors on the development of OCD and OC personality traits should be investigated in more detail. Moreover, in these studies, examination of the gender differences in terms of perceived parental rearing behaviors of the same sex and the opposite sex parents might also contribute to a more comprehensive understanding of OCD.

In terms of the relationship between perceived mother and father rearing behaviors, correlational analysis showed that all three type of rearing behaviors were highly correlated between mothers and fathers for he same type of rearing behaviors. In the current sample, there was also a negative relationship between perceived mother overprotection and perceived father emotional warmth. When perceived paternal emotional warmth decreases, perceived maternal overprotection increases. Parental overprotection might be a more prominent parental rearing behavior and might be perceived as a more positive type of rearing style in Turkish culture. Kağıtçıbaşı (1970) showed that there was a greater family control in a typical middle class Turkish family compared to the American family.

To sum up, the proposed relationship between OCS and perceived parental overprotection, and the relationship between depression and perceived parental rejection was supported with the findings of the current study. However, the

hypothesis related to trait anxiety was not supported. The expected predictive role of perceived parental overprotection for trait anxiety was not found in this sample, leaving the perceived parental overprotection as a specific predictor for OCS. Overall, the distinction between OCS and depressive symptomatology in terms of their specific developmental vulnerability factors, namely, perceived parental rearing behaviors, was once more supported with the findings of the present study.

4.3 Mediator Role of Responsibility Attitudes between Perceived Parental Rearing Behaviors and OCS

One of the most important aims of the current study was to examine not only "which" vulnerability factors would be related to OCS, but also "how" these vulnerability factors would be related to OCS. In other words, it was aimed to clarify the pathway of the vulnerability factors for OCS. Besides their unique or separate predictive effects on OCS, a mediational relationship was proposed between these vulnerability factors. Specifically, perceived parental overprotection was proposed to be related to OCS via responsibility attitudes. Therefore, in the fifth hypothesis, it was proposed that perceived parental overprotection would have an effect on OCS through responsibility attitudes. In other words, responsibility attitudes would be a mediator between perceived parental overprotection and OCS.

This hypothesis was supported by the results of regression analysis conducted to test this mediational relationship. First of all, the regression analysis conducted for the prediction of responsibility attitudes by perceived parental rearing behaviors showed that among the perceived parental rearing behaviors only perceived mother and father overprotection significantly predicted the responsibility attitudes. In other

words, as expected, subjects who reported more perceived mother and father overprotection tended to have more responsibility attitudes. This finding supported the proposed factors (Salkovskis, Shafran, Rachman, & Freeston, 1999) about the role of overprotective parenting style in the development of the belief domain related to inflated responsibility. Secondly, the regression analysis conducted for the prediction of OCS by perceived parental rearing behaviors and responsibility attitudes showed that the significant effect of perceived mother overprotection on OCS (as stated before the only significant predictor of OCS among all the other perceived parental rearing behaviors) reduced significantly when responsibility attitudes entered into the equation. This statistical finding indicated that perceived mother overprotection had an effect on OCS through responsibility attitudes, which was the mediator in this relationship. In other words, higher levels of perceived mother overprotection lead to higher levels of OCS by increasing responsibility attitudes in the subject.

This was one of the most important findings of the present study because it contributes to the explanation of "how" perceived mother overprotection leads to the development of obsessive compulsive symptoms. Here, responsibility attitudes, which are the crucial cognitive components of OCS, were found to mediate the relationship between perceived maternal overprotection and OCS. This significant mediational relationship not only showed the effect of maternal overprotection in the formation of distorted beliefs related to responsibility, but also showed the effect of responsibility attitudes on OCS.

This proposed pathway, which was supported by mediation analysis, was a striking verification of the cognitive model of OCD (Salkovskis, 1985, 1989). Early

experiences (e.g. parental overprotection, control and criticism) might be one of the developmental factors which make the person vulnerable to develop obsessive compulsive disorder. Because overprotective, controlling and critical type of parenting style (e.g. being fearful and anxious for the child's safety, intrusive, overinvolved, excessive criticism of the child because of his failures to take necessary precautions to prevent potential dangers), may lead the child to perceive the world as threatening, dangerous, but at the same time controllable, and perceive himself as incompetent to deal with such danger. This kind of repeated parent-child interactions might be one of the developmental vulnerability factors for obsessional problems. In this study, this view was supported by the prediction of OCS only by perceived mother overprotection. Furthermore, it was proposed that this kind of overprotective parenting style may have an effect on OCS because it contributes to the formation of a faulty belief domain about responsibility. In other words, the origins of the beliefs related to inflated responsibility are constituted by overprotective parenting style. In this study, this view was supported by the prediction of responsibility attitudes only by perceived parental overprotection. Then, if a person has this kind of pre-existing developmental vulnerability (overprotective parental rearing style) and cognitive vulnerability (responsibility attitudes), it is not unpredictable to misinterpret the intrusive thoughts, images, and impulses as having a personal responsibility for causing and/or preventing harm to oneself and others, and to engage in neutralizing behaviors to reduce the anxiety.

The proposed mediational relationship in this study, of course, only one of the possible pathways to OCD which emphasized the effect of parental overprotection through responsibility attitudes. However, there are also other faulty cognitions

which are important for the development and maintenance of obsessional problems, such as thought-action fusion, excessive concern about controlling thoughts, overestimation of threat and perfectionism (OCCWG, 1997). These cognitive factors should also be investigated in future studies in terms of their origins and specific effects for OCD by using mediation analysis.

The current study also aimed to examine the specificity of the mediator role of responsibility attitudes between perceived parental rearing behaviors and OCS. In the sixth hypothesis, it was proposed that responsibility attitudes would not be a mediator between perceived parental rearing behaviors and depression, nor between perceived parental rearing behaviors and trait anxiety. In other words, mediator role of responsibility attitudes would be specific to OCS, but not to depression and trait anxiety.

This hypothesis was supported both for trait anxiety and depression. In terms of trait anxiety, the perceived mother emotional warmth (as stated before the only significant predictor for trait anxiety among all the other perceived parental rearing behaviors), did not predict responsibility attitudes. Therefore, responsibility attitudes could not a mediator between perceived mother emotional warmth and trait anxiety. Here, it is important to note that although responsibility attitudes were found to be a significant predictors for both OCS and trait anxiety, the mediator role of responsibility attitudes were only OCS specific. This finding supported the specific pathway of perceived mother overprotection and responsibility attitudes to OCS.

In terms of depression, since responsibility attitudes did not significantly predict depressive symptoms, it could not have a mediator role between perceived parental rearing behaviors and depression. For depression, the mediator role of other

cognitive assumptions (e.g. related to failure, loss, inadequacy, self esteem or hopelessness) between perceived parental rejection, emotional warmth and depression should be studied in the future studies.

In conclusion, as expected, the mediator role of responsibility attitudes between perceived mother overprotection and OCS was found to be specific to OCS, but not to trait anxiety and depression. The finding related to this mediational relationship is valuable since there has been no study, to our knowledge, that demonstrated how the developmental and cognitive vulnerability factors are related to each other and then consequently to obsessional problems.

4.4 Life Events and OCS

In this study, besides the developmental and cognitive vulnerability factors of OCS, it was also aimed to investigate the predictive role of environmental factors such as life events for OCS. In the seventh hypothesis, it was proposed that life events would be a significant predictor for OCS. The results of the regression analysis supported this hypothesis. Life events were found to be a significant predictor for OCS, after controlling for the effects of depression and trait anxiety. There was a significant positive relationship between life events and OCS, indicating that higher levels of life events were associated with higher levels of obsessive compulsive symptoms. In other words, subjects who reported more life events tended to have more OCS.

Significant predictor role of life events for OCS in the current study is consistent with the findings of other studies in the literature. OCD patients were found to report more total life events (Brown, Juster, Heimberg, & Winning, 1998)

and more stressful life events (McKeon, Roa, & Mann, 1984) than normal controls. In a study, serious illnesses in the subjects and/or in their close relatives, arguments, and birth of a child were found to be the most frequently reported events (McKeon, Roa, & Mann, 1984). Major illness or injury in a relative was found to be the only specific life event that was significantly more common in children with OCD and other anxiety disorders than normal controls (Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004).

In this study, life events were assessed by a measurement tool prepared to evaluate the life events and daily hassles specifically experienced by university students (e.g. academic difficulties, health problems of oneself or the family members, problems in interpersonal relationships, adaptation problems, problems related to accommodation, and etc.). The subjects were asked to evaluate each item in terms of the frequency of the events and the level of stress caused by the events. The results of the regression analysis showed that life events significantly predicted the obsessive compulsive symptoms in this sample. The findings related to life events in this study supported the general quantitative approach which emphasizes the amount of life events (Holmes & Rahe, 1967; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004) and qualitative approaches which emphasizes the non-specific undesirability or threatening quality of the events (Sarason et al., 1985; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). However, in this study, life events were not evaluated in the light of specific qualitative approach which emphasizes that specific events are important for specific pathologies (Vedhara, 2000; cited in Gothelf, Aharonovsky, Horesh, Carty, & Apter, 2004). In other words, current study investigated the life events as a general predictor for OCS,

and the features of the events and their specificity for OCS were not examined. In future studies, specific quality of the life events, such as whether they are perceived as controllable or not, the interaction of specific life events with responsibility attitudes can be studied in detail, however this is not the scope of this study.

The predictor role of life events was investigated also for depression and trait anxiety. In this study, in the light of diathesis-stress model, life events were proposed as one of the environmental factors which can have a precipitating effect for many psychological disorders. Therefore, in the eighth hypothesis, it was proposed that life events would be a significant predictor for depression and trait anxiety. In other words, life events would be a significant predictor not only for OCS, but also for depression and trait anxiety. As expected, the results of the regression analysis supported this hypothesis both for depression and trait anxiety.

In terms of trait anxiety, life events were found to be a significant predictor, after controlling for the effects of OCS and depression. In other words, subjects who reported more life events tended to have more trait anxiety. Similar to the findings of the current study, studies with clinical samples stressed the close relation between anxiety symptoms and life events. Adults with panic disorder (Horesh, Amir, Kedem, Goldberger, & Kotler, (1997), generalized anxiety disorder (Newman & Bland, 1994), agoraphobia (Franklin & Andrews, 1999) and social phobia (Brown, Juster, Heimberg, & Winning, 1998) were reported to experience significantly more total life events, perceive them as being more stressful and adapted to them less well than normal controls, supporting the quantitative and qualitative approaches. As stated before, in the present study, the frequency of the life events and the perceived stress

caused by the event significantly predicted trait anxiety experienced by the current sample consisted of university students.

Similarly, life events also significantly predicted depressive symptoms, after controlling for the effects of OCS and trait anxiety. In other words, subjects who reported more life events tended to have more depressive symptoms. Many studies have examined the relationship between life events and depression, and found an association between life events and the onset of depression (Brown & Bifulco, 1985; Kendler, Karkowski, & Prescott, 1999; Lewinsohn, Allen, Seeley, & Gotlib, 1999; Overholser, Norman, & Miller, 1990). Depressed patients were found to have experienced more adverse events prior to the onset of depression compared to normal controls (Goodyer, Herbert, & Tamplin, 2000). Recent experiences of loss were found to be associated with current major depression and dysthymia in several community studies (Monroe, Rhode, Seeley, & Lewinsohn, 1999).

In conclusion, as expected, life events were found to be a significant predictor for OCS, depressive symptoms and trait anxiety, and in line with many studies in the literature, the proposed relationship was supported once more with the findings of the current study.

4.5 Support for the Hypotheses of the Study

Hypothesis 1. Responsibility attitudes will be a significant predictor for obsessive compulsive symptoms (OCS).

This hypothesis was supported. Responsibility attitudes significantly predicted obsessive compulsive symptoms. More specifically, higher levels of responsibility attitudes resulted in higher levels of OCS.

Hypothesis 2. Responsibility attitudes will not be a significant predictor for depression and trait anxiety. In other words, predictor role of responsibility attitudes will be specific to OCS, but not to depression and trait anxiety.

This hypothesis was supported for depression, but not for trait anxiety. As expected responsibility attitudes did not predict depression. However, responsibility attitudes significantly predicted trait anxiety. More specifically, higher levels of responsibility attitudes resulted in higher levels of trait anxiety. So, responsibility attitudes were found to be a predictor not only for OCS, but also for trait anxiety.

Hypothesis 3. Among the perceived parental rearing behaviors, perceived parental overprotection will be a significant predictor for OCS.

This hypothesis was supported, but only for perceived mother overprotection. Among the perceived parental rearing behaviors, only perceived mother overprotection significantly predicted OCS. More specifically, higher levels of perceived mother overprotection resulted in higher levels of OCS.

Hypothesis 4. Among the perceived parental rearing behaviors, perceived parental rejection will be a significant predictor for

depression, and perceived parental overprotection will be a significant predictor for trait anxiety. In other words, perceived parental overprotection will be a significant predictor both for OCS and trait anxiety, but not for depression.

This hypothesis was supported for depression, but not for trait anxiety. Among the perceived parental rearing behaviors, only perceived mother rejection and perceived father emotional warmth significantly predicted depression. More specifically, higher levels of perceived mother rejection and lower levels of perceived father emotional warmth resulted in higher levels of depression. However, for trait anxiety, among the perceived parental rearing behaviors, only perceived mother emotional warmth significantly predicted trait anxiety. More specifically, higher levels of perceived mother emotional warmth resulted in higher levels of trait anxiety. Contrary to the expectations, perceived parental overprotection did not predict trait anxiety, therefore perceived mother overprotection was found to be a specific predictor only for OCS.

Hypothesis 5. Perceived parental overprotection will have an effect on OCS through responsibility attitudes. In other words, responsibility attitudes will be a mediator between perceived parental overprotection and OCS.

This hypothesis was supported. Perceived mother overprotection had an effect on OCS through responsibility attitudes. Therefore, responsibility attitudes were a mediator between perceived mother overprotection and OCS. More

specifically, higher levels of perceived mother overprotection resulted in higher levels of OCS by increasing the level of responsibility attitudes.

Hypothesis 6. Responsibility attitudes will not be a mediator between perceived parental rearing behaviors and depression, nor between perceived parental rearing behaviors and trait anxiety. In other words, mediator role of responsibility attitudes will be specific to OCS, but not to depression and trait anxiety.

This hypothesis was supported. Responsibility attitudes were not a mediator between perceived parental rearing behaviors and depression, or between perceived parental rearing behaviors and trait anxiety. So, mediator role of responsibility attitudes was specific to OCS.

Hypothesis 7. Life events will be a significant predictor for OCS.

This hypothesis was supported. Life events significantly predicted OCS. More specifically, higher levels of life events resulted in higher levels of OCS.

Hypothesis 8. Life events will be a significant predictor for depression and trait anxiety. In other words, life events will be a significant predictor not only for OCS, but also for depression and trait anxiety.

This hypothesis was supported both for depression and trait anxiety. Life events significantly predicted depression. More specifically, higher levels of life events resulted in higher levels of depression. Similarly, life events also significantly

predicted trait anxiety. More specifically, higher levels of life events resulted in higher levels of trait anxiety.

4.6 Conclusion

In general, the present study was designed to investigate the vulnerability factors of obsessive compulsive symptomatology (OCS) in a non-clinical sample. In the light of Salkovskis' cognitive theory of OCD (1985, 1989), perceived parental rearing behaviors, responsibility attitudes and life events were examined for their relationship to OCS. Besides the unique contribution of these factors in the explanation of OCS, a mediational pathway was proposed to clarify how these factors were related to each other and to OCS. Finally, the specificity of the findings to OCS was examined by investigating the same relationships for depressive symptoms and trait anxiety.

Perceived mother overprotection, responsibility attitudes and life events all significantly predicted OCS. One of the most contributing findings of the present study was the mediator role of responsibility attitudes in the relationship between perceived mother overprotection and OCS. Higher levels of perceived maternal overprotection resulted in higher levels of OCS by increasing the responsibility attitudes. This was a profound finding that clearly supports the cognitive explanation of obsessive compulsive symptomatology. The findings of the present study supported that perceived mother overprotection as a developmental vulnerability factor significantly contributed to the explanation of a cognitive vulnerability factor (namely responsibility attitudes), and perceived maternal overprotection had its predictive role for OCS through responsibility attitudes. In addition to these

developmental and cognitive vulnerability factors, life events as an environmental factor also contributed to the prediction of OCS, all consistent with the cognitive model of OCD proposed by Salkovskis (1985, 1989).

The specificity of the above findings to OCS was mostly in line with the expectations. In terms of perceived parental rearing behaviors, perceived mother overprotection was the only significant predictor for OCS. On the other hand, for depression perceived mother rejection and perceived father emotional warmth, and for trait anxiety perceived mother emotional warmth were the significant predictors. These findings indicated to the specific importance of perceived mother overprotection for OCS, and to the distinction between OCS, trait anxiety and depression in terms of their developmental risk factors.

In terms of responsibility attitudes, both OCS and trait anxiety were significantly predicted by responsibility attitudes, however depression was not significantly predicted by responsibility attitudes. These findings indicated to a clear distinction between anxiety and depressive symptoms in terms of their specific cognitive components. In addition to this, although responsibility attitudes seemed to contribute to the explanation of both OCS and trait anxiety, the mediator role of responsibility attitudes was OCS specific. Responsibility attitudes mediated only the relationship between perceived mother overprotection and OCS. This is an important finding of the present study that shows specific cognitive mechanisms only mediate the relationship between specific developmental risk factors and specific psychological symptoms.

