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OBSESSIVE-COMPULSIVE SYMPTOMS: ANGER, ANGER EXPRESSION AND MATERNAL ACCEPTANCE-REJECTION

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Obsessive-Compulsive Symptoms: Anger, Anger Expression and Maternal Acceptance-Rejection

Obsesif Kompulsif Semptomlar: Öfke, Öfke İfade Biçimleri ve Anne Kabul-Reddi

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Obsessive compulsive disorder (OCD) is a heterogenous, chronic mental disorder involving recurrent, unwanted thoughts, images and urges called obsessions and repetitive behavior and rituals called compulsions. If left untreated it can cause marked distress and major impairments for one's daily functioning. Although it has been researched since the 19th century, there is much left to understand of this disorder. Past studies indicate that each symptom dimension, despite their overlap, may have differing etiological markers and stress the importance of understanding their interactions further. Anger and the effect of parenting on obsessive compulsive symptoms (OCS) have been the focus of past studies in the literature with inconsistent results. This study aimed to investigate the relationship of trait anger, anger expression, and maternal rejection with OCS while minding their heterogenous nature.

Mediation analyses were conducted to assess the mediating role of trait anger on the significant relationship between maternal acceptance-rejection factors and OCS. The data was collected through an online survey platform using the Turkish versions of The State-Trait Anger Expression Inventory (STAXI), The Adult Parental Acceptance-Rejection Questionnaire (PARQ), and the Vancouver Obsessive Compulsive Inventory (VOCI). In this study, the symptom dimensions were based on the definitions of VOCI: (1) Contamination, (2) Checking, (3) Obsessions, (4) Hoarding, (5) Just Right, and (6) Indecisiveness. 392 Turkish-speaking participants from the general population partook in the study. Their ages ranged from 18 to 69. They mainly displayed subclinical symptoms. The correlation analysis results showed that, among the STAXI factors, there was a positive correlation between trait anger, anger suppression, anger directed outside, and all VOCI factors. Anger control had negative correlation with all VOCI factors barring Indecisiveness, with which it had no significant correlation. Among the PARQ factors, the maternal neglect subscale was positively correlated with all VOCI factors. Regression analyses revealed that Contamination was predicted by trait anger and sex; Checking by trait anger; Obsessions by trait anger, age, anger

suppression, and maternal neglect; Hoarding by anger suppression and trait anger; Just Right by anger suppression, trait anger, age, and maternal neglect; Indecisiveness by anger suppression, age, and maternal neglect. Mediation analyses revealed a statistically significant but weak indirect effect of maternal neglect on Obsessions, Just Right, Indecisiveness. The results were discussed and compared to the existing literature.

Keywords: obsessions, compulsions, trait anger, anger expression, maternal rejection

ÖZET

Obsesif Kompulsif Bozukluk (OKB) obsesyon veya takıntı olarak adlandırılan tekrarlayan, istenilmeyen düşünceler, imgeler ve dürtüler ile akabinde oluşan, kompulsiyon veya zorlantı olarak adlandırılan tekrarlayan davranış ve ritüeller içeren, heterojen, kronik bir ruhsal bozukluktur. Tedavi edilmediğinde ciddi stres ve kişinin günlük hayatındaki işlevselliğinde bozulmalara neden olabilir. 19. yüzyıldan beri araştırılsa da hakkında henüz bilinmeyen çok şey var. Önceki araştırmalar, aralarında örtüşme olsa da her bir semptom türlerinin farklı etiyolojik özellikleri olabileceğini ve etkileşimlerini daha iyi anlamanın önemini vurguluyor. Öfke ve ebeveynliğin obsesif kompulsif semptomlar (OKS) ile ilişkisi üzerine yapılan araştırmaların literatürdeki sonuçları çelişkili bulgular vermiştir. Bu çalışma sürekli öfke, öfke ifade ve anne kabul-reddinin OKS ile ilişkisini heterojen doğalarını göz önünde bulundurarak incelemeyi hedeflemiştir.

Anne kabul-red faktörleri ile OKS arasındaki manidar ilişkilerde sürekli öfkenin aracılık etkisi test edilmiştir. Araştırma verileri çevrimiçi bir anket platformu aracılığıyla, Sürekli Öfke ve Öfke İfade Tarzı Ölçeği (SÖÖTÖ), Yetişkin Ebeveyn Kabul-Red Ölçeği Kısa Form (Y-EKRÖ) ve Vancouver Obsesif Kompulsif Envanteri (VOKE) kullanılarak toplanmıştır. Semptom türleri VOKE'nin tanımlamalarına göre baz alınmıştır: (1) Bulaşma, (2) Kontrol Etme, (3) Obsesyonlar, (4) Biriktirme, (5) Sadece Doğru Hissetme, (6) Kararsızlık. Çoğunluğu klinik altı düzeyde semptom gösteren, genel nüfustan yaş aralığı 18-69 olan, Türkçe bilen 392 katılımcı araştırmada yer aldı. Korelasyon analiz bulgularında SÖÖTÖ faktörleri arasından sürekli öfke, öfke bastırma, öfkenin dışa vurumu her VOKE faktörü ile pozitif ilişkisi olduğu gözlemlenmiştir. Öfke kontrolü, VOKE faktörlerinden Kararsızlık ile manidar ilişki göstermediği gözlemlenmiş, diğer faktörlerle negatif ilişki gösterdiği gözlemlenmiştir. Y-EKRÖ faktörleri arasında anne ihmali alt ölçeği her VOKE faktörü ile pozitif korelasyon göstermiştir. Regresyon analizlerinin bulguları Bulaşma faktörünün sürekli öfke ve biyolojik cinsiyet; Kontrol Etme faktörünün sürekli öfke; Obsesyonlar faktörünün sürekli öfke, yaş, öfke bastırma ve anne ihmali; Biriktirme faktörünün öfke bastırma

ve sürekli öfke; Sadece Doğru Hissetme faktörünün öfke bastırma, sürekli öfke, yaş ve anne ihmali; Kararsızlık faktörünün öfke bastırma, yaş ve anne ihmali tarafından yordandığını göstermiştir. Aracılık testleri anne ihmalinin Obsesyonlar, Sadece Doğru Hissetme ve Kararsızlık faktörleri ile sürekli öfke üzerinden istatistiksel olarak manidar ancak zayıf düzeyde dolaylı etkisi olduğunu göstermiştir. Sonuçlar tartışıldı ve literatür ile karşılaştırıldı.

Anahtar Kelimeler: obsesyonlar, kompulsiyonlar, sürekli öfke, öfke ifade, anne reddi

INTRODUCTION

Obsessive-Compulsive Disorder (OCD) is a heterogeneous, chronic mental disorder where the individual suffers from recurring, unwanted thoughts and urges called obsessions and repetitive behaviors and rituals called compulsions that cause marked distress. Especially when left untreated, it can lead to severe impairments in one's functioning in daily life.

The OCD history and etiological understanding have been debated in the clinical context since the 19th century and is still lacking. Although neurobiological and genetic research has seen advances throughout the years, psychosocial and environmental factors that are theorized to contribute to its development require further research (Mataix-Cols et al., 2013; Monzani et al., 2014; Yamauchi et al., 2016).

Historically, OCD was considered to be a disorder related to emotions. Since its first conceptualizations in the medical setting emotions were thought to be an important component in developing obsessive-compulsive symptoms (OCS; Morel, 1866). Today, this is also supported by the growing recognition of the significant role of emotions in many mental disorders (Gross et al., 2011). Anxiety was one such emotion that the literature considered to have a central role in the OCD, and OCD was classified as an anxiety disorder in the past version of the Diagnostics and Statistical Manual (DSM-IV-TR; APA, 2000). Other emotions, like anger, have also been studied in their relationship to OCD. Freud (1908, 1909, 1924) was one of the earliest thinkers to suggest that hatred and anal eroticism played a significant role in OCS. In later years other researchers have shown the critical role of anger in OCS. Walker and Beech (1969) found that hostility was an important factor in OCS along with anxiety and depression and that overt expressions of hostility were likely to be followed by improvement in symptoms. Others have reported anger to be frequently experienced in OCD patients (Painuly et al., 2011).

The relationship of parenting to OCD has also been a focus of the literature. Parenting and its role in psychosocial growth and mental health have been

emphasized extensively in the past literature. (Bowlby, 1952, 1982; Winnicott, 1968) Contemporary studies reported the significant role of the primary caregiver to be very important for the development of personality, brain and mental health (Fonagy et al., 2002; Moore, et al., 2017; Schore, 2001). However, research on parenting and its role in OCS is limited, and there are various inconsistent results (Brander et al., 2016).

When interviewing individuals with OCD, Mulhall and colleagues (2019) found three emerging themes: struggling to handle parental turmoil, withstanding parental criticism, and struggling with emotional expression. Their findings highlighted that individuals with OCD may have endured excessive criticism from their parents during their childhood. They felt highly responsible in situations where they were innocent bystanders and struggled with expressing emotions, specifically anger. In a study about maternal rearing and children exhibiting compulsive-like behavior, Yamauchi and colleagues (2016) found that while there was a direct relationship between anger and compulsive-like behavior, there was also an indirect relationship with maternal rearing attitudes, particularly over control through the emotion of anger on the compulsive-like behavior. Additionally, OCS severity is reported to have a relationship with emotion regulation difficulties (Eichholz et al., 2020). Given the influence of parenting on emotion regulation (Feldman et al., 2011; Morris et al., 2017), the effect of parenting on the development and maintenance of OCD could be further understood.

In sum, the central aim of this study is to better understand the relationship between OCS, anger and parenting. This study focuses on the maternal relationship in its role in OCD and will be examined based on Rohner's (1986) parental acceptance-rejection theory.

CHAPTER 1

LITERATURE REVIEW

1.1 OBSESSIVE COMPULSIVE DISORDER

1.1.1 Description of Obsessive-Compulsive Disorder

The Diagnostic and Statistical Manual (DSM 5; American Psychiatric Association, 2013) defines obsessive-compulsive disorder (OCD) as a chronic disorder that includes obsessions and compulsive rituals or behaviors. Obsessions are defined as recurrent, unwanted thoughts or urges that cause marked distress and compulsive rituals are defined as purposeful behaviors (e.g., hand washing, checking behaviors) or mental acts (e.g., praying, counting) intended to relieve or neutralize the obsessional thoughts' distress and anxiety despite not being directly associated with the content of the obsessions. Like many disorders, in their extreme forms, they can cause significant impairments in one's functioning in daily life.

Obsessions can include but not be limited to intrusive, persistent thoughts of contamination or illness; imagery of violent or sexual content; urges of violent acts such as stabbing or shooting someone; over-concern with symmetry and order. The person may try to avoid triggers or attempt to suppress such obsessions actively. Compulsions are acts that the person may employ to attempt to reduce the distress caused by the obsessions. They may also feel compelled to engage in these compulsions lest what they fear may happen (e.g., loved ones dying or catching a disease). Compulsions can include behaviors such as hand washing, repeated checking (e.g., if the iron is plugged or not, the stove is off, the door is locked), arranging items symmetrically, mental acts like praying and counting. Patients with OCD can show a variety of symptoms and the symptoms can change throughout the course of the disorder. The DSM-V criterion states that, to be considered pathological, these obsessions and compulsions have to be time-consuming (longer than an hour a day) and cause marked distress. Most of the population experiences intrusive thoughts that may be similar to that of an OCD patient to some degree but they can dismiss these thoughts more effectively (Belloch et al., 2004). However,

OCD patients attribute special meaning and attention to them and experience marked distress.

Until the Diagnostic and Statistical Manual's (DSM 5; American Psychiatric Association, 2013) latest edition, OCD was classified as an anxiety disorder. Now it has its own section with related disorders: Trichotillomania, Hoarding Disorder, Skin Picking Disorder, and Body Dysmorphic Disorder.

1.1.2 Brief History of OCD Explanations

Our modern medical understanding of OCD has its roots in the 19th century, in French descriptive tradition and the work of physicians. Prior to the 19th century OCD and associated symptoms were considered to be related to a "crisis of religion." At the start of the 19th century it became part of the medical vernacular. From 1850 and onwards OCD came to be described separately from the old notion of insanity, which was a broad concept that involved many mental disorders under the term of *monomania*. Over time it came to be considered a neurosis (Berrios, 1989). OCD has been called by many names in its history. Esquirol (1838, as cited in Berrios, 1989) was one of the first to bring OCD to the clinical literature by classifying it as a "volitional monomania." He developed one of the first etiological theories of OCD, the volitional theory. He developed it through examining patients showing insight when discussing their irresistible obsessional thoughts. He considered it to be caused by a defect in the volitional faculties of people. This concept of monomania never became widely popular as its successors. Morel (1866, as cited in Berrios, 1989) described OCD as a "disease of emotions" (*du dêlire emotif*) which he explained as a fixed idea or abnormal act that is not driven by intellectual faculties, but rather emotions. At the time, the prevalent German view was that a dysfunction of intellect caused OCD. Morel's approach provided an alternative perspective that allowed developing a different theory of OCD etiology regarding the nervous system and brain structure. Of the three views, the emotive disease theory became popular in French circles and eventually spread. The second half of the 19th century emphasized the significance of affect and emotion when understanding mental health. Later, many influential names such as Kraepelin,

Bleuler, and Freud were influenced by this emotive view when developing their theories (Berrios, 1989).

Legrande du Saulle (1875, as cited in Berrios, 1989) identified and studied the course, onset, and tendency to symptom change of OCD. He and others called it by names such as *delir du toucher* (touching insanity), *folie du doute* (madness of doubt) and *folie avec conscience* (insanity with insight). In his longitudinal analysis of patients, he proposed three stages to OCD development to emphasize how these patients only came to treatment after their symptoms got to a certain extreme level. The first stage consisted of "involuntary, spontaneous, and irresistible thoughts without illusions or hallucinations," which occasionally came with mental representations or images. There were also "feelings of doubt and brooding." The anxiety of these thoughts and images eventually led to rituals. In the second stage the person made revelations to their family and friends regarding their symptoms which they kept in secret for years. Depression, anxiety, and agitation are dominant feelings that were accompanied by suicidal ideation but rarely led to suicidal action. There was still insight but the symptom severity and the content showed variability. The third stage is when the rituals and obsessional paralysis take an extreme level in which daily function is highly impaired. Essentially Saulle depicted a path divided into three stages that the patients followed from the onset of symptoms to hospitalization.

Another important name in the history of OCD etiology is Janet (1903, as cited in Pitman, 1984, 1987), who gave an in-depth analysis of the disorder as it was conceptualized at the time through his examination and analysis of hundreds of cases. For Janet, it was important to understand the mind that developed the obsessive compulsive symptoms and believed that the mind could not have been healthy before the development of the said symptoms. He described a "psychasthenic state" that predisposed OCS (and other disorders) that included many characterological traits (perfectionism, indecisiveness, procrastinating, disconnect from emotions, sense of inner incompleteness or imperfection etc.).

Similar to Legrande du Saulle, he divided the progression of OCD into three stages: (1) Psychasthenic state, (2) Forced agitations, (3) Obsessions and Compulsions.

Janet asserted that when higher-order psychological functions failed in the face of anxiety-inducing life events, lower functions would replace them. This is how the patient in a psychasthenic state progressed through the stages as their condition worsened.

Freud (1908, 1913, 1926) is another important name with his OCD formulation and treatment. He considered the "obsessional neuroses," as he called it at the time, "the most interesting and repaying subject of analytic research." Like Janet, his definition included character traits that he described as the anal character (such as parsimoniousness, orderliness, cleanliness, punctuality, preoccupation with control) as well as obsessive thoughts and rituals. The anal character or "obsessional character" Freud described formed the theoretical framework of today's obsessive compulsive personality disorder (OCPD; APA, 2013; Mancebo et al., 2005). Freud (1909, 1913) indicated that the symptoms of obsessional neuroses arose from regression in the face of unresolved inner conflict regarding early childhood experiences (e.g., very strict or lax toilet training) and psychosexual development. However, he noted that the development of these specific symptoms was likely fundamentally due to constitutional, rather than experiental factors. Later, psychoanalysts like Weissman (1954) made the cohesive formulation of OCPD traits and OCD symptoms under the names of "obsessional character" and "obsessional neuroses." Like Janet, he stated that the severe symptoms of obsessional neuroses developed due to regression of obsessional character as if on a spectrum. Freud (1909, 1913, 1926) and those that followed him, such as Fenichel (1945), described that increased feelings of responsibility (In Freud's terms "hypermorality") disguises latent, "unacceptable" aggressive impulses in OCD.

