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# Family accommodation in obsessive-compulsive and anxiety disorders: a five-year update

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# Abstract

Family accommodation describes changes that individuals make to their behavior, to help their relative who is dealing with a psychiatric and/or psychological disorder(s), avoid or alleviate distress related to the disorder. Research on family accommodation has advanced rapidly. In this update we aim to provide a synthesis of findings from the past five years. A search of available, peer-reviewed, English language papers was conducted through PubMed and PsycINFO, cross referencing psychiatric disorders with accommodation and other family-related terms. The resulting 121 papers were individually reviewed and evaluated and the main findings were discussed. Family accommodation is common in obsessive-compulsive disorder (OCD) and in anxiety disorders, and manifests similarly across these disorders. Family accommodation is associated with more severe psychopathology and poorer clinical outcomes. Treatments have begun to focus on the reduction of family accommodation as a primary therapeutic goal and finally, neurobiological underpinnings of family accommodation are beginning to be investigated.

# Keywords

anxiety disorders; cognitive-behavior therapy; family accommodation; family members; obsessive-compulsive disorder; treatment outcomes

The term family accommodation describes changes that individuals (e.g., parents, partners, siblings, and children) make to their own behavior, to help their relative who is dealing a psychiatric and/or psychological disorder(s), avoid or alleviate distress related to the disorder. The first systematic, empirical study of family accommodation, published in 1995, focused on the relatives of adults suffering from obsessive-compulsive disorder (OCD) and found that accommodation was both prevalent and extensive. [<sup>1</sup>] Examples of family accommodation in OCD include engaging in excessive hand washing to help reduce

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contamination fears experienced by a loved one, listening to repeated confessions of a relative who feels the need to constantly confess, providing excessive reassurance and/or removing knives to reduce or alleviate the distress of a relative with aggressive or suicidal obsessions.

Following the early studies in the 1990s,  $[^{1,2}]$  subsequent research found family accommodation to be associated with greater severity of OCD symptoms,  $[^{3,9}]$  more impairment related to OCD  $[^{3,9}, ^{10}]$  and poorer treatment outcomes.  $[^{11,12}]$  Family accommodation was also found to be particularly prevalent among parents of children with OCD, who forcefully demand accommodation or react with aggression to parents' refusal to accommodate.  $[^{13}_{-17}]$ 

In recent years, the construct of family accommodation has made consistent gains, expanding the breadth and depth of research about this topic. This includes broadening the construct beyond OCD, to study family accommodation in the range of anxiety disorders, as well as in other disorders, such as autism. [<sup>18</sup>] Another key area of development has been on intervention research. Treatment protocols for anxiety disorders and OCD increasingly emphasize the reduction of family accommodation as a key therapeutic component. Furthermore, research has started to focus on identifying underlying mechanisms that contribute to the maintenance of family accommodation and help to explain individual differences in family accommodation.

The current review aims to synthesize key findings from recent family accommodation research over the past 5 years. This 5-year update expands on and extends findings from a previous review that synthesized earlier work in this field, focusing exclusively on OCD. [<sup>19</sup>] This review will thus both synthesize the most current research on family accommodation in OCD and extend the scope of the previous review by investigating the presence and influence of family accommodation in children and adults with other psychopathology.

#### Method

PubMed and PsycINFO were searched for relevant studies (between January 2010 and September 2015) using the following search strategy: family related terms (e.g., family accommodation, parents, family relations) were paired with terms related to psychopathology in general and specifically to disorders, known to the authors to have been studied in relation to family accommodation (obsessive-compulsive disorder, separation anxiety, specific phobia, generalized anxiety disorder, social phobia, panic disorder, and autism), and their subheadings (i.e., OCD, GAD, ASD, etc.). Limits imposed were for English language and peer-reviewed journals. No additional limits were set and the resulting 121 studies were reviewed individually for relevance to the scope of this review. Of these, 92 were determined to be of relevance and reviewed in more detail. After locating relevant abstracts, the full articles were examined for findings that contributed to the understanding of family accommodation, and its role with regard to the specific disorders listed above, over the past 5 years. Ultimately, 57 studies contributed to the current review. As the goal of this

review was to provide a synthesis of the current state of the field, rather than to present every possible datum, references were included based on the authors' judgment.

