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Structured Psychological Interventions for Adults with Obsessive–Compulsive Disorder and Inadequate Treatment Response: A Scoping Review

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ABSTRACT

Purpose: This scoping review mapped structured psychological interventions for adults with obsessive–compulsive disorder (OCD) and an inadequate treatment response, described the available evidence, and identified research gaps.

Methods and Materials: PubMed/MEDLINE, Scopus, PsycINFO, the Cochrane Library, SID, Magiran, and Civilica were searched for English- and Persian-language studies published from January 2010 to May 2026. Inadequate treatment response was defined as nonresponse, partial response, or persistence of clinically significant symptoms after an adequate standard treatment. Original intervention studies of structured psychological treatments in adults were eligible. Two reviewers independently screened titles, abstracts, and full texts, resolving disagreements by consensus. Data were synthesized descriptively in accordance with PRISMA-ScR.

Findings: Of 150 records identified, 48 duplicates were removed and 102 records were screened. After 70 records were excluded, 32 full-text reports were assessed; 17 were excluded, leaving 15 reports representing 14 unique studies. CBT/ERP-based interventions formed the largest evidence cluster and included extended outpatient, intensive, concentrated, residential, inpatient, and pharmacotherapy-augmented formats. ACT and MBCT were examined less often, while inference-based therapy and schema therapy were supported by limited preliminary evidence. Although most reports described symptom reductions or improvement in selected outcomes, heterogeneity in definitions, study designs, concurrent treatments, and follow-up limited causal and comparative interpretation.

Conclusion: Evidence remains limited and heterogeneous. CBT/ERP is the dominant framework, whereas evidence for other approaches is smaller and largely preliminary. Standardized definitions, clearer reporting of prior treatments, adequately powered comparative trials, and longer follow-up are needed.

Keywords: Obsessive–compulsive disorder; Inadequate treatment response; Psychological interventions; Scoping review

1. Introduction

Obsessive-compulsive disorder (OCD) is a chronic and potentially disabling psychiatric condition characterized by recurrent obsessions, compulsions, or both. Obsessions typically involve intrusive and unwanted thoughts, images, impulses, or doubts that generate marked anxiety or distress, whereas compulsions comprise repetitive behaviors or mental acts performed to reduce distress or prevent a feared consequence. Although individuals may recognize that these experiences are excessive or unreasonable, the perceived threat associated with obsessions and the immediate relief produced by compulsions can create a powerful self-reinforcing cycle. Over time, this cycle may occupy substantial portions of the day, interfere with ordinary decision-making, restrict social and occupational participation, and place considerable emotional and practical burdens on family members. International epidemiological evidence indicates that OCD occurs across diverse cultural and socioeconomic settings, frequently begins during adolescence or early adulthood, and is associated with persistent impairment when adequate treatment is delayed or unavailable (Stein et al., 2025).

The clinical burden of OCD extends beyond the frequency of observable rituals. Many patients experience pathological doubt, inflated responsibility, intolerance of uncertainty, threat overestimation, experiential avoidance, shame, cognitive rigidity, and difficulties regulating distressing emotional states. These processes may sustain symptoms even when patients understand that their fears are improbable. Avoidance can further prevent corrective learning by reducing contact with situations that challenge obsessive beliefs. Contemporary studies have therefore increasingly examined psychological processes such as experiential avoidance, uncertainty intolerance, emotion regulation, and doubt as clinically relevant dimensions of OCD. Comparative research has suggested that exposure and response prevention and emotion-focused interventions may influence these processes through different therapeutic pathways, while studies of repetitive transcranial magnetic stimulation have also examined changes in emotion regulation and obsessive doubt (Mirzapour Alamdari et al., 2025; Rajaei Moshaei & Rasouli, 2025). Although such findings broaden the understanding of OCD, they also emphasize that symptom persistence may reflect multiple interacting mechanisms rather than a single treatment target.

Despite the seriousness of the disorder, many affected individuals do not receive timely evidence-based care.

Delays may arise from concealment of symptoms, embarrassment, fear of stigma, limited awareness that intrusive thoughts are symptoms of a treatable disorder, misdiagnosis, and shortages of clinicians trained in specialized OCD interventions. Even after help is sought, patients may encounter long waiting lists, financial limitations, geographical barriers, negative expectations regarding exposure-based treatment, or services that provide general psychotherapy without adequately implementing the core components of effective OCD treatment. Research on help-seeking among adults with OCD has identified both attitudinal and structural barriers to accessing first-line interventions, including limited knowledge, anticipated stigma, concerns about treatment, and inadequate availability of specialized care (Bey et al., 2025). Consequently, apparent treatment resistance may sometimes represent insufficient access, inadequate treatment dose, poor treatment fidelity, or premature discontinuation rather than a true failure of appropriately delivered evidence-based treatment.

The principal evidence-based treatments for OCD are serotonin reuptake inhibitor pharmacotherapy and cognitive behavioral therapy incorporating exposure and response prevention (CBT/ERP). Exposure requires systematic confrontation with obsessional cues, feared situations, intrusive thoughts, or uncertainty, whereas response prevention involves refraining from rituals, reassurance seeking, avoidance, neutralization, and other behaviors that maintain the disorder. Through repeated and therapeutically guided practice, patients learn that distress can be tolerated without compulsions and that feared consequences are less probable, less catastrophic, or more manageable than anticipated. Longstanding clinical recommendations identify CBT/ERP, serotonin reuptake inhibitors, or their combination as first-line treatment options, with treatment selection informed by severity, impairment, previous response, patient preference, availability, and comorbidity (Koran et al., 2007; National Institute for & Care, 2005). More recent international guidelines continue to place CBT/ERP and serotonergic pharmacotherapy at the center of OCD management while recommending staged reassessment, augmentation, intensification, or specialist referral when patients remain symptomatic after an adequate intervention (Bandelow et al., 2023; Van Ameringen et al., 2026).

The effectiveness of CBT/ERP is supported by evidence from randomized controlled trials and routine clinical services. Meta-analytic findings indicate that CBT

incorporating ERP produces clinically meaningful reductions in obsessive-compulsive symptoms compared with inactive controls and several alternative conditions, although effect sizes differ according to comparator type, treatment format, study quality, and sample characteristics (Reid et al., 2021). Evidence from routine clinical practice similarly indicates that CBT is associated with improvements outside tightly controlled research settings, supporting its transportability to ordinary mental health services (Ost et al., 2022). Nevertheless, average treatment effects do not imply universal recovery. Some individuals do not achieve a clinically meaningful response, some improve without reaching remission, and others retain substantial residual symptoms that continue to impair functioning. Differences in treatment completion, therapist competence, exposure intensity, family accommodation, insight, comorbidity, and willingness to tolerate distress may contribute to variability in outcome.

