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Correlates of Accommodation of Pediatric Obsessive Compulsive Disorder: Parent, Child, and Family Characteristics

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Abstract

Objective—Pediatric obsessive-compulsive disorder (OCD) is a chronic, impairing condition associated with high levels of family accommodation (i.e., participation in symptoms). Understanding of factors that may engender accommodation of pediatric OCD is limited. This study conducted exploratory analyses of parent-, child-, and family-level correlates of family accommodation, considering both behavioral and affective components of the response.

Method—The sample included 65 youth (mean age = 12.3 years; 62% male) with OCD and their parents who completed a standardized assessment battery comprised of both clinical and self-report measures (e.g., CY-BOCS, Brief Symptom Inventory).

Results—Family accommodation was common, with the provision of reassurance and participation in rituals the most frequent practices (respectively occurring on a daily basis among 56% and 46% of parents). Total scores on the Family Accommodation Scale were not associated with child OCD symptom severity; however, parental involvement in rituals was associated with higher levels of child OCD severity and parental psychopathology, and with lower levels of family organization. Comorbid externalizing symptomatology and family conflict were associated with parent report of worse consequences when not accommodating.

Conclusions—Although these findings must be interpreted in light of potential Type I error, they suggest that accommodation is the norm in pediatric OCD. Family-focused interventions must consider the parent, child, and family-level variables associated with this familial response when teaching disengagement strategies.

Keywords

Pediatric OCD; Family Accommodation; Criticism

Pediatric Obsessive Compulsive Disorder (OCD) is among the most common psychiatric disorders of childhood, affecting between .5 and 2% of the youth population.[1] The disorder yields substantial impairment in psychosocial functioning, [2] and carries a host of risks as youth age into adulthood. [3] Although molecular and behavior genetic work underscore the biological underpinnings of OCD, mounting evidence suggests that both shared and non-shared environmental influences are operative.[4] Indeed, a growing body of literature points to family dynamics, including distress, accommodation, and blame, that may influence the

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nature and course of the disorder.[5] Accommodation, the process by which family members assist or participate in patient rituals, is particularly well-documented in the OCD literature,[6,7,8] and it has been linked to poorer treatment outcomes for adults with OCD.[5,9] Despite these risks, however, understanding of the factors that drive and promote accommodation remains limited.

To date, research on accommodation has provided largely descriptive accounts of the phenomenon in mixed-age, primarily adult samples.[6, 10] Findings from this work suggest that distress is the norm among families of patients with OCD[11] and that accommodation is a common correlate of the family upheaval created by OC symptoms.[2,5,10] Rates of accommodation also appear to be strikingly high among families of youth affected with OCD, [12, 13, 14] with up to 75% of parents reporting actual participation in their children's OCD rituals.[12, 13] Although not well-studied, accommodation is likely to burden families, maintain OC symptoms, and reinforce fear and avoidance behaviors, thereby undermining progress with exposure-based treatments. Along these lines, recent research suggests that family accommodation may mediate the link between OCD symptom severity and parent-report of child functional impairment. [14]

Critically, it is unclear whether accommodation emerges in response to family distress, is a practice that precedes and fosters distress, or serves both functions. Certainly, families of individuals with OCD are faced with a troubling double bind: altering routines to make way for OC symptoms poses significant burden, but refraining from accommodation is itself a difficult and stressful task[10]. This bind is understandably frustrating and, for many families, leads to feelings of hostility and blame towards the affected child. Current conceptualizations of family responses to OCD posit that these responses fall along a continuum ranging from critical or hostile at one end to enmeshed, overinvolved and accommodating at the other.[8] Although this framework has been investigated in the adult OCD literature, [5] it has yet to be examined empirically within the sphere of pediatric OCD. Moreover, there has been little examination of the factors underlying the range of familial responses to child OCD symptoms. Finally, the high prevalence of both accommodation and criticism suggest that children are likely to experience both reactions in the same family system, and possibly from the same family member.[15] Thus, the interplay of family responses to OCD and the framework in which they are conceptualized require further empirical examination, particularly as it relates to youngsters with OCD.