# Results

#### Family accommodation in OCD

Associations with symptom severity and impairment—Results from the current literature have continued to support the importance of this construct regarding clinical course and treatment outcomes in OCD and have confirmed and extended earlier findings. In line with earlier research, several studies, including one meta-analysis with reports from caregivers of both children and adults with OCD, confirmed that family accommodation is quite common, with evidence suggesting that almost 90% of family members accommodate symptoms to some degree, and that family accommodation is significantly and positively associated with OCD symptom severity and impairment. [ $^{3,4},^{20},^{27}$ ] Compared with previous years, family accommodation has been increasingly included as a measure of interest in cross-sectional, longitudinal and intervention research in OCD. Not only is it being included more regularly as a measure in these studies, but there have been significant advances in the measurement of family accommodation. One recent advance is the development of the Family Accommodation Scale for Obsessive Compulsive Disorder—Patient Version, intended for use with adults with OCD to obtain ratings directly from the patient. [ $^{28}$ ]

Also consistent with previous studies, family accommodation has been shown to be reduced after patients received treatment, to predict poorer treatment outcomes after going through cognitive behavior therapy (CBT), and to be associated with worse trajectories over the naturalistic clinical course of OCD. In a randomized clinical trial of family based CBT for OCD in children, OCD symptom improvement was preceded by reductions in family accommodation. <sup>[29</sup>] In another clinical trial, which compared group CBT to medication for childhood OCD, family accommodation was reduced after both treatment modalities. <sup>[30]</sup> A baseline-controlled examination of intensive treatment for OCD also found that family accommodation was reduced significantly from baseline to post-treatment and from posttreatment to follow-up. [<sup>31</sup>] Furthermore, in a study of intensive treatment for pediatric OCD with 78 youth, family accommodation was one of three significant predictors of treatment outcome, along with symptom severity and gender. <sup>[32]</sup> Finally, in one study which examined the effect of family accommodation on naturalistic outcomes in 94 adults with OCD over a 1-year period, remission was associated with significantly lower family accommodation and level of family accommodation at baseline was found to be a significant predictor of time to remission. <sup>[33]</sup> Overall, this these data affirm the importance of family accommodation in OCD and its relevance to clinical course and treatment outcomes.

**Caregiver burden and quality of life**—Family accommodation places tremendous burden on caregivers and negatively impacts their quality of life. A study comparing caregiver burden among caregivers of adult patients with OCD and depression found that caring for a relative with OCD was more disruptive to family interactions, had greater effects on caregiver health and was associated with greater overall burden. <sup>[5]</sup> In a study of 50

caregivers of OCD patients (68% parents, 16% significant others, and 16% siblings or grandparents), level of family accommodation was positively correlated with caregiver burden, whereas caregivers who were not engaged in substantial family accommodation reported only minimal burden. [<sup>34</sup>] Additionally, caregivers who reported closer relationships with their affected relative also reported engaging in higher levels of family accommodation. Torres *et al.* [<sup>35</sup>] examined caregiver burden in the relatives of 47 adults with OCD. They identified six major sources of burden (e.g., interference in the caregivers' personal life; perception of patients' dependence on them), and all of which correlated significantly with family accommodation scale scores. In yet another study focused on ratings of quality of life of children with OCD, family accommodation was not directly related to the child's report of quality of life, but was negatively associated with parents' reports of quality of life. [<sup>36</sup>,<sup>37</sup>] Quality of life was also found to be negatively associated with family accommodation levels in relatives of adults with OCD. [<sup>33</sup>]

Family accommodation can place a particularly high burden on caregivers when it is forcefully imposed by the relative with OCD. Coercive disruptive behaviors (i.e., forceful and sometimes aggressive, imposition of family accommodation on relatives) have been found to be common in childhood OCD and to be associated with the severity of the OCD symptoms.  $[^{14}_{-16}]$  Common forms of coercion include verbal and physical aggression, pestering and badgering until accommodation is provided, and emotional blackmail (e.g., accusing the caregivers of not loving or caring if they do not accommodate). A recent investigation of clinical and family correlates of coercive disruptive behaviors in childhood OCD found them to be associated with OCD severity, anxiety, oppositionality and hyperactivity, but not depression or inattentiveness.  $[^{17}]$  Coercive-disruptive behavior was associated with family accommodation and related to parental distress, but not related to dimensions of family style. Furthermore, that same study, family accommodation was found to mediate the link between coercive disruptive behaviors and OCD symptom severity.

