

Original Article

Parenting styles and their correlates in adolescents diagnosed with Obsessive Compulsive disorder

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Abstract

Objectives: The study examined parenting styles in adolescents with Obsessive Compulsive Disorder (OCD) and the relationship between parenting styles, parental personality and severity of OCD.

Methods: Using a cross-sectional design, 103 adolescents diagnosed with OCD (Mean age = 15.66; SD= 1.63 years) and their parents (Mothers n=84, Fathers n=74) were recruited. The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) and the Screen for Childhood and Related Emotional Disorder (SCARED) were administered to assess OCD and comorbid anxiety severity. Both adolescents and parents responded to the Parenting Styles and Dimensions Questionnaire (PSDQ) short version to assess parenting styles from both perspectives. Parents also responded to Eysenck's Personality Inventory (EPI) as a measure of personality.

Results: There was a significant difference between adolescent perceptions and the fathers' self-report on authoritative and authoritarian parenting style. Adolescent rated maternal authoritarian parenting styles was significantly associated with adolescent anxiety. Parents' scores on neuroticism correlated with authoritarian and indulgent parenting styles (adolescent rated and parent-rated) and adolescent self-report of anxiety.

Conclusions: Maternal authoritarian parenting style was associated with anxiety. Parental neuroticism was associated with rigid and indulgent parenting styles. Authoritarian and indulgent

parenting styles play an important role in adolescents diagnosed with OCD and having comorbid anxiety.

Keywords: Obsessive-Compulsive Disorder, adolescents, parenting styles, parent personality, neuroticism

Introduction

Obsessive-compulsive disorder (OCD) is a common mental illness seen in children and adolescents, with a prevalence of 1% to 3% [1]. Indian studies in paediatric OCD indicate a male preponderance. A recent chart review from India on paediatric OCD indicated that about 65% had at least one psychiatric comorbidity, with one third having poor insight [2-3]. OCD in adolescents is associated with significant impairment in functioning, impaired quality of life and conflicts within the family [4].

Paediatric OCD can be particularly challenging for the family, as members may be drawn into the performance of neutralizing behaviours and other symptoms. The family's role in paediatric OCD has been studied with respect to family accommodation, family functioning [5-7]. Further, parenting styles and practices are likely to contribute to the maintenance of symptoms of OCD and family accommodation.

Parenting styles are described as a combination of parental attitudes and behaviours towards their children and an emotional environment in which these behaviours are expressed [8]. One of the most widely researched categorizations of parenting styles is that by Baumrind (1971), into authoritarian, authoritative, uninvolved, permissive/indulgent, based on the constructs of demandingness and responsiveness [9].

Parenting styles are dynamic, influenced by factors such as parental psychopathology and personality and the child's temperament and psychopathology. Cultural differences in terms of

interdependence and independence further impact parenting styles and, in turn, adolescent development [10-13].

A review of parenting practices, including Indian studies, noted that authoritarian parenting styles and overprotection had the most unsatisfactory outcomes. Low levels of control were associated with aggression, conduct disorder, a finding contrary to that of western studies. Overall, parental warmth and affection were associated with better socio-emotional development, academic success and greater flexibility [14].

Research on parenting styles in adolescents diagnosed with anxiety disorders has indicated an association between authoritarian styles, characterized by control, criticality, lower levels of affection (affectionless control) with anxiety severity and a wide range of child psychopathology [15-17].

In an attempt to understand factors impacting parenting styles, several children and parent factors, including parental personality and psychopathology, have been researched. In this context, the role of neuroticism as a robust personality trait and vulnerability factor to emotional disorders has been examined [18,19]. The findings on neuroticism and parenting styles have been inconsistent; some studies suggest a rigid, inflexible style, and others indicate greater warmth and concern. Parental neuroticism and its impact on the child's overall functioning have also been examined [20].

Research on parenting styles and their impact on anxiety and OCD in the Western literature is largely reported in community populations and indicates that parenting styles, including psychological control, is associated with a wide range of anxiety spectrum and depressive symptoms, not limited to OCD [21].

In the Indian setting, the significance of family accommodation is well documented in adults with OCD [22-25]. However, there is a paucity of systematic research examining family variables, particularly parenting styles in paediatric OCD. Parenting styles and practices are likely to

maintain behaviours such as avoidance and neutralizing behaviours, in addition to contributing to anxiety.