The psychoanalytic explanations have been criticized for the lack of sufficient empirical evidence for OCD and its disputed connection with OCPD (Baer & Jenike, 1992; Mancebo et al. 2005; Rasmussen & Tsuang, 1986). Furthermore, Esman (1989, 2001) notes that psychoanalytic formulation has been

halted since Anna Freud's 1969 seminar on the subject and the questionable effectiveness of the treatment (Insel, 1984; Ponniah et al., 2013) has led to it falling behind other contemporary approaches to OCD, such as the genetic, neurobiological and cognitive-behavioral perspectives (Gabbard, 2001).

1.1.3 OCD Epidemiology, Onset, and Course

Worldwide, OCD has a lifetime prevalence of 1.3%, with women being affected by it 1.6 times more than men (Fawcett et al., 2020). For Turkey the prevalence rate is reported to be between 2-3% (Türkiye Psikiyatri Derneği, n.d.). The DSM-5 (APA, 2013) states that, generally, OCD starts in childhood or adolescence and persists throughout the individual's life, especially if left untreated. Men tend to have an earlier onset than women. The DSM-5 data shows that about 25% of male OCD patients have an onset before age ten. Although its development is usually gradual, there are cases of sudden development as well later in life, usually in early adulthood. Studies support this, showing the age of onset to be bimodal with two peaks of symptom onset: One in early childhood, one in early adulthood (Anholt et al., 2014; Del Casale et al., 2019). Although early-onset and late-onset OCD show similar clinical presentations, there are some differences in epidemiology and treatment responses (Del Casale et al., 2019). Early-onset is reported to result in more severe symptoms and seems more related to familial factors (Anholt et al., 2014; Geller, 2016). Although males tend to have an earlier onset, when it comes to adult-onset OCD there does not seem to be a gender divide. Age of onset also appears to have different correlates and associations with symptom dimensions (explained in the following sections).

One of the most puzzling questions to this day is what causes OCS to develop. Although there are no conclusive answers, there have been several studies that investigated this question. Firstly, there seems to be a strong genetic component and high heritability (APA, 2013; Inouye, 1965; Mataix-Cols et al., 2013). DSM-5 (APA, 2013) data shows the first-degree relatives of individuals with childhood-onset OCD to have a tenfold chance of developing it. Other studies report trauma to be related to the development of OCS (Dykshoorn, 2014). One study found 54%

of OCD patients to have at least one traumatic life event and these events were associated with increased symptom severity (Cromer et al., 2007). Gershuny and colleagues (2003) indicated a significant overlap between PTSD and OCD, and that OCS is inversely related to PTSD symptoms. In this inverse relationship, when one is treated, the other rises in frequency. They propose that this signifies the presence of OCS being used to deal with the symptoms, memories, and emotions of trauma. Pinciotti and colleagues (2021) reported that indirect trauma (trauma that one has been exposed to by witnessing it but not being a direct recipient) may have a closer relationship with certain symptom dimensions than direct trauma.

An in-depth meta-analysis of twin studies by Taylor (2011) investigated the overall relevance of these factors. They reported that genetics and non-shared environmental factors (defined as experiences not shared between twins, such as stressful life events) were important in OCS development. However, the shared environmental factors (defined as experiences shared between the twins such as received parenting styles) were demonstrated to have a lesser impact. Adding onto this, Mataix-Cols and colleagues (2013) conducted a population-based, multigenerational family clustering study and found similar results. However, they indicated that family factors like parenting styles that are often considered to be shared environmental factors could also be regarded as non-shared environmental factors. They noted that the same parenting could be experienced differently between siblings. Thus, they stressed the importance of conducting further research on the effects of environmental factors.

Some other studies demonstrated the importance of adverse experiences and increased maternal stress during the perinatal stage and infancy, which were found to be linked with increased severity and earlier onset of OCS (Abdulkadir et al., 2016; Geller et al., 2008; Macul Ferreira de Barros et al. 2020).

1.1.4 Comorbidity

OCD is a highly comorbid disorder with other psychopathology. The DSM-5 (APA, 2013) comorbidity data shows that 30% of people with OCD also have tic disorders and is more common in males with OCD onset in childhood. 76% of adults with OCD were found to have a lifetime diagnosis of an anxiety disorder (general anxiety disorder, panic disorder, phobias etc.). Another significant comorbidity is depressive and bipolar disorders. Depressive and bipolar disorders are prevalent, with a rate of 63%. Of these, major depressive disorder is the most common, and it is thought to be more related to obsessions rather than compulsions. It is comorbid with OCPD and Narcissistic Personality Disorder (Bulli et al., 2016). The relationship with OCPD has a long history of research and requires further discussion.

1.1.4.1 The Relationship Between OCD and OCPD

It is essential to discuss the special relationship between OCD and OCPD. The DSM-5 (APA, 2013) definition of OCPD is "a pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control." The person with OCPD may show excessive attention to detail; excessive perfectionism to the degree of impeding task completion; inflexibility regarding matters of morality or values; inability to discard useless items regardless of sentimental value; reluctance to delegate or work with others; a miserly attitude or hoard money; rigid or stubborn attitude. This definition has its roots in Janet (1903) and Freud's (1908, 1909, 1924) conceptualizations of obsessive compulsive symptoms and the character traits which they proposed to be tied together. The discussion started by Janet and Freud on the symbiotic relationship of OCD and OCPD traits has been disputed over time. It has been argued that OCD can often occur regardless of OCPD and that one is not a necessity for the other to exist (Baer & Jenike, 1992; Rasmussen & Tsuang, 1986; Mancebo et al. 2005). Today they are primarily considered separate disorders (APA, 2013; Gabbard, 2014). However, there is still interest in their relationship, and studies still show significant overlap between them (Mancebo et al., 2005). Eisen and colleagues (2006) explained that

this overlap might be more related to specific criteria of OCPD (as both disorders were construed in DSM-IV) than others. They found hoarding (as OCPD criteria), perfectionism, and preoccupation with details as primary influencers behind this relationship. Their studies suggested that OCS that are primarily driven by feelings of incompleteness or desire for the "just right" feeling were more related to OCPD than the symptoms that are driven by harm avoidance. Other studies supported this and showed that OCPD has a close relationship with specific OCS, particularly with symmetry and hoarding symptoms (Baer, 1994). Garyfallos and colleagues (2010) found one-third of OCD patients have comorbid OCPD and displayed specific clinical characteristics, significantly earlier age of onset of OCS. They suggested that this relationship might imply the presence of a particular subtype for OCD. Coles and colleagues (2008) also proposed a similar possibility of comorbidity of OCD and OCPD representing a specific subtype for OCD and reported an earlier onset for those with comorbid OCPD. They found that for patients with OCD comorbid with OCPD, obsessions related to symmetry, hoarding, and compulsions of cleaning, ordering, and repeating were significantly higher than patients without comorbid OCPD. Others suggest OCPD could be a "marker for severity" in OCD rather than a distinct subtype as the two do not appear to have specific phenomenological or genetic profiles (Lochner et al., 2011). Starcevic and colleagues (2013) reported that participants with comorbid OCPD displayed higher scores in all symptom dimensions except contamination and checking in their study. These symptom dimensions were obsessions, just right, hoarding, and indecisiveness (explained further in the next section). Other studies, citing their close relationship and overlap, considered adding OCPD to obsessive compulsive and related disorders category of DSM in future revisions (Fineberg et al. 2007; Fineberg et al. 2014).

In conclusion, although they might not be as inseparable as Janet and Freud first conceptualized them, there appears to be significant overlap between the two and more research can be conducted to understand their relationship better.

1.1.5 Heterogeneity in OCD and Symptom Dimensions

OCD is a heterogeneous disorder meaning that different OCD patients could have completely different types of symptoms, such as one having contamination obsessions and cleaning compulsions. In contrast, another may have aggressive obsessions and never suffer from any other kind of obsession (Bloch et al. 2008, Mataix-Cols et al. 1999). This heterogeneity makes it difficult for etiological explanations. It also complicates treatment planning as studies showed that different symptom dimensions of OCD have differences in neurobiology and correlates with other disorders and responses to treatment (Mataix-Cols & Heuvel, 2006; Heuvel et al., 2009; Coles et al. 2008). Mataix-Cols and colleagues (1999) have proposed to consider the possibility of what we call OCD to be different disorders that are highly overlapping with each other. They stressed the importance of identifying OCD symptom dimensions that are temporally stable to understand better the disorder and its potential causes (Mataix-Cols et al., 1999; 2005). We can see a similar attempt at different classification of symptoms in the 19th-century French practitioners and theorists where they came up with various terms such as *delir du toucher* (touching insanity) and *folie du doute* (madness of doubt) (Berrios, 1989). This heterogeneity was reinforced by studies on neurobiology and genetics (Alonso et al., 2011; Heuvel et al., 2009; Mataix-Cols & Heuvel, 2006).

Many researchers have looked into temporally stable dimensions (Baer, 1994; Mataix-Cols et al., 2005; Pinto et al., 2007). In this study, symptom dimensions provided by the Vancouver Obsessive Compulsive Inventory (VOCI; Thordarson et al., 2004) will be used. These are “checking,” “contamination,” “obsessions,” “hoarding,” “just right,” and “indecisiveness.” (See the following sections for the description).

Gender has been reported to have a distinct relationship with a few symptom dimensions (Labad et al., 2008). Contamination was found to be higher in females, whereas sexual and religious obsessions were found to be lower in females. Other symptom dimensions do not show gender-based differences. Age has also been identified to be a variable associated with different symptom dimensions. Geller

(2006) stated that children and adolescents have more aggressive obsessions than adults. In other research, symmetry symptoms were found to likely have an earlier age of onset than other symptom dimensions (Kichuk et al., 2014).

Lee and Kwon (2003) proposed that although symptom shifting happens in an OCD patient, there are two main types of obsession (and a third consisting of mixed type) with very rare shifting between. They called them autogenous and reactive obsessions. In their definition, autogenous obsessions (e.g., obsessions related to aggressive, sexual, unacceptable thoughts and impulses) are abrupt and often without an apparent external trigger and are ego-dystonic. They were thought to stay as "pure obsessions" or ruminations without resulting in overt compulsions. It has been found that they result in mental compulsions; however, research on its temporal stability is still valid (Abramowitz et al. 2003; Williams et al. 2011). Reactive obsessions (e.g., contamination, checking, symmetry, indecisiveness due to the possibility of making a mistake) are with easily identifiable external triggers and they tend to be ego-syntonic. They usually result in compulsions directly linked to the removal of that trigger such as washing what was deemed to be dirty etc. This categorization was found to be stable yet the majority of OCS fall under reactive obsessions category as autogenic obsessions only include aggressive, sexual, religious obsessions. Therefore, the reactive obsessions category is disproportionately broad compared to autogenous and mixed categories. This distinction is further discussed in studies investigating the neurology of OCD. Subira et al. (2013) found that patient groups with autogenous and reactive obsessions have regional size differences in gray matter and various brain parts between each other and compared to healthy controls.

There is a growing trend discussed in other studies that once again incorporate Janet's (1903) observations on the sense of incompleteness into the modern theory of OCD. They indicate that OCS can be divided by their motivators of harm avoidance and sense of incompleteness and that this could explain some of the differences in the symptom dimensions (Lee & Wu, 2019; Rasmussen & Eisen, 1992; Summerfeldt, 2004; Summerfeldt et al., 2014; Taylor et al., 2014). It appears

that some of the symptom dimensions are more strongly driven by avoiding harm, whereas others are more strongly driven by a desire to fulfill a sense of incompleteness. In their meta-analysis, Taylor and colleagues (2014) discussed two definitions of sense of incompleteness in the literature: Broad (as defined by Janet) and narrow. The broad definition is holistic, which includes a sense of incompleteness in the sense of self, relationships, thoughts, emotions, and actions. The narrow definition is employed by contemporary researchers of OCD. It is construed as the sense that one's actions, intentions, and behavior have not been properly "completed" or do not feel "just right." Thus, repetitive actions follow. Taylor and colleagues (2014) reported that the sense of incompleteness is correlated with OCS even when controlled for harm avoidance and general distress. However, they found the narrowly defined sense of incompleteness to explain specific OCS than the broad definition better.

The following sections will be describing the symptom dimensions/ subtypes focused on in this study as they were defined in VOCI.

1.1.5.1 Contamination

Arguably one of the most well-known OCD symptom dimensions is contamination (Shakespeare, 1990). This symptom dimension involves excessive fear or discomfort of contamination by germs or filth and repetitive cleaning rituals such as excessive hand washing (Rachman, 2006). This may stem from fear of harm from sickness or discomfort caused by a "sense of feeling dirty" (Feinstein et al. 2003). Rasmussen and Eisen (1992) mentioned that the OC contamination fear is distinct from other phobics. The patients who have it show a great deal of concern with infecting significant others. A great range of sources can trigger these fears or discomfort such as dirt, cleaning products, sticky surfaces, blood, money, disease etc. The individual suffering from this symptom dimension can engage in avoidant behavior from the possible triggers of the said fear, or engage actively in eliminating the triggers with excessive cleaning or sterilization procedures.

Contamination has been reported to be more prevalent in women (Karadağ et al., 2006; Labad et al., 2008; İnözü & Yorulmaz, 2013). Other research shows that there is a link between sexual trauma and contamination symptoms (Adams et al., 2014).

1.1.5.2 Checking

Checking compulsions involves various repetitive acts such as excessively checking for potential safety hazards in daily life (e.g., whether the iron or stove is off or if the door is locked). Usually, they are preceded by intrusive obsessions of inadvertent harm to oneself or someone else due to their negligence and checking compulsions helps alleviate the resulting anxiety. (Williams et al., 2012). A possible link between checking and specific aggression obsessions has been discussed in the literature (Leckman et al., 1997). Some authors called these "doubting" obsessions to differentiate from other aggression obsessions that involve voluntary acts of violence, which they relate more to "taboo" thoughts (Pinto et al., 2007). In their first study, Whiteside and Abramowitz (2004) reported that while all OCS had a relationship with trait anger and inward expression of anger, when controlled for depression, this relationship seemed to vanish. Of the OCS, mainly checking had a distinguishing relationship with higher trait anger, independent of depressive symptoms. However, in their second study, Whiteside and Abramowitz (2005) failed to replicate their findings. Radomsky and colleagues (2007) built on their findings, noting that in their first study Whiteside and Abramowitz (2004) used Maudsley Obsessive-Compulsive Inventory (MOCI), which is an inventory with binary true-false answers that might have caused a limitation in understanding this relationship with the severity OCS. Their study included a clinical population of compulsive checkers with a control group consisting of university students. They found that checking was associated with greater trait anger but not anger expression. They concluded that there seemed to be a strong relationship between checking and anger that could be further investigated. Alongside anger, those with significant checking symptoms have also been found to display higher sense of responsibility,

perfectionism and thought-action fusion (Ferrari, 1995; Gershuny & Sher, 1995; Rachman & Hodgson, 1980; Williams et al., 2012).

Checking has been reported to be driven both by harm avoidance and a sense of incompleteness (Ecker & Gönner, 2008; Taylor et al. 2014; Lee & Wu, 2019). Several studies showed that checking is related to just right dimension and symptoms related to it (symmetry, ordering, arranging, and repeating) through a mutual relationship with OCPD comorbidity and perfectionism (Coles et al., 2008; Cordeiro, 2015; Moretz & Mckay, 2009). Additionally, checking symptoms seem to share another connection with symmetry symptoms in their mutual connection to dissociative symptoms (Grabe et al., 1999). Moreover, this dimension was found to be related to traumatic life events which can be associated with dissociative symptoms (Cromer et al., 2007).

1.1.5.3 Obsessions

Obsessions factor includes intrusive, "unacceptable" or "taboo" thoughts that could be of aggressive, sexual, or religious nature. These can consist of thoughts or images of stabbing someone, performing various sexual acts, concern over having committed a sin, etc. As previously mentioned, some authors make a distinction between two types of aggressive obsessions: obsessions regarding fear of inadvertent harm coming to others due to one's negligence (sometimes called "doubting" obsessions which are more related to checking) and obsessions regarding fear of voluntarily committing an aggressive act (which are within this dimension) (Pinto et al., 2007).

