

Cultural and Familial Context of Contamination-Related Obsessive-Compulsive Symptoms in an Adolescent: A Case Report

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Abstract

Contamination-related obsessive-compulsive disorder (OCD) can cause substantial distress and functional impairment, particularly when compulsive behaviors become intertwined with familial and culturally shaped beliefs about purity and cleanliness. Understanding the distinction between culturally normative practices and clinically impairing compulsions is important for culturally sensitive assessment and treatment.

This case report describes an 18-year-old woman with adolescent-onset, contamination-related obsessive-compulsive symptoms that developed at approximately 14-15 years of age during a period of academic and family stress. Her symptoms included persistent feelings of being unclean after toileting, prolonged bathing and toileting, repeated checking of undergarments after urination, counting rituals, avoidance of food and water to reduce elimination-related urges, and avoidance of physical contact in crowded or public settings. A distinctive feature of the presentation was its development within a familial environment in which purity and cleanliness were associated with bodily practices and social boundaries. The patient reported routine post-defecation bathing by family members, restrictions on physical contact with individuals from Scheduled Caste backgrounds, cleansing of the household after such contact, and repeated scrutiny of the adequacy of her own washing. These experiences were considered contextual influences that may have shaped the meaning and reinforcement of contamination concerns rather than direct causes of OCD. Her behaviors were distinguished from the family practices she described by their excessive duration, associated distress, impaired control, and functional interference.

The baseline Yale-Brown Obsessive Compulsive Scale (Y-BOCS) score was 24, indicating severe symptoms. Treatment focused on psychoeducation, reduction of ritualized behaviors, distraction and urge-management strategies, toilet retraining, relaxation, and supportive psychotherapy, alongside concurrent pharmacological treatment. By sessions six to seven, checking and counting had ceased, bathing and toileting duration had markedly decreased, food and water avoidance had resolved, and previously avoided bus travel and crowded settings were tolerated. At session nine, approximately two months after baseline, the Y-BOCS score had decreased to 4, indicating symptoms in the subclinical range. The remaining sessions focused primarily on maintaining improvement and adjustment to college, with no recurrence of the principal rituals documented through the final session.

This case highlights how familial and culturally transmitted concepts of purity may shape the content of contamination-related OCD symptoms. Substantial improvement occurred during a symptom-focused behavioral intervention without directly challenging the family's broader cultural framework. However, concurrent pharmacological treatment and the availability of only one follow-up Y-BOCS assessment limit conclusions about the independent effect of psychotherapy and the durability of improvement.

Categories: Psychiatry, Psychology, Pediatrics

Keywords: adolescent, contamination symptoms, cultural psychology, family influence, obsessive-compulsive disorder (ocd)

Introduction

Obsessive-compulsive disorder (OCD) is a psychiatric disorder characterized by obsessions, compulsions, or both. Obsessions are recurrent, intrusive, and unwanted thoughts, urges, or images that cause distress, whereas compulsions are repetitive behaviors or mental acts performed in response to obsessions or according to rigid rules, often to reduce distress or prevent a feared outcome. Under the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) diagnostic criteria, symptoms must be time-consuming (e.g., taking more than one hour per day) or cause clinically significant distress or impairment in important areas of functioning. They must not be attributable to the physiological effects of a substance or another medical condition or be better explained by another mental disorder [1]. OCD can begin during childhood or adolescence and may interfere with academic functioning, family relationships, social

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development, and everyday activities. Its lifetime prevalence has been estimated at approximately 1%-3% worldwide, although estimates vary according to the population and diagnostic methods used. Indian studies have reported prevalence estimates of 0.6%-0.8% in general populations, while studies of children and adolescents have reported estimates ranging from 0.1% in a community-based study to 0.8% in a school-based survey [1].

Contamination-related obsessions and washing, checking, and repetitive compulsions are frequently reported in clinical samples of children and adolescents with OCD [1,2]. In a multicentre Indian clinical study, contamination obsessions were reported in 43.4% of participants at assessment and 54.3% over their lifetime, while washing and cleaning compulsions were reported in 46.8% and 55.5%, respectively [2]. These figures describe symptom frequencies among patients with OCD rather than the prevalence of contamination-related OCD in the general population. Although the underlying obsessive-compulsive process is recognized across populations, the content and meaning of symptoms may be influenced by the sociocultural environment in which they develop [3].

Cultural beliefs and family practices can shape how concepts such as contamination, purity, responsibility, and threat are interpreted, as well as the behaviors used to neutralize perceived danger [3]. This is particularly important when assessing contamination-related symptoms because cleansing, bathing, avoidance, and restrictions surrounding perceived impurity may occur as culturally sanctioned practices without constituting psychopathology. The clinical distinction depends not simply on the form of a behavior but also on features such as excessive duration, distress, impaired control, repetitive or ritualized quality, and interference with daily functioning [1,3]. Understanding this distinction is essential to avoid pathologizing culturally meaningful practices while identifying clinically significant compulsive behavior.

Family processes may further influence the expression and maintenance of OCD symptoms, particularly during childhood and adolescence. Family members may provide reassurance, facilitate avoidance, participate in rituals, or otherwise accommodate symptoms. Family accommodation has been associated with greater OCD symptom severity, and research from India has also documented its relevance in clinical settings [4,5]. However, family accommodation, parental modeling, and culturally normative household practices are distinct concepts and should not be treated as interchangeable. Routine family practices should not automatically be considered causal; instead, they may interact with individual vulnerability and psychosocial stress by influencing the interpretation, content, or persistence of obsessive-compulsive symptoms [3,4,5].

