Section A-Research paper

Childhood trauma and OCD symptom Dimensions

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Abstract

Background: OCD is a highly distinctive disorder. Obsessions may seem incredibly unreasonable, counterintuitive, and disconnected, and yet themes of obsessions have been found across the population. The intrusive images and thoughts that arise as a result of the traumatic occurrence begin to be generally transferred to other aspects of life. They rather take on the typical patterns of obsessional thoughts identified in OCD, instead of being intellectually related to the traumatic incident. The onset and exacerbation of OCD are correlated to the individual's current state of stress, different levels of stress. OCD symptoms might vary in severity depending on the ability to perceive stress. According to sociometer theory, self-esteem is an affective state that can be defined as a continuous monitor of belonging, motivating people to maintain or restore inclusionary status. The effectiveness of treatment is frequently measured by the clinician as a reduction in symptoms to a level that the patient considers tolerable and at which the patient can function. In therapeutic trials, a reduction in mean Yale-brown obsessive-compulsive scale (Y-BOCS) scores of 25 to 35% was regarded a satisfactory response to a specific treatment. However, 40-60% of individuals may not respond or respond only partially to these approaches. It is commonly accepted that treatment-resistant OCD is defined as the failure of at least two appropriate therapeutic trials of serotonin reuptake inhibitors (SRIs).

Keywords: Childhood trauma, OCD symptom

Introduction

According to cognitive theories, learned assumptions and beliefs that initially developed as adaptive coping mechanisms for dealing with challenging aspects of early experiences are the basis of maladaptive appraisal and that these assumptions and beliefs may cause an obsessional disorder, especially when activated by stressful situations. **(1)**

Cognitive models are seeking to explain the processes and structures of the information processing system account for the persistence, unpredictability, aversiveness, and the highly particular, unique nature of obsessional phenomena.

"Metacognition" is a cognitional trait that may be particularly beneficial for understanding obsessions. The concept of "metacognition" refers to knowledge, procedures, and tactics used to evaluate, keep track of, or regulate cognitive processes. This theory claims that people have some negative and positive beliefs (metacognitions) about their thoughts (their dysfunctional cognitions), which can affect how their experiences are evaluated. **(2)**

Another cognitive process associated with the emergence of obsessions is known as **"Thought-Action Fusion"**, which is defined as the assessment that certain intrusive thoughts can directly affect the pertinent external event and the assessment that having these intrusive thoughts is morally equivalent to performing an illegal practice. **(3)**

Another hypothesis focused on the role of thought suppression in the exacerbation of intrusive thoughts. This idea suggested that attempts to restrict thought may paradoxically increase thought frequency. **(2)**

One study demonstrated the correlation between OCD cognitive processes and childhood traumas. According to **Briggs and Price (4)** , unfavorable childhood experiences are indirectly linked to OCD symptoms, via the association with OCD dysfunctional beliefs and with anxiety, and depression.
Briggs and Price also found that children who tend to be more anxious and/or depressed before the traumatic experience are more likely to respond to the development of OCD, and that a predisposition towards anxiety and depression tends to increase the association between traumatic childhood experiences and OCD symptoms.

Potential mediators of the association between childhood trauma and obsessive-compulsive disorder

A. Emotion regulation difficulties

Difficulty with regulating emotion is considered a trans-diagnostic process that has been mediating the relationship between childhood trauma and a broad array of psychopathology. Since primary caregivers are usually the ones who teach young children how to properly detect and control their emotions, abuse and neglect of these caregivers might be anticipated to have a negative impact on the child's ability to regulate their emotions. **(5)**
In turn, these difficulties in emotion regulation play a significant role in the emergence of psychopathologies such as OCD. Importantly, it has been demonstrated that difficulties with emotion regulation are associated with the severity of OCD symptoms. Studies directly tested whether emotion regulation difficulties mediate the relationship between childhood Maltreatment (CM) and OCD found that experiential avoidance, one component of emotion regulation, has a role in mediating the link between CM and OCD. **(4)**
Alexithymia, another component of emotion regulation, was identified as a mediator between CM and OCD symptoms. **(6)**