In the background of these findings, the aim of the present study was to examine parenting styles in relation to parental neuroticism as a measure of personality and to examine the association between specific parenting styles, parental neuroticism and symptom severity. We hypothesized that specific parenting styles would be associated with parental neuroticism and that these, in turn, would contribute to symptom severity.

Methods

Sample

One hundred and three adolescents between 13-19 years of age and their parents (mothers n= 84; fathers n=74) were recruited from a tertiary mental health centre, using purposive sampling. Inclusion criteria for adolescents were a primary diagnosis of OCD- mixed type; YBOCS score of 16 and above, illness duration of at least six months and living with the parents since illness onset. Adolescents with a diagnosis of schizophrenia, psychosis, mania, intellectual disabilities and/or autism spectrum disorders, and severe depression at the time of assessment were excluded. The inclusion criteria for parents were cohabitation with the adolescent since the onset of illness of the adolescent.

Measures

The Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)-Symptom Checklist and the Yale-Brown Obsessive-Compulsive symptom severity scale were administered for the identification of symptoms and symptom severity [26]. Insight and avoidance were rated using the Yale-Brown Obsessive-Compulsive Scale (Y-BOCS)-Insight [26]. Ratings are done on a 0-4, where 0 indicated excellent insight, 1=good insight, 2=fair insight, 3=poor insight, and 4=total lack of insight and the single item of YBOCS on avoidance.

Anxiety in the adolescents was assessed using the self-report version of *Screen for Childhood Anxiety Related Emotional Disorders (SCARED)* [27]. Parenting styles were measured using the *Parenting Styles and Dimensions Questionnaire - Child version and Parent version (PSDQ)* [28], an abbreviated version of the Parenting Practices Questionnaire (PPQ) [29], with 32 self-report items. PSDQ includes scales of authoritative, authoritarian, and permissive parenting styles based on Baumrind's conceptualization of parenting styles. Items are rated on a 5-point Likert-type scale (1 = Never, 5 = Always). Higher scores indicate more frequent use of the described behaviour. Internal consistency for the three scales is good to excellent [29]. Adolescents rated their perception of parenting styles of each parent (adolescent rating of mothers n=97; adolescent rating of fathers parenting style n=94), and parents provided a self-report (Mother's self-report n=80; Father's self-report n=71). A few items that were not culturally suitable were rephrased with the authors' permission.

Parents were assessed for Axis I and II psychiatric disorders on *Mini-International Neuropsychiatric Interview Plus*, MINI Plus 7.0.2 version [30] and the *Structured Clinical Interview for DSM-IV Axis II personality disorders (SCID-II)* respectively [31].

The Eysenck Personality Inventory is a 57 item self-report measure of two central dimensions of personality, extraversion and neuroticism [32]. The measure yields scores for extraversion and neuroticism and a validity score (Lie Scale). The EPI has demonstrated adequate reliability in the Indian sample [33]. In the present study, the EPI was administered to the parents.

Procedure

The study was reviewed and approved by the Institute Ethics Committee. Potential participants were contacted for eligibility and consent to participate. Adolescents diagnosed with OCD and parents (Mothers n=84, fathers n=74) were recruited from the outpatient and/or inpatient mental health services of a tertiary mental health centre in Southern India. Participants above the age of 18 years provided informed consent. For adolescents below 18 years, assent from the adolescent

and informed consent from parents was obtained. Both parents were contacted for participation in the study. Adolescents and parents were assessed individually on each of the study measures. All assessments were carried over approximately 2-3 sessions, followed by a session on education to the family regarding OCD and family accommodation.

Data analysis

Data was analyzed using IBM SPSS (Version 22.0) for Windows. Adolescent rating on parenting style was compared with parents' self-report using paired t-test. As paired t-test takes only the data that are available for both mothers and fathers and adolescent ratings for both parents, the numbers reported in the table vary where data is not available for analysis. The relationships between parenting styles, parental neuroticism and symptom severity (OCD and anxiety) and clinical variables such as age at onset, duration of illness was examined using Pearson's correlation coefficients. Stepwise multiple regression analyses were conducted to examine predictors of severity of OCD and anxiety.

Results

Demographic characteristics of the adolescent sample

The sample consisted of 103 adolescents (Mean age =15.66 years; SD=1.63) with an average of about ten years of education. A majority comprised of males (65%), from nuclear families (75.7%), urban background (72.8%), of Hindu religion (88.3%) and middle socioeconomic status (41.7%) (Table-1).