As they were first thought to not result in any compulsions, they were once called pure obsessions (Baer, 1994). However, it was later found that these types of obsessions result in covert compulsions that are not as easily identifiable as other compulsions. These can be compulsive mental acts such as counting or praying. Additionally, excessive engagement in reassurance-seeking behavior is also considered to be an outcome of these types of obsessions (Rasmussen & Eisen, 1992; Abramowitz et al., 2003; Williams et al., 2011). Although they usually do not

act on these thoughts, people with these types of obsessions can employ a large amount of effort to suppress the thoughts. This paradoxically leads to more anxiety (Rachman, 1988). Rasmussen and Eisen (1992) describe that OCD patients with this type of obsessions often seek reassurance from their therapist that they cannot act on these thoughts.

Pinto and colleagues (2007) have found "taboo thoughts," as they call it, to be highly related to obsessions of symmetry, hoarding obsessions, and doubting obsessions. It has been found that perfectionism is a predictor of aggressive obsessions, whereas sexual and religious obsessions were found to be predicted by responsibility beliefs (Cordeiro et al., 2015). In their study, Pinciotti and colleagues (2011) have found a possible relationship between indirect trauma associated with knowing someone with combat experience and obsessions of unacceptable thoughts. Although they admit this finding requires more research, they interpret that knowing someone with combat experience leads to detailed knowledge of combat violence which might provoke a desire to distance oneself from violent or aggressive thoughts and impulses. A similar trigger point is present in Freud's (1909) case of the "Rat Man," who develops obsessions of unacceptable thoughts after hearing about a specific torture method during his military service, which gives further credence to this interpretation.

Lastly, this symptom dimension has been linked with earlier onset age (Prabhu et al., 2013).

1.1.5.4 Just Right

"Just right" factor is about the excessive need to be precise and perfect, doing things in the right order, repeating, and memorizing minute details and numbers. The VOCI factor designed by Thordarson and colleagues (2004) shares similarities to Leckman and colleagues' (1997) factor of symmetry and exactness obsessions. Obsessions of symmetry and exactness, or the need for things to be "just right" are related to acts of compulsive ordering, arranging, and repeating (Radomsky & Rachman, 2004). This dimension has been found to be more common

in male patients (Karadağ et al., 2006; Torresan et al., 2009). Unlike some of the other dimensions, those with symptoms from this dimension engage in these compulsive acts not to prevent a perceived potential threat or harm to oneself or another, but to reduce discomfort from perceived disarray. Sense of incompleteness and imperfection are common experiences for those that suffer from this symptom dimension. Other studies provide evidence that a sense of incompleteness is mainly related to symptoms related to this dimension (Lee & Wu, 2019; Schmidt & Stasik-O'Brien, 2017).

Along with checking symptoms, symmetry symptoms were found to be significantly correlated to dissociative symptoms (Grabe et al., 1999). Additionally, this dimension along with checking, was also found to be related to traumatic life events (Cromer et al., 2007). Pinciotti and colleagues (2021) found that indirect trauma to be particularly associated with symptoms related to this dimension.

Baer (1994) reported that symmetry obsessions and hoarding symptoms have higher comorbidity with OCPD and tic disorders than other obsessive compulsive symptoms. Coles and colleagues (2008) reported that a special relationship might exist between OCPD comorbidity and obsessions of symmetry and hoarding and compulsive acts of ordering, arranging, and repeating. Other studies link perfectionism to "not just right" experience and symmetry obsessions, further providing support for the connection of OCPD and this dimension (Moretz & Mckay, 2009; Cordeiro, 2015).

Lennertz and colleagues (2010) have found paternal rejection related to symmetry obsessions specifically but stated that it required more research for confirmation. Others have found conflicting research that shows paternal rejection to be associated solely with the hoarding dimension (Alonso et al., 2004).

1.1.5.5 Hoarding

Hoarding is the inability to discard items and objects regardless of their value (e.g., collecting an abundance of newspapers, mail, worn down clothing). Often, people with hoarding disorder accumulate items to an extreme degree that causes impairments in daily life due to clutter in their living spaces. The reasons that are usually given for hoarding are due to the associated distress of parting with items and losing something or information that could be of value (APA, 2013).

It could be said that hoarding has had a complicated history in defining its place in the OC spectrum. However, it used to be considered both an OCD symptom when in excessive forms and an OCPD criterion in the DSM-IV-TR (APA, 2000). However, as of DSM-V hoarding is no longer considered part of OCD but instead a separate, but related disorder within the obsessive compulsive spectrum (APA, 2013). This change is supported by research showing it to frequently exist independently of other OCD symptoms, have different correlates, have many fundamental differences from other OCD symptoms, and is no longer considered a direct symptom dimension of OCD by many (Mataix-Cols et al. 2010). One difference is that unlike with most other OCS, hoarding is not experienced as intrusive but rather ingrained with the typical thoughts of the person and does not result in repetitive behavior as other obsessions do, nor is it by itself distressing. Instead, losing ownership of possessions results in distress (Frost & Gross, 1993; Kyrios et al., 2004). Contrary to most other OCS, compulsive acquisition and hoarding of items and possessions induce positive emotions in the person (Steketee & Frost, 2003). Genetic studies also show hoarding to have a greater degree of gene specificity than other symptom dimensions (Iervolino et al., 2011).

It should be noted that there is still significant overlap between compulsive hoarding and OCS, particularly with symmetry-related obsessions, as well as some functional similarities (Mataix-Cols et al. 2010).

Defining and constructing the boundaries of OCS and related disorders have been a challenge for a long time and likely the historical understanding of the symptom has influenced how they have been categorized over the years (Mataix-Cols et al., 1999). With its current definition in DSM-5, hoarding disorder has 20% comorbidity with OCD (APA, 2013). Baer (1994) reported that hoarding along with symmetry obsessions had higher comorbidity with OCPD and tic disorders than other OCS.

Research shows that hoarding may be related to parental acceptance-rejection and low parental warmth in early childhood (Alonso et al., 2004; Brown, 2015, as cited in Rohner, 2016).

1.1.5.6 Indecisiveness

Indecisiveness is difficulty making decisions due to the emerging anxiety when faced with choices. Although a common trait in individuals with OCD (it was once called '*folie du doute*' or 'madness of doubt' in some circles of 19th-century French practitioners [Berrios, 1989]), this construct is not present in other OCD scales and it is thought to demonstrate low OCD specificity and significant overlap with depression (Thordarson et al., 2004; Gönner et al., 2010). When developing VOCI, Thordarson and colleagues (2004) based this factor on the "certainty" subgroup of Calamari and colleagues (1999), who noted that the core concerns related to the symptoms of this subgroup are seeking certainty to prevent potential harm or attempting to achieve a feeling of "just right (or completeness)" in their decisions. Both studies show that their constructs have a high correlation with depressive symptoms. It is also highly associated with OCPD and perfectionism (Gayton et al., 1994; Villemarette-Pittman et al., 2004).

1.2 ANGER

Anger is an emotional state with a variable intensity that can range from mild irritation or annoyance to fury and rage (Spielberger et al., 1985). The word anger has often been used interchangeably with hostility and aggression both in the literature and language (Buss, 1961). Spielberger and colleagues (1983, 1985) have made clear definitions for each of them and labeled the collective components as the "AHA! Syndrome." They make the distinction that hostility is a trait that while often involves angry feelings, is a "complex set of attitudes that motivate aggressive behaviors." Lastly, aggression refers to behavior that is destructive or punitive action that is directed towards a person or an object.

American Psychological Association (2019) defines anger as an emotion characterized by antagonism towards someone or something in response to perceived, intentional wrongdoing from them. Similarly, in Kazdin's (2000) compiled work, anger is mentioned to be evoked when an offense is made to one's self or to something that one identifies to have ownership of. Like others, Soykan (2003) defines anger as an emotional response to unmet desires, expectations and unwanted results. She elaborates that it is a normal, natural emotion like any other emotion when expressed healthily. Indeed, anger is said to be a useful emotion for expressing one's negative feelings or source of motivation to find solutions to the problems they face. (APA, 2019) Likewise, Harmon-Jones and Harmon-Jones (2018) say that it can help with social and interpersonal processes and goal-directed action. Novaco (2010) says that anger can be very functional and help drive the individual to engage in corrective action when facing hardships. In evolutionary psychology, anger is considered to be an emotion with the function of changing the other and demonstrating fighting ability, promoting survival (Sell, 2019). However, anger can be associated with problems of its own. Extensive research suggests that there is a connection between suppressed anger and increased risk of cardiovascular disease, particularly coronary heart disease and hypertension (Fernandez & Smith, 2016; Gentry et al., 1982). Furthermore, studies indicate excessive suppression of

anger, as well as outward expression of anger to be associated with depressive symptoms (Sahu et al., 2014; Sperberg & Stabb, 1998) and that social expression of anger can lead to reduced anger, albeit it will also predict depressive symptoms if the frequency is too high (Chue et al., 2014). Anger can also result in destructive and harmful behavior when uncontrolled and can cause relational problems (Novaco, 2010; Soykan, 2003).

1.2.1 Anger Expression and Control

Anger is an unpleasant emotion for both the individual experiencing it and if there is one, the other individual receiving it. Even though it can be functional to express it, the society and the social environment tend to demand it to be controlled. As anger can lead to destructive behavior that may result in punishment, there is a precedent for suppressing and controlling it (Novaco, 2010; Soykan, 2003). Family dynamics can play a role in how much a child learns to express it, among other emotions. For example, in a Turkish study, low levels of maternal education have been linked to lower levels of encouragement to emotional expression for children (Altan-Aytun et al., 2012). Corapci and colleagues (2012) have found Turkish mothers to be less encouraging of anger expression than other emotions such as sadness. They argued that this could be due to the perception in the traditional Turkish culture that anger expression can be viewed as an attack to the social hierarchy within the family unit. Thus, in a Turkish family there could be further reason to discourage the expression of anger. However, as mentioned previously, anger suppression is also associated with increased depressive symptoms, and healthy expression of it can reduce the symptoms (Sahu et al., 2014; Sperberg & Stabb, 1998)

To measure anger and its expression, Spielberger and colleagues (1988; 1995) have distinguished the experience of anger and its expression in several constructs. State Anger (S-Anger) is a psychobiological state with variable intensity, “from mild irritation or annoyance to intense fury or rage.” As the name might imply, essentially, it is the momentary emotion of anger. Trait Anger (T-Anger) refers to the anger proneness of the individual, in other words, how often

anger may be experienced over time. People with high T-Anger are expected to experience more frequent and intense anger as a reaction to sources of frustration. These two concepts make up how often and how intensely anger emotion is experienced, however, how anger is expressed is different. Spielberger and colleagues (1988; 1995) discussed that anger expression had been investigated primarily based on two modes of expression: Anger that is directed outward to other people or objects in aggressive verbal or motor behavior (Anger-Out) and anger that is suppressed and held in (Anger-In). An outward expression of anger can include physical acts like assaulting someone, breaking objects, slamming doors, using profane language, etc. Anger suppression, as the name implies, is directing the felt anger towards oneself instead of outside. Although it does not involve deliberate behavior, it can result in involuntary reactions such as sulking or being vexed (Özmen, 2006).

Finally, Spielberger and colleagues (1988; 1995; Spielberger, 1999) say that individuals can make an effort at controlling anger (Anger-Control). This can be either done by suppressing the outward expression of anger or with anger management techniques that lead to an internal calmness.

1.2.2 OCS and Anger

In the literature of OCS anger has been an emotion that received attention. One of the earliest authors in the literature was Freud (1908, 1909, 1924); based on clinical experience and observations, he suggested that hatred and anal eroticism played a significant role in OCS. Freud and the following classical psychoanalytic understanding suggested that “unacceptable” hostile wishes were suppressed by the obsessional and were hidden under the guise of an increased sense of responsibility or “hypermorality.” Subsequently, this resulted in obsessive ideation and compulsive behavior due to the displacement of the hostile wishes (along with other unacceptable wishes, e.g., sexual wishes) (Fenichel, 1945). In their research, Walker and Beech (1969) found that hostility was an important factor in OCS along with anxiety and depression and that overt expressions of hostility were likely to be followed by improvement in symptoms. Another study that observed OCD patients

reported that half of the patients had anger attacks (Painuly et al., 2011). This supported the view that anger is a common emotion associated with OCD at clinical levels. However, it did not address its heterogeneous nature, which is a common limitation in a significant portion of the OCD literature. To address this common limitation in the literature, in their first study Whiteside and Abramowitz (2004) investigated the relationship of OCS and anger and anger expression in a subclinical student sample using MOCI. Their findings suggested that higher OCS indicated higher anger with an increased likelihood to internalize anger rather than express it. However, they pointed out that this relationship may be due to the comorbid depressive symptoms, with the exception of checking which seems to have a significantly different relationship with anger. One limitation of their first study was due to their usage of MOCI, an inventory that measures OCS presence with binary true-false answers. It may have led to a limited understanding of the relationship between various degrees of OCS and anger. In their second study, Whiteside and Abramowitz (2005) addressed this limitation by using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and the Obsessive Compulsive Inventory – Revised (OCI-R) with a clinical sample to see the relationship of anger expression and OCS. They did not measure trait anger in this study. In contrast to the literature and their past study, they did not find checking to have a relationship with anger expression. Instead they found ordering (related to Just Right) and washing symptom subtypes to be particularly related to anger. They argue that this may be due to the overlap of these symptom subtypes with OCPD traits such as perfectionism and rigidity, which are thought to be associated with anger (Coles et al. 2003). They postulated that this is likely the case for hoarding as well, even though their results did not display a relationship in their study (which they argue is likely due to the limitations of OCI-R). In both studies, Whiteside and Abramowitz (2005) theorized that anger could be a secondary rather than primary component of OCD due to general distress stemming from symptoms, showing variances in how effectively the symptoms employed deal with the anxiety of obsessions. Nevertheless, they recommended that this relationship could be examined further. Regarding the OC anger being explained by depressive symptoms, Painuly and colleagues (2011) state that while

the presence of depressive symptoms exacerbates the anger symptoms, the anger exists without the depressive symptoms. As previously mentioned Radomsky and colleagues (2007) specifically examined checking by comparing samples of a clinical sample of checkers and a student sample and found that checking was associated with greater trait anger but not greater anger expression. Additionally, they found perfectionism and intolerance of uncertainty related to trait anger among the checker group. In a research comparing OCD patients and healthy controls Cludius and colleagues (2020) found trait anger and anger suppression to be important components of OCD. Both trait anger and anger suppression were mediated by non-acceptance of negative emotions. Furthermore, they reported an inflated sense of responsibility to mediate trait anger. However, they noted that their findings regarding anger suppression, but not trait anger, could be related to comorbidities or medication. They found that patients with major depressive disorder demonstrated increased suppression but trait anger did not differ. In another study Moritz and colleagues (2009, 2011) found OCD patients to have significantly high latent aggression compared to controls. They discussed the possibility of obsessions hiding the person's aggressiveness or destructive potential. However, in their second study in which they used Y-BOCS and OCI-R, they were not able to find a significant relationship between latent aggression and a particular symptom dimension. Piacentino and colleagues (2016) investigated the associations of the symptom subtypes with various psychopathological dimensions, including anger/aggressiveness. They found anger/aggressiveness to have a significant relationship with aggressive, sexual and contamination obsessions. They reported that particularly OCD patients with comorbid OCPD displayed higher anger than OCD patients with comorbid schizotypal or histrionic disorders and those with no comorbid disorders. They concluded that anger and latent aggression could be worthwhile subjects to investigate in therapy but noted that further confirmatory testing with larger sample sizes and non-cross-sectional studies for investigating cause and effect relationships could be conducted. Yamauchi and colleagues (2016) conducted a study where they examined the relationship between maternal rearing attitudes and children's compulsive-like behavior with children's emotional traits

as mediators. They found that maternal attitudes did not display a direct relationship with compulsive-like behavior, but maternal overprotection directly correlated with the child's emotional trait of anger and through it, an indirect relationship with compulsive-like behavior. They found this relationship to be stronger than anxiety and shame.