The distinction among treatment response, remission, partial response, nonresponse, and treatment resistance is especially important. These terms are often used inconsistently, although they represent different levels and patterns of change. Studies have defined response using varying percentage reductions on the Yale-Brown Obsessive Compulsive Scale, while remission has been operationalized through different post-treatment cutoffs and combinations of relative and absolute change criteria (Ramakrishnan et al., 2024). Likewise, the term treatment-resistant OCD has been applied to individuals who failed one medication, several medication trials, augmentation strategies, CBT/ERP, combined treatment, or intensive specialist care. Pharmacotherapy-focused accounts have highlighted the need to document medication type, dosage, duration, adherence, augmentation history, and previous psychotherapy before classifying a case as resistant (van Roessel et al., 2023). Therefore, inadequate treatment response may be a more inclusive operational concept encompassing nonresponse, partial response, and persistent clinically significant symptoms after adequately delivered standard treatment without assuming that all such patients constitute a homogeneous treatment-resistant group.

Patients who remain symptomatic after pharmacotherapy may still benefit from a structured psychological intervention. Exposure and response prevention has produced further symptom improvement among adults who did not respond adequately to pharmacological augmentation strategies, demonstrating that unsuccessful medication treatment does not imply resistance to

psychotherapy (McLean et al., 2015). Extended exposure-based treatment added to ongoing serotonin reuptake inhibitor therapy has similarly been associated with additional symptom reduction and greater opportunities for remission among medicated adults with persistent symptoms (Simpson et al., 2021). These findings support a sequential and multimodal understanding of treatment, in which inadequate response to one modality prompts careful evaluation of another evidence-based modality rather than therapeutic pessimism. They also underline the importance of determining whether prior ERP involved sufficient therapist guidance, repeated between-session practice, effective response prevention, and direct confrontation with the patient's principal obsessional fears.

For patients who do not improve through ordinary weekly outpatient treatment, greater structure or intensity may be required. Intensive CBT programs can increase therapeutic contact, shorten the interval between exposure exercises, provide closer monitoring of ritual prevention, and facilitate practice across multiple daily contexts. An open clinical investigation of CBT for pharmacoresistant OCD reported improvement following an intensive program, although the absence of a randomized comparison limited causal interpretation (Vyskocilova et al., 2016). Concentrated ERP formats similarly seek to deliver high-dose exposure within a brief period. A randomized trial of concentrated ERP in difficult-to-treat OCD examined whether D-cycloserine enhanced treatment effects and provided evidence that meaningful improvement can occur within an intensive exposure framework (Kvale et al., 2020). Subsequent analysis of the same concentrated-treatment cohort suggested that insight may have relevance to acute and longer-term outcomes, illustrating the importance of identifying patient-level predictors rather than evaluating treatment formats only through group averages (Tjelle et al., 2025). Reviews of high-intensity ERP have consequently described concentrated and accelerated approaches as promising, while emphasizing variability in protocols, patient selection, outcome definitions, and comparative evidence (Trent et al., 2025).

Residential and inpatient programs represent another level of care for individuals with severe impairment, extensive avoidance, complex comorbidity, or repeated inadequate treatment response. These settings can provide environmental structure, frequent therapist assistance, medication review, nursing support, family intervention, and prolonged opportunities for exposure and response prevention. A large residential case series reported

improvement among individuals with severe OCD receiving intensive CBT, but its uncontrolled and multicomponent design made it difficult to isolate the effect of specific therapeutic elements (Veale, Naismith, Miles, Gledhill, et al., 2016). A systematic review and meta-analysis of residential and inpatient intensive treatment likewise found generally favorable symptom changes, although the included studies differed substantially in design, setting, treatment composition, and methodological quality (Veale, Naismith, Miles, Childs, et al., 2016). Prospective inpatient research has documented improvement during combined intensive CBT and medication management among patients with severe or pharmacotherapy-resistant OCD (Nanjundaswamy et al., 2020), while longer-term observational evidence indicates that gains may be sustained for some patients following specialist inpatient care (Balachander et al., 2020). Such findings justify continued investigation but do not establish that inpatient or residential care is inherently superior to adequately delivered outpatient treatment.

Attempts to strengthen ERP have also involved adding cognitive, pharmacological, motivational, acceptance-based, or emotion-focused components. However, the rationale for an adjunct does not guarantee additional clinical benefit. A systematic review of ERP combined with add-on interventions found considerable heterogeneity in adjunctive strategies and insufficient consistency to identify a universally superior combined protocol (Faustino et al., 2025). This evidence suggests that augmentation should be theoretically justified and evaluated against well-delivered ERP rather than weak or incomplete comparison treatments. It also reinforces the need to distinguish interventions intended to enhance exposure learning from those intended to improve acceptability, engagement, emotional tolerance, adherence, or broader functioning.

Acceptance and commitment therapy (ACT) has attracted particular attention as a potentially relevant intervention for persistent OCD symptoms. Rather than attempting to eliminate intrusive thoughts, ACT seeks to reduce rigid efforts to control internal experiences, strengthen psychological flexibility, and support behavior guided by personally meaningful values. Preliminary Iranian research found that group ACT added to an optimal dose of selective serotonin reuptake inhibitors was associated with improvements in OCD-related outcomes compared with medication alone (Rohani et al., 2018). A small single-case investigation also reported reductions in obsessive symptoms, anxiety, depression, and distress among patients with treatment-resistant OCD who received acceptance- and

commitment-based therapy after previous pharmacological and exposure-based treatment (Izadi & Abedi, 2013). In a randomized Iranian study, ACT plus stable medication and ERP plus stable medication were both compared with medication alone, providing preliminary comparative evidence for psychological augmentation among patients who remained symptomatic while taking selective serotonin reuptake inhibitors (Zemestani et al., 2022).