Table-1: Demographic and clinical characteristics of the adolescent sample (n=103)

Variable	Mean (SD)/ Frequency (%)	Range in years
Age (in years)	15.66 (1.63)	13.00-19.00
Gender (%)		
Male	67 (65.0)	
Female	36 (35.0)	
Education (in years)	10.09	6.00-14.00
Family type – Nuclear	78 (75.7)	
Domicile- Urban	75 (72.8)	
Psychiatric comorbidity	73 (70.9)	
Variable	Mean (SD)	Range
Age at onset (in years)	12.27 (2.95)	4.00-18.00
Duration of illness (in years)	3.41 (2.84)	0.50-13.00
YBOCS (total)	24.36 (4.68)	16.00-36.00
Insight	51(49.5)	
Avoidance	39(37.9)	
SCARED (total)	35.33 (14.57)	4.00-67.00
Panic & Somatic Symptoms*	9.14 (5.89)	0-23.00
Generalized Anxiety Disorder*	9.96 (4.54)	0-18.00
Separation Anxiety Disorder*	6.30 (3.61)	0-15.00
Social Anxiety Disorder*	7.13 (3.89)	0-15.00
School Refusal*	2.79 (2.10)	0-8.00

*On SCARED

Characteristics of the parent sample

Parents (mothers n=84 and fathers n=74) were in their 40's, with more than half the mothers being homemakers (58%), with most having graduate-level education. More than half of mothers in the sample (66.7%) and nearly half the sample of fathers (48.6%) had an Axis I disorder. Approximately half the fathers' sample (50%) met the criteria for Axis II disorder, and less than half the mothers (32.1%) met the criteria for an Axis II personality disorder (Table-2).

Of the total sample of parents recruited, data on EPI was available for 77 mothers and 65 fathers from the total recruited. Overall scores on EPI indicate a moderate level of neuroticism, with a tendency for social desirability. On the paired t-test (parent dyads), there was no significant

difference between parents on the Extraversion and Lie Scale (Social Desirability Scale) on the EPI. Mothers scored higher on neuroticism than fathers. (Table-2).

Table-2: Demographic and Clinical Characteristics of the Parent Sample

	Mothers (n=84)	Fathers (n=74)		
Variable	Mean (SD)			
Age in years	43.26 (5.59)	48.59 (5.31)		
	Range:31- 62	Range: 40-63		
	Frequency (%)			
Education Graduate/ Diploma	41 (39.8)	38 (36.9)		
Occupation Private Employee	23 (22.3)	34 (33.0)		
Relationship status of parents				
Married	77 (74.8%)	71 (68.9%)		
Separated	3 (2.9%)	1 (1.0%)		
Divorced	3 (2.9%)	2 (1.9%)		
Widowed	1 (1.0%)	-----		
Parental Psychopathology				
Axis I (Present)	56 (66.7)	36 (48.6)		
Axis II (Present)	27 (32.1)	36 (50.0)		
EPI Subscales	Mean (SD)		t value	P value
	Mother (n=50*)	Father (n=50*)		
Extraversion	11.58 (4.38)	10.96 (3.89)	-0.72	0.46
Neuroticism	11.22 (5.35)	8.80 (5.29)	-2.26	0.02
Lie Score	4.36 (1.94)	4.32 (1.64)	-0.12	0.9

*Paired t-test takes only the data that are available for both mothers and fathers, hence numbers reported in the table varies where data is not available for analysis. Parent dyads were considered for analysis- i.e. mothers and fathers from one family

Comparisons between adolescent ratings with parent self-report of parenting styles

There was no significant difference between the self-report of parents with respect to their parenting styles, indicating that both parents reported adopting similar styles of parenting. Adolescents rated their mothers as being more authoritative, connected, better at regulating emotions and granting autonomy, as compared to their fathers (t=2.03, p=0.04).

There was a significant difference between adolescents' rating of paternal parenting style and paternal self-report of parenting style. Adolescents rated fathers as using an authoritarian

parenting style ($t=3.28$, $p=0.002$), while fathers rated their parenting style as more (Table 3) authoritative as compared to adolescents' perception ($t=-2.36$, $p=0.02$). There was no significant difference in the adolescents' rating and maternal self-report on the dimensions of authoritative, authoritarian and indulgent parenting style (Table-3). Gender differences in adolescents' perception of parenting styles and parent self-report of parenting styles amongst boys and girls were not statistically significant.