To summarize, there is much to discuss and debate on the role of anger and anger suppression in OCS. This relationship could be further explored within the context of symptom dimensions and possible mediating variables.

1.3 PARENTAL ACCEPTANCE-REJECTION THEORY

The influence of parentals on the development of a person's mental health has a rich history. (e.g., Bowlby, 1952; 1982; Moore et al., 2017; Schore, 2001) Benoit (2004) indicated that early relationship or attachment with the primary caregiver (who is often the mother) significantly shapes the child's development and mental health in the future. Similarly, Schore (2001) stated that early relational trauma could heavily influence various areas in the child's brain, specifically the brain's right hemisphere. Furthermore, he stated that it could also heavily influence affect regulation and mental health. Fonagy and colleagues (2002) noted the importance of a reliable caregiver for the infant to develop a healthy capacity to tolerate stress, emotion regulation, mentalization and a cohesive identity. Today, it is well known that traumatic experiences in childhood, especially parental neglect and abuse, can lead to traumatic memories later in life and impairments in social, emotional, and neurological development (Hildyard & Wolfe, 2002; Perry, 2008; Williams, 2006).

In this study, to understand the parental effect on OCD, Rohner's (1975, 1986) Parental Acceptance-Rejection Theory will be used. Rohner's theory is one perspective that offers the construct of parental rejection to study and explain the effects of the caregiver-child relationship on the psychological development of a person. This study takes Rohner's theory as a basis for understanding the

participants' early relationship with their mothers. The following section will be examining the theory and its principles.

1.3.1 Overview of Parental Acceptance-Rejection Theory

Parental Acceptance-Rejection Theory (PARTheory) was developed by Rohner (1975, 1986) to explain and predict the consequences of the parent-child relationship on the children's psychological development. It is a universal theory that was reported to have valid cross-cultural predictions (Rohner & Khaleque, 2002). This theory primarily suggests that every child requires some warmth from their caregivers, and they more or less receive some warmth from their caregivers, even if cultural differences lead to a variance in the expression of warmth. Although the theory started with parental acceptance-rejection, it incorporated other attachment ideas to its model over time.

It should be noted that in PARTheory, a parent was meant as the major caregiver who fulfilled this function, and not necessarily the biological parents. However, commonly the biological parents fulfill this function.

The theory was divided into three supporting sub-theories (Rohner et al., 2012). These sub-theories with their definitions are as follows: (1) Personality sub-theory, (2) coping sub-theory, and (3) sociocultural systems sub-theory.

1.3.1.1 Personality Sub-Theory

The personality sub-theory's central aim is predicting and explaining how perceived parental acceptance-rejection influences the individual's personality, psychology, and mental health.

Rohner states that this sub-theory is the most developed of the three sub-theories and begins with an admittedly untestable assumption that all humans have an emotional need for a positive response from the most significant people. During infancy and childhood, typically, parents fulfill this need for the positive response the best. However, it can also be provided by significant others or non-parental attachment figures, especially during adolescence and adulthood.

PARTheory defines significant other as someone who is interchangeable and uniquely important for the child or adult. Generally, it is the parent who fulfills this role, and the quality of the relationship between the parent and the child is what provides a sense of emotional security and comfort for the child. Therefore, parents hold special importance in the development of the child and are usually the attachment figures as is named in both PARTheory and attachment theory. (Rohner et al., 2012; Ainsworth, 1989; Bowlby, 1952, 1982) Since the child's security, emotions, and psychological states are so dependent on the perceived quality of the relationship with their parent, PARTheory suggests that parents have an unmatched influence on the development of the child's personality.

1.3.1.2 Coping Sub-Theory

Coping sub-theory focuses on how an individual deals with parental rejection and does not develop mental health problems associated with rejection as most other rejected individuals do. Cross-cultural studies demonstrate that most people are negatively affected by parental rejection, yet a minority of people seem to cope well (Rohner et al., 2012; Rohner, 2016). Admitting that this sub-theory is the least developed, Rohner proposes applying a multivariate person-in-context perspective to better understand what may give the person resilience later in life. Rohner states that this perspective is made up of three elements which he calls the "self," "other," and "context," and the way they interact forms the factors that lead to how the person is affected by rejection. In this perspective, "Self" refers to the mental representations of the person as well as their biological and characteristic traits. "Other" refers to the rejecting person's characteristics as well as the intensity, duration, and form of the rejection. "Context" refers to other important individuals in the person's life as well as the properties of their environment. According to this sub-theory people that have been able to cope with rejection, in other words, "copers," are divided into two types: "Affective copers" and "instrumental copers." Affective copers are people who have been able to develop emotionally and overall be in good mental health despite having endured significant rejection in their childhood. Conversely, instrumental copers are focused and good at school,

academy, work, and other task-oriented activities but suffer from emotional and mental health impairments. A comprehensive, international study by Ki (2015) shows that gender seems to be an essential factor in coping styles. Compared to men, women were found significantly more likely to be affective copers. Also, most copers have reported more maternal acceptance, with men displaying more early childhood maternal acceptance significantly.

1.3.1.3 Sociocultural Systems Sub-Theory

The sociocultural systems sub-theory attempts to understand the predictors, results, and correlates of parental acceptance and rejection on both an individual and worldwide level (Rohner et al., 2012; Rohner, 2016). This sub-theory suggests a two-way interaction between the child and the parents, and between the individual and the societal systems. Like how the parents' behavior affects the child, the child can also affect the parent with their behavior. Similarly, depending on how rejecting or accepting the parents tend to be in a society, many facets of living seem to shape accordingly, and they shape the families and individuals in return. One example given is that in societies with rejecting parents, the content of their supernatural beliefs (God, gods, spirits, etc.) includes more malevolent figures and attitudes. Conversely, in societies with more accepting parents the content of supernatural beliefs includes more benevolent figures. In return, these shape the behavior of the individual.

1.3.2 The Warmth Dimension

In PARTheory (Rohner, 1986) warmth dimension of parenting is made up of parental acceptance and rejection. As stated before, this is a dimension or continuum that every person can be placed upon as everyone has experienced it in one way or another from their caregivers. In PARTheory, the warmth dimension represents the quality of the emotional bond between the parents and the child. Parents can express their warmth and affection through verbal, physical, and symbolic behaviors. The two sides of this continuum are parental acceptance and rejection. The parental acceptance includes warmth, love, nurturance, support, and

care from the caregivers. Parental rejection is the absence or withdrawal of the said behaviors and affection.

Rohner and colleagues (2012) state that parents can display their warmth and affection to their child through physical or verbal behaviors such as hugging, caressing, kissing, praising, complimenting, saying nice things about them, etc. Additionally, they say that symbolic gestures such as culture-specific behaviors can also be a way of expressing parental acceptance. All of these and other supportive behaviors are representative of parental acceptance.

Research shows that parental rejection can be experienced cross-culturally in four categories: (1) Cold and unaffectionate, (2) hostile and aggressive, (3) indifferent and neglecting, and (4) undifferentiated rejection (Rohner, 1986; Rohner et al. 2012). When parents withhold their love, warmth, affection for the child, they are cold and unaffectionate. If parents act on feelings such as hostility, enmity or anger, the resulting behavior is called aggression. PARTheory construes aggression to be behaviors that are intended to physically or emotionally hurt the recipient. These behaviors can be verbal (swearing, shouting, saying humiliating things to the child, etc.) or physical (hitting, pushing, throwing things, etc.). Within PARTheory, unlike the direct link between hostility and aggression, the connection between indifference as an internal motivator and neglect as a behavioral outcome is not as clear since negligence can happen due to a variety of reasons that are not motivated by indifference. An example would be a parent neglecting a child in order not to lash out when angry. Additionally, neglecting behavior includes not attending to the child's social and emotional needs as well as their material and physical needs. For example, a neglecting parent could be not addressing the child's need for attention, comfort, or solace. It is also neglecting for a parent to be physically and/or psychologically be unresponsive to their child. Whether real or perceived, all of these behaviors could induce feelings of rejection and be unloved in a child.

It should be noted that PARTheory addresses both the individual's subjective experience of parental acceptance-rejection and the objectively observable acceptance-rejection behavior that one receives. They are reported to be

usually correlated, but in the event of a discrepancy between both, it is suggested to take the subjective experience of the individual as the basis for conclusions. (Rohner et al., 2012)

On this note, Rohner (1986) explains undifferentiated rejection as the individual's belief that the caregivers do not love or care about them, even though there may not be explicit, overt behaviors by the caregivers to support this belief. In the end, PARTheory studies and focuses on the individual's perception and recollection of how their parents treated them.

1.4 OCS AND PARENTING

The theories on the influence of parenting in the development of OCS go back to Freud (1908, 1909, 1926), and since then, research results on OCD have had inconsistent findings (Brander et al., 2016). Various parental attributes have been looked into in several studies throughout the years. Critical and overprotective parenting has been proposed to lead to an increased sense of responsibility and, in turn, lead to the development and maintenance of OCS (Salkovskis et al., 1999). Similar observations based on clinical experience that link such parenting to OCS have been made over the years (Gabbard, 2005; Mallinger, 1984; Salzman, 1980). Some studies have found such a relationship with OCD (Ehiobuche, 1988; Frost et al., 1994; Mahaffrey, 2009; Üncüer, 2015; Wilcox et al., 2008; Yamauchi et al., 2016; Yoshida et al., 2005). However, several other studies did not replicate these findings regarding parental overprotectiveness and OCD (Alonso et al., 2004; Vogel et al., 1997).

Another focus of the literature has been on parental rejection, which is also a central topic of this study, specifically maternal rejection. Recent research shows maternal rejection and criticism can cause emotional instability and degraded emotion regulation skills in adolescents (Bayindir et al., 2017; Mendo-Lázaro et al., 2019). Perceived parental rejection is related to various disorders and influence psychological adjustment (Akün, 2017). Concerning OCS, Nolan (2008) theorized that although the OCS develop later in life, its roots are in infancy and early

childhood. Citing how dependent an infant is to their caregiver, Nolan proposed that the increased activity in various mental components related to OCS emerged from a (perceived or real) impinging early environment as a survival mechanism and progressed to the onset of OCS and an inability to self-soothe (hence the repetitive nature of the compulsions). Studies on parental rejection and OCD found paternal rejection to be influential (Alonso et al., 2004; Lennertz et al., 2010). Parental rejection involving both parents has also been reported to be influential in other studies. In a cross-cultural study, Ehiobuche (1988) found OCS related to a higher degree of parental rejection and less parental care. Ivarsson and colleagues (2015) found similar results but considered that the prevalent depression comorbidity could be attributed to a significant part of this relationship. Conversely, some studies did not find an association between parental rejection and OCD (Aycicegi et al., 2002). In a qualitative study interviewing OCD patients, Mulhall and colleagues (2019) found a common theme: The patients had struggled to handle parental turmoil and excessive parental criticism during their childhood. When assessed together with newer findings in trauma and OCD, which show being exposed to indirect trauma (Pinciotti et al., 2021), witnessing parental turmoil as a child could be linked to such experiences.

Twin studies indicate that genetic and non-shared environmental factors (such as trauma), rather than shared environmental factors (received parenting style), to be more critical (Taylor, 2011). However, Mataix-Cols and colleagues (2013) note that twin studies often underestimate how family rearing can also be considered a non-shared factor as each twin can experience the same parenting differently. Yamauchi and colleagues (2016) postulate that the indirect effect of maternal rearing on OCS could exist by shaping the child's emotional attributes contributing to the symptom development. In conclusion, there is much to discover and understand about OCS.

1.5 THIS STUDY

OCD is a very complex disorder with a complicated history with ongoing debates. The first purpose of this study was to explore the relationship between OCS, trait anger, anger expression, and maternal acceptance-rejection in a Turkish-speaking adult population. The second aim of this study was to understand whether perceived maternal acceptance-rejection and anger expression predict OCS. Finally, the question of whether trait anger mediates the relationship between maternal acceptance-rejection and OCS was explored in this study.

The research questions were as follows:

A. Do OCS (Contamination, Checking, Obsessions, Just Right, Hoarding, Indecisiveness), Trait Anger, anger expression (Anger/In, Anger/Out, Anger/Control), and perceived maternal acceptance-rejection (M-Warmth, M-Aggression, M-Neglect, M-Undifferentiated Rejection) relate to each other?

B. Do perceived maternal acceptance-rejection (M-Warmth, M-Aggression, M-Neglect, M-Undifferentiated Rejection) and anger expression (Anger/In, Anger/Out, Anger/Control; Trait-Anger) predict OCS?

C. Does anger expression mediate the relationship between maternal acceptance-rejection (M-Warmth, M-Aggression, M-Neglect, M-Undifferentiated Rejection) and OCS?

The hypotheses were as follows:

Hypothesis 1: Trait Anger and anger expression (Anger/In, Anger/Out, Anger/Control, Anger Expression) will be correlated with VOCI factors (Contamination, Checking, Obsessions, Just right, Hoarding, Indecisiveness).

1.a. Trait Anger and Anger/In will have a stronger positive relationship with Checking, Obsessions, Just Right, Hoarding, and Indecisiveness.

1.b. Anger/Control will be negatively correlated with VOCI factors.

1.c. Checking, Obsessions, Just Right will have a stronger relationship with Trait Anger and Anger Expression.

Hypothesis 2: Maternal Rejection will have a positive relationship with VOCI factors.

Hypothesis 3: Trait Anger and Anger Expression will predict VOCI factors.

Hypothesis 4: Maternal Rejection will predict VOCI factors.

Hypothesis 5: Trait Anger will mediate the relationship between maternal rejection with VOCI factors.

CHAPTER 2

METHOD

2.1 Participants

All individuals age 18 and over were eligible to participate in the study. The participants were found by delivering the instruments via an online survey platform to collect data through e-mail and social media platforms. In total 392 participants attended the study voluntarily.

A total number of 425 participants from Turkey completed the survey on a voluntary basis, of which after initial screening for missing data and outliers 392 participants (300 female [76.5%], 92 male [23.5%]) made up the sample. Their ages ranged between 18 and 69 (M = 33.31, SD = 12.808). Table 2.1 includes the descriptive statistics of the study sample's age. The majority of the participants considered their mother to be their primary caregiver ("346" mother to 9 "father" and 37 "other" which included answers such as grandmother, sibling, and caretaker). This was congruent with the literature (Moore et al., 2017). The demographic information of the study sample can be seen in Table 2.2.

Table 2.1 *Descriptive Statistics of the Sample - Age*

	N	Mean	Median	SD	Min-Max	Skewness	Kurtosis
Age	392	33.31	28	12.808	18-69	1.205	.528

Table 2.2 *Demographic Information of the Participants*

		N	%
Sex	Female	300	76.5
	Male	92	23.5
Marital Status	Single	272	69.4
	Married	95	24.2
	Divorced/Widowed	25	6.4
Education Level	Highschool Degree	71	18.2
	Undergraduate Degree	192	49.2
	Graduate Degree or Doctorate	127	32.4
Studying status	Studying	154	39.3
	Not Studying	238	60.7
Work Status	Employed	229	58.7
	Unemployed	163	41.3
Household Income	Below 1000 TL	3	.8
	Between 1000-2000 TL	19	4.8
	Between 2000-4000 TL	53	13.5
	Between 4000-7000 TL	120	30.5
	Above 7000 TL	197	50.3
Primary Caregiver	Mother	346	88.3
	Father	9	2.3
	Other	37	9.4

2.2 Instruments

All instruments were administered through the Survey Monkey website. After agreeing to the provided informed consent form (Appendix A), the participants filled out three different questionnaires and a demographic information form at the end. The questionnaires were the Turkish versions of the Adult Parental Acceptance-Rejection Questionnaire – Short Form (PARQ/SF) (short form, mother form only), State-Trait Anger Expression Inventory (STAXI), Vancouver Obsessive-Compulsive Inventory (VOCI).

2.2.1 Demographic Information Form

The demographic information form (Appendix E) includes questions regarding the age, gender, level of education, working status, amount of people living in the household, household income, sibling amount, who the primary caregiver was, whether they had someone with obsessive-compulsive disorder in their family.