As a first step, it is important to examine accommodation from a perspective that considers the broad range of parent-, child-, and family-level variables with which it is associated. In particular, efforts to understand the factors that elicit and maintain maladaptive familial responses to OCD must approach these responses as complex and bi-directionally influenced. Although OC symptoms no doubt pull for parental accommodation, parental responses also play a role in either maintaining or curbing these symptoms. In addition, broader family functioning is likely to influence the strategies parents use to respond to OC symptoms as well as their degree of success.

Finally, issues remain with regard to how accommodation is conceptualized. To date, investigators have approached accommodation largely as a unitary construct measuring the involvement of others in the affected individual's OCD symptoms. [10, 14] However, behavioral involvement may take many forms including modification of daily routines, verbal reassurance, and actual participation in rituals. The Family Accommodation Scale (FAS), [6] the most widely-used measure of accommodation, distinguishes between these behavioral practices and their associated affective and functional sequelae (i.e., parental distress associated with accommodation, child's responses when not accommodated). Although these FAS subscales can yield potentially valuable information with regard to the

phenomenology of accommodation and intervention efforts addressing this important issue, they typically are overlooked in OCD research, and most studies report only the FAS total score.

The present investigation sought to examine family involvement in child and adolescent OCD symptoms and the associated sequelae of this involvement in relation to relevant parent-, child-, and family-level correlates. We were particularly interested in two aspects of accommodation that are likely to have direct treatment implications: parents' report of involvement in symptoms and their perceived consequences of not accommodating. Given the early stage of research on family accommodation in pediatric OCD, these analyses were viewed as largely exploratory. However, consistent with limited prior work, we expected higher levels of parental involvement in OCD symptoms would be associated with higher levels of child symptom severity and with higher levels of parental anxiety and hostility. In addition, we expected family conflict and child comorbid externalizing symptomatology to be associated with worse consequences when not accommodating.

Method

Participants

Participants were 65 treatment-seeking children and adolescents (Mean age = 12.3 years, range = 8–17 years; 62% male) and their parents who were participating in a controlled psychosocial treatment trial conducted at a university medical center-based OCD specialty program. To be included in the study, youth were required to have a DSM-IV[16] primary diagnosis of OCD and to be medication free at study entry. Participants were excluded if they met criteria for any psychiatric illness that contraindicated study participation including suicidality, psychosis, pervasive developmental disorder, mania, or substance dependence. A total of 76 youth were screened for study participation; 4 were excluded because they met exclusion criteria, 1 was excluded due to subclinical symptomatology, and 6 were eliminated due to incomplete data.

Measures

Anxiety Disorders Interview Schedule for Children, Version IV (ADIS-IV).[17]— The ADIS-IV is a semi-structured diagnostic interview that assesses the major DSM-IV anxiety, mood, and externalizing disorders experienced by school-aged children and adolescents. The ADIS-IV has been shown to possess favorable psychometric properties. [18]

Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS). [19] is a semi-structured, 10-item, clinician-rated measure of OCD severity with well-established psychometric properties.[20] In the present sample, Cronbach's α was = .73 for the total score.

Child Behavior Checklist (CBCL)[21] is a widely-used parent self-report measure with well-documented psychometric properties. Internalizing and externalizing T-scores were used as a measure of comorbid symptomatology.

Brief Symptom Inventory (BSI) [22] is a 53-item measure used to evaluate parental psychiatric status. Within the present analyses, the Global Severity Index (GSI; α = .93) was used to provide an overall estimate of parental psychopathology, and the Anxiety (α = .86) and Hostility (α = .79) subscales were used to measure psychopathology hypothesized to be linked to parental responses of accommodation/overinvolvement and criticism/hostility respectively.

Yale-Brown Obsessive Compulsive Scale (Y-BOCS).[23]—A self-report version of the Y-BOCS, developed for this study, was used to assess the presence and severity of OCD

symptoms in parents. The original Y-BOCS has excellent inter-rater reliability and convergent validity.[23] In the current sample, the Y-BOCS self-report evidenced strong internal consistency (α= .76). A total Y-BOCS score ≥16 was used to indicate parents with clinical levels of OCD symptomatology.

