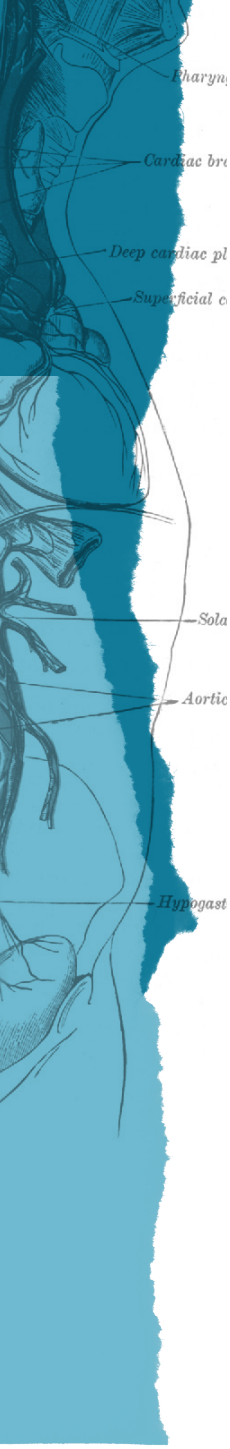

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Psychotherapy or Pharmacotherapy? A Systematic Review and Meta-analysis on the Efficacy of Treatments for Obsessive-Compulsive Disorder

¿Psicoterapia o farmacoterapia? Una revisión sistemática con metaanálisis sobre la eficacia de los tratamientos para el Trastorno Obsesivo-Compulsivo

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ABSTRACT

Introduction: Comparative efficacy evidence on psychotherapy and pharmacotherapy for obsessive-compulsive disorder (OCD) in clinical settings was synthesized through a systematic review and meta-analysis.

Materials and methods: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were used for reporting. The research question was formulated using the Population, Intervention, Measurement, Comparison, Outcome, and Time (PIMCOT) framework.

Results: The random-effects meta-analysis included seven randomized clinical trials and did not estimate a statistically significant efficacy difference between psychotherapy and pharmacotherapy

as monotherapies for OCD. The standardized mean difference was g = –0.0497, with a standard error (SE) of 0.1464, z = –0.34, p = 0.734, and a 95% confidence interval (CI) from –0.3366 to 0.2372. Between-study heterogeneity was low to moderate (τ^2 = 0.0427; I^2 = 28.9%; Q [6] = 8.01; p = 0.2375). Publication-bias analyses did not indicate significant publication bias. The estimates are consistent with comparable efficacy between both treatment modalities.

Analysis and discussion: The meta-analytic estimates are compatible with similar efficacy of psychotherapy and pharmacotherapy for OCD. The point estimate slightly favored pharmacotherapy, but the effect was negligible and did not reach clinical relevance. Treatment selection depends on symptom severity, potential adverse effects, and availability within the healthcare system.

Conclusions: No statistically or clinically significant efficacy difference was estimated between psychotherapy and pharmacotherapy when used as monotherapies for OCD. Across the included studies, both approaches were associated with reductions in obsessive-compulsive symptoms.

Keywords: psychological therapy, psychotherapy, pharmacological therapy, pharmacotherapy, obsessive-compulsive disorder.

RESUMEN

Introducción: La evidencia sobre eficacia comparativa de la psicoterapia y la farmacoterapia para el trastorno obsesivo-compulsivo (TOC) en contextos clínicos se sintetizó mediante una revisión sistemática con metaanálisis.

Materiales y métodos: La revisión siguió las directrices Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). La pregunta de investigación se formuló mediante el marco Population, Intervention, Measurement, Comparison, Outcome, and Time (PIMCOT).

Resultados: El metaanálisis de efectos aleatorios incluyó siete ensayos clínicos aleatorizados y no estimó una diferencia de eficacia estadísticamente significativa entre la psicoterapia y la farmacoterapia usadas como monoterapias para el TOC. La diferencia de medias estandarizada fue g = –0.0497, con un error estándar (SE) de 0.1464, z = –0.34, p = 0.734 e intervalo de confianza del 95 % (IC 95 %) entre –0.3366 y 0.2372. La heterogeneidad entre estudios fue baja a moderada (τ^2 = 0.0427; I^2 = 28.9 %; Q (6) = 8.01; p = 0.2375). Los análisis de sesgo de publicación no indicaron sesgo significativo. Estas estimaciones son compatibles con una eficacia comparable entre ambas modalidades de tratamiento.

Análisis y discusión: Las estimaciones metaanalíticas son compatibles con una eficacia similar de la psicoterapia y la farmacoterapia para el TOC. La estimación puntual favoreció levemente a la farmacoterapia, pero el efecto fue de magnitud muy baja y no alcanzó relevancia clínica. La selección

del tratamiento depende de la gravedad de los síntomas, los posibles efectos adversos y la disponibilidad de servicios en el sistema de salud.

Conclusiones: El metaanálisis no estimó diferencias de eficacia estadística ni clínicamente significativas entre la psicoterapia y la farmacoterapia cuando se usaron como monoterapias para el TOC. En los estudios incluidos, ambos abordajes se asociaron con reducción de síntomas obsesivo-compulsivos.

Palabras clave: terapia psicológica, psicoterapia, terapia farmacológica, farmacoterapia, trastorno obsesivo-compulsivo.

INTRODUCTION

Obsessive-compulsive disorder (OCD) is a clinically disabling condition marked by recurrent obsessions and compulsions, frequent psychiatric comorbidity, and treatment challenges (1). Its estimated global prevalence ranges from 1 % to 1.8 % (2), and onset most often occurs during adolescence or early adulthood (3). Persistent symptoms can become chronic and compromise overall functioning when clinical recognition is delayed (4). Diagnostic recognition relies on the core semiology of recurrent, persistent obsessions and compulsions (5).

Obsessions are intrusive and persistent thoughts, images, or impulses that generate marked distress and are estimated to occur in approximately 16.8 % of patients with OCD (4). Compulsions are repetitive behaviors or mental acts performed in response to an obsession, often according to rules experienced as necessary, and commonly function to reduce obsession-related anxiety (5,6).

Although OCD can emerge at any age, onset most often occurs during adolescence or early adulthood (7). Early-onset OCD is more frequently reported in males and in individuals with a family history of tic disorders or other mental illnesses (8). Adult-onset OCD, particularly during middle age, is more frequently diagnosed in women and has been associated with traumatic life events, previous depressive episodes, and long-standing subclinical symptoms (9).

Environmental and personal risk factors have been described in OCD, and the disorder has been classified as multifactorial in the cited literature (10). One developmental classification proposes four subtypes: three with familial patterns and one sporadic. The familial subtypes comprise early-onset OCD with comorbid tic disorders, including Tourette syndrome; early-onset OCD

without tics; and late-onset OCD without tics. The sporadic subtype is rarely associated with tics (11).

Major depressive disorder is the most frequently reported psychiatric comorbidity in OCD, affecting more than 50 % of individuals with the disorder. OCD and major depressive disorder share clinical and neuroanatomical features, including abnormalities in the anterior cingulate cortex (ACC), thalamus, and caudate nucleus (12). Their co-occurrence has been described as one of the most disabling clinical presentations in mental health practice (13,14).

Autism spectrum disorder (ASD) is another reported comorbidity: individuals with OCD have been reported to have a higher risk of ASD than the general population (6.6 % versus 0.5 %) (15). The association has been linked to shared alterations in functional brain connectivity (16).

Other neuropsychiatric comorbidities reported in OCD include body dysmorphic disorder, trichotillomania, generalized anxiety disorder, social anxiety disorder, specific phobias, alcohol and substance use disorders, anorexia nervosa, bulimia nervosa, and schizophrenia (17).

Symmetry/ordering, contamination/cleaning, and sexual/religious symptom dimensions have been described during OCD development and clinical presentation (18). In a study of 383 patients referred to a specialized pediatric OCD clinic, one quarter of the sample presented sexual obsessions (19). Population-based estimates suggest that approximately 28.3 % of individuals experience at least one OCD symptom at some point in life (20). Among adults with OCD, anxiety disorders have been estimated at 76 %, depressive or bipolar disorders at 63 %, and major depressive disorder at 41 % (18,21,22).

OCD substantially affects quality of life across social, occupational, family, academic, and daily functioning domains (21,23). Symptom expression can interfere with household activities, social interaction, and academic performance, particularly when obsessions and compulsions persist or become functionally impairing.