Assessment of OCD generally involves a detailed clinical interview exploring the nature, frequency, duration, associated distress, resistance, insight, avoidance, and functional impact of obsessions and compulsions. Assessment should also consider psychiatric comorbidities, family dynamics, developmental and educational functioning, and safety concerns. Standardized instruments, including the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), can support the assessment of symptom severity and monitoring of clinical change but do not replace a comprehensive clinical evaluation [1,6]. Family accommodation has also been examined in relation to OCD symptom severity in Indian clinical settings [7]. Evidence-based treatment approaches include cognitive-behavioral therapy (CBT) incorporating exposure and response prevention (ERP) and pharmacotherapy, particularly selective serotonin reuptake inhibitors (SSRIs), with treatment selection guided by symptom severity, age, clinical circumstances, and treatment response [1,8].

Although the influence of culture on OCD symptom expression and the association between family accommodation and symptom severity have been examined in previous literature [3,4,5,7], detailed clinical descriptions of how familial purity-related practices and socially transmitted boundaries intersect with contamination-related symptoms in individual Indian cases remain important for clinical understanding. In particular, distinguishing culturally embedded household practices from compulsions characterized by excessive duration, distress, impaired control, and functional interference requires careful contextual assessment. The present case describes adolescent-onset contamination-related OCD in an Indian woman whose symptoms developed in a familial environment emphasizing purity and cleanliness. It aims to describe the clinical presentation and treatment course and to explore, without assuming causation, how familial and culturally shaped meanings may have influenced the content and maintenance of symptoms.

Case Presentation

Patient information and presenting complaints

An 18-year-old woman presented to the author's independent clinical psychology practice with excessive washing, prolonged bathing and toileting, repetitive checking and counting, and contamination-related concerns. Symptoms began at approximately 14-15 years of age, when she was in Class 9, during the COVID-19 lockdown. The patient was the principal source of information about her symptoms and treatment; reliable collateral information about her early development was unavailable.

The earliest reported symptom was a persistent feeling of being *unclean* after using the toilet, followed by repeated washing of her feet. Over time, this developed into prolonged, ritualized bathing and toileting, checking her undergarments after urination, counting during washing and bathing, and avoiding public or

crowded settings because of fear of contamination through physical contact. She recognized that these behaviors were excessive but found them difficult to stop.

Before symptom onset, brushing, washing, and bathing together reportedly took 30–40 minutes as part of her morning routine, and she did not routinely bathe after every defecation. During the symptomatic period, toileting took approximately 30–60 minutes and bathing 90–120 minutes. Bathing became linked to toileting and perceived contamination, including after defecation. She restricted food and water intake to reduce the need to urinate or defecate and generally reported defecating once in the morning, followed by prolonged toileting and bathing rituals. These behaviors consumed substantial time and interfered with daily routines and social activities.

Psychosocial, family, and cultural context

Symptoms emerged during the COVID-19 lockdown, when the patient was in Class 9 and was worried about uncertainty surrounding school examinations. She recalled a rumor that Class 10 board examinations might be canceled and results might depend on Class 9 performance, which contributed to academic pressure. Around the same period, her maternal uncle's wedding coincided with her examinations. She recalled that her mother stayed home to support her but was reluctant to miss the wedding. The patient also recalled critical comments from her mother about her appearance and academic ability, which she associated with low self-worth and distress. In Class 11, she reported renewed stress related to poor performance in Physics and another relative's wedding. These were temporal associations considered in the formulation; they do not establish that the stressors caused OCD.

The patient described household practices related to purity and cleanliness. Her mother and grandmother reportedly bathed after defecation and questioned whether the patient had washed adequately when she completed bathing quickly. She also described household cleansing after contact with people from Scheduled Caste backgrounds, as well as restrictions or reprimands concerning her contact and play with children from these backgrounds. The duration of family members' washing practices was not assessed reliably, and the patient did not report comparable distress, prolonged rituals, or functional impairment in them. Before symptom onset, she herself did not report routinely bathing after every defecation. These family and cultural practices are presented as contextual influences that may have shaped the meaning of contamination and adequate cleansing, not as established causes of OCD.

The patient lived with her parents, grandmother, and three younger siblings. She described her father, a 50-year-old general physician, as supportive and her mother, a 48-year-old homemaker, as emotionally critical. She reported limited emotional support from her paternal grandmother, particularly regarding her being a girl and her playing with children irrespective of caste or social background. During treatment, she reported that her mother was not speaking to her and did not allow her younger siblings to speak to her. The patient did not report a family history of major medical or psychiatric illness. This information was not independently verified.

Personal and developmental history

Premorbidly, the patient described herself as introverted, conscientious, sensitive to evaluation, and emotionally dependent on maternal validation. She reported average academic performance and a small number of close friendships; singing was her principal leisure activity. She completed Class 12 with 71% and subsequently enrolled in a Bachelor of Technology (B.Tech) program.

A detailed developmental history could not be established because her father could not recall relevant details of her early development, and her mother declined participation in the sessions or discussion of the patient's history. No developmental conclusions were drawn from the incomplete collateral information.

