

Ringleader Bullying: Association with Psychopathic Narcissism and Theory of Mind Among Child Psychiatric Inpatients

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Abstract This study examined the association of ringleader bullying with psychopathic traits and theory of mind among 100 youth aged 10–15 (62 boys and 38 girls) receiving inpatient psychiatric services at a state facility. Results of hierarchical multiple regression analyses indicated a positive association between ringleader bullying and psychopathic narcissism, and a significant interaction effect between narcissism and theory of mind. More specifically, narcissism moderated the relationship between theory of mind and ringleader bullying such that theory of mind was positively associated with ringleader bullying when levels of narcissism were high, and theory of mind was negatively associated with ringleader bullying when levels of narcissism were low. The discussion of these results focuses on the importance of developing effective treatment techniques for youth whose bullying behavior is associated with narcissistic features and social acuity.

Keywords Narcissism · Theory of mind · Bullying · Psychopathy · Child psychiatry

Introduction

Bullying among children and adolescents has garnered significant attention in the United States during recent years, an emphasis that mirrors the substantial efforts that

have been underway in Europe for approximately the last three decades [1, 2]. By the close of the 1990's, national bully intervention programs had been implemented in Norway, Finland, England, Ireland and the Netherlands [2], interventions that primarily involved disseminating anti-bullying rules and curricula as well as encouraging changes in the general social milieu of schools. Whilst these policies have enjoyed some success [3], there appears to be a “hard-core” group of bullies who are highly resistant to such general interventions [4]. Therefore, increasing our understanding of the psychological profiles of bullies is a necessary precondition to developing new treatments that more closely target the specific needs of these individuals. This process will involve creating an accurate typology of bullying behavior and differentiating the specific patterns of aggression associated with each subtype. In particular, the social nature of most bullying interactions [5–9] suggests the need to examine the characteristics associated with so-called “ringleader bullying.” It is logical to make ringleader bullies the target of intervention efforts because—by definition—they are the ones that are initiating, organizing, and orchestrating bullying activities [7].

What then are the processes underlying ringleader bullying? Sutton et al. [9] noted that ringleader bullies must engage in a variety of behaviors that require social acuity, including building alliances, winning the loyalty of followers, and engaging in interpersonal manipulation. Consistent with this supposition, research has established that ringleader bullies indeed evidence superior performance on tasks that assess the ability to understand the motivations and intentions of others [9], commonly termed theory of mind (TOM). However, the presence of social intelligence in isolation is not sufficient to explain predatory bullying, and therefore other explanatory concepts are needed to clarify why some children with advanced social acuity

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would choose to utilize these skills for the purpose of dominating and humiliating others. One possible explanation in this regard is the presence of psychopathic narcissism, a variable that has been associated with proactive aggression and general bullying behavior in recent studies [10, 11].

Psychopathy is a multidimensional construct composed of interrelated subdimensions that demonstrate distinct associations with relevant behavioral [10] and cognitive [12] variables. For example, the widely used *Antisocial Screening Device* (APSD) [13] yields three dimensions—impulsivity, callous-unemotional (CU) traits, and narcissism—each of which play an independent role in the emergence and expression of antisocial behavior. For example, impulsivity increases emotional reactivity and reduces the tendency to carefully plan and organize behavior [13], CU traits are associated a lack of remorse for misbehavior and poor interpersonal attachments [14], and narcissism is linked with interpersonal entitlement, hostile reactions to criticism, and a desire to establish dominance over others [10, 11, 15–20]. The desire to gain power and prestige over others suggests a particularly strong link between narcissism and bullying, an impetus that is consistent with the two most common self-reported motivations for bullying: to “look cool” and to “feel powerful” [21].

In the United States, research suggests that youth who engage in high levels of bullying, will be disproportionately represented in inpatient settings. For example, children receiving inpatient psychiatric care are typically as aggressive as children detained in forensic setting [22] and the reduction of dangerousness is now the primary focus of inpatient treatment in a majority of the psychiatric institutions nationwide [23]. Highly aggressive children are placed in psychiatric institutions in the United States because the state-based systems of mental health and education are under intense, ongoing pressure to cut expenses to the minimum and, consequently, in many local areas community-based interventions for antisocial youth are inadequate or unavailable [24] leaving public psychiatric hospitalization as the most common emergency treatment option [25]. Therefore, whereas childhood psychopathy research has heretofore primarily focused on examining the personality features of adolescent offenders [26–28], the time is right to expand this focal point and begin investigating the relation between psychopathic traits and aggression among youth receiving public psychiatric inpatient services.