More recent evidence has examined ACT in broader and more rigorously controlled contexts. A block-randomized trial comparing group ACT with CBT/ERP suggested that ACT may produce clinically relevant outcomes, although findings from general OCD samples cannot automatically be generalized to patients with clearly documented inadequate response (Nielsen et al., 2025). A cross-cultural systematic review and meta-analysis likewise reported promising effects of ACT for OCD but did not establish its superiority over other active psychotherapies or resolve questions regarding the patient groups for whom it is most appropriate (Loureiro et al., 2026). ACT may therefore function as an alternative, adjunct, or engagement-enhancing approach, but its specific role after unsuccessful standard treatment requires more focused investigation.

Mindfulness-based cognitive therapy (MBCT) has also been evaluated for patients with persistent or residual symptoms. MBCT teaches individuals to observe thoughts and emotional reactions with greater decentering and reduced automatic engagement. In OCD, this may help patients recognize intrusive thoughts as mental events rather than signals requiring ritualized action. A pilot augmentation study suggested that MBCT may reduce residual symptoms and improve related psychological outcomes among patients who remained symptomatic following previous treatment (Key et al., 2017). A randomized trial of MBCT for residual symptoms after CBT found improvement in selected outcomes, although the findings did not support replacing established CBT/ERP with mindfulness-based treatment (Kulz et al., 2019). Thus, mindfulness-based approaches may be particularly relevant to residual distress, rumination, and relapse prevention, but their comparative and long-term value remains uncertain.

Other cognitive and integrative therapies have received more limited investigation. Inference-based therapy focuses on the reasoning processes through which individuals come to distrust sensory evidence and become absorbed in imagined possibilities. An open trial across OCD symptom subtypes, including treatment-resistant presentations, reported symptom reductions and offered preliminary

support for a cognitive approach that differs from conventional exposure-based treatment (Aardema et al., 2017). Schema therapy has also been investigated among patients classified as treatment resistant, with findings indicating changes in early maladaptive schemas following an extended individual intervention (Jahangiri et al., 2015). However, changes in proposed mechanisms should not be treated as equivalent to remission of OCD symptoms, and evidence from small uncontrolled or quasi-experimental studies cannot establish comparative effectiveness.

The expanding landscape of OCD care additionally includes digital interventions, remote treatment, blended care, and technology-assisted exposure. These models may address geographical barriers, therapist shortages, and reluctance to attend specialist clinics, but they also raise questions concerning engagement, risk management, personalization, treatment fidelity, and suitability for complex patients. Reviews of adult OCD psychotherapies and digital interventions have emphasized both the potential of technology-assisted delivery and the shortage of controlled evidence for patients with severe, refractory, or inadequately treated conditions (Castle et al., 2023). Accordingly, innovation in delivery should not be assumed to overcome the clinical challenges associated with inadequate treatment response unless studies explicitly document previous treatment histories and evaluate outcomes in relevant populations.

The literature is therefore characterized by conceptual breadth but substantial methodological heterogeneity. Available studies include randomized trials, open trials, prospective cohorts, case series, residential programs, inpatient interventions, and single-case designs. They differ in previous treatment exposure, definitions of inadequate response, symptom severity, concurrent medication, intervention duration, therapist contact, treatment setting, outcome measures, and follow-up. These differences make conventional aggregation difficult and can obscure whether reported improvement reflects the specific psychotherapy, nonspecific therapeutic attention, medication changes, regression to the mean, selection into specialist services, or the cumulative effect of multicomponent care. A scoping review is particularly appropriate when the objective is to identify the extent and characteristics of a heterogeneous evidence base, clarify how key concepts have been operationalized, classify intervention types, and identify gaps requiring subsequent systematic review or controlled investigation; transparent reporting according to PRISMA-

ScR can further strengthen the reproducibility of this mapping process (Tricco et al., 2018).

Accordingly, the aim of this study was to map and classify structured psychological interventions for adults with OCD and an inadequate treatment response, describe the characteristics and reported outcomes of the available evidence, examine how inadequate response has been operationalized, and identify priorities for future research.

2. Methods and Materials

This study was conducted as a scoping review using a systematic search and reporting process. It aimed to identify and map structured psychological interventions for adults with obsessive-compulsive disorder (OCD) who had demonstrated an inadequate treatment response, describe the characteristics of the available studies, and identify research gaps. The scoping review design was selected because of the breadth of the research question and the heterogeneity of the evidence regarding definitions of inadequate response, previous treatments, study designs, intervention types and formats, and assessed outcomes. Accordingly, the review was not intended to produce a pooled estimate of effectiveness or rank the interventions. Reporting followed the PRISMA Extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018).

International literature was searched in PubMed/MEDLINE, Scopus, PsycINFO, and the Cochrane Library. Persian-language literature was searched in SID, Magiran, and Civilica. The publication period was restricted to January 2010 through May 2026. The 2010 starting point was specified a priori to focus on contemporary evidence concerning structured psychological protocols and newer models of service delivery; therefore, the scope of the review was limited to evidence published during this period. Searches were conducted between May 22 and May 31, 2026, and finalized on May 31, 2026.