Past medical and psychiatric history

The patient reported no significant past medical illness, chronic medical disorder, substance use, physical or sexual abuse, major traumatic event, surgery, hospitalization, or previous formal psychological therapy. During Class 10, approximately one to two years after symptom onset, she sought homeopathic consultation. She could not recall the preparations, dose, frequency, route, or duration, and no records were available.

Approximately one to two years before the current intervention, she attempted to manage distress by focusing on her studies or watching videos on her phone. She recalled being more occupied with academic work during Class 10 and believed this may have coincided with temporary relief, although improvement was not assessed systematically. At presentation, searching online for OCD-related information or watching related videos reportedly increased her anxiety.

A psychiatric consultation took place approximately one to two months before the psychological intervention. The patient reported that fluoxetine 20 mg and clonazepam 0.25 mg were initially prescribed, but dosing frequency and duration could not be verified. Fluoxetine was later replaced with sertraline, and

olanzapine was subsequently added; the doses, frequencies, duration, and exact regimen during individual psychological sessions could not be established. She reported adherence to medication and psychiatric follow-up, and pharmacological treatment continued during the psychological intervention. The psychiatric records were unavailable. She reported that no significant physical examinations, laboratory tests, or radiological investigations had been performed.

Mental status examination

At the initial assessment, the patient was well-kempt and appropriately dressed, maintained good eye contact, and established rapport readily. Psychomotor activity was normal. Speech was coherent and goal-directed but non-spontaneous. She reported low mood and reduced interest; affect was objectively euthymic, mildly anxious, and reactive. Thought form was normal. Thought content included contamination-related preoccupation, checking, and fear of judgment. No formal thought disorder or perceptual abnormality was identified. She was alert and oriented, with adequate attention and concentration during assessment. Judgment was intact, and insight was rated 4/6.

Diagnostic assessment and rationale

The clinical diagnosis was mixed obsessional thoughts and acts (ICD-10 F42.2). The diagnosis was based on recurrent contamination-related concerns accompanied by repetitive washing, prolonged bathing and toileting, checking, counting, and avoidance. These behaviors occurred in response to perceived contamination or uncertainty about whether cleansing was adequate, were difficult to stop, consumed substantial time, and interfered with daily routines and social functioning. The patient recognized that the behaviors were excessive, indicating insight into their disproportionate nature.

The Yale-Brown Obsessive Compulsive Scale (Y-BOCS) was administered during Session 2 after formal permission had been obtained from Dr. Wayne K. Goodman. The baseline total score was 24 (obsession subtotal 11; compulsion subtotal 13), within the severe symptom range.

No additional comorbid psychiatric diagnosis was established from the available clinical interview. Although the patient reported low mood, academic stress, and low self-worth, the available history did not establish a distinct depressive episode. A structured diagnostic interview assessing all possible psychiatric comorbidities was not conducted; therefore, the absence of a documented comorbidity should not be interpreted as definitive exclusion of every possible condition.

Risk assessment

The patient reported two previous self-harm-related events: ingestion of an uncertain small amount of bleaching powder during Class 11 and a wrist-cutting episode approximately one month before the initial psychological evaluation. Details of the substance, amount, injury severity, and medical findings were unavailable. She reported no hospitalization, procedure, prescribed medication, or psychological intervention following the events. The absence of documented medical care does not establish the medical severity of the events. She associated both episodes with family-related distress, feelings of inadequacy, and academic difficulties, and described them as impulsive responses to distress rather than attempts to manage OCD symptoms.

At the start of psychological intervention, she denied current suicidal ideation, intent, plan, or passive wish for death. She expressed a desire to improve, continue her studies, and pursue interests in robotics or artificial intelligence. Her father's support was identified as a protective factor. Mood and safety were revisited during treatment. No further suicidal ideation or self-harm was reported or documented across the 16 sessions; this reflects the information elicited during treatment and does not imply that risk was eliminated.

Case formulation

The formulation integrated individual vulnerability, academic and family-related stress, familial and culturally shaped meanings of purity and cleanliness, and behavioral mechanisms that may have maintained symptoms (Figure 1). Repeated checking and cleansing appeared to be responses to contamination-related distress and uncertainty about whether washing was adequate. Avoidance and restriction of food and water may have reduced distressing toileting experiences in the short term while disrupting ordinary functioning. Family criticism and scrutiny of washing adequacy were considered relevant contextual influences on self-worth and the meaning attached to cleansing. These observations informed the individual formulation and were not interpreted as evidence that family or cultural practices directly caused OCD.