Family Accommodation Scale – parent-report (FAS-PR)—This 13-item parent-report inventory was derived from the Family Accommodation Scale (FAS), [6] a clinician-rated measure that assesses the degree to which relatives of persons with OCD have accommodated patient rituals over the preceding month. Identical in scoring and content to the original FAS, the FAS-PR measures both the behavioral involvement of family members in the child's OCD (e.g., modification of daily routines, participation in rituals) and the level of family distress and disruption associated with this involvement via four subscales: *modification* of routines (5 items), *participation* in rituals (4 items), informant *distress* associated with accommodating (1 item), and the target child's reaction (*consequences*) to family attempts to refrain from accommodation (3 items) (See Table 1). Individual items are rated on a 5-point Likert scale ranging from 0–4. The original FAS has good internal consistency and inter-rater reliability for the 13 individual items (ICC's = .72 to 1.0).[7] Although a departure from the interview-based measure, a parent-report FAS has been used successfully by several other researchers.[14, 24, 25] Within the present sample, a 9-item Total Involvement subscale was computed by combining the Modification and Participation subscales. The Total Involvement subscale provides a measure of the overall behavioral involvement of family members with the child's OCD symptoms. Cronbach's alpha values for the FAS-PR total and subscale scores in the present sample were as follows: Modification α = .83, Participation α = .78, Consequences α = .75, Total Involvement α =. 88, Total (13-item) Score = .88. One-month test-retest reliability for the 13-item total indicated adequate stability of the self-report measure (r = .76).

Family Environment Scale (FES).[26]—The FES is a 90-item self-report measure designed to tap ten domains of family social functioning. The following three 9-item subscales were employed in the present study: *Cohesion*, *Conflict*, and *Organization*. Internal consistency in the present sample was good to adequate: Cohesion, α = .72, Conflict, α = .68, Organization, α = .72.

Procedure

The study was approved by the University Institutional Review Board. Parental consent and youth assent were obtained at the outset of the initial visit, and families then went on to complete a comprehensive psychiatric evaluation guided by DSM-IV diagnostic criteria. Child and adolescent participants were diagnosed using the Anxiety Disorders Interview Schedule, fourth edition (ADIS-IV)[20] and the CY-BOCS, which were completed jointly by parent and child.

All evaluations were administered as part of the baseline assessment for the overarching treatment study; they were conducted by doctoral-level psychologists or doctoral students in clinical psychology. Prior to administering the study interviews, all students received in-depth training by the clinic director or associate director based on the guidelines specified by the ADIS and CY-BOCS developers. A licensed clinical psychologist supervised all clinic evaluations. Although not a formal reliability assessment, excellent agreement (k = .89) was found between the study diagnostician and a best-estimate conference-derived consensus diagnosis of OCD in an sample that overlapped with the present study.[18] Following administration of the ADIS and CY-BOCS, parents completed the FAS-PR, CBCL, BSI, and FES with research assistant guidance as needed.

Results

Data Analysis

The means and standard deviations of study measures are presented in Table 2. Analyses began with examination of rates of accommodation among families of treatment-seeking youth with OCD. Next, parent-, child-, and family- correlates of accommodation were examined using (a) the 13-item total FAS score (summing both behavioral and affective components of the response) (b) the Total Involvement score representing behavioral indicators of accommodation (e.g., provision of reassurance, participation in rituals, modification of routines) and (c) individual FAS subscales (Table 2). Finally, separate regression analyses were conducted to identify predictors of both behavioral accommodation (FAS-PR Total Involvement) and negative child consequences when not accommodated (Consequences subscale). The goal of the present investigation was to use exploratory analysis to provide a maximally comprehensive perspective on individual and family correlates of accommodation. Given this goal and in light of the relatively early stage of research on this important topic, correction for multiple comparisons was not employed. Findings are interpreted and discussed in light of this analytic approach.

Demographics

Youth participants averaged 12.25 years of age (R = 8–17 years) and were 62% male. The average length of OCD illness was 4.04 years (R = 0–13 years). The mean level of child OCD symptom severity as measured by the CY-BOCS was 25.03 (SD= 4.73). The average parent OCD symptom severity on the Y-BOCS was 5.42 (SD = 7.23) with 13% receiving a score of 16 or higher, the accepted cutoff for clinically significant OCD. Twenty four youth participants (34%) had a lifetime history of psychotropic drug use. Of these participants, 58% (n=14) had a history of SSRI treatment, 42% (n=10) had a history of stimulant use, and 25% (n=6) had received treatment with other psychoactive agents (e.g., clonidine, olanzapine). The average number of prior SSRI trials was 1.4. Study participants had no prior cognitive behavioral treatment (CBT) trials.

