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ORIGINAL CONTRIBUTION

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Narcissism, self-esteem, and conduct problems

Evidence from a British community sample of 7–11 year olds

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Abstract The aim of the current report was to investigate the relationship between narcissism, self-esteem and conduct problems in a British community sample of pre-adolescent and young adolescent children (n = 659; 7–11 year olds). We demonstrated that narcissism is associated with conduct problems, but no evidence for an interaction between low self-esteem and high narcissism in the prediction of conduct problems was found. Whilst low self-esteem was associated with teacher-reported (but not parent-reported) conduct problems at the bivariate level of analyses, multi-variate analyses showed that self-esteem yielded no significant effects, neither independently, nor in interaction with narcissism for either parent- or teacher reported conduct problems. However, self-esteem was predictive of self-reported conduct problems at both the bivariate and multivariate level of analysis, possibly due to shared method variance. The findings suggest an important role for narcissism for conduct problems in children as young as seven years old.

Key words self-esteem – narcissism – conduct problems

Introduction

A great deal of controversy exists in current literature regarding the relationship between narcissism, self-esteem and conduct problems in children. On the one hand, many adult studies have demonstrated a link between *low* self-esteem and antisocial behaviors [13, 35, 42]. Similar links between low self-esteem and conduct problems have been demonstrated in children [2, 35, 39]. Consequently, interventions often focus on enhancing antisocial and aggressive children and adolescents' self-esteem [41].

However, the notion that low self-esteem is associated with antisocial behavior has been challenged by Baumeister and colleagues' [5] threatened egotism theory. Part of their theory suggest that aggressive responses are elicited more readily in individuals with narcissistic traits rather than low self-esteem. According to Baumeister, narcissistic individuals are motivated to maintain their narcissistic (inflated, but false) self-view through a range of interpersonal or intrapersonal mechanisms. Such individuals become especially vulnerable when faced with an ego threat and often respond aggressively when their narcissistic self-view is challenged.

In support of the above, several studies have demonstrated a relationship between high narcissism and indices of antisocial behavior in adults [12, 32] and there is indirect evidence that this may also be the case for adolescents [7, 23].

Because of the importance of self-esteem for both theory and intervention of conduct problems, reconciling these seemingly contradictory findings of

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research is critical [3]. One way of reconciling the above is by arguing that self-esteem and narcissism each make independent contributions to the development of conduct problems in children. Recently, two studies investigated this possibility. First, Barry et al. [3] investigated the relationship of self-reported narcissism and self-esteem with parent-reported conduct problems as an outcome to see whether each made independent contributions to conduct problems. They showed in a sample of 98 non-referred 9–15 year-old children (mean age 11.9) a positive relationship between maladaptive narcissism and conduct problems ($r = 0.32$), and a negative relationship between maladaptive narcissism and self-esteem ($r = -0.23$). In addition, they demonstrated an interaction between high narcissism and low self-esteem in the prediction of conduct problems. Thus, in multivariate analyses, narcissism was found to predict conduct problems only when combined with low self-esteem. On the basis of these results, they suggested the combination of low self-esteem and high narcissism to be a potential risk factor for conduct problems compared to either construct alone.

Washburn and colleagues [45] attempted to replicate this finding in a sample of 233 10–15 year-old children (mean age 12.52). Like Barry et al. [3], they showed that self-reported narcissism (in particular the exploitative factor of the Narcissistic Personality Inventory—NPI; [33]) positively predicted self-reported aggression at the bivariate level of analyses. However, in contrast to Barry et al. [3], they did not demonstrate a relationship between self-esteem and self-reported aggression. In addition, multivariate analyses showed no evidence for an interaction of self-esteem and maladaptive narcissism in predicting conduct problems. Interestingly, they demonstrated an interaction between adaptive (healthy) narcissism and high self-esteem in lowering aggression scores. Participants with higher adaptive narcissism showed a greater decrease in teacher-reported aggression as self-esteem increased than those with lower adaptive narcissism.