In terms of life events, as expected OCS, depression and trait anxiety were all significantly predicted by life events.

In conclusion, the present study supported the cognitive model of OCD (Salkovskis, 1985, 1989) as a whole. In light of the findings of the current study and the cognitive model of OCD, one may suggest that parents', especially mothers' overprotective, controlling and critical rearing behaviors may serve as a developmental vulnerability factor for the development of OCD. Expressing excessive fearfulness and anxiety for the child's safety, criticizing the child for his failures related to not taking necessary safety precautions, excessive regulation of the child's behaviors and activities may affect the perception of the child about the world and the self in a negative way. The world might be perceived as full of dangers, threatening, but controllable. The self might be perceived as incompetent to deal with such danger; therefore all these may lead to the development of anxiety in the child. This kind of repeated parent-child interactions may contribute to the development of faulty beliefs related to responsibility for harm. With this kind of cognitive bias that mostly formed and shaped during childhood and adolescence, the person may develop some assumptions related to responsibility such as "Being safe is better than being sorry", "Not preventing harm is as bad as causing it", and etc. Later in life, this kind of developmental and cognitive vulnerability factors may put the person at risk to respond commonly occurring intrusive thoughts with increased anxiety. Although the negative, unwanted intrusive thoughts are frequently experienced by many individual time to time, because of their pre-existing vulnerabilities, these people filter the intrusions through their inflated responsibility beliefs and make misinterpretations about personal responsibility for harm to oneself and/or others. Environmental factors such as life events may also trigger the activation of the disorder. The frequency of intrusive thoughts may increase when these people are

exposed to stressful life events or they experience a corresponding increase in anxious and depressed mood.

Misinterpretation of the content and/or occurrence of the intrusive thoughts leads to mood changes such as distress or anxiety, motivation to engage in overt or covert neutralizing behaviors, increased attention for certain stimuli and avoidance behaviors. Since all these responses contribute to a temporary reduction in discomfort and anxiety, a vicious cycle of misinterpretation of intrusive thoughts and neutralizing behaviors continues, and faulty beliefs related to inflated responsibility remain without being challenged or changed.

4.7 Limitations of the Study and Suggestions for Future Studies

There are some limitations of the present study. Firstly, the current study had a non-experimental design, therefore the results of the analysis were correlational in nature and provided potential relationships between variables, however did not indicate causal directions. Moreover, the present study used a cross-sectional design. Therefore, in order to determine the impact of parental rearing behaviors and responsibility attitudes on the development of obsessional problems, longitudinal designs are necessary for more reliable and valid assessment of these variables.

Second limitation is related to sample characteristics of the study. A non-clinical university student sample was used in the present study. Therefore, the age and education level of the subjects were within a very limited range. So, the study needs to be replicated in an adult sample representing different ages and education levels.

Thirdly, as stated before, the sample used in this study was a non-clinical sample. Although the review studies (Gibbs, 1996) showed that findings from non-clinical and clinical samples in OCD research are highly similar, still the findings of the present study should be evaluated cautiously. In this study, self report measures were used to assess obsessive compulsive, depressive and trait anxiety symptoms. While one of the symptom groups was being predicted by the proposed variables of the study, the effects of the other symptom groups were statistically controlled since OCS, depressive and trait anxiety symptoms are highly comorbid with each other. The findings were mostly in line with the expectations and the relevant theories. Nevertheless, in order to generalize the current findings to clinical populations, the study needs to be replicated with a clinical sample consisted of OCD patients, patients with other anxiety disorders and depressive patients, who will be diagnosed with standardized measures and controlled for potential comorbid disorders.

Fourth limitation of the study is related to the retrospective reports of parental rearing behaviors. Retrospective reports have been criticized since they may not provide a reliable measure of actual parenting behaviors (Holden & Edwards, 1989). On the other hand, previous findings of the studies that used EMBU suggested that retrospective reports can be accepted as the measure of phenomenological impact of parental rearing behaviors, and they do not threaten the reliability and validity of findings obtained (Arrindell, Emmelkamp, Brilman, & Monsma, 1983). In this study, the effects of a memory bias or mood congruent memory bias can not be disregarded. However, although s-EMBU is not a direct measure of parenting, the findings of the current study are still valuable since they demonstrated the subjects' perception of their parental rearing behaviors. Perception of events and assimilation of them into

existing schemata can be as important as the events themselves (Crick & Dodge, 1994). Whether the findings of the current study reflects the actual parental rearing behaviors or the subjects' biased perceptions, further studies are needed to investigate this issue. Future studies can minimize the biased results by using multiple informants. Besides the subjects' self reports, data obtained from parents can also improve the understanding of developmental vulnerability factors.

In addition to the limitations and consequent suggestions for future studies that were presented above, the findings of this study also suggest some other implications for future research.

In the present study, general obsessive compulsive symptomatology was investigated rather than the subtypes, and responsibility attitudes were found to be related to general obsessive compulsive symptomatology. Future studies should also investigate the relation of responsibility attitudes to different symptom groups or subtypes of OCS to gain a more comprehensive understanding of obsessive compulsive syptomatology. Moreover, in addition to the inflated responsibility cognitions, which have been widely accepted as having a central importance for OCD, other belief domains such as thought-action fusion, overimportance of thoughts, and excessive concern about controlling thoughts, which are not addressed in the cognitive model of Salkovskis (1985, 1989) need to be examined in future studies. Especially obsessions about sexual, aggressive, and religious thoughts or impulses might be more explained by the inclusion of these belief domains in addition to responsibility attitudes.

In future studies, examination of the gender differences in terms of perceived parental rearing behaviors will be useful. Especially, investigating the perception of

the same sex and opposite sex parents' rearing behaviors may improve the understanding of developmental factors related to OCD, and may also demonstrate some cultural specific aspects in terms of parental rearing behaviors.

Current study investigated the role of life events as a general predictor for obsessive compulsive symptomatology. Features of the life events and their specificity to OCS were not examined. Future studies should investigate specific quality of the life events, such as whether they are perceived as controllable or not. Moreover, the interaction of specific life events with responsibility attitudes can be studied in detail. Moreover, LEIU assesses many life events and daily hassles experienced by university students, but it has some missing points that it is lack of some negative life events which have an important effect in the person's life, such as death of a family member, relative or close friend. Therefore, future studies can use more comprehensive measurement tools to assess life events.

4.8 Clinical Implications of the Present Study

The findings of the current study highlight the importance of responsibility attitudes, perceived parental overprotection and life events in the development and maintenance of obsessive compulsive symptomatology. The findings of the study not only emphasize the importance of responsibility attitudes for obsessional problems, but also shed light to the origins of these faulty attitudes. Therefore, these findings present valuable therapeutic implications for the cognitive treatment of OCD.

Cognitive theory of obsessive compulsive disorder (Salkovskis, 1985, 1989) emphasizes a critical differentiation between unwanted intrusive thoughts and negative automatic thoughts. In the cognitive behavioral formulation of OCD,

negative automatic thoughts are the individuals' appraisals or interpretations of the occurrence/content of the obsessional intrusions. Therefore, intrusive thoughts and negative automatic thoughts are totally different from each other. Salkovskis (1985) stated that the main difference between negative automatic thoughts and the obsessions are the perceived intrusiveness, accessibility, and the extent to which they are seen as being consistent with the individual's belief systems. Obsessions are unacceptable (ego-dystonic), irrational, highly intrusive, accessible, and implausible. On the other hand, negative automatic thoughts are acceptable (ego-syntonic), rational, less intrusive, more difficult to access, and they are plausible. Obsessional thoughts are the stimuli which might provoke a particular type of automatic thoughts. Although intrusions frequently occur in many individuals without causing any serious disturbance, for some individuals it becomes a persistent source of mood disturbance when unacceptable intrusions interact with the individual's belief system. If the intrusions match with the pre-existing dysfunctional beliefs, then this leads to the affective disturbance which was actually caused by the negative automatic thoughts rather than the intrusion itself (Salkovskis, 1985).

Therefore, in the treatment of obsessional problems, responsibility attitudes and appraisals play a crucial role. Therapeutic strategies based on targeting inflated responsibility appraisals, awareness of negative automatic thoughts, correction of negative automatic thoughts and development of adequate perceptions of personal responsibility was proposed to be a promising treatment for OCD (Ladouceur, Leger, Rheaume, & Dube, 1996). Therapy process should aim to assess and modify negative automatic thoughts about the occurrence and/or content of the intrusions. Inflated responsibility appraisal should be deflated to more realistic and rational levels

(Rachman, 1998). If negative automatic thoughts related to personal responsibility for harm to oneself and/or others are not challenged and changed, then the vicious cycle of intrusion, misinterpretation of intrusion, and neutralizing behaviors would not be broken. Therefore, in addition to behavioral strategies such as exposure and response prevention, which are also important components of treatment procedure, the cognitive elaboration of personal significance attached to the unwanted thoughts are vital.

Cognitive approaches to the treatment of OCD have also some benefits over behavioral strategies. Behavioral techniques, such as exposure and response prevention, thought stopping, and habituation training, usually deal with the manifestation of the symptoms (Salkovskis, 1985, 1989; Rachman, 1998), on the other hand, cognitive treatment focuses on the underlying problems by targeting negative automatic thoughts and faulty beliefs related to responsibility. Especially, cognitive strategies are crucial when dealing with patients who do not have any overt compulsions. Although many patients exhibit overt compulsions accompanying to their obsessions, an undeniable portion of OCD patients suffer from obsessions and covert compulsions which puts them to a relatively more difficult treatment procedure. Therefore, cognitive modification of obsessions by challenging and changing the responsibility appraisal attached to them should be the target of treatment process for both groups of patients.

Throughout the therapy process, not only appraisals of intrusions but also attitudes, assumptions and beliefs related to responsibility should be examined because negative appraisals arise from these faulty responsibility attitudes and beliefs. By using a variety of techniques (e.g. downward arrow) several types of

underlying assumptions can be identified. Appraisals of excessive harm are often based on faulty assumptions of severity and probability of negative consequences and inflated responsibility (Freeston, Rheaume, & Ladouceur, 1996). Here, addressing the developmental experiences that might be influential in the formation of inflated responsibility beliefs can be beneficial. As the findings of the present study supported, the origins of these responsibility assumptions are mostly formed and shaped during childhood by overprotective, controlling and critical parenting style. Questioning this kind of developmental experiences may contribute to challenging, modifying and correcting the faulty assumptions. It was proposed that clinical progress occurs when the core elements of OCD, namely responsibility attitudes and its origins, are incorporated to the therapy process (Salkovskis, Shafran, Rachman, & Freeston, 1999).

Possible developmental factors, specifically overprotective parenting styles, which make the person more prone to develop obsessional problems can also be used in the development of prevention programs as well as in the therapy process (Salkovskis, Shafran, Rachman, & Freeston, 1999). As mentioned before, although the findings of the present study depended on retrospective reports of an adult sample, the findings are highly consistent with the ones obtained from children and adolescent samples. Understanding the parental factors may facilitate the treatment of OCD in children and adolescents, and contribute to the development of intervention strategies for at risk children. Including the family members in the treatment of obsessive compulsive children, altering parental communication style, and educating the parents about parental rearing practices may all contribute to the

treatment, early intervention and prevention programs for obsessional problems in children and adolescents.

REFERENCES

Ainsworth, M. D. S, Blehar, M. C., Waters, E., & Wall, S. (1978). Patterns of attachment: A psychological study of the Strange Situation. Hillsdale, NJ: Erlbaum.

Alonso, P., Menchon, J. M., Mataix-cols, D., Pifarre, J., Urretavizcaya, M., Crespo, J. M., Jimenez, S., Vallejo, G., & Vallejo, J. (2004). Perceived parental rearing style in obsessive-compulsive disorder: Relation to symptom dimensions. Psychiatry Research, 127, 267-278.

American Psychiatric Association (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC.

Arntz, A., Rauner, M., & van den Hout, M. (1995). "If I feel anxious, there must be danger": Ex-consequentia reasoning in inferring danger in anxiety disorders. Behavior Research and Therapy, 33, 917-925.

Arrindell, W. A., Emmelkamp, P. M. G., Brilman, E., & Monsma, A. (1983). Psychometric evaluation of an inventory for assessment of parental rearing practices. Acta Psychiatrica Scandinavica, 67, 163-177.

Arrindell, W. A., Sanavio, E., Aguilar, G., Sica, C., Hatzichristou, C., Eisemann, M., Recinos, L. A., Gaszner, P., Peter, M., Battagliese, G., Kallai, J., & Ende, J. (1999). The development of a short form of the EMBU: Its appraisal with students in Greece, Guatemala, Hungary, and Italy. Personality and Individual Differences, 27, 613-628.

Ayçiçeği, A., Harris, C. L., & Dinn, W. M. (2002). Parenting style and obsessive-compulsive symptoms and personality traits in a student sample. Clinical Psychology and Psychotherapy, 9, 406-417.

Baer, L., Jenike, M. A., Ricciardi, J. N., Holland, A. D., Seymour, R., Minichiello, W. E., & Buttolph, L. (1990). Standardized assessment of personality disorders in obsessive-compulsive disorder. Archives of General Psychiatry, 47, 826-830.

Ball, S. G., Baer, L., & Otto, M. W. (1996). Symptom subtypes of obsessive compulsive disorder in behavioral treatment studies: A quantitative review. Behavior Research and Therapy, 34, 47-51.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173-1182.

Bartz, J. A., & Hollander, E. (2006). Is obsessive-compulsive disorder an anxiety disorder? Progress In Neuro-Psychopharmacology & Biological Psychiatry, 30, 338-352.

Bebbington, P. (1998). Epidemiology of obsessive-compulsive disorder. British Journal of Psychiatry, 173 (35), 2-6.

Beck, A. T. (1976). Cognitive therapy and emotional disorders. New York: International Universities Press.

Beck, A. T. (1987). Cognitive models of depression. Journal of Cognitive Psychotherapy, 1, 5-37.

Beck, A. T., Steer, B. F., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. Clinical Psychology Review, 8, 77-100.

Bem, S. L. (1981) Bem Sex-Role Inventory: Professional Manual. Consulting Psychologists Press, Palo Alto, CA.

Black, A. (1974). The natural history of obsessional neurosis. In H. R. Beech (Ed.), Obsessional states. London: Methuen.

Bogetto, F., Venturello, S., Albert, U., Maina, G., & Ravizza, L. (1999). Gender related clinical differences in obsessive-compulsive disorder. Europian Psychiatry, 14, 434-441.

Bowlby, J. (1969). Attachment, Vol. 1. New York: Basic Books.

Bowlby, J. (1973). Attachment and loss: Seperation, anxiety and anger, Vol 2. New York: Basic Books.

Bressi, C., & Guggeri, G. (1996). Obsessive-compulsive disorder and family emotional environment. New Trends in Experimental and clinical Psychiatry, 12, 265-269.

Brown, G. W, & Bifulco, A. (1985). Social support, life events and depression. In I. Sarason & B. Sarason (Eds.), Social support: Theory, research and applications. Boston: Martins Nijhoff.

Brown, E. J., Juster, H. R., Heimberg, R. G., & Winning, C. D. (1998). Stressful life events and personality styles: Relation to impairment and treatment outcome in patients with social phobia. Journal of Anxiety Disorders, 12, 233-251.

Burns, G. L., Keortge, S. G., Formea, G. M., & Sternberger, L. G. (1996). Revision of the Padua Inventory of obsessive compulsive symptoms: Distinctions between worry, obsessions, and compulsions. Behaviour Research and Therapy, 34, 163-173.

Clark, D. M. (1986). A cognitive approach to panic. Behavior Research and Therapy, 24, 461-470.

Clark, D. A., & Purdon, C. L. (1993). New perspectives for a cognitive theory of obsessions. Australian Psychologist, 28, 161-167.

Clark, D. A., & Purdon, C. L. (1995). The Assessment of unwanted intrusive thoughts: A review and critique of the literature. Behavior Research and Therapy, 33 (8), 967-976.

Cole, D. A., & Rehm, L. P. (1986). Family interaction patterns and childhood depression. Journal of Abnormal Child Psychology, 14, 297-314.

Craske, M. G. (1999). Anxiety disorders: Psychological approaches to theory and treatment. Boulder, CO: Westview Press.

Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information processing mechanisms in children's social adjustment. Psychological Bulletin, 115, 74-101.

Dadds, M. R., Sheffield, J. K., & Holbeck, J. F. (1990). An examination of the differential relationship of marital discord to parents' discipline strategies for boys and girls. Journal of Abnormal Child Psychology, 18, 121-129.

Denys, D., Tenney, N., van Megen, H. J., de Geus, F., & Westenberg, H. G. (2004). Axis I and II comorbidity in a large sample of patients with obsessive-compulsive disorder. Journal of Affect Disorders, 80, 155-162.

Dinç, Y. (2001). Predictive role of perfectionism on depressive symptoms and anger: negative life events as moderator. Unpublished Master Thesis, Middle East Technical University, Ankara, Turkey.

Doron, G., & Kyrios, M. (2005). Obsessive-compulsive disorder: A review of possible specific internal representations within a broader cognitive theory. Clinical Psychology Review, 25, 415-432.

Eisen, J. L., Mancebo, M. A., Pinto, A., Coles, M. E., Pagano, M. E., Stout, R., & Rasmussen, S. A. (2006). Impact of obsessive-compulsive disorder on quality of life. Comprehensive Psychiatry, 47, 270-275.

Eisen, J. L. & Rammussen, S. A. (2002). Phenomenology of obsessive-compulsive disorder. In D. J. Stein, E. Hollander (Eds), Textbook of anxiety disorders (pp. 173-189). Washington, DC: American Psychiatric Publishing.