Studies of temper outbursts and dysregulated emotion in youth with OCD have also indicated that externalizing symptoms play a significant role in exacerbating accommodation and contributing to caregiver burden. Storch *et al.* [<sup>13</sup>] studied rage in youth with OCD and found that the presence of clinically significant rage was associated with higher levels of family accommodation and that family accommodation mediated the link between rage outbursts and severity and impairment related to the OCD symptoms. McGuire *et al.* [<sup>38</sup>] examined emotional dysregulation in 144 youth with OCD and found that dysregulated youth experienced more family accommodation and that this relation was not explained only by increased OCD symptom severity. Using another conceptual framework, Yanagisawa *et al.* [<sup>39</sup>] assessed 256 adults with OCD in Japan and found that in approximately half the cases patients exhibited what the researchers described as "involved behaviors." These "involved behaviors" included things such as forcing relatives to participate in rituals or to assist in compulsive avoidance. Patients were more likely to be female, have more severe symptoms and respond less well to treatment.

#### Family accommodation in anxiety and other disorders

#### Family accommodation in anxiety disorders

In recent years, an area of development has been the investigation of family accommodation within other forms of psychopathology other than OCD, with the largest emphasis placed on anxiety disorders. The first study of family accommodation in anxiety disorders was completed by Lebowitz et al., [40] who introduced the Family Accommodation Scale Anxiety (FASA), based on items from the Family Accommodation Scale, originally developed for use in OCD. This study examined reports of family accommodation from 75 parents of clinically anxious children. Anxiety disorder diagnoses were based on DSM IV TR criteria or the parent-report Screen for Child Anxiety Related Emotional Disorders and included, generalized anxiety disorder, separation anxiety, specific phobias, social phobia and panic disorder with or without agoraphobia. Accommodation was found to be highly prevalent across the anxiety disorders with the highest levels of accommodation reported by parents of children with separation anxiety. Like in OCD, higher levels of accommodation were found to be associated with more severe child anxiety symptoms. FASA was found to have good psychometric properties including internal consistency, convergent and divergent validity and a factorial structure similar to that reported in the original Family Accommodation Scale. <sup>[40]</sup> The two-factor structure reflects parental participation in anxiety driven behaviors and modification of family routines and schedules, aimed at helping the child avoid or alleviate anxiety-related distress. FASA is the most widely used instrument for assessing family accommodation in child anxiety disorders. Additional reports confirmed the prevalence of family accommodation in anxiety disorders, and its link to anxiety symptom severity, and increased functional impairment.  $[^{41}_{-44}]$ 

In one study, Lebowitz *et al.* [<sup>44</sup>] compared family accommodation in childhood anxiety disorders to family accommodation in childhood OCD, as well as to a control sample of normal children without anxiety disorders or OCD. Family accommodation was found to be highly prevalent in anxiety disorders and OCD with overall similarities in the reports of both groups and no significant differences in levels of participation, modification or total accommodation levels. Both clinical groups reported significantly higher levels of family accommodation compared to the nonclinical control group. Additionally, the clinical groups reported greater distress associated with the need to accommodate the child than did mothers in the control sample. This study also confirmed the positive correlation between levels of accommodation and severity of anxiety symptoms in the child. In yet another study of family accommodation in pediatric anxiety, Jones *et al.*, [<sup>42</sup>] using FASA, found that family accommodation mediated the relation between maternal anxiety and child anxiety.

Family accommodation in anxiety disorders can manifest in various forms, often linked to the specific areas and triggers of the affected relative's anxiety. For example, the parents of a child with separation anxiety disorder may sleep next to the child or refrain from leaving her with a babysitter; relatives of a child with social anxiety disorder might avoid having guests over at the house or may speak in place of the child in various social situations; a child with agoraphobia may need to be accompanied everywhere; a child with generalized anxiety disorder might seek excessive reassurance and ask endless repetitive questions; or the family

of a child with a specific phobia might avoid any contact with, or even mention of, the object of the child's specific fear.