- **Experiential avoidance**

One mechanism that may help understand the role that trauma exposure plays in the development or deterioration of psychiatric symptoms is experiential avoidance, which can be defined as an reluctance or inability to remain in contact with internal experiences (thoughts, memories, emotions, and/or bodily sensations) or any attempt to change or escape the experience. Individuals who have been exposed to trauma often engage in experiential avoidance. The utilization of avoidant coping mechanisms in response to trauma is related to psychological problems as well as potentially harmful behaviors such as poor social interaction or high-risk sexual conduct**.** In a community sample of young adults and undergraduates, **Briggs and Price (4)** investigated the interactions of adverse childhood events (including neglect and abuse), anxiety and depressive symptoms, OCs, and experiential avoidance. Experiential avoidance moderated the relation between adverse childhood experiences and OC symptoms, even after controlling anxiety and depression.
Mindfulness- and acceptance-based therapies, such as Acceptance and Commitment Therapy and Mindfulness-Based Stress Reduction, have increasingly been utilized to target and address experiential avoidance. In order to pursue valued life, these therapies seek to reduce avoidance while promoting acceptance. The willingness to stay in touch with all current internal and external feelings, even if they are unpleasant. In the same way, these treatments attempt to promote mindfulness, or nonjudgmental awareness of the present moment. **(7)**
In the literature, mindfulness is frequently described as a multidimensional construct with 5 distinct yet interconnected aspects: **(8).**
1) Recognizing or observing present-moment experience.

2) Being able to verbalize or explain present-moment experience.
3) Acting mindfully or paying attention to action instead of engaging in "automatic pilot".
4) Nonjudgment of internal experiences such as thoughts or emotions.
5) The capability to be aware of inner events without reacting to them right away.
Acceptance- and mindfulness-based therapies have been shown to be effective in recognizing symptoms of trauma-related disorders, internalizing disorders, and OC symptoms. **(9).**

- **Alexithymia**

Alexithymia can be described as difficulty identifying one's own feelings and distinguishing between feelings and the bodily sensations of emotional arousal, difficulty describing feelings to others, a stimulus-bound, externally orientated cognitive style, and constricted imaginal processes. Alexithymia is considered to be a symptom of problems with reflective or symbolic modes of mental functioning, and in the psychoanalytic literature, this problem has been held directly accountable for experiences of overwhelming, distressing, vivid and intrusive obsessional feelings and images. These intrusive experiences are thought to occur as a result of alexithymic modes of mental functioning, which have been termed 'psychic equivalence. Several recent studies provide evidence that the concept of alexithymia is directly relevant to OCD. One study found that difficulty identifying and describing feelings was the strongest predictor of OCD symptoms and severity. Another study found that low internal state awareness was a factor that predicted OCD symptoms in OCD sufferers. **(10)**

B. Rumination

Rumination is often described as passively focusing on the causes and effects of the distressing symptoms as well as the symptoms themselves. Numerous research have demonstrated a connection between CM and elevated rumination, including cross-sectional and longitudinal studies with adolescents who had experienced abuse**. (11).**
It appears plausible that CM creates an environment marked by inconsistency, manipulation, and insecurity, in which the child begins to adopt a passive style of emotion regulation that is also constantly alert towards environmental threats far beyond the child's control. Such an environment can be anticipated to decrease the chances for active problem-solving and thus increase the internal focus on anticipating unexpected outcomes in time and preparing for the worst in a ruminative manner. Excessive rumination has been demonstrated to be a symptom of CM.It has also been linked to the underlying etiology, maintenance, and susceptibility to subsequent episodes of various mental disorders, including OCD. In a student sample, for example, researchers discovered that the predisposition to ruminate was positively correlated with the severity of OCD symptoms, and was particularly associated with obsessive rumination. Furthermore, rumination was found to be related with OCD symptoms in a mixed clinical population. **(12).**

