

Perfectionism and Peer Relations Among Children with Obsessive-compulsive Disorder

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Abstract The study examined perfectionism, symptoms of obsessive-compulsive disorder (OCD) and depression, and peer relationships among a clinical sample of 31 youth (age range 7–18 years) diagnosed with OCD. Using a correlational design, perfectionistic beliefs accounted for significant variance in OCD symptoms, depressive symptoms, and difficulties in peer relationships for children with OCD. One dimension of perfectionism, sensitivity to mistakes, was the most salient maladaptive aspect of perfectionism for this sample whereas another dimension, contingent self-esteem, emerged as the most salient adaptive dimension. Implications are discussed regarding the diagnosis, treatment, and developmental course of OCD among children and adolescents.

Keywords Perfectionism · Obsessive-compulsive disorder · Children and adolescents · Peer relations

According to theoretical conceptualizations [1, 2] and recent reviews [3, 4], perfectionism is a common theme among people with obsessive-compulsive disorder (OCD). Note that the associations between OCD and perfectionism are based on a conceptual definition and operationalization of perfectionism as a negative personality dimension in which “the function of perfectionism is to avoid mistakes and failure” [5, p. 1004]. However, accumulated research evidence suggests that perfectionism is likely to be a multifaceted

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personality characteristic with functional or healthy dimensions [6 for a review] as well as dysfunctional dimensions.

Healthy dimensions of perfectionism have included high performance standards or expectations, conscientiousness, and possibly preferences for order or organization, all of which occur in the context of positive self-esteem and good stress and affect management when expectations might not be met. Alternatively, maladaptive or unhealthy aspects of perfectionism might also include high performance expectations but in a context of severe and persistent self-criticism, low or variable self-esteem, and problematic affect regulation and coping [7, 6]. Along these lines, perfectionists among a college student sample were classified into adaptive/healthy and maladaptive/unhealthy perfectionist categories, and maladaptive but not adaptive perfectionists were more likely to engage in certain obsessive-compulsive behaviors, such as some pathological rituals [8]. In another study of college students, maladaptive but not adaptive dimensions of perfectionism were associated with obsessive cognitions and compulsive behaviors [9]. Using a slightly different conceptualization approach which classified perfectionists into functional or dysfunctional categories, researchers [10] observed a similarly higher tendency for dysfunctional perfectionists compared with functional perfectionists in their nonclinical sample of students to engage in obsessive-compulsive behaviors.

Despite the bulk of research on linking maladaptive perfectionism with OCD among adults, such research among children has been limited. To our knowledge, only one previous study has examined such a link. Concern over mistakes, one of six dimensions measured by the multidimensional perfectionism scale (MPS) [11], was significantly higher among children with OCD than among a non-clinical comparison group [12]. Interestingly, groups were not significantly different on the MPS personal standards dimensions, a finding that may be consistent with research on non-clinical youth suggesting that perfectionistic high standards may not necessarily be problematic [13]. The study by Libby and colleagues [12] was conducted based on a conceptualization of perfectionism as problematic; which by design would limit an observation of the multi-faceted function of perfectionism we have observed among adults with OCD. Therefore, it is necessary to further examine dimensions of perfectionism that might be adaptive or maladaptive for children with OCD and potentially identify the dimensions of perfectionistic beliefs as cognitive contributors to OCD symptoms.

Furthermore, perfectionistic beliefs may help explain the experiences of depression and impairment in peer relationships for youth with OCD. In several studies of perfectionism in non-clinical children, maladaptive aspects of perfectionism were found to be positively associated with depression or negatively associated with happiness and satisfaction [14–19]. Therefore, in the current research we expected to replicate these associations in a sample of children with OCD. Peer relationships were also investigated in an attempt to explain the difficult experiences youth with OCD seemed to have in this domain. For instance, youngsters with OCD tend to have difficulty making new friends and keeping friends [20]. A recent study [21] also suggested that children with OCD were significantly more likely to be victimized by their peers than were healthy children. It is less clear how obsessive-compulsive symptoms may contribute to those relationship problems, and whether perfectionism, as cognition closely related to OCD, has detrimental effects in this domain. Past research provided some support for the association between maladaptive perfectionism and relationship problems. For example, adult maladaptive perfectionists have difficulty with social adjustment and functioning, whether in terms of fitting-in within larger social networks [22] or in terms of more specific relational security in parent–child bonds [23, 24] and adult romantic relationships [25–27]. In a study of 4th and 5th graders, researchers [16] found that excessive