Thompson-Hollands *et al.* [<sup>45</sup>] presented parents of children with anxiety disorders a checklist of 20 examples of accommodation and asked them to rate the extent of personal and family interference associated with each endorsed item. Almost all parents endorsed at least one form of accommodation, with the most frequently endorsed items involving allowing children to eat special meals and answering questions directed to the child. Disruptions to parents' work and leisure schedules (i.e., staying home from work or returning early from an outing) and allowing the child to sleep in the parents' bed were associated with particularly high interference levels.

Benito *et al.* developed [<sup>46</sup>] a clinician-rated measure of family accommodation in childhood anxiety disorders (Pediatric Accommodation Scale) and reported results similar to those that have been reported using parent-rated measures, such as FASA. Nearly all parents endorsed at least some level of family accommodation with the most frequent form of accommodation being providing reassurance to the child. [<sup>40</sup>,<sup>44</sup>] Siblings were also found to engage in accommodation of the clinically anxious child and overall families reported substantial distress related to the family accommodation. Johnco *et al.* [<sup>47</sup>], using the Pediatric Accommodation Scale, found that the presence of rage outbursts in anxious children were associated with a more severe clinical profile, including higher levels of family accommodation.

Most research on family accommodation, in both OCD and anxiety, has focused on asking the caregivers about their accommodation behaviors and has not directly queried the affected relative about his or her perception of family accommodation. This gap was addressed in a study by Lebowitz et al. [43] who developed a child-rated version of FASA (FASA-CR) and used it to compare and integrate children's reports with those provided by their mothers. Fifty children with primary anxiety disorders, and their mothers, participated in the study. Overall, good agreement existed between child and mother ratings, although mothers reported significantly higher levels of accommodation than did the children. Maternal anxiety was found to moderate the association between child and mother ratings, such that the correlation was stronger in more anxious mothers. In addition to mirroring the items on the FASA, the child-rated FASA-CR also includes three items aimed at probing children's beliefs and attitudes relating to family accommodation. Most children indicated that they experienced the accommodation as being helpful in reducing their anxiety in the short term, but fewer than half believed that they would be less anxious in the longer term if the accommodation continued. Most children did not however agree that their parents should accommodate less. Comparing child and parent ratings of accommodation in child anxiety disorders is particularly important in light of the commonly reported discrepancies found between parent and child ratings of the child's anxiety symptoms.  $[^{48}]$ 

Only one study to date has investigated family accommodation of adults with anxiety disorders (excluding OCD). [<sup>49</sup>] This study was conducted using an online survey, with 380 undergraduate students as the participants. Symptom accommodation was found to be positively associated with the severity of social anxiety symptoms and degree of functional

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impairment. Anxiety sensitivity, or the belief that somatic symptoms of anxiety pose a threat to the individual, was also correlated with reports of family accommodation. Furthermore, accommodation was found to mediate the relation between the social anxiety symptoms and functional impairment. Despite methodological limitations, including the use of an online survey and uncertain clinical characterization, this study suggests that family accommodation in anxiety disorders is not limited to pediatric patients and should be investigated more thoroughly in adults.

#### Family accommodation in other disorders

Family accommodation of anxiety symptoms has been examined among parents of children with autism spectrum disorders. [<sup>18</sup>] Participants were 40 children, diagnosed with an autism spectrum disorder and exhibiting clinically significant anxiety, and their parents. Levels of family accommodation were similar to those reported among parents of anxious children without autism spectrum disorders and here too the most common form of accommodation was providing reassurance. In a subset of parents who completed measures before and after the youth received a course of CBT for anxiety, a significant reduction in family accommodation in a clinical trial of CBT for OCD in adolescents and adults with autism spectrum disorders and found that higher levels of family accommodation predicted poorer treatment outcomes. Both these studies focused specifically on the comorbid OCD or anxiety symptoms of people with an autism spectrum disorder; however, no studies have yet been published investigating family accommodation of the specific symptoms of autism spectrum disorder.

Hoarding disorder is a relatively recent diagnostic entity in DSM-5, previously categorized under OCD. Two studies reported on family accommodation by relatives of patients with hoarding disorder and found significant accommodation and links to functional impairment. [<sup>51,52</sup>] Finally, another study investigated family accommodation by partners of adults with post-traumatic stress disorder. [<sup>53</sup>] Accommodation correlated positively with partners' ratings of patients' symptom severity and negatively with rating of relationship satisfaction by both partners and patients.