Selective serotonin reuptake inhibitors (SSRIs)—specifically fluoxetine, fluvoxamine, paroxetine, and sertraline—and clomipramine are commonly used pharmacological agents for OCD and are the only agents approved by the Food and Drug Administration (FDA) for this indication (24–26). Benzodiazepines such as clonazepam have also been reported to reduce OCD symptoms

(27). Clomipramine has shown symptom-reduction effects, although it is associated with more severe adverse effects (28). A meta-analysis reported greater reductions in Yale-Brown Obsessive Compulsive Scale (Y-BOCS) scores with higher SSRI doses than with low or medium doses (weighted mean difference [WMD] = 3.9; 95 % confidence interval [CI]: 2.9–4.9; $p < 0.001$), with increasing dose also raising the risk of adverse effects (29,30).

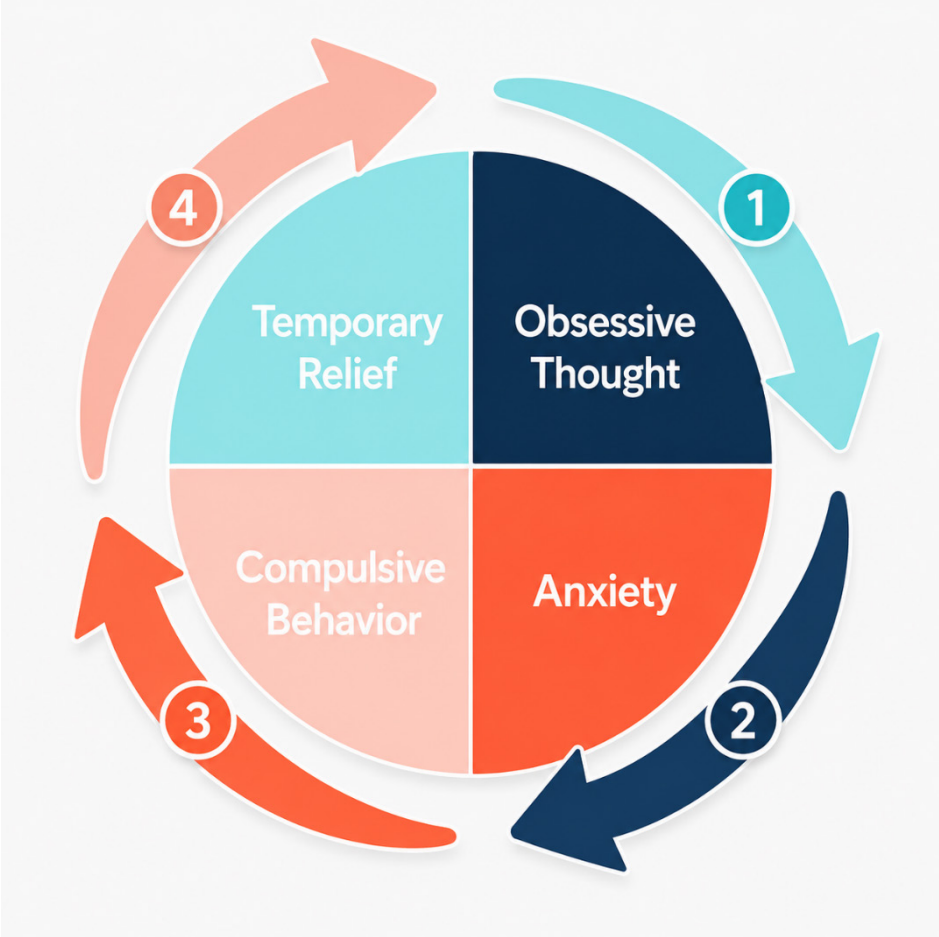
Pharmacotherapy is associated with adverse effects in both children and adults. Reported response rates remain modest, with therapeutic success estimated between 40 % and 60 % and full remission uncommon among patients (31). In comparisons between SSRIs and placebo, adverse effects were reported as more severe with SSRIs, with nausea, sleep disturbances, and headaches among the most frequent events (32,33).

Psychotherapeutic treatment is also used as a first-line intervention for OCD (34). A national hospital care survey conducted between 2003 and 2011 reported psychological therapy in 46 % of pediatric OCD cases (35). Cognitive-behavioral therapy (CBT) is commonly used in patients with OCD (36), and intensive weekly CBT has been associated with higher symptom-management effects (37). Exposure and response prevention (ERP), a specific CBT technique, has been reported to reduce OCD symptoms and comorbidity (38).

A 2022 systematic review with meta-analysis assessed ERP against placebos, medications, and other psychotherapies, reporting larger effects for ERP than for placebo ($g = 0.97$) and other psychotherapies ($g = 0.59$) (39). The same review reported reductions in comorbid depressive symptoms ($g = 0.15$) and anxiety symptoms ($g = 0.23$). Its scope differs from the pooled comparison because it included different numbers of randomized clinical trials, treatment types, and comparison groups.

Psychotherapeutic response depends partly on session dose. The number of sessions has tended to decrease over time, a pattern that is potentially insufficient for clinically meaningful improvement when patients require at least 15 sessions to obtain optimal results (40). Session duration usually ranges from 1 to 2 hours, and sessions shorter than 60 minutes may not allow adequate exposure.

Psychotherapy and pharmacotherapy were compared as individualized approaches for reducing obsessive-compulsive symptoms in OCD. Figure 1 depicts the recurrent symptom cycle described for OCD.



Source: Adapted from Segal et al. (41).
Note. The figure illustrates a recurrent sequence in which intrusive thoughts, mental images, or impulses are followed by anxiety, compulsive behavior, and temporary relief before obsessive symptoms recur. Symptom concealment due to fear of rejection or social stigma can delay clinical recognition of the cycle.

Figure 1. Obsessive-compulsive disorder cycle

MATERIALS AND METHODS

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed for reporting systematic reviews and meta-analyses, including transparent reporting of the search strategy, eligibility criteria, study selection, synthesis methods, and findings (42,43).

Formulation of the Review Question

The review question was formulated using the Population, Intervention, Measurement, Comparison, Outcome, and Time (PIMCOT) framework (see Table 1): over the last 15 years, which treatment was associated with greater reductions in obsessive-compulsive symptoms among patients with obsessive-compulsive disorder, psychotherapy or pharmacotherapy?

Table 1. PIMCOT research question

Heading	Description
Problem-Population (P)	Patients with obsessive-compulsive disorder (OCD)
Intervention (I)	Selective serotonin reuptake inhibitors (SSRIs)
Measurement (M)	Efficacy
Comparison (C)	Pharmacological treatment versus psychotherapy
Outcome (O)	Reduction of OCD symptomatology
Time (T)	15 years

Source: own elaboration.

Electronic Dictionaries, Search Algorithms, and Databases

A search of scientific literature on obsessive-compulsive disorder was conducted in PubMed, ScienceDirect, SpringerLink, Scopus, and Taylor & Francis. Search terms were selected from Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH), including psychotherapy and pharmacotherapy terms (see Table 2). Terms were combined using Boolean operators (AND, OR, NOT), quotation marks, and parentheses to build database-specific search algorithms

(see Tables 2 and 3). Filters were applied to identify articles, clinical studies, and randomized trials published within the 15-year scope of the review.

Web of Science was not included in the article search. The search was restricted to the selected databases, which provide broad coverage of clinical trials, systematic reviews, and meta-analyses in mental health.

Table 2. Search descriptors from Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH)

Term	Descriptor
Obsessive-compulsive disorder	Obsessive-compulsive; obsessive-compulsive disorder
Psychotherapy	Psychotherapy; psychological therapy
Adults, adolescents, children	Adults; adolescents; children
Pharmacotherapy	Sertraline; Zoloft; paroxetine; Paxil; fluoxetine; Prozac; clonazepam; citalopram; fluvoxamine; Luvox

Source: own elaboration.

Table 3. Database-specific search algorithms

Database	Search algorithm
PubMed	(Clonazepam OR Citalopram OR Escitalopram) AND (Psychotherapy OR Psychological Therapy OR Cognitive Therapy OR Cognitive Behavioral OR Cognitive) AND (Obsessive Compulsive Disorder OR Compulsive Personality OR Obsessive Personality)
SpringerLink	(Fluoxetine OR Prozac OR Paroxetine OR Paxil OR Sertraline OR Zoloft OR Fluvoxamine OR Luvox) AND (Psychotherapy OR Psychological Therapy OR Cognitive Therapy OR Cognitive Behavioral OR Cognitive) AND (Obsessive Compulsive OR Compulsive Personality OR Obsessive Personality)
Taylor & Francis	(Clonazepam OR Citalopram OR Escitalopram) AND (Psychotherapy OR Psychological Therapy OR Cognitive Therapy OR Cognitive Behavioral OR Cognitive) AND (Obsessive Compulsive Disorder OR Compulsive Personality OR Obsessive Personality)

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Scopus	("Clonazepam" OR "Citalopram" OR "Escitalopram") AND ("Psychotherapy" OR "Psychological Therapy" OR "Cognitive Therapy" OR "Cognitive Behavioral" OR "Cognitive") AND ("Obsessive Compulsive" OR "Compulsive Personality" OR "Obsessive Personality")
ScienceDirect	("Fluoxetine" OR "Prozac" OR "Paroxetine" OR "Paxil" OR "Sertraline" OR "Zoloft" OR "Fluvoxamine" OR "Luvox") AND ("Psychotherapy" OR "Psychological Therapy" OR "Cognitive Therapy" OR "Cognitive Behavioral" OR "Cognitive") AND ("Obsessive Compulsive Disorder")

Source: own elaboration.