concerns about making mistakes, an indication of maladaptive or unhealthy perfectionism, were inversely associated with popularity. It is possible that some perfectionistic beliefs (e.g., sensitivity about making mistakes) exacerbate interpersonal problems among children with OCD who already are at risk for relational difficulties.

The Current Study

The current study tested the extent to which perfectionism was associated with OCD symptoms in a clinical sample of children. We also examined the association between perfectionism, depressive symptoms, and peer relationship impairment among children with OCD. In addition, we tested the existence of the unique contribution of perfectionism to the prediction of children's depressive symptoms and interpersonal difficulty over and above what obsessive-compulsive symptoms would predict, in an effort to provide a more complete picture of the potential maladaptive psychological impact of perfectionism for children with OCD.

We used three measures to capture different aspects of peer relations: measures on the occurrence of peer victimization, the feeling of loneliness, and the quality of peer friendships. Perfectionism was analyzed as a single construct with multiple dimensions. This approach permitted differentiating perfectionism effects attributable to different maladaptive and possibly more adaptive dimensions of the construct [16].

Method

Participants

This clinical sample included 31 children and adolescents (58% boys) ranging in age from 7 to 18 years ($M = 11.77$, $SD = 2.59$). All participants were White/European American. Diagnoses were made by a board-certified child psychiatrist with 10 years of experience by using all available clinical information [28], which included the children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS) results, clinical interview, and responses to other measures. Diagnoses of OCD and comorbid conditions were also confirmed by one of two licensed clinical psychologists with extensive experience in pediatric OCD. Of the children who received additional diagnoses, 17 (55%) were diagnosed with a tic disorder and 10 (32%) were diagnosed with ADHD. The high rates of the former diagnosis was likely due to the clinic's specialty in treating youth with OCD of the pediatric autoimmune disorder associated with streptococcus subtype. Although this high comorbidity may potentially confound findings, external validity and clinical utility of the findings are enhanced because the degree of comorbidity is common among clinical samples of children with OCD [29]. For example, in one previous study, only 26% of a clinical sample of children had OCD as their only diagnosis [19]. The children in the current study were presenting at a university based clinic for treatment; parent data were gathered from 25 mothers and 6 fathers. Exclusion criteria included whether the child had been diagnosed with mental retardation or with some form of psychotic disorder and whether the child was unable to read the questionnaire packets.

Procedure

All questionnaires were completed during the children's regularly scheduled appointment at the clinic. Informed consent/assent from the child and a parent was obtained by one of

the principal researchers or a trained research assistant. Steps were also taken to assure the children and parents that participation was voluntary and withdrawal from the study would not lead to any unfavorable consequences in terms of the treatment the children received. After consent, the children completed the measures and their parents provided demographic information such as age and gender of the child. Following completion of the measures, the final author administered the child's yale-brown obsessive compulsive scale (CY-BOCS) [30] to parents and children jointly. Inter-rater reliability was not obtained.

Measures

The questionnaire completed by the children contained the following scales, administered in the order described:

Children's depression inventory-short form (CDI-S) [31]. The CDI-S is a 10-item scale assessing depressive symptoms among children and adolescents ages 7–17 years. Participants were asked to indicate which of three mood-related sentences best describes them over the past 2 weeks. For example, 0 = "I am sad once in a while," 1 = "I am sad many times," or 2 = "I am sad all the time," with higher scores indicating increasing severity. The scale demonstrated good internal consistency, with an alpha reliability coefficient to be 0.80 [32] and test–retest coefficients ranging between 0.74 and 0.77 for the original longer version CDI with 27 items [33] in a non-clinical sample [34].