Most youngsters were identified by their parents as Caucasian (75%), followed by Latino (11%), Asian (5%), African American (3%), and Other (6%). The majority came from intact homes, with 77.8% living with their married biological parents. Mothers and fathers averaged 43.64 years (range = 29–56 years) and 46.7 years of age (range = 32– 68 years) respectively.

Descriptive Analyses

Rates of accommodation did not differ by child gender, ethnicity, or age. The FAS-PR revealed that accommodation was frequent, with 56% of parents providing reassurance to their children and 46% participating in rituals on a daily basis. These practices were associated with significant difficulty for parents, with 43% of parents indicating at least moderate distress associated with accommodating their child. In addition, 23% of parents reported their children became severely or extremely angry or abusive when their symptoms were not accommodated (Table 1).

Links between Accommodation and Parent-Level Variables

Parental OCD, as indicated by YBOCS > 16, was associated with higher scores on the FAS-PR 13-item total, $t(53) = -4.40$, $p < .000$, and 9-item Total Involvement, $t(53) = -2.84$, $p < .01$, scales. Examination of other FAS subscales revealed that parents with OCD were more likely to report modification of family routines $t(53) = -4.17$, $p < .000$, distress when accommodating, $t(53) = -2.56$, $p < .01$, and more negative child consequences when they

did not accommodate, $t(53) = -2.54$, $p < .01$; however, they were not more likely to participate in their child's rituals.

Parental BSI anxiety scores were associated with higher Total Involvement, but no other FAS-PR variable. By contrast, parental BSI Hostility was associated with all FAS-PR variables except participation in child routines and BSI global severity was associated with all FAS-PR variables except distress associated with accommodation (see Table 3).

Links between Accommodation and Child-Level Variables

Counter to expectations, children's OCD symptom severity on the CY-BOCS was not associated with total FAS-PR. However, OCD severity was positively associated with higher levels of Total Involvement, more frequent participation in rituals, more frequent modification of family routines, and parent report of worse child consequences in response to non-accommodation (See Table 3).

Higher CBCL externalizing scores were associated with more frequent modification of family routines and with worse child consequences of non-accommodation. CBCL Internalizing scores were not related to any accommodation domain.

Links between Accommodation and Family-Level Variables

FES Cohesion and Conflict were not related to FAS-PR total or Total Involvement scores. However, higher levels of family cohesion were associated with lower levels of parental distress associated with accommodating OC symptoms and with fewer negative child consequences when not accommodating. Similarly, families that endorsed higher levels of organization reported less frequent accommodation, lower levels of parental distress associated with accommodation, and lower levels of Total Involvement in OC symptoms. By contrast, family conflict was positively correlated with increased distress when accommodating and worse child consequences when not accommodating their children's OC symptoms.

Predicting Accommodation from Parent-, Child-, and Family-Variables

Hierarchical regression analyses were used to examine the relative contribution of parent-, child-, and family-level variables to two specific aspects of accommodation: total parental involvement in OCD symptoms (TI) and consequences of not accommodating. These variables were chosen because of their direct implications for efforts to intervene with accommodation. Based on the pattern of univariate correlations, CY-BOCS total score, parent Y-BOCS total score, parent global psychopathology (GSI), and FES family organization were used to predict FAS-PR total involvement score. The final model accounted for 43% of the variance in total behavioral involvement, with CY-BOCS ($\beta = .83$, $t = 4.97$, $p < .001$), parent Y-BOCS ($\beta = 4.20$, $t = 2.13$, $p < .05$), and BSI GSI score ($\beta = 3.81$, $t = 2.35$, $p < .05$) each making significant contributions; family organization did not account for a significant amount of the variance in behavioral involvement.