# Interventions for reducing family accommodation

With the growing interest in family accommodation in OCD and other forms of psychopathology, such as the anxiety disorders, there has been an increased emphasis on reducing family accommodation as a means of enhancing or achieving therapeutic gains. Compared to earlier treatment protocols for childhood anxiety and OCD, which acknowledged the importance of encouraging parents not to facilitate avoidance but only placed a minor emphasis on the issue, recent protocols have made reducing accommodation a more central therapeutic goal. Approaches aimed at reducing family accommodation emphasize the behavioral and learning model of family accommodation. In this model, the patterns of family accommodation are negatively reinforced for both the patient and the accommodating relative. For the patient, family accommodation provides temporary relief from distress related to the disorder, and as a consequence, behaviors that lead to family

accommodation are reinforced. For the accommodating relative, family accommodation provides relief from distress related to seeing the patient suffering or to the patients' behaviors (e.g., persistent requests for accommodation, aggressive outbursts, etc.) and thus the accommodation is reinforced. Table 1 summarizes interventions targeting family accommodation

The treatment protocol that has placed the strongest emphasis on reduction of family accommodation is the Supportive Parenting for Anxious Childhood Emotions program (SPACE). [<sup>58</sup>] SPACE is a 10- to 12-week parent-based intervention for childhood anxiety and OCD that does not require child participation and can be delivered as a standalone treatment or alongside child treatment. The primary focus in SPACE is on parent change rather than on direct child change. Parents are guided to reduce unhelpful accommodation as a way to strengthen the child's ability to cope independently. By focusing on parent change, the treatment can be implemented even in cases where the child is reluctant or completely averse to engaging in therapy directly. SPACE emphasizes systematic monitoring and reduction of family accommodation and provides parents with tools to do so in a supportive manner, by teaching them to acknowledge the child's genuine struggle, while also conveying belief in the child's ability to tolerate distress. SPACE is unique in that the reduction of family accommodation is hypothesized to be a central mediator of treatment outcomes. Two open trials of SPACE have been published, one in OCD  $[^{59}]$  and one in anxiety disorders. <sup>54</sup>] Both open trials supported the feasibility and acceptability of SPACE and provided preliminary indications of its efficacy as a treatment for childhood OCD and anxiety disorders. A larger randomized controlled trial is currently underway.

Freeman and Garcia [<sup>57</sup>] developed an intervention for early childhood OCD which stresses the issue of family accommodation. Treatment proceeds over 14 weeks and includes both child-directed work and parent-directed work. Children learn tools to manage and reduce the symptoms of OCD, while parents participate in sessions focused on improving family functioning, including identifying instances of family accommodation. A web-based modification of this approach was developed and piloted by Comer *et al.* [<sup>67</sup>] Parents and children participated in the treatment via teleconferencing. Preliminary results from a small series of cases showed promise regarding symptom improvement and global severity reductions. In yet another study, Lewin *et al.* [<sup>56</sup>] published a pilot trial of a family based behavioral treatment also targeting OCD in young children. The family work included an emphasis on family accommodation, which was embedded into the treatment protocol, and the authors attributed the effects of the intervention in part to this targeting of family accommodation.

Interventions targeting family accommodation in relatives of adults with OCD and anxiety have also been increasingly studied. Thompson-Hollands *et al.* [<sup>55</sup>] conducted a randomized trial of a brief adjunctive intervention aimed at reducing family accommodation in the family members of adult OCD patients. Patients (18 in total) received cognitive behavioral treatment with or without two adjunct sessions with family members. Family sessions included an emphasis on the reduction of family accommodation. Patients whose family members received the two family sessions improved more than those whose relatives did

not. Furthermore, reduction in family accommodation accounted for a significant amount of variance in OCD symptoms after treatment.