Feinstein, S. B., Fallon, B. A., Petkova, E., & Liebowitz, M. R. (2003). Item-by-item factor analysis of the Yale-Brown Obsessive-Compulsive Scale Symptom Checklist. Journal of Neuropsychiatry and Clinical Neurosciences, 15, 187-193.

Ferrari, R. J. (1995). Perfectionism cognitions with nonclinical and clinical samples. Journal of social Behavior and Personality, 10, 143-156.

Fineberg, N., & Roberts, A. (2001). Obsessive compulsive disorder: A twenty-first century perspective. In N. Fineberg, D. Marazziti, & D. J. Stein (Eds), Obsessive compulsive disorder: A practical guide (pp.1). London: Martin Dunitz Ltd.

Foa, E. B., Amir, N., Bogert, K. V. A., Molnar, C., & Przeworski, A. (2001). Inflated perception of responsibility for harm in obsessive-compulsive disorder. Journal of Anxiety Disorders, 15 (4), 259-275.

Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: Exposure to corrective information. Psychological Bulletin, 99, 20-35.

Fontenelle, L. F., Mendlowicz, M. V., & Versiani, M. (2006). The descriptive epidemiology of obsessive-compulsive disorder. Progress in Neuro-Psychopharmacology & Biological Psychiatry, 30, 327-337.

Franklin, J. A., & Andrews, G. (1999). Stress and the onset of agoraphobia. Australian Psychology, 24, 203-219.

Freestone, M. H., Ladouceur, R., Gagnon, F., & Thibodeau, N. (1993). Beliefs about obsessional thoughts. Journal of Psychopathology and Behavioral Assessment, 15 (1), 1-21.

Freestone, M. H., Ladouceur, R., Thibodeau, N., & Gagnon, F. (1992). Cognitive intrusions in a non-clinical population II. Associations with depressive, anxious and compulsive symptoms. Behavior Research and Therapy, 30, 263-271.

Freeston, M. H., Ladouceur, R., Rheaume, J., Letarte, H., Gagnon, F. & Thibodeau, N. (1994). Self-report of obsessions and worry. Behaviour Research and Therapy, 32, 29-36.

Freeston, M. H., Rheaume, J., & Ladouceur, R. (1996). Correcting faulty appraisals of obsessional thoughts. Behavior Research and Therapy, 34 (5/6), 433-446.

Frost, R. O., & Gross, R. C. (1993). The hoarding of possessions. Behavior Research and Therapy, 31, 367-381.

Frost, R. O., & Hartl, T. L. (1996). A cognitive behavioral model of compulsive hoarding. Behavior Research and Therapy, 34, 341-350.

Frost, R. O., Lahart, C. M., & Rosenblate, R. (1991). The development of perfectionism: A study of daughters and their parents. Cognitive Therapy and Research, 15, 469-489.

Frost, R. O., & Shows, D. (1993). The nature and measurement of compulsive indecisiveness. Behavior research and Therapy, 26, 275-277.

Frost, R. O., Steketee, G., Cohn, L., & Griess, K. (1994). Personality traits in subclinical and non-obsessive-compulsive volunteers and their parents. Behavior Research and Therapy, 32, 47-56.

Frost, R. O., Steketee, G., Williams, L. F., Warren, R. (2000). Mood, personality disorder symptoms and disability in obsessive compulsive hoarders: A comparison with clinical and nonclinical controls. Behavior Research and Therapy, 38, 1071-1081.

Geller, D., Biederman, J., Faraone, S. V., Bellordre, C. A., Kim, G. S., Hagermoser, L., Cradock, K., Frazier, J., & Coffey, B. J. (2001). Disentangling chronological age from age of onset in children and adolescents with obsessive-compulsive disorder. International Journal of Neuropsychopharmachology, 4, 169-178.

Gibbs, N. A. (1996). Nonclinical populations in research on obsessive-compulsive disorder: a critical review. Clinical Psychology Review, 16 (8), 729-773.

Goodyer, I. M., Herbert, J., & Tamplin, A. (2000). First episode major depression in adolescents: Affective, cognitive and endocrine characteristics of risk status and predictors of onset. British Journal of Psychiatry, 176, 142–149.

Gothelf, D., Aharonovsky, O., Horesh, N., Carty, T., & Apter A.(2004). Life events and personality factors in children and adolescents with obsessive compulsive disorder and other anxiety disorders, Comprehensive Psychiatry, 45 (3), 192-198.

Grant, J. E., Mancebo, M. C., Pinto, A., Eisen, J. L., Rasmussen, S. A. (2006). Impulse control disorders in adults with obsessive-compulsive disorder. Journal of Psychiatry Research, 40, 494-501.

Green, S. B., Salkind N. J. & Akey, T. M. (1997). Using SPSS for windows: Analyzing and understanding data. New York: Prentice Hall.

Greenberg, D. (1987). Compulsive hoarding. American Journal of Psychiatry, 41, 409-416.

Guidano, V. F., & Liotti, G. (1983). Cognitive processes and emotional disorders. New York: Guilford Press.

Hanna, G. L., McCracken, J. T., & Cantwell, D. P. (1991). Prolactin in childhood obsessive-compulsive disorder: Clinical correlates and response to clomipramine. Journal of the American Academy of Child and Adolescent Psychiatry, 30, 173-178.

Hisli, N. (1988). Beck Depresyon Envanteri'nin geçerliliği üzerine bir çalışma. Psikoloji Dergisi, 6, 22, 118-122.

Hisli, N. (1989). Beck Depresyon Envanteri'nin üniversite öğrencileri için geçerliliği, güvenirliliği. Psikoloji Dergisi, 7, 23, 3-13.

Holden, G. W., Edwards, L. E. (1989). Parental attitudes toward child rearing: Instruments, issues, and implications. Psychological Bulletin, 106, 29-58.

Horesh, N., Amir, M., Kedem, P., Goldberger, Y., & Kotler, M. (1997). Life events in childhood, adolescence and adulthood and the relationship to panic disorder. Acta Psychiatrica Scandinavica, 96, 373-378.

Jacobi, D. M., Calamari, J. E., & Woodard, J. L. (2006). Obsessive-compulsive disorder beliefs, metacognitive beliefs and obsessional symptoms: Relations between parent beliefs and child symptoms. Clinical Psychology and Psychotherapy, 13, 153-162.

Jenike, M. A. (2001). An update on obsessive compulsive disorder. Bulletin of the Menninger Clinic, 65 (1), 4-25.

Kağıtçıbaşı, Ç. (1970). Social norms and authoritarianism: A Turkish-American comparison. Journal of Personality and Social Psychology, 16, 444-451.

Karadağ, F., Oğuzhanoğlu, N. K., Özdel, O., Ateşçi, F. Ç., & Amuk, T. (2006). OCD symptoms in a sample of Turkish patients: A phenomenological picture. Depression and Anxiety, 23, 145-152.

Karancı, A. N., Abdel-Khalek, A. M. , Glavak, R., Richter, J., Bridges, K. R., Dirik, G., Yorulmaz, O., van der Ende, J., Eisemann, M., & Arrindell, W. A. (2006). Extending the cross-national invariance of the parental warmth and rejection dimensions: Evidence from Arab countries, Croatia, and Turkey by applying the short-EMBU. Oral presentation in 1st International Congress of Interpersonal Acceptance and Rejection, Istanbul, Turkey.

Karno, M., Golding, J. M., Sorenson, S. B., & Burnam, A. (1988). The epidemiology of obsessive-compulsive disorder in five US communities. Archieves of General Psychiatry, 45, 1094-1099.

Kashani, J. H., Suarez, L., Jones, M. R., & Reid, J. C. (1999). Perceived family characteristic differences between depressed and anxious children and adolescents. Journal of Affective Disorders, 52, 269-274.

Kendler, K. S., Karkowski, L. M., & Prescott, C. A. (1999). Causal relationship between stressful life events and the onset of major depression. American Journal of Psychiatry, 156 (6), 837−841.

Krohne, H. W. (1990). Parental childrearing and anxiety development. In K. Hurrelmann, & F. Loesel (Eds.), Health hazards in adolescence (vol. 8) (pp. 115-130). Berlin: Walter De Gruyter.

Ladouceur, R., Leger, E., Rheaume, J., & Dube, D. (1996). Correction of inflated responsibility in the treatment of obsessive compulsive disorder. Behavior Research and Therapy, 34 (10), 767-774.

Ladouceur, R., Rheaume, J., & Aublet, F. (1997). Excessive responsibility in obsessional concerns: A fine-grained experimental analysis. Behavior Research and Therapy, 35 (5), 423-427.

Ladouceur, R., Rheaume, J., Freeston, M. H., Aublet, F., Jean, K., Lachance, S., Langlois, F., & De Pokomandy-Morin, K. (1995). Experimental manipulations of responsibility: An analogue test for models of obsessive-compulsive disorder. Behavior Research and Therapy, 33 (8), 937-946.

LaSalle, V. H., Cromer, K. R., Nelson, K. N., Kazuba, D., Justement, L., & Murphy, D. L. (2004). Diagnostic interview assessed neuropsychiatric disorder comorbidity in 334 individuals with obsessive-compulsive disorder. Depress Anxiety, 19, 163-173.

Leckman, J. F., Grice, D. E., Barr, L. C., deVries, A. L. C., Martin, C., Cohen, D. J., Goodman, W. K., & Rassmussen, S. A. (1995). Tic-related vs. non-tic-related obsessive-compulsive disorder. Anxiety, 1, 208-215.

Lee, H. J., & Kwon, S.M. (2003). Two different types of obsessions: Autogenous obsessions and reactive obsessions. Behavior Research and Therapy, 41, 11-29.

Lewinsohn, P. M., Allen, N. B., Seeley, J. R., & Gotlib, I. H. (1999). First onset versus recurrence of depression: Differential processes of psychosocial risk. Journal of Abnormal Psychology, 108 (3), 483−489.

Lochner, C., & Stein, D. J. (2001). Gender in obsessive-compulsive disorder and obsessive-compulsive spectrum disorders. Archives of Women's Mental Health, 4, 19-26.

Lopatka, C., & Rachman, S. (1995). Perceived responsibility and compulsive checking: An experimental analysis. Behavior Research and Therapy, 33, 673-684.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, 50 (1-2, Serial No 209), 66-104.

Maina, G., Albert, U., Bogetto, F., Vaschetto, P., & Ravizza, L. (1999). Recent life events and obsessive-compulsive disorder (OCD): The role of pregnancy/delivery. Psychiatry Research, 89, 49-58.

Matsunaga, H., Kiriike, N., Matsui, T., Miyata, A., Iwasaki, Y., Fujimoto, K., Kasai, S., & Kojima, M. (2000). Gender differences in social and interpersonal features and personality disorders among Japanese patients with obsessive-compulsive disorder. Comprehensive Psychiatry, 41, 266-272.

McKay, D., Abramowitz, J. S., Calamari, J. E., Kyrios, M., Radomsky, A., Sookman, D., Taylor, S., & Wilhelm, S. (2004). A critical evaluation of obsessive-compulsive disorder subtypes: Symptoms versus mechanism. Clinical Psychology Review, 24, 283-313.

McKeon, J., Roa, B. & Mann A. (1984). Life events and personality traits in obsessive compulsive neurosis. British Journal of Psychiatry, 144, 185-189.

McLaren, S., & Crowe, S. F. (2003) The contribution of perceived control of stressful life events and thought suppression to the symptoms of obsessive compulsive disorder in both non-clinical and clinical samples. Anxiety Disorders, 17, 389-403.

McLeod, B. D., Weisz, J. R., & Wood, J. J., (2007). Examining the association between parenting and childhood depression: A meta-analysis. Clinical Psychology Review, 27, 986-1003.

McLeod, B. D., Wood, J. J., & Weisz, J. R. (2007). Examining the association between parenting and childhood anxiety: A meta-analysis. Clinical Psychology Review, 27, 155-172.

Miguel, E. C., Baer, L., Coffey, B. J., Rauch, S. L., Savage, C. R., O'Sullivan, R. L., Phillips, K., Moretti, C., Leckman, J. F., & Jenike, M. A. (1997). Phenomenological differences appearing with repetitive behaviors in obsessive-compulsive disorder and Gilles de la Tourette's syndrome. British Journal of Psychiatry, 170, 140-145.

Minichiello, W. E., Baer, L., Jenike, M. A., & Holland, A. (1990). Age of onset of major subtypes of obsessive-compulsive disorder. Journal of Anxiety Disorders, 4, 147-150

Monroe, S. M., Rhode, P., Seeley, J. R., & Lewinsohn, P. M. (1999). Life events and depression in adolescence: Relationship loss as a prospective risk factor for the first onset major depressive disorder. Journal of Abnormal Psychology, 108, 606–614.

Newman, S. C., & Bland, R. C. (1994). Life events and the 1 year prevalence of major depressive episode, generalized anxiety disorder and panic disorder in a community sample. Comprehensive Psychiatry, 35, 76-82.

Newth, S., Rachman, S. (2001). The concealment of obsessions. Behavior Research and Therapy, 39, 457-464.

Obsessive Compulsive Cognitions Working Group (1997). Cognitive assessment of obsessive compulsive disorder. Behavior Research and Therapy, 35 (7), 667-681.

Obsessive Compulsive Cognitions Working Group (2001). Development and initial validation of the Obsessive Beliefs Questionnaire and the Interpretation of Intrusions Inventory. Behavior Research and Therapy, 39, 987-1006.

Obsessive Compulsive Cognitions Working Group (2003). Psychometric validation of the Obsessive Beliefs Questionnaire and the Interpretation of Intrusions Inventory: Part I. Behavior Research and Therapy, 41, 863-878.

Okasha, A., Saad, A., & Khalil, A. H. (1994). Phenomenology of obsessive compulsive disorder: a transcultural study. Comprehensive Psychiatry, 35, 191-197.

Oral, M. (1999). The relationship between dimensions of perfectionism, stressful life events and depressive symptoms in university students: a test of diathesis-stress model of depression. Unpublished Master Thesis, Middle East Technical University, Ankara, Turkey.

Overholser, J. C., Norman, W., & Miller, I. (1990). Life stress and social supports in depressed inpatients. Behavioral Medicine, 16, 125-132.

Öner, N., & Le Comte, A. (1985). Durumluk-Süreklilik Kaygı Envanteri Elkitabı. B.Ü. Yayınları: İstanbul.

Perris, C., Jacobsson, L., Lindström, H., von Knorring, L., & Perris, H. (1980). Development of a new inventory for assessing memories of parental rearing behavior. Acta Psychiatrica Scandinavica, 61, 265-274.

Petti, T. A. (1989). Depression. In T. H., Ollendick, & M. Hersen (Eds.), New handbook of child psychopathology. New York: Plenum Press.

Preacher, K. J., & Leonardelli G., J. (2006). An interactive calculation tool for mediation tests. http://www.psych.ku.edu/preacher/sobel/sobel.htm

Rachman, S. (1981). Part 1-Unwanted intrusive cognitions. Advances in Behavior Research and Therapy, 3, 89-99.

Rachman, S. (1993). Obsessions, responsibility, and guilt. Behavior Research and Therapy, 31, 149-154.

Rachman, S. (1997). A cognitive theory of obsessions. Behavior Research and Therapy, 35 (9), 793-802.

Rachman, S. (1998). A cognitive theory of obsessions: Elaborations. Behavior Research and Therapy, 36, 385-401.

Rachman, S. (2002). A cognitive theory of compulsive checking. Behavior Research and Therapy, 40, 625-639.

Rachman, S., & Hodgson, R. J. (1980). Obsessions and compulsions. Englewood Cliffs, NJ: Prentice Hall.

Rachman, S., & de Silva, P. (1978). Abnormal and normal obsessions. Behavior Research and Therapy, 16, 233-248.

Radomsky, A. S., & Taylor, S. (2005). Subtyping OCD: Prospects and problems. Behavior Therapy, 36, 371-379.

Rapee, R. M. (1997). Potential role of childrearing practices in the development of anxiety and depression. Clinical Psychology Review, 17 (1), 47-67.

Rasmussen, S. A., & Eisen, J. L. (1992). The epidemiology and clinical features of obsessive-compulsive disorder. Psychiatric Clinics of North America, 15, 743-758.

Rheaume, J., Freeston, M. H., Ladouceur, R., Bouchard, C., Gallant, L., Talbot, F., & Vallieres, A. (2000). Functional and dysfunctional perfectionists: Are they different on compulsive like behavior? Behavior Research and Therapy, 28, 119-128.

Rheaume, J., Ladouceur, R., Freeston, M. H., & Letarte, H. (1995). Inflated responsibility in obsessive-compulsive disorder: Validation of an operational definition. Behavior Research and Therapy, 88, 159-169.

Rosenstein, D. S., & Horowitz, H. A. (1996). Adolescent attachment and Psychopathology. Journal of Consulting and Clinical Psychology, 64 (2), 244-253.

Safran, J. D. (1990). Towards a refinement of cognitive therapy in light of interpersonal theory: I. Theory. Clinical Psychology Review, 10 (1), 7-105.

Salkovskis, P. M. (1985). Obsessional-compulsive problems: A cognitive-behavioral analysis. Behavior Research and Therapy, 23 (5), 571-583.

Salkovskis, P. M. (1989). Cognitive-behavioral factors and the persistence of intrusive thoughts in obsessional problems. Behavior Research and Therapy, 27 (6), 677-682.

Salkovskis, P. M. (1999). Understanding and treating obsessive-compulsive disorder. Behavior Research and Therapy, 37, 29-52.

