Interrupting the Pathway From Early Trauma Exposure to Childhood-Onset Obsessive-Compulsive Disorder: The Promise of Schema Therapy

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Obsessive-compulsive disorder (OCD), often emerging during childhood and adolescence, is a debilitating condition characterized by intrusive thoughts and compulsive behaviors. Current research suggests a significant relationship between early trauma and OCD development in youth, with EMSs serving as a key psychological mechanism. Taken together, various studies link childhood trauma, EMSs, and OCD along a unified developmental trajectory, particularly implicating schemas in the "Disconnection and Rejection" and "Impaired Autonomy and Performance" domains. Although treatment methods such as cognitive-behavioral therapy (CBT) and exposure and response prevention (ERP) are considered the gold standard treatments for OCD, schema therapy (ST) is increasingly studied as a potential intervention that specifically targets EMSs—especially in trauma-exposed youth. Recent studies, though limited by some methodological constraints, suggest that ST could disrupt the trauma-EMS-OCD pathway by directly targeting the negative beliefs and harmful thought patterns that often lie at the root of OCD. High-quality studies are warranted to determine the efficacy of ST for trauma-exposed youth with OCD and to explore its full potential as a treatment for this particularly vulnerable population. This review synthesizes current literature on EMSs, trauma, and OCD and evaluates ST as an emerging treatment for youth that warrants further research.

Key Words: Obsessive-compulsive disorder (OCD), childhood trauma, early maladaptive schemas (EMSs), schema therapy, intervention

Introduction

Despite modern advancements in the treatment of obsessive-compulsive disorder (OCD), many children and adolescents continue to experience OCD's debilitating symptoms and life-disrupting impacts. OCD is an anxiety disorder defined by recurrent, unwanted mental obsessions and impairing, ritualistic compulsions that are rigidly performed to reduce the distress associated with obsessions (Krebs & Heyman, 2015). Obsessions commonly involve themes related to contamination, orderliness, harm, and sexuality while common compulsions include checking, ordering, repeating, and reassurance-seeking behaviors (Krebs & Heyman, 2015). The disorder affects an estimated 0.25%–4% of children and adolescents (Krebs & Heyman, 2015; Nazeer et al., 2020), with half of all OCD cases beginning in youth and more than 40% becoming chronic if left untreated (Walitza et al., 2011). Such data highlight childhood as a critical window to address obsessive-compulsive symptoms before they escalate and cause long-term impairment into adulthood. This concern is particularly urgent for the estimated 10% of OCD-diagnosed youth who do not achieve remission through standard treatments (Younus et al., 2024), underscoring the need for more

foundational, developmentally informed interventions. Schema therapy (ST) is one such treatment that targets early maladaptive schemas (EMSs) formed from unmet childhood needs. Preliminary evidence suggests that ST holds promise for addressing the root causes of OCD and can be effectively adapted to meet the needs of children and adolescents.

OCD Amongst Youth

Given the intrusive nature of obsessions and the disruptive features of compulsions, OCD often leads to marked distress, disturbance, and impairment in youth (Walitza et al., 2011). Researchers have found that quality of life across multiple measures of well-being is significantly lower for children and adolescents with OCD than for youth in the general population (Collucia, 2017; du Plessis et al., 2021). OCD symptomatology can lend itself to tremendous functional impairments in social, home, and academic domains for affected youth (Collucia et al., 2017; Sahoo et al., 2017; Storch et al., 2010). For instance, obsessive thought patterns may make it difficult for children and adolescents to break into socialization processes with peers, and disruptive compulsions can greatly interfere with their ability to participate in family activities (Sahoo et al., 2017). In some cases, the disorder can result in measurable deficits in achievement. For example, health and education records reveal that individuals diagnosed with OCD are less likely than their non-disordered counterparts to reach each level of education from primary to postgraduate schooling (Pérez-Vigil et al., 2018).