Another study examined accommodation of insecure romantic partners using a modified version of the family accommodation scale, with an emphasis on reassurance seeking (e.g., "How often did you reassure your partner about the status of your relationship?") [<sup>60</sup>]. Participants were 21 couples, with one highly insecure partner in each dyad. Insecurity in the relationship was exhibited through behaviors such as the need for excessive reassurance of the partner's love or suppression of personal concerns because of a fear of "rocking the boat" and angering the partner. The researchers found that 2 weeks after a single-session psychoeducational intervention, focused on relationship-based anxiety, there was a reduction in reassurance seeking on the part of the anxious partner, as well as in the accommodating behaviors of the other partner. Another pilot trial aimed at reducing accommodation within romantic relationships explored a couple-based behavioral treatment for OCD. [<sup>61</sup>] Preliminary results showed reductions in OCD symptoms and improvements in relationships functioning.

# **Biological mechanisms in family accommodation**

Various mechanisms have been proposed as the neurobiological strata underlying family accommodation. Norman *et al.* [ $^{62}$ ], in a recent review of accommodation in anxious children, emphasized two neurobiological systems that potentially modulate family accommodation: the cortico-limbic neural network and the oxytocinergic system. The amygdala is consistently implicated in fear and anxiety. It thus has been hypothesized that hyperactivation of the amygdala may be related to overly protective parental behavior. Support for this hypothesis comes indirectly through research showing that maternal distress, in reaction to viewing one's child exhibiting a distressed facial expression, is associated with neuronal activation in the amygdala and hippocampus. [ $^{63}$ ]

The oxytocinergic system is implicated both in the regulation of stress and anxiety, and in the modulation of close interpersonal behavior. [<sup>64</sup>] Family accommodation of anxiety disorders represents the intersection of anxiety regulation and close interpersonal behavior as the individual with the anxiety disorder looks to loved ones for aid in avoiding or regulating anxiety and the relatives are propelled to step in and provide accommodation to their distressed loved one. Peripheral oxytocin is the first biomarker to be directly examined in the context of family accommodation. Lebowitz *et al.* [<sup>65</sup>] examined salivary oxytocin levels from 50 clinically anxious youth and reported a significant negative correlation between salivary oxytocin levels and degree of reported family accommodation. This novel finding is the first indication of the biological basis of family accommodation and additional research is needed to replicate and extend these findings.

# Discussion

Family accommodation is a common and important feature of OCD and anxiety disorders and may be present in many other disorders as well. Family accommodation predicts symptom severity and functional impairment with more accommodation being associated

with worse clinical presentation. Engaging in excessive family accommodation, whether voluntarily or under duress through forceful demands from the affected relative, is associated with lower quality of life and increased burden for caregivers. The reduction in quality of life and relationships, the increased caregiver burden and the link between greater family accommodation and worse treatment outcomes, all point to the importance of reducing family accommodation as a crucial therapeutic goal.

Interventions for anxiety disorders and OCD are increasingly focused on the reduction of family accommodation as a treatment objective and as a possible mediator of treatment outcomes. Preliminary indications from clinical trials are promising, and point to feasibility, acceptability and potential efficacy of these approaches. Larger efficacy trials are needed to confirm these initial findings. Reducing family accommodation allows for work delivered through caregivers rather than directly with patients and may open up the possibility of treatment even in cases of patients who decline to participate in typical patient-delivered therapy. Two trials have been published in which caregivers (parents) attended treatment alone and positive results were achieved. [54,59] A related question pertains to timing and sequencing, as no studies have yet examined when, in the treatment sequence, family accommodation should be addressed for optimal outcomes. Reducing accommodation prior to CBT may be useful in raising motivation for treatment and setting the stage for a more effective treatment trajectory. Conversely, working with individual CBT first may make the process of reducing accommodation easier as patients receive psychoeducation and some therapeutic gains are achieved. Furthermore, in addition to studies examining targeting family accommodation as a part of the sequence of CBT, it may also be interesting to explore how including reducing family accommodation as part of other interventions, such as interpersonal therapy or the interpersonal and social rhythm therapy, influences outcomes.

Future research should continue to explore the question of family accommodation in additional areas of psychopathology. Depressed patients, for example, may rely on caregivers for many forms of accommodation including providing basic needs, helping to avoid unwanted social situations or engaging in unhelpful ruminative conversations. People with bipolar disorders may also depend on caregivers for various forms of accommodation, related to symptoms of depression, such as those mentioned above, or to symptoms of mania. Externalizing disorders may also elicit other forms of accommodation as caregivers work to prevent potential triggers for negative behaviors. Two studies addressed the issue of accommodation in autism spectrum disorders. These studies focused on anxiety [<sup>50</sup>] or OCD [<sup>18</sup>] symptoms in patients with autism, but core symptoms of autism may also elicit family accommodation and should be further investigated. For example, caregivers may engage in accommodation of repetitive and restrictive behaviors, or avoid making changes that trigger negative consequences. A key question in this regard will be differentiating helpful accommodation that scaffolds the patient and has an overall positive impact from unhelpful accommodation that predicts worse functioning and more severe symptoms.