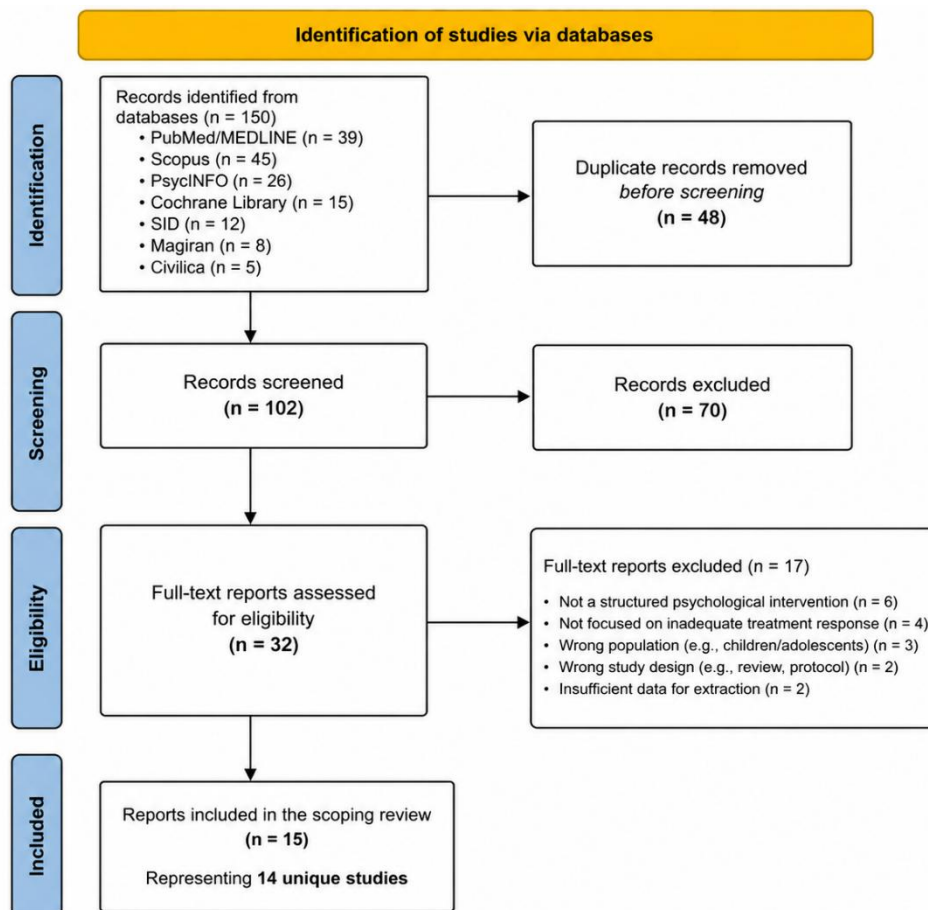
The search strategy covered three main concepts: (a) obsessive-compulsive disorder; (b) inadequate treatment response, including nonresponse, partial response, treatment resistance, and residual symptoms; and (c) structured psychological interventions. Keywords and controlled vocabulary related to OCD, treatment resistance, nonresponse, partial response, residual symptoms, CBT, ERP, ACT, MBCT, inference-based therapy, schema therapy, and intensive, residential, and inpatient treatment were adapted to the syntax of each database. The complete PubMed strategy and the adapted strategies for the other

databases are provided in Appendix 1. Any records identified through reference-list checking, if applicable,

were recorded separately and reported in the study-flow diagram (Figure 1).

Figure 1

PRISMA-ScR flow diagram of the study selection process



Eligibility Criteria and Study Selection

Eligibility criteria were developed according to the population–concept–context framework. The target population comprised adults aged 18 years or older with a diagnosis of OCD who had shown an inadequate response following an adequate course of standard treatment. In this review, *inadequate treatment response* was operationally used as an umbrella term encompassing nonresponse, partial response, or persistence of clinically significant symptoms following treatment. Terms such as treatment-resistant, pharmaco-resistant, and residual symptoms were accepted only when the study documented previous treatment exposure and an insufficient response. High symptom severity, hospitalization, or designation as difficult to treat was not considered sufficient for inclusion in the absence of a documented inadequate treatment response.

The concept of interest was a structured psychological intervention with an identifiable theoretical basis, active therapeutic components, a describable session plan or protocol, and measurable clinical or psychological outcomes. No restrictions were imposed on the treatment setting; outpatient, group-based, intensive, concentrated, residential, inpatient, and pharmacotherapy-augmented psychological interventions were eligible.

Original intervention studies were considered, including randomized trials, nonrandomized trials, open trials, prospective studies, cohort studies, case series, and single-case experimental designs. Eligible single-case designs were required to include a defined baseline, systematic intervention, repeated measurement, and reported outcomes. Reviews, meta-analyses, protocols, editorials, letters, theoretical papers, nonexperimental case reports, studies of

children or adolescents, exclusively pharmacological or biological interventions, studies without a structured psychological intervention, and studies that did not document an inadequate response to previous treatment were excluded. Only full-text articles available in English or Persian were considered.

After database outputs were combined, duplicate records were removed. Titles and abstracts were independently screened by two reviewers against the prespecified eligibility criteria. The full texts of potentially eligible reports were then independently assessed by the same two reviewers. Disagreements at either stage were resolved through discussion and consensus. Reasons for exclusion at the full-text stage were recorded separately. Unclear or borderline records underwent an additional review, and final decisions were based on the operational definition of inadequate treatment response and direct relevance to the review question. The numbers of records identified, excluded, assessed, and included, together with numerical reasons for full-text exclusion, were reported in a PRISMA-ScR flow diagram.

Data Charting, Classification, and Synthesis

Data were charted using a prespecified extraction form. Extracted variables included authors and year, country, study design, sample size and characteristics, previous treatments, the definition and indicators of inadequate response, psychological intervention type and format, concurrent treatments, outcome measures, follow-up duration, and reported findings. Samples were classified separately according to the reported form of inadequate response, including pharmacotherapy nonresponse, nonresponse to CBT/ERP, partial response, and residual symptoms; these categories were not treated as interchangeable.

To prevent double counting, reports arising from the same underlying sample or trial were linked and counted as one unique study. A separate report was nevertheless retained during data charting when it provided additional outcome, follow-up, or secondary-analysis information. The number of unique studies was therefore distinguished from the number of published reports.

Data were synthesized descriptively and narratively. Studies were first classified according to the form of inadequate response, study design, intervention, delivery format, and treatment setting, and were subsequently organized into major clusters comprising CBT/ERP-based interventions, acceptance- and mindfulness-based interventions, and other cognitive or integrative approaches.

Meta-analysis was not undertaken because of the mapping objective and substantial clinical and methodological heterogeneity. A formal risk-of-bias appraisal was also not conducted because the review was not designed to establish causal effectiveness or quantitatively weight the evidence. Nevertheless, methodological features—including study design, sample size, comparator conditions, concurrent treatments, and follow-up duration—were charted and considered when interpreting the findings. Throughout the review, results were described as reported associations and evidence patterns, without causal inference or claims of intervention superiority.

3. Findings and Results

Study Selection

The searches of PubMed/MEDLINE, Scopus, PsycINFO, the Cochrane Library, SID, Magiran, and Civilica identified 150 records. After 48 duplicate records were removed, 102 records were independently screened by two reviewers based on their titles and abstracts. Disagreements were resolved through discussion and consensus. At this stage, 70 records were excluded.

The full texts of 32 reports were assessed for eligibility. Seventeen reports were excluded: six because they did not evaluate a structured psychological intervention; four because they did not focus on inadequate treatment response; three because they involved an ineligible population, such as children or adolescents; two because of an ineligible study design, such as a review or protocol; and two because they provided insufficient information to confirm eligibility.