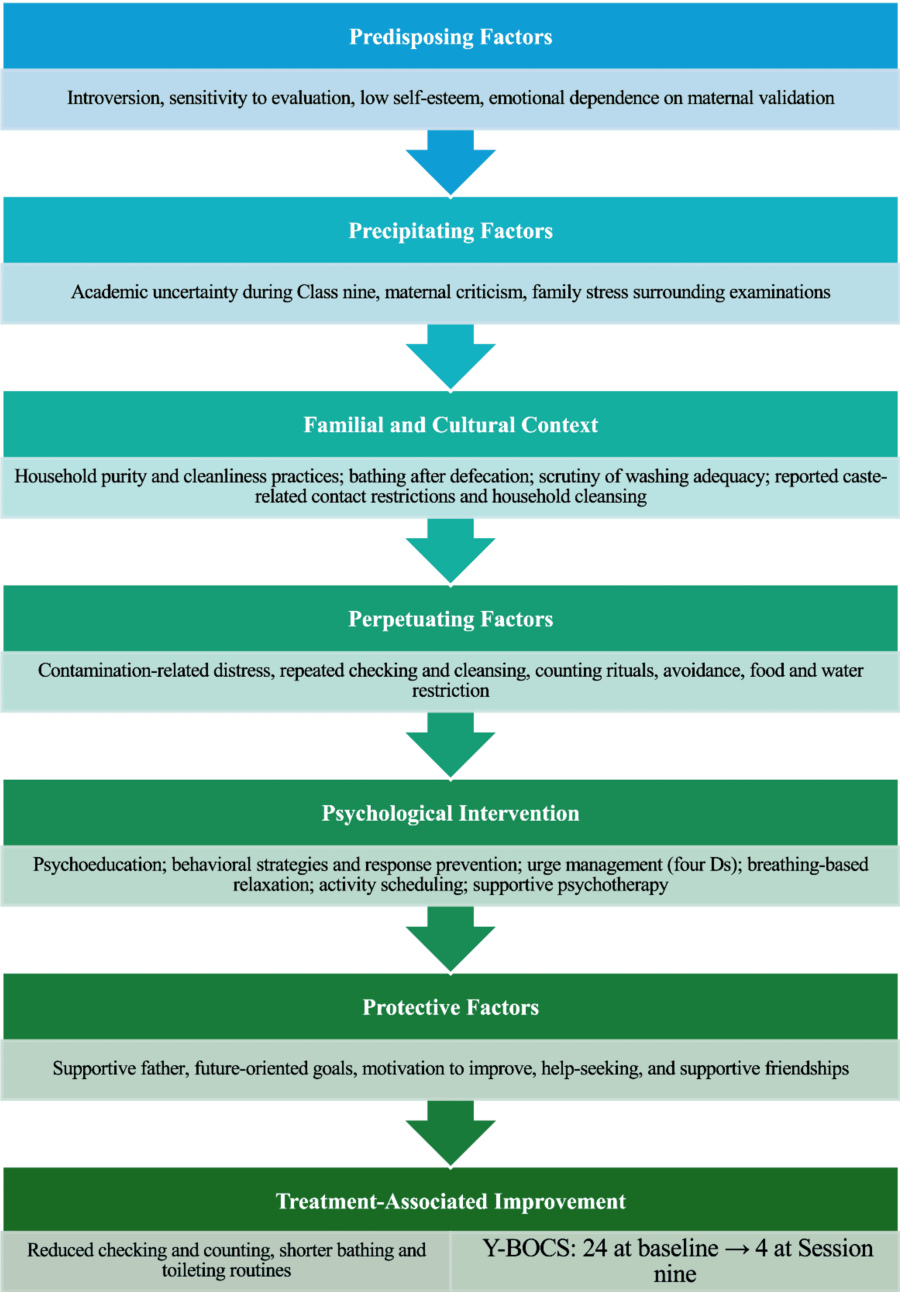


FIGURE 1: Conceptual 4P formulation of contamination-related obsessive-compulsive symptoms and clinical improvement.

The figure summarizes the predisposing and precipitating factors, familial and cultural context, perpetuating factors, psychological intervention, protective factors, and clinical improvement observed during the documented treatment period. Familial and cultural practices are presented as contextual influences that may have shaped the meaning of contamination and cleansing, rather than as established causes of OCD. Protective factors were identified from the patient's clinical history; their independent contribution to improvement was not established. The figure was created by the authors using Microsoft PowerPoint (Microsoft Corporation, Redmond, WA) and exported as a PNG image.

OCD, obsessive-compulsive disorder; Y-BOCS, Yale-Brown Obsessive Compulsive Scale

Psychological intervention and clinical course

The patient received 16 individual psychological sessions over approximately four months. Sessions were conducted about once weekly and lasted 45-60 minutes. The intervention was individualized and primarily behavioral and supportive; it was not delivered as a manualized CBT, rational emotive behavior therapy (REBT), or ERP protocol.

Phase 1: Assessment, Psychoeducation, and Goal Setting (Sessions 1-2)

The first two sessions focused on rapport, history-taking, symptom assessment, psychoeducation, and collaborative treatment goals. The patient's prolonged toileting and bathing, undergarment checking after urination, counting, avoidance of crowded settings, and restriction of food and water were reviewed in relation to their impact on daily functioning. Psychoeducation addressed the relationship between contamination-related thoughts, distress, and repetitive behaviors. She was encouraged to distinguish ordinary hygiene from behaviors repeated because of uncertainty or a perceived need to complete a ritual. The baseline Y-BOCS score of 24 was recorded during Session 2.

Phase 2: Behavioral Change and Restoration of Routine (Sessions 3-7)

The next phase focused on reducing checking, counting, and ritualized cleansing. Response-prevention strategies included refraining from repeated undergarment checking after urination and continuing a bathing routine if interrupted rather than restarting the entire sequence. Bathing and toileting duration were progressively shortened, and toilet retraining aimed to reduce unnecessarily prolonged toileting and repeated cleansing. These were behavioral strategies incorporating elements of response prevention, but the intervention was not formal ERP; structured cognitive restructuring or a manualized REBT protocol was not used.