The second model predicting child consequences of parental non-accommodation accounted for 33% of the variance with child's CY-BOCS ($\beta = .31$, $t = 3.99$, $p < .001$), CBCL externalizing ($\beta = .07$, $t = 2.01$, $p < .05$), and FES family conflict ($\beta = .36$, $t = 2.01$, $p < .05$) each making significant contributions to the model. The other parent and family predictors included in this model, BSI GSI, FES Cohesion and Organization, did not make a significant contribution. A third model predicting the full 13-item FAS total indicated that both parental GSI scores ($\beta = .31$, $t = 2.74$, $p < .01$) and family organization ($\beta = -.24$, $t = -1.99$, $p < .05$) made significant contributions to the total score, accounting for 17% of the variance.

Discussion

This study explored the parent, child, and family correlates of accommodation among families of youth with OCD. In an effort to shed light on the family processes associated with accommodation, these correlates were assessed relative to both overall accommodation as typically described in the literature and previously defined sub-dimensions of the accommodation construct including both behavioral involvement (i.e., participation in child symptoms, modification of family routines, provision of reassurance), child response to family non-accommodation, and affective aspects (e.g., parental distress) of the response.

Consistent with earlier research, accommodation of OC symptoms was a frequent practice for these families, with more than half of the parents in this sample reporting some form of accommodation on a daily basis. The 13-item FAS total score was associated with parental hostility and global psychopathology as well as with poorer family organization; however, it was not linked to child symptom severity, comorbid symptomatology, or other indices of family functioning. Although our finding that the FAS 13-item total was not linked to child symptom severity diverges from earlier findings,[14] we note that a scale focused specifically on behavioral indicators of accommodation (i.e., Total Involvement) was linked to child severity as well as to parental anxiety, hostility, and global psychopathology. Indeed, this finding points to the potential value of separating behavioral components of the FAS from those that measure the functional correlates of accommodation.

Further efforts to explore correlates of specific aspects of accommodation revealed expected relationships between accommodation and broader indices of family functioning such that more organized families reported less frequent modification of routines and less accommodation-related distress. By contrast, higher levels of family conflict were associated with more accommodation-related distress and report of worse consequences when not accommodating. However, we underscore that the lack of correction for multiple comparisons calls for cautious interpretation of these findings.

The high rates of accommodation reported here are consistent with adult OCD literature, [6, 7, 25] and add to an emerging body of work on accommodation in pediatric OCD samples.[13,14] Parents in this sample endorsed verbal reassurance, facilitation of avoidance, and actual participation in rituals as the most common manifestations of accommodation, findings that are consistent with those reported by Storch et al.[14] These responses are troubling both because they are likely to shape and maintain OC symptoms and because they are directly at odds with exposure-based treatments currently indicated for pediatric OCD. However, more fundamentally, these responses add to the burden of disease and foster further family stress. Indeed, distress associated with accommodation was common for both parents and children in this sample, underscoring the substantial toll that OC symptoms exert on the entire family system.

Viewed through this lens, it is not surprising that accommodation was positively associated with both parent and child psychopathology. Parents with clinically significant OCD symptoms or higher levels of hostility or global psychopathology were more likely to report accommodating their children's OC symptoms, and, critically, to perceive worse child consequences when attempting to not accommodate. These findings underscore the parental anxiety and frustration surrounding family responses to child OCD and suggest that efforts to help parents disengage from child OCD rituals may need to not only provide specific behavioral disengagement strategies, but also target parents' emotional responses. Consistent with existing literature,[14] child OCD symptom severity and externalizing comorbidity were each associated with higher rates of behavioral accommodation. The correlational nature of our analyses makes it difficult to determine the temporal relationship

between family accommodation and child distress, fear and disability. However, these findings suggest the need for additional guidance or intervention with parents of more severely affected youngsters. In addition, links between comorbid externalizing symptomatology and parents' perceptions of negative consequences when attempting to refrain from accommodation speak to the importance of structured guidance for parents who may have to contend with angry or oppositional child responses when not accommodating.

Certainly, both parent and child features associated with accommodation must be considered within the context of broader family functioning that may influence how family members elect to respond to OC symptoms. Our findings suggest that for families of youth with OCD, higher levels of family conflict may be associated with more difficulty disengaging from OCD rituals. By contrast, more organized families may have greater success in resisting child requests to participate in OCD rituals or modify household routines and to report less distress surrounding accommodation. Higher levels of family cohesion were also associated with less accommodation-associated distress.