Asher loneliness scale (ALS) [35]. The ALS is a 16-item scale assessing feelings of loneliness and social dissatisfaction in children and adolescents (e.g., "It is hard for me to make friends at school"). Children rate to what extent each item applies to them using a scale anchored at 1 (*not true about me at all*) and 5 (*always true about me*). Higher scores indicate more loneliness. The internal consistency of ALS scores was high in past research, with Cronbach's coefficient alphas ≥ 0.90 [36].

McCloskey's peer relationship scale (MPRS) [37]. The MPRS is a 12-item self-report scale that assesses the quality of a child's primary friendship (e.g., "My friend and I always tell each other about our problems."). Participants rated to what extent each item applied to them using a scale from 1 (*Always false*) to 5 (*Always true*). Higher scores indicated higher levels of mutual warmth and support as well as lower levels of conflict in the child's friendship. The internal consistency for scores on this scale has been adequate, with Cronbach's coefficient alphas reported to be in the mid 0.70-range [37].

Schwartz peer victimization scale (SPVS) [38]. The SPVS is a 5-item scale assessing both overt and relational forms of peer victimization, such as teasing and bullying among children and adolescents (e.g., "How often do other kids tease or make fun of you?"). Children respond to items using a scale of 1 (*never*), 2 (*sometimes*), 3 (*often*) and 4 (*almost everyday*); higher scores indicate more experiences with victimization. The internal consistency of the scale in past research was 0.75 [38]. Scores from the SPVS have also been associated with teacher's ratings and peer nomination of victimization for children.

Adaptive-maladaptive perfectionism scale (AMPS) [18]. The AMPS is a 27-item self-report scale that measures four dimensions of perfectionism: sensitivity to mistakes represents negative emotions associated with making mistakes (9 items, e.g., "I am fearful of making mistakes"), contingent self-esteem refers to feelings and self-evaluation based on task performance (8 items, e.g., "I feel super when I do well at something"), compulsiveness refers to preferences for order and organization and a deliberate and careful orientation on tasks that may or may not reflect problems associated with OCD (6 items, e.g., "I like for things to always be in order"), and need for admiration taps need for

approval and possibly narcissistic aspirations (4 items, e.g., “I do good work so that others think I am great”). Children rate how much they agreed with each item on a scale anchored at 1 (*really unlike me*) and 4 (*really like me*). These subscales were developed based on factor analyses of item sets administered to several samples of children at school [16, 18]. The internal consistencies of the AMPS dimensions have generally been adequate to strong, with Cronbach’s coefficient alphas ranging from 0.65 to 0.91.

Children’s yale-brown obsessive-compulsive scale (CY-BOCS) [30]. The CY-BOCS was 10 semi-structured items and responses measuring obsessive-compulsive symptoms over the previous week. Response options are 0 (*none*), 1 (*mild*), 2 (*moderate*), 3 (*severe*) to 4 (*extreme*). The severity of obsessions and compulsions were rated on five items each: time occupied by obsessions (compulsions), interference due to obsessions (compulsions), distress associated with obsessions (compulsions), resistance against obsessions (compulsions), and degree of control over obsessions (compulsions). The researcher administered the scale to the parent(s) and child either jointly or separately (based on clinical judgment) after they had completed their questionnaires. The researcher was given latitude to adjust ratings based on behavioral observations, clinical judgment, and other sources of information. This scale has been widely used for childhood OCD assessment, and scores have shown good reliability and validity [21, 30, 39].

Results

In the following analyses, we report some effects based on the Type I error rate of 0.10 (two-tailed) for tests of statistical significance. This approach improved power to the 0.80 range (reduced Type II error) in some analyses and allowed us to examine patterns or effects that may have gone undetected with a stricter alpha level in a small clinical sample. Nevertheless, it is important to keep in mind that more liberal Type I error rates can potentially allow more false positives and the findings should thus be interpreted with caution. Results should also be interpreted in light of effect sizes which can indicate the clinical significance of the relationships.