The four Ds (Delay, Drink water, Distraction, and Deep breathing) were introduced as practical urge-management strategies. Breathing-based relaxation, including diaphragmatic or box breathing, was used to help manage anxiety rather than as a required step before ending a ritual. Activity scheduling encouraged regular meals, water intake, study periods, physical activity, and selected leisure activities. Supportive discussions addressed self-doubt, low self-worth, family-related distress, and academic concerns.

During Sessions 3-7, checking and counting progressively decreased and then ceased. Bathing and toileting duration fell; by this phase, toileting reportedly took about 10 minutes and bathing a few minutes, compared with 30-60 minutes and 90-120 minutes, respectively, at baseline. Water use during toileting reportedly decreased from approximately 10 buckets to one bucket. Food and water restrictions intended to avoid urination and defecation resolved, and the patient became more able to tolerate bus travel and crowded settings. These estimates were based on patient report, not direct observation or objective measurement. By Sessions 6-7, ritualized bathing and toileting had markedly reduced, and distressing contamination-related thoughts were no longer reported in subsequent sessions.

Phase 3: Maintenance and Functional Adjustment (Sessions 8-16)

The later sessions focused on maintaining behavioral gains and supporting adjustment to college. After entering college and living in a hostel with a shared washroom, the patient reported completing brushing, toileting, and bathing within approximately 20-25 minutes in total, generally once in the morning. She no longer reported bathing after every defecation. Sessions also addressed academic adjustment, examination-related stress, negative self-evaluation, sleep and study routines, and ongoing family-related distress. No recurrence of the principal contamination, checking, or counting rituals was documented through Session 16.

The Y-BOCS was reassessed during Session 9, approximately two months after baseline. The total score decreased from 24 to 4, a 20-point reduction (approximately 83.3%), moving from the severe to the subclinical range. This indicates a substantial reduction in measured symptom severity during the documented treatment period but does not establish permanent remission. The main clinical changes are summarized in Table 1, and the session-wise goals and interventions are presented in Table 2.

Clinical Domain	Before symptom onset	Baseline	Session 1-2	Session 3-7	Session 8-16
Toileting	No prolonged toileting or routine post-defecation bathing	30-60 minutes; distress-driven and ritualized	Duration progressively reduced	Approximately 10 minutes	No recurrence of excessive toileting documented
Bathing	30-40 min (along with brushing and toileting)	90-120 minutes; ritualized	Duration progressively reduced	20-25 minutes; (along with brushing and toileting); no ritualized bathing reported	No recurrence documented
Water use during toileting	Not assessed	Approximately 10 buckets	Reduced progressively	Approximately one bucket	Maintained
Undergarment checking after urination	Not reported	Present	Markedly reduced	Absent	No recurrence documented
Counting during washing/bathing	Not reported	Present	Markedly reduced	Absent	No recurrence documented
Distressing contamination-related thoughts	No comparable symptoms reported	Present	Decreased	No longer reported	No recurrence documented
Y-BOCS total score	Not assessed	24 (severe; Session 2)	Not assessed	Not assessed	4 (subclinical; Session 9)

TABLE 1: Clinical changes across the documented phases of psychological intervention.

The table summarizes changes in toileting and bathing rituals, water use, checking and counting behaviors, contamination-related thoughts, and Y-BOCS scores from the premorbid period through the documented intervention phases. Behavioral durations and changes were based on patient reports. Y-BOCS scores decreased from 24 at baseline (Session 2; severe range) to 4 at Session 9 (subclinical range).

Y-BOCS, Yale-Brown Obsessive Compulsive Scale

Session	Goals	Intervention approach	Psychometric testing
1	Establish rapport and understand presenting concerns	Intake, presenting complaints, symptom history, psychosocial context, and initial clinical assessment	Not documented
2	Assess symptom severity and establish treatment goals	Further assessment, psychoeducation, identification of contamination-related concerns and rituals	Baseline Y-BOCS: 24 (obsessions: 11; compulsions: 13)
3	Identify ritual triggers and begin behavioral change	Psychoeducation, identification of checking and counting, initial reduction of repetitive behaviors	Not assessed
4	Reduce repetitive checking and cleansing	Behavioral strategies and response prevention targeting checking and ritual repetition	Not assessed
5	Reduce ritual duration and repetitive counting	Gradual shortening of bathing and toileting; urge-management strategies	Not assessed
6	Improve tolerance of distress and reduce avoidance	Response prevention, toilet retraining, distraction, and breathing-based relaxation	Not assessed
7	Consolidate early behavioral improvement	Continued ritual reduction, review of checking and counting, and reinforcement of daily routines	Not assessed
8	Maintain symptom reduction and improve functioning	Supportive psychotherapy, activity scheduling, and discussion of academic and family-related concerns	Not assessed
9	Assess symptom change and support college adjustment	Review of clinical progress, maintenance strategies, and academic adjustment	Follow-up Y-BOCS: 4
10	Support adjustment to college routines	Activity scheduling, study routines, and supportive psychotherapy	Not assessed
11	Address academic stress and self-doubt	Supportive psychotherapy and discussion of examination-related concerns	Not assessed
12	Maintain behavioral gains	Review of ritual recurrence, daily routines, and coping strategies	Not assessed
13	Address negative self-evaluation	Supportive psychotherapy and reinforcement of adaptive activities	Not assessed
14	Strengthen maintenance of improvement	Review of functioning, stress management, and continuation of routine activities	Not assessed
15	Consolidate gains and address ongoing concerns	Supportive psychotherapy, academic adjustment, and maintenance planning	Not assessed
16	Review progress and conclude the documented intervention	Review of symptom improvement, functional adjustment, and strategies for studies	Not assessed

TABLE 2: Session-wise plan of psychological intervention.