Trauma Exposure and Risk of OCD

Although OCD and its devastating impacts entail various risk components, research has highlighted exposure to trauma as an especially significant predictor of early-onset OCD (Lafleur et al., 2011). Trauma can be operationally defined as exposure to at least one terribly frightening experience (e.g., actual or threatened death, sexual violence, a natural disaster, etc.) in which the individual was either directly affected by the event or had to witness the event happening to someone else (Lafleur et al., 2011). In one study, researchers found that trauma exposure prevalence was 11% among OCD-diagnosed youth participants but only 1% for the non-disordered control group (Lafleur et al., 2011), suggesting that exposure to trauma is likely a robust risk factor for the development of OCD in childhood and adolescence. Moreover, contemporary reviews investigating this relationship find a consistently strong positive correlation between adverse childhood experiences (such as emotional and sexual abuse and neglect) and obsessive-compulsive symptoms and symptom severity (Destrée et al., 2021; Ou et al., 2021). Although the studies included in these reviews do not measure OCD symptoms exclusively among children and adolescent samples, the significant proportion of adults with OCD who experienced symptom onset before the age of 18 (Walitza et al., 2011) suggests that childhood traumatic experiences are also meaningfully correlated with OCD symptoms in children and adolescents.

This review synthesizes various research findings into a theoretical pathway that describes how obsessive-compulsive symptoms may emerge and builds a case for ST as a promising intervention capable of disrupting this progression. The first section explores the connection between early trauma exposure and the development of early maladaptive schemas (EMSs), illuminating how adverse experiences may shape the dysfunctional beliefs central to ST's therapeutic focus. The next section connects EMSs to OCD, offering additional evidence that EMSs may act as key mechanisms underlying the disorder and reinforcing the need for treatments like ST that specifically target such schemas. Building on the trauma-EMS-OCD pathway, the final section discusses empirical support for ST and considers its potential to interrupt OCD progression in youth.

Early Trauma and EMSs

While some of the specific underpinnings of the childhood trauma-OCD relationship remain unclear, the extant literature supports the broad theory that children and adolescents may respond to early traumatic events through the development of coping strategies that become maladaptive, manifesting as OCD psychopathology (Wang et al., 2023). One such mechanism connecting childhood trauma exposure to OCD development is early maladaptive schemas. EMSs are pervasive and dysfunctional emotions, thoughts, and beliefs about oneself and others that have arisen due to unmet needs in early life (Young et al., 2003 as cited in Dostal & Pilkington, 2023).

EMSs are encompassed by five distinct domains. The first domain is Disconnection & Rejection, which involves schemas related to emotional deprivation, social isolation, mistrust, and beliefs about personal defectiveness (Young et al., 2003 as cited in Dostal & Pilkington, 2023). A young person impacted by this domain may hold beliefs like "There is something inherently wrong with me" or "The people I love will always leave me" (Young et al., 2003 as cited in Dostal & Pilkington, 2023). The second domain is Impaired Autonomy & Performance, which involves schemas related to incompetence, vulnerability to harm, and expectations of failure (Young et al., 2003 as cited in Dostal & Pilkington, 2023). Someone struggling with this domain may have ongoing thoughts such as "Something terrible is going to happen to me" or "If I try this on my own, I will not succeed" (Young et al., 2003 as cited in Dostal & Pilkington, 2023). The remaining three EMS domains include Impaired Limits, which involves schemas related to entitlement and poor self-control; Other-Directedness, which involves schemas related to self-sacrifice and approval-seeking; and Over Vigilance & Inhibition, which involves schemas related to pessimism and overcritical views of the self

(Young et al., 2003 as cited in Dostal & Pilkington, 2023).

