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Research paper

Narcissistic traits as predictors of emotional problems in children with oppositional defiant disorder: A longitudinal study

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ABSTRACT

Background: Children's self-views encompass two independent dimensions: self-esteem and narcissism, which recently have received growing attention from researchers and clinicians. The current study sought to test whether these dimensions might predict the developmental course of children with Oppositional Defiant Disorder diagnosis.

Method: The sample (N = 64, M age = 10.1 years, 57 boys) included children with Oppositional Defiant Disorder diagnosis. We examined longitudinal relationships between self-views (both self-esteem and narcissism) and parent-reported internalizing and externalizing behavioral problems.

Results: The study spanned two time-points, spaced 12 months apart. None of the predictors were longitudinally associated with the levels of externalizing behavioral problems in children. However, narcissism predicted the levels of children's internalizing problems at the follow-up, whereas self-esteem did not.

Limitations: The relatively small sample and the lack of assessing causality limit the generalizability of the findings. Results need to be replicated in larger samples.

Conclusions: These findings illustrate the value of taking into account children's narcissistic traits in clinical assessment. By broadening knowledge of narcissistic traits in clinical samples of children, we hope to inform assessment procedures in standard clinical practice, as well as the development of tailored interventions to curb the emergence of later negative outcomes related to childhood narcissism, such as internalizing problems.

1. Introduction

Oppositional Defiant Disorder (ODD) is one of the most prevalent childhood psychiatric disorders, with prevalence estimates ranging from about 3% - 16% in community samples, and from 28% - 65% in clinical samples (Boylan et al., 2007). ODD is characterized by persistent angry and irritable mood (e.g., the child easily loses temper), argumentative and defiant behavior (e.g., the child refuses to comply with requests), or vindictiveness (American Psychiatric Association (APA), 2013). ODD contributes to poor psychosocial functioning during childhood, with echoes across the life course (Burke et al., 2014; Rowe et al., 2005).

Although research on how childhood ODD may predict the developmental course of psychopathology has focused mainly on externalizing behavior problems, some work has tested predictive associations between ODD and internalizing problems, too. One longitudinal study found, in an at risk sample of 510 children aged 2–5, that children with ODD were more likely to continue to exhibit disorder, and to develop comorbid internalizing (as well as externalizing) disorders, including anxiety and mood disorders, years later (Lavigne et al., 2001). Similarly, findings from the Great Smoky Mountains Study showed, in a community sample of children aged 9–16, that ODD was a significant risk factor for the emergence of later anxiety disorders and depression (Copeland et al., 2009), along with later conduct problems (Rowe et al., 2002).

What explains why ODD may foretell not just externalizing outcomes, but—in some children—internalizing outcomes as well? One plausible reason is that common risk factors, such as child characteristics known to be associated with broad and diverse indices of maladjustment, drive the emergence of (potentially comorbid)

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internalizing symptoms, along with externalizing symptoms, over time (Burke, 2012; Leadbeater and Homel, 2015; Mikolajewski et al., 2017). Among many factors, emotional dysregulation may help to explain this frequent association. A severe difficulty in emotion regulation is a pervasive and impairing characteristic of several disorders, including ODD. Children with ODD are frequently irritable, moody, and angry, and studies have widely shown that they exhibit a significant dysregulation of emotions, especially negative ones (e.g., sadness and anger; Tonacci et al., 2019). This is consistent with previous reports in individuals with two of the main internalizing disorders, namely depression and anxiety (Brody et al., 1999; Campbell-Sills et al., 2006; Tull et al., 2009). Moreover, among ODD children, those with higher levels of emotion dysregulation (e.g., severe irritability) are at higher risk of developing internalizing problems (Burke et al., 2010; Evans et al., 2017; Rowe et al., 2010; Stringaris and Goodman, 2009).