Table-3: Comparison between the adolescents' perception of parenting style vs parents' self-report on PSDQ

	Adolescent Rating (n=76)	Parent Self-Report (n=76)	t value	P value
Mother's parenting style	Mean (SD)			
Authoritative PS	3.43 (0.73)	3.55 (0.68)	-1.25	0.21
Authoritarian PS	2.27 (0.78)	2.12 (0.59)	1.52	0.13
Indulgent PS	2.66 (0.81)	2.72 (0.71)	-0.55	0.58
	Adolescent Rating (n=66*)	Parent Self-Report (n=66*)	t value	P value
Father's parenting style	Mean (SD)			
Authoritative PS	3.31 (0.79)	3.56 (0.74)	-2.36	0.02
Authoritarian PS	2.42 (0.84)	2.11 (0.61)	3.28	0.002
Indulgent PS	2.74 (0.78)	2.72(0.65)	0.18	0.85

PS= Parenting Style; *Paired t-test takes only the data that are available for the adolescent of both parents, hence numbers reported in table varies where data is not available for analysis

Correlations between parenting styles, OCD severity and anxiety

Adolescent rating of mothers' parenting style on dimensions of physical coercion ($r=0.28$; $p=0.005$), verbal hostility ($r=0.37$; $p<0.001$) and connection dimension ($r= -0.25$; $p=0.01$) were significantly correlated with scores on SCARED. Adolescent rated authoritarian parenting style of the mother correlated significantly with scores on SCARED ($r=0.34$; $p=0.001$). Adolescent

rated mothers' parenting style did not significantly correlate with Y-BOCS scores. Adolescent rated fathers' parenting style did not correlate with SCARED and Y-BOCS scores.

Table-4: Correlations between Adolescent PSDQ with Y-BOCS and SCARED scores

Variable	Y-BOCS	SCARED
ARM Connection Dimension	-0.17	-0.25*
ARM Regulation Dimension	-0.13	0.07
ARM Autonomy Granting Dimension	0.00	-0.09
ARM Authoritative PS Dimension	-0.14	-0.17
ARM Physical Coercion Dimension	-0.02	0.28**
ARM Verbal Hostility Dimension	-0.04	0.37**
ARM Non-Reasoning Punitive Dimension	0.08	0.15
ARM Authoritarian PS Dimension	0.01	0.34**
ARM Indulgent PS Dimension	0.02	0.09
Variable (Adolescent Rating of Father)	Y-BOCS	SCARED
ARF Connection Dimension	0.03	-0.02
ARF Regulation Dimension	-0.17	-0.08
ARF Autonomy Granting	0.05	-0.09
ARF Authoritative PS	-0.04	-0.09
ARF Physical Coercion Dimension	0.08	0.11
ARF Verbal Hostility Dimension	0.03	0.15
ARF Non-Reasoning Punitive Dimension	0.09	0.05
ARF Authoritarian PS	0.12	0.15
ARF Indulgent PS	-0.05	0.14

**Correlation is significant at the 0.01 level (2-tailed) * Correlation is significant at the 0.05 level (2-tailed) YBOCS=Yale-Brown Obsessive-Compulsive Scale; SCARED=Screen for Childhood Anxiety Related Emotional Disorder; ARM=Adolescent Rating of Mother; ARF=Adolescent Rating of Father, PS= Parenting Style

Correlation between parental neuroticism, parenting styles, YBOCS and SCARED scores

Maternal neuroticism was positively associated with an authoritarian parenting style as rated by both adolescents ($r=0.30$; $p=0.008$) and mothers' self-report ($r=0.56$; $p<0.001$) of an indulgent parenting style ($r=0.25$; $p=0.03$).

Paternal neuroticism was positively associated with the adolescent rating of an indulgent parenting style ($r=0.28$; $p=0.02$) and authoritarian parenting style as reported by the father ($r=0.27$; $p=0.02$). Maternal neuroticism was positively associated with adolescent anxiety on

SCARED ($r=0.25$, $p=0.02$). There were no significant correlations between parental neuroticism and OCD severity.

To determine the predictors of severity of OCD and anxiety, a multiple linear regression analysis was carried out. Predictor variables entered were PSDQ (adolescent and parent scores), age of onset, duration of illness and maternal neuroticism. Mothers' authoritative parenting style emerged as a potential predictor of OCD symptom severity, contributing to 31 % of the total variance ($\beta=0.505$; $R^2=0.311$; $p=0.056$; Table-5).