EMSs are said to stem from inadequate care during early life, and a significant body of research takes this assertion a step further, establishing the connection between childhood trauma and EMS development. Multiple cross-sectional studies have revealed significant correlations between childhood maltreatment/abuse and the expression of EMSs (Kaya Tezel et al., 2015; Lumley & Harkness, 2007; Yiğit et al., 2018). For example, Kaya Tezel et al. (2015) found that physical abuse/neglect and emotional abuse/neglect were significantly correlated with all five EMS domains, and sexual abuse was significantly associated with all domains except the Over Vigilance & Inhibition domain in one adult sample. Yiğit et al. (2018) found a significant overall relationship between childhood maltreatment and EMSs in an adolescent sample, specifically concluding that physical and emotional abuse predicted EMSs in the Disconnection & Rejection and Impaired Autonomy & Performance domains. Similarly, Lumley and Harkness (2007) discovered that childhood maltreatment and abuse were associated with EMSs in the Disconnection & Rejection and Impaired Autonomy & Performance domains in a sample of depressed adolescents. Such research suggests that early trauma exposure affects nearly all EMS domains, but especially those related to mistrust, shame, and vulnerability to harm–emotions that are understandably shaped by experiences such as abuse and neglect. These distressing schemas may, in turn, contribute to the development of obsessive thoughts and the perceived need to cope through compulsions—offering insight into how trauma is connected to OCD and underscoring the value of schema-focused interventions.

EMSs and OCD

In addition to the numerous studies linking childhood trauma to the development of EMSs, there is an abundance of research connecting EMSs to OCD. Although there is some evidence linking EMSs within all five domains to OCD symptomatology (Kizilagac, 2019), the data most consistently indicate that EMSs that fall into the Disconnection & Rejection and Impaired Autonomy & Performance domains have the strongest associations with OCD (Kim et al., 2014; Kwak & Lee, 2015; Yoosefi et al., 2016). For example, a cross-sectional study by Kim et al. (2014) discovered that OCD samples as compared to healthy controls had significantly higher scores for EMSs including defectiveness/shame, social isolation/alienation, and failure (all of which are encompassed by the Disconnection & Rejection and Impaired Autonomy & Performance domains). In their respective cross-sectional studies, Kwak and Lee (2015) and Yoosefi et al. (2016) further validated that EMSs within the Disconnection & Rejection domain were significantly more activated in OCD samples than in controls. Such patterns may arise because maladaptive schemas such as overestimation of personal risk, perceived incompetence, and a diminished sense of coping ability can give rise to obsessive thoughts and fears, ultimately driving individuals to use compulsions as a means of avoiding distress and negative outcomes (Dostal and Pilkington, 2023). For example, a child with the contamination subtype of OCD might obsessively think, "If I'm not perfectly clean, I'll get sick and die"—a belief linked to the vulnerability to harm EMS within the Impaired Autonomy & Performance domain; they may then try to cope through a compulsive behavior like excessive handwashing. Similarly, a child with the harm subtype of OCD may obsessively wonder, "What if I lose control and hurt the people I love?"--a thought linked to the personal defectiveness EMS within the Disconnection and Rejection domain; they may then attempt to cope through compulsive checking behaviors to ensure they have done no harm. Therefore, by challenging EMSs (especially those encompassed by the Disconnection & Rejection and Impaired Autonomy & Performance domains) through schema-targeting interventions, it may be possible to disrupt the deeper patterns engendering obsessive-compulsive symptoms in youth.

The Trauma-EMS-OCD Pathway

Overall, current research clearly links childhood trauma to EMSs and, in turn, connects EMSs to OCD, outlining a coherent theoretical pathway between these components. Across multiple studies, EMSs that fall under the Disconnection & Rejection and Impaired Autonomy & Performance domains have proven to be particularly significant mechanisms in this pathway (Kim et al., 2014; Kwak & Lee, 2015; Lumley & Harkness, 2007; Yiğit et al., 2018; Yoosefi et al., 2016), providing a mediatory explanation for the well-documented relationship between traumatic childhood experiences and obsessive-compulsive symptomatology. It is of important note, however, that while the aforementioned studies provide strong evidence for a linkage between the different components, such research is nearly exclusively cross-sectional, limiting the ability of researchers to establish definitive causality along the trauma-EMS-OCD pathway.