As it stands, little is known about whether or how children's self-views predict the developmental course of psychopathology, and especially of externalizing and internalizing symptoms, in children with ODD. Children's self-views encompass two core independent dimensions—i.e., self-esteem and narcissism—which recently have received growing attention from researchers and clinicians alike (e.g., Hiemstra et al., 2019; Muratori et al., 2018; Thomaes and Brummelman, 2016).

Self-esteem refers to one's global feelings of self-worth (Rosenberg, 2015), the extent to which someone likes oneself (Brown and Marshall, 2006). Self-esteem is central to people's well-being, and theoretical models have long associated low self-esteem with the development and expression of psychopathology. One example is the Vulnerability model (Beck, 1967). Briefly, it assumes that people with low levels of self-esteem possess fewer coping skills, and this, in turn, makes them more vulnerable to the effects of negative and stressful events. Instead, the Scar model suggests that low self-esteem might be a consequence of psychopathology. Low self-esteem would be caused by the impairment of psychological resources and interpersonal relationships, usually associated with psychological disorders.

Research on children's level of self-esteem as a correlate or longitudinal predictor of psychopathology has provided some inconsistent findings. For example, although low self-esteem is a common correlate of childhood internalizing disorders, including anxiety (Henning et al., 2007) and depression (Orth et al., 2009), it appears to be only a weak predictor of later internalizing problems (Keane and Loades, 2017). As to externalizing problems (e.g., aggression, conduct problems) research suggests a heterogeneous pattern of association as well (Denissen et al., 2018). While some studies have found that aggressive children tend to have high levels of self-esteem (Menon et al., 2007; Sandstrom and Jordan, 2008), other studies found no consistent link between self-esteem and aggression or externalizing problems (e.g., Hiemstra et al., 2019; Thomaes et al., 2008). Finally, other research in both community (e.g., Donnellan et al., 2005) and clinical samples (Muratori et al., 2018) of children suggests that low levels of self-esteem may increase the risk for aggression.

Narcissism involves an exaggerated need for attention and admiration, along with a sense of entitlement and grandiosity (Morf and Rhodewalt, 2010; Thomaes and Brummelman, 2016). As a dimensional trait, narcissism varies in the general population. Individual differences in narcissism emerge and can be assessed in children from about age 8 (Thomaes and Brummelman, 2016). The Dynamic Self-Regulatory Processing Model (Morf & Rhodewalt, 2001) argues that narcissism is a relentless personality process that revolves around the need to create and maintain a positive self-view. The instability of narcissists' self-view requires them to seek external validation, though, especially in the long term, it is an extremely difficult goal to reach. This may lead to anger, negative feelings, and potentially also aggressive behavior and interpersonal problems.

Some preliminary findings suggest that narcissism may place children at risk for developing internalizing problems. That is, research in community samples of children and young adolescents showed that narcissism predicts heightened internalizing symptoms, including depressive and anxious symptoms and fear of negative evaluation (Thomaes et al., 2008b; Washburn et al., 2004). Moreover, research in children with ODD showed that narcissism was associated with increased emotional symptoms, such as worry and psychosomatic complaints (Muratori et al., 2018). Besides the suggestive evidence that narcissism may predispose children to experience internalizing problems, narcissism has been established as a risk factor for youth aggression and conduct problems as well (Barry et al., 2007). Among clinical samples of children referred for disruptive behavioral problems or ODD, narcissism was found to be positively associated with self-reported aggression (Hiemstra et al., 2019) and parent-reported conduct problems (Muratori et al., 2018), although some inconsistencies across informants remain (Hiemstra et al., 2019).

Notwithstanding this emerging evidence, longitudinal research to examine how the self-views (i.e., self-esteem and narcissism) of children with ODD predict change in internalizing and externalizing problems over time is still lacking. We aimed to help fill this lacuna. Accordingly, we examined the prospective links among narcissism, self-esteem, and both internalizing and externalizing problems in a sample of ODD outpatients (ages 8 – 12), a different sample from the one we used in our previous research. This research may help to better understand heterogeneity in the developmental course of ODD and its associated pathology and may inform the development of more tailored interventions.