Summary of the goals, intervention approaches, major activities, and psychometric assessments conducted during the initial assessment and subsequent psychological intervention sessions. The intervention included psychoeducation, behavioral strategies incorporating response prevention, toilet retraining, urge management, breathing-based relaxation, activity scheduling, and supportive psychotherapy. The Y-BOCS was administered at baseline during Session 2 and reassessed during Session 9. Sessions lasted 45-60 minutes and were conducted approximately once weekly.

Y-BOCS, Yale-Brown Obsessive Compulsive Scale

Follow-up and outcome

No scheduled formal follow-up assessment was conducted after the 16-session intervention. During subsequent informal contact, the patient reported doing well and being occupied with college and examinations. No standardized symptom, functional, or quality-of-life assessment was performed, and medication status could not be reliably established. This informal report is not presented as a formal follow-up outcome. The observed clinical improvement occurred during a treatment period in which psychiatric medication was continued; therefore, the independent contribution of psychological intervention cannot be established. The timeline of symptom onset, previous management, clinical assessment, intervention, and

outcome is shown in Figure 2.

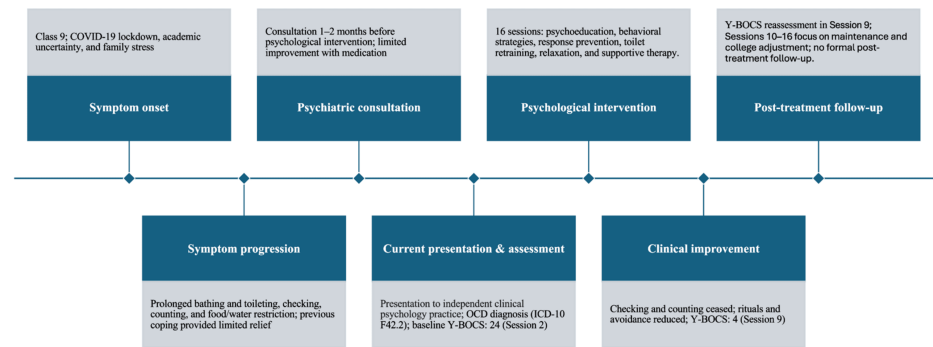


FIGURE 2: Timeline of symptom onset, previous management, clinical assessment, psychological intervention, and treatment outcome.

The timeline summarizes the patient's symptom progression from adolescence, previous help-seeking and psychiatric treatment, initial clinical assessment and Y-BOCS measurement, the 16-session psychological intervention, treatment-associated clinical improvement, and the absence of a formal post-treatment follow-up. Psychiatric medication was continued concurrently during psychological intervention. The timeline is based on the patient's retrospective account and available clinical information; details that could not be independently verified are identified accordingly. The figure was created by the authors using Microsoft PowerPoint (Microsoft Corporation, Redmond, WA).

Y-BOCS, Yale-Brown Obsessive Compulsive Scale

Discussion

Cultural and familial context of OCD

OCD is a heterogeneous condition whose symptom content and interpretation may be influenced by personal, familial, and cultural contexts [3,9]. In this case, contamination-related symptoms occurred alongside household practices concerning cleanliness, purity, and contact. Distinguishing culturally meaningful practices from OCD-related compulsions requires consideration of the individual's cultural context rather than judging behavior solely against an external standard [3,9]. Culturally normative practices are generally understood within a particular social or familial context and may be performed as meaningful, purposeful activities. In contrast, OCD-related compulsions are typically repetitive behaviors or mental acts performed in response to intrusive concerns or according to rigid rules, often to reduce distress or prevent a feared outcome. Their clinical significance depends on features such as excessive repetition, difficulty resisting behavior, disproportionate time consumption, distress, and interference with everyday functioning. However, a practice should not be classified as pathological simply because it is culturally specific, nor should cultural acceptance alone exclude the possibility of OCD. In the present case, the concern was the reported repetitive and difficult-to-resist behaviors and their impact on daily life, rather than the household practices themselves.

Academic stress, disruption during the COVID-19 lockdown, and reported family criticism formed part of the patient's psychosocial history. These factors provide context for understanding her experience but cannot be established as causes of OCD from a single retrospective case. Family accommodation, which may include participating in rituals, providing repeated reassurance, or facilitating avoidance, is associated with OCD symptom severity [4,5,7]. However, family accommodation was not formally assessed in this case, and the reported household practices should not be interpreted as evidence that the family caused or maintained the disorder.

OCD, low mood, and self-harm

OCD can coexist with depressive symptoms, reduced self-worth, and substantial psychosocial impairment. A systematic review and meta-analysis reported pooled lifetime estimates of approximately 47% for suicidal ideation and 13% for suicide attempts among people with OCD, highlighting the importance of assessing suicide risk [10]. These population-level estimates do not determine an individual's risk.

The patient reported low mood, low self-worth, and previous self-harm-related events. However, the available information did not establish a separate depressive episode, and she did not report current suicidal ideation at the beginning of the psychological intervention. Her history nevertheless warranted clinical risk assessment and consideration of protective factors. The supportive relationship with her father was identified as a potential protective factor. This case illustrates the importance of considering emotional

distress and self-harm history alongside the assessment of OCD, without assuming that either is necessarily caused by the disorder.