Ultimately, 15 published reports representing 14 unique studies were included in the review. The reports by Kvale et al. (2020) and Tjelle et al. (2025) originated from the same underlying trial and were therefore counted as one unique study. Both reports were retained in data charting because they provided distinct outcome or follow-up information. The study-selection process is presented in Figure 1.

General Characteristics of the Included Studies

The 15 included reports, representing 14 unique studies, were published between 2013 and 2025. Two Persian-language reports were published in 1392 and 1394 in the Solar Hijri calendar. The included designs comprised randomized controlled trials, nonrandomized studies, open trials, prospective and cohort studies, case series, and one single-case experimental design with a defined baseline. Sample sizes ranged from three participants in the single-case study to 472 participants in a residential case series.

The included populations differed in the form of inadequate treatment response. Some studies enrolled patients who had not responded adequately to one or more sufficient trials of an SRI or SSRI; others examined inadequate response or persistent symptoms following CBT/ERP; and several included patients with partial response or clinically significant residual symptoms. Studies using the terms *severe* or *difficult to treat* were eligible only when previous standard treatment and an insufficient response were also documented. These categories were charted separately and were not considered interchangeable.

Interventions were delivered in diverse settings, including individual or group outpatient care and intensive,

concentrated, residential, and inpatient programs. In several studies, the psychological intervention was added to stable pharmacotherapy or delivered within a multicomponent program that included medication management. The studies were conducted in the United States, the United Kingdom, Canada, Germany, Norway, India, the Czech Republic, and Iran, indicating a geographically dispersed but limited evidence base, with several studies conducted in specialist OCD centers.

The principal characteristics of the included studies, including study design, sample, form of inadequate treatment response, intervention, concurrent treatment, and reported findings, are presented in Table 1.

Table 1

Characteristics of the 15 Included Reports Representing 14 Unique Studies

Report(s)	Design and sample	Basis for inadequate treatment response	Psychological intervention and concurrent treatment	Reported findings
McLean et al. (2015)	Treatment study of adults with OCD who remained symptomatic after pharmacological augmentation strategies	Persistent clinically significant symptoms despite adequate serotonergic treatment and unsuccessful medication augmentation	Exposure and response prevention (EX/RP) following pharmacological augmentation failure	EX/RP was associated with further reductions in OCD symptoms. The findings suggest that a structured psychological intervention may remain relevant after unsuccessful medication augmentation.
Vyskocilova et al. (2016)	Open clinical study; 66 adults with pharmaco-resistant OCD	Inadequate response to previous pharmacotherapy	Intensive cognitive behavioral therapy	Symptom reductions were reported following intensive CBT; however, the open design precludes causal conclusions.
Veale et al. (2016)	Open residential case series; 472 patients with severe OCD	Severe and persistent symptoms following previous standard treatment	Intensive residential CBT/ERP delivered within a specialist program	Clinical improvement was reported from admission to discharge. Because treatment was multicomponent and uncontrolled, the independent contribution of CBT/ERP could not be determined.
Aardema et al. (2017)	Open trial in adults with OCD, including patients with previous inadequate treatment response	Persistent symptoms despite previous standard treatment	Inference-based therapy	Reductions in obsessive–compulsive symptoms were reported, providing preliminary evidence for a cognitive alternative or adjunct to ERP.
Key et al. (2017)	Pilot study of adults with persistent OCD symptoms after previous treatment	Clinically significant residual symptoms following prior treatment	Mindfulness-based cognitive therapy (MBCT) as an adjunctive intervention	MBCT was associated with reductions in residual symptoms. The small pilot sample limits generalizability.
Rohani et al. (2018)	Preliminary randomized trial; 46 women with OCD receiving an SSRI	Persistent symptoms during ongoing SSRI treatment	Group acceptance and commitment therapy (ACT) added to SSRI treatment	The ACT-plus-SSRI condition showed greater improvement in OCD-related and psychological outcomes than medication alone; the findings should be interpreted as preliminary.
Külz et al. (2019)	Randomized controlled trial; 125 adults with residual OCD symptoms after CBT	Clinically significant residual symptoms following previous CBT	MBCT compared with psychoeducation	MBCT was associated with improvement in some outcomes, although the evidence did not establish its superiority as a replacement for established CBT/ERP.
Nanjundaswamy et al. (2020)	Prospective study; 58 adults with severe or pharmacotherapy-resistant OCD	Persistent severe symptoms despite previous pharmacotherapy	Intensive inpatient CBT combined with medication management	Improvement was reported during inpatient treatment. The multicomponent design prevents

Balachander et al. (2020)	Cohort study with long-term follow-up; 420 adults with severe and treatment-resistant OCD	Persistent symptoms despite previous treatment, requiring specialist inpatient care	Therapist-assisted intensive CBT with adjunctive pharmacotherapy	separation of psychological and pharmacological effects. Clinical gains were reported following intensive care and at follow-up. The observational design limits causal interpretation.
Kvale et al. (2020); Tjelle et al. (2025) ¹	Randomized trial and subsequent follow-up report involving adults with difficult-to-treat OCD and documented previous treatment	Persistent symptoms despite previous standard treatment	Concentrated ERP; the original trial also evaluated D-cycloserine augmentation	The reports described symptom improvement following concentrated ERP and provided complementary short- and longer-term information. Because both publications arose from the same underlying trial, they were counted as one unique study.
Simpson et al. (2021)	Prospective treatment study; 137 adults with clinically significant OCD symptoms despite adequate SRI treatment	Persistent symptoms despite an adequate SRI trial	Extended EX/RP added to ongoing SRI treatment	Additional symptom reduction and remission were reported following EX/RP augmentation. The absence of an untreated comparison limits causal inference.
Zemestani et al. (2022)	Randomized trial; 40 adults receiving stable SSRI treatment	Persistent symptoms during stable SSRI treatment	ACT plus SSRI, ERP plus SSRI, and SSRI-only conditions	Both psychological augmentation conditions were associated with better outcomes than SSRI alone. The modest sample size warrants cautious interpretation.
Jahangiri et al. (2015)	Quasi-experimental study with a control group; 24 adults with treatment-resistant OCD	Previous treatment with at least two serotonin reuptake inhibitors for at least 10 weeks and at least 14 ERP sessions	Twenty individual schema-therapy sessions	Schema therapy was associated with reductions in early maladaptive schemas. The primary outcome was a psychological process variable rather than direct OCD symptom severity.
Izadi and Abedi (2013)	Multiple-participant single-case experimental design with baseline control; three adults	At least 20 hours of ERP and at least two adequate SRI/SSRI trials at the maximum recommended dose for at least 12 weeks	Fourteen individual ACT sessions with repeated measurement and one-month follow-up	Reductions in Y-BOCS scores, anxiety, depression, and distress related to obsessive thoughts were reported. The findings constitute preliminary evidence because of the very small sample.

