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The Differential Relations Between Empathy and Internalizing and Externalizing Symptoms in Inpatient Adolescents

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Abstract Impaired empathy is associated with a variety of psychiatric conditions; however, little is known about the differential relations between certain forms of psychopathology and cognitive and affective empathy in adolescent girls and boys. The aim of this study was to examine the relations between externalizing and internalizing disorders and cognitive and affective empathy, respectively, while controlling for covariance among different forms of psychopathology, separately in girls and boys. A total of 507 inpatient adolescents (319 girls and 188 boys) in the age range of 12–17 years completed the Basic Empathy Scale that measures affective and cognitive empathy. The Youth Self-Report Form and Child Behavior Checklist were used to assess the severity of psychopathological symptoms. Results demonstrated that affective and cognitive empathy were negatively associated with conduct problems only in girls, but not in boys. Affective empathy was positively related to internalizing problems observed by parents and youths and self-reported ADHD symptoms in girls and boys. The clinical implications of these differential relationships for externalizing versus internalizing symptoms and empathy are discussed.

Keywords Empathy · Anxiety · Depression · Conduct disorders · ADHD

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Introduction

Empathy—the ability to understand and share in another's emotional state or context [1]—allows humans to interact effectively in the social world and promotes prosocial behaviors [2]. The ability to empathize is particularly important in adolescence when social reorientation takes place that heightens the salience of peer relations and enhances the role of empathy for effective social functioning [3, 4].

Empathy is a multifaceted construct and most researchers agree that it includes three primary components: (a) an affective response to another person facilitating affective sharing of other people's emotional states (b) a cognitive capacity to take the perspective of the other person; and (c) regulatory mechanisms allowing for the maintenance of self/other distinction during empathizing (e.g., [5–7]). The affective component can be likened to either sympathy defined as an other-oriented emotional reaction to another's emotional state or condition or personal distress—a self-oriented aversive reaction [5–7]. We can also distinguish situational empathy concerning empathic emotions felt in a particular situation measured by experimental tasks and dispositional empathy, assessed by questionnaires and explored in the current study, which is a general disposition to experience empathy [5].

Previous research revealed different patterns of association between empathy and either externalizing or internalizing disorders. Several studies show that conduct disorder (CD) and some of the associated traits (callous-unemotional traits, aggressive behaviors) are related to lower levels of empathy [1, 8–12]. Sharing and understanding negative emotions of others that occur in reaction to aggressive and antisocial behavior is thought to prevent individuals from harming others [9, 13]. The relationships

between empathy and CD are stronger for adolescents than for children when self-report measures of empathy are used [9, 10]. Moreover, more pronounced deficits have been shown for affective empathy compared to cognitive empathy in individuals with conduct disorders especially when CU traits are present [11, 14, 15]. Studies that have investigated gender differences in relation to empathy and conduct disorder (or related traits) are limited and demonstrated mixed findings: (1) deficits in empathy are present in both girls and boys with conduct disorder [1], (2) impaired empathy is observed only in boys, but not girls with aggressive behaviors [16, 17].

There is a lack of studies investigating relationships between empathy and symptoms of oppositional-defiant disorder (ODD) separately from CD. In addition, research on the topic of empathy in children with ADHD is limited [18] and shows inconsistent results. Braaten and Rosen [19] demonstrated that children with ADHD have lower abilities in situational empathy in comparison to healthy controls. In contrast, Deschamps et al. [20] showed that this group of children does not differ in situational and dispositional empathy reported by parents from their peers; however, children were rated as less empathic by their teachers. A study by Marton et al. [21] revealed that children with ADHD were characterized by lower levels of empathy assessed by parents in comparison to their peers without the disorder, but this difference was no longer significant when the level of oppositional and conduct problems were controlled for.

Studies that have explored the association between internalizing disorders and empathy revealed opposite directions of associations compared to externalizing disorders. Higher levels of depression have been found to associate with the tendency to experience higher personal distress as a response to other people's suffering [22–25]. Similarly, a positive association between anxiety and personal distress has been found by Joireman et al. [26]. All these studies were conducted among adults. While still untested, Zahn-Waxler and Van Hulle [27] proposed a hypothesis that children who are empathic and raised in families that involve parental suffering may get overly engaged in caring for parents. In such cases, empathy may be positively correlated with guilt over hurting others, sadness and anxiety. Similarly, O'Connor et al. [22] suggested that depressive patients characterized by higher level of affective empathy may suffer from biased cognitions in which they see themselves as harmful to other people and they can also experience guilt over being better than others and harming others. Moreover, individuals with depression may react to other people's suffering by imagining their own reaction to a similar situation from the past and re-experiencing past emotional pain [23]. These reactions are all associated with self-focus and self-debasing