Psychological intervention and evidence-based treatment

Psychoeducation involves providing understandable information about a condition and its management to improve patients' understanding of their difficulties [11]. In this case, psychoeducation was combined with individualized behavioral strategies aimed at reducing ritual engagement, managing urges, and supporting daily functioning. Relaxation, activity scheduling, and supportive psychotherapy may assist emotional regulation and participation in everyday activities, but their individual contributions to OCD symptom improvement cannot be determined from this case.

CBT is a structured psychological treatment addressing the relationships between thoughts, emotions, and behaviors. For OCD, CBT commonly incorporates ERP, in which patients gradually confront feared situations or thoughts while refraining from compulsive responses. Clinical guidelines and treatment reviews support CBT incorporating ERP as an evidence-based treatment for OCD [12,13].

The intervention described here should not be classified as a formal course of CBT, REBT, or ERP. Although response-prevention strategies were used, the available treatment description does not establish that a structured exposure hierarchy and planned exposure exercises were systematically implemented. The absence of clearly documented rigid beliefs targeted for cognitive restructuring does not, by itself, make CBT or ERP inappropriate. This distinction is important when interpreting the case: the intervention was individualized, and the study was not designed to evaluate the efficacy of a specific psychological treatment.

Pharmacological treatment and combined care

SSRIs, including fluoxetine and sertraline, are established pharmacological treatments for OCD. They inhibit the serotonin transporter, although the mechanisms underlying their therapeutic effects are not fully understood. Common adverse effects may include gastrointestinal symptoms, sleep disturbance, activation, and discontinuation symptoms. Prescribing requires consideration of drug interactions and individual clinical factors, with monitoring for worsening agitation, suicidal thoughts, or self-harm, particularly during treatment initiation and dose changes. Clomipramine is another effective option but requires additional precautions because of its anticholinergic effects, cardiac risks, seizure risk, and toxicity in overdose [12,14].

Evidence-based treatment guidelines support CBT incorporating ERP and pharmacotherapy according to symptom severity, functional impairment, treatment response, and patient preference. Combined treatment with an SSRI and CBT incorporating ERP is recommended in particular circumstances, including severe functional impairment in adults. For young people, psychological treatment should be developmentally appropriate, with specialist oversight and careful monitoring when medication is prescribed [12,13].

In the present case, the patient reported no improvement after approximately two months of medication before beginning the psychological intervention. The reported medication history included fluoxetine and clonazepam initially, followed by sertraline and later olanzapine. As psychiatric management occurred in another setting, the reasons for medication changes could not be established. This report does not evaluate the efficacy of individual medications or compare pharmacological treatments. The medication history is relevant primarily as part of the clinical context in which the patient's symptoms and subsequent course were observed.

Clinical outcome and Y-BOCS interpretation

The Y-BOCS is a clinician-rated instrument used to assess OCD symptom severity [6]. The patient's score decreased from 24 at Session 2 to 4 at Session 9, an approximately 83.3% reduction. Traditional severity categories often classify a score of 24 as severe; however, empirically derived benchmarks across the lifespan classify scores of 22-29 as moderate and scores of 0-13 as subclinical [15]. The classification system should therefore be specified when interpreting scores.

The reduction to 4 indicates substantial improvement on the measure at the time of reassessment. However, Session 9 occurred before completion of the 16-session intervention, and no standardized end-of-treatment assessment or scheduled long-term follow-up was available. The subsequent informal report that the patient was doing well and occupied with college and examinations is encouraging but does not establish sustained remission. The observed change is a clinical finding within the treatment period; this case cannot establish that it resulted from a particular psychological strategy or medication.

Clinical implications, limitations, and future directions

This case highlights the importance of understanding contamination-related OCD within its cultural and familial context while distinguishing culturally meaningful practices from compulsions associated with distress, impaired control, and functional interference. It also illustrates the importance of assessing

emotional distress and self-harm history and documenting symptom change using a standardized measure. The findings are intended to inform clinical understanding of the patient's context, not to establish the efficacy of a particular medication or psychological intervention.

The principal limitations include the single-case design, retrospective patient-reported history, absence of collateral family assessment, and lack of a formal measure of family accommodation. The medication history was limited, and the reasons for changes in pharmacological treatment were unavailable. In addition, the Y-BOCS was reassessed during treatment, but standardized post-treatment assessment and scheduled long-term follow-up were not available. These limitations restrict conclusions about causality and the durability of improvement.

Future research could examine how cultural meanings, household practices, family interactions, and psychosocial stressors relate to the presentation and interpretation of contamination-related OCD. Prospective studies could use standardized diagnostic assessments, validated measures of family accommodation and functioning, and longer follow-up to clarify the relationships between cultural and familial context, symptom severity, help-seeking, and treatment engagement. Research on culturally responsive assessment and evidence-based treatment may help clinicians address symptoms without pathologizing normative family or community practices.

Conclusions

This case illustrates how culturally and familially transmitted concepts of purity and cleanliness may become incorporated into the phenomenological content of contamination-related OCD during adolescence, without implying that such practices are themselves causal or pathological. The clinically important distinction lies not in the cultural form of a behavior, but in its associated distress, excessive time consumption, impaired control, functional interference, and compulsive quality. A culturally sensitive formulation can therefore help clinicians understand the meaning of contamination concerns while avoiding pathologization of broader family or cultural practices.