In summary, the aim of the present study was to investigate the individual personality characteristics associated with ringleader bullying. More specifically, we hypothesized that both psychopathic narcissism and theory of mind skills would be positively associated with ringleader bullying. Building upon these initial hypotheses, we

further proposed that narcissism would moderate the association between theory of mind and ringleader bullying, such that the highest rates of bullying would occur among youth high in both narcissism and social acuity. This hypothesis was based upon the premise that the highest rates of ringleader bullying should occur among individuals who have both the predisposition to intentionally victimize others (i.e., narcissism) as well as the social acumen necessary to successfully organize and lead a group of like-minded peers (i.e., theory of mind skills).

Method

Participants

This study included 100 youth aged 10–15 (62 boys and 38 girls) recruited from the child and adolescent wards of a state inpatient psychiatric facility. Both wards are located at a university-affiliated psychiatric hospital situated in a rural area of the southeastern United States. The child and adolescent wards of this facility specialize in the treatment of acutely ill, treatment-refractory youth and a prior study indicated that approximately 75 % of the patients receiving services had been denied admittance to neighboring facilities due to aggressive, violent behavior [29]. All youth in the facility are admitted after a psychiatric examination indicates that one or more of the three criteria for involuntary commitment (i.e., danger to self, danger to others, or grave disability) has been met.

The participating sample was recruited from a larger population of 147 consecutive admissions. To account for the possibility that participants' behavioral problems might show a spontaneous remission at the time of hospital admission only to reappear after acclimation to the hospital milieu (the so-called “inpatient honeymoon”), participants were enrolled in the study only after they had been hospitalized at least 21 days (24 excluded). We considered this a conservative policy given that inpatient honeymoons typically last for approximately 7 days [30]. Youth also were excluded from the study if they exhibited symptoms of psychosis (3 excluded), had been diagnosed with a pervasive developmental disorder (2 excluded), had a documented brain injury (3 excluded), or scored below 75 on a measure of verbal intelligence (8 excluded). Additionally, 2 were excluded because their parent(s) or legal guardian(s) (hereafter referred to as parents) declined consent, 2 were excluded because they declined to participate, and 3 were excluded because we were unable to contact their parents despite repeated attempts. The logic of excluding psychotic, developmentally atypical, mentally handicapped, and brain injured youth is that these handicapping conditions are often associated with grave

functional impairments (e.g., delusions, socially inappropriate behaviors, functional language deficits) that can increase aggression for reasons that are unrelated to the variables of interest in this study. Permission of legal guardians and assent of participating youth were obtained prior to patient's involvement in the study and the protocol was approved by the IRBs of John Umstead State Psychiatric Hospital and the University of North Carolina at Chapel Hill.

Demographic and Diagnostic Information

Demographic information and descriptive statistics for the main study variables are presented in Table 1. The majority of the participants were European American (66 %) with African Americans comprising the next largest racial/ethnic group (29 %). Because only a small number of ethnic minority participants fell outside the African-American category, all non-Caucasian participants were categorized as "racial/ethnic minority." DSM-IV diagnoses [31] were assigned to participating youth by their attending psychiatrist in consultation with the hospital treatment team, which included nurses, teachers, recreation therapists, psychologists, and social workers, parent(s)/legal guardian(s), and representatives from the patient's community mental health team, if applicable. Sixty-seven percent of the sample received a diagnosis of Conduct Disorder or Oppositional Defiant Disorder. Other common Axis I disorders included Attention Deficit Hyperactivity Disorder (54 %), unipolar mood disorders (41 %), and posttraumatic disorders (39 %). As an index of comorbidity, we calculated the mean number of diagnoses children had received. Children generally carried more than two diagnoses (for boys, $M = 2.68$, $SD = 1.04$, $Range = 1-4$; for girls, $M = 2.61$, $SD = 1.07$, $Range = 1-4$). Reflecting the common practice in the United States of placing an emphasis on comorbidity when diagnosing psychiatric patients [32], "primary" (i.e., superseding) diagnoses were not assigned.

