Family and Couple Integrated Cognitive-Behavioural Therapy for Adults with OCD: A Meta-Analysis

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Background: Integrating family into the treatment of obsessive-compulsive disorder (OCD) is standard in pediatric populations; however, in adult populations, patients are typically treated independent of their family. Yet, there is compelling evidence to suggest that family members exacerbate OCD symptoms, and thus there is a strong rationale for integrating family members into the treatment of adult OCD. The present meta-analysis examined whether family treatment is effective for OCD in adult populations as well as moderators of treatment outcome.

Methods: Fifteen studies were reviewed (16 independent samples).

Results: Family treatment for adult OCD was found to improve patient OCD symptoms, depression, anxiety, and functional impairment. There was also improvement in patient and family-reported general relationship satisfaction, antagonism, accommodation, and family member's mental health. Individual treatment format and targeting family accommodation were especially beneficial for improving patient depression. Family members reported greater relational improvements than patients. Fewer patient treatment sessions were associated with greater improvement in antagonism, as was female gender. Fewer sessions for family members was associated with greater improvement in family member mental health. FIT outperformed controls with individual ERP on reduction of OCD and depression symptoms, accommodation, and improvement in functional impairment.

Limitations: Limitations of the present review include a relatively small sample size, lenient study inclusion criteria, and the subjectivity of some moderator categories.

Conclusions: Family-integrated treatment appears to be effective for adult OCD, related symptoms, and relationship factors. There is preliminary support that family-integrated treatments lead to better outcomes than individual treatment. Clinical recommendations are discussed.

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INTRODUCTION

Obsessive-compulsive disorder (OCD) is a disorder characterized by repetitive, intrusive, and unwanted thoughts, images, or urges that elicit distress, as well as subsequent attempts at reducing such distress or preventing unwanted outcomes (i.e., compulsions; American Psychiatric Association, 2013). The most empirically supported, or "gold standard," nonpharmacological treatment for OCD is exposure and response prevention (ERP; Hezel and Simpson, 2019). ERP involves exposing individuals to feared stimuli (e.g., situational triggers, thoughts) while having the individual withhold typical compulsions (e.g., checking, washing, mental reviewing) used to alleviate distress. ERP is a component of cognitive-behavioural therapy (CBT) for OCD, which may also integrate cognitive strategies (e.g., thought record, continuum technique, responsibility pie). CBT for OCD is an effective treatment in both individual and group formats, with large effect sizes found for both treatment formats (e.g., d = 1.06–1.24; Jónsson and Hougaard, 2009, Jónsson et al., 2011).

In adult populations, it is typical for the patient to attend CBT treatment independently. This is in contrast to pediatric populations, where integration of family members into treatment of OCD is often necessary, due to pragmatic reasons (e.g., helping with exposure, ensuring homework is completed). Although adults are typically capable of engaging in treatment without assistance, adult OCD treatment may benefit from the integration of family members. Specifically, family members often engage in behaviours that exacerbate or maintain the OCD symptoms, and they do so typically in one of two ways: being overly accommodating or overly antagonizing (Livingston-Van Noppen et al., 1990, Van Noppen et al., 1991, see Renshaw et al., 2005 for review).

Accommodation and antagonism can be conceptualized as existing on a continuum, with the extremes of both poles representing maladaptive behavior (Van Noppen et al., 1991). Addressing the former, it is common for family members to "accommodate" the OCD, which occurs when family members engage in behaviours in order to reduce or eliminate the distress of the individual with OCD or the time they spend engaging in rituals (Calvocoressi et al., 1999; Thompson-Hollands et al., 2014). Typical accommodation may involve helping the individual with OCD with the rituals (e.g., helping them to clean, checking locks for them), providing reassurance, or changing the routine of the family (e.g., reducing the amount of time spent outside the home; (Calvocoressi et al., 1999). Between 62–100% of families accommodate individuals with OCD (Renshaw et al., 2005). Family members' accommodation is well-meaning; it helps to reduce distress in the shortterm and can also reduce the time the individual spends ritualizing, which may have practical benefits (e.g., not being late; (Calvocoressi et al., 1999) However, accommodation reinforces the belief that thoughts are dangerous, and compulsions are necessary to alleviate distress (Thompson-Holland et al., 2014).

On the other hand, family members may also engage in "antagonism," where they refuse to condone or engage with the OCD symptoms, often because they believe the patient has control over the OCD symptoms (Van Noppen et al., 1991). This behavior often manifests as criticism, hostility, and punishment (Steketee et al., 1998) and appears to occur in a significant portion of families (33% report engaging in hostility and 40% report engaging in high degrees of criticism, see Chambless and Steketee, 1999). Family members who engage in antagonizing behavior often report that they are trying to help the patient improve (Chambless et al., 1999; Tynes et al., 1990; see Renshaw et al., 2005 for review). It is important to note that the intent of this behavior may not be to hurt the individual with OCD; rather, family members may not know how to adaptively support their family member and may be trying their best to stop the individual with OCD from engaging in excessive rituals. Further, patient rated measures of antagonism reflect the patient's *perception* of hostility or criticism, and patients could perceive their family is hostile when they resist accommodation in an effort to help the patient. Interestingly, accommodation and antagonism are positively correlated, and both are correlated with poor family functioning (Calvocoressi et al., 1995). It has been suggested that different family members may engage in accommodation or antagonism, or that family members may fluctuate between styles depending on context (e.g., accommodation under time constraint, antagonism when no time constraint). In summary, it is suggested that family members engaging in these behaviours may be struggling to manage OCD within the family and these behaviours may exacerbate each other (see Renshaw et al., 2005 for review).

Of note, other terminology for these constructs may also be used in the literature, such as "expressed emotion," which includes hostility and criticism (i.e., antagonism) and emotional overinvolvement (which may include accommodation). Originating in schizophrenia research, they have been demonstrated to be important predictors of psychiatric outcomes across a variety of disorders (e.g., Butzlaff and Hooley, 1998), including OCD (e.g., Steketee et al., 1998). These constructs overlap with the Van Noppen et al. (1991) continuum of accommodation and antagonism, and thus for the sake of simplicity, and to be consistent with how the OCD literature commonly defines these constructs, only the terms accommodation and antagonism will be used in the present paper.

Importantly, there is evidence that family accommodation and antagonism are associated with worse patient OCD symptoms, functioning (Strauss et al., 2015), and treatment outcome (Steketee, 1993), suggesting family member accommodation and antagonism may contribute to the maintenance of OCD symptoms. Thus, family members may benefit from understanding the treatment rationale and their role in maintaining OCD symptoms. In addition, family members may be the object of an obsession, and integrating the family member when appropriate may be helpful (e.g., a partner of an individual with harm obsessions may benefit from being involved in ERP planning around holding knives near the partner). Further, shared family beliefs may make the role of the family especially important. For example, maladaptive cognitive appraisals such as scrupulosity (a pathological fear of punishment from God and of sin) or moral thought-action fusion (a belief that thinking "bad thoughts" is akin to action) may be reinforced by families with strict religious codes of conduct (e.g., Rosa-Alcázar and Inieta-Sepúlveda, 2018). Beliefs regarding high standards for cleanliness around the home could also reinforce compulsions related to contamination. Consequently, family members may discourage and interfere with treatment and exposure work.