Collectively, these findings have potentially important implications for the treatment of pediatric OCD. Efforts to improve existing interventions increasingly have focused on aspects of the family environment that may influence treatment adherence and the maintenance of therapeutic gains, and family therapy has routinely been recommended as an adjunct to individual child intervention.[27] Accordingly, recent clinical trials have begun to test the efficacy of family-based interventions in treating pediatric OCD, with particular emphasis on decreasing family accommodation.[28, 29] The present findings suggest that work in this area may need to move beyond standard psychoeducation and parent-coaching to address broader family dynamics that may influence the decision to accommodate. Indeed, interventions that give parents specific strategies for limit setting and management of child behavior problems linked to disengagement as well as tools for managing their own emotional reactions may increase the likelihood of successful disengagement. In addition, strategies aimed at decreasing family conflict and enhancing positive parent-child interactions and family organizational style may be central to creating an environment in which parents can successfully disengage from their child's OCD symptoms.

Although the present findings illuminate several factors that are relevant to efforts to intervene with families of youth with OCD, they must be interpreted in light of a number of limitations. First, the cross-sectional nature of the present analyses precludes interpretations about causality. Prospective, longitudinal data will be critical to elucidating how and when accommodation emerges and how it interacts with patient symptoms over time. Second, replication of the present study will be important as our analyses did not correct for multiple testing, and Type I error likely contributed to some study findings. In addition, although we would argue that use of the total FAS score is problematic in that it merges behavioral practices with affective sequelae, replication of these findings is also necessary in order to further examine the somewhat counterintuitive finding that FAS total scores were not linked to child OCD symptom severity. Third, method variance stemming from the use of parents as central informants on both criterion and outcome measures may have inflated the magnitude of some of the associations reported here. Likewise, it is important to note that internal consistency for some study measures (e.g., FES) was low. Fourth, the self-report version of the FAS employed in this study was an adaptation of the original interview and a departure from standard administration procedures. Although this approach has been used successfully by others, [14, 25] and the FAS-PR evidenced strong internal and test-retest reliability in the present study, it is possible that the use of this new measure affected evaluation of accommodation practices. Fifth, although this study employed a relatively large clinical sample of youth with OCD, future work with significantly larger samples will be necessary for enabling statistical techniques that allow for more advanced modeling of

the relevant individual, family, and environmental variables and their contribution to accommodation practices. Finally, it is important to note the need for more sociodemographically diverse samples of youth with OCD, particularly when focusing on family practices associated with the disorder.

Nonetheless, the present findings offer valuable insight into the factors surrounding family accommodation and provide a springboard for future research in this area. They converge with prior findings indicating that accommodation is the norm for families of youth with OCD, and they highlight the fact that family involvement in OC symptoms comes at a cost to both parent and child and is associated with detriments to broader family functioning. As such, accommodation remains a treatment priority and a fertile area for future intervention research.

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Table 1

Descriptive Statistics for FAS-PR Total Score, Subscale Scores, and Individual Items.

FAS-PR Item	M (SD)	Range	Never %	1x/wk %	2–3x/wk %	4–6x/wk %	Daily %
13-Item Total Score	18.36 (10.49)	0–41	--	--	--	--	--
Total Involvement	12.39 (7.52)	0–33	--	--	--	--	--
Participation:	9.09(5.29)	0–20	--	--	--	--	--
Frequency of patient reassurance	3.16 (1.17)	0–4	3.1	10.9	9.4	20.3	56.3
Frequency of providing items for patient's compulsive behaviors	1.10 (1.60)	0–4	62.9	6.5	6.5	6.5	17.7
Frequency of participating in patient's compulsive behaviors	2.23 (1.80)	0–4	33.8	7.7	6.2	6.2	46.2
Frequency of assisting the patient in avoidance	1.89 (1.48)	0–4	21.9	26.6	14.1	15.6	21.9
Modification:	3.38 (3.26)	0–14	--	--	--	--	--
Modifying personal routine due to patient's symptoms	.66 (1.06)	0–4	61.5	23.1	7.7	3.1	4.6
Modifying family routine due to patient's symptoms	1.09 (1.06)	0–4	35.4	33.8	18.5	10.8	1.5
Assuming responsibilities that are normally the patient's responsibility	.68 (.85)	0–4	52.3	30.8	15.4	-	1.5
Modifying work schedule due to patient's symptoms	.72 (.99)	0–4	56.9	21.5	15.4	4.6	1.5
Modifying leisure activities due to patient's symptoms	.89 (1.08)	0–4	49.2	24.6	15.4	9.2	1.5
	M (SD)		**Not at all %**	**Mild %**	**Mod %**	**Severe %**	**Extreme %**
Distress:	1.27 (1.07)	0–4	--	--	--	--	--
Does helping the patient lead to distress?	1.27 (1.07)	0–4	31.3	25.0	31.3	10.9	1.6
Consequences:	4.28 (3.17)	0–12	--	--	--	--	--
Has patient become distressed when you did not accommodate?	1.91 (1.35)	0–4	20.0	20.0	24.6	20.0	15.4
Has patient become angry/abusive when you did not accommodate?	1.20 (1.33)	0–4	44.6	20.0	12.3	16.9	6.2
Has ritual time increased when you did not participate?	1.17 (1.17)	0–4	36.9	27.7	21.5	9.2	4.6