distortions that are characteristic of individuals with internalizing symptoms [28, 29]. In contrast, individuals with externalizing disorders have been shown to display an opposite cognitive style characterized by self-serving and blaming others [28, 29]. These differences in cognitive styles that are characteristic of internalizing and externalizing disorders may explain divergent directions of relationships between empathy and these two dimensions of psychopathological symptoms. Self-debasing distortions and self-focus seem to enhance empathic distress to other peoples' suffering whereas self-serving distortions and blaming others decrease empathic responses and empathy-based guilt—we may assume that empathy is in mutual relationship with these cognitive styles.

Most of the above-mentioned research exploring relationships between empathy and externalizing or internalizing symptoms focused on categorical models of psychopathology and individual disorders. Only two studies [20, 21] that investigated empathy in ADHD and conduct or disruptive disorders took into account comorbidity among externalizing disorders. Studies that do not take into account high comorbidity between various internalizing and externalizing disorders [30] may lead to a biased understanding of the relation between psychopathology and empathy. Furthermore, previous work have largely neglected to make distinctions between cognitive and affective empathy even though these two dimensions are related to distinct neural, somatic and behavioral correlates [30–32]. In particular, affective empathy increases activity in the brain network involved in emotional processing, perceiving faces and bodies and understanding and simulating other's actions. In effect it facilitates mirroring of the observed mental and bodily states to a greater extent than cognitive empathy. It was shown also to be more strongly related to externalizing and internalizing symptoms than cognitive empathy [14, 24]. Thus, it is essential to explore relationships of psychopathology to cognitive and affective empathy separately.

Moreover, there is a lack of studies exploring associations between empathy and psychopathological symptoms other than CD (ADHD, ODD, depressive and anxiety disorders) in adolescents. As adolescence is a period of social reorientation [3], which coincides with major changes in the "social brain" [33], it is associated with a high vulnerability for the emergence of psychopathology [34]. It is therefore important to gain a better understanding of the relation between empathy and psychopathology in adolescents specifically. Since moderate agreement was noted in parents' and adolescent' reports of internalizing and externalizing symptoms [35] it is valuable to include ratings of various informants of psychopathology. Adolescent's self-report on internalizing symptoms have been shown to be more valid in comparison to parent reports in previous studies, whereas parent report

seem to be a better source of information concerning externalizing disorders [36].

Finally, as several studies revealed that girls are characterized by higher levels of empathy and internalizing disorders and lower level of externalizing disorders than boys [37–39], it is important to explore relationships between empathy and psychopathology separately in females and males.

Against this background, the aim of our study was to investigate the relations between externalizing and internalizing symptoms and cognitive or affective empathy in girls and boys while controlling for covariance among different forms of psychopathology reported by various informants to determine unique relations of certain forms of psychopathology to cognitive and affective empathy, respectively. We applied a dimensional approach to psychopathology that has both statistical and conceptual advantages over a categorical approach [40, 41]. Based on previous studies we predicted that externalizing disorders (CD, ODD, ADHD) would associate with low levels of affective and cognitive empathy and the relations of these symptoms to affective empathy will be stronger than to cognitive empathy. We expected internalizing disorders to be associated with high level of affective empathy and this association to be stronger in girls who more often display internalizing symptoms and high level of affective empathy [37–39]. Finally, we predicted that empathy would be more strongly related to internalizing symptoms reported by adolescents and externalizing symptoms reported by parents as these informants are better sources of information on internalizing and externalizing symptoms, respectively.

Methods

Participants

This study included a sample of 711 consecutive admissions of adolescents between the ages of 12–17-year-olds to the adolescent unit of a private psychiatric hospital in Houston in United States between October 2008 and May 2015. Consent and assent for study participation were obtained from both parents and adolescents. Inclusion criteria for study participation consisted of: (1) any adolescent patient between 12 and 17 years of age, and (2) adolescents who were sufficiently fluent in English to complete all research. Exclusion criteria for study participation comprised the following: (1) diagnosis of schizophrenia or any psychotic disorder, and/or (2) diagnosis of mental retardation. Based on these criteria, patients were excluded before participation in the assessment protocol. After these exclusions, a total of 507 participants (319 girls and 188 boys) were used in subsequent analysis.