Preliminary Analyses

Table 1 displays descriptive statistics and Cronbach’s alphas for the measures. Internal consistency estimates ranged from 0.67 to 0.94, comparable to the reliability estimates reported for the normative school-based sample used in the original scale development research (0.73–0.90) [18]. The mean scores for the four perfectionism dimensions did not differ significantly from those of the previous non-clinical school sample [18], $ps > 0.10$. The mean OCD symptoms score was close to what was obtained from a previous sample of children with OCD ($M = 19.90$, $SD = 7.51$) [30]. None of the measured variables yielded score distributions that were significantly skewed or kurtotic, Z_s ranged from 10.361 to 11.891. We examined the data for univariate and multivariate outliers and found none (e.g., examination of Mahalanobis distance indicated that no case was greater than the critical χ^2 value of 27.88, indicating that there were no concerns for multivariate outliers).

First, we examined how the age and gender of the children were related to the measured scores. Three significant associations emerged in the correlations between age and the scores on all other measured variables. Older children reported significantly higher scores on obsessive-compulsive symptoms ($r = 0.40$, $p < 0.05$), depression ($r = 0.40$, $p < 0.05$),

Table 1 Means, standard deviations, and score internal consistencies

	<i>M</i>	<i>SD</i>	α
Adaptive/maladaptive perfectionism scale			
Sensitivity to mistakes	18.58	5.11	0.74
Contingent self-esteem	26.06	3.77	0.67
Compulsiveness	14.32	4.43	0.75
Need for admiration	9.70	3.90	0.89
Children's yale-brown obsessive-compulsive scale	19.16	9.43	0.91
Children's depression inventory-short form	3.19	3.25	0.80
Asher loneliness scale	36.65	15.47	0.94
Schwartz peer victimization scale	8.61	3.09	0.86
McCloskey's peer relationship scale	46.55	8.71	0.82

Note: *N* = 31. Means and standard deviations represent raw scores, α represents Cronbach's coefficient alpha

and possibly loneliness ($r = 0.35, p < 0.055$). Age was therefore controlled in subsequent analyses. In regard to gender differences, we used multivariate analysis of variance (MANOVA) because it allows examination of the relationships between one independent variable and multiple dependent variables (DV) as the same time [40]. Three MANOVAs were used to examine gender differences on the measures. Each MANOVA addressed a different construct: perfectionism as measured by perfectionism scores, psychological distress as measured by obsessive-compulsive and depressive symptoms, and peer relations as measured by the loneliness, victimization, and MPRS peer relationship score. The MANOVA of perfectionism scores was significant, Wilks's $\Lambda = 0.662, F(4, 26) = 3.32, p < 0.05$. Univariate analyses indicated that girls reported significantly higher scores than boys on contingent self-esteem ($M_{\text{girl}} = 27.93, M_{\text{boy}} = 24.72$), with the difference in terms of effect size being substantial (Hedges $g = 0.90$). No other gender differences emerged on the perfectionism scores. There were no significant gender differences on obsessive-compulsive and depression symptoms, Wilks's $\Lambda = 0.962, F(2, 28) = 0.55, p > 0.05$, but potential differences were obtained on the peer relationship scores, Wilks's $\Lambda = 0.764, F(3, 27) = 2.77, p < 0.062$. Boys reported significantly ($p < 0.05$) more peer victimization on the SPVS ($M_{\text{girl}} = 7.23, M_{\text{boy}} = 9.61, g = 0.80$) and potentially ($p < 0.076$) more loneliness as measured by the ALS ($M_{\text{girl}} = 30.85, M_{\text{boy}} = 40.83, g = 0.65$). We therefore controlled for child gender in subsequent regression analyses.

Next, controlling for age and gender, we used partial correlations to detect the simple associations between perfectionism and the DVs. Correlation coefficients between the AMPS perfectionism scores (independent variables) and remaining DVs are displayed in Table 2. Sensitivity to Mistakes correlated significantly with all other scores ($ps < 0.05$); directions of those effects suggested that concern over mistakes is consistently related to negative personal and interpersonal experiences. In contrast, contingent self-esteem scores seemed to be a relatively more positive dimension in light of the directions of effects. For example, less depression and loneliness were associated with higher scores on contingent self-esteem. Compulsiveness and need for admiration both suggested negative outcomes but none of the correlations reached significance. Based on the bivariate correlations, we only included sensitivity to mistakes and contingent self-esteem as the perfectionism dimensions potentially predicting the DVs in the regression models. As expected, obsessive-compulsive symptoms were significantly and directly associated with depressive symptoms, victimization, and loneliness.