Measures

Antisocial Process Screening Device

Each child's psychiatrist rated the presence of psychopathic traits on the 20-item APSD [13]. Individual items on the APSD are scored on a three-point scale with 0 indicating *not at all true*, 1 indicating *sometimes true*, and 2 indicating *definitely true*. Factor analyses of the APSD have indicated a three-factor model that includes a five-item impulsivity subscale, a six-item callous-unemotional subscale, and a seven-item narcissism subscale [33]. In the present sample, the internal consistencies were 0.71 for

Table 1 Descriptive statistics for demographic and main study variables

Variable	Mean	SD	Range
Age	12.37	1.75	10.10–15.90
Impulsivity	6.12	2.06	1.00–10.00
Callous-unemotional traits	5.46	2.00	1.00–10.00
Narcissism	5.81	3.18	0.00–13.00
Theory of mind	7.31	3.17	1.00–12.00
Ringleader bullying	6.20	5.61	0.00–20.00
			Percentage
Race/ethnicity			
European American			66
African American			29
Hispanic			3
Multiracial			2
Diagnosis (DSM-IV-TR)			
Conduct disorder, oppositional defiant disorder			67

impulsivity, 0.69 for CU, and 0.79 for narcissism. The gathering of APSD scores occurred specifically for this study and were not associated with admission or discharge decisions for any child.

Advanced Test of Theory of Mind

Eleven social stories were utilized to determine the ability of participants to make mental state attributions. Nine of these social stories were derived from the *Advanced Test of Theory of Mind* (ATTM) [34] while two were derived from a similar measure developed by Sutton and colleagues [9]. These two instruments were primarily chosen because both the ATTM [35] and the Sutton measure [9] have been successful in differentiating between groups of cognitively normal individuals—a rarity among theory of mind measures. Moreover, both measures require the respondent to explain the motivations that underlie various deceptive and surreptitious behaviors, a format that is well-suited to a study examining ringleader bullying. Ten of the eleven social stories generated scores of 0 or 1, while one story had two parts and generated scores of 0, 1, or 2. Therefore, possible summary scores for the instrument vary from 0 to 12.

The next step in developing the theory of mind measure was to create a standardized system for querying and scoring the answers offered by participants. The development of formal scoring criteria was deemed necessary because the social stories utilized in both the ATTM and the Sutton measure lack explicit scoring guidelines (both instruments are scored by informal consensus). Therefore, we devised scoring criteria that defined which answers were deemed correct (one point), incorrect (zero points), or required

further querying before a score could be assigned. For example, the first and most basic story on the instrument involves a girl, Tiffany, who breaks a lamp but attempts to blame her dog for the damage. A participant response such as, “She is blaming it on the dog to get out of trouble” would be scored as correct because this answer provides a logical rationale for Tiffany’s behavior based upon her mental state and underlying motivation. On the other hand, a response such as, “Maybe the dog really did do it” is scored as incorrect because this answer does not suggest any recognition that Tiffany is dissimulating. Finally, an answer such as, “She’s fibbing” would be further queried because this response, while not clearly incorrect, is ambiguous as to whether the participant understands Tiffany’s motivation for attempting to scapegoat the dog.

Each of the 11 TOM stories was read aloud to the participants. After each story was read, comprehension questions were asked to determine whether or not the participants had grasped the gist of each stories’ narrative. Narratives were repeated one time only for youth who were unable to correctly answer a comprehension question. After the comprehension questions were completed, participants were asked the actual TOM questions (i.e., the respondents were asked to describe the specific intentions and beliefs that motivated a characters behavior). Two raters independently scored each protocol and disagreements were resolved by discussion. In the rare cases in which a scoring consensus could not be reached, the protocol was given to a third rater who “broke the tie.” Levels of agreement for the eleven social stories were high, ranging from 0.88 to 1.0, and the interrater reliability for the instrument as a whole was 0.96. The internal consistency of the measure was $\alpha = 0.82$.