In addition to family member impact on patient functioning, family members themselves are also impacted by OCD. Remmerswaal et al. (2019) outlined the various impacts OCD can have on family members, such as stress and burden (Laidlaw et al., 1999; Steketee, 1997), anxiety and depression (e.g., Albert et al., 2010; Amir et al., 2000; Stengler-Wenzke et al., 2006) impaired functioning (e.g., impairment in leisure and social activities; Laidlaw et al., 1999; Stengler-Wenzke et al., 2006), and lower quality of life (Grover and Dutt, 2011; Cicek et al., 2013; Stengler-Wenzke et al., 2006). For example, family members may spend significant time helping engage in rituals and they may take on extra responsibility in order to alleviate the distress of the individual with OCD (e.g., childcare, chores). They may lose social support due to stigmatization of OCD or due to the time or energy spent on OCD related concerns. Further, families may not be able to engage in as many meaningful joint activities or self-care. Remmerswaal et al. (2019) also noted that there is a relationship between family member mental health, quality of life, and family conflict and accommodation and antagonism; specifically, family members with greater distress and lower

functioning, and who are experiencing more relational conflict, engage in these behaviours to a greater degree (Amir et al., 2000; Calvocoressi et al., 1995; Cherian et al., 2014; Hibbs et al., 1993). Thus, not only does OCD impact family members negatively, this may put family members at greater risk of exacerbating the OCD, creating a cycle of dysfunction.

Family may be integrated into treatment in a variety of ways. They may join the patient in treatment, helping the patient take part in treatment techniques (e.g., helping the patient with ERP practice, completing thought records) or they may receive treatment independent of the patient (alone or in a group with other family members), or a combination of the two. Both formats may confer significant benefits. Integrating a family member into patient treatment directly may foster a sense of support, increase mutual brainstorming and problem-solving, increase homework compliance, and allow the therapist to observe relational dynamics. Supporting family separate from the individual with OCD may provide the family member with a space to discuss frustration or concerns openly without concern about hurting their loved one's feelings, which may reduce family burden and subsequent maladaptive behaviours.

In summary, there are many reasons that involving family in the treatment of adult OCD may be useful. Prior narrative and meta-analytic reviews have demonstrated support for the integration of family into treatment (e.g., Thompson-Holland et al., 2014; Renshaw et al., 2005). However, given a surge of studies published in the past few years (n = 8), an update on the literature is justified. Further, previous research has focused on combined adult and child samples; in the present paper we were interested in adult populations, given that the type of relationship between adult family members differs from those of parent-child dyads. Lastly, although Thompson-Holland et al., (2014) included many important outcomes and treatment moderators, we included additional outcomes and moderators to broaden our understanding of the efficacy and potential mechanisms of such treatments.

The primary aim of this study was to investigate the effect of family-integrated treatment (FIT) on outcomes of patient OCD symptom improvement, in primarily *adult* populations. The secondary aim of the meta-analysis was to examine the impact of FIT on comorbid symptoms (depression and anxiety), functional impairment, overall relationship functioning, antagonism, accommodation, and family member mental health. Moderators of treatment included (when applicable) those from Thompson-Holland et al., (2014): post-treatment vs. follow-up, study design, whether family members were trained in exposure therapy, whether accommodation was targeted explicitly, treatment format (e.g., individual/group), number of patient treatment sessions (i.e., number of sessions the *patient* attended), degree of family involvement in the therapy (i.e., "dose" of family involvement), and gender. In addition the present meta-analysis included (when applicable): length of follow-up (continuously), clinician vs. self-report rated outcome, partner vs. family member rated outcome, whether antagonism was targeted explicitly, sample analyzed (completer vs. intent-to-treat), publication bias, and risk of bias as assessed by the Cochrane RoB 2 (Sterne et al., 2019). Further, we aimed to examine whether FIT improved outcomes relative to control conditions that included ERP, the gold-standard non-pharmacological treatment for OCD. The present paper not only provides an update on the literature on family treatment for adult OCD populations, but it also examines novel relationship outcomes (e.g., relationship satisfaction, antagonism, family mental health) and moderators (e.g., who is perceiving the outcome) that have yet to be analyzed in a meta-analysis. Further, the present meta-analysis contributes to the literature by comparing FIT to control conditions with individual ERP, allowing an analysis of the added benefit of family-integration.