2. Method

2.1. Participants

The present study has been conducted in an outpatient hospital unit, working with children and adolescents with aggressive behavioral problems and/or ADHD. We asked all parents of children (age range 8–12 years) who were admitted to the hospital from May to October 2018 and received an ODD diagnosis, if they were interested in taking part in the study. Trained child psychiatrists provided the ODD diagnosis, using the Schedule for Affective Disorders and Schizophrenia for School-Age Children - Present and Lifetime version (K-SADS-PL) (Kaufman et al., 1997). Participants were excluded from participation if (1) they suffered from autism spectrum disorder, (2) their IQ was below 80 (assessed with Wechsler Intelligence Scale for Children Fourth Edition [WISC-IV]; Wechsler et al., 2012), or (3), their parents did not give consent for them to take part in the study.

A sample of $N = 64$ children entered the study at T1 (consent rate = 87%). They were all Caucasian, and most of them (57, 90%) were boys. Parent-reported approximate annual household incomes ranged from < 15,000 to > 40,000 Euros. Most (75%) reported incomes ranged from 20,000 to 30,000 Euros, which is equivalent to an average household income in Italy. Mean IQ was 97.73 ($SD = 8.29$). Some children had comorbid ADHD (15, 24%), or were receiving pharmacological treatment at T1 (25, 38%). Baseline CBCL externalizing scores were 66.48 ($SD = 2.75$) and internalizing scores were 64.04 ($SD = 3.67$). Eight children dropped out of the study at follow-up. The baseline measures provided include the participants who left the study at T2.

We did a post-hoc power analysis (Faul et al., 2007) to determine the stastistical power associated with our sample size, which is 0.98 given an effect size of 0.40.

2.2. Procedure

The study spanned two time-points, spaced 12 months apart. At baseline (T1), children completed the self-view measures—i.e., the *Childhood Narcissism Scale* (CNS) (Thomaes et al., 2008b), and the *Multidimensional Self Concept Scale* (MSCS) (Bracken, 1992). A research

Table 1
Correlations among variables.

	1	2	3	4	5	6	7	8
1. Age	1	.047	-.024	.056	.081	.099	-.100	.110
2. Pharmacotherapy		1	-.110	-.086	.053	-.039	.059	.128
3. CNS_T1			1	-.030	.251*	-.019	.367*	-.195
4. MSCS_T1				1	-.085	-.242	.036	.118
5. CBCLINT_T1					1	.162	.397*	.158
6. CBCLEXT_T1						1	.112	.252*
7. CBCLINT_T2							1	.119
8. CBCLEXT_T2								1
Mean	123.80		9.89	419.62	64.06	66.48	63.82	64.42
SD	5.41		4.47	49.62	3.67	2.76	8.33	7.37

Note. False discovery rate (FDR; Benjamini and Hochberg, 1995) correction of the *p*-values (implemented using the *p*.adjust function in R) was applied across all correlations.

* $p < .05$. CNS_T1 = Child Narcissism at T1; MSCS_T1 = Self-esteem at T1; CBCLINT_T1 = Internalizing Child Behavior Checklist at T1; CBCLEXT_T1 = Externalizing Child Behavior Checklist at T1; CBCLINT_T2 = Internalizing Child Behavior Checklist at T2; CBCLEXT_T2 = Externalizing Child Behavior Checklist at T2.

Age: months; CNS: raw scores (sum of items' scores); MSCS: raw scores (sum of items' scores); CBCLINT_T1/T2: T scores; CBCLEXT_T1/T2: T scores.

assistant introduced the study, emphasized the confidentiality of responses, and encouraged children to ask questions if they had difficulty in understanding any items. Also at T1, parents completed the *Child Behavior Checklist* (CBCL) (Achenbach and Rescorla, 2004). After 12 months (T2), parents completed the CBCL again. All children and parents gave written informed consent at both time points.