C. Insecure attachment style

Attachment quality may act as an additional mediator between CM and OCD.
Importantly, it has been proposed that traumatic events, particularly those committed by caregivers or close relatives, make the child vulnerable to insecure attachment, specifically an avoidant or anxious attachment style**.** The long-lasting and potentially significant effect of attachment is explained by the major environmental influences that early childhood relationships provide, specifically their ability to organize and modify the developing brain's neurophysiology during its period of maximum growth. Attachment patterns, according to **Bowlby (13)**, should be perceived systemically as self-corrective processes between the infant and the carer which allow them to maintain a homeostatic balance of safety and alertness in the relationship.
Crittenden (14) explained the potential impact of these early relationships on later functioning, stating that in order to maximize the possibility of a safe and optimal outcome in the context of these early

relationships, the infant will develop information processing and behavioral patterns, which reshape sensory data in a variety of ways. The great majority of CM incidents (about 80%) are committed by parents or parental caregivers who are also important attachment figures. **(15)**
A meta-analysis found that abused or neglected children had greater rates of insecure attachment than children from families with socioeconomic problems. In turn, insecure attachment is thought to be a general risk factor for psychopathology. There is also preliminary evidence indicating a relationship with insecure attachment, specifically greater prevalence rates of insecure attachment in OCD patients. **(16).**

D. Dissociation

Traumatic experiences frequently result in dissociative symptoms. Dissociation is frequently seen as a natural, instinctive response that provides emotional relief from unbearable distress. Furthermore, it has been proposed that CM promotes the development of a dissociative coping style. While peritraumatic dissociation may be adaptive during the time of abuse, prolonged posttraumatic dissociation can be devastating, especially if dissociation is regularly provoked by generic stressors or exploited as an escaping technique, increasing the risk of psychiatric illness. **(17)**

Dissociation is a trans-diagnostic symptom, and there is increasing evidence to support its involvement in CM survivors with OCD. **(18)**
Lochner, Seedat et al. (19), for example, found that childhood trauma was associated with higher dissociation in a sample of OCD patients.
Furthermore, patients with higher dissociative symptoms had more severe OCD symptoms than patients with lower dissociative symptoms.

According to several studies, OCD is associated with higher levels of dissociation, and their findings showed that some OCD symptoms are more strongly related to dissociation than others. One theory for the connection between OCD and dissociation has been related to specific cognitive deficiencies such as difficulties with memory and selective attention**.** This is consistent with previous results of increased dissociation and higher levels of childhood trauma in a treatment-resistant subgroup of OCD patients, as well as overall higher OCD symptom severity. **(20)**

E. Posttraumatic stress symptomatology

Following childhood trauma, the existence of posttraumatic stress symptoms may potentially contribute to the development and persistence of OCD. It is possible to hypothesize that OCD symptoms, particularly compulsions, serve the purpose of avoiding the experience of intrusive memories and/or negative trauma-related thought patterns and feelings. **(21)**

There is a high prevalence of posttraumatic stress disorder (PTSD) in OCD patients. Furthermore, there is evidence that patients who develop OCD after a traumatic event have a different symptomatic profile with higher rates of contamination-washing symptoms and more severe mixed OCD symptoms compared to a control group who already had OCD symptoms prior to the trauma, leading the study authors to propose a posttraumatic subtype of OCD. **(22)**

Childhood trauma and OCD symptom Dimensions

OCD is a highly distinctive disorder. Obsessions may seem incredibly unreasonable, counterintuitive, and disconnected, and yet themes of obsessions have been found across the population.
They can be summarized into the following categories: **(23)**

(a) Contamination. (Environmental contaminants, bodily waste, sticky ubstances)
(b) Guilt and responsibility for harm to oneself or others.
(c) Uncertainty.
(d) Taboo thoughts concerning sex and violence.
(e) The demand for order and symmetry or exactness.

Badour, Bown et al. (24) suggested that traumatic victimization including sexual, physical, or criminal assault causes strong feelings of disgust. Disgust can result in contamination-based OCD (self-focused disgust).
In response to these thoughts, the individuals may feel the desire to wash their hands, take a shower, or engage in avoidance behaviors.

The intrusive images and thoughts that arise as a result of the traumatic occurrence begin to be generally transferred to other aspects of life.
They rather take on the typical patterns of obsessional thoughts identified in OCD, instead of being intellectually related to the traumatic incident.

Briggs and Price (4) suggested that early-life experiences created preconceptions and assumptions about the world. If these early encounters are interpreted negatively and perceived as traumatizing, children grow to believe about personal responsibility. The result is that these children mistakenly attribute poor outcomes to intrusive thoughts.
For instance, the child may assume that thinking negatively about a parent caused a car accident, or that wishing his or her parents would stop fighting led to their divorce. Thus, obsessional thoughts about guilt and responsibility may develop as a result of an excessive amount of bad occurrences and a tendency to see these events as being more impactful.