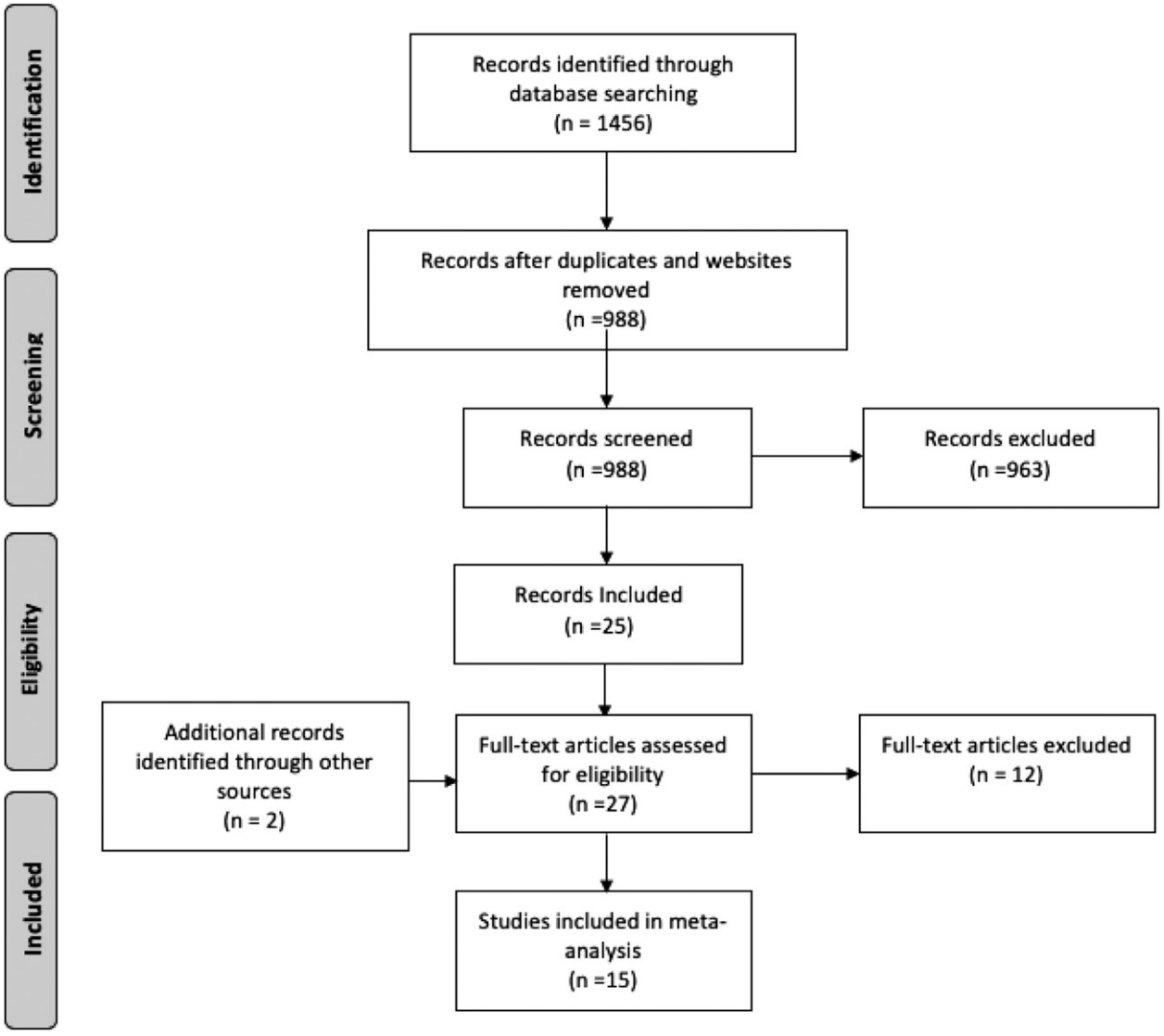
It was predicted that FIT would be associated with improvements in all outcome measures. With respect to moderators, we predicted that improvements would be blunted for 1) controlled-trials, 2) studies using intent-to-treat analyses, 3) more recently published papers, and 4) for studies with a lower risk of bias. We also predicted improvements would be greater for studies 5) with more patient treatment sessions and 6) increased family involvement in treatment, as there would be more opportunity for patients and family to learn and practice CBT and FIT skills. We also predicted that targeting 7) accommodation and 8) antagonism would be associated with greater improvements, given that these are core theoretical mechanisms through which family members are thought to exacerbate OCD. Lastly, we predicted that 9) training family members in ERP explicitly would be associated with greater improvements, as family members may motivate and help patients, increasing homework compliance. We predicted that treatment format would not moderate outcome, as previous meta-analyses have found no effect of format in OCD treatment (Olatunji et al., 2013). Gender and length of follow-up period were exploratory moderation analyses. Finally, we were interested in exploring whether improvements were perceived differently by rater and we conducted an exploratory moderation analysis comparing clinician, patient and family member ratings.

METHOD

Search strategy

A systematic review of the literature was conducted. PsychInfo, PubMed, and Scopus were searched. Search terms included: ["obsessive-compulsive disorder" OR "obsessive compulsive disorder" OR "OCD"] AND [family OR couple* OR marital OR marriage OR "romantic relationship"] AND ["cognitive-behavio*" OR "cognitive be-havio*" OR cognitive OR behavio*] AND [treatment OR intervention OR counsel* OR therap*]. The initial search produced 1456 papers. From this, 465 duplicates were removed, and 3 were identified as being websites, leaving 988 papers for title and abstract review. The papers were reviewed by two authors and

FIGURE 1. Preferred reporting items for systematic reviews and meta-analyses.



disagreements were discussed (n = 13, or 1%). Papers were excluded if they: a) did not contain appropriate data for a meta-analysis (e.g., review or theoretical papers, descriptive outcomes, case-studies, n = 256), b) were not CBT treatment studies with family integration (e.g., spouse, child, sibling, parent; n = 222), c) did not include an OCD population (n = 175), or d) sampled an exclusively pediatric or adolescent population (n = 310). In total, 963 papers were excluded at this stage, leaving 25 papers for full-text review. During full-text review, 12 papers were excluded. Reasons for exclusion were not having appropriate data for meta-analysis (small sample case-studies, qualitive outcomes, n = 5), not being CBT treatment studies with family integration (n = 3), being a duplicate (thesis and publications with different titles, n = 2), authors being unable to provide necessary data when contacted (n = 1), not including an OCD population (n = 1), and not being written in English (n = 1). Previous reviews and references of relevant papers were also examined for studies that might have been missed in the search. Two additional papers were identified using this method, resulting in a total of 15 included papers. One of these papers included two independent samples (Himle et al., 2001), thus there were 16 samples included in the present analyses. A Preferred Reporting Items for Systematic Reviews and MetaAnalyses (PRISMA; Moher et al., 2009) flow diagram is included as Fig. 1. For study characteristics, see Appendix A and for meta-analysis reference list, see Appendix B.

Outcome classification

Outcome measures were classified by two raters as either assessing: OCD symptoms, depression, anxiety, functional

impairment, general relationship improvement, antagonism, accommodation, or family member mental health. See Appendix C for a list of all measure categorizations. Of note, two pairs of publications (Abramowitz et al., 2013 and (Belus et al., 2014; Remerswaal et al., 2017 and Remerswaal et al., 2019) utilized the same samples but included different outcome measures: patient-focused outcomes in the former of the pairs and family-focused outcomes in the latter of the pairs; therefore, there was no overlap in outcome measurement between the studies. For general relationship satisfaction , measures were not included if they exclusively pertained to romantic or sexual satisfaction.

Moderator classification

Moderators were classified as follows: 1) time point (dichotomous: post-treatment/follow-up), 2) length of follow-up (continuous), 3) study design (dichotomous: within-subjects/pre-post controlled), 4) rater (dichotomous: clinician-rated/self-report, and when applicable, patient-rated/partner-rated), 5) explicit involvement of partner in ERP (dichotomous: yes/no), 6) explicit focus on reducing antagonism (dichotomous: yes/no), 7) explicit focus on reducing accommodation (dichotomous: yes/no), 8) format (dichotomous: individual/group), 9) sample analyzed (dichotomous: completer/intent-to-treat), 10) number of patient sessions (continuous), 11) dosage of family involvement (continuous: number of family sessions/number of total sessions), 12) patient gender (continuous: percentage female), and 13) year of publication (continuous).

Not all outcomes were classifiable by all moderator categories; in some instances there was not enough data to run the analyses (e.g., there were not enough clinician-rated anxiety measures to examine clinician/self-report as a moderator), or a moderator didn't make sense for a specific outcome (e.g., OCD symptoms were only rated by clinician or self-report, not by the partner, so patient/partner was not included as a moderator of OCD symptoms). Given that not all studies explicitly stated whether accommodation and antagonism were explicitly targeted, or whether family members were involved in ERP, two authors independently examined the full-text articles to classify whether they were explicitly mentioned as part of the protocol. The two raters agreed upon all classifications. In instances where it was not explicitly mentioned that the treatment targeted accommodation or antagonism, or integrated family into ERP, the authors were emailed to confirm. If the authors did not respond, then these papers were treated as not having explicitly targeted the variable of interest. Lastly, risk of bias was examined using the Cochrane RoB 2 (Sterne et al., 2019). Two raters independently assessed risk of bias. Three studies were not agreed upon following initial independent rating and were resolved through discussion.