2.2.2 The Adult Parental Acceptance-Rejection Questionnaire – Short Form (Adult PARQ/SF)

The Parental Acceptance-Rejection Questionnaire (PARQ) (Appendix B) was developed by Rohner and colleagues (1978) to assess the perceived parental acceptance-rejection of the individual. PARQ has two forms, one for children and the other for adults (Rohner, 2005). The adult version is used to assess adult participant's recollections of their childhood experiences with their parents. As such, the items use past tense instead of the present tense that is used in the child version. Two forms with identical questions are administered, one for the mother, one for the father. Due to the scope of this study, only the short version of the mother form (PARQ/SF Mother form) was used. It consists of 24 items rated on a 4-point Likert scale for each parent and scored as "almost always true" (4 points), "sometimes true" (3 points), "rarely true" (2 points), "almost never true" (1 point). It has four subscales: (1) warmth and affection (M-Warmth; 8 items) or coldness when reverse-scored, (2) hostility and aggression (M-Aggression; 6 items), (3)

indifference and neglect (M-Neglect; 6 items), and (4) undifferentiated rejection (M-Undiff Rej.; 4 items). Items under M-Warmth are reverse-coded and then added with the other subscales for a composite scale showing total rejection levels (M-Rejection). Higher scores indicate a higher rejection level. The scores range from 24 (highest possible acceptance from parent) to 96 (highest possible rejection from parent).

The Turkish adaptation of the short form was made by Dedeler and colleagues (2017). Cronbach's alpha coefficients of the subscales in the mother form of the Adult PARQ have been found to be between 0.75 and 0.92. The validity was reported to be satisfactory. In this study the Cronbach's alpha coefficients were found to be .949 for the full scale, .926 for the M-Warmth, .854 for M-Aggression, .813 for M-Neglect, .820 for M-Undiff. Rej.

2.2.3 The State-Trait Anger Expression Inventory (STAXI)

The STAXI (Appendix C) is a self-report questionnaire that was developed by Spielberger and colleagues (1988) designed to assess the individual's experience, expression, and control of anger. The original measure consists of three scales: (1) state anger, (2) trait anger, and (3) expression of anger. However, the Turkish adaptation by Özer (1994) that is used in this study does not include the state anger scale. In the Turkish adaptation of the inventory, there are 34 items in total rated on a 4-point Likert scale and scored as "almost never" (1 point), "sometimes" (2 points), "often" (3 points), "almost always" (4 points). Trait anger (T-Anger) consists of 10 items. Expression of anger consists of three subscales with scores ranging from 8 to 32 and a composite scale with a score ranging from 0 to 72. It has 24 items in total: (1) Control of anger (Anger/Control, 8 items), (2) anger directed outside (Anger/Out, 8 items), (3) anger directed inside (Anger/In, 8 items) and (4) Anger Expression. T-Anger shows the general tendency to be angry in situations, and higher points mean a higher predisposition to be angry. Anger/In shows the degree of how much anger is suppressed. Anger/Out indicates the degree to how much anger is outwardly expressed through verbal and motor behavior such as shouting or breaking objects. Anger/Control shows how much one attempts to

control their anger. The composite scale called Anger Expression shows the overall anger expressed, whether inward or outward. It is determined by subtracting Anger/Control from the sum of the scores of Anger/In and Anger/Out.

The Cronbach's alpha coefficients for the original scale were reported to be .86 for T-Anger, .73 for Anger/In, .82 for Anger/Out, .79 for Anger/Control. The Cronbach's alpha coefficients for the Turkish adaptation by Özer (1994) were reported to be between .67 and .92. In this study, Cronbach's alpha coefficients were .799 for the full scale, .850 for T-Anger, .774 for Anger/In, .819 for Anger/Control, .682 for the Anger Expression composite scale.

2.2.4 The Vancouver Obsessive-Compulsive Inventory (VOCI)

The VOCI (Appendix D) is a self-report questionnaire developed by Thordarson and colleagues (2004), and the latest adaptation to Turkish was by İnözü and colleagues (2013) that was designed to assess a wide range of OCD symptoms. It consists of 55 items rated on a 5-point Likert scale ("Not at all" = 0, "Very much" = 4). It has six subscales: (1) Contamination (12 items), (2) checking (6 items), (3) obsessions (12 items), (4) hoarding (7 items), (5) just right experiences (12 items) and (6) indecisiveness (6 items). Each item is scored 0 to 4. This makes the minimum and maximum scores for each item: Contamination 0-48, checking 0-24, obsessions 0-48, hoarding 0-28, just right experiences 0-48, and indecisiveness 0-24.

In the original scale, Cronbach's alpha coefficients were reported to be .94 for the full scale, .92 for Contamination, .96 for Checking, .88 for Obsessions, .92 for Hoarding, .89 for Just Right, and .85 for Indecisiveness. In the latest measurement of psychometric properties for the Turkish adaptation the Cronbach's alpha coefficients were reported to be .97 for the full scale, .91 for Contamination, .92 for Checking, .87 for Obsessions, .82 for Hoarding, .89 for Just Right, and .85 for Indecisiveness (Boysan et al. 2015). In this study, the Cronbach's alpha coefficients were found to be .96 for the full scale, .90 for Contamination, .92 for

Checking, .84 for Obsessions, .89 for Hoarding, .87 for Just Right, and .81 for Indecisiveness.

2.3 Procedure

The necessary permissions for this study were obtained from the ethics committee of Istanbul Bilgi University. The instruments were delivered via the online survey platform Survey Monkey to collect data from voluntary participants through e-mail groups and social media platforms. Participants were initially provided an informed consent form (Appendix A) detailing participation requirements, confidentiality, and the aim of the study. Participants who agreed to the conditions were asked to fill the study scales: VOCI, STAXI, Adult PARQ/SF Mother Form. The scales were counterbalanced for each participant in order to avoid the order effect. After completing the questionnaires, participants were asked to fill the demographic information form. Identifying information was not asked at any point of the study. It took between 15-20 minutes to finish the questionnaires. The data was collected between January 30th, 2020 and, March 5th, 2020.

2.4 Data Analyses

In this study, the dependent variables are the factors of the VOCI: Contamination, checking, obsessions, just right, hoarding, and Indecisiveness. The independent variables are the factors of STAXI and PARQ/SF Mother Form: Trait Anger, Anger/In, Anger/Out, Anger/Control, Anger Expression, M-Warmth, M-Aggression, M-Neglect, M-Undifferentiated Rejection (M-Undiff. Rej.), and M-Rejection. STAXI factors are also selected as mediators in mediation analyses.

Using SPSS software version 25, the preliminary analyses, Pearson correlation, and Stepwise Regression analyses were conducted. Further mediation analyses to investigate the effects of maternal rejection on OCS and with Trait Anger as a mediator were conducted using SPSS AMOS version 22.

CHAPTER 3

RESULTS

This chapter includes the preliminary analyses, correlations, and other statistical tests related to the hypotheses and corresponding tables.

3.1 Preliminary Analyses

The preliminary analyses were conducted to assess the reliability of the scales, descriptive statistics of the variables and their correlations, and checking for assumptions for further statistical testing. See Table 3.1 for the reliability coefficients of the study scales and their subscales. All correlation coefficients were satisfactory, indicating that the scales were internally consistent.

Additionally, correlation analysis was conducted to assess how the subscales of each scale were related to each other. See Table 3.2, Table 3.3, and Table 3.4 for the results, followed by brief explanations of each table. In stepwise regression and mediation analyses, the factors of scales with correlation coefficients above the value of '.7' have been selectively entered to prevent multicollinearity. These variables have been indicated in Section 3.3.

Table 3.1 *Reliability Coefficients of the Study Scales*

Scales/Subscales	*A*
PARQ/SF Mother Form Total Score/M-Rejection	.949
M-Warmth	.926
M-Aggression	.854
M-Neglect	.811
M-Undiff. Rej.	.820
STAXI Total	.799
Trait Anger	.850
Anger/In	.773
Anger/Out	.722
Anger/Control	.819
Anger Expression Composite Scale	.681
VOCI Total	.962
Contamination	.908
Checking	.928
Obsessions	.848
Hoarding	.890
Just Right	.877
Indecisiveness	.810

Table 3.2 *Correlations among the PARQ/SF Mother Form factors*

	M-Warmth	M-Aggression	M-Neglect	M-Undiff. Rej.	M-Rejection
M-Warmth	1	-.537**	-.707**	-.613**	-.895**
M-Aggression	-.537**	1	.566**	.708**	.787**
M-Neglect	-.707**	.566**	1	.636**	.859**
M-Undiff. Rej.	-.613**	.708**	.636**	1	.835**
M-Rejection	-.895**	.787**	.859**	.835**	1

*$p < 0.05$, **$p < 0.01$

The Table 3.2 includes the correlations of PARQ/SF Mother Form factors with each other. This was done in order to identify possible multicollinearity among the factors with correlations above .7 or below -.7. Being a composite scale, M-Rejection was highly correlated with every factor of the scale. Among the subscales, M-Warmth was highly correlated in a negative direction with M-Neglect. M-Aggression was highly correlated with M-Undifferentiated Rejection.

Table 3.3 *Correlations among the STAXI factors and Age*

	T-Anger	Anger/IN	Anger/OUT	Anger/CONTROL	Anger Expression
Age	-.184**	-.117*	-.112*	.123*	-.159**
T-Anger	1	.452**	.696**	-.521**	.741**
Anger/IN	.452**	1	.425**	-.114*	.719**
Anger/OUT	.696**	.425**	1	-.450**	.817**
Anger/CONTROL	-.521**	-.114*	-.450**	1	-.692**

*$p < 0.05$, **$p < 0.01$

Table 3.3 includes the correlations of STAXI factors with each other and age factor. This was done in order to identify possible multicollinearity among the factors with correlations above .7 or below -.7 and to demonstrate the relationship of age with anger and anger expression. Overall, age had a significant relationship in a negative direction with all the STAXI factors except Anger/Control, with which it had a significant relationship in a positive direction. Being a composite scale, Anger Expression was highly correlated with all other STAXI factors. Among the subscales, T-Anger was highly correlated with Anger/Out.

Table 3.4 *Correlations among the VOCI factors*

	Contamination	Checking	Obsessions	Just Right	Hoarding	Indecisiveness
Contamination	1	.563**	.590**	.563**	.418**	402**
Checking	.563**	1	.601**	.691**	.500**	.522**
Obsessions	.590**	.601**	1	.743**	.612**	.585**
Just Right	.563**	.691**	.743**	1	.644**	.761**
Hoarding	.418**	.500**	.612**	.644**	1	.585**
Indecisiveness	.402**	.522**	.585**	.761**	.585**	1

*$p < 0.05$, **$p < 0.01$

The Table 3.4 includes the correlations of VOCI factors with each other. Since these factors represented the dependent variables, multicollinearity was not a concern. However, for the interpretation of the results their correlations with each other were

valuable for better understanding of the results. They were all significantly correlated with each other, however some of the factors had stronger correlations with each other. Specifically Just Right had the strongest correlations with Indecisiveness, Obsessions, and Checking.

3.1.1 Descriptive Statistics of the Study Variables

Descriptive analyses of the PARQ/SF Mother Form, STAXI, and VOCI are shown in Table 3.5, Table 3.6, and Table 3.7, followed by a brief explanation of each table. Mean, median, standard deviation, minimum-maximum score, skewness, and kurtosis data are displayed. It should be noted that within the VOCI factors, checking and hoarding have leptokurtic kurtosis with extremely low mean and median values. Considering they are measurements of clinical symptoms administered to a sample of the non-clinical, general population, the scores were expected to be low. Similar results were reported in the testing of the original scale (Thordarson et al., 2004). Therefore they were kept for future analyses but this should be taken into consideration when interpreting the results of this study.

Table 3.5 *Descriptive Analyses for the PARQ/SF Mother Form*

Measures	N	Mean	Median	SD	Min-Max	Skewness	Kurtosis
M-Warmth	392	22.61	24	5.110	7-28	-.927	.693
M-Aggression	392	6.53	6	2.819	4-16	1.228	.848
M-Neglect	392	7.90	7	3.185	5-20	1.246	1.012
M-Undiff. Rej.	392	5.81	5	2.637	4-16	1.804	2.736
M-Rejection	392	32.64	29	11.727	20-72	1.191	.713

Table 3.5 shows the results for the descriptive analyses of the PARQ/SF Mother Form factors. The values of mean, median, standard deviation, minumum-maximum score, skewness, and kurtosis can be seen.

Table 3.6 *Descriptive Analyses for the STAXI and Age Variable*

Measures	N	Mean	Median	SD	Min-Max	Skewness	Kurtosis
Age	392	33.31	28	12.808	18-69	1.205	.528
T-Anger	392	20.35	20	5.218	10-40	.778	.693
Anger/In	392	17.32	17	4.246	8-30	.401	-.101
Anger/Out	392	14.91	14	3.429	9-30	.908	1.127
Anger/Control	392	22.80	23	3.881	12-32	-.048	-.127
Anger Expression	392	25.43	25	8.542	5-52	.286	-.367

Table 3.6 shows the results for the descriptive analyses of the STAXI factors. The values of mean, median, standard deviation, minimum-maximum score, skewness, and kurtosis can be seen.

Table 3.7 *Descriptive Analyses for the VOCI*

Measures	N	Mean	Median	SD	Min-Max	Skewness	Kurtosis
Contamination	392	9.68	8	8.346	0-44	1.048	.786
Checking	392	4.40	3	5.024	0-24	1.787	3.458
Obsessions	392	8.53	7	6.919	0-43	1.238	1.984
Just Right	392	12.55	11	8.215	0-41	1.015	.839
Hoarding	392	4.00	2	4.800	0-26	1.901	4.230
Indecisiveness	392	6.79	6	4.464	0-20	.799	.246

Table 3.7 shows the results for the descriptive analyses of the VOCI factors. The values of mean, median, standard deviation, minimum-maximum score, skewness, and kurtosis can be seen. As mentioned previously, checking and hoarding were found to have very low mean and median values, and their kurtosis values were too

high. This indicated the presence of a leptokurtic kurtosis. It should be considered in the interpretation of the results.

3.2 Correlational Analyses of the Study Variables

Pearson correlation was conducted to examine the correlations among age, OCS, trait anger, anger expression, and maternal acceptance-rejection. For exploratory purposes, age was added to the analyses. The correlations between the measure factors can be seen below in Table 3.8 and Table 3.9.

Table 3.8 *Correlations of the VOCI factors with the STAXI and PARQ/SF Mother Form factors and Age*

	Contam.	Checking	Obsessions	Just Right	Hoard.	Indecisiveness
Age	-.104*	-.138**	-.299**	-.246**	-.126*	-.331**
Trait Anger	.257**	.267**	.434**	.358**	.316**	.314**
Anger Expression	.188**	.251**	.406**	.349**	.321**	.353**
Anger/IN	.144**	.187**	.358**	.377**	.313**	.462**
Anger/OUT	.123*	.224**	.282**	.289**	.250**	.213**
Anger/Control	-.148**	-.149**	-.224**	-.101*	-.144**	-0.083
M-Warmth	0.048	-0.001	-0.041	-0.040	-0.051	-.132**
M-Aggression	0.079	0.052	0.069	0.054	0.046	0.064
M-Neglect	.112*	.109*	.148**	.142**	.128*	.159**
M-Undiff. Rej.	0.054	0.038	0.096	0.054	0.064	0.081
M-Rejection	0.041	0.051	0.096	0.081	0.082	.134**

*$p < 0.05$, **$p < 0.01$

As shown in Table 3.8, with the exception of the relationship between Anger/Control and Indecisiveness, trait anger and anger expression factors had weak to moderate correlations with all VOCI factors. Anger/Control had a negative relationship with all VOCI factors except indecisiveness, whereas T-Anger and anger expression factors had positive relationships. Within the maternal acceptance-

rejection factors, M-Neglect had weak correlations in a positive direction with all VOCI factors. It was also observed that maternal rejection had a weak correlation in a positive direction with indecisiveness. In the opposite direction, this was shared by M-Warmth. However, as it can be seen in Table 3.2, M-Warmth and M-Rejection almost had a perfect correlation in a negative direction. As such, their results are expected always to be similar. Age had a negative relationship with all VOCI factors at weak levels.