Salkovskis, P. M., & Campbell, P. (1994). Thought suppression in naturally occurring negative intrusive thoughts. Behavior Research and Therapy, 32, 1-8.

Salkovskis, P. M., Shafran, R., Rachman, S., & Freeston, M. H. (1999). Multiple pathways to inflated responsibility beliefs in obsessional problems: Possible origins and implications for therapy and research. Behavior Research and Therapy, 37, 1055-1072.

Salkovskis, P. M., Wroe, A. L., Gledhill, A., Morrison, N., Forrester, E., Richards, C., Reynolds, M., & Thorpe, S. (2000). Responsibility attitudes and interpretations are characteristic of obsessive compulsive disorder. Behavior Research and Therapy, 38, 347-372.

Sanavio, E. (1988). Obsessions and compulsions: The Padua Inventory. Behaviour Research and Therapy, 26, 169-177.

Shafran, R. (1997). The manipulation of responsibility in obsessive-compulsive disorder. British Journal of Clinical Psychology, 36, 397-407.

Shafran, R., Thordarson, D. S., & Rachman, S. (1996). Thought action fusion in obsessive compulsive disorder. Journal of Anxiety Disorders, 5, 379-391.

Shooka, A., Al-Haddad, M. K., & Raees, A. (1998). OCD in Bahrain: A phenomenological profile. International Journal of Social Psychiatry, 44, 147-154.

Sookman, D., & Pinard, G. (1999). Integrative cognitive therapy for obsessive-compulsive disorder: A focus on multiple schemas. Cognitive and Behavioral Practice, 6, 351-362.

Sookman, D., & Pinard, G. (2002). Overestimation of threat and intolerance of uncertainty in obsessive compulsive disorder. In R. O. Frost & G. Steketee (Eds.), Cognitive approaches to obsessions and compulsions: Theory, assessment and treatment (pp. 63-89). Oxford: Elsevier Press.

Spielberg, C. D., Gorsuch, R. L., & Lushene, R. E. (1970). Manual for State-Trait Anxiety Inventory. California: Co Psychologist Press.

Spitzer, M., & Sigmund, D. (1997). The phenomenology of obsessive compulsive disorder. International Review of Psychiatry, 9, 7-14.

Stark, K. D., Humphrey, L. L., Crook, K., & Lewis, K. (1990). Perceived family environments of depressed and anxious children: Child's and maternal figure's perspectives. Journal of Abnormal Child Psychology, 18, 527-547.

Stein, D. J. (2002). Obsessive-compulsive disorder. The Lancet, 360, 397-405.

Steketee, G., Frost, R. O., & Cohen I. (1996). Measurement of beliefs in patients with OCD. Paper presented at the annual meeting of the Association for Advancement of Behavior Therapy, New York, NY.

Steketee, G., Frost, R. O., & Cohen I. (1998). Beliefs in obsessive-compulsive disorder. Journal of Anxiety Disorders, 12 (6), 525-537.

Stewart, S. E., Yen, C. H., Stack, D. E., Jenike, M. A. (2006). Outcome predictors for severe obsessive compulsive patients in intensive residential treatment. Journal of Psychiatry Research, 40 (6), 511-519.

Şahin, N. H., Rugancı, N., Taş, Y., Kuyucu, S., & Sezgin, N. (1991). Üniversite öğrencilerinin stresle ilişkili gördükleri faktörler, stress belirtileri ve başa

çıkma yöntemleri: araştırma ön raporu (The stress factors, stress symptoms, and coping strategies in university students; pilot research report. Unpublished material prepared for the studies in the stress research).

Taylor, S. (2005). Dimensional and subtype models of OCD. In J. S. Abramowitz & A. C. Houts (Eds.), Concepts and controversies in obsessive-compulsive disorder (pp. 27-41). New York: Springer.

Tegin (1980). Depresyonda bilişsel bozukluklar: Beck modeline göre bir inceleme. Unpublished PhD thesis. Hacettepe University, Ankara.

Thyer, B. A., Parrsh, R. T., Curtis, G. C., Neese, R. M., & Cameron, O. G. (1985). Ages of onset of DSM-III anxiety disorders. Comprehensive Psychiatry, 26, 113-122.

Turgeon, L., O'Connor, K. P., Marchand, A., & Freeston, M. H. (2002). Recollections of parent-child relationships in patients with obsessive-compulsive disorder and panic disorder with agoraphobia. Acta Psychiatrica Scandinavica, 105, 310-316.

Valleni-Basile, L. A., Garrison, C. Z., Waller, J. L., Addy, C. L., McKeown, R. E., & Jackson, K. L. (1996). Incidence of obsessive-compulsive disorder in a community sample of young adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 35, 898-906.

Van Oppen, P. & Arntz, A. (1994). Cognitive therapy for obsessive-compulsive disorder. Behavior Research and Therapy, 32 (1), 79-87.

Weissman, M. M., Bland, R. C., Canino, G. J., Greenwald, S., Hwu, H. G., & Lee, C. K., (1994). The cross national epidemiology of obsessive compulsive disorder. The Cross National Collaborative Group. Journal of Clinical Psychiatry, 55, 5-10.

Wilson, K. A., & Chambless, D. L. (1999). Inflated perceptions of responsibility and obsessive-compulsive symptoms. Behavior Research and Therapy, 37, 325-335.

Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. Journal of Child Psychology and Psychiatry, 44 (1), 134-151.

Yorulmaz, O. (2002). Responsibility and perfectionism as predictors of obsessive-compulsive symptomatology: A test of cognitive model. Unpublished Master Thesis. Graduate School of social Science, Middle East Technical University.

Yorulmaz, O., Dirik, G., Karancı, A. N., & Burns, L. (2006). Padua Envanteri-Washington Eyalet Üniversitesi Revizyonu (PE-WEÜR): Türkçe Versiyonunun Psikometrik Değerlendirmesi. 14. Ulusal Psikoloji Kongresi'nde sunulmuş bildiri, Ankara, Türkiye.

Yorulmaz, O., Karancı, A. N., & Tekok-Kılıç, A. (2006). What are the roles of perfectionism and responsibility in checking and cleaning compulsions? Journal of Anxiety Disorders, 20 (3), 312-327.

APPENDICES

APPENDIX A

INFORMED CONSENT FORM

(BİLGİLENDİRİLMİŞ ONAM FORMU)

Değerli Katılımcı,

Bu araştırma, Orta Doğu Teknik Üniversitesi Psikoloji Bölümü doktora programı kapsamında yürütülen tez çalışmamın bir parçasıdır. Araştırmanın amacı, kişilerin bazı duygu, düşünce ve davranışları ile yaşadıkları yaşam olayları, sorumluluk ile ilgili tutum ve inançları ve algıladıkları anne baba tutumları arasındaki ilişkileri incelemektir.

Anketteki soruların yanıtlanması yaklaşık 30-40 dakika sürmektedir. Ankette isminiz sorulmamakta ya da kimliğinizi ortaya çıkaran herhangi bir soru yer almamaktadır. Bu ankette vereceğiniz bütün bilgiler tamamen gizli kalacaktır ve veriler grup olarak değerlendirilecektir. Araştırma sonuçlarının sağlıklı olması için soruları lütfen içtenlikle ve sizi tam olarak yansıtacak şekilde cevaplayınız.

Araştırmaya katılım tamamen gönüllülük esasına dayanmaktadır. Şayet, cevaplamak istemediğiniz sorularla karşılaşırsanız bunları atlayabilir veya anketi doldurmayı bırakabilirsiniz. Ancak, yarım kalmış ya da çoğu soruların cevapsız bırakıldığı anketlerden elde edilen verilerin kullanılması mümkün olmadığından, anketi mümkün olduğunca boş bırakmadan tamamlamanız çok önemlidir.

Araştırmaya katıldığınız için çok teşekkür ederim.

A. Bikem Hacıömeroğlu
ODTÜ Psikoloji Bölümü Doktora Öğrencisi
Tez Danışmanı: Prof. Dr. Nuray Karancı

APPENDIX B

DEMOGRAPHIC INFORMATION FORM

(DEMOGRAFİK BİLGİ FORMU)

DEMOGRAFİK BİLGİLER

1. Cinsiyetiniz Kadın _____ Erkek _____

2. Yaşınız _____

3. Medeni Haliniz Bekar _____ Evli _____

4. Bölümünüz _____

5. Kaçıncı sınıftasınız? _____

6. Öğrenciliğin yanında bir işte çalışıyor musunuz? Evet _____ Hayır _____

7. Genel Not Ortalamanız _____

8. Ailenizin yaklaşık gelir düzeyi 500 YTL ve altı _____
500-1000 YTL _____
1000-2000 YTL _____
2000 YTL ve üzeri _____

9. Aşağıdakilerden hangisi sizin için geçerlidir?
Ailemle yaşıyorum _____
Tek başıma/arkadaşlarımla yaşıyorum _____
Yurtta kalıyorum _____

10. Daha önce herhangi bir ruhsal rahatsızlık geçirdiniz mi?
Evet _____ Hayır _____

Cevabınız HAYIR ise "Aile ile İlgili Bilgiler" kısmına geçiniz, EVET ise 11, 12, 13, 14 ve 15. soruları cevaplayınız.

11. Ne zaman rahatsızlandınız? (Ay veya yıl olarak belirtiniz) _____

12. Herhangi bir tanı aldınız mı?
Evet (belirtiniz) _____ Hayır _____

13. Herhangi bir tedavi aldınız mı? Evet _____ Hayır _____

Cevabınız EVET ise
14. Ne tür bir tedavi aldınız? İlaç tedavisi _____
Psikoterapi _____
İlaç tedavisi ve psikoterapi _____
Diğer _____

15. Şu anda herhangi bir tedavi alıyor musunuz?
Evet (belirtiniz) _____ Hayır _____

AİLE İLE İLGİLİ BİLGİLER

16. Anne ve babanız hayatta mı?
Anne: Evet ___Hayır _____ (kaç yıl önce kaybettiniz? _____)
Baba: Evet ___Hayır _____ (kaç yıl önce kaybettiniz? _____)

17. Annenizin eğitim durumu İlkokul _____
Orta okul _____
Lise _____
Üniversite _____
Yüksek Lisans veya Doktora _____

Annenizin mesleği _____

18. Babanızın eğitim durumu İlkokul _____
Orta okul _____
Lise _____
Üniversite _____
Yüksek Lisans veya Doktora _____

Babanızın mesleği _____

19. Sizinle birlikte toplam kardeş sayınız _____

20. Siz kaçıncı çocuksunuz? _____

21. Aşağıdakilerden hangisi sizin için geçerlidir?
Anne ve babam evli _____
Anne ve babam evli ancak ayrı yaşıyor _____
Anne ve babam boşandı _____
Anne veya babamdan biri öldü _____

22. Ailenizde ruhsal rahatsızlığa sahip biri var mı?
Evet _____ (yakınlık derecenizi ve varsa aldığı tanıyı lütfen belirtiniz _____)
Hayır _____

APPENDIX C

PADUA INVENTORY- WASHINGTON STATE UNIVERSITY REVISION

(PADUA ENVANTERİ-WASHINGTON EYALET ÜNİVERSİTESİ REVİZYONU)

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.	0	1	2	3	4
2. Vücut sıvıları (ter, tükürük, idrar gibi) ile en ufak bir temasın bile giysilerimi kirleteceğini ve bir şekilde bana zarar vereceğini düşünürüm.	0	1	2	3	4
3. Bir nesneye yabancıların ya da bazı kimselerin dokunduğunu biliyorsam, ona dokunmakta zorlanırım.	0	1	2	3	4
4. Çöplere veya kirli şeylere dokunmakta zorlanırım.	0	1	2	3	4
5. Kirlenmekten ya da hastalanmaktan korktuğum için umumi tuvaletleri kullanmakta kaçınırım.	0	1	2	3	4
6. Hastalıklardan veya kirlenmekten korktuğum için umumi telefonları kullanmaktan kaçınırım.	0	1	2	3	4
7. Ellerimi gerektiğinden daha sık ve daha uzun süre yıkarım.	0	1	2	3	4
8. Bazen kendimi, sırf kirlenmiş olabileceğim ya da pis olduğum düşüncesiyle yıkanmak ya da temizlenmek zorunda hissediyorum.	0	1	2	3	4
9. Mikrop bulaşmış veya kirli olduğunu düşündüğüm bir şeye dokunursam hemen yıkanmam veya temizlenmem gerekir.	0	1	2	3	4
10. Bir hayvan bana değerse kendimi kirli					

hissederim ve hemen yıkanmam ya da elbiselerimi değiştirmem gerekir.	0	1	2	3	4
11. Giyinirken, soyunurken ve yıkanırken kendimi belirli bir sıra izlemek zorunda hissederim.	0	1	2	3	4
12. Uyumadan önce bazı şeyleri belli bir sırayla yapmak zorundayım.	0	1	2	3	4
13. Yatmadan önce, kıyafetlerimi özel bir şekilde asmalı ya da katlamalıyım.	0	1	2	3	4
14. Doğru dürüst yapıldığını düşünebilmem için yaptıklarımı bir kaç kez tekrarlamam gerekir.	0	1	2	3	4
15. Bazı şeyleri gereğinden daha sık kontrol etme eğilimindeyim.	0	1	2	3	4
16. Gaz ve su musluklarını, elektrik düğmelerini kapattıktan sonra tekrar tekrar control ederim.	0	1	2	3	4
17. Düzgün kapatılıp kapatılmadıklarından emin olmak için eve dönüp kapıları, pencereleri ve çekmeceleri kontrol ederim.	0	1	2	3	4
18. Doğru doldurduğumdan emin olmak için formları, evrakları ve çekleri ayrıntılı olarak tekrar tekrar kontrol ederim.	0	1	2	3	4
19. Kibrit, sigara vb'nin iyice söndürüldüğünü görmek için sürekli geri dönerim.	0	1	2	3	4
20. Elime para aldığım zaman birkaç kez tekrar sayarım.	0	1	2	3	4
21. Mektupları postalamadan önce bir çok kez dikkatlice kontrol ederim.	0	1	2	3	4
22. Aslında yaptığımı bildiğim halde, bazen yapmış olduğumdan emin olamam.	0	1	2	3	4
23. Okurken, önemli bir şeyi kaçırdığımdan dolayı geri dönmem ve aynı pasajı iki veya üç kez okumam gerektiği izlenimine kapılırım.	0	1	2	3	4
24. Dalgınlığımın ve yaptığım küçük hataların felaketle sonuçlanacağını hayal ederim.	0	1	2	3	4
25. Bilmeden birini incittiğim konusunda çok fazla düşünürüm veya endişelenirim.	0	1	2	3	4
26. Bir felaket olduğunu duyduğum zaman onun bir şekilde benim hatam olduğunu düşünürüm.	0	1	2	3	4
27. Bazen sebepsiz yere kendime zarar verdiğime veya bir hastalığım olduğuna dair fazlaca endişelenirim.	0	1	2	3	4
28. Bıçak, hançer ve diğer sivri uçlu nesneleri gördüğümde rahatsız olur ve endişelenirim.	0	1	2	3	4
29. Bir intihar veya cinayet vakası duyduğumda, uzun süre üzülür ve bu konuda düşünmekten kendimi alamam.	0	1	2	3	4
30. Mikroplar ve hastalıklar konusunda gereksiz endişeler yaratırım.	0	1	2	3	4
31. Bir köprüden veya çok yüksek bir pencereden aşağı baktığımda kendimi boşluğa atmak için bir dürtü hissederim.	0	1	2	3	4
32. Yaklaşmakta olan bir tren gördüğümde, bazen kendimi trenin altına atabileceğimi düşünürüm.	0	1	2	3	4

33. Bazı belirli anlarda umuma açık yerlerde kıyafetlerimi yırtmak için aşırı bir istek duyarım.	0	1	2	3	4
34. Araba kullanırken, bazen arabayı birinin veya bir şeyin üzerine sürme dürtüsü duyarım.	0	1	2	3	4
35. Silah görmek beni heyecanlandırır ve şiddet içeren düşünceleri aklıma getirir.	0	1	2	3	4
36. Bazen hiçbir neden yokken bir şeyleri kırma ve zarar verme ihtiyacı hissederim.	0	1	2	3	4
37. Bazen işime yaramasa da, başkalarına ait olan şeyleri çalma dürtüsü hissederim.	0	1	2	3	4
38. Bazen süpermarketten bir şey çalmak için karşı konulmaz bir istek duyarım.	0	1	2	3	4
39. Bazen savunmasız çocuklara ve hayvanlara zarar vermek için bir dürtü hissederim.	0	1	2	3	4

APPENDIX D

RESPONSIBILITY ATTITUDES SCALE

(SORUMLULUK TUTUMLARI ÖLÇEĞİ)

Bu anket, insanların zaman zaman benimsediği tutum ve inançları sıralamıştır. Her ifadeyi dikkatlice okuyunuz ve okuduktan sonra o ifadeye ne derece katıldığınızı belirtiniz. Kararınızı ifade etmek için DÜŞÜNCENİZİ EN İYİ TANIMLAYAN rakamı daire içine alınız. Tamamen katılıyorsanız 7 rakamını, hiç katılmıyorsanız 1 rakamını, eğer ifadeyle ilgili bir fikriniz yoksa ya da kararsızsanız 4 rakamını işaretleyiniz. Her bir ifade için, yalnızca bir durumu seçtiğinizden emin olunuz. İfadenin sizin için tipik bir tutum olup olmadığına karar vermek amacıyla değerlendirme yaparken ÇOĞUNLUKLA nasıl olduğunuzu düşününüz.