Ringleader Bullying

Each child’s teacher in the all-day school on each inpatient ward reported the frequency of ringleader bullying via the ten item *Ringleader Bullying* scale of the *Participant Roles in the Bullying Process* [7]. Teachers in this facility spend all day long with their students (including lunch and recess) and the children are never allowed to be out of visual contact; consequently, teacher ratings were based upon approximately 7 h of daily observation time. Items on the *Ringleader Bullying* scale are scored on a scale of 0–2, with 0 indicating *never*, 1 indicating *sometimes*, and 2 indicating *often*. Therefore, possible summary scores for the scale vary from 0 to 20. The internal consistency of this scale was 0.95.

Results

Means and standard deviations for youths’ scores on impulsivity, callous-unemotional traits, and narcissism are

reported in Table 1. These scores were quite high when compared to the normative ratings reported in the APSD manual, on which a score of 5.00 roughly corresponds to the 75th percentile for all three dimensions in the developer’s original non-referred sample [13].

A multivariate analysis of variance (MANOVA) indicated that there were no significant main effects on the study variables for gender (Wilks’ $\lambda = 0.97$), race/ethnicity (Wilks’ $\lambda = 0.81$), or the presence of a Conduct Disorder or Oppositional Defiant Disorder (Wilks’ $\lambda = 0.93$).

Intercorrelations among all three dimensions of psychopathy were positive and significant (see Table 2) consistent with previous research. Both narcissism and CU traits were positively and significantly correlated with ringleader bullying; however, Fisher’s *r*-to-*z* transformation indicated that the association between narcissism and ringleader bullying was significantly stronger than the respective association between CU traits and ringleader bullying. Theory of mind was not significantly correlated with any of the other major variables utilized in this study.

To determine whether psychopathic traits moderated the association between theory of mind and ringleader bullying, a series of moderated multiple regressions [36] were conducted that included the cross product of theory of mind and each dimension of psychopathy (impulsivity, CU traits, and narcissism). Only the cross product of narcissism and theory of mind was significant; therefore, in the interest of streamlining the analysis and presentation of data, the results of the moderated multiple regressions conducted for impulsivity and CU traits are not reported. For the regression procedure reported below we entered gender, race/ethnicity, and age as covariates in the first step of the analysis.

As hypothesized, over and above any influence associated with the covariates, narcissism had a positive and significant association with ringleader bullying. Results showed no significant association between the other two dimensions of psychopathy and bullying. These results diverged from the correlational analyses that showed a significant bivariate association between CU traits and ringleader bullying, indicating that CU traits are not

Table 2 Intercorrelations among main study variables

	1	2	3	4	5
Impulsivity	–	0.39**	0.59**	–0.03	0.29**
Callous-unemotional traits		–	0.41**	0.19	0.20*
Narcissism			–	0.00	0.43**
Theory of mind				–	–0.02
Ringleader bullying					–

* $p < .05$; ** $p < .01$

Table 3 Summary of hierarchical regression analysis for ringleader bullying

Variable	B	SE B	β	ΔR^2
Step 1				
Age	0.02	0.02	0.13	0.05
Gender ^a	-1.68	1.37	-0.13	
Race/ethnicity	-0.84	0.51	-0.17	
Step 2				
Impulsivity	0.07	0.36	0.02	0.17**
CU traits	0.00	0.33	-0.01	
Narcissism	0.79	0.24	0.41**	
Theory of mind	-0.12	0.21	-0.06	
Step 3				
Theory of mind \times narcissism	-0.12	0.06	-0.51*	0.04*

* $p < .05$; ** $p < .01$

^a 1 = male, 2 = female

associated with bullying in its “pure” form (i.e., after any shared variance with narcissism is removed from the equation). Contrary to our hypothesis, TOM in isolation was not associated with ringleader bullying, however, the hypothesis that narcissism would moderate the association between TOM and bullying was supported (Table 3).