Note. OCD = obsessive-compulsive disorder; CBT = cognitive behavioral therapy; ERP/EX/RP = exposure and response prevention; ACT = acceptance and commitment therapy; MBCT = mindfulness-based cognitive therapy; SRI = serotonin reuptake inhibitor; SSRI = selective serotonin reuptake inhibitor; Y-BOCS = Yale-Brown Obsessive Compulsive Scale.

¹ Kvale et al. (2020) and Tjelle et al. (2025) were treated as two reports from one underlying trial. Accordingly, the review included 15 published reports representing 14 unique studies. The categories of pharmacotherapy nonresponse, CBT/ERP nonresponse, partial response, and residual symptoms were charted separately and were not considered interchangeable.

The profile of adjusted means indicates that while the control group's psychological flexibility scores remained flat across stages (Pre-test = 31.45, Post-test = 31.64, Follow-up = 31.52), the experimental group exhibited a significant increase from pre-test (29.61) to post-test (33.68), which was sustained through the follow-up stage (33.55). These results confirm the stability and durability of the integrative intervention.

Categories of Psychological Interventions

The 14 unique studies were grouped into three broad intervention categories. The largest category comprised CBT/ERP-based approaches. Seven studies primarily examined exposure and response prevention, intensive CBT, concentrated ERP, extended EX/RP, or residential and inpatient CBT programs. These interventions were delivered across outpatient, concentrated, residential, and inpatient

settings and were frequently used after an inadequate response to pharmacotherapy, medication augmentation, or previous standard treatment. Several were embedded within multicomponent programs that also included medication management, making it difficult to isolate the contribution of the psychological component.

A second category included acceptance- and mindfulness-based interventions. Three studies evaluated ACT, including individual, group-based, and pharmacotherapy-augmented formats; one of these directly compared ACT plus SSRI with ERP plus SSRI and SSRI alone. Two additional studies examined MBCT as an adjunctive intervention for patients with persistent or residual symptoms following previous treatment. These studies included randomized, pilot, and single-case

experimental designs and therefore differed substantially in methodological strength and sample size.

The third category comprised less frequently studied cognitive or integrative approaches. One study examined inference-based therapy in patients with persistent symptoms following previous treatment, and one evaluated schema therapy in adults classified as treatment resistant. The schema-therapy study primarily assessed changes in early maladaptive schemas rather than direct changes in OCD symptom severity. Evidence for these approaches was therefore limited and largely preliminary.

Forms of Inadequate Treatment Response

The basis for inadequate treatment response varied considerably across studies. Some samples were defined by nonresponse to one or more adequate trials of an SRI or SSRI, whereas others included patients who remained symptomatic despite medication augmentation or stable pharmacotherapy. A smaller group of studies focused on persistent or residual symptoms following CBT/ERP. Several reports used broader descriptions such as *treatment resistant*, *pharmacoresistant*, or *difficult to treat*, but these were included only when previous standard treatment and an insufficient response were documented.

These categories were not treated as equivalent. Pharmacotherapy nonresponse, inadequate response to CBT/ERP, partial response, and residual symptoms represent clinically related but distinct treatment histories. The heterogeneity of these definitions limited direct comparison across studies and prevented the construction of a single uniform treatment-resistant OCD category.

Reported Outcomes and Evidence Patterns

Most reports assessed OCD symptom severity using the Yale–Brown Obsessive Compulsive Scale or a comparable clinician- or self-rated measure. Several also evaluated depressions, anxiety, quality of life, remission, psychological flexibility, experiential avoidance, distress related to obsessive thoughts, or other process variables. Follow-up periods varied substantially and were absent or brief in several pilot and open studies.

Across intervention categories, the included reports generally described symptom reductions or improvements in selected clinical and psychological outcomes. However, these findings arose from a heterogeneous evidence base that included uncontrolled open trials, observational cohorts, multicomponent inpatient programs, small pilot studies, and one multiple-participant single-case design. Consequently, the reported changes cannot consistently be attributed to the psychological intervention alone.

The strongest concentration of evidence concerned CBT/ERP-based interventions, particularly when delivered in extended, intensive, concentrated, residential, or inpatient formats. Nevertheless, the available studies did not provide a consistent basis for determining whether these formats were superior to standard outpatient ERP. Similarly, ACT and MBCT were associated with encouraging findings in several reports, but the limited number of studies, modest sample sizes, variable comparators, and concurrent pharmacotherapy restricted conclusions regarding their comparative role.

Gaps in the Evidence

Several gaps were identified. First, the studies lacked a standardized operational definition of inadequate treatment response. Second, relatively few adequately powered randomized trials directly compared psychological interventions in this population. Third, concurrent pharmacotherapy and multicomponent treatment programs were common, limiting interpretation of intervention-specific findings. Fourth, outcome measures and follow-up periods were inconsistent, and long-term data were limited. Finally, evidence for ACT, MBCT, inference-based therapy, and schema therapy remained substantially smaller than that for CBT/ERP.

Overall, the available literature was geographically dispersed but concentrated in a limited number of specialist OCD services. The evidence therefore maps a developing field characterized by diverse treatment formats and broadly encouraging reported outcomes, but also by substantial conceptual and methodological heterogeneity.

4. Discussion and Conclusion

This scoping review mapped 15 published reports representing 14 unique studies of structured psychological interventions for adults with obsessive–compulsive disorder (OCD) who had experienced an inadequate treatment response. The included evidence extended from 2013 to 2025 and encompassed randomized controlled trials, nonrandomized and quasi-experimental studies, open trials, prospective cohorts, large case series, and a multiple-participant single-case design. Sample sizes ranged from three participants to several hundred patients, and interventions were delivered in outpatient, group, concentrated, residential, and inpatient formats. The principal finding was that cognitive behavioral therapy incorporating exposure and response prevention (CBT/ERP) constituted the largest and most developed intervention

cluster. Acceptance and commitment therapy (ACT) and mindfulness-based cognitive therapy (MBCT) formed a smaller evidence cluster, whereas inference-based therapy and schema therapy were represented by limited preliminary studies. Although most reports described reductions in obsessive-compulsive symptoms or improvement in selected psychological outcomes, the marked heterogeneity of definitions, study designs, previous treatments, concurrent pharmacotherapy, treatment settings, outcome measures, and follow-up periods precluded firm conclusions regarding comparative effectiveness or intervention superiority.