Table-5: Predictors of OCD severity

Variables	Standardized coefficients	Unstandardized coefficients		t values	P values	R square
	β values	β	SE			
ARM Authoritative Parenting Style	0.507	-3.183	1.606	-1.982	0.056	0.311

β =Regression coefficient, Adolescent rating of Mother (ARM), Mother Self-Report (MSR)

Maternal neuroticism ($\beta= 0.45$; $p=0.02$), adolescent-rated authoritative parenting style ($\beta=-0.59$; $p=0.01$) and maternal self-report of authoritative parenting style ($\beta=-.032$; $p=0.03$) of the mother, together emerged as significant predictors of SCARED scores and contributed to 58% of the variance ($R^2=0.576$; Table-6).

Table-6: Predictors of SCARED scores

Variables	Standardized coefficients	Unstandardized coefficients		t values	P values	R square
	β values	β	SE			
Maternal Neuroticism	0.45	1.33	0.55	2.41	0.02	0.576
ARM Authoritative Parenting style	-0.59	13.08	-5.09	-2.56	0.01	
MSR Authoritative Parenting Style	-0.32	8.03	-0.32	2.15	0.03	

β =Regression coefficient, Adolescent rating of Mother (ARM), Mother Self-Report (MSR)

Discussion

We examined the associations between parenting styles, parental neuroticism and symptom severity in a sample of adolescents diagnosed with OCD and their parents. We also compared the parental self-report with each adolescent's perceptions of their parenting styles.

The clinical characteristics and presentation were consistent with that of previous studies in the same setting [2].

Parents rated their parenting styles as being authoritative, connected, granting autonomy and indulgent. However, adolescents perceived differences in parenting styles and rated mothers as being more authoritative and fathers as being more authoritarian, controlling and punitive. Discrepancies were noted between adolescents' perceptions of parenting with respect to the father but not the mother. These findings indicate the complexities in the perception of parenting behaviours. The literature on the significance of parent gender on parenting indicates that mothers of adolescents use an authoritative style of parenting, while fathers in the same household were likely to use an authoritarian and/or indulgent style [34,35]. Differences in parenting based on parent gender are also seen in the context of traditional roles performed by the parents within the family.

In the present sample, there were no significant gender differences in adolescent perceptions of parenting or differential parenting across genders; that is, parenting styles adopted for boys and girls did not differ. Although no significant gender differences in perceived parenting styles emerged in the present study, there is some support for differential parenting across genders, based on gender schema theories, with parents using more control and harshness with boys than with girls [36]. Further research with larger samples is required to examine this more robustly.

Adolescents perceived mothers as being more authoritative than fathers. The adolescent-rated connection dimension (mother) on the PSDQ was associated with increased anxiety in adolescents. An authoritative parenting style, comprising of connection, regulation and autonomy

granting dimensions, is characterised by warmth/nurturance as well as behavioural control. Thus, it is likely that while mothers were perceived as being flexible in the limit setting with reasonable guidelines, they also demonstrated a high degree of control, emphasising obedience [9]. This is likely to have contributed to the association between the connection dimension and anxiety severity.

Gender differences in child-rearing patterns and paternal role expectancies are also to be considered with regard to these findings. Fathers have been found to be high in protection and discipline, while mothers' involvement is noted across domains [37]. While there were differences in means of male and female adolescents with respect to parenting styles in the present study, it was not statistically significant. This finding needs further examination in future research, given the gender differences in parenting in the Indian context [35].

Adolescents' perception of verbal hostility and physical coercion by their mothers was associated with higher SCARED scores. Verbal hostility and physical coercion are part of punitive measures of discipline, characteristic of an authoritarian parenting style. The association between an authoritarian parenting style and greater anxiety levels in the offspring is consistent with the literature [15,38]. There were no significant relationships between parenting styles and OCD severity. Studies in non-clinical samples suggest that parenting styles may not be specific to OCD; rather, they may be associated with greater anxiety [21]. Adolescents in our study had significant comorbid anxiety, and our findings indicate that a combination of authoritative and authoritarian parenting styles was associated with higher anxiety. This highlights the significant impact of parenting styles on comorbid anxiety in paediatric OCD and the need for specific intervention in this area.

Research has consistently associated authoritative parenting styles with positive emotional and behavioural outcomes in children, and as compared to families with neurotypical children,

families of anxious children were found to be more controlling and less encouraging of individuality [39,40].

Our study findings are in keeping with literature on parenting styles and their association with adolescent anxiety, but not adolescent OCD.