Data analysis

Effect sizes were extracted from studies depending on the type of data given in the study, then converted to estimates of Hedge's *g*, which is a bias-corrected version of a standardized mean difference (Cohen's *d*). The formula for this calculation is listed below, where d is the original Cohen's *d*, df is the degrees of freedom, and V_d is the variance in the original Cohen's *d*. $g=(1-3/4(df)-1)^{*}d$

$$SE_g=(1-3/4(df)-1)^{*}\sqrt{V_d}$$

To facilitate these effect size extractions, suggestions from Feingold (2015), Lee (2005), Morris (2008), and Westfall (2016) were implemented. Extracted data were analyzed using the metafor R package (Viechtbauer, 2010). Because studies often have multiple measures that are intended to measure similar (or identical) outcomes, multiple effect sizes can be extracted, forcing the researcher to choose a method of dealing with their non-independence. The present strategy was to conduct a three-level meta-analysis, using strategies described by Assink and Wibbelink (2016). Though meta-analyses are inherently multi-level in nature, the conventional meta-analysis usually only operates on two levels: variance due to sampling error (Level 1) and variance due to between-study heterogeneity (Level 2). Three-level meta-analyses allow for multiple outcomes within each study, therefore allowing examination of sampling (Level 1), within-study (Level 2), and between-study (Level 3) heterogeneity of variance. For each level of analysis, the estimated proportion of variance that could be accounted was computed, indicating the relative heterogeneity of each. Likelihood ratio tests tested whether within- or between-study variance was nonzero in each model.

Results were broadly categorized into two sets of analyses: *patient outcomes* (symptom severity, depression, anxiety, and functional impairment) and *family and relational outcomes* (relational improvements, antagonism, accommodation, and family mental health). After reporting overall effect size and measuring heterogeneity, each subgroup was tested for differences between post-treatment and follow-up, to determine whether improvements were maintained over time. Moderators were examined for each outcome type when discrete moderators had at least three effect sizes across two studies per group and when continuous moderators had at least three measurement points.

Publication bias was measured in three ways. First, a trim-fill analysis was conducted on the two-level meta-analyses across outcome types. Because there is no current consensus on how to apply trim-fill to three-level meta-analyses, the funnel plots and estimates were inaccurate. Yet, despite the likely clustering of effect sizes due to within-study homogeneity, the distribution of effect sizes in a funnel plot still indicated whether other unreported clusters (rather than individual effect sizes) might be missing. Second, and similarly, a rank test was conducted to test funnel plot asymmetry. Third, publication year was used as a continuous moderator in the model, testing if newer studies were more likely to show higher/lower effect sizes than older studies.

TABLE 1. Tests of heterogeneity, funnel plot asymmetry, and trim-fill corrected estimates for outcome variables.

Outcome	Original 3-level estimate (Hedge's g)	Trim-fill 2-level estimate (Hedge's g)	3-level Test for Heterogeneity	Rank test		I^2 Heterogeneity%		
				τ	*p*-value	Sampling	Within	Between
Patient Outcomes								
Symptom Severity	**−1.20[−1.62, −0.79]**	**− 0.97[−1.27, −0.67]**	**Q(40) = 203.99, p < .001**	−0.40	<.001	16.36	3.37	**80.27**
YBOCS subgroup	**−1.21[−1.63, −0.80]**	**−1.24[−1.51, −0.97]**	**Q(22) = 80.94, p < .001**	−0.13	.402	17.41	0.00	**82.59**
Depression	**− 0.69[−0.87, −0.52]**	**− 0.61[−0.74, −0.47]**	Q(24) = 32.81, p = .108	− 0.35	.015	73.42	0.00	26.57
Anxiety	**−1.46[−2.26, −0.67]**	**−1.17[−1.74, −0.60]**	**Q(10) = 85.62, p < .001**	− 0.49	.041	10.82	0.00	**89.18**
Functional Impairment	**− 0.48[−0.83, −0.13]**	–	**Q(13) = 42.28, p < .001**	− 0.23	.279	32.05	**67.95**	0.00
Family and Relational Outcomes								
Relational Improvements	**0.35[0.21, 0.50]**	–	Q(27) = 22.40, p = .717	0.76	<.001	97.37	0.00	0.63
Antagonism	**− 0.42[−0.69, −0.15]**	**− 0.56[−0.83, −0.30]**	Q(20) = 23.59, p = .261	− 0.29	.399	70.90	0.00	**29.10**
Accommodation	**− 0.83[−1.26, −0.41]**	**−1.02[−1.31, −0.72]**	**Q(10) = 29.57, p = .001**	−0.07	.862	32.38	1.12	66.50
Family Mental Health	**0.54[0.23, 0.85]**	**0.76[0.53, 0.98]**	Q(13) = 19.37, p = .112	0.36	.080	60.99	0.00	39.01

Note: 95% confidence intervals. Bolded results were statistically significant at $p < .05$. Corrected estimates marked with - indicate that no correction was implemented by the software package *(metafor)*. I^2 significance was measured using likelihood ratio tests.

RESULTS

Study characteristics

Of the 16 samples (15 publications, with Himle et al., 2001 having two independent samples), ten included follow-up data (63%). Nine were within-subjects designs (56%) while seven included a control group (44%). Eight samples had partners take part in ERP (50%). Eight samples targeted antagonism explicitly (50%). Twelve samples targeted accommodation explicitly (75%). Eleven studies utilized an "individual" therapy format (i.e., dyads were treated alone, 69%), with 5 utilizing a "group" format (i.e., dyads were treated in groups, 31%). Ten samples used completer data (63%), four used intent-to-treat (25%), and two presented both (13%). Patient sessions ranged from 5 sessions to 24 sessions, with the average number being 11.88. Family involvement in sessions ranged from as little as 1 session to attending one more session than patients, with the average dosage being family attending 70% of sessions. Of the studies that reported gender, on average, 61.83% of the patients were female.

Effects of FIT on patient outcomes

FIT was associated with improvements across all patient outcomes (Table 1): OCD symptom severity ($\kappa = 41$, $g = -1.20$, $SE = 0.21$, $z = -5.68$, $p < .001$), depression ($\kappa = 25$, $g = -0.69$, $SE = 0.09$, $z = -7.7$, $p < .001$), anxiety ($\kappa = 11$, $g = -1.56$, $SE = 0.41$, $z = -3.60$, $p < .001$), and functional impairment ($\kappa = 14$, $g = -0.48$, $SE = 0.18$, $z = -2.66$, $p = .008$). Patterns of effect sizes did not differ between post and follow-up for any patient outcome, regardless of if the comparison was discrete or continuous. There was significant between-study heterogeneity for symptom severity ($I^2_{\text{betweeen}} = 80.27\%$, $LRT = 33.22$, $p < .001$) and anxiety ($I^2_{\text{betweeen}} = 89.18\%$, $LRT = 11.03$, $p < .001$), whereas significant within-study heterogeneity was found for functional impairment ($I^2_{\text{within}} = 67.95\%$, $LRT = 8.21$, $p = .004$). See Table 1 for all outcome data.