Table 2 Correlations between the four dimensions of perfectionism, obsessive-compulsive symptoms, depression, and peer relations (i.e., loneliness, victimization, and peer relationship)

	1	2	3	4	5	6	7	8	9
1. Sensitivity to mistakes	–1.00								
2. Contingent self-esteem	–0.40*	1.00							
3. Compulsiveness	0.59**	0.10	1.00						
4. Need for admiration	0.41*	0.24	0.65**	1.00					
5. O–C symptoms	0.44*	–0.12	0.13	0.19	1.00				
6. Depression	0.52**	–0.61**	0.21	–0.01	0.36+	1.00			
7. Loneliness	0.64**	–0.44*	0.26	0.13	0.47*	0.57**	1.00		
8. Peer victimization	0.52*	–0.20	0.27	0.27	0.38*	0.64**	0.67**	1.00	
9. Peer relationship	–0.35+	0.50**	–0.15	0.11	–0.17	–0.37*	–0.40*	–0.14	1.00

Note: $N = 31$. + $p < 0.10$; * $p < 0.05$; ** $p < 0.01$. Partial correlations, controlling for age and gender, are displayed. Results are based on two-tailed significance tests

Perfectionism and OCD

Hierarchical multiple regression analyses were conducted, controlling for age and gender, to determine the association between the two perfectionism dimensions and obsessive-compulsive symptoms.¹ Regression diagnostics to examine statistical assumptions (e.g., examination of residuals, collinearity diagnostics) for these and later analyses did not reveal concerns about this analysis approach.

Age and gender were entered in the initial block and the two dimensions of perfectionism were entered in the second block. Significant variance in obsessive-compulsive symptom scores was accounted for by the perfectionism scores $\Delta R^2 = 0.17$, $F(2, 26) = 3.19$, $p < 0.05$. The standardized partial regression coefficients revealed that sensitivity to mistakes was the only significant predictor of OCD symptoms, $\beta = 0.45$, $p < 0.05$, such that greater concerns about mistakes were associated with more obsessive-compulsive symptoms.

Perfectionism, Depression, and Peer Relationships

The next set of analyses addressed the question of whether perfectionism predicted depression. Controlling for age and gender, hierarchical multiple regression analyses indicated that the perfectionism scores accounted for significant variation in depressive symptoms, $\Delta R^2 = 0.38$, $F(2, 26) = 11.20$, $p < 0.001$. The standardized partial regression coefficients indicated that both contingent self-esteem ($\beta = -0.50$, $p < 0.01$) and sensitivity to mistakes ($\beta = 0.32$, $p < 0.05$) made significant contributions to the model. Therefore, striving for perfectionism, especially being self-critical about mistakes and

¹ Similar analyses were also conducted to examine the separate effects associated with the CY-BOCS obsessive and compulsive subscales. None of those analyses revealed differences in effects for the sub-dimensions versus the total obsessive-compulsive symptoms scores, with the exception that age may have been significantly and positively associated with obsessive ($\beta = 0.34$, $p < 0.10$) but not compulsive ($\beta = 0.26$, $p > 0.10$) symptoms. We therefore decided to interpret the overall obsessive-compulsive scores for the sake of simplicity.

having lower contingent self-esteem were associated with severity of psychological distress for children with OCD. We also used hierarchical multiple regression to examine the unique contribution of perfectionism to the children's depression over and above the effects of their OCD symptoms. After controlling for age, gender and OCD scores, perfectionism again accounted for significant variation in depression, $\Delta R^2 = 0.30$, $F(2, 25) = 9.00$, $p < 0.001$.