Because of the lack of research in this area in children and mixed findings as described above, more research in this area, especially in non-American and younger samples are needed. The current report aims to extend the above findings by investigating the relationships between narcissism, self-esteem, and conduct problems in a British pre-adolescent and young adolescent sample ($n = 659$). Like Barry et al. [3], we aimed to test the hypothesis that high narcissism interacts with low self-esteem in its association with conduct problems. Although both studies discussed above have included children as young as 10 years of age, these studies have typically not included children as young as age seven. There are many reasons to question whether the relationship of high narcissism and low self-esteem to conduct problems would hold for a younger sample. It may be that the defensive role of high narcissism to hide feelings of insecurity about oneself, indicative of low self-esteem [25, 28, 34] may develop only in the adolescent years, or indeed, that high self-esteem as a construct is not fully distinguishable from narcissism in younger children. For instance, an age effect has been observed in biased views of the self, with young children (ages 4–7) typically holding overly positive self-perceptions [11, 22], which may appear narcissistic. At around eight years old, children's self-perceptions start to show congruence between self-perceptions and objective indicators [8, 11, 29].

In addition to the above, our study makes a contribution to the current literature by including self-, parent- and teacher-report measures of conduct problems in children. While Barry et al. [3] relied only on parent-report and Washburn et al. [45] relied only on self-report. By including both, in addition to teacher-report in a single study, we may be able to clarify some of the inconsistencies in the findings discussed above.

Method

Participants

The current study is part of a larger-scale study of the social-cognitive and emotional correlates of antisocial behavior in community children (the Child Behavior Study). Parents of 2,950 seven to 11 year-olds of 16 primary schools in Cambridgeshire, England, were asked to participate. An average of 20% (response rates for individual schools ranged from 14 to 40%) of parents volunteered their children to take part in the study ($n = 659$; 319 boys and 340 girls). Out of 659 included subjects in the sample seven children did not have complete data and were thus removed from the analyses. The sample size was therefore $n = 652$.

Reasons to explain the low response rate are reported elsewhere [38]. Two procedures were employed to determine whether the low response rate introduced a bias into the recruitment procedure. First, the school board on which parents were represented gave permission for teachers of one of the schools to anonymously complete a child behavior measure (the Strengths and Difficulties Questionnaire, SDQ [16–18, 20, 21]) on all the children in the school. Those children whose families volunteered could then be compared with those children whose parents did not volunteer. Independent sample t-tests showed no significant differences ($p > 0.05$) between the volunteers ($n = 61$) and non-volunteers ($n = 232$) on all 5 scales of the SDQ

(Hyperactivity, Emotional Symptoms, Conduct Problems, Peer Problems, Prosocial Behavior).

Second, comparison of sociodemographic characteristics also revealed no evidence of participation bias. The ethnic distribution in the sample was in line with regional statistics [31] for Eastern England (97% White, 2% Asian, 0.2% Black and 0.3% Oriental). To determine socio-economic status, we used a geodemographic tool called 'a classification of regional neighborhoods' (ACORN) which is freely available on the Internet. ACORN categorizes all 1.9 million UK postcodes, which have been described using over 125 demographic statistics within England, Scotland, Wales and Northern Ireland, and 287 lifestyle variables, making it a powerful discriminator for social class. According to ACORN, our sample comprised of 40% wealthy achievers, 9% urban prosperity, 28% comfortably well-off, 9% moderate means and 14% hard pressed. The mean age of the sample was 9 years 5 months (SD = 1 year 2 months). The mean IQ of the sample was 105.64 (SD = 15.56). Eight children with IQs below 80 were excluded, so the final sample size was $n = 640$. However, a 100% response rate on all questionnaire measures were not obtained (see Table 1 for response rates). Due to ethical considerations, subjects were not forced to complete all questionnaires, and they were not required to explain why they opted not to complete any one particular questionnaire.