Standard OCD Treatments & Limitations

Given the clear theoretical link between childhood trauma, EMSs, and OCD, it becomes critical to evaluate whether current treatment modalities adequately address these underlying mechanisms. Though Cognitive Behavior Therapy (CBT) supplemented with Exposure and Response Prevention (ERP) is typically considered the first-line treatment for individuals with OCD (Eisen et al., 2010 & Foa et al., 2005 as cited in Thiel et al., 2016), other approaches–such as family-based psychotherapy (Demaria

et al., 2021) and mindfulness training (Key et al., 2017)–have also been used to address OCD symptoms. These treatments help individuals manage obsessions as they arise through various methods (e.g., mindfulness techniques, family support, exposure, etc.), but they tend to focus on symptom management rather than addressing the fundamental causes that give rise to obsessive-compulsive symptoms in the first place. For instance, CBT and ERP joint interventions generally involve a learning component to bring critical awareness to unhelpful thoughts and behaviors (CBT) along with structured exposure to anxiety-inducing stimuli whilst refraining from compulsive rituals (ERP) (Eisen et al., 2010); however, this treatment typically does not explore the early traumatic experiences or deeply held beliefs that may trigger obsessive thoughts or drive compulsive behaviors. Although considered the "gold standard," CBT and ERP fail to provide satisfactory relief for approximately 10–37% of patients (Schruers et al., 2005), highlighting the need for additional therapeutic options that target the deeper origins of OCD. For such CBT-resistant cases, a different kind of intervention known as schema therapy (ST) is being studied as a potential option.

Schema Therapy

ST is well-documented in its ability to address both the underlying causes and symptomatic manifestations of OCD (Thiel et al., 2016). Integrating aspects of attachment theory, psychodynamic approaches, and gestalt therapy (Kellogg & Young, 2006 as cited in Thiel et al., 2016), ST is a form of psychotherapy that targets deeply-rooted unhealthy thought patterns and negative conceptualizations of the self (EMSs) that have arisen in response to unmet needs in childhood. ST aims to replace EMSs and manage the dysfunctional emotional and behavioral consequences of EMS activation (schema modes) through various psychotherapeutic modalities including psychoeducation, family interventions, and experiential techniques (Peeters et al., 2021). Where other interventions primarily focus on managing symptoms as they occur, ST targets the deeper underpinnings of OCD, allowing individuals to confront and restructure the maladaptive schemas that give rise to obsessions and compulsions (Thiel et al., 2016). As such, ST may be particularly beneficial for treatment-resistant cases of OCD in which surface-level interventions fall short and more foundational therapeutic work is needed. Additionally, because of its focus on attachment and early life, ST may be especially well-suited for youth populations, as adverse childhood experiences in these individuals are more recent and may be more readily addressed through early intervention.

ST in Practice

ST is typically delivered in a one-on-one psychotherapy setting with a clinician prompting the patient to discuss their maladaptive patterns, unmet needs, and core beliefs and then guiding them through interactive activities such as imagery rescripting and chair work (Peeters et al., 2021). By design, ST seeks to address the deeper roots of EMSs, allowing it to disrupt the trauma-EMS-OCD pathway and decrease obsessive-compulsive symptoms. ST facilitates exploration into the origins and entrenched patterns of EMSs so that individuals can confront the fundamental causes of their unhealthy coping and feel supported in replacing maladaptive beliefs and behaviors with healthier alternatives. In practice, this could look like a practitioner guiding a patient who felt rejected by their parents during childhood through a role-play scenario using chair work (Karimipour et al., 2021). While sitting in one chair, the patient may be instructed to act the way their parents did in reality (e.g., assuming a rejecting attitude), and in the other chair, they may be instructed to act the way they wish their parents had acted (e.g., assuming an accepting attitude). Such an activity could help modify maladaptive schemas within the Disconnection & Rejection domain and ultimately lead to downstream reductions in obsessive-compulsive behavior. By revising deep wounds through activities like this and getting at the origins of specific EMSs, ST has been clinically proven to improve OCD outcomes (Karimipour et al., 2022).