Table 3.9 *Correlations of the STAXI factors with PARQ/SF Mother form factors and Age*

	T-Anger	Anger/IN	Anger/OUT	Anger/CONTROL	Anger Expression
Age	-.184**	-.117*	-.112*	-.123*	-.159**
M-Warmth	-.149**	-.162**	-.105*	0.079	-.158**
M-Aggression	.165**	0.053	.135**	-.128*	.138**
M-Neglect	.109*	0.099	0.043	-.104*	.114*
M-Undiff. Rej.	.152**	0.070	0.071	-0.057	.089
M-Rejection	.168**	.126*	.106*	-.106*	.153**

*$p < 0.05$, **$p < 0.01$

3.3 Exploring the Predictors of VOCI Factors

Stepwise regression analyses were conducted with each VOCI factor (Contamination, Checking, Obsessions, Just Right, Hoarding, Indecisiveness) as dependent variables. The selected independent variables were Trait Anger, Anger/In, Anger/Control, M-Neglect and M-Aggression. Anger/Out and Anger Expression were left out of further analyses to prevent multicollinearity as they were highly correlated to other variables (Table 3.3 shows the STAXI factor correlations). M-Neglect and M-Aggression were selected above the other

PARQ/SF Mother Form variables to prevent multicollinearity and improved precision over the composite scale (Table 3.2 shows the PARQ/SF Mother Form factor correlations). Age and sex variables were added to the regression analysis as control variables. Each variable was mean-centered before proceeding with the stepwise regression analyses. Additionally, the mediating effect of Trait Anger on the significant relationship between Maternal Acceptance-Rejection and VOCI factors was explored.

3.3.1 Predicting Contamination

The model summary and the coefficient values of the regression analysis for contamination can be seen below in Table 3.10 and Table 3.11. The results indicate that trait anger and sex make up 7.6% of the variance in contamination. Among the model predictors, T-Anger is the strongest predictor with a standardized Beta value of .254. Sex has a standardized Beta value of .101. Maternal acceptance-rejection was not found to be a significant factor for Contamination.

Table 3.10 *Stepwise Regression Analysis Model Summary of Contamination*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.257 [a]	.066	.063	8.077	.066	27.468	1	390
2	.276 [b]	.076	.071	8.043	.010	4.326	1	389

[a]Predictors: (Constant), Trait Anger

[b]Predictors: (Constant), Trait Anger, Sex

Table 3.11 *Coefficients of the Stepwise Regression of Contamination*

	B	SE		t.	Sig.
(Constant)	-1.532	.839		-1.827	.069
T-Anger	406	.078	.254	5.210	.000
Sex	1.994	.959	.101	2.080	.038

3.3.2 Predicting Checking

As previously mentioned, in this study checking data had leptokurtic kurtosis with extremely low mean and median scores indicating non-normal data. As this was expected from a measurement of clinical symptoms with a sample from a general population, the analyses were conducted, but this should be taken into consideration when interpreting the results. The model summary and the coefficient values of the regression analysis for checking can be seen below in Table 3.12 and Table 3.13. The results indicate that trait anger makes up 7% of the variance in checking. T-Anger is the only predictor with a standardized Beta value of .267. Maternal acceptance-rejection factors were not found to be a significant factor for Checking. Therefore, mediation analyses were not conducted.

Table 3.12 *Stepwise Regression Analysis Model Summary of Checking*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.267 [a]	.071	.069	4.848	.071	29.830	1	390

[a]Predictors: (Constant), Trait Anger

Table 3.13 *Coefficients of the Stepwise Regression of Checking*

	B	SE		t.	Sig.
(Constant)	-.001	.245		-.003	.998
T-Anger	.257	.047	.267	5.462	.000

3.3.3 Predicting Obsessions

The model summary and the coefficient values of the regression analysis for Obsessions can be seen below in Table 3.14 and Table 3.15. The results indicate that trait anger, age, anger/in, and M-Neglect make up 28.9% of the variance in obsessions. Among the significant predictors of the model, T-Anger is the strongest predictor with a standardized Beta value of .282. Age is the second predictor with a standardized Beta value of -.223, indicating a negative predicting relationship for

Obsessions. Anger/In is the third predictor with a standardized Beta value of .221. Lastly, M-Neglect is a predictor with a standardized Beta value of .099.

Table 3.14 *Stepwise Regression Analysis Model Summary of Obsessions*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.434 [a]	.188	.186	6.234	.188	90.261	1	390
2	.488 [b]	.238	.234	6.056	.050	25.418	1	389
3	.528 [c]	.279	.273	5.898	.041	22.171	1	388
4	.537[d]	.289	.281	5.866	.010	5.218	1	387

[a]Predictors: (Constant), Trait Anger

[b]Predictors: (Constant), Trait Anger, Age

[c]Predictors: (Constant), Trait Anger, Age, Anger/In

[d]Predictors: (Constant), Trait Anger, Age, Anger/In, M-Neglect

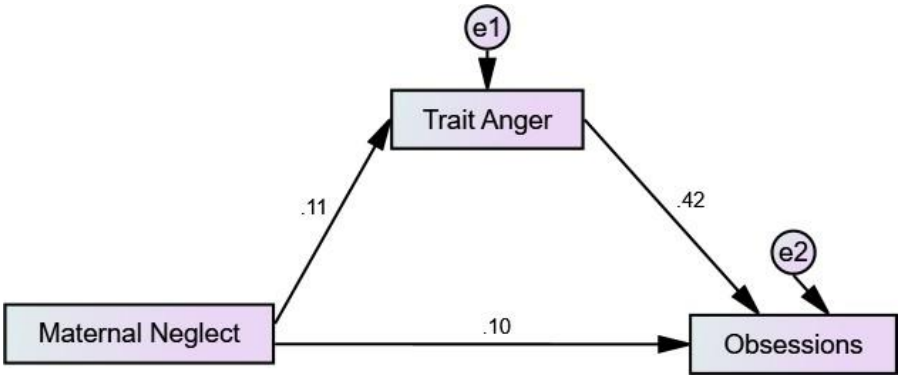
Table 3.15 *Coefficients of the Stepwise Regression of Obsessions*

	b	SE	¯	t.	Sig.
(Constant)	-.002	.296		-.007	.995
T-Anger	.373	.065	.282	5.776	.000
Age	-.120	.024	-.223	-5.101	.000
Anger/In	.361	.079	.221	4.595	.000
M-Neglect	.215	.094	.099	2.284	.023

Since maternal neglect was found to be a significant predictor of Obsessions, mediation analyses were conducted using structural equation modeling with Trait Anger as mediator. The model with the standardized estimates can be seen below in Figure 3.1. The model showed that Trait Anger partially mediated the relationship between M-Neglect and Obsessions (Standardized Total Effect = .148; Standardized Direct Effect = .102; Standardized Indirect Effect = .046), and the indirect effect was found to be statistically significant ($p < .05$), albeit at a low level.

The significance of the mediation was tested via bootstrapping. The standardized indirect effects were computed with 2000 bootstrap samples with the bias-corrected 90% confidence interval.

Figure 3.1 *The path model with the standardized factor loadings for Obsessions*



3.3.4 Predicting Just Right

The model summary and the coefficient values of the regression analysis for Just Right can be seen below in Table 3.16 and Table 3.17. The results indicate that Anger/In, Trait Anger, Age, and M-Neglect make up 22.6% of the variance in Just Right. Among the significant predictors of this model, Anger/In is the strongest predictor with the standardized Beta value of .256. T-Anger is the second predictor with a standardized Beta value of .199. Age is the third predictor with a standardized Beta value of -.181, indicating a negative predicting relationship with Just Right. Lastly, M-Neglect is a predictor with a standardized Beta value of .098.

Table 3.16 *Stepwise Regression Analysis Model Summary of Just Right*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.377 [a]	.142	.140	7.680	.128	64.454	1	390
2	.432 [b]	.186	.158	7.540	.034	21.240	1	389
3	.465 [c]	.216	.168	7.495	.012	14.958	1	388
4	.475[d]	.226	.218	7.266	.009	4.689	1	387

[a]Predictors: (Constant), Anger/In

[b]Predictors: (Constant), Anger/In, Trait Anger

[c]Predictors: (Constant), Anger/In, Trait Anger, Age

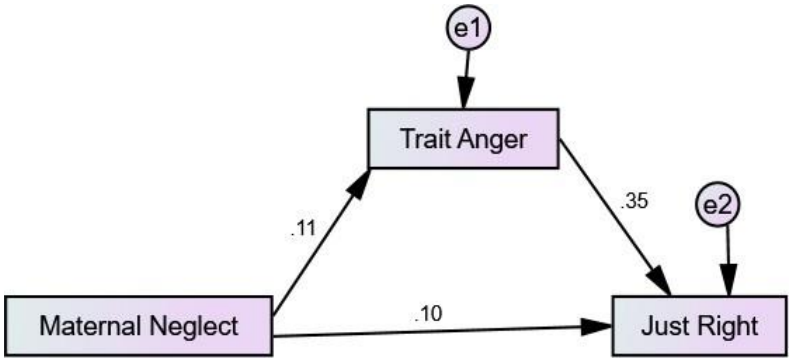
[d]Predictors: (Constant), Anger/In, Trait Anger, Age, M-Neglect

Table 3.17 *Coefficients of the Stepwise Regression of Just Right*

	b	SE		t.	Sig.
(Constant)	-.008	.367		-.022	.982
Anger/In	.495	.097	.256	5.090	.000
T-Anger	.313	.080	.199	3.906	.000
Age	-.116	.029	-.181	-3.967	.000
M-Neglect	.252	.116	.098	2.165	.031

As maternal neglect was found to be a significant predictor of Just Right, mediation analyses were conducted using structural equation modeling with Trait Anger as mediator. The model with the standardized estimates can be seen below in Figure 3.2. The model showed that Trait Anger partially mediated the relationship between M-Neglect and Just Right (Standardized Total Effect = .142; Standardized Direct Effect = .104; Standardized Indirect Effect = .038), and the indirect effect was found to be statistically significant ($p < .05$), albeit at a low level. The significance of the mediation was tested via bootstrapping. The standardized indirect effects were computed with 2000 bootstrap samples with the bias-corrected 90% confidence interval.

Figure 3.2 *The path model with the standardized factor loadings for Just Right*



3.3.5 Predicting Hoarding

As previously mentioned, in this study, hoarding data had leptokurtic kurtosis with extremely low mean and median scores indicating non-normal data. As this was expected from a measurement of clinical symptoms with a sample from a general population, the analyses were conducted, but this should be taken into consideration when interpreting the results. The model summary and the coefficient values of the regression analysis for Hoarding can be seen below in Table 3.18 and Table 3.19. The results indicate that Trait Anger and Anger/In make up 13.6% of the variance in Hoarding. T-Anger and Anger/In demonstrate close prediction power for Hoarding with standardized Beta values of .219 and .214, respectively. Maternal acceptance-rejection factors were not found to be a significant factor for Hoarding. Therefore, mediation analyses were not conducted.

Table 3.18 *Stepwise Regression Analysis Model Summary of Hoarding*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.316 [a]	.100	.097	4.560	.100	43.240	1	390
2	.369[b]	.136	.132	4.472	.036	16.429	1	389

[a]Predictors: (Constant), Trait Anger

[b]Predictors: (Constant), Trait Anger, Anger/In

Table 3.19 *Coefficients of the Stepwise Regression of Hoarding*

	b	SE		t.	Sig.
(Constant)	-.002	.226		-.008	.993
T-Anger	.202	.049	.219	4.147	.000
Anger/In	.242	.060	.214	4.053	.000

3.3.6 Predicting Indecisiveness

The model summary and the coefficient values of the regression analysis for Indecisiveness can be seen below in Table 3.20 and Table 3.21. The results indicate that Anger/In, age and M-Neglect make up 30% of the variance in Indecisiveness. Among the significant predictors of the model, Anger/In is the strongest predictor with a standardized Beta value of .416. Age is the second predictor with a standardized Beta value of -.284, indicating a negative predicting relationship with indecisiveness. Lastly, M-Neglect is a predictor with a standardized Beta value of .122.

Table 3.20 *Stepwise Regression Analysis Model Summary of Indecisiveness*

Model	R	R^2	Adj. R^2	SE of the estimate	R^2 Change	F Change	df1	df2
1	.462[a]	.213	.211	3.965	.213	105.663	1	390
2	.539[b]	.291	.287	3.769	.078	42.598	1	389
3	.553[c]	.306	.300	3.734	.015	8.207	1	388

[a]Predictors: (Constant), Anger/In

[b]Predictors: (Constant), Anger/In, Age

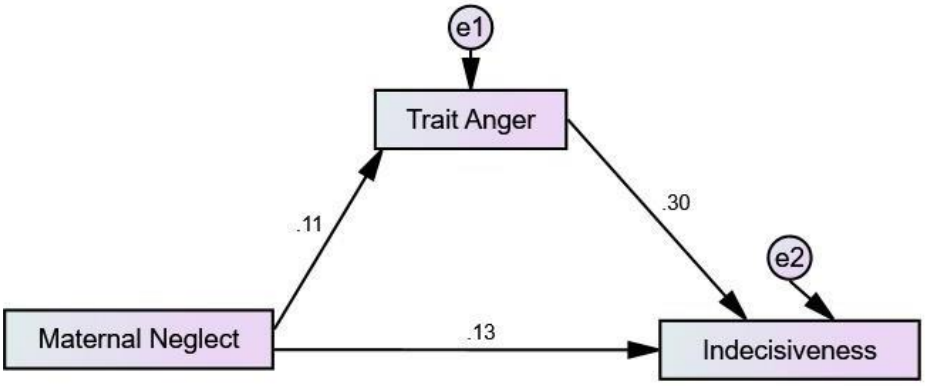
[c]Predictors: (Constant), Anger/In, Age, M-Neglect

Table 3.21 *Coefficients of the Stepwise Regression of Indecisiveness*

	B	SE		t.	Sig.
(Constant)	-.004	.189		-.021	.984
Anger/In	.438	.045	.416	9.721	.000
Age	-.099	.15	-.284	-6.663	.000
M-Neglect	.171	.060	.122	2.865	.004

As maternal neglect was found to be a significant predictor of Indecisiveness, mediation analyses were conducted using structural equation modeling with Trait Anger as mediator. The model with the standardized estimates can be seen below in Figure 3.3. The model showed that Trait Anger partially mediated the relationship between M-Neglect and Indecisiveness (Standardized Total Effect = .159; Standardized Direct Effect = .126; Standardized Indirect Effect = .033), and the indirect effect was found to be statistically significant ($p < .05$), albeit at a low level. The significance of the mediation was tested via bootstrapping. The standardized indirect effects were computed with 2000 bootstrap samples with the bias-corrected 90% confidence interval.

Figure 3.3 *The path model with the standardized factor loadings for Indecisiveness*



3.4 Summary of the Results

The correlational statistical analyses revealed that OCS, in general, were significantly related to trait anger and anger expression at low to moderate levels, confirming the first hypotheses. Trait anger had a particularly strong relationship in a positive direction with obsessions, whereas its weakest relationship was with contamination and checking. However, within the study factors, trait anger had the strongest relationship with contamination and checking compared to others. Among the anger expression factors, Anger/In had the strongest relationship in a positive direction with indecisiveness and the weakest with contamination and checking. Anger/Control had a significant relationship in a negative direction with all OCS except indecisiveness. Maternal rejection was only found to be significantly related to indecisiveness. However, among the maternal acceptance-rejection factors, maternal neglect was found to be significantly related to all OCS at low levels. Lastly, age had a significant relationship in a negative direction with all OCS at low to moderate levels.

Next, the statistical regression analyses were conducted for each OCS to explore the predictors. Age and sex were used as control variables. Contamination

was predicted by trait anger and sex. Checking was predicted by trait anger. Obsessions factor was predicted by trait anger, age, Anger/In, and maternal neglect. Just right factor was predicted by Anger/In, trait anger, age, and maternal neglect. Hoarding was predicted by trait anger and Anger/In. Indecisiveness was predicted by Anger/In, age, and maternal neglect. Overall trait anger and Anger/In were demonstrated to be moderate predictors in the models, whereas, within the maternal acceptance-rejection factors, only maternal neglect was demonstrated to be a weak predictor for OCS. The study model had the weakest predictive power for contamination and checking.