2.3. Measures

Child Behavior Checklist (Achenbach and Rescorla, 2004). The CBCL is a 118-item standardized behavioral checklist, completed by parents, to index behavioral problems and competencies in children ages 6 to 18. Items are rated along a 3-point scale ranging from 0 to 2. Items are aggregated in eight subscales, which, in turn, comprise Internalizing (sample items: "There is very little he/she enjoys", "Unhappy, sad, or depressed") or Externalizing (sample items: "Argues a lot", "Gets in many fights") domains. We used the domain T-scores at both time points in the current study. The CBCL domains have been shown to display good diagnostic efficiency for assessing common externalizing and internalizing problems in children (e.g., Hudziak, Copeland, Stanger, & Wadsworth, 2004). In the current sample, the reliability coefficients (Cronbach alpha) of the CBCL internalizing and externalizing domains at both time points ranged from 0.81 to 0.83.

Childhood Narcissism Scale (Thomaes et al., 2008b). The CNS is a 10-item self-report scale, which measures childhood narcissism as a dimensional trait. Items are positively worded, so children do not feel they are rating negative or socially undesirable (sample item: "Kids like me deserve something extra"). Responses are scored using a 4-point scale ranging from 0 (not at all true) to 3 (completely true). The CNS has been shown to be a one-dimensional measure of stable individual differences in childhood narcissism with good internal consistency. For the present study, we used the Italian version of the CNS, recently validated by Muratori et al. (2018), which showed similar psychometric properties as the original version.

Multidimensional Self Concept Scale (Bracken, 1992). The MSCS is a 150-item multidimensional measure of children's self-concept. The scale measures self-concept in six contextual domains: Social (e.g., "I am too shy"), Competence (e.g., "I am too lazy"), Affect (e.g., "I am not a happy person"), Academic (e.g., "I learn fairly easily"), Family (e.g., "My parents care about my future"), and Physical (e.g., "I feel good about how I look"). These domains are strongly related and jointly contribute to a general self-concept factor (i.e., self-concept total score). The MSCS domain scores are highly correlated with the scores of a self-esteem measure in samples of Italian children (Bracken, 1993). The current study used the total score of the MSCS as a measure of self-esteem, which showed good internal consistency (alpha 0.88).

3. Statistical analysis

We conducted a hierarchical regression analysis to examine how children's self-views (i.e., narcissism, self-esteem) predict the levels of the internalizing and externalizing problems of children with ODD. Specifically, we explored two regression models. In the first model, our dependent variable was the variance in T2 CBCL externalizing scores, which cannot be predicted from T1 CBCL externalizing score. In Step 1, we entered gender, age, pharmacotherapy (yes or no), and externalizing CBCL score at T1 as control variables. In Step 2, we entered narcissism and self-esteem at T1 as predictor variables. The second regression model was identical to the first, but we replaced the externalizing CBCL scores at T1 and T2 by its internalizing counterpart scores. All data were analyzed using the Statistical Package for Social Science (SPSS) 25.0 for Windows. The false discovery rate (FDR; Benjamini and Hochberg, 1995) correction of the *p*-values (implemented using the *p*.adjust function in R; R Core Team, 2018) was applied for all statistical analyses.

4. Results

Preliminary analyses. Eight children dropped out of the study at follow-up and they were not included in the analyses. Therefore, statistical analysis has been conducted on a sample of 56 children. Descriptive statistics and zero-order correlations for the main study variables are shown in Table 1. Narcissism, measured at T1, was positively associated with internalizing CBCL scores at both T1 and T2. The CBCL internalizing and externalizing scores were correlated over time.

Table 2 shows the results for the first regression model testing

Table 2
Linear regression analysis with Externalizing CBCL score at T2 as dependent variable (N = 56).