To assist in the interpretation of this interaction effect, following Akin and West [37], Table 4 shows the ringleader bullying scores that are associated with the different narcissism/theory of mind score combinations. For all three scales (i.e., narcissism, theory of mind, and ringleader bullying) scores were categorized as *high*, *medium*, and *low*. *High* scores were defined as exceeding the sample mean by one standard deviation or more, scores within one standard deviation of the sample mean were categorized as *medium*, and scores that fell below the sample mean by one standard deviation or greater were categorized as *low*. For narcissism, 19 participants were categorized in the high range (scores of 9 or greater), 62 were categorized in the medium range (i.e., scores between 3 and 8), and 19 were categorized in the low range (i.e., scores of 2 or less). For

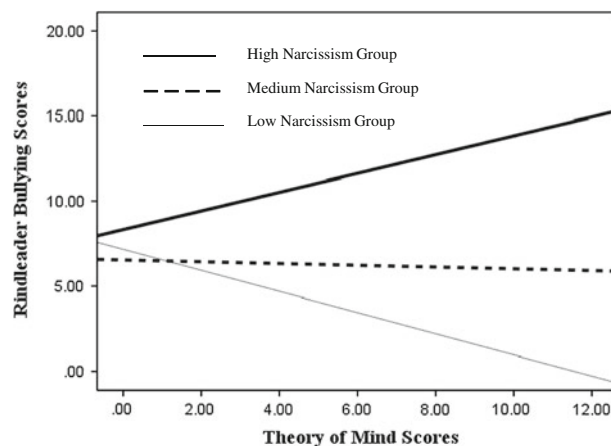


Fig. 1 Narcissism as a moderator of theory of mind and bullying

theory of mind, 24 participants were categorized in the high range (scores of 11 or greater), 60 were categorized in the medium range (i.e., scores between 5 and 10), and 16 were categorized in the low range (i.e., scores of 4 or less). For ringleader bullying, 19 participants were categorized in the high range (scores of 12 or greater), 54 were categorized in the medium range (i.e., scores between 2 and 11), and 27 were categorized in the low range (i.e., scores of 1 or less).

Figure 1 provides a visual depiction of the information presented in Table 4 [37]. As can be seen, the direction of these effects supported the hypothesis that the most highly elevated rates of ringleader bullying would be seen among youth who were both high in narcissism and possessed strong theory of mind skills, TOM, $B (SE) = 0.92(0.42)$, $\beta = 0.50$, $p = .04$.

Among participants evidencing moderate levels of narcissism, moderate levels of ringleader bullying were exhibited regardless of the relative strength of TOM, $B (SE) = -0.08(0.19)$, $\beta = -0.04$, $p = .67$. Finally, participants with low levels of narcissism and high levels of TOM evidenced the lowest levels of ringleader bullying in the sample, TOM, $B (SE) = -0.83(0.38)$, $\beta = -0.61$, $p = .04$.

Table 4 Frequency distributions: narcissism, theory of mind, ringleader bullying

Category	Category frequency	Distribution of RB scores within category
Low narcissism/low TOM	5	Low = 0; medium = 5; high = 0
Low narcissism/medium TOM	9	Low = 6; medium = 3; high = 0
Low narcissism/high TOM	5	Low = 4; medium = 0; high = 1
Medium narcissism/low TOM	14	Low = 2; medium = 9; high = 3
Medium narcissism/medium TOM	32	Low = 10; medium = 16; high = 6
Medium narcissism/high TOM	16	Low = 5; medium = 9; high = 2
High narcissism/low TOM	7	Low = 1; medium = 5; high = 1
High narcissism/medium TOM	8	Low = 1; medium = 7; high = 0
High narcissism/high TOM	4	Low = 0; medium = 1; high = 3

TOM theory of mind

Discussion

Our results contribute to a small body of literature that indicates a positive association between psychopathic traits and aggressive behavior among children receiving inpatient psychiatric treatment [38–41]. Such research will become increasingly important as public inpatient treatment facilities “retool” to serve an extraordinarily aggressive patient population. Therefore, the time is ripe for the burgeoning research on childhood psychopathy to converge with the research being conducted in the child psychiatric treatment field.