Mediation analyses showed that trait anger partially mediated the relationship of maternal neglect with Just Right, Obsessions, and Indecisiveness at a low level. A large part of the relationship existed due to the direct effect of maternal neglect.

CHAPTER 4

DISCUSSION

The central aim of this study was to investigate the relationship between OCS (including hoarding and indecisiveness), anger and its expression, and maternal acceptance-rejection in a sample of a general population from Turkey. Additionally, the mediating role of trait anger was checked in the significant relationship between maternal acceptance-rejection factors and VOCI factors. The following sections will be discussing how the analyses of this study relate to each other and past literature.

4.1 Discussion of the Main Findings

It should be mentioned that this study was conducted with a general population primarily showing subclinical levels of symptoms. The descriptive statistics of the VOCI factors (see Table 3.7) share similarities with the original scale's test group consisting of students (Thordarson et al., 2004). The exception, however, is that checking and hoarding factor means were particularly low with leptokurtic kurtosis. This should be taken into consideration when interpreting the results.

4.1.1 Correlation of Trait Anger, Anger Expression Factors, and Maternal Neglect with OCS

The first objective of this study was to investigate whether trait anger, anger expression, and maternal acceptance-rejection had a relationship with OCS. The first hypothesis was that trait anger, and anger expression would be positively correlated with OCS, with the exception of anger control. The correlation analyses revealed that trait anger and anger expression factors correlate with the dependent variables at variable degrees. Trait anger was found to be significantly related to all symptoms at weak to moderate levels. Trait anger was demonstrated to have the strongest relationship with obsessions and just right. The weakest relationship was found to be with contamination and checking, albeit still significant. As per past literature (Whiteside & Abramowitz, 2004; Radomsky et al., 2007) it was expected

that checking would have a stronger relationship with trait anger, but this was not the case with the current results. The exceptionally low mean score of checking in this sample has likely suppressed the results. It should also be mentioned that there has been conflicting evidence in the literature (Whiteside & Abramowitz, 2005) that failed to find a distinctively stronger relationship with checking.

Anger expression was found to be significantly related to every OCS at weak to moderate levels. The strongest relationship was demonstrated with obsessions, indecisiveness, and just right, meaning that these symptoms are associated with displaying more anger, whether inward or outward. Although significant, contamination had a particularly weaker relationship than other symptoms. Looking at the subscales, as was expected in the hypothesis, it was observed that anger suppression has a significant positive relationship with every OCS. Anger suppression had a particularly stronger relationship with indecisiveness followed closely by obsessions and just right. Considering suppressed anger is also associated with depressive symptoms (Spielberger & Reheiser, 2009) and that indecisiveness is thought to truly overlap with depression (Thordarson et al., 2004), a particularly stronger relationship between the two could be explained by this overlap. The other explanation in the literature is in the relationship of anger and perfectionism linked to checking, aggression obsessions, symptoms related to just right, and indecisiveness.

Anger control was found to have a significant negative relationship with all OCS except indecisiveness, and this finding suggests that overall the presence of OCS indicates lesser attempts at controlling anger. Considering indecisiveness is thought to truly overlap with depressive symptoms, it is possible that this is indicative of its distinct nature from other OCS. However, the just right dimension also had a lesser relationship with anger control compared to the other dimensions that had a significant relationship. This result is contrary to the findings of Whiteside and Abramowitz (2005, who reported ordering symptoms to have an increased negative relation controlling anger compared to other OCS. This may be due to a difference of scales as Whiteside and Abramowitz used the OCI-R to

measure OCS and the STAXI-2 to measure anger expression, whereas this study used the VOCI and STAXI (as the STAXI-2 has not been adapted Turkish). STAXI-2 (Spielberger, 1999) improves upon the anger control scale by making a distinction between two anger control methods and divides the subscale into Anger Control Out (AC-O) and Anger Control In (AC-I). This distinction better explains whether the person only controls the outward expression of their anger or employs conscious anger management techniques and internally remains calm. Overall, these results support the first hypothesis.

The second hypothesis of this study was that maternal rejection would have a positive relationship with OCS. The composite scale of maternal rejection was only found to be significantly related to indecisiveness. However, when examining the subscales, maternal neglect was demonstrated to be significantly related to every OCS, albeit at low levels. It had the strongest relationship with indecisiveness, obsessions, and just right. As previously discussed, the literature on parental rejection has had mixed findings, and the results of this study also present mixed findings. Maternal neglect had a high negative correlation with maternal warmth, but only maternal neglect demonstrated a significant relationship with every OCS. It is possible that the difference in the number of questions between the two subscales could be affecting the results (9 questions of M-Warmth to 5 questions of M-Neglect). Moreover, as memory is known to be distortion-prone (Hyman & Loftus, 1993), it is possible that a self-report questionnaire asking the participants to recall their earlier childhood experiences with their mothers could be affected by recall bias. Some studies show that people tend to suppress negative memories and preserve positive feelings (Garcia-Bajos et al., 2017), which could mean that the request for the participants to recall their early childhood memories and the negatives could have proved to be too demanding. In the end, the second hypothesis was partially validated due to the significance of maternal neglect.

4.1.2 Predictors of OCS

The second objective of the study was to examine the predictors of each OCS. The third and fourth hypotheses corresponding to this objective were that OCS would be predicted by trait anger, anger expression, and maternal acceptance-rejection. Contamination was predicted by trait anger and sex. Checking was predicted by trait anger. Obsessions were predicted by trait anger, age, anger suppression, and maternal neglect. Just right was predicted by anger suppression, trait anger, age, and maternal neglect. Hoarding was predicted by anger suppression and trait anger. Indecisiveness was predicted by anger suppression, age, and maternal neglect. The study variables demonstrated the highest predictive power for indecisiveness, obsessions and just right. Consequently, these three symptoms shared predictors with the exception of trait anger which did not predict indecisiveness.

The study results demonstrate a few patterns. Firstly, trait anger and suppressed anger are the strongest predictors of the model. One or the other, if not both, had stronger predictive power than the other independent variables. Secondly, just right, indecisiveness, and obsessions repeatedly share correlations and predictors. When we examine Table 3.4 for correlations among VOCI variables, we can see that just right is highly correlated with both. Considering that the literature connects all of these symptoms through perfectionism (Moretz & Mckay, 2009; Cordeiro et al., 2015), OCPD comorbidity (Coles et al. 2008, Starcevic et al., 2013), and the sense of incompleteness, the relationship pattern that emerges in this study is congruent with the past literature. The pattern is specifically reminiscent of the Starcevic and colleagues' (2013) results, who used the VOCI to compare patients with OCD and those with comorbid OCPD and found OCD patients with comorbid OCPD to have increased symptoms in all dimensions but contamination and checking. Furthermore, although hoarding scores may have been suppressed due to its exceptionally low mean score, hoarding and the other three symptoms shared the common variable of anger suppression. Thus, the presence of anger suppression could be indicative of their shared relationship with OCPD traits and feelings of

incompleteness. Another possibility is that the presence of anger suppression could be indicative of depressive symptoms associated with these symptoms. Although depressive symptoms were outside of the scope of this study, they are shown to be associated with excessive anger suppression in various studies (Chue et al., 2017; Sahu et al., 2014; Sperberg & Stabb, 1998). However, this does not discount the association with OCPD as OCPD and depressive symptoms are reported to be associated (Reddy et al., 2016).

Considering maternal neglect as a predictor for the symptoms of obsessions, just right, and indecisiveness, these intersections between the OCS and OCPD could suggest the significance of developmental experiences in exacerbation of these symptoms. As discussed before, it is thought that when the primary caregiver is not able to soothe the child, the child is forced into a hyperactive state in order to attempt to self-soothe and contain their own emotions (Nolan, 2008). Studies suggest traumatic experiences to be more important for OCS than parental rearing (Taylor, 2011), but parental neglect is also known to be traumatic for a child (Hildyard & Wolfe, 2002; Perry, 2008; Williams, 2006). Furthermore, a neglected child may be at an increased risk of being exposed to traumatic experiences, whether directly or indirectly. As this is a cross-sectional study, the cause and effect relationship cannot be concluded, but it is also possible that maternal neglect could leave the person ill-equipped to deal with difficult emotions, as Nolan (2008) suggests. Although the literature on the relationship between family experiences and OCS is inconclusive, it could be valuable to explore the common factors in the intersection of OCD and OCPD. Given the heterogeneous nature of OCD, different symptom dimensions could be more affected by maternal rearing styles. This study indicates that the symptoms of obsessions, just right, and indecisiveness share predictors and that maternal neglect play a role in these symptoms, which are related to feelings of incompleteness and OCPD, although specific measures for these should be employed in future studies. Additionally, trait anger plays a more significant role in these dimensions than others, likely due to the common trait of perfectionism and the association of OCPD. Furthermore, along with hoarding,

anger suppression being a shared predictor indicates that these four symptom dimensions could be sharing similar properties and etiology.

This study's third and final objective was to examine the mediating role of trait anger between significant maternal acceptance-rejection factors and OCS. The fifth hypothesis corresponding to this objective was that trait anger would mediate the relationship between significant maternal acceptance-rejection factors and OCS. As maternal neglect was found to predict obsessions, just right, and indecisiveness, they were examined in structural equation modeling. Trait anger partially mediated the relationship of maternal neglect with just right, obsessions, and indecisiveness. However, while the indirect effect was statistically significant, it was at a negligible level, and the direct effect of maternal neglect better explained the relationship. As shown in past research, rather than maternal rejection, it is likely that maternal overprotectiveness is the variable that is significantly mediated by anger (Yamauchi et al., 2019), and rejection, more specifically neglect, has an independent relationship of its own. However, it is important to consider the various biases associated with self-report questionnaires which are discussed in the next section.

Overall, the dimensions related to OCPD comorbidity and associated traits as well as greater feelings of incompleteness could be associated with maternal rearing and can be researched further. To our knowledge, there is no study on the relationship between feelings of incompleteness and parenting. This study points towards the feelings of incompleteness being associated with maternal neglect and this relationship could be understood further with appropriate scales measuring the sense of incompleteness with its narrow definition as explained in the literature (Taylor et al., 2014).

4.2 Limitations and Future Recommendations

The cross-sectional nature of this study is one of the primary limitations. It is difficult to conclude whether a cause and effect relationship exists with a cross-sectional study. Secondly, self-report questionnaires used in this study bring their own limitations. With self-report questionnaires, social desirability bias is always a factor and could be affecting the participants' answers. Additionally, memory is prone to distortions, especially when recalling early childhood experiences (Hyman & Loftus, 1998). The scale asking the participants to recall early maternal rejection could be prone to errors and bias. Therefore it is crucial to consider the data with this in mind. In the future, qualitative studies can better assess perceived maternal rejection. Alternatively, studies that include children with OCS and their mothers as participants can be conducted to circumvent potential errors in perception and recall. Future studies can include OCD patients for further analyses of the symptoms. In this study sample, the lack of clinical participants resulted in a lower representation of checking and hoarding symptoms. Additionally, increased sample size can provide a better picture of the population and generalizability of the findings.

Considering the sample consisted mostly of female and highly educated participants, the generalizability of the findings is also decreased. Although this makes it difficult to assess gender differences regarding contamination, the findings were reflective of past studies. Also, as there is a gender ratio difference in the OCS age of onset with women more often developing the symptoms in early adulthood than men who tend to develop in early childhood, this study could be more reflective of late-onset OCS. As this study largely consists of a subclinical population, future studies could include participants with clinical levels of OCS. In this sample, checking and hoarding scores were exceptionally low, and thus it is difficult to make observations about them.

There is a growing interest in feelings of incompleteness and its relationship with OCS. Although in the literature the influence of parenting is debated, in statistical research some suggest that causative relationship may exist even without

an apparent correlational relationship (Bollen, 1989; Hayes, 2018) and as past studies show parenting can have an indirect relationship with OCS through other psychological mechanisms (Yamauchi et al. 2019). To our knowledge, there are no studies that have specifically investigated the relationship between parental rearing and feelings of incompleteness within the context of OCS. Future studies may research parental rearing and feelings of incompleteness and how they relate to OCS. Additionally, the scope of this study consisted of maternal rejection, whereas some studies show paternal rejection to be relevant (Alonso et al., 2004; Lennertz et al., 2010). Future studies could include paternal rejection.

Another limitation is present from using the STAXI instead of the STAXI-2 due to Turkish adaptation availability. As previously discussed, compared to its successor scale, the STAXI lacks nuance in specific subscales, precisely anger control. The STAXI-2 divides anger control into AC-I and AC-O to distinguish between employing anger management techniques to attain internal calmness and defensive anger control, which prevents the outward expression of anger.

Examining the VOCI, although the overlap between symptoms is expected, common method variance could potentially be another limitation causing excess overlap between the symptoms and thus the results. For example, Gönner and colleagues (2010) have revised the VOCI when adapting to German and replaced the Just Right and Indecisiveness subscales by integrating the Symmetry, Ordering, and Arranging Questionnaire (SOAQ) into their scale. They reported that their revision improved upon VOCI by eliminating redundancy and reducing overlap between the subscales. If using the VOCI, future studies could try a similar approach by replacing certain subscales with other scales focused on a certain symptom dimension to reduce common-method variance.

Another point of interest outside of this study's scope was the presence of depressive symptoms and/or general distress. As some postulate these to be the primary source of the relationship between the study variables (Whiteside & Abramowitz, 2004; 2005), future studies could include these as control variables to better assessment of the results.

Furthermore, the statistical analyses used in this study were primarily correlation, stepwise regression, and limited mediation analyses. Future studies with a higher participant count with better distribution for each scale could use structural equation modeling to conduct both moderation and mediation. However, as previously mentioned, cross-sectional data comes with limitations. Future research could employ different models such as longitudinal research, models including both the child and parent for testing, experimental designs, and case-control studies.

4.3 Implications and Conclusion

This study examined the relationship between trait anger, anger expression, maternal acceptance-rejection, and OCS, including hoarding and indecisiveness through correlation and regression analyses. The mediating effect of trait anger between the relationship of OCS and significant maternal acceptance-rejection factors was examined with structural equation modeling.

Trait anger and anger suppression were found to be significantly correlated with every OCS. A particularly strong relationship was observed with obsessions of unacceptable thoughts, just right, and indecisiveness. Among maternal acceptance-rejection factors, maternal neglect was found to be significantly correlated with all OCS, but a stronger relationship was with obsessions of unacceptable thoughts, just right, and indecisiveness. Contamination was predicted by trait anger and sex. Checking was predicted by trait anger. Obsessions were predicted by trait anger, age, anger suppression, and maternal neglect. Just right was predicted by anger suppression, trait anger, age, and maternal neglect. Hoarding was predicted by anger suppression and trait anger. Indecisiveness was predicted by anger suppression, age, and maternal neglect. Overall trait anger and anger suppression demonstrated a stronger effect size compared to other variables whereas maternal neglect demonstrated a weak effect size. Mediation analyses revealed trait anger to be a significant partial mediator in the relationship of maternal neglect and obsessions, just right, indecisiveness. Although it was statistically significant, the indirect effect was weak to a nearly negligible degree.

The direct effect between maternal neglect and obsessions, just right, and indecisiveness was a stronger predictor of their relationship. The findings of this study suggest that symptom dimensions associated with perfectionism, feelings of incompleteness, and OCPD could be more strongly related to anger suppression and maternal neglect, and thus the effect of developmental experience may be increased. However, further research measuring these together should be conducted. In clinical practice, exploring anger expression could be a more relevant topic with patients that have obsessions of unacceptable thoughts, just right symptoms, and indecisiveness. Feelings of incompleteness could also be further researched as well as understood in a clinical context, and its developmental associations can be explored.

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APPENDICES

Appendix A: Informed Consent Form

Sayın Katılımcı,

Bu araştırmanın amacı tekrarlayan davranış ve düşünceler, öfke ifade biçimleri ve çocukluk döneminde anne tutumları arasındaki ilişkiyi incelemeye yöneliktir.

Araştırma, İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programı öğrencisi Thor Smith tarafından Dr. Öğr. Üyesi Elif Göçek danışmanlığında bir tez çalışması kapsamında yürütülmektedir.