Note. The algorithms reproduce the search strings documented in the review file. Broad free-text terms such as Cognitive, Compulsive Personality, and Obsessive Personality are retained as part of the recorded search syntax and were not modified without the original search log.

Study Characteristics

The research team searched PubMed, Scopus, SpringerLink, ScienceDirect, and Taylor & Francis to identify and select eligible studies. Only randomized controlled clinical trials were included. The selected studies used longitudinal pre- and post-intervention assessments to measure obsessive-compulsive symptoms in two comparison groups. Means and standard deviations from the Yale-Brown Obsessive Compulsive Scale were extracted for the meta-analysis. Only trials that randomized participants into two groups were retained: one receiving a psychotherapeutic intervention and the other receiving pharmacological treatment.

Inclusion Criteria. Articles published from 2008 to 2023 were eligible, corresponding to the 15-year search window. Randomized controlled clinical trials were eligible for inclusion. Studies were required to report extractable statistical data, including means and standard deviations for the comparison groups, and to assess reductions in obsessive-compulsive symptoms using the Yale-Brown Obsessive Compulsive Scale. Eligible studies had to evaluate treatments for OCD, including pharmacological, psychological, or combined interventions, and provide information on the clinical profile of patients with OCD. Only English-language articles were considered.

Exclusion Criteria. Articles published before 2008 or after 2023 were excluded. Studies with designs other than randomized controlled clinical trials, including observational studies, narrative reviews, and case studies, were excluded. Studies without extractable statistical data, including means or standard deviations for the comparison groups, were excluded. Studies that

did not assess reductions in obsessive-compulsive symptoms using the Yale-Brown Obsessive Compulsive Scale were excluded. Studies focused on conditions or disorders other than OCD were excluded. Studies that did not evaluate treatments for OCD, whether pharmacological, psychological, or combined, or that did not provide information on the clinical profile of patients with OCD were excluded. Studies unavailable in English or without an accessible translation were excluded. Duplicate records and studies with insufficient information for analysis were excluded.

Selection of Studies

Table 4 summarizes record identification and selection across PubMed, ScienceDirect, Scopus, SpringerLink, and Taylor & Francis. The database searches identified 9,325 records. According to the screening categories reported in the table, 5,954 records met the document-type criterion, 235 were outside the 15-year time period, 2,246 had no available access, none were excluded because of reviews, incomplete texts, or duplicates, 882 did not meet the specified eligibility criteria, and one PubMed record was not classifiable in the available screening categories. Seven studies were retained for the final sample: six from PubMed and one from ScienceDirect.

Table 4. Article identification and selection by database

Database	Total found	Type of document	Time period	No access	Reviews/ Incomplete texts/ duplicates	Non-compliance with variable criteria	Total sample
PubMed	386	291	21	50	0	17	6
ScienceDirect	2631	1733	94	700	0	103	1
Scopus	2999	1600	0	916	0	483	0
SpringerLink	3216	2301	120	540	0	255	0
Taylor and Francis	93	29	0	40	0	24	0
Total	9325	5954	235	2246	0	882	7

Source: own elaboration.

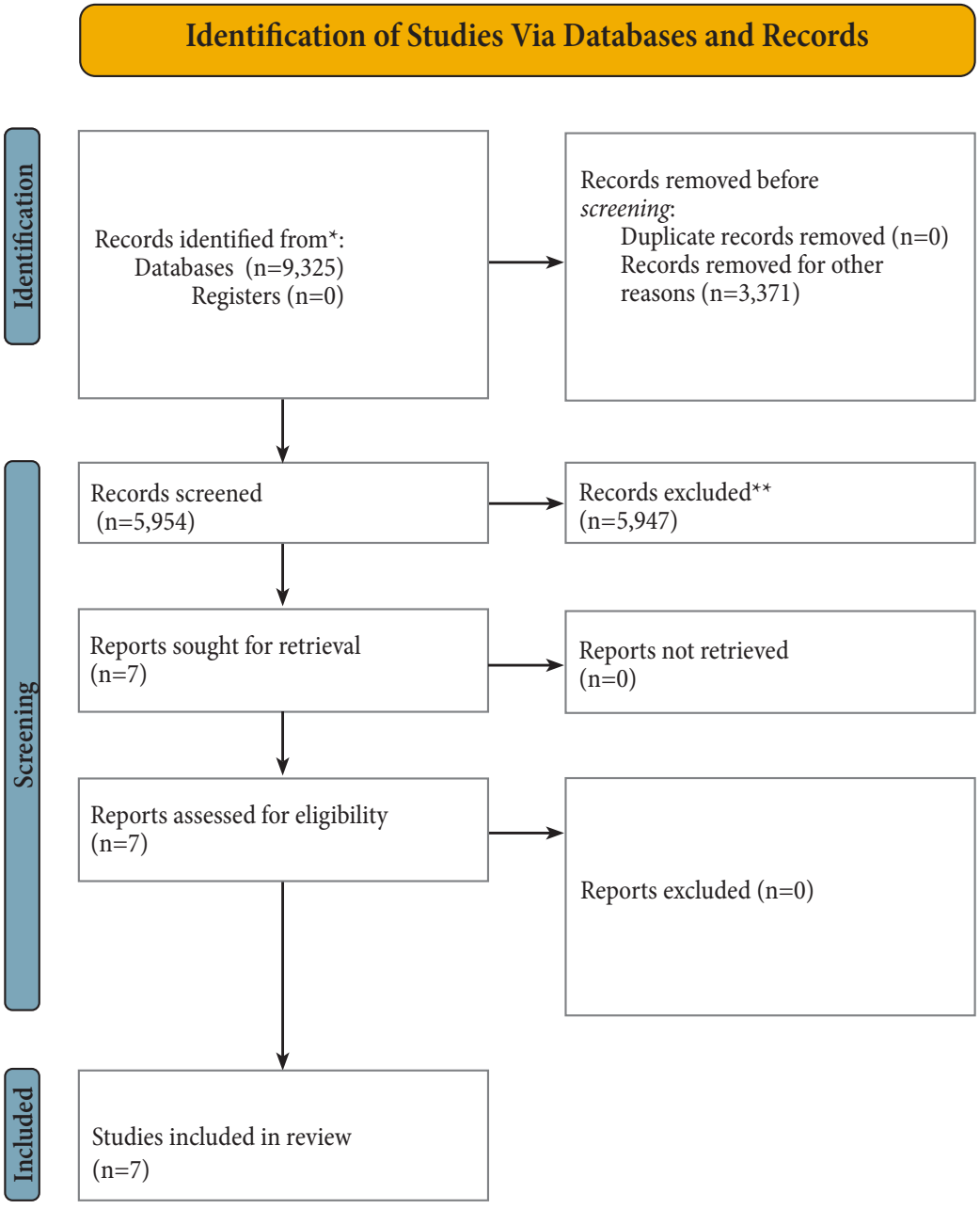
Collaborative Research Strategy. The author group included 12 researchers and the review workflow was divided into three subgroups of four, with each subgroup assigned to a defined stage of the meta-analysis.

The first subgroup conducted database screening and systematic searches in the selected sources.

The second subgroup applied the inclusion and exclusion criteria and selected eligible studies in the review matrix.

The third subgroup extracted statistical data from the included studies and conducted the meta-analytic procedures. Figure 2 summarizes the review workflow derived from the screening counts reported in Table 4.

Disagreements during study selection or coding were resolved by consensus among subgroups.