	Hiç Katılmıyorum						**Tamamen Katılıyorum**
1. Yanlış giden şeylerden çoğu zaman kendimi sorumlu hissederim.	1	2	3	4	5	6	7
2. Bir tehlikeyi önceden görmeme karşın bir harekette bulunmazsam, suçlanacak kişi konumuna ben düşerim.	1	2	3	4	5	6	7
3. Yanlış giden şeyler için kendimi sorumlu hissetmek konusunda fazla hassasım.	1	2	3	4	5	6	7
4. Kötü şeyler düşünmem, kötü şeyler yapmam kadar fenadır.	1	2	3	4	5	6	7
5. Bazı davranışların sonuçları üzerinde, bunları ben yapmış olmasam bile oldukça fazla endişelenirim.	1	2	3	4	5	6	7
6. Bana göre bir felaketi önlemek üzere harekete geçmemek, bir felakete yol açmak kadar kötüdür.	1	2	3	4	5	6	7
7. Birine zarar verme ihtimali bulunduğunu bildiğimde, ne kadar imkânsız görünse de hep bunu engellemeye çalışırım.	1	2	3	4	5	6	7
8. En küçük hareketlerin bile sonuçlarını							

mutlaka düşünmeliyim.	1	2	3	4	5	6	7
9. Çoğu kez, diğer insanların benim hatam olarak görmedikleri şeylerin sorumluluğunu kendi üzerime alırım.	1	2	3	4	5	6	7
10. Yaptığım her şey ciddi problemlere yol açabilir.	1	2	3	4	5	6	7
11. Başkalarına veya bir şeylere zarar vermeme sık sık ramak kalıyor.	1	2	3	4	5	6	7
12. Başkalarını tehlike ve kötülüklerden korumalıyım.	1	2	3	4	5	6	7
13. Başkalarına asla en ufak bir zarar bile vermemeliyim.	1	2	3	4	5	6	7
14. Davranışlarım için ayıplanacağımı biliyorum.	1	2	3	4	5	6	7
15. Yanlış giden şeyler üzerinde en ufak bir etkim varsa, onu önlemeye çalışmalıyım.	1	2	3	4	5	6	7
16. Bana göre, en ufak bir felaket olasılığı olduğunda harekete geçmemek felakete neden olmak kadar kötüdür.	1	2	3	4	5	6	7
17. Eğer başkalarını etkileyecekse, en basit bir dikkatsizlik bile benim için affedilmez bir şeydir.	1	2	3	4	5	6	7
18. Günlük hayatı ilgilendiren durumlarda, hareketsiz kalmam, kötü niyetle yapılan davranışlar kadar zarar verici olabilir.	1	2	3	4	5	6	7
19. Çok küçük bir zarar verme olasılığı bulunsa bile ne yapıp edip onu engellemeye çalışırım.	1	2	3	4	5	6	7
20. Başkalarına zarar vermiş olduğuma bir kez inanırsam, kendimi asla affetmem.	1	2	3	4	5	6	7
21. Geçmişte yaptıklarımın çoğu, başkalarına bir zarar gelmesini engelleme niyeti taşımıştır.	1	2	3	4	5	6	7
22. Başkalarının, benim yaptığım şeylerin tüm sonuçlarından korunduklarından emin olmalıyım.	1	2	3	4	5	6	7
23. Başkalarının, benim değerlendirmelerime pek güvenmemeleri gerektiğini düşünüyorum.	1	2	3	4	5	6	7
24. Eğer herhangi bir şey için suçlanmayacağımdan emin olamıyorsam, suçlanacak biri konumunda olduğumu hissederim.	1	2	3	4	5	6	7
25. Eğer yeterince önlem alırsam, başkalarına zarar verecek kazaları önleyebilirim.	1	2	3	4	5	6	7
26. Çoğu kez, eğer yeterince dikkatli olmazsam, kötü şeylerin olabileceğini düşünürüm.	1	2	3	4	5	6	7

APPENDIX E

s-EMBU (Egna Minnen Betraffande Uppfostran- My memories of upbringing)

(ALGILANAN EBEVEYN TUTUMLARI-KISA FORMU)

Aşağıda çocukluğunuz ile ilgili bazı ifadeler yer almaktadır.

Anketi doldurmadan önce aşağıdaki yönergeyi lütfen dikkatle okuyunuz:

1. **Anketi doldururken, anne ve babanızın size karşı olan davranışlarını nasıl algıladığınızı hatırlamaya çalışmanız gerekmektedir. Anne ve babanızın çocukken size karşı davranışlarını tam olarak hatırlamak bazen zor olsa da, her birimizin çocukluğumuzda anne ve babamızın kullandıkları prensiplere ilişkin bazı anılarımız vardır.**

2. **Her bir soru için anne ve babanızın size karşı davranışlarına uygun seçeneği yuvarlak içine alın. Her soruyu dikkatlice okuyun ve muhtemel cevaplardan hangisinin sizin için uygun cevap olduğuna karar verin. Soruları anne ve babanız için ayrı ayrı cevaplayın.**

Örneğin;

Anne ve babam bana iyi davranırlardı.				
	Hayır, hiçbir zaman	**Evet, arada sırada**	**Evet, sık sık**	**Evet, çoğu Zaman**
Baba	**1**	**2**	**3**	**4**
Anne	**1**	**2**	**3**	**4**

1. Anne ve babam, nedenini söylemeden bana kızarlardı ya da ters davranırlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

2. Anne ve babam beni överlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

3. Anne ve babamın yaptıklarım konusunda daha az endişeli olmasını isterdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

4. Anne ve babam, bana hak ettiğimden daha çok fiziksel ceza verirlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

5. Eve geldiğimde, anne ve babama ne yaptığımın hesabını vermek zorundaydım.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

6. Anne ve babam ergenliğimin uyarıcı, ilginç ve eğitici olması için çalışırlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

7. Anne ve babam, beni başkalarının önünde eleştirirlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

8. Anne ve babam, bana bir şey olur korkusuyla başka çocukların yapmasına izin verilen şeyleri yapmamı yasaklarlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

9. Anne ve babam, her şeyde en iyi olmam için beni teşvik ederlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

10. Anne ve babam davranışları ile, örneğin üzgün görünerek, onlara kötü davrandığım için kendimi suçlu hissetmeme neden olurlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4

Anne	1	2	3	4

11. Anne ve babamın bana bir şey olacağına ilişkin endişeleri abartılıydı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

12. Benim için bir şeyler kötü gittiğinde, anne ve babamın beni rahatlatmaya ve yüreklendirmeye çalıştığını hissederdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

13. Bana ailenin 'yüz karası' ya da 'günah keçisi' gibi davranılırdı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

14. Anne ve babam, sözleri ve hareketleriyle beni sevdiklerini gösterirlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

15. Anne ve babamın, erkek ya da kız kardeşimi (lerimi) beni sevdiklerinden daha çok sevdiklerini hissederdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

16. Anne ve babam, kendimden utanmama neden olurlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

17. Anne ve babam, pek fazla umursamadan, istediğim yere gitmeme izin verirlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

18. Anne ve babamın, yaptığım her şeye karıştıklarını hissederdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

19. Anne ve babamla aramda sıcaklık ve sevecenlik olduğunu hissederdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

20. Anne ve babam, yapabileceklerim ve yapamayacaklarımla ilgili kesin sınırlar koyar ve bunlara titizlikle uyarlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

21. Anne ve babam, küçük kabahatlerim için bile beni cezalandırırlardı.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

22. Anne ve babam, nasıl giyinmem ve görünmem gerektiği konusunda karar vermek isterlerdi.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

23. Yaptığım bir şeyde başarılı olduğumda, anne ve babamın benimle gurur duyduklarını hissederdim.

	Hayır, hiçbir zaman	Evet, arada sırada	Evet, sık sık	Evet, çoğu zaman
Baba	1	2	3	4
Anne	1	2	3	4

APPENDIX F

LIFE EVENTS INVENTORY FOR UNIVERSITY STUDENTS

(ÜNİVERSİTE ÖĞRENCİLERİ İÇİN YAŞAM OLAYLARI ENVANTERİ)

Aşağıda günlük yaşantınızda size sıkıntı verebilecek bazı olaylar ve sorunlardan bahsedilmektedir. Her maddeyi dikkatli bir şekilde okuyarak, SON BİR AY içerisinde bu olay ya da sorunun size ne yoğunlukta bir sıkıntı yaşattığını ve ne kadar sıklıkta böyle bir olay ya da sorunla karşılaştığınızı maddelerin karşılarında bulunan seçeneklerden uygun rakamları işaretleyerek belirtiniz.

	Bu sorun size ne yoğunlukta bir sıkıntı yaşattı/yaşatmakta?					**Bu sorunu ne sıklıkta yaşadınız?**				
	Hiç	**Az**	**Orta**	**Fazla**	**Çok Fazla**	**Hiç**	**Nadiren**	**Ara Sıra**	**Sık Sık**	**Her zaman**
1. Derslerin ağırlığı ve yoğunluğu	1	2	3	4	5	1	2	3	4	5
2. Genel sağlık problemleri	1	2	3	4	5	1	2	3	4	5
3. Kız/erkek arkadaşımla olan problemler	1	2	3	4	5	1	2	3	4	5
4. Barınma ile ilgili sorunlar	1	2	3	4	5	1	2	3	4	5
5. Ulaşım sorunu	1	2	3	4	5	1	2	3	4	5
6. Zaman sıkışıklığı	1	2	3	4	5	1	2	3	4	5
7. Anne babamla aramızdaki çatışmalar	1	2	3	4	5	1	2	3	4	5
8. Gelecekle ilgili kaygılar	1	2	3	4	5	1	2	3	4	5
9. Arkadaş ilişkilerinde yaşanan sorunlar	1	2	3	4	5	1	2	3	4	5
10. Ülkedeki olumsuz siyasi gelişmeler	1	2	3	4	5	1	2	3	4	5

11. Sevdiğim insanlardan ayrı olmak (aile, arkadaşlar vs.)	1	2	3	4	5	1	2	3	4	5
12. Çevresel koşullardan (gürültü, havalar, kirlilik vs.) dolayı yaşanan sorunlar	1	2	3	4	5	1	2	3	4	5
13. Okula uyum sağlayamamak	1	2	3	4	5	1	2	3	4	5
14. Maddi problemler	1	2	3	4	5	1	2	3	4	5
15. Sosyal faaliyetlere katılamamak (spor, sinemaya, tiyatroya gitmek vs.)	1	2	3	4	5	1	2	3	4	5
16. Öğretim görevlileri ile ilgili sorunlar	1	2	3	4	5	1	2	3	4	5
17. İnsanların birbirlerine karşı duyarsız olmaları	1	2	3	4	5	1	2	3	4	5
18. Yalnızlık kaygıları	1	2	3	4	5	1	2	3	4	5
19. Kişiliğimle ilgili kendimi sorgulamak	1	2	3	4	5	1	2	3	4	5
20. Yorgunluk	1	2	3	4	5	1	2	3	4	5
21. İçki, sigara ve benzeri alışkanlıkların verdiği rahatsızlıklar	1	2	3	4	5	1	2	3	4	5
22. Karar vermekte güçlük çekmek	1	2	3	4	5	1	2	3	4	5
23. Uykusuzluk	1	2	3	4	5	1	2	3	4	5
24. Beslenme problemi	1	2	3	4	5	1	2	3	4	5
25. Sorumluluklarımı yerine getirememek	1	2	3	4	5	1	2	3	4	5
26. Reddedilme korkusu	1	2	3	4	5	1	2	3	4	5
27. Fiziksel görünüşümle ilgili endişeler	1	2	3	4	5	1	2	3	4	5
28. Okulda başarısız olmak	1	2	3	4	5	1	2	3	4	5
29. Aileden birinin rahatsızlığı	1	2	3	4	5	1	2	3	4	5
30. Ödevler ya d a projelerin verdiği rahatsızlıklar	1	2	3	4	5	1	2	3	4	5
31. Okuduğum bölümden memnun										

olmamak	1	2	3	4	5	1	2	3	4	5
32. Tüm ya da bazı konularda emeğimin karşılığını alamamak	1	2	3	4	5	1	2	3	4	5
33. Yeterince ders çalışamamak	1	2	3	4	5	1	2	3	4	5
34. Sınavların sıkışıklığı, sınav kaygısı	1	2	3	4	5	1	2	3	4	5
35. Okula devamsızlık problemleri	1	2	3	4	5	1	2	3	4	5
36. Yurt ya da ev arkadaşlarımla aramızdaki sorunlar	1	2	3	4	5	1	2	3	4	5
37. Kardeşim/lerimle ilgili sorunlar	1	2	3	4	5	1	2	3	4	5
38. Zamanımı yeterince iyi değerlendirememek	1	2	3	4	5	1	2	3	4	5
39. Kendimi insanlara yeterince iyi ifade edememek	1	2	3	4	5	1	2	3	4	5
40. Ailevi problemler	1	2	3	4	5	1	2	3	4	5
41. Çalıştığım işle ilgili sorunlar	1	2	3	4	5	1	2	3	4	5
42. İş görüşmeleri ile ilgili kaygılar	1	2	3	4	5	1	2	3	4	5
43. Yayın organlarındaki kötü haberlerle ilişkili kaygılar	1	2	3	4	5	1	2	3	4	5
44. Derslerin İngilizce olmasından dolayı zorluk çekmek	1	2	3	4	5	1	2	3	4	5
45. Cinsel sorunlar	1	2	3	4	5	1	2	3	4	5
46. Kilomla ilgili kaygılar	1	2	3	4	5	1	2	3	4	5
47. Mezun olamama kaygısı	1	2	3	4	5	1	2	3	4	5
48. Hata yapma kaygısı	1	2	3	4	5	1	2	3	4	5
49. Eleştirilmekten duyduğum rahatsızlık	1	2	3	4	5	1	2	3	4	5
50. Tatmin edici ilişkiler kuramama/bulamama	1	2	3	4	5	1	2	3	4	5
51. Kız/erkek										

arkadaştan ayrılma	1	2	3	4	5	1	2	3	4	5
52. Ailemin beklentilerini yerine getirememe kaygısı	1	2	3	4	5	1	2	3	4	5
53. Tüm ya da bazı derslerde başarısız olma endişesi	1	2	3	4	5	1	2	3	4	5
54. Yaşadığım yere uyum sağlayamamak	1	2	3	4	5	1	2	3	4	5

APPENDIX G

BECK DEPRESSION INVENTORY

(BECK DEPRESYON ENVANTERİ)

Aşağıda, kişilerin ruh durumlarını 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 BİR 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.
   4) 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 heran için suçlu hissediyorum.

6. a) Cezalandırıldığımı düşünmüyorum.
   b) Bazı şeyler için cezalandırılabileceğimi hissediyorum.
   c) Cezalandırılmayı bekliyorum.
   d) Cezalandırıldığımı hissediyorum.

7. a) Kendimden hoşnutum.
   b) Kendimden pek hoşnut değilim.
   c) Kendimden hiç hoşlanmıyorum.
   d) Kendimden nefret ediyorum.

8. a) Kendimi diğer insanlardan daha kötü görmüyorum.
   b) Kendimi zayıflıklarım ve hatalarım için eleştiriyorum.
   c) Kendimi hatalarım için çoğu zaman suçluyorum.
   d) Her kötü olayda kendimi suçluyorum.

9. a) Kendimi öldürmek gibi düşüncelerim yok.
   b) Bazen kendimi öldürmeyi düşünüyorum, fakat bunu yapmam.
   c) Kendimi öldürebilmeyi isterim.
   d) Bir fırsatını bulsam kendimi öldürürüm.

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 ilgimi kaybetmedim.
    b) Eskisine göre insanlarla daha az ilgiliyim.
    c) Diğer insanlara karşı ilgimin çoğunu kaybettim.
    d) Diğer insanlara karşı hiç ilgim kalmadı.

13. a) Kararlarımı eskisi kadar kolay ve rahat verebiliyorum.
    b) Şu sıralarda karalarımı vermeyi erteliyorum.
    c) Karalarımı 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 değişiklikler 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 veya 2 saat erken uyanıyor ve tekrar aramakta 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 bir şey düşünemiyorum.

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

APPENDIX H

STATE-TRAIT ANXIETY INVENTORY-TRAIT FORM

(DURUMLUK SÜREKLİLİK KAYGI ENVANTERİ-SÜREKLİLİK KAYGI FORMU)

Aşağıda kişilerin kendilerine ait duygularını anlatmada kullandıkları birtakım ifadeler verilmiştir. Her ifadeyi dikkatlice okuyun, sonra da genel olarak nasıl hissettiğinizi, ifadelerin sağ tarafındaki rakamlardan uygun olanını işaretlemek suretiyle belirtin. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin genel olarak nasıl hissettiğinizi gösteren cevabı işaretleyin.

		Hemen hiçbir zaman	Bazen	Çok zaman	Hemen her zaman
1	Genellikle keyfim yerindedir.				
2	Genellikle çabuk yorulurum.				
3	Genellikle kolay ağlarım.				
4	Başkaları kadar mutlu olmak isterim.				
5	Çabuk karar veremediğim için fırsatları kaçırırım				
6	Kendimi dinlenmiş hissederim.				
7	Genellikle sakin, kendime hakim ve soğukkanlıyım.				
8	Güçlüklerin yenemeyeceğim kadar biriktiğini hissederim.				
9	Önemsiz şeyler hakkında endişelenirim.				
10	Genellikle mutluyum.				
11	Her şeyi ciddiye alır ve etkilenirim.				
12	Genellikle kendime güvenim yoktur.				
13	Genellikle kendimi emniyette hissederim.				
14	Sıkıntılı ve güç durumlarla karşılaşmaktan kaçınırım.				
15	Genellikle kendimi hüzünlü hissederim.				
16	Genellikle hayatımdan memnunum.				
17	Olur olmaz düşünceler beni rahatsız eder.				
18	Hayal kırıklıklarını öylesine ciddiye alırım ki hiç unutmam.				
19	Aklı başında kararlı bir insanım.				
20	Son zamanlarda kafama takılan konular beni tedirgin eder.				