Measures

Parent- and teacher-reported conduct problems

Parents and teachers completed the Strengths and Difficulties Questionnaire (SDQ; [16, 17, 20]). The SDQ was specifically designed to screen for psychiatric disorders in community samples and was shown to identify individuals with psychiatric diagnosis with a specificity of 94.6% (95% CI 94.1–95.1%) and a sensitivity of 63.3% (59.7–66.9%) [19]. The SDQ consists of five subscales of which four are indicative of psychopathology. These include emotionality, conduct problems, peer problems and hyperactivity. Sensitivity for the SDQ has been demonstrated to be especially good (70–90%) for identification of conduct-oppositional disorders. Internal consistency has been reported (Cronbach's $\alpha = 0.73$; [20, 21]). To index parent and teacher-reported conduct problems in the current study, dimensional scores on the conduct problem subscale of the SDQ were used. High scores reflect high conduct problems and low scores reflect low conduct problems. The Cronbach's alpha for the current sample was 0.63 for parent-reported conduct problems and 0.73 for teacher-reported conduct problems (see Table 1).

We used both parent- and teacher-reported scores as independent outcomes, because ample empirical evidence over the last 20 years testify to the fact that correlations between parents' and teachers' evaluations are significant but low, or low to moderate at best, and that each provides a unique and independent perspective on the child's functioning [43], especially with regard to externalizing behavior [6, 10, 27].

Self-reported conduct problems

Self-reported conduct problems were investigated with 11 self-report questions on current disruptive behaviour derived from the DSM-IV criteria for conduct disorder. The alpha coefficient for this measure was shown to be 0.75 [24]. Like with all psychopathology measures, the higher score implied more conduct problems in children. The Cronbach's alpha for the current sample was 0.82 for self-reported conduct problems (see Table 1).

Narcissism

The Antisocial Process Screening Device (APSD; [15]) formerly known as the psychopathy screening device

Table 1 Descriptive statistics of main variables under investigation

	n	*M*	SD	Min	Max	No. of items	Internal consistencies				
							Full sample ($n = 659$)	Ages 7–8 ($n = 83$)	Ages 8–9 ($n = 153$)	Ages 9–10 ($n = 170$)	Ages 10–11 ($n = 253$)
Narcissism	522	2.36	2.06	0	13	7	0.67	0.62	0.71	0.65	0.68
Self-esteem	640	19.42	5.05	1	30	10	0.77	0.73	0.69	0.75	0.83
Parent CP	569	2.63	1.24	0	9	5	0.63	0.56	0.58	0.67	0.65
Teacher CP	611	0.90	1.55	0	9	5	0.73	0.76	0.69	0.70	0.76
Self CP	640	1.42	2.42	0	18	11	0.82	0.83	0.76	0.79	0.85
IQ	640	105.64	15.56	80	152						
Age	651	9.6	1.22	7	11						

CP conduct problems

(PSD; [14]) was completed by parents. The narcissism subscale of this measure was used in the current report to index narcissism. The narcissism items of the APSD are rated as 0 (not at all true), 1 (sometimes true) or 2 (definitely true). The face validity of these traits closely resemble the items of the maladaptive narcissism items in the Narcissistic Personality Inventory (NPI; [33]). For example, the item "brags excessively" seems to reflect the "exhibitionism" factor of the NPI, "uses or cons others" reflects the "exploitativeness" factor, and "thinks he/she is better than others" reflects the "superiority" factor of the NPI. Some would argue that narcissism cannot be accurately assessed by parents. However, recent research on college students shows reasonable alignment between parent- and self-report ratings on narcissism [30]. Moreover, unlike self-esteem, many narcissistic traits are observable, especially in children. Six out of the seven items of the APSD narcissism subscale tap into observable behaviors: "emotions seem shallow", "brags excessively", "uses or cons others", "teases others", "can be charming, but seems insincere", "and "becomes angry when corrected" in contrast to one unobservable item: "thinks he/she is more important than others" [15]. We also believe that by having different rating sources for self-esteem and narcissism, we may overcome potential bias of a shared methodology on the self-report of self variables of self-esteem and narcissism.