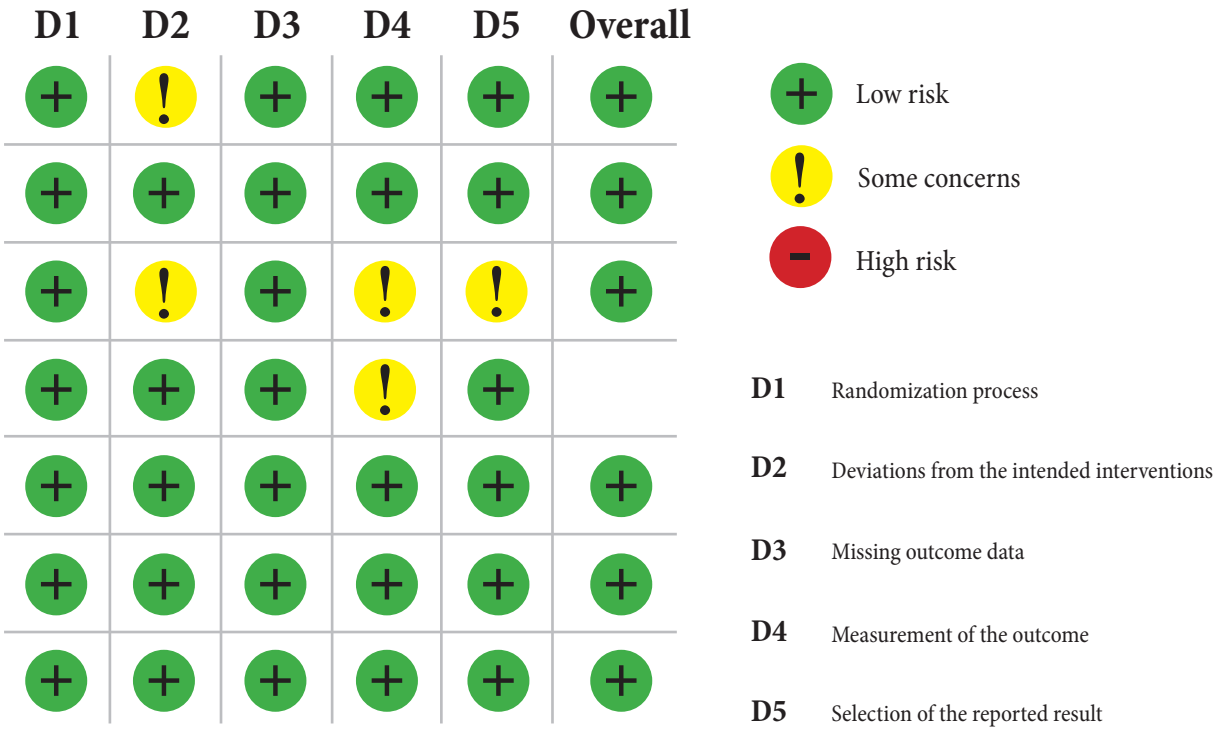
Source: own elaboration from Table 4.

Figure 2. Standardized phases of the systematic review process

Bias Analysis: Risk of Bias 2 (RoB 2). Figure 3 presents the risk-of-bias assessment performed with the Cochrane Risk of Bias 2 (RoB 2) tool, which is designed to assess bias in randomized clinical trials (44).

Risk-of-bias ratings varied across studies and assessed domains. Domains 2, 4, and 5 showed the largest number of some-concerns ratings, corresponding to deviations from intended interventions, measurement of the outcome, and selection of the reported result. No displayed domain reached a high-risk rating.

Trials 2, 5, and 7 were rated as low risk across the assessed domains in the displayed assessment.



Source: Own elaboration using the Cochrane Risk of Bias 2 (RoB 2) tool.

Figure 3. Risk-of-bias assessment

RESULTS

Description and Analysis of Included Studies

The included clinical studies assessed interventions for reducing obsessive-compulsive disorder (OCD) symptoms. Table 5 summarizes their characteristics and findings. Intervention duration ranged from 12 to 16 weeks, reflecting differences in treatment approach, intensity, and study objectives. Sample sizes varied from small clinical samples to larger trial cohorts.

Table 5. Characteristics and findings of the included studies

N	Authors	Year	Design	Sample	Main result	Key finding	Duration	Treatment
1	Lissemore et al. (45)	2018	Randomized trial	16 patients with OCD	CBT and sertraline significantly reduced OCD symptoms.	Similar efficacy between CBT and selective serotonin reuptake inhibitors (SSRIs).	12 weeks	Pharmacological: 25 mg daily, with weekly increases up to the maximum dose depending on adverse effects. Psychotherapy: 24 sessions over 12 weeks, 90 minutes each.
2	Hoexter et al. (46)	2011	Randomized trial	26 patients with OCD	No significant difference between fluoxetine and CBT was reported.	Similar efficacy between fluoxetine and CBT.	12 weeks	Pharmacological: 20 mg daily, with weekly 20 mg increments until the maximum dose was reached. Psychotherapy: 12 sessions of 2 hours each.
3	Van Balkom et al. (47)	2012	Randomized trial	48 patients with OCD	Fluvoxamine was more effective than cognitive therapy in patients who did not respond to first-step behavior therapy.	Fluvoxamine showed greater symptom reduction than cognitive therapy in this treatment-resistant sample.	12 weeks	Pharmacological: 200 mg average daily dose. Psychotherapy: 12 sessions of 45 minutes each.

Continue...

4	Skarphedinsson et al. (48)	2014	Randomized trial	50 children and adolescents with OCD	No significant difference between sertraline and continued CBT was reported.	Sertraline and continued CBT were comparable options in children and adolescents who did not respond to CBT.	16 weeks	Pharmacological: 25 mg per day, increasing to a maximum of 200 mg per day. Psychotherapy: 10 sessions of 90 minutes each.
5	D'Alcante et al. (49)	2012	Randomized trial	38 patients with OCD	Better cognitive and executive abilities predicted response to CBT or fluoxetine.	Cognitive and executive functioning predicted treatment response.	12 weeks	Pharmacological: 20 mg daily, with final increase to 80 mg. Psychotherapy: 12 sessions of 2 hours each.
6	Landsheer et al. (50)	2015	Randomized trial	48 patients with OCD	Fluvoxamine and cognitive therapy were compared, with assignment refusal reported in both treatment arms.	Fluvoxamine may reduce symptoms in treatment-resistant OCD, although assignment refusal affected both arms.	12 weeks	Pharmacological: not specified. Psychotherapy: 12 sessions.
7	Sabetnejad et al. (51)	2016	Randomized trial	73 adult women with OCD	CBT and fluoxetine significantly reduced OCD symptom severity in women.	Both treatments reduced OCD symptoms, but sexual satisfaction improved with CBT.	12 weeks	Pharmacological: 60 to 80 mg daily. Psychotherapy: 10 sessions of 45 minutes each.

Source: own elaboration.

Individual findings across the seven included trials varied by intervention pair, population, and clinical context.

Lissemore et al. (45) reported sertraline and cognitive-behavioral therapy (CBT) both reduced obsessive thoughts and compulsions, with similar efficacy reported between CBT and selective serotonin reuptake inhibitors (SSRIs) (45). Hoexter et al. (46) also reported no significant difference between fluoxetine and CBT (46).

Van Balkom et al. (47) reported greater symptom reduction with fluvoxamine than with cognitive therapy among patients who had not responded to first-step behavior therapy (47). In children and adolescents who did not respond to CBT, Skarphedinsson et al. (48) found no significant difference between sertraline and continued CBT, indicating comparable efficacy in that subgroup (48).

D'Alcante et al. (49) found that better cognitive and executive functioning predicted a more favorable response to CBT or fluoxetine (49). Landsheer et al. (50) compared fluvoxamine with cognitive therapy in treatment-resistant OCD and reported assignment refusal in both treatment arms, limiting a direct interpretation of comparative response (50).

Sabetnejad et al. (51) reported that fluoxetine and CBT both reduced OCD symptom severity in adult women, with sexual satisfaction improving in the CBT group (51).

Meta-analysis

The random-effects meta-analysis integrated seven studies (k = 7) comparing psychotherapeutic and pharmacological interventions for obsessive-compulsive disorder (OCD). Between-study variance was estimated with the restricted maximum likelihood (REML) method, and heterogeneity was low to moderate ($\tau^2 = 0.0427$; $I^2 = 28.9$ %; Q (6) = 8.01; p = 0.2375). The pooled standardized mean difference was negligible (g = –0.0497; standard error (SE) = 0.1464; z = –0.34; p = 0.734; 95 % confidence interval (CI): –0.3366 to 0.2372), with no statistically or clinically significant efficacy difference between cognitive-behavioral therapy (CBT) and selective serotonin reuptake inhibitors (SSRIs). Although the point estimate slightly favored pharmacotherapy, its magnitude remained below the reported threshold for clinical relevance ($g \geq 0.20$), supporting comparable efficacy rather than superiority or formal equivalence. Figure 4 displays the pooled effect and study-level estimates.

Publication bias was assessed with Egger's test (z = 0.165; p = 0.869) and the trim-and-fill method. Neither analysis indicated significant publication bias, although the small number of included studies limits procedural sensitivity. Figure 5 presents the funnel plot used for visual inspection of small-study effects.