Next, we examined the implication of perfectionistic beliefs in the social domain. Hierarchical multiple regression analyses were conducted for each of the three peer relations measures, again controlling for child age and gender. The perfectionism scores accounted for significant and substantial variation in loneliness, $\Delta R^2 = 0.36$, $F(2, 26) = 10.68$, $p < 0.001$, peer victimization, $\Delta R^2 = 0.23$, $F(2, 26) = 4.83$, $p < 0.05$, and MPRS peer relationship scores, $\Delta R^2 = 0.26$, $F(2, 26) = 5.00$, $p < 0.05$. Examination of the regression coefficients suggested that sensitivity to mistakes was associated with loneliness ($\beta = 0.52$, $p < 0.01$) and peer victimization ($\beta = 0.51$, $p < 0.01$). Contingent self-esteem emerged as a clear positive predictor of MPRS peer relationship scores ($\beta = 0.48$, $p < 0.05$). Thus, the overall results suggested that sensitivity to mistakes predicted poor peer relations while contingent self-esteem was associated with positive peer relations. In order to examine the unique contribution of perfectionism to the children's peer relations over and above the effects of OCD symptoms, we again used hierarchical multiple regression. After controlling for age, gender and OCD scores, perfectionism was found to account for significant variation in loneliness, $\Delta R^2 = 0.22$, $F(2, 25) = 7.02$, $p < 0.005$, and MPRS peer relationship scores, $\Delta R^2 = 0.24$, $F(2, 25) = 4.34$, $p < 0.05$, and possibly peer victimization, $\Delta R^2 = 0.13$, $F(2, 25) = 2.76$, $p < 0.085$.

Discussion

The current findings suggest that striving for perfectionism, as a detrimental factor for adults with OCD, also is associated with increased severity of OCD symptoms among children with OCD. Furthermore, perfectionistic cognitions contribute uniquely to depressive moods, after partialling effects for OCD symptoms, and extend to the interpersonal domain for these patients. These latter findings are of particular interest and relevance for clinical work because they point to cognitive factors that may be maintaining the children's OCD symptoms, depression, and problems in social environment, which can potentially inform treatment strategies. Previous research [12] has suggested that children with OCD often experience an inflated sense of responsibility and thought-action fusion (i.e., they overestimate the power of their thoughts in increasing the likelihood of an event occurring). It is possible that children with OCD assume responsibility and overestimate their need to make things "just right" in their lives. They may consider flawlessness as one means of preventing dreaded events, including but not limited to further social disconnection, yet such an unrealistic pursuit likely exacerbates rather than attenuates their stress and worries. Worries about the dreadful "what-if" possibilities may further intensify obsessive thoughts and increase compulsive rituals, which in turn would be expected to yield further personal distress and harm their social adaptability and acceptability.

With the established link between perfectionistic beliefs and childhood OC symptoms, it remains to be investigated if striving for flawlessness precedes and causes obsessions and compulsions, or whether such striving only becomes problematic in combination with OC symptoms and serves to maintain the symptoms. It is worth noting that the children in the current study did not score higher on the AMPS perfectionism dimensions than those from

the non-clinical school sample that served as the basis for original AMPS scale development [18], suggesting that there is no sufficient evidence to conclude that level of childhood perfectionism alone is clearly dysfunctional. Rather, consistent with recent views on adult perfectionism, childhood perfectionism can be either adaptive or maladaptive; the direction of its impact can be affected by third factors, such as external life stressors and coping [41], or in this case the presence of obsessive-compulsive symptoms. Children with OCD are likely to be burdened with excessive stress resulting from their perceived sense of responsibility to prevent dreaded events from occurring, a situation that may prompt more forceful expression of the negative aspects of perfectionism. Following this line, as the demands and challenges increase as children and adolescents grow into adulthood, the combination of perfectionism and obsessions-compulsions might be even more of a threat to healthy development and adjustment. Given that the current and previous samples [16] consisted primarily of children 12 years old or younger, future research using combinations of different age groups should be conducted to test this speculation.