Dimensional scores on the narcissism measure were used for analyses, where high scores reflected high narcissism, and low scores reflected low narcissism. A Cronbach's alpha of 0.67 in the current sample as a whole was found. In Table 1 we report the internal consistencies by age for this measure.

Self-esteem

Self-esteem was measured using the 10-item self-report Rosenberg self-esteem scale [35]. It is a widely used self-esteem scale in studies with child and adolescent samples. Items are rated on a 4-point Likert scale, ranging from *strongly agree* to *strongly disagree*. In the current study, the measure was used as a continuous measure with high scores reflecting high self-esteem and low scores indicating low self-esteem.

Rosenberg [35] reported a 92% coefficient of reproducibility and a 72% coefficient of scalability for this scale. Adequate internal consistency has also been reported (Cronbach's α = 0.72–0.87; [47]). The scale has also been found to have convergent and discriminant validity [47]. Despite these reports of adequate psychometrics, a debate continues as to the appropriateness of the use of the Rosenberg self-report scale in children as young as seven years of age. Given such concerns, we calculated Cronbach's alphas for each age group in addition to the sample as a whole (see Table 1). As evident in Table 1, comparable internal consistencies for all age groups in comparison to previously reported findings for older age groups were demonstrated.

IQ

A shortened version (Vocabulary and Block Design) of the Wechsler Intelligence Scale for Children [46] was individually administered to children. This shortened method has been validated to be an adequate measure of IQ [37]. Sattler's [37] guidelines were used to score the measure.

Procedures

The first step in recruitment and consent procedures involved contacting head teachers in the Cambridge area. For those head teachers who consented, information packets and consent forms were delivered to be passed on to children and parents. Our research team did not have access to names and contact details of parents or children prior to consent. Postal informed consent was obtained from all parents and child assent was obtained in person prior to data collection. Children and parents were told that the study was about understanding behavior problems in children, and the factors that may influence behavior problems in children. Since the Child Behavior Study focused mostly on the social-cognitive and affective processing correlates of antisocial behavior, children were told that the study was about understanding behavior problems and how thinking and feeling affected behavior. Approval was also sought and obtained from the local Ethics Board prior to data collection.

Teachers were consulted as to the level of understanding for the 7 year-olds (youngest cohort), and it was decided that questions would be read aloud to this group for the self-report measures. Care was taken not to influence children's answers in any way. Children in higher grades were invited to ask for help if needed. However, none of the children in the high grades did so. Questionnaires were administered individually and in private with children in an empty classroom. IQ tests were administered at the same time.

Parent report was obtained through mail. Teacher report was obtained during the period of assessment in a particular school.

Data analyses

Prior to data analyses, participants who had IQ scores under 80 were excluded. We first examined correlations among parent-reported narcissism,

self-reported self-esteem, parent-, teacher-, and self-reported conduct and IQ and age. We also investigated sex differences on all variables. Next, we ran a multiple regression analysis with narcissism and self-esteem as predictors of the three indices of conduct problems. Centered means for all continuous predictor variables were used in the regression analyses [1].

We used a mix of parametric and non-parametric statistics because in general, regression models are robust to moderate violations of the normality assumption. For the variables in this model, we felt that the continuous variables had distributions that were sufficiently close to normal so that no transformation or other type of analysis needed to be done. As noted by Kleinbaum and Kupper [26]:

…if the normality assumption is not badly violated, the conclusions reached by a regression analysis assuming normality will generally be reliable and accurate. Consequently, we recommend that considerable leeway be given before deciding that the normality assumption is so badly violated as to require alternative inference-making procedures (p. 44).

Results

Descriptive statistics and spearman correlations

Descriptive statistics for the main study variables are provided in Table 1. Variability in the measures to detect potential associations is clearly demonstrated.