Interpretation of the pooled estimate is constrained by the small number of included studies, variation in treatment dosage and duration, differences in therapists' clinical expertise, and non-uniform outcome-assessment criteria. The absence of stratified analyses by OCD subtype also limits assessment of whether treatment effects differed across clinical subgroups. Figure 6 reports the influence diagnostics for the included studies.

CBT and SSRIs showed comparable benefits for reducing obsessive-compulsive symptoms in the pooled analysis. Treatment selection depends on adverse-effect profiles, patient preferences, cost, and healthcare-system availability. Combined therapy and biomarker-guided treatment algorithms were not estimated by the pooled model and are not inferred from the pooled result.

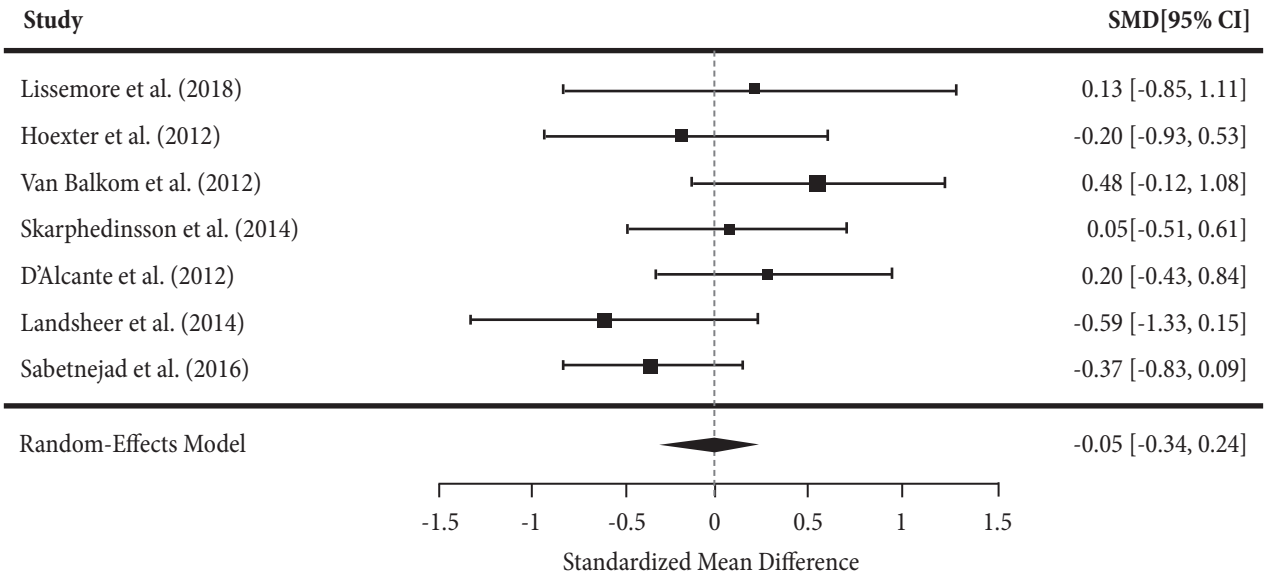


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Figure 4. Forest plot of standardized mean differences

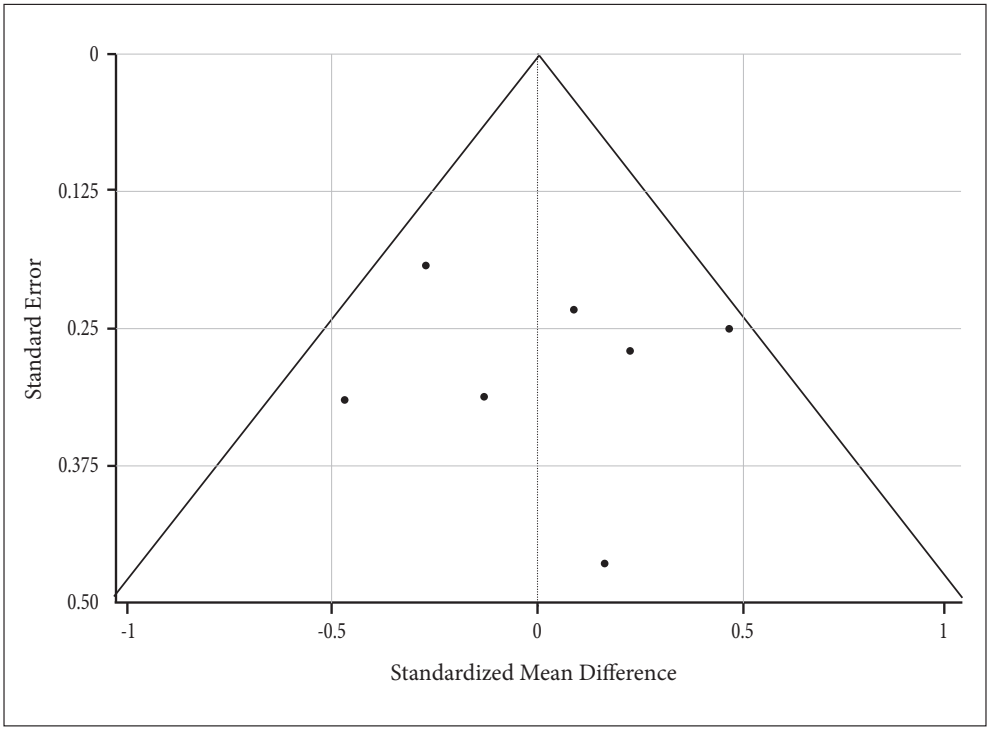

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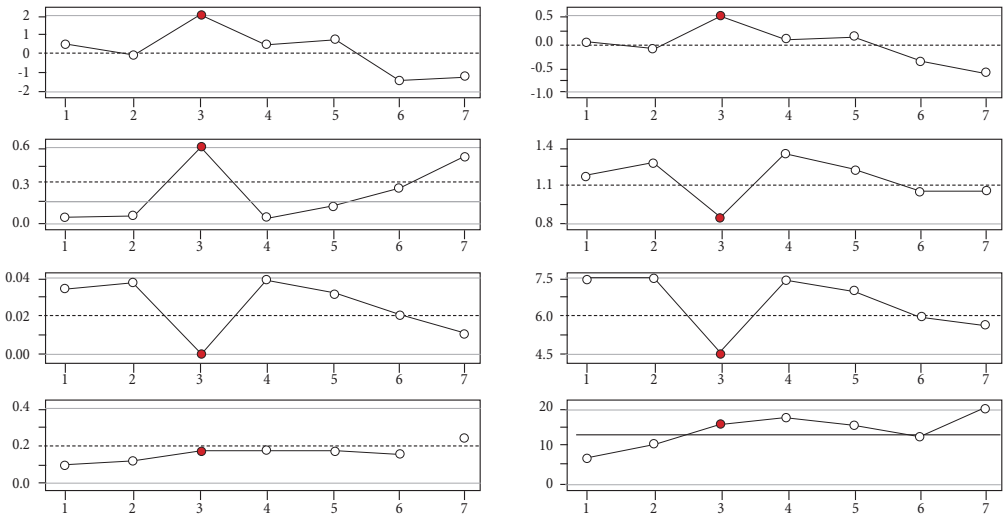
Figure 5. Funnel plot



Source: own elaboration using the statistical analysis package Jamovi 2.6.26.

Figure 6. Influence diagnostics

DISCUSSION

OCD involves recurrent obsessions and compulsions, often beginning early and co-occurring with psychiatric comorbidity and functional impairment; the meta-analysis compared psychotherapy and pharmacotherapy for symptom reduction in adults and children with OCD.

Psychotherapeutic treatment for OCD is supported mainly by evidence on cognitive-behavioral therapy (CBT), particularly exposure and response prevention (ERP). ERP remains debated in some mental health settings because non-response, relapse risk, and distress during exposure can limit symptom improvement in some patients (52,53).

ERP is widely used in OCD care and is supported by clinical studies and case evidence (54). In experimental comparisons, CBT has shown better outcomes than anxiety-management training and relaxation techniques combined with placebo controls (40). Symptom reduction with ERP may be more difficult in patients with concurrent depressive symptoms, which can affect treatment engagement and response (55).

Access to clinical psychology professionals trained in evidence-supported psychotherapy remains a practical constraint. Where such capacity is limited, patients may receive psychotropic medication alone or psychotherapeutic interventions without a documented evidence base for OCD management (56). Literature cited in this section also reports concerns about the evidence base of some clinical psychology interventions: in a review of 70 purported empirically supported treatments, 20 % were classified as scientifically based or reliable, 30 % as unreliable, and 30 % as moderately unclear, while the remaining treatments lacked rigorous evidence (57,58).