The predominance of CBT/ERP-based interventions is consistent with established treatment guidelines and the broader OCD literature. Major clinical recommendations identify CBT incorporating ERP and serotonin reuptake inhibitor pharmacotherapy as the primary evidence-based treatments for OCD, with combined, intensified, or specialist treatment recommended when an adequate initial response is not achieved (Bandelow et al., 2023; Koran et al., 2007; National Institute for & Care, 2005; Van Ameringen et al., 2026). The present findings indicate that research involving patients with inadequate response has generally not departed from these established principles. Instead, investigators have modified the dose, duration, intensity, setting, or sequencing of CBT/ERP. Extended outpatient ERP, concentrated treatment, intensive CBT, residential care, and inpatient programs may therefore be understood as adaptations of the best-supported psychological framework rather than entirely distinct therapies. This interpretation is also compatible with meta-analytic evidence showing that CBT/ERP reduces obsessive-compulsive symptoms in randomized trials and routine clinical services, although the magnitude of benefit varies across comparators and methodological conditions (Ost et al., 2022; Reid et al., 2021).

Several included studies suggested that ERP may remain clinically relevant even after unsuccessful pharmacological treatment. McLean and colleagues found that exposure and response prevention was associated with further symptom improvement among adults who had remained symptomatic after pharmacological augmentation strategies (McLean et al., 2015). Similarly, extended ERP added to ongoing serotonin reuptake inhibitor treatment was associated with additional symptom reduction and greater opportunities for remission in medicated adults with clinically significant symptoms (Simpson et al., 2021). These findings support a sequential and multimodal approach to inadequate response.

Failure to respond to one or more medication strategies does not necessarily indicate resistance to psychological treatment, just as incomplete response to a limited course of psychotherapy does not demonstrate that adequately delivered ERP will be ineffective. The findings also underline the importance of examining whether previous treatment was delivered at an adequate dose, whether ERP directly targeted the most important obsessional fears, whether response prevention was consistently implemented, and whether avoidance, reassurance seeking, family accommodation, or poor adherence reduced treatment exposure.

The evidence concerning intensive and concentrated CBT/ERP was broadly encouraging but methodologically uneven. Intensive CBT was associated with symptom improvement in adults classified as pharmacoresistant, although open designs prevented causal attribution (Vyskocilova et al., 2016). Concentrated ERP also produced improvement in difficult-to-treat OCD, and a subsequent report from the same underlying trial indicated that insight may have predictive relevance for acute and longer-term outcomes (Kvale et al., 2020; Tjelle et al., 2025). These findings align with recent descriptions of high-intensity ERP as a promising treatment-delivery model for patients who require greater therapeutic structure or who have not benefited sufficiently from standard weekly care (Trent et al., 2025). However, the current review did not identify a consistent body of direct comparisons demonstrating that concentrated or intensive ERP is superior to well-delivered standard outpatient ERP. Greater therapist contact, increased opportunities for exposure practice, shorter intervals between sessions, environmental structure, and improved monitoring of ritual prevention may all contribute to outcomes, but their independent effects remain uncertain.

Residential and inpatient studies constituted another important portion of the evidence base. Large case series and prospective studies reported improvement among patients with severe, persistent, or treatment-resistant OCD who received intensive CBT within specialist residential or inpatient services (Nanjundaswamy et al., 2020; Veale, Naismith, Miles, Gledhill, et al., 2016). Long-term observational findings also suggested that clinical gains may persist after intensive inpatient treatment for at least some patients (Balachander et al., 2020). These results are consistent with previous synthesis showing that residential and inpatient intensive programs are associated with reductions in OCD severity (Veale, Naismith, Miles, Childs, et al., 2016). Nevertheless, these programs were frequently

multicomponent and included medication management, nursing support, structured daily routines, family involvement, increased therapist availability, and repeated exposure practice. Consequently, improvement cannot be attributed exclusively to CBT/ERP. Moreover, patients entering specialist inpatient or residential services may differ substantially from those treated in routine outpatient care, limiting generalizability. The available evidence therefore supports the feasibility and potential clinical utility of intensive specialist care without establishing its superiority or identifying precise referral thresholds.

A smaller group of studies evaluated ACT for patients with persistent symptoms or documented previous treatment failure. Group ACT added to an optimal dose of selective serotonin reuptake inhibitors was associated with greater improvement than medication alone in preliminary research (Rohani et al., 2018). ACT was also associated with reductions in obsessive symptoms, anxiety, depression, and obsession-related distress in a small single-case investigation involving patients who had previously received medication and ERP (Izadi & Abedi, 2013). In a randomized Iranian study, both ACT plus stable medication and ERP plus stable medication produced more favorable outcomes than medication alone, although the modest sample size limited comparative interpretation (Zemestani et al., 2022). These findings are consistent with broader evidence indicating that ACT may reduce OCD symptoms and improve psychological flexibility, while not yet demonstrating reliable superiority over established active psychotherapies (Loureiro et al., 2026). A recent randomized comparison of group ACT and CBT/ERP also suggests that ACT may have a clinically meaningful role in OCD treatment (Nielsen et al., 2025). However, evidence derived from general OCD populations should not automatically be generalized to patients with rigorously documented inadequate treatment response. ACT is therefore better viewed as an emerging adjunctive or alternative option rather than an established replacement for ERP in treatment-resistant presentations.

The findings regarding MBCT were similarly promising but limited. Pilot evidence suggested that MBCT may help individuals who continue to experience clinically significant symptoms after previous treatment (Key et al., 2017). A randomized trial among patients with residual symptoms following CBT found improvement in selected outcomes, although it did not establish MBCT as a substitute for established exposure-based treatment (Kulz et al., 2019). Mindfulness-based approaches may be particularly relevant

when patients remain highly reactive to intrusive thoughts, engage in persistent rumination, or struggle to disengage from internal experiences despite understanding the irrationality of their fears. By promoting decentering and nonreactive awareness, MBCT may alter the person's relationship with obsessions rather than directly challenging their content. Nevertheless, the limited number of studies, variation in comparator conditions, and small or selected samples mean that its specific role after inadequate CBT/ERP remains unresolved.