Parents' personality was assessed by using a measure of neuroticism. The findings of this study indicate that mothers with a higher level of neuroticism were likely to be more controlling and less warm (authoritarian), at the same time, were also more likely to be permissive with low demands and high responsiveness towards their adolescents. This suggests a mixed parenting style. An excessively high level of neuroticism is likely to result in rigid, inflexible behaviours, in addition to being a vulnerability to the development of psychological disorders. This is further supported by the finding that more than half the mothers in this sample met the criteria for a mood disorder, primarily depression.

Permissive parents are described as being responsive to children's emotional needs but are not particularly firm on structure and limits [9]. It is likely that mothers who adopt a permissive parenting style are likely to experience difficulty in setting limits. In this context, it may result in mothers yielding to or accommodating to OC symptoms and accepting avoidance. On the other hand, the authoritarian parenting style is characterized by a high demand for control, reduced warmth, affection and responsiveness to the child's emotional needs and is limited in flexibility. The possibility of a protective role played by a combination of parenting style needs to be examined further, especially in the Indian context.

Neuroticism is a stable, heritable personality factor that has been robustly associated with anxiety and depressive disorders [19]. The role of neuroticism and its association with a mixed style of parenting (authoritarian and permissive or indulgent style) is a significant finding of this study. In non-clinical samples, neuroticism is associated with lower levels of warmth, responsiveness and greater control, intrusiveness and criticism [41-43]. Bornstein et al. suggest that neuroticism

might also result in greater investment in parenting by mothers who may feel incompetent about their abilities [44]. Our findings reiterate the significance of neuroticism as a heritable trait with respect to anxiety.

Empirical research on mixed styles of parenting by the same parent has yielded inconclusive results [44]. While overall studies suggest that inconsistencies may have a negative impact on socio-emotional behaviour and personality development, a few researchers suggest that some combination of parenting styles may be adaptive [45-47].

Results from the regression analysis underscore the importance of maternal parenting style for both OCD severity and anxiety. A parenting style of being connected, highly responsive, yet exercising behavioural control was associated with OCD severity, as well as anxiety. Our findings also indicate a complex relationship between parenting styles and psychopathology in the adolescent, which needs further examination.

Some of the significant limitations of the present study are the absence of a control sample of typically developing adolescents, not including a measure of adolescent temperament, which can interact dynamically with parenting styles. Inferences regarding the contributions of parental personality and parenting styles to paediatric OCD cannot be drawn due the absence of a control group. The study was cross-sectional and, therefore, did not capture changes in parenting styles with the age of the adolescents. A large clinical sample, the inclusion of both parents and use of both adolescent perceptions and parent self-report of parenting styles, along with a robust measure of neuroticism, are some of the strengths of the present study.

Our study contributes to the growing evidence that parenting styles play a role with respect to psychopathology in children and adolescents and the significance of parental neuroticism. To our knowledge, this is one of the few systematic studies in the paediatric clinical population in the Indian setting examining parenting styles and parental personality. Cultural differences in parenting styles and their impact on adolescent emotional well-being must also be considered.

To conclude, parental neuroticism is associated with authoritarian and indulgent parenting styles. Maternal authoritarian parenting was significantly associated with self-reported anxiety in the adolescent, and authoritative maternal style was a significant predictor of OCD symptom severity. Our findings underscore the importance of comorbid anxiety in paediatric OCD and inclusion parents in the treatment of paediatric OCD, alongside other evidence-based psychotherapeutic interventions. This is likely to contribute to better treatment outcomes and prevent relapse. In non-clinical populations, knowledge of parenting styles and parental personality would help in creating strategies for preventive and promotive parenting interventions.

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References

1. Walitza S, Melfsen S, Jans T, Zellmann H, Wewetzer C, Warnke A. Obsessive-compulsive disorder in children and adolescents. *Dtsch Arztebl Int* 2011,108:173-9.
2. Deepthi K, Kommu JV, Smitha M, Reddy YJ. Clinical profile and outcome in a large sample of children and adolescents with obsessive-compulsive disorder: A chart review from a tertiary care center in India. *Indian J Psychiatry* 2018, 60:205-12.
3. Jaisoorya TS, Reddy YJ, Thennarasu K, Beena KV, Beena M, Jose DC. An epidemiological study of obsessive-compulsive disorder in adolescents from India. *Compr Psychiatry* 2015, 1; 61:106-14.
4. Coluccia A, Ferretti F, Fagiolini A, Pozza A. Quality of life in children and adolescents with obsessive-compulsive disorder: a systematic review and meta-analysis. *Neuropsychiatr Dis Treat* 2017, 13:597-608.