CBT remains the psychotherapeutic approach with the clearest support for OCD management among the modalities reviewed here (59). Evidence for other psychotherapeutic approaches, including psychodynamic, Gestalt, systemic, and humanistic-existential therapies, is described as limited in the cited literature (60).

Pharmacological treatment is primarily represented by selective serotonin reuptake inhibitors (SSRIs) and tricyclic antidepressants, which are described in the cited literature as first-line options for reducing clinical symptoms (33). Drug selection depends on adverse effects, expected time course of symptom response, and patient-specific medical contraindications (61).

The included trials support pooled analysis of monotherapy comparisons; evidence on combined therapy remains part of the surrounding literature rather than an effect estimated by the model (62).

Meta-analysis Results

The pooled estimate showed no statistically or clinically significant efficacy difference between (CBT) and selective serotonin reuptake inhibitors (SSRIs) when used as monotherapies. The effect was negligible and slightly favored pharmacotherapy, but remained below the reported threshold for clinical relevance. External comparative evidence suggests that combined pharmacotherapy and CBT can be beneficial in some clinical contexts (63), but the combined-treatment findings were not produced by the pooled analysis. When used separately, medication and psychotherapy both showed symptom reduction in the included literature without a significant difference between modalities (64,65).

Treatment decisions depend on symptom severity, comorbidities, treatment availability, adverse-effect profiles, and patient preferences. The absence of stratified analyses by OCD subtype in the pooled model limits assessment of whether specific clinical subgroups respond differently to psychotherapy or pharmacotherapy.

Comparison with Previous Studies

Skapinakis et al. (66) reported that combined (SSRIs) and (CBT) outperformed either modality alone in a network meta-analysis (66), and Mao et al. (67) reported benefits of exposure and response prevention combined with pharmacotherapy for OCD. Together, Skapinakis et al. (66) and Mao et al. (67) provide external comparative evidence because the pooled model estimated monotherapy comparisons rather than combined-treatment effects.

Reviews that do not separate psychotherapy, pharmacotherapy, and combined treatment provide less direct comparators for the monotherapy-focused pooled estimate, which does not estimate the comparative effect of combined treatment.

The pooled estimate is compatible with comparable symptom reduction for ERP- or CBT-based psychotherapy and SSRIs when used as monotherapies. New randomized clinical trials evaluating

other psychological therapies, including Acceptance and Commitment Therapy, would expand the set of direct comparisons available for future quantitative syntheses (68).

Clinical and Practical Implications

The pooled model estimated no statistically or clinically significant difference between CBT and SSRIs as monotherapies; clinical selection depends on symptom severity, psychiatric comorbidity, adverse-effect profile, patient preference, cost, and access to trained providers. CBT, particularly ERP, remains a first-line psychotherapeutic option for OCD, while SSRIs are used when symptoms are severe or when access to psychotherapy is limited (69,70). Evidence cited outside the pooled model describes combined CBT and pharmacotherapy in some clinical contexts, but that comparative effect was not estimated here.

Variation in individual treatment response is consistent with a stratified clinical approach rather than a uniform preference for one modality. When pharmacotherapy and psychotherapy are both available, treatment planning depends on adherence demands, relapse risk, adverse effects, patient preference, and the feasibility of sustained exposure-based work. Multimodal care may be considered for patients with poor response, comorbidity, or limited improvement with a single modality, but its effect on adherence, quality of life, or relapse was not estimated in the pooled model (71).

Public mental health services in settings with limited access to trained psychotherapists need to address treatment availability and workforce capacity together. Training clinicians in research-supported psychotherapy techniques such as ERP could expand access to non-pharmacological treatment, particularly where medication is more available than specialized behavioral therapy. The access-related implication concerns service availability and workforce capacity, not superior efficacy for combined care in the pooled analysis.

Limitations and Recommendations for Future Research

The pooled estimate is limited by heterogeneity across the included trials, including differences in diagnostic criteria, intervention duration, intervention modality, and outcome measures. Variation across these domains limits direct assessment of the estimate's stability and transferability. Small sample sizes, short follow-up periods, and limited subgroup data also restrict

interpretation of long-term response, relapse, and differential treatment effects in patients with psychiatric comorbidity or different sociodemographic profiles.

Further meta-analyses need to evaluate whether treatment effects differ by clinical profile, OCD subtype, symptom severity, comorbidity, age group, treatment dose, follow-up duration, and intervention format. Because subgroup analyses were not conducted, the conclusions remain restricted to the overall comparison between psychotherapy and pharmacotherapy as monotherapies.

CONCLUSIONS

The pooled analysis did not estimate statistically or clinically significant efficacy differences between psychotherapy and pharmacotherapy when used as monotherapies for OCD. Both modalities were associated with reductions in obsessive-compulsive symptoms, and the pooled effect was compatible with comparable efficacy rather than superiority of either approach.

Pharmacological treatment in the included literature was represented primarily by selective serotonin reuptake inhibitors and clomipramine, with adverse-effect profiles remaining part of treatment selection. Psychotherapeutic intervention was represented mainly by cognitive-behavioral therapy, particularly exposure and response prevention; its use depends on patient tolerance, symptom severity, access to trained clinicians, and feasibility of sustained exposure-based work.

The available data are restricted to the overall monotherapy comparison and do not support a formal claim of equivalence, superiority of combined treatment, or differential effects by OCD subtype, comorbidity, age group, treatment dose, follow-up duration, or intervention format.

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Key Messages. Evidence base: Evidence from the last 15 years on psychotherapy and pharmacotherapy for obsessive-compulsive disorder (OCD) was synthesized, with emphasis on comparative efficacy as monotherapies.

Main Findings: The pooled analysis did not estimate a statistically or clinically significant efficacy difference between psychotherapy and pharmacotherapy. (CBT) and (SSRIs) showed comparable symptom reduction in the included studies.

Implications: Treatment selection depends on symptom severity, psychiatric comorbidity, adverse-effect profile, patient preference, cost, and access to trained providers. The pooled estimates do not support a formal claim of equivalence, superiority of combined treatment, or differential effects by OCD subtype.

REFERENCES

1. Singh A, Anjankar VP, Sapkale B. Obsessive-compulsive disorder (OCD): a comprehensive review of diagnosis, comorbidities, and treatment approaches. Cureus. 2023;15(11):e48960. doi:10.7759/cureus.48960.
2. Imbali-Vázquez D, Romero-López-Alberca C. Obsessive-compulsive disorder in times of COVID-19: a systematic review. Escritos de Psicología. 2021;14(2):145-155. doi:10.24310/espsiescpsi.v14i2.13594.
3. Dávila Pontón YP, Alvarado Villa MA, Tenesaca Pacheco EP. Prevalencia del trastorno obsesivo compulsivo y factores asociados en el cantón Nabón, 2021 [undergraduate thesis]. Cuenca: Universidad del Azuay; 2022. Available from: https://dspace.uazuay.edu.ec/handle/datos/12322.

4. Moulding R, Hughes ME, Byrne L, Do M, Nedeljkovic M. Obsessive compulsive disorder. In: Rinehart NJ, Bradshaw JL, Enticott PG, editors. Developmental disorders of the brain. 2nd ed. London: Routledge; 2016. p. 173-190. doi:10.4324/9781315692289-11.

5. De La Cruz Villalobos N. Trastorno obsesivo-compulsivo. Revista Médica Sinergia. 2018;3(11):14-18. doi:10.31434/rms.v3i11.154.

6. Sharma E, Sharma LP, Balachander S, Lin B, Manohar H, Khanna P, et al. Comorbidities in obsessive-compulsive disorder across the lifespan: a systematic review and meta-analysis. Front Psychiatry. 2021;12:703701. doi:10.3389/fpsyt.2021.703701.

7. Eichstedt JA, Arnold SL. Childhood-onset obsessive-compulsive disorder: a tic-related subtype of OCD? Clin Psychol Rev. 2001;21(1):137-157. doi:10.1016/S0272-7358(99)00044-6.

8. Maia TV, Cooney RE, Peterson BS. The neural bases of obsessive-compulsive disorder in children and adults. Dev Psychopathol. 2008;20(4):1251-1283. doi:10.1017/S0954579408000606.

9. Frydman I, do Brasil PE, Torres AR, Shavitt RG, Ferrão YA, Rosário MC, et al. Late-onset obsessive-compulsive disorder: risk factors and correlates. J Psychiatr Res. 2014;49:68-74. doi:10.1016/j.jpsychires.2013.10.021.

10. Pauls DL, Abramovitch A, Rauch SL, Geller DA. Obsessive-compulsive disorder: an integrative genetic and neurobiological perspective. Nat Rev Neurosci. 2014;15(6):410-424. doi:10.1038/nrn3746.