ST in Research

While most of the empirical data on ST highlights its efficacy in treating personality and mood disorders (Kellogg & Young, 2006; Taylor et al., 2017), a few studies have demonstrated its promise as a treatment for OCD. One recent study conducted by Abdelrazek et al. (2023) tested the impact of a short course of ST on the symptom severity of a clinical sample of adults diagnosed with OCD (n=12). Using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS), a highly reliable semi-structured interview tool, researchers collected data on both obsessive and compulsive symptoms at baseline and after each of three ST sessions. They discovered that OCD severity scores decreased in a dose-response manner at every data collection point and found a statistically significant difference between overall Y-BOCS scores at baseline and after the final ST session (Abdelrazek et al., 2023). They postulated that these dramatic outcomes stemmed from ST increasing awareness of EMSs and improving emotional coping, thereby weakening the EMS mechanism and leading to improved OCD symptoms.

In a 2016 pilot study with similar aims, Thiel et al. investigated how exposure and response therapy augmented with ST impacted the OCD symptom profiles of a sample of CBT-resistant adults diagnosed with OCD (n=10). Subjects underwent a 9-week intervention period with two therapy sessions per week in which they became increasingly exposed to ST techniques

like psychoeducation processes, schema mode work, flashcard exercises, chairwork, and imagery rescripting. The researchers used the Y-BOCS structured interview measure in addition to the Compulsive Inventory-revised (a self-report questionnaire) to assess symptoms at baseline, post-treatment, and follow-up. Comparisons between scores at baseline and after the treatment period revealed statistically significant improvements in both obsessive and compulsive symptoms that remained stable at follow-up (Thiel et al., 2016). In analyzing participant reports about the study, the researchers suggest that the treatment's positive impacts may be attributable to the way ST helped individuals identify the triggers of their maladaptive behaviors and understand their symptoms through the lens of the schema mode model; this led to the disruption of the EMS mechanism, a sense of distance from symptoms, and better compliance with exposure therapy sessions, resulting in improved OCD symptoms overall (Thiel et al., 2016).

While studies by Abdelrazek et al. and Thiel et al. demonstrate the potential of ST in alleviating OCD symptoms, their exclusively adult samples slightly limit the applicability of the findings to this review's population of interest. As both sets of authors describe, the effectiveness of ST seemed to largely rely on participants' ability to understand and work through the complexities of their EMSs; therefore, it is important to note that children and adolescents may not possess the same degree of self-awareness and emotional maturity necessary to reap the exact same benefits from such interventions. Despite these considerations, preliminary research efforts to adapt ST for youth samples suggest interest in extending this therapeutic approach to groups across the age spectrum.

Researchers have already shown how ST can be adapted to meet the emotional and intellectual needs of younger individuals, promoting positive outcomes for youth with mental illness. Although no studies on ST for children and adolescents have specifically included samples with OCD, ST has proven to be an effective intervention for youth with internalizing disorders and behavioral issues. In one study, Karimipour et al. (2022) guided an adolescent sample with internalizing behavioral problems (n=30) through 14 weekly group schema mode therapy sessions. While the majority were joint sessions with both the adolescents and their parents, four sessions included only the adolescent participants, and two were geared toward just the parents. Each session's contents included activities like imaginary interviews, chair work, schema mode flashcards, "clever and wise" imagery techniques, and self-compassion practices. Parent reports via the Child Behavior Checklist (a behavior assessment scale) pre- and post-treatment revealed statistically significant improvements in adolescents' internalizing behavioral problems as compared to controls (Karimipour et al., 2022). Though this study did not target the specific disorder and symptoms of interest, it demonstrates ST's efficacy in modifying unwanted behaviors in children and adolescents and its feasibility as a treatment for young populations.