5. Lebowitz ER, Panza KE, Su J, Bloch MH. Family accommodation in obsessive–compulsive disorder. *Expert Rev Neurother* 2012, 1; 12:229-38.
6. Waters TL, Barrett PM. The role of the family in childhood obsessive–compulsive disorder. *Clin Child Fam Psychol Rev* 2001, 3:173-84.
7. Murphy YE, Flessner CA. Family functioning in paediatric obsessive compulsive and related disorders. *Br J Clin Psychol* 2015, 54:414-34.
8. Darling N, Steinberg L. Parenting style as context: An integrative model. *Psychol Bull* 1993, 113:487-96.
9. Baumrind D. Current patterns of parental authority. *Dev Psychol* 1971, 4:1:333-45.
10. Bornstein MH. Cultural Approaches to Parenting. *Parent Sci Pract* 2012, 1;12:212-21.
11. Albert I, Trommsdorff G, Mishra R. Parenting and adolescent attachment in India and Germany. In *Perspectives and progress in contemporary cross-cultural psychology* Edited by Zheng G, Leung K, Adair JG. USA: International Association for Cross-cultural Psychology, Inc; 2008. 97–108.
12. Lansford JE, Godwin J, Al-Hassan SM, Bacchini D, Bornstein MH, Chang L, et al. Longitudinal associations between parenting and youth adjustment in twelve cultural groups: Cultural normativeness of parenting as a moderator. *Dev Psychol* 2018, 54:362-77.
13. Alonso P, Menchón JM, Mataix-Cols D, Pifarré J, Urretavizcaya M, Crespo JM, et al. Perceived parental rearing style in obsessive–compulsive disorder: relation to symptom dimensions. *Psychiatry Res.* 2004, 15; 127:267-78.
14. Sahithya BR, Manohari SM, Vijaya R. Parenting styles and its impact on children—a cross cultural review with a focus on India. *Ment Health Relig Cult* 2019, 21; 22:357-83.
15. Rapee RM. Potential role of child-rearing practices in the development of anxiety and depression. *Clin Psychol Rev* 1997, 1; 17:47-67.
16. Barber BK. Parental psychological control: Revisiting a neglected construct. *Child Dev* 1996, 67:3296-319.
17. Cui L, Morris AS, Criss MM, Houlberg BJ, Silk JS. Parental psychological control and adolescent adjustment: The role of adolescent emotion regulation. *Parent Sci Pract* 2014, 1;14:47-67.
18. Metsapelto R, Pulkkinen L. Personality traits and parenting: neuroticism, extraversion, and openness to experience as discriminative factors *Eur J Pers* 2003, 17: 59–78.

19. Ormel J, Jeronimus BF, Kotov R, Riese H, Bos EH, Hankin B, et al. Neuroticism and common mental disorders: meaning and utility of a complex relationship. *Clin Psychol Rev* 2013, 33:686-97.
20. Ellenbogen MA, Hodgins S. The impact of high neuroticism in parents on children's psychosocial functioning in a population at high risk for major affective disorder: A family–environmental pathway of intergenerational risk. *Dev Psychopathol* 2004, 16:113-36.
21. Aycicegi A, Harris CL, Dinn WM. Parenting style and obsessive-compulsive symptoms and personality traits in a student sample. *Clin Psychol Psychother* 2002, 9:406-17.
22. Cherian AV, Pandian D, Math SB, Kandavel T, Reddy YJ. Family accommodation of obsessional symptoms and naturalistic outcome of obsessive–compulsive disorder. *Psychiatry Res* 2014, 28; 215:372-8.
23. Baruah U, Pandian RD, Narayanaswamy JC, Math SB, Kandavel T, Reddy YJ. A randomised controlled study of brief family-based intervention in obsessive compulsive disorder. *J Affect Disord* 2018, 1; 225:137-46.
24. Shrinivasa B, Cherian AV, Arumugham SS, Philip BV, Pandian DR, Math SB, Reddy YJ. Predictors of Family Accommodation in Obsessive Compulsive Disorder. *Asian J Psychiatr* 2020,30:102189.
25. Mahapatra A, Kuppili PP, Gupta R, Deep R, Khandelwal SK. Prevalence and predictors of family accommodation in obsessive–compulsive disorder in an Indian setting. *Indian J Psychiatry* 2020, 62:43-50.
26. Goodman WK, Price LH, Rasmussen SA, Mazure C, Fleischmann RL, Hill CL, et al. The Yale-Brown obsessive compulsive scale: I. Development, use, and reliability. *Arch Gen Psychiatry* 1989, 1; 46:1006-11.
27. Birmaher B, Khetarpal S, Brent D, Cully M, Balach L, Kaufman J, Neer SM. The screen for child anxiety related emotional disorders (SCARED): Scale construction and psychometric characteristics. *J Am Acad Child Adolesc Psychiatry* 1997, 1; 36:545-53.
28. Robinson CC, Mandleco B, Olsen SF, Hart CH, Perlmutter BF, Touliatos J, et al. Handbook of family measurement techniques. Vol. 3: instruments and Index. The Parenting Styles and Dimensions Questionnaire (PSDQ). Thousand Oaks, CA: Sage. 2001:319-21.
29. Robinson CC, Mandleco B, Olsen SF, Hart CH. Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychol Rep* 1995, 77: 819–30.

30. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, et al. The Mini-International Neuropsychiatric Interview (MINI): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry* 1998, 59; Suppl 20:22-33; quiz 34-57.
31. First MB, Gibbon M, Spitzer RL, Williams JBW, Benjamin LS. Structured Clinical interview for DSM-IV Axis II personality disorders, (SCID-II). Washington DC: American Psychiatric Press, Inc. 1997.
32. Eysenck HJ, Eysenck SB. *Manual of the Eysenck Personality Inventory*: By HJ Eysenck and Sybil BG Eysenck. University of London Press; 1964.
33. Thakur GP, Thakur M. Some Indian data on reliability estimates of Forms A and B of the EPI. *J Pers Assess* 1973, 1; 37:372-4.
34. Milevsky A, Schlechter MJ, Klem L, Kehl R. Constellations of maternal and paternal parenting styles in adolescence: Congruity and adjustment. *Marriage Fam Rev* 2008, 44: 81–98.
35. Biswas S, Sharma. P. To study the gender-wise difference in parenting styles of mother and father. *Sch J Psychol Behav Sci* 2019, 2:236-48.
36. Endendijk JJ, Groeneveld MG, Bakermans-Kranenburg MJ, Mesman J. Gender-differentiated parenting revisited: meta-analysis reveals very few differences in parental control of boys and girls. *PLOS ONE* 2016, 11: e0159193.
37. Finley GE, Mira SD, Schwartz SJ. Perceived paternal and maternal involvement: Factor structures, mean differences, and parental roles. *Fathering* 2008, 6; 62–82.
38. Ballash N, Leyfer O, Buckley AF, Woodruff-Borden J. Parental control in the etiology of anxiety. *Clin Child Fam Psychol Rev* 2006, 1; 9:113-33.
39. Lennertz L, Grabe HJ, Ruhrmann S, Rampacher F, Vogeley A, Schulze-Rauschenbach S, et al. Perceived parental rearing in subjects with obsessive–compulsive disorder and their siblings. *Acta Psychiatr Scand* 2010, 121:280-8.
40. Krohne HW, Hock M. Relationships between restrictive mother-child interactions and anxiety of the child. *Anxiety Res.* 1991, 1; 4:109-24.
41. Siqueland L, Kendall PC, Steinberg L. Anxiety in children: Perceived family environments and observed family interaction. *J Clin Child Psychol* 1996, 1; 25:225-37.
42. Bogels SM, van Melick M. The relationship between child-report, parent self-report, and partner report of perceived parental rearing behaviors and anxiety in children and parents. *Personal Individ Differ* 2004, 37:1583–96.

43. Kashdan TB, Jacob RG, Pelham WE, Lang AR, Hoza B, Blumenthal JD, Gnagy EM. Depression and anxiety in parents of children with ADHD and varying levels of oppositional defiant behaviors: Modeling relationships with family functioning. *J Clin Child Adolesc Psychol* 2004, 33:169–181.
 44. Bornstein MH, Hahn CS, Haynes OM. Maternal personality, parenting cognitions, and parenting practices. *Dev Psychol* 2011, 47:658-75.
 45. García-Linares MC, De la Torre MJ, Carpio MV, Cerezo MT, Casanova P. Consistency/inconsistency in paternal and maternal parenting styles and daily stress in adolescence. *Revista de Psicodidáctica* 2014, 19:307-25.
 46. Karmakar R. The impact of perception of consistency and inconsistency in parenting style on pro-social motives of adolescents. *Social Psychology & Society* 2017, 1: 8:101-15.
 47. Gardner FE. Inconsistent parenting: Is there evidence for a link with children's conduct problems? *J Abnorm Child Psychol* 1989, 1;17:223-33.
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