YBOCS

Because the YBOCS was the measure of OCD symptom severity that was most prevalent among the studies in the meta-analysis and is considered the "gold-standard" measure of OCD symptom severity (Frost et al., 1995), we analyzed its results both with other OCD measures (see above) and alone. Consistent with the previous analysis, YBOCS scores decreased ($\kappa = 23$, $g = -1.21$, SE = 0.21, $p < .001$), with no detectable differences in effect sizes between post-treatment and follow-up ($\beta = -0.03$, $SE = 0.15$, $z = -0.21$, $p = .829$).

There was significant heterogeneity of variance between studies that used the YBOCS ($I^2_{\text{betweeen}} = 89.18\%$, $LRT = 15.82$, $p < .001$), suggesting that moderator analyses may be appropriate. There were greater improvements in YBOCS scores for within-subject studies ($\kappa = 12$, $g = -1.60$, $SE = 0.24$, $p < .001$) than there were in pre-post controlled

TABLE 2. Effect sizes of family-integrated therapy on outcome types across moderators in metaregressions.

Patient Outcomes: Moderator:	Symptom Severity		Depression		Anxiety		Functional Impairment	
	κ	Estimate	κ	Estimate	κ	Estimate	κ	Estimate
Post/Follow-up (discrete)	25/16	−0.00[−0.31, 0.31]	14/11	0.23[−0.03, 0.48]	7/4	0.07[−0.36, 0.50]	9/5	0.03[−0.70, 0.77]
Post/Follow-up (continuous)	25	−0.00[−0.04, 0.04]	19	0.02[−0.01, 0.05]	7	0.00[−0.05, 0.05]	10	0.06[−0.06, 0.19]
Design (Pre-post control/Within)	19/22	**−1.03[−1.64, −0.43]**	8/17	0.06[−0.30, 0.42]	5/6	−0.03[−1.63, 1.57]	12/2	–
Measure Type (Clinician/Self-report)	31/10	−0.02[−0.42, 0.39]	4/10	0.00[−0.58, 0.59]	NA	NA	NA	NA
Partner ERP (No/Yes)	16/25	−0.67[−1.43, 0.09]	10/15	−0.27[−0.56, 0.02]	6/5	−0.87[−2.31, 0.57]	1/13	–
Antagonism (No/Yes)	23/18	−0.11[−0.97, 0.74]	16/9	−0.12[−0.50, 0.27]	9/2		11/3	−0.03[−0.92, 0.86]
Accommodation (No/Yes)	9/32	−0.18[−1.08, 0.73]	9/16	**−0.35[−0.59, −0.10]**	5/6	−0.81[−2.35, 0.72]	8/6	0.23[−0.48, 0.94]
Therapy Format (Group/Individual)	12/29	−0.56[−1.35, 0.24]	10/15	**−0.31[−0.57, −0.05]**	4/7	0.10[−1.57, 1.77]	2/12	–
Sample analyzed (Complete/ITT)	30/14	0.45[−0.33, 1.22]	23/5	−0.03[−0.45, 0.38]	10/4	−0.33[−1.91, 1.25]	11/3	−0.03[−0.92, 0.86]
Sessions	41	0.03[−0.04, 0.10]	25	0.01[−0.02, 0.06]	11	−0.01[−0.15, 0.13]	14	−0.01[−0.06, 0.05]
Dose	41	−0.58[−1.46, 0.30]	25	−0.26[−0.58, 0.05]	11	−0.07[−1.87, 1.72]	14	0.20[−1.96, 2.37]
Patient Gender (% Men)	37	−0.02[−0.04, 0.01]	21	−0.00[−0.01, 0.01]	11	−0.01[−0.05, 0.02]	14	0.03[−0.00, 0.05]
Year	41	0.00[−0.04, 0.04]	25	−0.00[−0.02, 0.01]	11	−0.01[−0.07, 0.06]	14	−0.01[−0.04, 0.02]
Family and Relational Outcomes:	Relational Improvements		Antagonism		Accommodation Family Mental Health			
Moderator:	κ	Estimate	κ	Estimate	κ	Estimate	κ	Estimate
Post/Follow-up (discrete)	11/17	−0.11[−0.38, 0.16]	7/14	0.07[−0.27, 0.40]	7/4	0.01[−0.66,0.68]	10/4	−0.32[−0.80, 0.16]
Post/Follow-up (continuous)	26	−0.02[−0.05, 0.01]	20	0.02[−0.01, 0.06]	5	−0.03[−0.10, 0.04]	7	0.05[−0.11, 0.01]
Design (Pre-post control/Within)	2/26	–	8/13	0.50[0.22, 0.78]	6/5	0.39[−0.42, 1.20]	6/8	0.57[−0.91, −0.23]
Rater (Family/Patient)	13/15	**−0.27[−0.53,−0.01]**	10/11	0.06[−0.28, 0.40]	11/0	–	11/3	–
Partner ERP (No/Yes)	2/26	–	5/16	−0.01[−0.58, 0.55]	4/7	0.25[−0.57, 1.08]	11/3	–
Sample analyzed (Complete/ITT)	26/2	–	16/5	−0.15[−0.62, 0.32]	4/7	−0.29[−1.23, 0.65]	7/7	0.24[−0.34, 0.82]
Sessions	28	0.02[−0.03, 0.06]	21	**0.04[0.01, 0.07]**	11	−0.01[−0.10, 0.07]	14	0.00[−0.07, 0.08]
Dose	28	–	21	–	11	0.84[−0.06, 1.74]	14	**−0.76[−1.21, −0.30]**
Patient Gender (% Men)	28	0.01[−0.00, 0.02]	21	**0.01[0.00, 0.01]**	11	−0.00[−0.03, 0.03]	14	0.01[−0.02, 0.01]
Year	28	0.02[−0.01, 0.05]	21	0.01[−0.03, 0.05]	11	0.06[−0.13, 0.24]	14	0.01[−0.05, 0.04]

Note: 95% confidence intervals of Hedge's g. Estimates represent beta values in a maximum likelihood meta-regression. Bolded results represent statistical significance at $p < .05$. The *sample analyzed* moderator was analyzed using a different data set than the other moderators to account for studies which reported complete and ITT results.
– Insufficient κ per group to run analysis

studies (κ =11, $g = -0.78$, $SE = 0.24$, $p = .001$; $\beta = -0.83$, $SE = 0.34$, $z = -2.44$, $p = .015$). No other moderators reached the threshold of statistical significance ($\alpha = 0.05$).