Methodological Considerations in Schema Therapy Research

Despite the compelling empirical support for ST in the literature, the included studies by Abdelrazek et al. (2023), Thiel et al. (2016), and Karimipour et al. (2022) contain some common yet notable methodological challenges. All three studies utilized convenience sampling to gather participants and had small sample sizes (ranging from n=10 to n=30), increasing the chances of biased sampling and limiting the external validity of the findings. Additionally, the Abdelrazek et al. (2023) and Thiel et al. (2016) studies did not include control groups which prevented them from establishing an untreated baseline and determining a definitive causal relationship between ST and symptom improvement, reducing internal validity. Such constraints are common and often difficult to avoid in clinical psychology research, given the challenge of recruiting participants with particular characteristics/conditions and the ethical concerns posed by withholding a potential treatment from a control group. Where possible, future studies may address these concerns by expanding the scope of research (e.g., partnering with federal organizations, drawing from public health records, etc.) to enable larger and more representative samples. Researchers may also consider implementing active control groups (e.g., randomly assigning some participants to CBT and ERP instead of ST) in their studies so that no participant goes without treatment.

Future Directions in Schema Therapy Research

While the evidence suggests that ST is an effective intervention for adult OCD populations (Abdelrazek et al., 2023; Thiel et al., 2016) and for children and adolescents with other mental health issues (Karimipour et al., 2022), a gap in the literature exists where these two categories converge. Taken together, therefore, the studies of Abdelrazek et al. (2023), Thiel et al. (2016), and Karimipour et al. (2022) provide a salient opening for research on the efficacy of ST for children and adolescents with OCD. In consideration of this knowledge gap and the aforementioned threats to study validity, research investigating the impact of ST on a large and representative sample of OCD-diagnosed youth is warranted. Such an inquiry could serve as a notable contribution to the literature on OCD treatments by illuminating the potential for ST to address the EMS mechanism in young sufferers of OCD (particularly those who have experienced trauma), consequently disrupting this pathway early on.

Though ST models demonstrate great treatment potential, the costly and time-consuming nature of in-person therapy sessions may impede the accessibility of ST, particularly amongst the socioeconomically vulnerable and disproportionately trauma-exposed populations for whom ST could prove most beneficial. However, with the recent development of technologically

administered therapeutic interventions, there are promising new avenues to access ST including computer- and phone application-based ST programs that entail far fewer barriers to utilization (Jacob et al., 2018; Stefan et al., 2023). Additionally, artificial intelligence has continued to grow its capacity in psychosocial spheres, paving the way for AI modalities related to ST (Croitoru et al., 2024). Future research could explore how technological advancements in the delivery of ST may benefit youth with OCD, helping struggling children and adolescents lead lives with fewer obsessive-compulsive symptoms.

Conclusion

Reframing OCD in the context of trauma exposure and EMSs offers a powerful lens to understand the disorder's origins and consider meaningful points of intervention for youth. The trauma-EMS-OCD pathway delineates an evidence-based, theoretical model in which trauma exposure contributes to EMSs that, in turn, increase vulnerability to obsessive-compulsive symptoms. By directly targeting these underlying schemas, ST shows robust therapeutic promise, particularly for trauma-exposed youth with OCD who may not find relief through standard interventions. However, the lack of empirical studies specifically examining ST for children and adolescents with OCD raises the need for targeted research in this area.

This review contributes a novel integration of trauma, schema theory, and treatment, emphasizing the need to move beyond conventional symptom management toward deeper schematic restructuring for the treatment of OCD. ST's adaptability for youth populations positions it not only as a practical therapeutic intervention but also as a developmental tool with broader clinical and social implications; if caregivers, teachers, and communities understand how EMSs shape vulnerabilities to mental health disorders, they can more easily foster adaptive and nurturing schemas that support long-term well-being. Future work should investigate the developmental timing and wide-reaching potential of early schema work, when EMSs are presumably most malleable. In doing so, the field may begin to shift life trajectories and expand the reach of early mental health support–finally getting us closer to disrupting pediatric OCD at its source.

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