Bu araştırmaya katılım tamamen gönüllülük esasına dayalıdır. Çalışmanın amacına ulaşması için sizden beklenen, bütün soruları eksiksiz ve içtenlikle cevaplamanızdır. Anketi tamamlamanız yaklaşık 15 dakika sürmektedir. Araştırmanın herhangi bir noktasında **hiçbir gerekçe belirtmeden** anketi doldurmayı bırakabilirsiniz.

Araştırmaya katılmanın üzerinizde herhangi bir olumsuz etki yaratması beklenmemektedir. Ancak anketi cevaplarken yanıt vermek istemediğiniz, size kendinizi rahatsız hissettiren sorular olursa herhangi bir sebep göstermeden araştırmadan çekilme hakkına sahipsiniz. Araştırmadan çekildiğiniz durumda verdiğiniz bilgiler değerlendirmeye alınmayacaktır.

Anketin hiçbir aşamasında kimlik bilgileriniz sorulmayacak ve yanıtlar araştırmacılar dışında kimseyle paylaşılmayacaktır. Veriler toplu halde değerlendirilerek yalnızca bilimsel yayın amacıyla kullanılacaktır.

Eğer araştırmanın amacı ile ilgili verilen bu bilgiler dışında şimdi veya sonra daha fazla bilgiye ihtiyaç duyarsanız - e-posta adresine ulaşabilirsiniz.

☐ Yukarıda verilen bilgiler doğrultusunda, bu çalışmaya katılmayı kabul ediyorum.

Appendix B: Adult Parental Acceptance-Rejection – Short Form (Mother Form)

YÖNERGE: Bu sayfada anne-çocuk ilişkisini içeren ifadeler bulunmaktadır. Bu ifadelerin annenizin size olan davranışlarıyla benzer olup olmadığını düşünün. Sonrasında "Hemen Hemen Her Zaman Doğru", "Bazen Doğru", "Nadiren Doğru", "Hiçbir Zaman Doğru Değil" şıklarından sizin için en uygun olanı işaretleyin.

	ANNEM	**Hemen Hemen Her Zaman Doğru**	**Bazen Doğru**	**Nadiren Doğru**	**Hiçbir Zaman Doğru Değil**
1	Benim hakkımda güzel şeyler söylerdi				
2	Benim hakkımda güzel şeyler söylerdi				
3	Benim için önemli olan şeyleri anlatabilmemi kolaylaştırırdı				
4	Hak etmediğim zaman bile bana vururdu				
5	Beni tam bir baş belası olarak görürdü				
6	Kızdığı zaman beni cezalandırırdı				

7	Sorularımı cevaplayamayacak kadar meşguldü				
8	Benden hoşlanmıyor gibiydi				
9	Yaptığım şeylerle gerçekten ilgilenirdi				
10	Bana bir sürü kırıcı söz söylerdi				
11	Ondan yardım istediğimde beni duymazlıktan gelirdi				
12	İstenilen ve ihtiyaç duyulan biri olduğumu bana hissettirirdi				
13	Bana çok ilgi gösterirdi				
14	Beni kırmak için elinden geleni yapardı				
15	Hatırlaması gerekir diye düşündüğüm önemli şeyleri unuturdu				
16	Yanlış davrandığımda benden hoşlanmadığını hissettirirdi				
17	Yaptığım şeylerin önemli olduğunu bana hissettirirdi				

18	Yanlış bir şey yaptığımda beni korkutur veya tehdit ederdi				
19	Benim ne düşündüğüme önem verir ve düşüncelerimi ifade etmemden hoşlanırdı				
20	Ne yaparsam yapayım, diğer çocukların benden daha iyi olduklarını düşünürdü				
21	İstenmediğimi bana belli ederdi				
22	Beni sevdiğini belli ederdi				
23	Onu rahatsız etmediğim sürece benimle ilgilenmezdi				
24	Bana karşı yumuşak ve iyi kalpliydi				

Appendix C: State-Trait Anger Expression Scale

I. BÖLÜM

YÖNERGE: Aşağıda kişilerin kendilerine ait duygularını anlatırken kullandıkları bir takım ifadeler verilmiştir. Her ifadeyi okuyun, sonra da genel olarak nasıl hissetiğinizi düşünün ve ifadelerin sağ tarafındaki bölümler arasında sizi en iyi tanımlayanı seçerek üzerine (X) işareti koyun. Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin, genel olarak nasıl hissetiğinizi gösteren cevabı işaretleyin. Aşağıdaki ifadeler sizi ne kadar tanımlıyor?

	Hiç	**Biraz**	**Oldukça**	**Tümüyle**
1. Çabuk parlarım.				
2. Kızgın mizaçlıyım.				
3. Öfkesi burnunda bir insanım.				
4. Başkalarının hataları yaptığım işi yavaşlatınca kızarım.				
5. Yaptığım iyi bir işten sonra takdir edilmemek canımı sıkar.				
6. Öfkelenince kontrolümü kaybederim.				
7. Öfkelendiğimde ağzıma geleni söylerim.				
8. Başkalarının önünde eleştirilmek beni çok hiddetlendirir.				

9. Engellediğimde içimden birilerine vurmak gelir.				
10. Yaptığım iyi bir iş kötü değerlendirildiğinde çılgına dönerim.				

II. BÖLÜM

YÖNERGE: Herkes zaman zaman kızgınlık veya öfke duyabilir. Ancak, öfke duygularıyla ilgili tepkileri farklıdır. Aşağıda, kişilerin öfke ve kızgınlık tepkilerini tanımlarken kullandıkları ifadeleri göreceksiniz. Her bir ifadeyi okuyun ve öfke ve kızgınlık duyduğunuzda genelde ne yaptığınızı düşünerek o ifadenin yanında sizi en iyi tanımlayan bölüme (X) işareti koyarak belirtin. Doğru veya yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeyin.

ÖFKELENDİĞİMDE VEYA KIZDIĞIMDA…

	Hiç	**Biraz**	**Oldukça**	**Tümüyle**
11. Öfkemi kontrol ederim.				
12. Kızgınlığımı gösteririm.				
13. Öfkemi içime atarım.				
14. Başkalarına karşı sabırlıyımdır.				
15. Somurturum ya da surat asarım.				
16. İnsanlardan uzak dururum.				

17. Başkalarına iğneli sözler söylerim.				
18. Soğukkanlılığımı korurum.				
19. Kapıları çarpmak gibi şeyler yaparım.				
20. İçin için köpürürüm ama göstermem.				
21. Davranışlarımı kontrol ederim.				
22. Başkalarıyla tartışırım.				
23. İçimde kimseye söylemediğim kinler beslerim.				
24. Beni çileden çıkaran her neyse saldırırım.				
25. Öfkem kontrolden çıkmadan kendimi durdurabilirim.				
26. Gizliden gizliye insanları epeyce eleştiririm.				
27. Belli ettiğimden daha öfkeliyimdir.				
28. Çoğu kimseye kıyasla daha çabuk sakinleşirim.				
29. Kötü şeyler söylerim.				

30. Hoş görülü ve anlayışlı olamaya çalışırım.				
31. İçimden insanların fark ettiğinden daha fazla sinirlenirim.				
32. Sinirlerime hâkim olamam.				
33. Beni sinirlendirene ne hissettiğimi söyleyemem.				
34. Kızgınlık duygularımı kontrol ederim.				

Appendix D: Vancouver Obsessive Compulsive Inventory

Yönerge: Aşağıdaki ifadeler hemen herkesin günlük yaşamında karşılaştığı düşünce ve davranışları tanımlamaktadır. Lütfen her bir ifade için aşağıda yer alan durumların size ne kadar uygun olduğunu 0 ve 4 arasında, ifadelerin sonundaki puanları yuvarlak içine alarak belirtiniz.

0	**1**	**2**	**3**	**4**
Hiç	Çok az	Oldukça	Epeyce Çok	Aşırı Derecede

		0	**1**	**2**	**3**	**4**
1	Mektupları postaya vermeden önce kendimi tekrar tekrar kontrol etmek zorunda hissederim.					
2	Kesici bir silah kullanmakla ilişkili rahatsız edici düşüncelerimden ötürü genellikle tedirgin olurum.					
3	Paraya dokunduktan sonra kendimi çok kirli hissederim.					
4	Önemsiz kararları almak bile bana çok zor gelir.					
5	Kesinlikle mükemmel olmak zorunda hissederim.					
6	Bir kaza hakkında aynı hoşuma gitmeyen düşünceyi veya görüntüyü tekrar tekrar yaşarım.					
7	Musluk veya elektrik düğmesi gibi şeyleri kapattıktan sonra tekrar tekrar kontrol ederim.					
8	Evimi veya kendimi mikroplardan koruyabilmek için aşırı miktarda temizlik malzemesi kullanırım.					
9	Çok küçük şeyleri bile (örn., plakadaki sayılar, tabelalardaki açıklamalar) hatırlamak zorunda hissederim.					
10	Evim biriktirdiğim şeylerle o kadar doludur ki evdeki normal ev işlerimi yapmakta zorluk çekerim.					
11	Bir şeylere karar verdikten sonra aldığım karar konusunda uzun süre kaygı yaşarım.					
12	İstemediğim halde aklıma gelen can sıkıcı düşünceler nedeniyle hemen her gün endişeye kapıldığımı fark ederim.					
13	Çok uzun süreleri ellerimi yıkayarak geçiririm.					
14	Her şeyi tam olarak doğru yapmaya çalıştığım için bir şeyleri tamamlamakta genellikle zorluk çekerim.					
15	Ayakkabılarımın altına elimin değmesi beni çok tedirgin eder.					
16	Cinsel içerikli rahatsız edici düşüncelerim veya hayallerimden dolayı genellikle endişeye kapılırım.					

17	Çok küçücük bir karar bile almam gerekse, çok tedirgin olurum.					
18	Sıradan şeyleri yaparken bile çok kesin bir sırayı takip etme zorunluluğu hissederim.					
19	Mobilyalarım veya diğer sahip olduğum şeyler her zaman tam olarak aynı yerde olmazsa kendimi çok gergin hissederim					
20	İçimdeki isteğe engel olmaya çalıştığım halde, kapı veya pencerelerin kilitli olup olmadığını defalarca kontrol ederim.					
21	Çöplere veya çöp kutularına dokunmak bana çok zor gelir.					
22	Herhangi bir şeyi atmayı düşündüğümde, kendimi çok gergin veya huzursuz hissederim.					
23	Mikroplar ve hastalıklar konusunda aşırı derecede endişe duyarım.					
24	Gündelik işleri zamanında yetiştiremediğim için genellikle çok geç kalırım.					
25	Bir şeylerin bulaşması olasılığı olduğu için halka açık telefonları kullanmaktan kaçınırım.					
26	Evim biriktirdiğim gereksiz şeylerin yığınlarıyla dolu olduğu için insanları evime davet etmeye utanırım.					
27	Ölümle ilgili tedirgin edici aynı düşünce ve görüntüyü tekrar tekrar yaşarım.					
28	Toplum içinde ağzımdan müstehcen sözler veya küfürlü sözcükler kaçıracağıma ilişkin rahatsız edici düşünce veya görüntüler nedeniyle genellikle huzursuz olurum.					
29	Başka insanları üzebilirim diye çok fazla endişe duyarım.					
30	Akan trafiğin içine atlamak veya arabaların üzerine doğru sürmek gibi rahatsız edici dürtüler nedeniyle genellikle korkuya kapılırım.					
31	Sıradan bir işi yaparken bile hemen her zaman sayarım.					
32	Bir hayvana dokunduğumda kendimi çok kirlenmiş hissederim.					
33	Temel problemlerimden biri bir şeyleri tekrar tekrar kontrol etmektir.					
34	Kontrolü kaybetmeye ilişkin tedirginlik veren ve rahatsız edici düşünceleri sık sık yaşarım.					
35	Neyi elimde tutup neyi atacağım konusunda karar vermeyi neredeyse imkansız bulurum.					
36	Bir şeyleri saymak konusunda güçlü bir zorunluluk hissederim.					
37	İçimdeki isteğe karşı koymaya çalışmama rağmen, ocağın kapalı olduğunu defalarca kontrol ederim.					
38	Her gece yatmadan önce alışageldiğim şeyleri tam olarak aynı biçimde yapıp tamamlayamazsam çok tedirgin olurum.					
39	Vücut salgılarıyla (kan, idrar, tükürük vb.) azıcık bir temas etmekten bile çok büyük korku duyarım.					

40	Başka insanlara zarar vermekle ilişkili rahatsızlık veren dürtülerimden dolayı genellikle tedirgin olurum.					
41	Her gün bir şeyleri tekrar tekrar kontrol ederek çok fazla zaman harcarım.					
42	Savurganlaşacağım korkusuyla, herhangi bir şeyi atmakta çok büyük sıkıntı çekerim.					
43	Sıklıkla elektrik düğmeleri, musluklar, cihazlar ve kapıları birkaç kez kontrol etmek zorunda kalırım.					
44	Temel problemlerimden birisi temizlik konusunda aşırı derecede endişeli olmamdır.					
45	Gelecekte ihtiyacım olabileceği korkusuyla eski dergiler, gazeteler ve mektuplar gibi çok fazla şeyi saklamak konusunda kendimi zorunlu hissederim.					
46	Dinsel bir niteliği olan huzursuz edici ve kabul edilemez düşünceleri defalarca yaşarım.					
47	Aynı şeyi yeniden tekrar tekrar yinelediğim için yaptığım işte geride kalmaya eğilimliyim.					
48	Bir yanlış yapmaktan çok korktuğum için kararlarımı ertelemeye çalışırım.					
49	Hastalık konusunda tedirginlik veren ve hoşuma gitmeyen düşüncelerim genellikle vardır.					
50	Mikroplar konusunda aşırı endişeli olduğum için çok bakımlı bir umumi tuvaleti bile kullanmaya korkarım.					
51	Karşı koymaya çalışmama rağmen, gerçekte hiçbir zaman kullanmayacağım pek çok şeyi toplamak zorunda hissederim.					
52	Tedirginlik veren ve rahatsız edici ahlaka aykırı düşünceleri tekrar tekrar yaşarım.					
53	En önemli problemlerimden birisi ayrıntılara gereğinden çok fazla dikkat etmemdir.					
54	Rahatsız edici kendime zarar verme dürtülerinden dolayı sık sık tedirgin olurum.					
55	Her şeyi tam olarak doğru yapmak zorunda olduğum için her gün evden ayrılmak için hazırlanırken çok uzun zaman harcarım.					

Appendix E: Demographic Information Form

1. Cinsiyetiniz: ( ) Kadın ( ) Erkek

2. Yaşınız: ____

3. Medeni Durumunuz: ( ) Bekar ( ) Evli ( ) Boşanmıs veya Dul

4. Öğrenci misiniz?: ( ) Evet ( ) Hayır

Öğrenciyseniz, devam etmekte olduğunuz üniversite: _____

Bölüm: _____

Öğrenci değilseniz, eğitim durumunuz:

( ) İlkokul mezunu ( ) Ortaokul mezunu ( ) Lise mezunu

( )Üniversite mezunu ( ) Yüksek Lisans veya Doktora

5. Bir işte çalışıyor musunuz?: ( ) Evet ( ) Hayır

6. Evinizde siz de dahil olmak üzere kaç kişi yaşıyor?:

7. Kaç kardeşsiniz?____Siz kaçıncı çocuksunuz?____

8. Ailenizin ortalama aylık geliri ne kadardır?:

Ayda 1000 TL'nin altında _____

Ayda 1000-2000 TL_____

Ayda 2000-4000 TL_____

Ayda 4000-7000 TL _____

Ayda 7000 TL'nin üzerinde _____

9. Çocukken kendinizi en çok kime yakın hissederdiniz?:( )

Anneme ( ) Babama ( ) Diğer (lütfen belirtiniz) _____

11. Çocukken size ana bakım veren kişi kimdi?

( ) Annem ( ) Babam ( ) Diğer (lütfen belirtiniz) _____

10. Geniş aileniz dahil olmak üzere ailenizde Obsesif Kompulsif Bozukluk tanısı almış biri var mı?

( ) Evet ( ) Hayır

Cevabınız evet ise hangi aile bireyiniz? (Değilse boş bırakabilirsiniz) _____

ETHICS BOARD APPROVAL

Ethics Board Approval is available in the printed version of this dissertation.