Cromer, Schmidt et al. (25) investigated the relationship between early traumatic life experiences and specific OCD symptom dimensions. Results revealed that higher scores on both the obsessions/ checking and symmetry/ordering dimensions had a strong association with these traumatic experiences. Perhaps obsessions/ checking and symmetry/ordering are associated with traumatic experiences through their increased comorbidity with mood and anxiety disorders.

Childhood trauma and OCD symptom severity

The onset and exacerbation of OCD are correlated to the individual's current state of stress, different levels of stress. OCD symptoms might vary in severity depending on the ability to perceive stress. Considerable studies have revealed that OCD patients report significantly more childhood trauma exposure when compared with matched healthy controls (HCs). (**26)**

Early life events may promote the emergence of inconvenient and undesired thoughts, which later transformed into clinical obsessions and compulsions.
Furthermore, it is well-known that early traumatic events may have an impact on the frequency and nature of intrusive thoughts. **(27)**

Additionally, according to two studies by **Briggs and Price (4)** and **Kroska, Miller et al. (28)**, individuals with CM appear to adopt negative coping mechanisms, which have been shown to act as a mediator in the relationship between CM and OCS severity in OCD patients.

Childhood trauma and Self-esteem in OCD

According to sociometer theory, self-esteem is an affective state that can be defined as a continuous monitor of belonging, motivating people to maintain or restore inclusionary status. Because of its importance in social inclusion, self-esteem is also thought to be dependent on the evaluation of others. **(29)**

Traumatic life events have the potential to reinforce and intensify the negative impact on mental health, as well as can increase the susceptibility to future stress experiences. The adverse impact of early-life stress on psychological resources is one underlying cause for such increased stress susceptibility.
Protective psychological resources may be able to reduce this vulnerability and support resilient outcomes.
Self-esteem, which is defined as a person's perception of his own self-worth, is a key protective psychological resource in this process. Previous research that examined the role of self-esteem as a moderator in the association between child maltreatment and psychopathology up to middle adulthood show a mental health protective role for self-esteem, and that childhood maltreatment has been proven to be negatively associated to self-esteem**. (30)**

Little information is known about the relationship between childhood trauma and the level of self-esteem in OCD patients.

Childhood Trauma and cognitive distortion in OCD

Cognitive distortions refer to internal narratives that indicate a biased interpretation of an event. **(31)**

Cognitive distortions are defined by **Beck (32)** as inaccurate, rigid, and excessive interpretations of information. While **Burns (33)** expanded this definition to include ten frequent cognitive distortions such as mind-reading, catastrophizing, thinking all or nothing, emotional reasoning, labelling, mental filtering, overgeneralization, personalization, should statements, and disqualifying the positive. The incidence of cognitive distortions appears to vary depending on an individual's underlying beliefs and his exposure to different circumstances.

A number of studies have discovered a connection between cognitive distortions and OCD. **(32)**
According to a recent study, Obsessive-Compulsive patients with higher degrees of obsessive thoughts are more likely to suffer from cognitive distortions. **(34)**

More investigation is needed to understand the relationship between childhood trauma and cognitive distortions with the clinical symptoms of OCD. **(34)**

Childhood trauma and suicidal probability in OCD

More than 800,000 people die by suicide each year around the world according to World Health Organization. While women are more likely to exhibit suicidal tendencies, men are more likely to commit suicide. **(35)**

These epidemiologic findings highlight the importance of better understanding of the mechanisms behind suicidal thoughts and behavior in order to improve preventative efforts and therapeutic management of suicidality. **(35)**

A considerable number of psychological theories have been offered to explain the emergence of suicidal ideation (SI) and it's transmission into suicidal action.

The Interpersonal Psychological Theory of Suicide (IPTS) is one of the most well-established theories. **(36)**

The IPTS distinguishes between factors that contribute to SI and factors that contribute to suicidal behavior. According to the IPTS, feelings of social isolation and loneliness (thwarted belongingness; TB) and feelings of being a burden to others, such as friends, family, or society (perceived burdensomeness; PB), cause suicidal ideation.