APPENDIX I

TURKISH SUMMARY

GİRİŞ

Obsesif Kompulsif Bozukluk (OKB), anksiyete bozuklukları kategorisinde sınıflandırılan ve kişinin isteği dışında ortaya çıkan, sürekli, tekrarlayıcı, sıkıntı verici düşünce, imge ve dürtüler (obsesyonlar) ile yineleyici davranış ve zihinsel eylemler (kompulsiyonlar) ile karakterize bir bozukluktur. Bu çalışmanın genel olarak amacı Obsesif Kompulsif Semptomatolojiye (OKS) yatkınlıkla ilişkili faktörleri incelemek ve bu faktörlerin OKS'ye özgü olup olmadığını araştırmaktır. Bu çalışmada, OKB' nin Salkovskis (1985, 1989) tarafından geliştirilen bilişsel modeli temel alınarak, algılanan anne-baba yetiştirme tutumları, sorumluluk algısı ve yaşam olaylarının OKS'yi yordamadaki rolü incelenmiştir.

DSM-IV'te (APA, 1994) obsesyonların gerçek yaşam sorunları hakkında duyulan aşırı üzüntülerden farklı olduğu, kişinin bu düşünce, dürtü ve imgelere önem vermemeye, baskılamaya ya da başka bir düşünce ya da eylemle bunları etkisizleştirmeye çalıştığı, obsesyon ve kompulsiyonların belirgin bir sıkıntıya neden olduğu ve kişinin olağan günlük işlerini, mesleki ya da eğitimle ilgili işlevselliğini, olağan toplumsal etkinliklerini ve ilişkilerini etkilediği belirtilmektedir. En sık görülen obsesyonlar bulaşma ve kirlenme obsesyonları, kuşku obsesyonları, düzen ve simetri obsesyonları, cinsel düşler ya da imgeler, agresif ya da korkunç dürtülerdir.

En sık görülen kompulsiyonlar ise kontrol, yıkama ve temizleme, sayma ve sıraya koyma kompulsiyonlarıdır (Eisen & Rasmussen, 2002).

Epidemiyolojik çalışmalar OKB'nin yaşam boyu prevalansının % 1.9 ile % 2.5, yıllık prevalansının % 1.1 ile % 1.8 arasında olduğunu göstermektedir (Weissman ve ark., 1994). Çalışmalar hastalığın kadın ve erkeklerde görülme oranının eşit olduğuna ya da kadınlarda az da olsa daha sık görüldüğüne işaret etmektedir (Bebbington, 1998; Karno, Golding, Sorenson, & Burnam, 1988; Lochner & Stein, 2001; Weissman ve ark., 1994). Genellikle genç yetişkinlikte başlamakla birlikte ergenlik hatta çocukluk döneminde de başlayabilmektedir. Çalışmalar OKB'nin erkeklerde kadınlara kıyasla daha erken yaşta başladığını göstermektedir (Lochner & Stein, 2001; Minichiello, Baer, Jenike, & Holland, 1990).

Obsesif Kompulsif Bozukluğu olan kişilerde major depresyon ve diğer anksiyete bozukluklarının görülme riskinin toplum normallerine göre yüksek olduğu görülmektedir (LaSalle ve ark., 2004). OKB'ye hipokondriazis, vücut dismorfik bozukluk (Denys ve ark., 2004; du Toit ve ark., 2001; Jaisoorya ve ark., 2003; LaSalle ve ark., 2004; bknz. Bartz & Hollander, 2006), yeme bozuklukları (Denys, Tenney, van Megen, de Geus, & Westenberg, 2004), impuls kontrol bozuklukları (Grant, Mancebo, Pinto, Eisen, & Rasmussen, 2006), Tourette bozukluğu (Geller ve ark., 2001) ve obsesif kompulsif kişilik bozukluğu (Baer ve ark., 1990) eşlik edebilmektedir.

Genellikle OKB semptomları dalgalı bir seyir göstermektedir. Farmakolojik tedaviler ile bilişsel davranışçı tedavilerin birleşimi OKB'nin tekrarlanma riskini azaltmaktadır. Ancak obsesyon ve kompulsiyonlar zaman içinde şiddetlerinde

azalma ve çoğalmalarla birlikte çoğunlukla kronik bir örüntü göstermektedir (Jenike, 2001).

Obsesif kompulsif bozukluğun oluşması ve devamı ile ilişkili faktörlerin açıklanmasında ve tedavi sürecinde bilişsel formülasyonun önemi dikkati çekmektedir. Salkovskis (1985, 1989) OKB'nin açıklanmasında bilişsel bir model önermektedir. Bu modele göre OKB'li kişilerde duygusal tepkilere yol açan obsesyonlar değil bu obsesyonların ortaya çıkardığı bazı olumsuz otomatik düşüncelerdir. Salkovskis obsesif düşünceler ve olumsuz otomatik düşünceler arasındaki farka dikkat çekmiştir. Obsesif düşünceler mantıksız, kabul edilemez ve bireyi rahatsız edici düşüncelerken olumsuz otomatik düşünceler kişinin sorgulamadan ve test etmeden doğru olarak kabul ettiği, kişi için mantıklı ve kabul edilebilir düşüncelerdir. Diğer bir deyişle olumsuz otomatik düşünceler obsesif düşüncelerin varlığı ve/veya içeriği nedeniyle oluşan işlevsel olmayan varsayımlardır. Tekrarlayıcı ve rahatsız edici düşünceler pek çok bireyde gözlenmesine rağmen çoğunlukla önemli duygusal bozukluklara yol açmamaktadır. Obsesyonların bazı bireylerde duygusal bozukluklara neden olması bu düşüncelerin birey tarafından inançlarına ters olarak değerlendirilmesi ile yakından ilişkilidir. Eğer obsesyonel düşünceler bireyin hali hazırda var olan işlevsel olmayan şemalarını aktive ediyorsa ancak o zaman bireyde olumsuz otomatik düşünceler ortaya çıkar. Eğer bireyin obsesyonlarla ilgili varsayımları tehlike, tehdit, zarar ve kişisel sorumluluk üzerine odaklanıyorsa bireyin anksiyete yaşaması kaçınılmazdır. Bu bireyler obsesif düşüncelerin varlığını ve içeriğini, kendilerine ya da başkalarına gelebilecek bir zarardan sorumlu oldukları şeklinde yorumlarlar. Obsesyonların ortaya çıkardığı otomatik düşünceler çoğunlukla bireyin bu tür bir zarara neden olma

ya da zararı önlemeyle ilişkili aşırı bir sorumluluk algısıyla ilişkilidir. Birey olabilecek bir zarardan kendisinin sorumlu olduğunu düşünüyorsa, olumsuz duygusal tepkiler, nötralize edici kompulsif davranışlar, kaçınma davranışları gibi tepkiler ortaya çıkar. Tüm bu tepkiler kısa vadede bireyin yaşadığı anksiyetenin azalmasına neden olur ve dolayısıyla bu tepkiler pekişir. Ancak uzun vadede obsesyonlarla ilgili işlevsel olmayan varsayımlar, olumsuz duygusal tepkiler ve nötralize edici davranışlar zinciri kırılmadığı için bu mekanizma kısırdöngü şeklinde devam eder. Dolayısıyla Salkovskis (1985, 1989) tarafından önerilen OKB'nin bilişsel modelinin temelinde, obsesyonlarla etkileşime giren ve hastalığın devamında önemli role sahip bireysel sorumlulukla ilgili işlevsel olmayan temel inanç, tutum ve varsayımlar vardır.

Salkovskis ve arkadaşları (2000) OKB'nin bilişsel modelinde sadece hastalığın devam etmesinde önemli role sahip sorumlulukla ilgili işlevsel olmayan temel inanç, tutum ve varsayımlara değil aynı zamanda bu bilişsel hataların oluşmasında ve hastalığın aktive olmasında etkili olan faktörlere de değinmişlerdir. Erken yaşam deneyimleri özelliklede ebeveyn yetiştirme tutumlarının aşırı sorumluluk algısının gelişmesinde önemli role sahip olduğunu vurgulamışlardır. Bu tür bir gelişimsel risk faktörüne sahip bireyler hali hazırda var olan aşırı sorumlulukla ilişkili tutumlarını aktive edici bir yaşam olayı ya da olayları ile karşılaştıklarında tekrarlayıcı ve rahatsız edici düşünce, imge ve dürtüleri olumsuz olarak yorumlamakta ve meydana gelebilecek olumsuz sonuçlara ilişkin aşırı bir sorumluluk duymaktadırlar. Aslında pek çok kişinin zaman zaman yaşadığı rahatsız edici ve tekrarlayıcı düşünce, imge, dürtü ve şüpheler bilişsel yatkınlığı olan bu bireylerde aşırı sorumlulukla ilgili varsayımlar doğurmaktadır.

Sorumluluk tutumları, kişinin önemli olumsuz sonuçlara neden olma ya da bu sonuçları önleyebilme gücüne sahip olduğuna ilişkin işlevsel olmayan inançlar olarak tanımlanmaktadır. Kişi kendisine ya da bir başkasına gelebilecek zararın mutlaka önlemsi gerektiğine inanır. Bu olumsuz olayların sonuçları gerçek yaşamda olabileceği gibi ahlaki düzeyde de olabilir (Salkovskis ve ark., 2000).

Artmış sorumluluk algısı ile OKB arasındaki ilişki klinik ve klinik dışı örnekleme sahip araştırmalarda ve deneysel çalışmalarda incelenmiş ve Salkovskis'in bilişsel modeliyle tutarlı olarak obsesif kompulsif semptomlarla sorumluluk tutumlarının yakından ilişkili olduğu bulunmuştur (Freeston, Ladouceur, Gagnon, & Thibodeau, 1993; Freeston, Ladouceur, Thibodeau, & Gagnon, 1992; Rheaume, Ladouceur, Freeston, & Letarte, 1995). Sorumluluğun deneysel olarak manipüle edildiği bir çalışmada (Lopatka & Rachman, 1995) sorumluluğun az olduğu durumlarda OKB'li bireylerin daha az kontrol davranışı sergiledikleri, kontrol davranışları için harcanan zamanın azaldığı ve hissedilen subjektif sıkıntının anlamlı düzeyde düştüğü bulunmuştur. Bir diğer çalışmada, deney ortamında araştırmacının deneğe eşlik ettiği durumlarda algılanan sorumluluğun paylaşılması nedeniyle nötralizasyonun anlamlı düzeyde azaldığı gözlenmiştir (Shafran, 1997).

Literatürde işlevsel olmayan sorumluluk tutumlarıyla OKB arasındaki ilişkiyi inceleyen pek çok çalışma olmasına rağmen bu inançların oluşmasında hangi faktörlerin rol oynadığı ile ilgili daha az araştırma vardır. Bu nedenle OKB'nin etiyolojisindeki gelişimsel risk faktörlerinin incelenmesi önemlidir. Araştırmacılar OKB'ye yatkınlıkta erken bağlanma süreçleri ve ebeveyn yetiştirme tutumlarının önemli gelişimsel faktörler olabileceğini vurgulamaktadır (Guidano & Liotti, 1983; Safran, 1990; Salkovskis, Shafran, Rachman, & Freeston, 1999).

Literatürde reddedici ve kontrolcü/koruyucu olmak üzere iki temel çocuk yetiştirme tutumundan söz edilmektedir. Genel olarak reddedici tutumlar çocuğa karşı olumsuz ya da düşmanca davranışları içerirken, aşırı kontrolcü/koruyucu tutumlar olası tehlikelere karşı çocuğu korumaya odaklıdır (Rapee, 1997). Duygusal sıcaklık ve sevgi gösteren, aynı zamanda aşırı koruyucu, kontrolcü ve reddedici tutumlardan kaçınan ebeveyn tutumlarının çocukta sağlıklı kişilik yapısının gelişimi için önemlidir. Araştırmalar reddedici ve koruyucu ebeveyn tutumlarının depresyon, anksiyete bozuklukları, şizofreni, madde kötüye kullanımı, yeme bozuklukları gibi pek çok psikopatoloji ile ilişkili olduğunu göstermektedir. Veriler özellikle reddedici ebeveyn tutumlar ile depresyon, koruyucu ebeveyn tutumları ile anksiyete arasında kuvvetli bir ilişki olduğunu göstermektedir (McLeod, Weisz, & Wood, 2007; McLeod, Wood, & Weisz, 2007).

Salkovskis, Shafran, Rachman ve Freeston (1999), erken yaşam deneyimlerinin özellikle de ebeveyn yetiştirme tutumlarının OKB ile ilişkili fonksiyonel olmayan inançların oluşmasındaki önemini vurgulamakta ve aşırı sorumluluk algısının gelişimiyle ilgili sistematik şekilde toplanmış verilerin yetersizliğine dikkat çekmektedir. OKB'ye yatkınlığı araştırmada aşırı sorumluluk inançlarının temelini incelemek önemlidir. Salkovskis ve arkadaşları (1999) sorumluluk tutumlarının gelişiminde rol oynayabilecek bazı faktörler önermişlerdir. Bu faktörlerden biri aşırı koruyucu anne-baba tutumlarıdır. Bu yetiştirme tutumuna sahip ebeveynler çocuğun güvenliğiyle ilgili aşırı korku ve kaygı yaşarlar. Bu nedenle çocuğun davranışlarına aşırı müdahale eden, karışan tutumlar sergilerler. Bu yetiştirme tutumunda ebeveynler dünyanın tehlikelerle dolu olduğu ve çocuğun bunlarla mücadele etmekte yetersiz olduğu düşüncesiyle hareket ederler. Bazen bu

tutuma çocuğun olası tehlikelere karşı yeterli tedbir almamasına yönelik tekrarlayıcı eleştiriler de eşlik edebilir. Bu tür aşırı koruyucu, kontrolcü ve eleştirel ebeveyn davranışları çocuğun dünya ve kendilik algısını olumsuz yönde etkiler. Çocuk dünyayı tehlikeli ancak kontrol edilebilir, kendisini ise bu tehlikelerle mücadele etmekte yetersiz olarak algılayabilir. Aynı zamanda bu tür tekrarlayan ebeveyn-çocuk etkileşimleri sonucunda çocuk güvenlik, tehlike önleyici tedbirler ve sorumlulukla ilgili davranışları model alabilir.

Gelişimsel risk faktörleri ve aşırı sorumluluk tutumları gibi bilişsel yatkınlığın yanında çevresel faktörlerin varlığı da OKB'yi tetikleyici etkiye sahiptir. Özellikle stresli yaşam olaylarının varlığı, anksiyete ve depresif duygu durumdaki artış OKB'nin ortaya çıkması ya da var olan semptomların tetiklenmesinde etkilidir.

Yaşam olayları ve anksiyete bozuklukları arasındaki ilişkiyi inceleyen araştırmalar panik bozukluk (Horesh, Amir, Kedem, Goldberger, & Kotler, 1997), yaygın anksiyete bozukluğu (Newman & Bland, 1994), agorafobi (Franklin & Andrews, 1999) ve sosyal fobi (Brown, Juster, Heimberg, & Winning, 1998) hastalarının normal kontrollerden anlamlı düzeyde daha fazla yaşam olayı belirttiklerini, bu olayları daha stresli olarak algıladıklarını ve bu olaylara daha zor adapte olduklarını göstermektedir.

Diğer anksiyete bozukluğu hastaları gibi OKB'li kişilerde de normal kontrollere göre toplam yaşam olayları (Brown, Juster, Heimberg, & Winning, 1998) ve stresli yaşam olayları miktarının (McKeon, Roa, & Mann, 1984) daha fazla olduğu görülmektedir. Obsesif hastalar, hastalığın başlangıcından bir yıl öncesinde sağlıklı kontrollere kıyasla daha fazla yaşam olayı belirtmektedirler. Kişi ya da yakınlarındaki ciddi hastalıklar, doğum yapmak (McKeon, Roa, & Mann, 1984),

ciddi tehlikeler (Valleni-Basile ve ark., 1996), aile üyeleri ya da arkadaşların hastalıkları ya da ölümleri (Horesh, Amir, Kedem, Goldberger, & Kotler, 1997), sağlık ve ekonomik güvence ile ilgili problemler (Franklin & Andrews, 1999) en sık ifade edilen olaylar olarak bulunmuştur. Bununla birlikte OKB'ye yatkınlığı olan bireylerde iş değiştirme, evlilik, çocuk sahibi olma gibi sorumlulukta artışa neden olabilen olaylar OKB'yi tetikleyebilmektedir (Salkovskis, Shafran, Rachman, & Freeston, 1999).

OKB'nin bilişsel modeline göre (Salkovskis ve ark., 2000) bazı yaşam olayları hali hazırda var olan sorumlulukla ilgili inançları aktive edebilmektedir. Özellikle yaşam olayının içeriği fonksiyonel olmayan aşırı sorumluluk algısıyla örtüşüyorsa bu durum obsesif düşüncelerin ortaya çıkmasına ya da artmasına neden olmaktadır. Bu durum kişiyi kendisine ya da bir başkasına gelebilecek zararı önlemek adına nötralize edici davranışlara ya da kaçınma davranışlarına sevk etmektedir.