11. Pauls DL, Alsobrook JP II, Goodman WK, Rasmussen SA, Leckman JF. A family study of obsessive-compulsive disorder. Am J Psychiatry. 1995;152(1):76-84. doi:10.1176/ajp.152.1.76.

12. Taylor SF, Liberzon I. Neural correlates of emotion regulation in psychopathology. Trends Cogn Sci. 2007;11(10):413-418. doi:10.1016/j.tics.2007.08.006.

13. Bolhuis K, McAdams TA, Monzani B, Gregory AM, Mataix-Cols D, Stringaris A, et al. Aetiological overlap between obsessive-compulsive and depressive symptoms: a longitudinal twin study in adolescents and adults. Psychol Med. 2014;44(7):1439-1449. doi:10.1017/S0033291713001591.

14. Tibi L, van Oppen P, van Balkom AJLM, Eikelenboom M, Rickelt J, Schruers KRJ, et al. The long-term association of OCD and depression and its moderators: a four-year follow up study in a large clinical sample. Eur Psychiatry. 2017;44:76-82. doi:10.1016/j.eurpsy.2017.03.009.

15. Meier SM, Petersen L, Schendel DE, Mattheisen M, Mortensen PB, Mors O. Obsessive-compulsive disorder and autism spectrum disorders: longitudinal and offspring risk. PLoS One. 2015;10(11):e0141703. doi:10.1371/journal.pone.0141703.

16. Akkermans SEA, Rheinheimer N, Bruchhage MMK, Durston S, Brandeis D, Banaschewski T, et al. Frontostriatal functional connectivity correlates with repetitive behaviour across autism spectrum disorder and obsessive-compulsive disorder. Psychol Med. 2019;49(13):2247-2255. doi:10.1017/S0033291718003136.

17. Murphy DL, Timpano KR, Wheaton MG, Greenberg BD, Miguel EC. Obsessive-compulsive disorder and its related disorders: a reappraisal of obsessive-compulsive spectrum concepts. Dialogues Clin Neurosci. 2010;12(2):131-148. doi:10.31887/DCNS.2010.12.2/dmurphy.

18. Luo L, Feng B, Yang S, Zhang N, Qiu S. Clinical characteristics of moderate-severe obsessive-compulsive disorder in children and adolescents in China. J Int Med Res. 2020;48(5):300060520922679. doi:10.1177/0300060520922679.

19. Kuty-Pachecka M. Sexual obsessions in obsessive-compulsive disorder: definitions, models and cognitive-behavioral therapy. Psychiatr Pol. 2021;55(1):39-52. doi:10.12740/PP/112051.

20. Martínez Anchuela M. Trastorno obsesivo compulsivo. Revista Internacional de Apoyo a la Inclusión, Logopedia, Sociedad y Multiculturalidad. 2016;2(1):89-100. Available from: https://revistaselectronicas.ujaen.es/index.php/riai/article/view/4197.

21. Stengler-Wenzke K, Kroll M, Matschinger H, Angermeyer MC. Subjective quality of life of patients with obsessive-compulsive disorder. Soc Psychiatry Psychiatr Epidemiol. 2006;41(8):662-668. doi:10.1007/s00127-006-0077-8.

22. Huppert JD, Simpson HB, Nissenson KJ, Liebowitz MR, Foa EB. Quality of life and functional impairment in obsessive-compulsive disorder: a comparison of patients with and without comorbidity, patients in remission, and healthy controls. Depress Anxiety. 2009;26(1):39-45. doi:10.1002/da.20506.

23. Graña Gómez JL, Navarro Bayón D. Modelo psicopatológico y tratamiento de un caso con un trastorno obsesivo-compulsivo. Psicología Conductual. 2000;8(1):117-146. Available from: https://dialnet.unirioja.es/servlet/articulo?codigo=2827051.

24. Del Casale A, Sorice S, Padovano A, Simmaco M, Ferracuti S, Lamis DA, et al. Psychopharmacological treatment of obsessive-compulsive disorder. Curr Neuropharmacol. 2019;17(8):710-736. doi:10.2174/1570159X16666180813155017.

25. Collins LM, Bragdon LB, Coles ME. The treatment of obsessive-compulsive disorder. In: David D, Lynn SJ, Montgomery GH, editors. Evidence-based psychotherapy: the state of the science and practice. Hoboken: Wiley; 2018. p. 123-156. doi:10.1002/9781119462996.ch6.

26. Paxos C. Moving beyond first-line treatment options for obsessive-compulsive disorder. Ment Health Clin. 2022;12(5):300-308. doi:10.9740/mhc.2022.10.300.

27. Katzman, M.A., Bleau, P., Blier, P. et al. Canadian clinical practice guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders. BMC Psychiatry 14 (Suppl 1), S1 (2014). https://doi.org/10.1186/1471-244X-14-S1-S1.

28. Vega-Dienstmaier JM. Avances en el tratamiento farmacológico del trastorno obsesivo-compulsivo. Rev Neuropsiquiatr. 2016;79(4):239-246. doi:10.20453/rnp.v79i4.2978.

29. Bloch MH, McGuire J, Landeros-Weisenberger A, Leckman JF, Pittenger C. Meta-analysis of the dose-response relationship of selective serotonin reuptake inhibitors in obsessive-compulsive disorder. Mol Psychiatry. 2010;15(8):850-855. doi:10.1038/mp.2009.50.

30. Bloch MH, Storch EA. Assessment and management of treatment-refractory obsessive-compulsive disorder in children. J Am Acad Child Adolesc Psychiatry. 2015;54(4):251-262. doi:10.1016/j.jaac.2015.01.011.

31. Fineberg NA, Craig KJ. Benefits and limitations of pharmacological interventions in obsessive compulsive disorder. Clin Neuropsychiatry. 2006;3(6):345-363. Available from: https://www.researchgate.net/publication/228788851_Benefits_and_limitations_of_pharmacological_interventions_in_obsessive_compulsive_disorder.

32. Ferguson JM. SSRI antidepressant medications: adverse effects and tolerability. Prim Care Companion J Clin Psychiatry. 2001;3(1):22-27. doi:10.4088/PCC.v03n0105.

33. Lóyzaga C, Nicolini H. Tratamiento farmacológico del TOC. Salud Mental. 2000;23(6):40-45. Available from: https://revistasaludmental.gob.mx/index.php/salud_mental/article/view/837.

34. Albert U, Di Salvo G, Solia F, Rosso G, Maina G. Combining drug and psychological treatments for obsessive-compulsive disorder: what is the evidence, when and for whom. Curr Med Chem. 2018;25(41):5632-5646. doi:10.2174/0929867324666170712114445.

35. Ünler M, Tamdemir SE, Ertek İE, Arıkan Z. Clozapine-induced obsessive-compulsive symptoms and augmentation with clonazepam: risks and rationales. Turk Psikiyatri Derg. 2023;34(1):60-64. doi:10.5080/u27025.

36. Gragnani A, Zaccari V, Femia G, Pellegrini V, Tenore K, Fadda S, et al. Cognitive-behavioral treatment of obsessive-compulsive disorder: the results of a naturalistic outcomes study. J Clin Med. 2022;11(10):2762. doi:10.3390/jcm11102762.

37. Behobi Baudou WA, García F, Fernández-Álvarez H. Psicoterapia cognitiva individual del TOC. Salud Mental. 2013;36(4):347-354. Available from: https://www.scielo.org.mx/scielo.php?pid=S0185-33252013000400010&script=sci_abstract.

38. Hezel DM, Simpson HB. Exposure and response prevention for obsessive-compulsive disorder: a review and new directions. Indian J Psychiatry. 2019;61(Suppl 1):S85-S92. doi:10.4103/psychiatry.IndianJPsychiatry_516_18.

39. Song Y, Li D, Zhang S, Jin Z, Zhen Y, Su Y, et al. The effect of exposure and response prevention therapy on obsessive-compulsive disorder: a systematic review and meta-analysis. Psychiatry Res. 2022;317:114861. doi:10.1016/j.psychres.2022.114861.

40. Vallejo Pareja MÁ. Tratamientos psicológicos eficaces para el trastorno obsesivo-compulsivo. Psicothema. 2001;13(3):419-427. Available from: https://www.psicothema.com/contenido?num=20011003.

41. Segal J, Smith M, Robinson L. Trastorno obsesivo-compulsivo (TOC). HelpGuide.org. 2026 Mar 31. Available from: https://www.helpguide.org/es/ansiedad/trastorno-obsesivo-compulsivo-toc.