In Table 2, Spearman correlations among the main study variables and between these variables and demographic characteristics are reported. Focusing on the main study variables, as shown in Table 2, significant positive relationships were found between narcissism and parent-reported conduct problems ($r = 0.33$; $P < 0.01$), teacher-reported conduct problems ($r = 0.27$; $P < 0.01$), and self-reported conduct problems ($r = 0.15$; $P < 0.01$). There was a significant negative correlation between age and narcissism ($r = -0.10$; $P < 0.05$). A significant negative relationship was found between self-esteem and teacher-reported conduct problems ($r = -0.11$; $P < 0.01$), as well as self-reported conduct problems ($r = -23$; $P < 0.01$), suggesting that low scores of self-esteem were associated with high conduct scores.

Traditional predictor variables (demographic characteristics) showed correlations with the main study variables as expected. A significant positive correlation was found between self-esteem scores and IQ ($r = 0.15$; $P < 0.01$), indicating that children with higher IQs were more likely to have higher self-esteem. As anticipated, we found a significant negative correlation between IQ and parent-reported conduct problems ($r = -0.18$; $P < 0.01$), teacher-reported conduct problems ($r = -0.17$; $P < 0.01$) and self-reported conduct problems ($r = -0.11$; $P < 0.01$).

Sex differences for the main study variables were investigated through non-parametric t tests. Boys were reported by teachers to have significantly more conduct problems than girls ($z = -3.99$; $P < 0.01$). Boys also self-reported more conduct problems than girls ($z = -4.43$; $P < 0.01$). The same significant sex difference was reported for narcissism scores ($z = -3.36$; $P < 0.01$).

Interaction between narcissism and self-esteem in the prediction of conduct problems

Next, we used multivariate analyses to investigate the potential interaction between narcissism and self-esteem to predict conduct problems through the use of linear regression. Predictor variables included traditional characteristics usually associated with conduct problems (IQ, age and sex), narcissism, and self-esteem, which were entered into a simultaneous regression equation first with teacher-reported conduct problems as outcome (Table 3), followed by parent-reported conduct problems (Table 4) and then self-reported conduct problems (Table 5) as outcome.

As can be seen from Table 3 (Regression 1), there were significant main effects for sex ($B = -0.52$; $P < 0.01$), IQ ($B = -0.01$; $P < 0.01$) and narcissism ($B = 0.16$; $P < 0.01$). Given the relationship between

Table 2 Spearman correlations among main variables

	N	Age	IQ	Parent CP	Teacher CP	Self CP	Narcissism	Self-esteem
Age	651	–	−0.02	−0.05	−0.03	0.02	−0.10*	−0.01
IQ	644		–	−0.18**	−0.17**	−0.11**	−0.05	0.15**
Parent CP	569			–	0.27**	0.07	0.33**	−0.07
Teacher CP	611				–	0.21**	0.27**	−0.11**
Self CP	649					–	0.15**	−0.23**
Narcissism	522						–	−0.08
Self-esteem	640							–

Parent CP Parent reported conduct problems, *Teacher CP* Teacher reported conduct problems, *Self CP* Self-reported conduct problems
*$P < 0.05$; **$P < 0.01$

Table 3 Results of multiple regression analyses with narcissism and self-esteem as predictors of teacher-reported conduct problems

	Regression 1 (main effects only)		Regression 2 (main effects plus interaction)	
	B	SE *B*	*B*	SE *B*
Age	−0.002	0.004	−0.002	0.004
Sex	−0.523*	0.125	−0.523*	0.125
IQ	−0.011*	0.004	−0.016*	0.004
Narcissism	0.156*	0.031	0.169*	0.014
Self-esteem	−0.011	0.013	−0.014	0.019
Narc × self-esteem			−0.001	0.006
R^2 for model	0.135		0.135	

*$P < 0.01$

Table 4 Results of multiple regression analyses with narcissism and self-esteem as predictors of parent-reported conduct problems