Çalışmanın Amacı

Bu çalışmanın genel olarak amacı klinik dışı bir örneklemde Obsesif Kompulsif Semptomatolojiye (OKS) yatkınlıkla ilişkili faktörleri incelemektir. Bu çalışma, OKB' nin Salkovskis tarafından geliştirilen bilişsel modeli temel alınarak, algılanan anne-baba yetiştirme tutumları, sorumluluk algısı ve yaşam olaylarının OKS'yi yordamadaki rolünü incelenmeyi amaçlamıştır. Buna ek olarak, yordayıcı faktörlerin birbirleri ve OKS ile nasıl ilişkili olduklarını değerlendirmek amaçlanmıştır. Algılanan ebeveyn tutumlarının OKS'ye olan etkisinin sorumluluk algısı üzerinden olduğu varsayılmıştır. Son olarak, söz konusu yordayıcıların

OKS'ye özgü olup olmadığını araştırmak amaçlanmış, bu nedenlerle aynı yordayıcıların depresif semptomlar ve sürekli kaygı ile ilişkisi incelenmiştir. Sorumluluk tutumlarının, algılanan aşırı koruyucu ebeveyn tutumlarının ve yaşam olaylarının OKS'yi anlamlı düzeyde yordayacağı hipotezleri geliştirilmiştir. Buna ek olarak, algılanan aşırı koruyucu ebeveyn tutumlarının OKS'yi yordayıcı etkisinin sorumluluk tutumları üzerinden olacağı, diğer bir deyişle sorumluluk tutumlarının algılanan aşırı koruyucu ebeveyn tutumları ile OKS arasında aracı değişken olacağı hipotezi üretilmiştir. Sorumluluk tutumlarının depresyon ve sürekli kaygı için anlamlı bir yordayıcı olmayacağı, algılanan ebeveyn tutumlarından reddedici tutumların depresyonu, aşırı koruyucu tutumların ise sürekli kaygıyı yordayacağı hipotezleri geliştirilmiştir. Yaşam olaylarının ise depresyon ve sürekli kaygı için de anlamlı bir yordayıcı olacağı varsayılmıştır.

YÖNTEM

Katılımcılar

Bu çalışmaya Orta Doğu Teknik Üniversitesi'nin çeşitli bölümlerinde okuyan toplam 300 öğrenci katılmıştır. Katılımcıların 153'ü (%51) erkek, 147'si (%49) kadındır. Örneklemin yaş ortalaması 19.55'tir.

Ölçüm Araçları

Demografik Bilgi Formu: Katılımcı ve aile üyelerinin bazı demografik özellikleri hakkında bilgi toplamak amacı ile araştırmacı tarafından geliştirilmiştir.

Padua Envanteri-Washington Eyalet Üniversitesi Revizyonu (Padua Inventory-Washington State University Revision): Obsesif kompulsif semptomların düzeyini

ölçmek amacıyla kullanılmıştır. Sanavio (1988) tarafından geliştirilen ölçek Burns (1996) tarafından revize edilmiştir. 5'li Likert tipi 39 maddeden oluşmaktadır. Ölçekten alınan toplam puanın yüksekliği obsesif kompulsif semptomların şiddetine işaret etmektedir. Zarar vermeye yönelik obsesyonel dürtüler, zarar vermeye yönelik obsesyonel düşünceler, bulaşma obsesyonları ve yıkama kompulsiyonları, kontrol kompulsiyonları ve giyinme kompulsiyonları olmak üzere toplam 5 faktörden oluşmaktadır. Türkçe versiyonunun geçerlik güvenirlik analizleri Yorulmaz, Dirik, Karancı ve Burns (2006) tarafından yapılmış ve orijinal ölçekle benzer faktör yapısı bulunmuştur.

Sorumluluk Tutumları Ölçeği (Responsibility Attitudes Scale): Sorumlulukla ilgili genel tutum ve inançları değerlendirmek amacıyla kullanılmıştır. Salkovskis ve arkadaşları (2000) tarafından geliştirilen ölçekte 7'li Likert tipi toplam 26 madde bulunmaktadır. Ölçekten alınan puanların yüksekliği sorumluluk tutumlarının yüksekliğine işaret etmektedir. Türkçe geçerlik güvenirlik çalışması Yorulmaz (2002) tarafından yapılmıştır.

Algılanan Ebeveyn Tutumları-Kısa Formu (Egna Minnen Betraffande Uppfostran (s-EMBU)-My Memories of Upbringing): Katılımcıların, ebeveynlerinin çocuk yetiştirme tutumları ile ilgili algılarını değerlendirmek amacıyla kullanılmıştır. Arrindell ve arkadaşları (1999) tarafından oluşturulan kısa form 4'lü Likert tipi 23 maddeden oluşmaktadır. Maddeler anne ve baba tutumları için ayrı ayrı puanlanmaktadır. Ölçeğin reddedici, aşırı koruyucu ve duygusal sıcaklık olmak üzere 3 alt boyutu vardır. Alt ölçekten alınan puanın yüksekliği, o alt ölçekteki algılanan anne ya da baba yetiştirme tutumunun yüksekliğine işaret eder. Türkçe versiyonunun

adaptasyon çalışması Karancı ve arkadaşları (2006) tarafından yapılmış, anne ve baba yetiştirme tutumları için orijinal ölçekle aynı faktör yapısı bulunmuştur.

Üniversite Öğrencileri İçin Yaşam Olayları Envanteri (Life Events Inventory for University Students): Oral (1999) tarafından geliştirilen ve Dinç (2001) tarafından revize edilen ölçek 5'li Likert tipi toplam 54 maddeden oluşmaktadır. Yaşam olayları hem sıklık hem de şiddet/yarattığı stres düzeyi açısından değerlendirilmektedir.

Beck Depresyon Envanteri (Beck Depression Inventory): 21 maddeden oluşan ölçek (Beck, Ster, & Garbin, 1988) depresif semptomların düzeyini değerlendirmek amacıyla kullanılmıştır. 0 ile 3 arasında puanlanan maddelerden alınan toplam puanın yüksekliği depresif semptomların şiddetine işaret etmektedir.

Durumluk-Süreklilik Kaygı Envanteri-Süreklilik Kaygı Formu (State-Trait Anxiety Inventory-Trait Form): Sürekli kaygı düzeyini değerlendirmek amacıyla kullanılan ölçek (Spielberg, Gorsuch, & Lushere, 1970) 4'lü Likert tipi 20 maddeden oluşmaktadır. Türkçeye Öner ve Le Compte (1985) tarafından adapte edilmiştir.

İşlem

Ölçüm araçları 2006 bahar döneminde Orta Doğu Teknik Üniversitesi'nin çeşitli bölümlerinde okuyan öğrencilere ders saatlerinde uygulanmış ve uygulama yaklaşık 30-40 dakika sürmüştür. Ölçekler, sıralama etkisini önlemek amacıyla farklı şekillerde sıraya konmuştur.

TEMEL BULGULAR VE TARTIŞMA

Bu çalışmada Obsesif Kompulsif Semptomların (OKS) yordayıcıları, bu yordayıcıların birbirleri ve OKS ile ilişkileri ve OKS'ye özgü olup olmadıklarını

değerlendirmek amacıyla çoklu regresyon analizleri kullanılmıştır. Ancak daha önce yüksek ve düşük obsesif kompulsif semptom (OKS) grupları, depresif semptom grupları ve sürekli kaygı grupları oluşturulmuş ve bu gruplar kovaryans analizleri kullanılarak algılanan anne-baba tutumları açısından karşılaştırılmıştır. Kovaryans analizlerinin sonuçlarına göre yüksek OKS grubundaki katılımcılar düşük OKS grubundaki katılımcılara kıyasla anne ve babanın aşırı koruyucu tutumlarından anlamlı düzeyde daha yüksek puan almışlardır. Buna karşın, yüksek OKS ve düşük OKS grupları arasında anne ve babanın reddedici ve duygusal sıcaklık tutumları açısından anlamlı bir fark bulunmamıştır. Yüksek ve düşük depresyon gruplarının algılanan anne-baba tutumları açısından karşılaştırıldığı kovaryans analizinin sonuçlarına göre ise yüksek depresyon grubundaki katılımcıların düşük depresyon grubundaki katılımcılara kıyasla annenin ve babanın reddedici tutumlarından anlamlı düzeyde daha yüksek, anne ve babanın duygusal sıcaklık tutumlarından anlamlı düzeyde daha düşük puan almışlardır. Ancak yüksek depresyon ve düşük depresyon grupları arasında anne ve babanın aşırı koruyucu tutumları açısından bir fark bulunmamıştır. Yüksek ve düşük sürekli kaygı grupları algılanan anne-baba tutumları açısından karşılaştırıldıklarında, yüksek sürekli kaygı grubundaki katılımcılar düşük sürekli kaygı grubundaki katılımcılara kıyasla anne ve babanın duygusal sıcaklık tutumlarından anlamlı düzeyde daha yüksek puan almışlardır. Özetle, kovaryans analizlerinin sonuçları yüksek OKS'ye sahip katılımcıların anne ve babalarının yetiştirme tutumlarını daha koruyucu olarak algıladıklarını göstermiştir. Buna karşın yüksek depresyon semptomlarına sahip katılımcılar anne ve babalarının yetiştirme tutumlarını daha reddedici ve daha az duygusal sıcak olarak algılamaktadırlar. Çalışmanın ilginç bulgularından biri yüksek sürekli kaygıya sahip

katılımcıların anne ve babalarının yetiştirme tutumlarını daha sıcak olarak algılamalarıdır.

Obsesif kompulsif semptomların, depresyon semptomlarının ve sürekli kaygının yordayıcılarını belirlemek için çoklu regresyon analizleri uygulanmıştır. OKS'nin yordayıcılarını belirlemek için yapılan regresyon analizinde ilk blokta yaş, cinsiyet, depresyon ve sürekli kaygı puanları kontrol değişkenleri olarak girilmiştir. İkinci blokta, anne ve babanın reddedici, aşırı koruyucu ve duygusal sıcaklık tutumları olmak üzere algılanan ebeveyn tutumları ölçeğinden elde edilen toplam altı alt ölçek puanı girilmiştir. Üçüncü blokta sorumluluk tutumları puanları, dördüncü blokta ise yaşam olayları puanları girilmiştir. İkinci bir çoklu regresyon analizi ile sorumluluk tutumlarının hangi anne-baba tutumlarından yordanabildiği incelenmiştir. Bu iki regresyon analiziyle hem önerilen yordayıcı değişkenlerin OKS üzerindeki etkileri hem de sorumluluk tutumlarının aracı değişken rolü incelenmiş olmaktadır. Regresyon analizlerinin sonuçlarına göre annenin algılanan aşırı koruyucu tutumu, sorumluluk tutumları ve yaşam olayları OKS'nin anlamlı düzeyde yordayıcıları olarak bulunmuştur. Buna ek olarak sorumluluk tutumları, algılanan anne-baba tutumları içinde yalnızca anne ve babanın aşırı koruyucu tutumları tarafından yordanmıştır. İlk regresyon analizinde annenin algılanan aşırı koruyucu tutumunun OKS üzerindeki etkisi, sorumluluk tutumlarının regresyon denklemine girmesiyle anlamlı düzeyde düşmüş, bu sonuç sorumluluk tutumlarının annenin algılanan aşırı koruyucu tutumu ve OKS arasındaki ilişkide aracı değişken olduğunu göstermiştir. Diğer bir deyişle, annenin algılanan aşırı koruyucu tutumunun sorumluluk tutumları üzerinden OKS'yi yordadığı bulunmuştur. Sonuç olarak annenin algılanan aşırı koruyucu tutumunun, sorumluluk tutumlarının ve yaşam olaylarının yüksekliği

OKS'yi yordamada anlamlı etkiye sahiptir. Annenin algılanan aşırı koruyucu tutumlarının sorumluluk algısını artırarak OKS'ye etki etmesi bu çalışmanın önemli bulgularından biridir.

Depresyonun yordayıcılarını belirlemek için yapılan regresyon analizinde yordayıcı değişken olarak aynı değişken seti kullanılmış ancak bu defa kontrol değişkenleri olarak yaş, cinsiyet, sürekli kaygı ve OKS puanları girilmiştir. Regresyon analizlerinin sonuçlarına göre annenin algılanan reddedici tutumu, babanın algılanan duygusal sıcaklık tutumu ve yaşam olayları depresyonun anlamlı yordayıcıları olarak bulunmuştur. Buna ek olarak beklenildiği üzere sorumluluk tutumlarının depresyon için anlamlı bir yordayıcı olmadığı bulunmuştur. Sonuç olarak annenin algılanan reddedici tutumunun yüksekliği, babanın algılanan duygusal sıcaklığının düşüklüğü ve yaşam olaylarının yüksekliği depresyonu yordamada anlamlı etkiye sahiptir.

Sürekli kaygının yordayıcılarını belirlemek için yapılan regresyon analizinde yordayıcı değişken olarak yine aynı değişken seti kullanılmış ancak bu defa yaş, cinsiyet, OKS ve depresyon puanları kontrol değişkenleri olarak girilmiştir. Regresyon analizlerinin sonuçlarına göre annenin algılanan duygusal sıcaklığı, sorumluluk tutumları ve yaşam olayları sürekli kaygıyı anlamlı düzeyde yordamıştır. Beklenin aksine sorumluluk tutumlarının sürekli kaygı için de anlamlı bir yordayıcı olarak bulunmasına rağmen sorumluluk tutumları annenin algılanan duygusal sıcaklığı ve sürekli kaygı arasında aracı değişken olarak bulunmamıştır. Sonuç olarak annenin algılanan duygusal sıcaklığının, sorumluluk tutumlarının ve yaşam olaylarının yüksekliği sürekli kaygıyı yordamada anlamlı etkiye sahiptir.

Çalışmanın bulguları genel olarak çalışmanın varsayımlarını desteklemekte ve literatürle tutarlı sonuçlara işaret etmektedir. Sorumluluk tutumlarının OKS'yi yordayacağı varsayılmış ve bu hipotez desteklenmiştir. Bu çalışmanın bulguları yüksek sorumluluk algısına sahip kişilerin yüksek düzeyde obsesif kompulsif semptomlara sahip olma eğiliminde olduğunu göstermektedir. Sorumluluk tutumları ile obsesif kompulsif semptomlar arasındaki ilişkiye yönelik bulgu, Salkovskis'in (1985, 1989) OKB için önerdiği bilişsel modeli destekler niteliktedir. Salkovskis, artmış sorumluluk algısının OKB'nin gelişmesi ve devamında önemli role sahip bir bilişsel eleman olduğunu savunmaktadır. Daha önce de söz edildiği gibi artmış sorumluluk algısına sahip bireyler kendisine ya da başkalarına gelebilecek bir zarara neden olma veya önlemeye yönelik aşırı bir sorumluluk duyarlar. Bu tür işlevsel olmayan inanç sistemine sahip bireylerde tekrarlayıcı düşünceler kişinin tehlike, zarar ve sorumlulukla ilgili inançlarını aktive ettiği için olumsuz otomatik düşüncelere neden olur. Aslında rahatsız edici, kontrol edilemeyen ve tekrarlayıcı düşünceler pek çok kişi tarafından zaman zaman yaşansa da bilişsel olarak yatkınlığı olan bireylerde kişisel anlam kazanarak sıkıntıya neden olur ve kişi zarar vermeye yönelik kişisel sorumluluğun yol açtığı kaygıyı azaltmak için kaçınma davranışları ve nötralize edici davranışlar sergilerler.

Sorumluluk tutumlarının öneminin obsesif kompulsif semptomatolojiye özgü olup olmadığını değerlendirmek amacıyla sorumluluk tutumları ve sürekli kaygı arasındaki ilişki de incelenmiştir. Literatürde bu konuyla ilgili farklı sonuçlar bulunmakla birlikte sorumluk tutumlarının OKB ile daha yakından ilişkili olduğuna ve sorumluluk algısının kaygı ve depresif semptomlara kıyasla OKB için daha önemli ve kuvvetli bir yordayıcı olduğuna işaret etmektedir (Salkovskis ve ark.,

2000; Steketee, Frost, & Cohen, 1998). Bu nedenle bu çalışmada sorumluluk tutumlarının sürekli kaygıyı yordamayacağı varsayılmış ancak bu hipotez desteklenmemiştir. Sorumluluk tutumlarının sürekli kaygıyı anlamlı düzeyde yordadığı bulunmuştur. Salkovskis ve arkadaşları (2000) sorumluluk algısını sorumluluk ile ilgili tutumlar ve sorumlulukla ilgili varsayımlar olarak iki düzeyde incelemiş; sorumlulukla ilgili varsayımlar obsesyonlara yüklenen anlamlar olarak açıklanırken, sorumlukla ilgili tutumlar daha genel olarak bir durumla ilgili hissedilen sorumluluk eğilimi olarak açıklanmıştır. Sorumluluk varsayımlarının OKB'ye daha spesifik olabileceği, buna karşın sorumluluk tutumlarının suçluluk, kaygı ve duygudurum bozuklukları ile de ilişkili olabileceği belirtilmiştir. Dolayısıyla bu çalışmada sorumluluk tutumlarının sadece OKS'ye özgü bulunmaması, sorumluluk algısının yalnızca daha genel olan sorumluluk tutumları düzeyinde incelenmiş olmasından kaynaklanabilir. Sonuç olarak araştırmanın bulguları sorumluluk tutumlarının hem OKS hem de sürekli kaygı için önemli yordayıcılar olduğunu göstermektedir.