An exciting and burgeoning area of development is on the biological mechanisms underlying or maintaining family accommodation. Only one study has provided empirical evidence for a possible biomarker of family accommodation. Salivary oxytocin levels in clinically anxious children predicted family accommodation, with lower oxytocin levels associated

with more family accommodation. [<sup>65</sup>] In addition to replicating this finding, future studies should examine whether the association holds for adult patients as well as children and whether accommodation of other disorders shows a similar correlation with salivary oxytocin. Caregiver peripheral oxytocin levels would also be of interest and may provide a more complete understanding of the biology of the interpersonal dynamics of family accommodation. An important question that rises from this finding, and other potential biomarkers of accommodation, is whether these markers might moderate treatment outcomes. A better understanding of these mechanisms would help to more accurately identify those families most in need of interventions aimed at reducing family accommodation.

#### Expert commentary

The past 5 years have seen an expansion of the construct of family accommodation within OCD and its application to areas of psychopathology other than OCD, in particular within anxiety disorders. Current data suggest that, as in OCD, more family accommodation is associated with more severe anxiety and greater impairment. It remains to be seen, however, whether family accommodation is a reliable predictor or moderator of treatment outcomes in anxiety disorders. Interventions that target family accommodation are beginning to flourish, but more systematic randomized controlled trials are still needed.

#### Five-year view

Family accommodation is clearly a key construct for a range of childhood and adult disorders. Further research in the coming years should focus on additional testing of interventions for reducing family accommodation, as well as continuing to explore the issue of family accommodation in even more disorders of childhood and adulthood. Research is only now beginning to explore biological underpinnings of family accommodation and should continue to focus on understanding these mechanisms and identifying relevant biomarkers.

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#### Key issues

- Family accommodation is common in childhood anxiety disorders as well as obsessive-compulsive disorder (OCD).
- Family accommodation is common in adults with OCD and is starting to be recognized in adults with anxiety, as well.
- Family accommodation causes significant distress and interference to consanguines of affected probands.
- Family accommodation is positively associated with symptom severity and functional impairment.
- Family accommodation in anxious children is associated with salivary oxytocin levels.
- Treatment aimed at reducing family accommodation shows promise as standalone or adjunct treatments.
- Future research of family accommodation should focus on more randomized controlled trials to study intervention effects, better understanding of neurobiological underpinnings and more studies into linkages with other mental disorders such as autism.

Table 1

Interventions for reducing family accommodation.

Intervention	Target diagnosis	Key points	Duration	Emphasis on family accommodation	Clinical trials
SPACE Program [54,59]	Anxiety disorders; OCD	Parent-based, children need not be directly involved.	10-12 sessions	Major	2 open trials, RCT in progress with CBT as comparison
Adjunctive parent-training [55]	OCD	Brief intervention for parents, added to E/RP	2 sessions	Major	1 RCT with treatment as usual as comparison
Psychoeducation for Relationship- Based Anxiety [ <sup>60</sup> ]	Relationship-based anxiety Psychoeducation session	Psychoeducation session	1 session	Major	l open trial
Family-based ER/P [56]	Early childhood OCD	Parents and children attend together	12 sessions	Partial	1 RCT comparing to treatment as usual
Family-based CBT [57,66]	Early childhood OCD	Combination of E/RP for youth and behavior management for parents	12 sessions	Minor	2 RCTs with relaxation as control condition. 1 open trial
Family-based CBT [67]	Early childhood OCD	Similar to Freeman <i>et al.</i> — Delivered over Internet	14 sessions	Minor	Case series $(n = 5)$

CB1: Cognitive behavior therapy; E/RP: Exposure and response prevention; RC1: Randomized controlled trial; SPACE: Supportive Parenting for Anxious Childhood Emotions.