Moderators of FIT on patient outcomes

Results for all moderator analyses are in Table 2; only statistically significant results (at $\alpha = 0.05$) are reported in-text. Studies that used within-subject designs ($\kappa = 22$, $g = -1.71$, $SE = 0.22$, $p < .001$) showed greater reductions in patient symptom severity than those that used pre-post control designs (κ= 19, $g = -0.68$, $SE = 0.22$, $p = .002$; $\beta = -1.03$, $SE = 0.31$, z = − 3.34,p < .001). Patients reported greater reductions in depression when interventions explicitly addressed family accommodation of OCD behavior ($\kappa = 16$, $g = -0.85$, $SE = 0.09$, $p < .001$) than when they did not ($\kappa = 9$, $g = -0.50$, $SE = 0.08$, $p < .001$; $\beta = -0.35$, $SE = 0.12$, $z = -2.80$, $p = .005$). FITs formated to treat dyads *individually* also resulted in greater reductions in patient depression ($\kappa = 15$, $g = -0.85$, $SE = 0.10$, $p < .001$) than group therapies ($\kappa = 12$, $g = -0.54$, $SE = 0.08$, $p < .001$; difference: $\beta = -0.31$, $SE = 0.13$, $z = -2.37$, $p = .018$). Despite there being significant heterogeneity between studies for anxiety and within studies for functional impairment, none of the investigated moderators were significant.

Effects of FIT on family and relational outcomes

All family and relational outcomes showed improvements: general improvement in relationships ($k = 28$, $g = 0.35$, $SE = 0.074$, $p < .001$), reductions in antagonism, indexed by patient and family reported reductions in hostility and criticism ($k = 21$, $g = -0.42$, $SE = 0.14$, $p = .002$), less familial accommodation of OCD behaviours ($k = 11$, $g = -0.83$, $SE = 0.22$, $p < .001$), and improved mental health of family members ($k = 14$, $g = 0.54$, $SE = 0.16$, $p < .001$). Patterns of effect sizes did not differ between post and follow-up for any patient outcome, regardless of whether the comparison was discrete or continuous. There was a small, but significant amount of heterogeneity in between-study effects for antagonism ($I^2_{\text{betweeen}} = 29.10\%$, $LRT = 4.05$, $p = .044$) but not across effects (Q(20) = 23.59, $p = .261$). On the other hand, for accommodation, there were significant sources of heterogeneity across levels of effects (Q(10) = 29.57, $p = .001$) but not at the within-study ($I^2_{\text{within}} = 1.12\%$, $LRT = 0.004$, $p = .951$) or between-study ($I^2_{\text{betweeen}} = 66.50\%$, $LRT = 0.66$, $p = .417$) levels individually.

Moderators of FIT on family and relational outcomes

Patients reported less relational improvements than their families (patient: $\kappa = 15$, $g = 0.24$, $SE = 0.09$, $p = .008$; family: $\kappa = 13$, $g = 0.51$, $SE = 0.10$, $p < .001$; difference: $\beta = -0.27$, $SE = 0.13$, $z = -2.05$, $p = .040$). Surprisingly, the more sessions patients attended, the reduction in antagonism, as measured through family and patient self-report, was muted by g= 0.04 ($SE = 0.01$, $z = 2.76$, $p = .006$). Put another way, the improvement in antagonism was steeper for shorter patient treatment protocols. The more families were involved in patient therapy, the less improvement was seen in family members' mental health ($\beta = -0.76$, $SE = 0.23$, $z = -3.28$, $p = .001$). Specifically, there was a blunting in the improvement over time. Also, for each 1% increase in the ratio of men-to-women in the studies, the reduction in perceived antagonism was lessened by g= 0.008 ($SE = 0.003$, $z = 3.12$, $p = .002$). In other words, the reduction in antagonism was smaller when there were more men in the sample. No other moderators showed significant effects (see Table 2).

Bias

For publication bias, an investigation of funnel plot asymmetry (via rank test or trim-fill analysis) indicated that all outcome classes, except functional impairment, were likely biased (Table 2; see Appendix D for plots). Interestingly however, this bias was not consistent in its direction. Though the trim-fill analysis suggested that effects for symptom severity, depression, and anxiety were overstated, it also suggested that the effects for the YBOCS subgroup analysis and all family and relational outcomes were understated. Publication year was not a significant moderator across all outcome types (Table 2).

The uncontrolled studies all had high risk of bias. Of the controlled studies (seven), three were identified as having some concern of bias, and four were identified as having high risk of bias. Problematic areas were differences in drop-out between conditions, lack of reporting the reason for drop-out, the potential that knowledge of condition could influence outcome data, not-having pre-registered the trial, and it being unclear whether all outcome data was reported. Randomized controlled studies coded as having high risk of bias were compared to those coded as having some concerns of bias across OCD symptom severity, the YBOCS, and depression, as these were the only outcome types for which sufficient data were available. Only controlled studies were compared given that study design (within vs. between conditions) was already examined as moderator. Effect sizes for high risk studies did not differ from those that had some concern of bias, in terms of OCD symptom severity ($B = 0.08$, $SE = 0.29$, z = 0.28, $p = 0.779$) or the YBOCS ($B = -0.09$, $SE = 0.47$, $z = 0.19$, $p = 0.848$). However, contrary to expectations, studies coded as having some risk showed larger reductions in depression than those coded as high risk ($B = -0.57$, $SE = 0.27$, z = –0.21, $p = 0.034$).

Subgroup analysis: comparison of FIT to control interventions with ERP

Five studies compared FIT to control conditions that included individual ERP, the gold-standard non-pharmacological treatment for OCD (see Table 3). Following FIT, OCD symptomology was reduced across OCD measures ($k = 12$, $g = -0.77$, $SE = 0.15$, $z = -5.11$, $p < .001$) and

TABLE 3. Tests of heterogeneity, funnel plot asymmetry, and trim-fill corrected estimates for outcome variables, comparing FIT to controls using ERP.

Outcome	Original 3-level estimate (Hedge's g)	Trim-fill 2-level estimate (Hedge's g)	3-level Test for Heterogeneity	Rank test		I^2 Heterogeneity%		
				τ	*p*-value	Sampling	Within	Between
Patient Outcomes								
Symptom Severity	**−0.77[−1.07, −0.48]**	**−0.68[−0.90, −0.46]**	$Q(11) = 11.27$, $p = .421$	−0.73	<.001	80.40	0.00	19.60
YBOCS subgroup	**−0.70[−0.97, −0.43]**	**−0.66[−1.51, −0.97]**	$Q(7) = 4.19$, $p = .758$	−0.57	.061	100.00	0.00	0.00
Depression	**−0.60[−0.94, −0.26]**	–	$Q(6) = 10.08$, $p = .121$	−0.14	.773	68.14	31.86	0.00
Anxiety	−0.80[−1.80, 0.21]	**−0.79[−1.50, −0.07]**	Q**(3) = 14.05, p = .003**	−1.00	.083	24.91	0.00	75.09
Functional Impairment	**−0.45[−0.84, −0.05]**	–	Q**(11) = 35.93, p < .001**	−0.39	.086	31.94	68.06	0.00
Family and Relational Outcomes								
Accommodation	**−0.53[−1.06, −0.00]**	–	$Q(2) = 0.21$, $p = .899$	−1.00	.333	100.00	0.00	0.00