The case also demonstrates the clinical value of a symptom-focused, individualized approach that targets the obsessive-compulsive cycle rather than attempting to modify the patient's wider cultural framework. Recognition of culturally shaped meanings, careful assessment of family influences, and timely behavioral intervention may be particularly relevant in adolescent OCD, where symptoms can become intertwined with family relationships, academic stress, and developing self-concept. This case adds to the clinical literature by illustrating the intersection of adolescent-onset contamination-related OCD, familial purity norms, and culturally sensitive behavioral management in an Indian setting, while highlighting the need for further research into how sociocultural meanings influence OCD phenomenology and treatment.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

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References

1. Avasthi A, Sharma A, Grover S: Clinical practice guidelines for the management of obsessive-compulsive

- disorder in children and adolescents. *Indian J Psychiatry*. 2019, 61:306-16. [10.4103/psychiatry.IndianJPsychiatry_554_18](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_554_18)
2. Sharma E, Tripathi A, Grover S, et al.: Clinical profile of obsessive-compulsive disorder in children and adolescents: a multicentric study from India. *Indian J Psychiatry*. 2019, 61:564-71. [10.4103/psychiatry.IndianJPsychiatry_128_19](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_128_19)
3. Nicolini H, Salin-Pascual R, Cabrera B, Lanzagorta N: Influence of culture in obsessive-compulsive disorder and its treatment. *Curr Psychiatry Rev*. 2017, 13:285-92. [10.2174/2211556007666180115105935](https://doi.org/10.2174/2211556007666180115105935)
4. Wu MS, McGuire JF, Martino C, Phares V, Selles RR, Storch EA: A meta-analysis of family accommodation and OCD symptom severity. *Clin Psychol Rev*. 2016, 45:34-44. [10.1016/j.cpr.2016.03.003](https://doi.org/10.1016/j.cpr.2016.03.003)
5. Hermida-Barros L, Primé-Tous M, García-Delgar B, et al.: Family accommodation in obsessive-compulsive disorder: an updated systematic review and meta-analysis. *Neurosci Biobehav Rev*. 2024, 161:105678. [10.1016/j.neubiorev.2024.105678](https://doi.org/10.1016/j.neubiorev.2024.105678)
6. Goodman WK, Price LH, Rasmussen SA, et al.: The Yale-Brown obsessive compulsive scale. I. Development, use, and reliability. *Arch Gen Psychiatry*. 1989, 46:1006-11. [10.1001/archpsyc.1989.01810110048007](https://doi.org/10.1001/archpsyc.1989.01810110048007)
7. Mahapatra A, Kuppili PP, Gupta R, Deep R, Khandelwal SK: Prevalence and predictors of family accommodation in obsessive-compulsive disorder in an Indian setting. *Indian J Psychiatry*. 2020, 62:43-50. [10.4103/psychiatry.IndianJPsychiatry_299_17](https://doi.org/10.4103/psychiatry.IndianJPsychiatry_299_17)
8. Uhre CF, Uhre VF, Lønfeldt NN, et al.: Systematic review and meta-analysis: cognitive-behavioral therapy for obsessive-compulsive disorder in children and adolescents. *J Am Acad Child Adolesc Psychiatry*. 2020, 59:64-77. [10.1016/j.jaac.2019.08.480](https://doi.org/10.1016/j.jaac.2019.08.480)
9. Stein DJ, Costa DL, Lochner C, et al.: Obsessive-compulsive disorder. *Nat Rev Dis Primers*. 2019, 5:52. [10.1038/s41572-019-0102-3](https://doi.org/10.1038/s41572-019-0102-3)
10. Pellegrini L, Maietti E, Rucci P, Casadei G, Maina G, Fineberg NA, Albert U: Suicide attempts and suicidal ideation in patients with obsessive-compulsive disorder: a systematic review and meta-analysis. *J Affect Disord*. 2020, 276:1001-21. [10.1016/j.jad.2020.07.115](https://doi.org/10.1016/j.jad.2020.07.115)
11. Donker T, Griffiths KM, Cuijpers P, Christensen H: Psychoeducation for depression, anxiety and psychological distress: a meta-analysis. *BMC Med*. 2009, 7:79. [10.1186/1741-7015-7-79](https://doi.org/10.1186/1741-7015-7-79)
12. National Institute for Health and Care Excellence: Obsessive-Compulsive Disorder and Body Dysmorphic Disorder: Treatment. Clinical Guideline CG31. NICE, London; 2005.
13. Van Noppen B, Sassano-Higgins S, Appasani R, Sapp F: Cognitive-behavioral therapy for obsessive-compulsive disorder: 2021 update. *Focus (Am Psychiatr Publ)*. 2021, 19:430-43. [10.1176/appi.focus.20210015](https://doi.org/10.1176/appi.focus.20210015)
14. Pittenger C: The pharmacological treatment of obsessive-compulsive disorder. *Psychiatr Clin North Am*. 2023, 46:107-19. [10.1016/j.psc.2022.11.005](https://doi.org/10.1016/j.psc.2022.11.005)
15. Cervin M, Mataix-Cols D: Empirical severity benchmarks for obsessive-compulsive disorder across the lifespan. *World Psychiatry*. 2022, 21:315-6. [10.1002/wps.20984](https://doi.org/10.1002/wps.20984)