For the transmission from suicidal ideation into suicidal behavior, the individual must have the ability to participate in suicidal behavior (capability for suicide, CS), which includes a decreased fear of death and pain as well as an increased pain tolerance. **(36)**

OCD is associated with extreme distress, lost income, impaired social and occupational functions, reduced life quality, depression, and a strong probability of being single or having a divorce. **(36)**
As a result, OCD may exacerbate suicidal ideas. Furthermore, suicidal ideation may increase the frequency of lifetime suicide attempts in OCD patients who have attempted suicide. According to previous research, there was a substantial association between OCD and suicidality. Suicide ideation was discovered to be highly prominent among OCD patients that OCD patients had a higher probability of dying by suicide compared to healthy controls. Childhood trauma with its five dimensions [emotional abuse (EA), physical abuse (PA), sexual abuse (SA), emotional neglect (EN) and physical neglect (PN)] is also one of the major risk factors for suicide attempts**. (37)**
Maltreatment throughout the early stages of a person's development, increases the risk of suicidal behaviors by two to five times during their lifetime. **(38)**

Although the studies stated above demonstrated a link between childhood trauma and suicide in several samples, suicide has gained less attention in OCD patients in the recent decades. There are few studies that examined the association between suicide attempts, childhood traumas, and clinical characteristics in OCD patients at the same time.
Thus, analyzing childhood trauma and OC characteristics associated to suicidal ideation may be beneficial in OCD patients with a history of suicide attempts.

Early Childhood Trauma and OCD treatment outcomes

The effectiveness of treatment is frequently measured by the clinician as a reduction in symptoms to a level that the patient considers tolerable and at which the patient can function. In therapeutic trials, a reduction in mean Yale-brown obsessive-compulsive scale (Y-BOCS) scores of 25 to 35% was regarded a satisfactory response to a specific treatment. However, 40-60% of individuals may not respond or respond only partially to these approaches**.** It is commonly accepted that treatment-resistant OCD is defined as the failure of at least two appropriate therapeutic trials of serotonin reuptake inhibitors (SRIs). **(39)**

Several studies have been conducted in recent years to evaluate potential clinical predictors of treatment resistance in OCD patients. In these studies, earlier age of onset, longer duration of illness, poor insight, obsessions with sexual or religious content, comorbid depressive disorder, tic disorder and childhood traumatic events were found to predict poor responses to SRI and/or behavioral treatment of OCD. **(20)**

Clarifying the significance of traumatic childhood experiences in OCD is critical, because the presence or absence of a relationship between childhood trauma and OCD may have clinical implications. OCD is one of the most chronic types of psychopathology, and one pertinent therapeutic topic is whether patients with OCD who do not respond to standard therapies should have early traumatic events addressed. **(40)**
One study provided indirect evidence that a diagnosis of co-existing trauma history in individuals seeking treatment for OCD results in a relatively poor treatment outcome (no change or worsening of symptoms) than in individuals without a trauma history; however, this study did not distinguish childhood abuse and neglect from other types of trauma and did not examine the effect of trauma on OCD treatment. **(8).**

Some reports have emphasized the possible correlation between OCD and dissociation. Patients with a higher degree of dissociation showed more severe OCD symptoms and more treatment resistance to usually adequate management strategies. As there is a significant correlation between dissociation and environmental factors, according to previous research, especially traumatic childhood experiences. The relationship between childhood trauma history, dissociation, and OCD has attracted researchers' interest. A prospective cognitive behavior therapy (CBT) study of 52 OCD patients found that having more dissociative experiences at baseline was associated with having more severe OCD symptoms at the post-treatment evaluation, and treatment non-responders had significantly higher baseline dissociation than treatment responders**. (41).**

Despite the clinical importance of dissociation, research on its impact on treatment outcomes in OCD is limited. **(41).**

Two studies have directly studied the relationship between childhood trauma and OCD treatment outcome.

In the first study, treatment-resistant OCD patients had higher rates of childhood maltreatment than treatment responders, including sexual, physical, and emotional abuse, and emotional neglect. **(20)**

Second, in a small sample of 41 patients with OCD, patients with a history of childhood abuse and neglect had higher symptom severity at the beginning and end of treatment than those without these traumatic experiences, even though both groups progressed comparably at the end of treatment. **(42).**

Both investigations are restricted by the lack of a follow-up period.

There is currently insufficient data on the impact of traumatic experiences on OCD treatment.

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