Note: 95% confidence intervals. Bolded results were statistically significant at $p < .05$. Corrected estimates marked with - indicate that no correction was implemented by the software package (*metafor*). I^2 significance was measured using likelihood ratio tests

when exclusively examining the YBCOS ($\kappa = 8$, $g = -0.70$, $SE = 0.14$, $z = -5.07$, $p < .001$), compared to controls with ERP. FIT also resulted in greater reductions in depression ($\kappa = 7$, $g = -0.60$, $SE = 0.17$, $z = -3.46$, $p < .001$), functional impairments ($\kappa = 12$, $g = -0.47$, $SE = 0.20$, $z = -2.23$, $p = .026$), and accommodation ($\kappa = 3$, $g = -0.53$, $SE = 0.27$, $z = -1.96$, $p = .050$) than controls with ERP. However, there were no statistically significant reductions in anxiety compared to controls with ERP ($\kappa = 4$, $g = -0.80$, $SE = 0.51$, $z = -2.23$, $p = .120$). Other outcome variables did not have enough studies per outcome variable to be included, nor was there enough power to examine moderators in this sub-analysis. See Appendix E for forest and funnel plots.

Appropriate cases

All studies included individuals with a diagnosis of OCD or significant OCD symptoms. No study specified that participants had to have a sole diagnosis of OCD, suggesting that the treatments may be useful for individuals with comorbidity, which is likely to be the rule rather than the exception. This is a strength of the current body of literature. However, few studies assessed family member mental health; therefore, it is not clear whether FIT is effective for this population when family members themselves have significant mental health concerns.

DISCUSSION

The present meta-analysis assessed the efficacy of cognitive-behavioural treatment that involved family members, for adult OCD. Overall, FIT was associated with reductions in patient OCD symptom severity, depression, anxiety and functional improvement, suggesting these treatments are effective for reducing symptomatology and quality of life for patients with OCD. Unsurprisingly, these improvements were greatest for studies that employed within-subjects designs. Further, FIT was associated with relationship improvement (e.g., relationship satisfaction, reported by patients and family), less family antagonism and accommodation (as reported by patient and family members), and improved family member mental health. This suggests that both patients and family benefit from FIT for adult OCD. It was also demonstrated that patient, family, and relationship benefits were maintained across follow-up, suggesting these treatments have lasting benefits.

Of particular interest is understanding whether FIT provides benefits over and above individual treatment. Our findings provide preliminary support that integrating family into treatment does lead to greater improvements in OCD and depression symptoms and functional impairment compared to individual ERP. Further, involving family in therapy also led to greater reductions in family accommodation, which is an important maintenance factor of OCD that may be harder to improve without involving the family. Collectively these findings suggest that incorporating family into treatment can lead to better therapy outcomes.

Promisingly, when examining the effect of FIT across study design, OCD symptom reduction was not moderated by any of the examined moderators (except study design), suggesting these treatments may be generally effective, irrespective of factors such as number of patient sessions or dosage of family involvement. For example, it appears that for patient OCD symptoms, FIT treatment was effective whether patients received between 5 or 24 sessions, whether family members were involved in only one session or all sessions, and whether patients were treated individually or in groups. This is promising for clinicians who are interested in implementing family members into treatment, as it suggests there may be a variety of ways to implement FIT in practice without compromising the efficacy of the treatment. However, change in patient depression symptoms was moderated by both targeting accommodation and treatment format. Specifically, greater improvements in depressive symptoms were observed for interventions that explicitly targeted accommodation compared to those than those that did not (or where it was unclear). This finding suggests reducing accommodation has broader benefits for comorbid symptoms and disorders, which is unsurprising given the link between emotional overinvolvement and psychopathology more broadly (e.g., Butzlaff and Hooley, 1998). Further, there is evidence that greater family accommodation is also associated with worse depression (e.g., Adewuya et al., 2006; Okasha et al., 1994; Shields et al., 1992). Another significant moderator of change in patient depressive symptoms was treatment format; specifically, individual patient therapy was associated with greater improvements in depressive symptoms than group therapy, which is consistent with meta-analytic findings for depression (e.g., Cuijpers et al., 2008).

It is also worth noting that patients reported less relational improvements (e.g., changes in satisfaction) than their families, suggesting that there may be some discrepancy in how both parties view their relationship and changes during treatment. One possibility is that relational benefits may be blunted in patients who are no longer being accommodated by their family members. Although patients may recognize the harm that accommodation serves in the long run, it may at times feel as though the partner is not supportive when they do not accommodate the OCD. Of course, family members are likely instructed to replace accommodation with supportive and adaptive responses (e.g., "I know this is the OCD talking right now, and I am here for you, but I am not going to feed the OCD"); however, these responses may be interpreted negatively by the patient (e.g., as trivializing). The field may benefit from research examining the optimal way for family to respond when accommodation is elicited. It is also possible that these effects may also be simply reflective of potentially greater psychopathology amongst patients. There is evidence to suggest that poorer relationship satisfaction is associated with psychopathology (e.g., Whisman, 2013; Whisman et al., 2004), and is more strongly impacted by one's own degree of depression and anxiety than one's partners (Whisman et al., 2004). Future research should examine whether change in family members' relationship satisfaction is associated with reduced antagonism and whether these factors mediate patient improvements.

Another finding of note was that the reduction in perceived antagonism was blunted when there were more men in the sample. This suggests that male patients, compared to females, may not experience as great reductions in hostility and criticism aimed towards them (or their perception of this). This could be because men may be more likely to be punished by family when expressing anxiety due to gender role expectations (e.g., Birnbaum and Croll, 1984; Fuchs and Thelen, 1988), although it is important to note that the effect size was small and should be interpreted with caution ($g = 0.008$). Further, it is promising that gender did not moderate any other treatment outcome, suggesting that, overall, men and women demonstrate comparable improvements.

A surprising finding was that the more sessions patients were involved in, the less antagonism improved (reflecting a flattening of the slope of improvement). This could be a spurious finding, or it might suggest that there is a benefit to shorter treatment for some treatment outcomes. It is important to note that in this meta-analysis, the minimum number of patient treatment sessions was five, thus it is not possible to draw any conclusions for briefer treatments (e.g., four or fewer sessions). This effect could also be due to an interaction between dosage and explicit targeting of antagonism (e.g., the percentage of time spent focusing on antagonism), which the present meta-analysis could not examine. Also, the more families were involved in the patient's therapy, the *less* improvement they had in their own mental health symptoms, which includes symptoms (e.g., anxiety depression, OCD symptoms) as well as quality of life and functioning. It is important to note that less improvement is not equivalent to a worsening in family mental health; the present meta-analysis only demonstrated that improvement reduced with increasing family sessions. This suggests that benefits may "plateau" and additional family sessions may only confer no additional benefit (rather than cause any harm). However, by increasing their role in therapy, family members may be taking on more "burden," thus increasing their own risk for mental health symptoms. Given that patient outcomes were not moderated by dosage of family member involvement in treatment, it may not be justifiable to extensively involve family members in the treatment. Extensive involvement, if required, may necessitate monitoring of family member mental health as well. This finding also suggests that limited integration, which is likely to be more feasible and less intensive for clinicians, is a reasonable and beneficial option.