	Regression 1 (main effects only)		Regression 2 (main effects plus interaction)	
	B	SE *B*	*B*	SE *B*
Age	−0.001	0.003	−0.001	0.003
Sex	−0.016	0.097	−0.017	0.097
IQ	−0.013**	0.003	−0.013**	0.003
Narcissism	0.234**	0.024	0.283**	0.050
Self-esteem	−0.005	0.01	−0.017	0.015
Narc × self-esteem			−0.005	0.005
R^2 for model	0.216		0.218	

**$P < 0.01$

Table 5 Results of multiple regression analyses with narcissism and self-esteem as predictors of self-reported conduct problems

	Regression 1 (main effects only)		Regression 2 (main effects plus interaction)	
	B	SE *B*	*B*	SE *B*
Age	−0.002	0.007	−0.002	0.007
Sex	−0.625*	0.187	−0.626*	0.187
IQ	−0.020*	0.006	−0.020*	0.006
Narcissism	0.060	0.045	0.106	0.094
Self-esteem	−0.121*	0.019	−0.132*	0.028
Narc × self-esteem			−0.005	0.008
R^2 for model	0.129		0.129	

*$P < 0.01$

self-esteem and teacher-reported conduct problems (Table 2), and the non-significant *P*-value for self-esteem in the regression analysis (Table 3; main effects model) we hypothesized that the relationship between narcissism and conduct problems may be moderated by self-esteem - that is, the effect of narcissism on conduct depends on the level of self-esteem. To this end, we carried out a second regression analysis (Regression 2). Whilst sex ($B = -0.52$; $P < 0.01$), IQ ($B = -0.01$; $P < 0.01$) and narcissism ($B = 0.17$; $P < 0.01$) remained independent predictors of conduct problems, the interaction variable was not significant, suggesting that the relationship between narcissism and conduct problems is not moderated by self-esteem.

Results of the regression analysis with parent-reported conduct problems as outcome (Table 4) partly mirrored the above with main effects for IQ ($B = -0.01$; $P < 0.01$) and narcissism ($B = 0.23$; $P < 0.01$) in Regression 1, and a non-significant *P*-value for self-esteem. When the interaction term (narcissism × self esteem) was added (Regression 2), IQ ($B = -0.01$; $P < 0.01$) and narcissism ($B = 0.28$; $P < 0.01$) remained significant while the interaction variable was not significant.

Table 5 summarizes the results of two regression analyses without and with the interaction variable and self-reported conduct problems as outcome. This time, the main effects model (Regression 1) showed significance for IQ ($B = -0.02$; $P < 0.01$), sex ($B = -0.62$; $P < 0.01$) and self-esteem ($B = 0.12$; $P < 0.01$), and a non-significant p-value for narcissism. When the interaction term was added to the regression analysis (Regression 2), IQ ($B = -0.02$; $P < 0.01$), sex ($B = -0.62$; $P < 0.01$) and self-esteem ($B = 0.13$; $P < 0.01$) remained significant. Again, the interaction variable was non-significant.

Discussion

The aim of the current report was to investigate the relationships between narcissism, self-esteem and conduct problems in a British sample of pre-adolescent and young adolescent children. In line with Barry et al.'s [3] and Washburn et al.'s [45] findings, we demonstrated that narcissism is associated with conduct problems. We extend their findings by demonstrating this to be the case also in 7–11 year old children. Our findings support Washburn et al.'s findings, but divert from Barry et al.'s findings, in that we demonstrated no evidence for an interaction between low self-esteem and high maladaptive narcissism as measured by the APSD in the prediction of conduct problems. Whilst low self-esteem was associated with teacher-reported (but not parent-reported) conduct problems at the bivariate level of analyses, multi-variate analyses showed that self-esteem yielded no significant effects, neither independently, nor in interaction with narcissism for either parent- or teacher-reported conduct problems. However, self-esteem was predictive of self-reported conduct problems at both the bivariate and multi-

variate level of analysis, but not in interaction with narcissism.