As expected, sensitivity to mistakes was identified as a maladaptive dimension of perfectionism, predicting more severe obsessive-compulsive symptoms. Such an association is consistent with results reported in prior research [12]. Sensitivity to mistakes was also associated with more severe depressive symptoms as well as negative peer relationships, which further suggests how this perfectionism dimension contributes to the complex psychological suffering among children with OCD. Indeed, what may seem worse than making a mistake for these children is that others could find out about the mistake. As a result, children may become obsessively concerned with their flaws, compulsive in hiding them, and avoid social interaction and attention rather than actively engage in social activities and express caring to their peer friends. One result of this strategy is isolation from one's social groups. Note that although we speculated that perfectionism cognitions are the cause for the negative psychological consequences here, it is equally possible that the causal relationship is in the opposite direction. For example, obsessive-compulsive symptoms, depression, and social isolation may lead children to feel that they have to be perfect in order to improve their psychological and social situations. Future studies using longitudinal or larger-scale cross-sectional approach with participants at different developmental stages will be helpful in determining the emergence and implications of perfectionism in relation to other psychological outcomes. At minimum, based on the current findings, clinicians might consider paying extra attention to the reasons for children's fears of mistakes and work on reducing children's over-reactivity to flaws and imperfection.

On the other hand, contingent self-esteem was identified as an adaptive dimension, suggesting that basing self-evaluation on task performance may be adaptive to children, possibly by motivating them to work hard to gain academic achievement and monitor their behavior to be in accord with social expectations. Such achievement may boost their self-image, leading them to be socially accepted and at the same time helping them acquire an internal locus of control. This result is consistent with the conceptualization of Crocker and colleagues [42] that contingencies of self-worth function as a monitor for self-regulation. However, this benefit of contingent self-esteem may only be limited to children whose life tasks are presumably not overly challenging at earlier developmental stages, and may not extend to adults, given that a negative function of conditional self-worth has been found among non-clinical samples of adults [43]. Future research should continue to examine whether certain perfectionistic beliefs are adaptive when children first start to adopt them but cease to be healthy with changes in life circumstances.

The adaptive/maladaptive value of the other two dimensions of the AMPS, compulsiveness and need for admiration, was unclear in the current study. Their effects seemed to be more intertwined within the overall scores and their unique effects were too weak to be conclusively identified. (Recall that the compulsiveness subscale measures a dimension that can be different from neurotic compulsive behaviors associated with OCD). Future research should examine the relative adaptive value of these dimensions for children as they age and as environmental demands for organization and interpersonal demands for respect or recognition intensify.

These results should be interpreted with caution given the limitations of the current study, such as the small sample size, less rigid adherence to typical Type I error criteria, and little racial or cultural diversity in the sample. Another limitation is that the AMPS has not been widely used. Although this does not adversely distinguish the AMPS from other measures of perfectionism in children, it does raise concerns about the psychometric quality of the AMPS, especially when used with samples different from the initial study development samples. Future work building on the current study should occur, with larger samples, control or comparison groups where possible, and longitudinal or larger-scale cross-sectional approaches to more sensitively examine developmental stages and age differences. Such research could provide evidence regarding the developmental transportability of the construct of perfectionism, and in particular, whether perfectionism means the same things in different developmental eras.

Summary

The purpose of the present study was to test whether perfectionism was associated with the severity of symptoms of OCD, depression, and peer relationship difficulties among youth with OCD. A clinical sample of 31 outpatients (age range 7–18 year-old, 58% boys) diagnosed with OCD completed a structured interview assessing OCD symptoms using the CY-BOCS. They also completed self-reported instruments in the following order: CDI-S to assess depression, ALS, MPRS, and SPVS to assess different aspects of the children's peer relationships, and AMPS to assess perfectionism. Controlling the effect of age and gender, perfectionistic beliefs accounted for significant variance in OCD symptoms, depressive symptoms, and difficulties in peer relationships for children with OCD. The association between perfectionism and depression and peer relationship difficulties existed above and beyond the impact of OCD symptoms. In detailed examination of the multiple dimensions of perfectionism, the sensitivity to mistakes dimension was the most salient maladaptive aspect of perfectionism for this sample whereas the contingent self-esteem dimension emerged as the most salient adaptive dimension. Thus, some, but not all, aspects of striving for perfectionism may be particularly detrimental for children with OCD and further extend to a range of psychological and interpersonal difficulties for those children.

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