Limitations of the present meta-analysis

This study aimed to investigate the effect of family integrated CBT specifically, given that it is the gold standard treatment for OCD (Hezel and Simpson, 2019). However, as a result, other FITs were excluded, and thus limitations of

the present meta-analysis include its relatively narrow scope. There may be other FITs that did not use a cognitive-behavioural approach that were not included in the present analysis, despite the potential efficacy of other modalities. Another limitation of the meta-analysis was the categorization of explicit treatment targets for ERP, antagonism, and accommodation. Despite attempts made by the authors to confirm whether protocols included these factors, there was an element of subjectivity to this categorization. If authors did not respond regarding the inclusion of ERP, antagonism, and accommodation (n = 4, 4, and 3, respectively) and it was not explicit in their protocol, they were categorized as not including these treatment components. This was deemed justifiable as it would be unlikely that authors would mention variables they did not target in their manuscript. Another limitation was the relatively small sample size, which may explain the null findings of many moderator analyses. Finally, another limitation of the present meta-analysis was that the inclusion criteria were relatively lenient in order to maximize the number of studies and the power of our analysis. As more research is conducted in this area, future meta-analyses may want to consider restricting inclusion criteria to studies that only include patients diagnosed with validated diagnostic interviews, well-validated outcome measures, or studies with lower bias.

Critique of the current literature and future directions

First, more research is needed that compares the efficacy of FIT to gold-standard OCD treatment (e.g., ERP, pharmacotherapy) on a variety of outcome measures. The present meta-analysis was only able to compare FIT to controls that included ERP on five outcome variables. Future studies should include relational variables such as antagonism and relationship satisfaction more broadly, as currently it is unknown whether improvements in these areas are due to family-integration specifically, or whether they are due to common-factors present in all treatments or other components of the treatment package. Of the outcomes that were compared to controls with individual ERP, it is also important to note that there was heterogeneity across the control conditions, as some controls included ERP and other strategies (e.g., pharmacotherapy), whereas others were highly matched, with the only difference being FIT (the latter design being more stringent). Further, FIT often included a focus on relational variables that may not be present in standard treatment. Thus, it remains unclear whether addressing relational variables, such as accommodation or satisfaction, in individual ERP would be adequate, or if the integration of family members is needed to enhance treatment outcomes. It is also important that trials are designed to minimize risk of bias. Many studies had a high risk of bias, and none were deemed as having a low risk of bias (although results were not impacted by higher degree of bias, as measured by the Cochrane guidelines). However, following Cochrane guidelines for clinical trials will be helpful for ensuring future studies are less biased.

Another area for future research should be to examine more predictors of treatment outcome. There was considerable heterogeneity between studies for anxiety and within studies for functional impairment despite no moderators being significant, suggesting that future research investigating potential moderators is needed to understand who is benefiting more from treatment. More information on moderating factors may also be useful for clinicians deciding on *which patients* should be targeted for FIT; this would require examination of both patient and family member characteristics.

Though evidence indicates that FIT leads to improvements in OCD symptoms, it is still unclear *why* change is occurring. Pinpointing these mediators may help to streamline FIT: increasing feasibility of including the family member in treatment while maximizing the benefits. One study included in the present review examined a potential mechanism of change in OCD symptoms. Thompson-Holland et al. (2015) found that change in accommodation predicted change in patient OCD symptoms whereas change in OCD symptoms did not predict change in accommodation. Given these findings along with those of the present meta-analysis, it is possible that FIT improves OCD symptoms via reductions in accommodation. Future research should examine accommodation as a mediator, in addition to other possible mechanisms of change, such as family burden and distress, family symptoms, and antagonism. In order to test these models, we suggest that researchers expand beyond exclusively taking measurements at pre and post and instead include measurement of outcomes and mechanisms at multiple time points during treatment.

With respect to protocols, the present analysis did not find that targeting accommodation or antagonism explicitly or involving family members in ERP moderated patient OCD symptom improvement; however, there were limitations in these analyses. Although most protocols were clear, some papers did not explicitly mention targeting these processes, which may have been because they were not targeted. In these cases, the authors were contacted to confirm; however, some did not reply and, as such, these papers were treated as not having targeted these processes. Thus, the present approach was cautious and although steps were taken to ensure the correct categorization, these findings should be understood in the context of this limitation. Further, only four studies in the present review included antagonism as an outcome variable, so future research may benefit from including measures of both accommodation and antagonism. In addition, the majority of these studies (n = 11) examined FIT in Western cultures. There may be significant differences in the effect of these treatments in other cultures, and more research in this area will be valuable. Some authors have argued that FIT may be especially important in cultures where close relationships with families are especially valued (e.g., Rosa-Alcázar and Inieta-Sepúlveda, 2018). Further, given we observed that men did not experience the same improvement in antagonism as women, it may be valuable to further explore gender

differences in relationship improvement in treatment to refine treatment protocols.

In addition, future research should investigate the optimal dose of family involvement in treatment. Our findings suggest that family involvement ranging from participating in one session to all of the sessions is equally as effective for patient outcomes. Research investigating the minimal amount of family involvement needed and the necessary interventions to maximize outcomes would be helpful to inform clinical practice. It would also be beneficial to examine whether it is optimal to include the family member in the treatment sessions with the patient (e.g., both patient and family member attend together) or if the family member should be seen separately. Each format may offer specific benefits (allowing the patient/family to role-play vs. fostering an environment where the family may feel more able to express negative emotions such as frustration or burnout).

Lastly, we aim to highlight the potential benefit of integrating a family systems approach to treatment (e.g., Davidson et al., 2017), which challenges the "sick patient" and "healthy family member" dichotomy, into a CBT framework. Both patient and family members are involved in behaviours and cognitions that maintain and exacerbate the OCD. Thus, OCD may be conceptualized and treated as a disorder of the family, rather than a disorder within one person. It is promising that over the past few years there have been more publications integrating family into CBT for OCD (10 over the past decade), suggesting this may become an important area for further study. In the meantime, it seems remiss not to involve the family to some degree in treatment, if all parties are willing, given the preliminary support that FIT may be superior to individual ERP on some outcomes. It is possible that as the research in this area increases, the question may shift from "*when* should I include the family in treatment of OCD?" to "*what is the optimal way* to integrate the family into my patient's treatment?"

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Kathleen Stewart conceptualized the study with input from Bailee Malivoire and David Sumantry. Kathleen Stewart conducted the literature search. Kathleen Stewart and David Sumantry evaluated the papers for inclusion/exclusion criteria. Kathleen Stewart and Bailee Malivoire classified the outcome measures and moderators. David Sumantry conducted all statistical analyses and consulted on methodology/statistical decisions. Kathleen Stewart wrote the first draft of the manuscript. All authors contributed to figures and tables. All authors contributed to and have approved the final manuscript.

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