One of the primary findings of the present study was that narcissism was significantly associated with ringleader bullying. Conceptually, this association may be related to the narcissistic quest to confirm and enhance a grandiose self-image by establishing social dominance [17–19]. Bullies high in narcissism may also be motivated to use aggression as a means of gaining entrance into the “anti-social but popular” adolescent subculture [42, 43]. These two motivations suggest that ringleader bullies may utilize a Machiavellian strategy of mistreating others in pursuit of self-enhancement. Finally, the link found here between narcissism and bullying is consistent with the description of narcissism as involving the absence of the kind of empathetic concern for others that typically acts as an inhibitor of interpersonal exploitation among children [18, 19]. However, whereas narcissism may act as a possible motivator of ringleader bullying, our data also suggests that theory of mind abilities facilitate the ability to enact this predisposition. Presumably, children with higher levels of social acumen are more able to successfully manipulate victims, recruit followers, and hide their misbehavior.

For participants lacking narcissistic traits, a negative association was found between social acuity and ringleader bullying. This finding suggests the possibility that children who have the ability to accurately understand the thoughts and feelings of the victims of bullying are more likely to have empathetic concern for these victims and shun the bully role. This hypothesis harkens to the “perspective-taking” literature [44] as well as the somewhat later “person perception” literature [45, 46] that both generally indicated—with some mixed findings—that aggressive children tend to be cognitively egocentric. Our findings are consistent with these earlier propositions, at least among participants who lacked elevated levels of narcissism.

It also is important to note that, whereas we employed the terms “high,” “medium,” and “low” when we categorized variables, these terms only describe a subject’s relative standing within the present sample. For example, narcissism scores that would be considered extremely high in normative samples fell within the “medium” range in the present sample. Likewise, the mean score for ringleader

bullying in the present sample (6.20) would be considered extraordinarily elevated in a normative sample [7]. Consequently, the rates of bullying we uncovered in this inpatient sample are a significantly cause for concern. Whereas children with psychiatric disorders deserve a calm, supportive therapeutic milieu, our results indicate an environment in which peer victimization is virtually the norm. Although disconcerting, these findings are not surprising given the current trend for public psychiatric hospitalization in the United States to increasingly be utilized as a “last resort” placement for dangerous, aggressive children who lack other treatment options [25].

In summary, the present study indicated that theory of mind abilities were associated with either high or low levels of ringleader bullying depending on the moderating influence of narcissistic personality features. These results support Kaukiainen et al. [47] formulation of theory of mind abilities as a neutral social instrument that can enable a wide variety of benevolent—or malicious—interpersonal behavior patterns. This viewpoint clearly conflicts with the more traditional perspective that bullies and other aggressive individuals are almost always socially deficient “oafs” who resort to aggression because they lack the ability to satisfy their needs in a prosocial manner [48, 49]. Additionally, the results bolster research that has found that at least some subgroups of bullies have high levels of social acuity [9, 50].

In addition, this study contributes to an emerging literature that suggests that whereas some aggressive youth do indeed lack social acumen, other aggressive children do not evidence social skill deficits. Logically, these two different groups of aggressive children will require fundamentally different treatment strategies. For aggressive youth with poor social reasoning there are a number of existing programs designed to enhance social acuity and interpersonal skills [51, 52]; approaches that would be counterindicated for aggressive children who are utilizing their well-developed social reasoning abilities in the service of peer manipulation and victimization. Whereas there are no preexisting treatment regimens developed specifically for aggressive youth who combine social acuity with narcissistic traits, some of the general treatment philosophies advocated by Wong and Hare [53] for use with psychopathic adults could well be extrapolated to this population. In essence, the Wong and Hare approach attempts to persuade individuals with psychopathy that their own best interests would be best served by modifying their aggressive behavior patterns. Wong and Hare argue that because their treatment philosophy does not involve any attempt to change core personality characteristics, their approach will not be threatening to individuals with narcissistic, grandiose, and self-satisfied personal attitudes, thereby reducing resistance. Wong and Hare stipulate that the overriding

goal of their approach is to maneuver the psychotherapy client into a “powerful quandary” (p. 38), in which rejecting the therapists insights would be analogous to the client rejecting his or her own best interests. A similar treatment philosophy is suggested by Salekin et al. [54], who note that increasing motivation for overt behavior change would appear to constitute the single most salient factor in reducing the aggressive behavior associated with psychopathic traits.