Inference-based therapy and schema therapy represented the least developed psychological approaches in the included evidence. Inference-based therapy was associated with symptom reduction across OCD subtypes, including treatment-resistant cases, suggesting that targeting inferential confusion and distrust of sensory information may provide an alternative cognitive pathway for some patients (Aardema et al., 2017). Schema therapy was associated with modification of early maladaptive schemas among patients classified as treatment resistant (Jahangiri et al., 2015). However, the schema-therapy study primarily assessed changes in proposed psychological mechanisms rather than direct remission of obsessive-compulsive symptoms. These findings should therefore be interpreted as proof-of-concept evidence rather than confirmation of clinical effectiveness. Reviews of psychotherapy innovation in OCD similarly emphasize the potential value of third-wave, cognitive, integrative, and digital interventions while noting that controlled comparative evidence and long-term follow-up remain insufficient (Castle et al., 2023).

The review also showed that combining ERP with additional therapeutic components has not produced a clear, consistently superior protocol. Add-on strategies may be intended to improve exposure learning, treatment engagement, emotion regulation, adherence, or generalization of gains. However, systematic evidence indicates substantial variation in the theoretical rationale and clinical effects of ERP augmentation, and no single add-on has demonstrated universal benefit (Faustino et al., 2025). The comparison between ERP and emotion-focused therapy on experiential avoidance, intolerance of uncertainty, and emotion regulation further illustrates that different interventions may influence distinct maintenance processes even when symptom reduction remains the central clinical objective (Mirzapour Alamdari et al., 2025). Biological interventions targeting doubt and emotion regulation likewise reflect increasing interest in the multidimensional mechanisms associated with persistent OCD (Rajaei

Moshaei & Rasouli, 2025). These developments suggest that future treatment selection may require more individualized matching of interventions to specific clinical mechanisms rather than applying one augmentation strategy to all nonresponding patients.

A major finding was the absence of a standardized operational definition of inadequate treatment response. Studies variously referred to treatment resistance, pharmacoresistance, difficult-to-treat OCD, nonresponse, partial response, residual symptoms, or persistent severe symptoms. These categories overlap but are not interchangeable. Failure of one medication trial differs from failure of several adequate serotonin reuptake inhibitor trials, augmentation strategies, and well-delivered CBT/ERP. Similarly, residual symptoms after meaningful improvement differ from complete nonresponse. Reviews of treatment-resistant OCD have emphasized the necessity of documenting medication dose, duration, adherence, augmentation history, and previous psychotherapy before assigning a resistant designation (van Roessel et al., 2023). Variability in the percentage reductions and post-treatment thresholds used to define response and remission further complicates comparison across studies (Ramakrishnan et al., 2024). The present review's use of inadequate treatment response as an umbrella concept increased inclusiveness but also revealed substantial conceptual heterogeneity within the resulting evidence base.

This heterogeneity has direct implications for interpreting the generally favorable reported outcomes. Improvement was documented across multiple intervention categories, yet many studies were uncontrolled, observational, small, or embedded within multicomponent programs. Concurrent medication was common, follow-up was often limited, and different studies assessed symptom severity, remission, psychological flexibility, experiential avoidance, early maladaptive schemas, depression, anxiety, or quality of life. Consequently, reported improvement cannot consistently be attributed to the psychological intervention alone, and changes in process variables should not be equated with remission from OCD. The review therefore maps an active but methodologically developing field. In accordance with the purpose of scoping methodology, its findings identify the distribution, characteristics, and gaps of the literature rather than quantify efficacy or rank interventions (Tricco et al., 2018).

This review had several limitations. The search was restricted to English- and Persian-language full-text studies published from 2010 through May 2026, which may have

excluded relevant historical research, unpublished studies, dissertations, conference materials, and studies in other languages. The included evidence was highly heterogeneous in design, sample size, previous treatment exposure, definitions of inadequate response, intervention dose, treatment setting, concurrent medication, outcome measurement, and follow-up duration. Many studies were uncontrolled, preliminary, or conducted in specialist centers, limiting causal inference and generalizability to routine services. No formal risk-of-bias or certainty-of-evidence assessment was conducted, and the review did not perform meta-analysis because its purpose was evidence mapping. Multicomponent residential and inpatient programs also made it difficult to isolate the contribution of psychological treatment from medication management, environmental structure, and other clinical supports.

Future investigations should adopt explicit and standardized definitions of nonresponse, partial response, residual symptoms, and treatment resistance. Researchers should report previous medication type, dose, duration, adherence, augmentation strategies, prior CBT/ERP dose, therapist competence, treatment fidelity, and reasons for discontinuation. Adequately powered randomized trials should compare standard outpatient ERP with intensive, concentrated, residential, and adjunctive formats in clearly characterized patient subgroups. Head-to-head studies should evaluate CBT/ERP, ACT, MBCT, inference-based therapy, schema therapy, and other emerging approaches using consistent symptom, remission, functioning, quality-of-life, acceptability, and adverse-effect outcomes. Longer follow-up, preregistered protocols, multisite recruitment, economic evaluations, treatment-moderator analyses, and component studies are also needed to determine which intervention elements are effective, for whom they are effective, and whether gains are maintained.

In clinical practice, inadequate response should prompt a systematic reassessment rather than an immediate conclusion that the disorder is untreatable. Clinicians should verify the diagnosis, identify comorbid conditions, assess adherence, review the adequacy of medication and prior psychotherapy, determine whether ERP was delivered with sufficient intensity and fidelity, and examine avoidance, reassurance seeking, family accommodation, insight, and motivational barriers. CBT/ERP should remain central to treatment planning, but its delivery may need to be extended, intensified, concentrated, or provided within specialist services. ACT, MBCT, inference-based therapy, and schema-focused interventions may be considered as

adjunctive or individualized options when clinically appropriate, while patients should be informed that evidence for these approaches after inadequate standard treatment remains less developed. Treatment decisions should be collaborative and based on previous response, symptom profile, functional impairment, patient preference, treatment accessibility, and available clinical expertise.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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