		Beta	Adjusted R2	p
Block 1			.091	
	Age	-.060		NS
	Gender	.078		NS
	Pharmacotherapy	.203		NS
	CBCLEXT_T1	.192		NS
Block 2			.112	
	MSCS_T1	.203		NS
	CNS_T1	-.175		NS

Note. False discovery rate (FDR; Benjamini and Hochberg, 1995) correction of the *p*-values (implemented using the *p*.adjust function in R) was applied for all predictors. CNS_T1 = Child Narcissism at T1; MSCS_T1 = Self-esteem at T1; CBCLEXT_T1 = Externalizing Child Behavior Checklist at T1

Table 3
Linear regression analysis with Internalizing CBCL score at T2 as dependent variable (N = 56)

		Beta	Adjusted R^2	p
Block 1			.110	
	Age	-.149		NS
	Gender	-.014		NS
	Pharmacotherapy	.067		NS
	CBCLINT_T1	.374		.043
Block 2			.183	
	MSCS_T1	-.175		
	CNS_T1	.294		.043

Note. False discovery rate (FDR; Benjamini and Hochberg, 1995) correction of the *p*-values (implemented using the *p*.adjust function in R) was applied for all predictors. CNS_T1 = Child Narcissism at T1; MSCS = Self-esteem at T1; CBCLINT_T1 = Internalizing Child Behavior Checklist at T1

predictive linkages between the self-view measures and externalizing problems. None of the predictors included in Step 1 of the model were associated with the levels of externalizing behavioral problems at T2. More importantly, neither narcissism nor self-esteem, which were entered in Step 2 of the model, were significant predictors of change in externalizing problems over time. The regression model explained around 11% of the variance. Variance inflation (VIF) in this regression was lower than 2.

Table 3 shows the results for the second regression model testing predictive linkages between the self-view measures and internalizing problems. The levels of the CBCL internalizing score at T1 predicted the levels of internalizing problems at T2. More importantly, we found that narcissism predicted the levels of children's internalizing problems at T2, accounting for their internalizing problems at T1. By contrast, self-esteem was not associated with such changes in internalizing problems over time. This regression model explained around 18% of the variance. Variance inflation (VIF) in this regression was lower than 1.

5. Discussion

Oppositional Defiant Disorder is characterized by dysregulation of emotion and behavior, and increased risk of developing further internalizing and externalizing problems over time (Lavigne et al., 2001). Both individual and environmental factors contribute to possible internalizing and externalizing outcomes in ODD children (REFS). Focusing on individual factors, we tested narcissism and self-esteem as possible predictors of internalizing and externalizing problems in a clinical sample of children with ODD.

We found associations between childhood narcissism and internalizing problems measured at baseline and after 12 months. In particular, narcissism (assessed at baseline) predicted children's levels of internalizing problems at the follow-up, after controlling for baseline levels of internalizing problems. This finding builds on and extends previous studies that found a cross-sectional link between childhood narcissism and anxiety and depressive symptoms in youth (Washburn et al., 2004), Moreover, it is consistent with prior work that suggested the presence of significant emotional symptoms in children with an ODD diagnosis and high narcissistic traits (Muratori et al., 2018).

The Dynamic Self-Regulatory Processing Model (Morf & Rhodewalt, 2001) casts narcissism as involving a self-concept that is both grandiose and vulnerable, along with a craving for external validation. Narcissists are relatively insensitive to others' concerns, and typically present themselves as arrogant, entitled, and dismissive. Consequently, they often leave other people feeling hurt, sad, or angry. In the long run, narcissists often fail to get the approval they seek, which leads them to seek further self-validation. Indeed, although children with narcissistic traits can make positive impressions on others in the short term, they often experience at least some level of rejection or criticism from peers over time (though see Poorthuis et al., 2019). While children with ODD often suffer interpersonal problems (REFS), the presence of co-occurring narcissistic traits may further exacerbate these problems. Peer relational problems (e.g., rejection, social isolation) are potent risk factors for internalizing problems (Laursen et al., 2007; Van Lier and Koot, 2010; Sentse et al., 2017). Thus, when the emotional instability and dysregulation that characterizes ODD co-occurs with the interpersonal sensitivity that characterizes narcissism, this may place children at increased risk of internalizing symptoms.