Moving beyond general treatment philosophies and strategies, there are some emerging logistical guidelines for treating youth with psychopathic features that may increase the effectiveness of a given intervention. These include the early initiation of therapy, intensive treatment schedules (i.e., multiple sessions per week), the utilization of multiple treatment agents (e.g., family members and school personnel), and long durations of treatment [54–56]. Of course, it is important that general treatment regimens be tailored to meet the specific clinical needs of clients, including callous-unemotionality and narcissism [54, 57].

The traditional view that psychopathy is untreatable [58] is slowly changing as research evidence accumulates that individuals with psychopathy often respond favorably to a variety of therapeutic approaches. For children with psychopathic traits, positive results have been indicated for motivational [57], behavioral [59], and cognitive-behavioral interventions [57, 60]. Whereas the treatment of psychopathic traits in children is currently in its infancy, interventions should become increasingly effective as our understanding of the syndrome evolves.

The results of this study should be interpreted within the context of some methodological limitations. One important limitation is that the inpatient population utilized in this study demonstrated significantly elevated rates of psychopathic traits, suggesting that our results may not be readily generalized to bullies operating outside of a hospital setting. In addition, the generalizability of these data is limited by virtue of the fact that all youth were drawn from the same treatment facility. A third limitation is that the cross sectional design of this study does not allow for casual interpretations of the results or the identification of developmental pathways. For example, it is possible that the association we found between narcissism and ringleader bullying occurred because children who engage in ringleader bullying behaviors become more narcissistic after establishing socially dominant positions within their peer groups. An ongoing bidirectional, reciprocal relationship between narcissism and ringleader bullying is also possible. In addition, our study design would have been stronger and more sophisticated if additional variables (e.g., social popularity, academic competency, emotion regulation) had been included in our model.

Despite these limitations, our results suggest that the linkage between psychopathic narcissism and bullying

warrants further research examination. For example, a prospective, longitudinal design that used initial levels of psychopathic narcissism (e.g., assessed in early childhood) to predict the later development of bullying behaviors (e.g., assessed in adolescence) could help establish whether narcissistic traits indeed precede the formation of interpersonally aggressive behavior patterns. Similarly, at the level of molecular genetics, it would be theoretically important to examine the influence of the serotonin transporter gene (*SLC6A4*) on the covariation of psychopathic narcissism and bullying. That is, while preliminary evidence suggests that the narcissism component of psychopathy is related to enhanced serotonergic activity (i.e., the presence of two long alleles in the promoter—or 5-HTTLPR—region of the serotonin transporter gene) [61, 62], it is not yet apparent that serotonergic functioning and bullying likewise share a positive pattern of association. If enhanced serotonergic functioning and bullying were found to be positively related, it would be useful to determine if narcissism mediates the association between serotonergic activity and bullying. Such a finding would be consistent with the notion that the development of narcissistic personality traits influences the adoption of bullying behaviors.

Finally, it is apparent that far more research is needed to begin the process of truly understanding the clinical characteristics of ringleader bullies. The current knowledge base for this population is limited to some preliminary demographic information (e.g., in community samples up to twice as many boys as girls can be classified as ringleader bullies) [7] and psychological findings (e.g., ringleader bullies hold anti-victim attitudes consistent with their behaviors) [63]. Much more research remains to be done before a useful demographic, epidemiological, and clinical picture of ringleader bullying will emerge. The time for this research is overdue given the “linchpin” role that ringleader bullies play in the social ecology of bullying.

Summary

The results of this study indicated that theory of mind skills were associated with high levels of ringleader bullying when narcissism was elevated; however, when significant narcissism was absent theory of skills were associated with lowered levels of ringleader bullying behavior. These results support a view of theory of mind skills as a neutral social instrument that can be utilized for either prosocial or antisocial purposes depending upon the underlying personality traits that motivate behavior. Whereas existing treatment regimens can be utilized for aggressive children that lack theory of mind skills, the association of ringleader bullying with the combined presence of narcissism and

social acuity in this study suggests the presence of a subgroup of aggressive children that will require novel, innovative treatment approaches. We argue that a recently developed treatment approach for psychopathic adults that is designed to promote behavior change via a direct appeal to the child's own best interests [52] can be adapted for this purpose.

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