42. Yepes-Nuñez JJ, Urrútia G, Romero-García M, Alonso-Fernández S. Declaración PRISMA 2020: una guía actualizada para la publicación de revisiones sistemáticas. Rev Esp Cardiol. 2021;74(9):790-799. doi:10.1016/j.recesp.2021.06.016.

43. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ. 2021;372:n71. doi:10.1136/bmj.n71.

44. Nejadghaderi SA, Balibegloo M, Rezaei N. The Cochrane risk of bias assessment tool 2 (RoB 2) versus the original RoB: a perspective on the pros and cons. Health Sci Rep. 2024;7(6):e2165. doi:10.1002/hsr2.2165.

45. Lissemore JI, Sookman D, Gravel P, Berney A, Barsoum A, Diksic M, et al. Brain serotonin synthesis capacity in obsessive-compulsive disorder: effects of cognitive behavioral therapy and sertraline. Transl Psychiatry. 2018;8(1):82. doi:10.1038/s41398-018-0128-4.

46. Hoexter MQ, de Souza Duran FL, D'Alcante CC, Dougherty DD, Shavitt RG, Lopes AC, et al. Gray matter volumes in obsessive-compulsive disorder before and after fluoxetine or cognitive-behavior therapy: a randomized clinical trial. Neuropsychopharmacology. 2012;37(3):734-745. doi:10.1038/npp.2011.250.

47. van Balkom AJLM, Emmelkamp PMG, Eikelenboom M, Hoogendoorn AW, Smit JH, van Oppen P. Cognitive therapy versus fluvoxamine as a second-step treatment in obsessive-compulsive disorder nonresponsive to first-step behavior therapy. Psychother Psychosom. 2012;81(6):366-374. doi:10.1159/000339369.

48. Skarphedinsson G, Weidle B, Thomsen PH, Dahl K, Torp NC, Nissen JB, et al. Continued cognitive-behavior therapy versus sertraline for children and adolescents with obsessive-compulsive disorder that were non-responders to cognitive-behavior therapy: a randomized controlled trial. Eur Child Adolesc Psychiatry. 2015;24(5):591-602. doi:10.1007/s00787-014-0613-0.

49. D'Alcante CC, Diniz JB, Fossaluza V, Batistuzzo MC, Lopes AC, Shavitt RG, et al. Neuropsychological predictors of response to randomized treatment in obsessive-compulsive disorder. Prog Neuropsychopharmacol Biol Psychiatry. 2012;39(2):310-317. doi:10.1016/j.pnpbp.2012.07.002.

50. Landsheer JA, Smit JH, van Oppen P, van Balkom AJLM. Assignment refusal and its relation to outcome in a randomized controlled trial comparing cognitive therapy and fluvoxamine in treatment-resistant patients with obsessive-compulsive disorder. Psychiatry Res. 2015;226(1):198-203. doi:10.1016/j.psychres.2014.12.050.

51. Sabetnejad Z, Assarian F, Omidi A, Najarzadegan MR. Effectiveness of cognitive behavioral therapy and fluoxetine on sexual function of women with obsessive compulsive disorder: a double-blind randomized controlled trial. Electron Physician. 2016;8(11):3156-3163. doi:10.19082/3156.

52. Gálvez Galve JJ. Revisión de evidencias científicas de la terapia cognitivo-conductual. Medicina Naturista. 2009;3(1):10-16. Available from: https://dialnet.unirioja.es/descarga/articulo/2867904.pdf.

53. Caja R. Evaluación de un caso de trastorno obsesivo compulsivo e intervención. Clínica y Salud. 2016;27(1):23-28. doi:10.1016/j.clysa.2016.01.003.

54. Saval Manera JJ. Exposición y prevención de respuesta en el caso de una joven con trastorno obsesivo-compulsivo. Revista de Psicología Clínica con Niños y Adolescentes. 2015;2(1):75-81. Available from: https://dialnet.unirioja.es/servlet/articulo?codigo=4919680.

55. Zandberg LJ, Zang Y, McLean CP, Yeh R, Simpson HB, Foa EB. Change in obsessive-compulsive symptoms mediates subsequent change in depressive symptoms during exposure and response prevention. Behav Res Ther. 2015;68:76-81. doi:10.1016/j.brat.2015.03.005.

56. Duro Martínez JC. ¿Sabemos cuántos profesionales especialistas en Psicología Clínica trabajan en el Sistema Nacional de Salud español? Papeles del Psicólogo. 2021;42(2):81-93. doi:10.23923/pap.psicol.2955.

57. Moriana JA, Gálvez-Lara M. Psicoterapias y pseudoterapias en búsqueda de la evidencia científica: la ciencia y la práctica profesional en Psicología Clínica. Papeles del Psicólogo. 2020;41(3):201-210. doi:10.23923/pap.psicol2020.2946.

58. Gimeno-Peón A, Mateu C. Hacia la evidencia basada en la práctica en psicoterapia. Revista de Psicoterapia. 2020;31(117):179-194. doi:10.33898/rdp.v31i117.387.

59. Echeburúa E, Salaberría K, de Corral P, Polo-López R. Terapias psicológicas basadas en la evidencia: limitaciones y retos de futuro. Revista Argentina de Clínica Psicológica. 2010;19(3):247-256. Available from: https://www.redalyc.org/articulo.oa?id=281921798006.

60. Béja V. Dos riesgos y una tercera vía: ¿qué investigación necesitamos para la terapia gestalt? Picó Vila D, translator. British Gestalt Journal. 2020;29(1):44-50. Available from: https://gestaltnet.net/sites/default/files/articulos/articulovincentbejabgj20202.pdf.

61. Janardhan Reddy YC, Sundar AS, Narayanaswamy JC, Math SB. Clinical practice guidelines for Obsessive-Compulsive Disorder. Indian J Psychiatry 2017;59:74-90. doi:10.4103/0019-5545.196976.

62. Inchausti F, Delgado AR. Revisión de las medidas del trastorno obsesivo-compulsivo (TOC). Papeles del Psicólogo. 2012;33(1):22-29. Available from: https://www2.papelesdelpsicologo.es/pdf/2032.pdf.

63. Salkovskis PM. Psychological treatment of obsessive-compulsive disorder. Psychiatry. 2007;6(6):229-233. doi:10.1016/j.mppsy.2007.03.008.

64. Feng L, Feng B, Luo L, Li W. Combination therapy for rapid treatment of severe obsessive-compulsive disorder: a case report. J Int Med Res. 2019;47(10):5294-5300. doi:10.1177/0300060519870922.

65. Del Arco Jódar R, Tornero Gómez MJ, García Soliveres C. Intervención cognitivo-conductual en el manejo de obsesiones y compulsiones de lavado en una niña con trastorno obsesivo-compulsivo. Revista de Psicología Clínica con Niños y Adolescentes. 2014;1(2):141-148. Available from: https://dialnet.unirioja.es/servlet/articulo?codigo=4742031.

66. Skapinakis P, Caldwell DM, Hollingworth W, Bryden P, Fineberg NA, Salkovskis P, Welton NJ, Baxter H, Kessler D, Churchill R, Lewis G. Pharmacological and psychotherapeutic interventions for management of obsessive-compulsive disorder in adults: a systematic review and network meta-analysis. Lancet Psychiatry. 2016;3(8):730-739. doi:10.1016/S2215-0366(16)30069-4.

67. Mao L, Hu M, Luo L, Wu Y, Lu Z, Zou J. The effectiveness of exposure and response prevention combined with pharmacotherapy for obsessive-compulsive disorder: a systematic review and meta-analysis. Front Psychiatry. 2022;13:973838. doi:10.3389/fpsyt.2022.973838.

68. Twohig MP, Hayes SC, Plumb JC, Pruitt LD, Collins AB, Hazlett-Stevens H, et al. A randomized clinical trial of acceptance and commitment therapy versus progressive relaxation training for obsessive-compulsive disorder. J Consult Clin Psychol. 2010;78(5):705-716. doi:10.1037/a0020508.

69. Zamora Delgado S. Límites del tratamiento médico en TOC. NeuroTarget. 2006;1(1):51-52. doi:10.47924/neurotarget2006418.

70. Soomro GM, Altman D, Rajagopal S, Oakley-Browne MA. Selective serotonin re-uptake inhibitors (SSRIs) versus placebo for obsessive compulsive disorder (OCD). Cochrane Database Syst Rev. 2008;2008(1):CD001765. doi:10.1002/14651858.CD001765.pub3.

71. Pallanti S, Quercioli L. Treatment-refractory obsessive-compulsive disorder: methodological issues, operational definitions and therapeutic lines. Prog Neuropsychopharmacol Biol Psychiatry. 2006;30(3):400-412. doi:10.1016/j.pnpbp.2005.11.028.