Narcissism (assessed at baseline) did not predict externalizing problems. This latter finding was unexpected, and different from prior cross-sectional studies—both in community and clinical samples of children—showing that narcissism does place children at risk of externalizing problems (Hiemstra et al., 2019; Muratori et al., 2018; Thomaes et al., 2008a). Our finding is not unprecedented, however. In a longitudinal study with adolescents, Wetzel et al. (2019) found that overall narcissism at 14 years of age failed to predict the later emergence of problem behaviors, including symptoms of Conduct Disorder and ODD. We speculate that in our sample of ODD children, other variables (that we did not assess) were more potent predictors of the development of externalizing problems—think of callous-unemotional (CU) traits (lack of guilt and remorse, superficial and shallow emotions, lack of empathy, Frick and White, 2008; Pisano et al., 2017) or contextual factors, such as parenting and parental psychopathology (Muratori et al., 2015; 2016). We emphasize that our sample consisted of severely impaired ODD children referred to a third level psychiatric hospital, who already showed very high levels of externalizing problems at the T1 assessment, leaving relatively little room for further symptomatic increases. Moreover, pharmacotherapy may have modified the longitudinal relationships between children's self-views and their later behavioral problems in a subset of our sample (Masi et al., 2016, 2017).

Finally, our results suggest that self-esteem is not a robust predictor of change in externalizing or internalizing problems in ODD children, a finding that is consistent with prior studies (e.g., Hiemstra et al., 2019; Keane and Loades, 2017). And yet, other work in general population samples of youth has found that low self-esteem is a risk factor for increased psychological symptoms, especially internalizing ones (Sowislo and Orth, 2013). Differences in sampled populations, along with those in study designs may explain some of these inconsistencies, and highlight the need for research to better understand this heterogeneity.

Our findings must be interpreted in light of some study limitations. We used a global measure of narcissistic traits, and did not assess the difference between grandiose and vulnerable narcissism. Initial findings highlighted that this distinction may have significant implications for children's adjustment and psychopathology (see for instance, Derry et al., 2019). We encourage future work to address this topic. Also, we assessed children's externalizing and internalizing psychopathology with parent-report measures (CBCL subscales) only. Multiple-informant assessments would have provided a more comprehensive view. While we focused on children's self-views as potential predictors of psychological problems, our design did not allow for testing possible joint or interactive effects of other candidate predictors—including other child characteristics (e.g., the presence of subclinical mood disorder, other personality or temperamental traits, intelligence) or environmental variables (e.g., parenting, parental psychopathology). Finally, our relatively small sample size did not allow us to test potential interactions between our self-views measures. Previous work has shown that narcissism can have differential effects on externalizing problems at high as compared to low levels of self-esteem (Thomaes and Brummelman, 2016), a possibility that we could not address here.

There is a growing body of literature that illustrates the value of taking youth narcissism into consideration in psychological assessment in clinical contexts. The present work contributes to this literature, and

shows how narcissism may influence the psychological adjustment of ODD children over time. In light of the current evidence, it would be premature to recommend targeting narcissism as treatment strategy for ODD children. Still, our results highlight the need to better understand children's narcissistic traits and how they are implicated in processes of psychological maladjustment.

CRediT authorship contribution statement

Pietro Muratori: Conceptualization, Writing - original draft. **Annarita Milone:** Conceptualization, Writing - original draft. **Valentina Levantini:** Writing - review & editing. **Simone Pisano:** Writing - review & editing. **Valentina Spensieri:** Formal analysis, Methodology. **Elena Valente:** Data curation. **Sander Thomaes:** Supervision, Writing - review & editing. **Gabriele Masi:** Conceptualization, Writing - original draft.

Declaration of Competing Interest

Dr. Masi was on the advisory boards for Eli Lilly, Shire and Angelini. He has received research grants from Eli Lilly and Shire, and has been speaker for Eli Lilly, Shire, Lundbeck, FB and Otsuka. None of the other authors have conflicts of interest to declare.

Ethical standards: The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.jad.2020.05.075.

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