It is possible to explain the positive finding for a relationship between self-esteem and self-reported conduct problems by shared method variance. If we accept this explanation, our results suggest that low self-esteem is not an important correlate of conduct problems in 7–11 year old children. Such a finding fits well with Baumeister and colleagues' view on the relationship between self-esteem and aggression. For the most comprehensive review, see Baumeister et al. [4] where they review literature disputing the notion that low self-esteem causes the development of antisocial behavior in children and adults. The authors suggest that this notion is the result of clinical impressions rather than empirical evidence. On the basis of their own [9] and others' findings [40] they conclude that simple measures of self-esteem have generally failed to predict objective antisocial behavior. Instead, high narcissism leads to antisocial behavior, especially when an ego threat during social interaction is involved.

Our own results and those reviewed by Baumeister et al. [4] stand in stark contrast to many studies which report a relationship between low self-esteem and aggression in children. Although many of these studies are plagued with methodological difficulties [4], most notably the problem of shared method variance and a lack of longitudinal designs, a recent well-conducted study in this area cannot be ignored. Trzesniewski et al. [44] used prospective data from the Dunedin Multidisciplinary Health and Development Study birth cohort to investigate the long-term effects of low self-esteem on delinquency and conduct problems. Compared to adolescents with high self-esteem at baseline, adolescents with low self-esteem showed poorer mental and physical health, worse economic prospects, and higher levels of criminal behavior during adulthood. Adolescents with low self-esteem grew up to have more criminal convictions during adulthood than adolescents with high self-esteem and were 1.48 times more likely to be convicted of a violent crime and 1.32 times more likely to be convicted of any crime during adulthood. These findings held, controlling for the increased risk of gender, SES, and adolescent depression.

Given the longitudinal design, the large sample size and the multimethod measurement of externalizing behavior, we have to assume that there must be a positive link between low self-esteem and conduct problems, despite Baumeister et al.'s [4] critique and our negative findings. One possibility is that this link is not yet established in 7–11 year old children. Alternatively, as suggested by Baumeister et al. it may be that self-esteem simply intensifies both prosocial and antisocial tendencies. As Baumeister et al. (p. 25; [4]) puts it: "Quite possibly, the actual effect of high self-esteem per se is to support initiative and confident action, for good or ill". As such, low self-esteem and narcissism may both be associated with aggression under different circumstances.

Despite its large sample size and noteworthy findings, there are several limitations to the current study which may have also impacted our findings. First, our narcissism measure relied on parent-report. One may argue that parents provide a poor report of children's narcissistic traits, compared to self-report. On the other hand, given the younger age of our sample, parents may provide a more accurate representation of children's personality traits than children themselves, especially where observable traits of narcissism, as tapped by the APSD, are concerned. In addition, internal consistency measures across different age ranges in the current sample were promising, and recent research on college students shows reasonable alignment between parent and self-report ratings on narcissism [30].

Second, our sample was not a high-risk sample (only 9 and 14% of families participating in the study could be described as being of moderate means and hard pressed respectively). However, our sample is representative of the wider Eastern English population. Third, one of the main target variables of the study (narcissism) had a lower response rate (n = 524) compared with other study variables. Finally, there are also concerns about the use of self-report measures in children as young as 7–11 year olds for self-esteem. However, internal consistency measures were found to be comparable across age ranges.

Notwithstanding the above limitations, the current findings suggest an important role for narcissism for the presence or absence of conduct problems in children as young as seven years old. Like Baumeister and colleagues' study [5], our findings highlight the 'dark side of high self esteem' as Baumeister imaginatively described it. As clinicians, we so often attempt to bolster youngsters' self-esteem without considering the 'dark side' of high self-esteem. An acknowledgement of the dark side of high self-esteem would imply that clinicians pay attention to the complex mechanisms of children's sense of self at an early age to prevent the development of a narcissistic defense, which in time, may lay the groundwork for maladaptive personality patterns, most notably psychopathy [36], or narcissistic personality disorder in adolescence and adulthood. By empirically describing the causal pathways by which severe conduct problems are established in childhood, we are better able to design more individualized interventions for youths with emerging personality disorder.

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