Note. N= 65. FAS-PR = Family Accommodation Scale – Parent Report. All items were rated on a 5-point Likert scale ranging from 0 (*never; not at all*) to 4 (*daily; extreme*).

Table 2

Descriptive Statistics for Key Measures of Interest

	N	M	R	SD
Parent Measures				
BSI				
Anxiety	65	.63	.01–3.01	.67
Hostility	65	.66	.01–3.41	.60
Global Severity Index	65	.51	.01–2.10	.46
Y-BOCS-Self Report (% scoring > 16)	65	13%	--	--
Child Measures				
CY-BOCS Total Score	65	25.03	17–36	4.73
CBCL				
Internalizing	65	63.53	37–86	9.53
Externalizing	65	52.11	30–73	10.73
Total Beh. Problems	65	61.41	44–80	8.59
FES				
Cohesion	65	7.13	0–9	1.97
Conflict	65	3.56	0–8	2.15
Organization	65	5.14	0–9	2.28

Note. BSI= Brief Symptom Inventory; Y-BOCS= Yale-Brown Obsessive Compulsive Scale; CY-BOCS = Children's Yale-Brown Obsessive Compulsive Scale; CBCL= Child Behavior Checklist; FAS-PR= Family Accommodation Scale-parent-report; FES= Family Environment Scale.

Table 3

Correlation Matrix of Study Measures

	1	2	3	4	5	6	7	8	9	11	12	13	14	15	16
1. FAS: Participation	1														
2. FAS: Modification	.52**	1													
3. FAS: Distress	.45**	.45**	1												
4. FAS: Consequences	.60**	.47**	.47**	1											
5. FAS TI[a]	.92**	.81**	.52**	.63**	1										
6. FAS 13-item total	.91**	.76**	.63**	.80**	.96**	1									
7. BSI: Anxiety	.21	.20	.12	.19	.27*	.20	1								
8. BSI: Hostility	.21	.30*	.28*	.29*	.34**	.57**	.56**	1							
9. BSI: GSI	.28*	.28*	.21	.25*	.34**	.29*	.88**	.70**	1						
11. CY-BOCS	.37**	.28*	.20	.44**	.40**	.10	.08	.32*	.16	1					
12. CBCL: Intern.	.17	.22	.04	.21	.18	−.08	.29*	.28*	.37**	.30*	1				
13. CBCL: Extern	.16	.31*	.06	.33**	.25	.15	.17	.39**	.25*	.24	.52**	1			
14. FES: Cohesion	−.02	−.13	−.25*	−.26*	−.13	−.02	−.04	−.05	−.15	−.22	−.16	−.14	1		
15. FES: Conflict	.09	.22	.27*	.33**	.25	.14	.20	.28*	.25*	.11	.24	.28*	−.51**	1	
16. FES: Organization	−.17	−.29*	−.25*	−.19	−.28*	−.48**	−.10	−.24	−.12	−.08	−.02	−.05	.35**	−.35**	1

Note: FAS= Family Accommodation Scale; BSI= Brief Symptom Inventory; CY-BOCS= Children's Yale-Brown Obsessive Compulsive Scale; CBCL= Child Behavior Checklist; FES= Family Environment Scale.

[a]FAS Total Involvement Score;

*p <.05;

**p <.01

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