Çalışmanın varsayımını destekler nitelikte, sorumluluk tutumlarının depresyon için anlamlı düzeyde yordayıcı etkisi olmadığı bulunmuştur. Depresyonun bilişsel modeline göre kayıp, başarısızlık, yetersizlik ve umutsuzluk gibi bilişsel temalar depresyonda önemli rol oynamaktadır. Depresyon daha çok kayıp algısı ile karakterize iken kaygı bozuklukları daha çok tehlike ve tehdit algısı ile karakterizedir (Beck, 1987). Başkasına veya kendine zarar vermeye veya bu zararı önlemeye ilişkin duyulan artmış sorumluluk algısı kişide aşırı kaygıya neden olan bilişsel bir hatadır. Dolayısıyla sorumluluk tutumlarının OKS ve sürekli kaygıyı yordarken depresyon

için anlamlı düzeyde açıklayıcı bir etkiye sahip olmaması, farklı psikopatolojilerde farklı bilişsel inançların önemini vurgulayan bilişsel teorileri destekler niteliktedir.

Algılanan ebeveyn tutumlarından anne babanın aşırı koruyucu tutumunun OKS'yi yordayacağı varsayılmış ve bu hipotez annenin algılanan aşırı koruyuculuğu için desteklenmiştir. Bu bulgu, önceki çalışmaların sonuçlarıyla uyumludur (Ayçiçeği, Harris & Dinn, 2002; Turgeon, O'Connor, Marchand, & Freeston, 2002). Daha önce de değinildiği gibi aşırı koruyucu ebeveyn tutumları çocuğun davranışlarına aşırı müdahale eden davranışları içerir. Bu tarz yetiştirme tutumuna sahip ebeveynler çocuğun güvenliğiyle ilgili aşırı korku ve kaygı yaşar, dünyanın tehlikelerle dolu olduğu ve çocuğun bunlarla mücadele etmekte yetersiz olduğu düşüncesiyle hareket ederler. Çocuğun olası tehlikelere karşı yeterli tedbir almamasına yönelik tekrarlayıcı eleştirilerde bulunabilirler. Bu tür aşırı koruyucu, kontrolcü ve eleştirel ebeveyn davranışları çocuğun dünyayı tehlikeli ancak kontrol edilebilir, kendisini ise bu tehlikelerle mücadele etmekte yetersiz olarak algılamasına neden olabilir. Bu tür ebeveyn-çocuk ilişkisi bireyde zarar verme ve zararı önlemeye ilişkin artmış sorumluluk algısının gelişmesinde önemli role sahiptir (Salkovskis, Shafran, Rachman, & Freeston, 1999). Bu çalışmada da annenin algılanan aşırı koruyucu tutumlarının sorumluluk algısı ve dolayısıyla obsesif kompulsif semptomlar üzerinde anlamlı etkiye sahip olduğu bulunmuştur. Sorumluluk tutumlarının aracı değişken olarak bulunması annenin algılanan aşırı koruyucu tutumunun kişide sorumluluk tutumlarını artırarak OKS üzerine etki ettiğine dikkati çekmektedir.

Algılanan aşırı koruyucu ebeveyn tutumunun sadece OKS için değil sürekli kaygı için de anlamlı bir yordayıcı olacağı varsayılmış ancak bu hipotez

desteklenmemiştir. Algılanan ebeveyn tutumları ve sürekli kaygı arasındaki ilişki incelendiğinde, annenin algılanan duygusal sıcaklığının sürekli kaygı üzerinde anlamlı düzeyde yordayıcı etkiye sahip olduğu görülmektedir. Bu, araştırmanın ilginç bulgularından biridir. Literatür ebeveynin aşırı koruyucu ve kontrolcü tutumu ile kaygı arasında kuvvetli bir ilişki olduğunu göstermektedir (McLeod, Wood, & Weisz, 2007). Bu nedenle bu çalışmada aşırı koruyucu ebeveyn tutumlarının sürekli kaygı ve OKS için genel bir gelişimsel risk faktörü olduğu varsayılmıştır. Annenin algılanan duygusal sıcaklık tutumlarının sürekli kaygıyı yordaması ve bu ikisi arasındaki pozitif ilişkinin nedenlerinden biri ebeveyn tutumlarını değerlendirmek amacıyla geriye dönük değerlendirme gerektiren bir ölçüm aracının kullanılması olabilir. Üniversite öğrencilerinden oluşan bu örneklemde yüksek sürekli kaygıya sahip kişilerin annelerinin şu andaki destekleyici ve sıcak tutumları geçmişe yönelik değerlendirmelerini etkilemiş olabilir. Ancak ölçüm aracından kaynaklanan bu kısıtlılık sadece sürekli kaygı için değil OKS ve depresif semptomlarının yordanması için de geçerlidir. Dolayısıyla sürekli kaygı ve annenin algılanan duygusal sıcaklık tutumları arasında bulunan pozitif ilişki aslında varolan ilişkiyi yansıtıyor olabilir. Literatürde ebeveyn çocuk etkileşiminin yönünün belirlenmesinin oldukça zor olduğu belirtilmektedir (Jacobi, Calamari, & Woodard, 2006). Anksiyeteye yatkın bir çocuğun aile dinamiklerini ve ebeveyn yetiştirme tutumlarını şekillendirmesi de yüksek bir olasılıktır. Dolayısıyla kaygılı yapıya sahip bir çocuğun davranışları ebeveyn davranışlarını etkileyerek onları çocuğa karşı daha sıcak, destekleyici ve yüceltici davranışlara sevk edebilir.

Algılanan ebeveyn tutumlarının depresyon üzerindeki yordayıcı etkisi değerlendirildiğinde, varsayılan hipotezleri destekler nitelikte, annenin algılanan

reddedici tutumu ve babanın algılanan duygusal sıcaklığının depresyonu anlamlı düzeyde yordadığı bulunmuştur. Annenin yetiştirme tutumlarını reddedici ve babanın yetiştirme tutumlarını duygusal sıcaklıktan yoksun olarak algılayan katılımcıların daha yüksek düzeyde depresif semptomlarına sahip olma eğilimi gösterdikleri bulunmuştur. Literatürdeki çalışmalar da reddedici ebeveyn tutumları ve depresyon arasında kuvvetli ilişki olduğunu göstermektedir (McLeod, Weisz, & Wood, 2007). Reddedici yetiştime tutumları çocuğu cezalandırma, utandırma, eleştiri yoluyla reddetme, diğer kardeşleri kayırma, çocuğu kötüleme vb. gibi davranışları içermektedir Duygusal sıcaklık içeren tutumlar ise çocuğa sevgi ve şefkat gösteren, destekleyici ve yüceltici davranışlarla tanımlanmaktadır (Arrindel ve ark., 1999). Dolayısıyla duygusal sıcaklıktan yoksun ve reddedici ebeveyn tutumları kişide kendilik değeri, yetersizlik, kayıp, umutsuzluk, başarısızlık gibi bilişsel inançların oluşmasına katkıda bulunarak depresyon için gelişimsel bir yatkınlığa neden olabilir.

Yaşam olaylarının çevresel etkenler olarak OKS, depresyon ve sürekli kaygının her biri için anlamlı bir yordayıcı olacağı varsayılmış ve bu hipotez çalışmanın bulgularıyla desteklenmiştir. Yaşam olaylarının sıklığı ve kişi için yarattığı stres düzeyinin yüksekliği obsesif kompulsif semptomlar, depresif semptomlar ve sürekli kaygının yüksekliği ile ilişkili bulunmuştur. Bu bulgu, stresli yaşam olaylarının psikopatolojilerin ortaya çıkması ve/veya var olan semptomların kötüleşmesinde etkili olduğunu gösteren pek çok araştırma ile paralellik göstermektedir.

SONUÇ VE ÖNERİLER

Bu çalışma, Salkovskis (1985, 1989) tarafından önerilen OKB'nin bilişsel teorisi temelinde, algılanan ebeveyn yetiştirme tutumları, sorumluluk algısı ve yaşam olayları gibi Obsesif Kompulsif Semptomların (OKS) gelişmesi, ortaya çıkması ve devamında önemli rol oynayan faktörleri incelemiştir. Ayrıca bu faktörlerin OKS'ye özgü olup olmadıkları sürekli kaygı ve depresyon ile karşılaştırılarak değerlendirilmiştir.

Sorumluluk tutumları, bir başkasına ya da kendisine gelebilecek zarara neden olma ya da önlemeye ilişkin aşırı sorunluluk duyma olarak tanımlanmaktadır. Bu çalışmada artmış sorumluluk algısının OKS için önemli bir bilişsel yatkınlık olduğu gösterilmiş ve bu bilişsel yatkınlığın temelinde annenin algılanan aşırı koruyucu tutumunun önemli rol oynayabileceği gösterilmiştir. Bu çalışmanın en önemli katkısı gelişimsel bir yatkınlık faktörünün (annenin algılanan aşırı koruyucu tutumları) bilişsel bir yatkınlık faktörü (sorumluluk tutumları) üzerinden obsesif kompulsif semptomlara olan etkisini göstermesidir. Bu çalışma, fonksiyonel olmayan bilişsel inançların temelinde erken yaşam deneyimlerinin özellikle ebeveyn yetiştirme tutumlarının rolünü vurgulamaktadır. Stresli yaşam olaylarının varlığı da obsesif kompulsif semptomları aktive edici role sahiptir.

Sorumluluk tutumları, sürekli kaygı ve OKS için ortak bir bilişsel faktör olarak bulunmuşsa da algılanan ebeveyn yetiştirme tutumları, sorumluluk algısı ve semptomatoloji arasındaki ilişkinin sadece OKS'ye özgü olduğu dikkati çekmektedir. Depresyon ve OKS arasında da ebeveyn yetiştirme tutumları ve bilişsel faktörler açısından anlamlı farklar bulunmuştur. Sorumluluk tutumlarının depresyonu yordayıcı etkisinin bulunmaması bu tutumun daha çok kaygı ile ilişkili bir bilişsel

faktör olduğunu ortaya koymaktadır. Algılanan ebeveyn yetiştirme tutumları açısından da reddedici ve duygusal sıcaklık tutumları depresyonla ilişkili iken aşırı koruyucu tutumların depresyonu yordamada etkisiz kalması yine annenin algılanan aşırı koruyucu tutumunun OKS'ye özgü bir yordayıcı olduğunu göstermektedir.

Bu çalışmadan elde edilen sonuçların kinik popülasyona genelleştirilebilmesi için bu çalışmanın OKB, diğer anksiyete bozukluğu ve depresyon hastalarının oluşturduğu klinik bir örneklemde tekrarlanması gerekmektedir.

Bu çalışmada ebeveyn yetiştirme tutumları ile ilgili veriler geriye dönük olarak toplanmış, diğer bir deyişle yetişkin katılımcılara çocukluklarında anne-babalarının kendilerine yönelik yetiştirme tutumlarını nasıl hatırladıkları sorulmuştur. Dolayısıyla elde edilen bilgiler anne-babanın gerçek yetiştirme tutumlarından ziyade katılımcıların algılarına dayanmaktadır. Ancak bu tutumların kendisi kadar nasıl algılandıkları ve mevcut şemalara nasıl asimile edildiği de en az ebeveyn yetiştirme tutumlarının kendisi kadar önemli veriler vermektedir. Bu nedenle elde edilen bulgular ister gerçek ebeveyn yetiştirme tutumlarını ister katılımcıların yanlı algılarını yansıtmış olsun bu konuyu araştıran daha fazla çalışmaya ihtiyaç vardır. Gelecek çalışmalarda hem katılımcıların öz bildirimlerine hem de ebeveynlere dayanarak farklı bilgi toplama kaynaklarının kullanması bu kısıtlılığı azaltabilir.

ÇALIŞMANIN BAŞLICA KATKILARI

Ebeveyn yetiştirme tutumları ve artmış sorumluluk algısı gibi obsesif kompulsif semptomatolojinin oluşması, gelişimi ve devamını sağlayan faktörlerin

önemine dikkat çeken bu çalışma OKS'nin bilişsel tedavisi açısından da önemli bilgiler vermektedir.

Salkovskis (1985) obsesyonlar ve obsesyonların yol açtığı olumsuz otomatik düşüncelerin ayrımına dikkat çekmiş OKB'nin bilişsel tedavisinde obsesyonların değil obsesyonlarla ilgili işlevsel olmayan varsayımların ele alınması gerektiğini vurgulamıştır. Bu nedenle OKB'nin tedavisinde sorumlulukla ilgili tutumlar ve varsayımlar önemli role sahiptir. Kendine ve başkasına zarar verme veya zararı önlemeye ilişkin aşırı sorumlulukla ilgili olumsuz otomatik düşüncelerin farkına varılması, belirlenmesi ve düzeltilmesi tedavi sürecinde önemli katkılar sağlamaktadır (Ladouceur, Leger, Rheaume, & Dube, 1996). Tedavi sürecinde obsesyonların varlığı ve içeriğiyle ilişkili olumsuz otomatik düşüncelerin tespit edilip düzeltilmesi, sorumlulukla ilgili daha makul ve gerçekçi varsayımların geliştirilmesi gerekmektedir (Rachman, 1998). Sorumlulukla ilgili fonksiyonel olmayan varsayımlar ve tutumlar ele alınmadığı sürece Salkovskis'in modelinde değinilen kısırdöngünün kırılması mümkün değildir çünkü hastalığın devam etmesinde rol oynayan en önemli etkenlerden biri sorumlulukla ilgili varsayımların ve tutumların sorgulanmaması ve değiştirilmemesidir.

Karşı karşıya bırakma ve kompulsiyonların engellenmesi gibi davranışçı tekniklerin OKB'nin tedavisindeki katkıları yadsınamaz. Ancak bilişsel tedaviler semptomların altında yatan faktörleri ele alması sebebiyle davranışçı yaklaşımlara göre bazı avantajlara sahiptir. Özellikle örtük kompulsiyonlara sahip hastaların tedavisinde semptomların altında yatan olumsuz otomatik düşünceler, obsesyonların kişisel anlamı ve sorumlulukla ilgili tutumların sorgulanması tedavi sürecinin hedeflerinden olmalıdır.

Bu çalışma artmış sorumluluk algısı ile ilgili inançların oluşmasında ebeveynlerin aşırı koruyucu ve kontrolcü tutumlarının etkili olabileceğini göstermektedir. Bu tür gelişimsel faktörlerin ve erken yaşam deneyimlerinin sorgulanması sorumlulukla ilgili inançların tespit edilmesi, sorgulanması ve düzeltilmesine katkı sağlayacak değerli bilgiler verebilir.

Aşırı koruyucu ve kontrolcü ebeveyn tutumlarının OKB'nin gelişiminde oynayabileceği rol erken müdahale programlarının geliştirilmesinde de faydalı bilgiler sağlayabilir. Bu çalışmadan elde edilen bulgular, yetişkin örneklemine dayansa da ergenler ve çocuklar ile yapılan çalışmalardan elde edilen bulgularla oldukça paralellik göstermektedir. Aile üyelerinin tedavi sürecine dâhil edilmesi, ebeveyn yetiştirme tutumlarının incelenmesi, aile içi iletişimin değiştirilmesi ve ebeveynlerin çocuk yetiştirme tutumları konusunda eğitilmesi risk altındaki çocuk ve ergenlerin tedavi sürecinde ve erken müdahale stratejilerinin geliştirilmesinde katkı sağlayabilir.

APPENDIX J

CURRICULUM VITAE

PERSONAL INFORMATION

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Nationality	: Turkish (TC)
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EDUCATION

2002 – present	Middle East Technical University Ph.D. Candidate in Clinical Psychology, Department of Psychology (cGPA 3.73/4.00) Master of Science Degree (November, 2005) Passed the Ph.D. Qualification Exam in May, 2005
1998 – 2002	Middle East Technical University B.S Degree in Department of Psychology (cGPA 3.88/4.00) High Honor (2nd place in Graduating Class of 2002)
1991 -1997	Ankara Atatürk Anatolian High School

WORK EXPERIENCE

2003 – present	Gülhane Military Medical Academy Psychiatry Clinic

FOREIGN LANGUAGES

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PUBLICATIONS

Bozkurt, A., Karlıdere, T., Özmenler, K. N., **Kargı, B.,** Çelik, C., Yetkin, S., Erdem, M., Çakır, Z., İnan, A., Toska, A., & Aydın, H. (2004). Çubuk hortumu

sonrası yetişkinlerde ortaya çıkan travmatik belirtilerin değerlendirilmesi. Poster Presentation. 40. Turkish National Psychiatry Congress, İzmir.

Karlıdere, T., Bozkurt, A., Özmenler, K. N., Türkbay, T., **Kargı, B.,** Erdem, M., Yetkin, S., Çelik, C., Hekim, Ö., Dıramalı, B., Önder, F., Özgen, F., & Aydın, H. (2004). Çubuk hortumu sonrası çocuklarda ortaya çıkan travmatik belirtilerin değerlendirilmesi. Poster Presentation. 40. Turkish National Psychiatry Congress, İzmir.

Schenk, C. H. (2006). Uykuda Çözülen Paradoks: Uyku ve Rüyaların Savaş Alanında Geceyarısı. H. Aydın, & İ. Karacan (Çeviri Editörleri), Gülçat, Z., **Hacıömeroğlu, B.,** & Aydın H. (Çevirenler). Ankara: HYB Yayıncılık.