T tests for all of the measures used in the analysis were conducted to verify if adolescent patients who were excluded from analysis data differed significantly from those included. Analyses revealed no significant differences (for all variables $p > .05$) between groups.

Measures

The Basic Empathy Scale (BES) is a self-report measure developed to assess the multidimensional aspects of empathy [42]. Adolescents were asked to rate 20 items on a 5-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. Good convergent and divergent validity have been demonstrated for the BES [42]. The scale had two subscales: affective and cognitive empathy that were used in this study. Internal reliability for this measure was good ($\alpha = .85$) for the current study.

Child Behavior Checklist (CBCL); [43]) is a parent-report questionnaire in which parents rate their adolescent's problem behaviors. The measure contains 112 problem items, each scored on a 3-point scale (0—*not true*, 1—*somewhat or sometimes true*, 2—*very or often true*). The measure yields a number of scales, some empirically derived (the Syndrome Scales) and some theoretically based (the *DSM*-oriented scales). For the current study the *DSM*-oriented scales: affective problems, anxiety problems, ADHD problems, oppositional-defiant problems and conduct problems were used.

Youth Self-Report (YSR); [43]) is a self-report questionnaire modeled after the CBCL for use with adolescents between the ages of 11 and 18. It is organized similarly, and the same *DSM*-oriented scales were used. For both measures, the raw scores were used as recommended for research purposes by Achenbach and Rescorla [43]. Thurber and Sheehan [44] emphasized the importance of employing raw scores that cover the full range of variation, instead of *T*-scores with eliminated the bottom part of the score distribution and reduced variability, in data analyses.

The Diagnostic Interview Schedule for Children—Computerized version (NIMH DISC-IV); [45]) was used to provide a description of the clinical characteristics of this sample. The DISC-IV is a highly structured clinical interview which assesses for Axis I disorders in children and adolescents aged 9–17 years. It is a well-established measure of Axis I psychopathology in youth and has good reliability and validity [45]. In this study, interviews were administered individually and in private by trained research staff and ranged in length of about 1.5–2 h. DISC-IV diagnoses for the past year were used only to provide a description of clinical characteristics for this sample and they were not included in our model and analyses. Diagnoses were assigned a code with no diagnosis = 0, intermediate diagnosis = 1, and positive diagnosis = 2. We

present information about the percentages of girls and boys from our sample with positive diagnoses in Table 3.

Wechsler Adult Intelligence Scale III or IV and Wechsler Intelligence Scale for Children IV. Either the Wechsler Adult Intelligence Scale [46, 47] or Wechsler Intelligence Scale for Children [48] was administered by a licensed clinical psychologist according to the adolescent's age. Full Scale IQ score was used to provide description of the overall cognitive ability of girls and boys from our sample.

Results

We used a *T* test for independent samples to investigate differences in affective and cognitive empathy and psychopathological symptoms in girls and boys. Because of *skewness* of the majority of our variables we used Spearman's rank correlation to explore relationships between affective and cognitive empathy and psychopathological symptoms. Furthermore, we employed stepwise linear regression which combines forward and backward selection techniques and enables the researcher to reveal which combination of independent variables has the greatest statistically significant influence on the dependent variable. The aim was to identify which of the psychopathological symptoms were the most strongly related to affective and cognitive empathy in girls and boys.

Descriptive statistics for the full sample are presented in Tables 1 and 2. Percentage of girls and boys with clinical diagnoses are provided in Table 3. *T* test for independent samples (Table 1) revealed significant differences between

Table 2 Ethnic composition of participants

	Girls (%)	Boys (%)
White/Caucasian	75.0	80.3
American Indian or Alaskan native	.03	0
Asian	4.4	.9
Black or African-American	1.9	.9
Multiracial	6.9	2.8

girls and boys in the level of empathy and severity of some of the psychopathological symptoms. In particular, girls evidenced higher levels of affective and cognitive empathy and higher intensity of affective problems reported by parents and adolescents and self-reported ADHD and anxiety problems. Boys display higher intensity of self-reported CD symptoms.

Results of Spearman rank order correlations in girls and boys are presented in Tables 4 and 5. We found positive correlations between affective empathy and affective and anxiety problems observed by both parents and youths and self-reported ADHD problems in girls and boys. Negative correlations of affective and cognitive empathy with conduct problems assessed by parents and affective empathy with self-reported conduct problems were observed in girls, but not in boys. Affective and cognitive empathy were uncorrelated with age in girls and boys.

Stepwise linear regression was conducted separately for girls and boys to predict level of the affective empathy with internalizing and externalizing symptoms. The internalizing and externalizing symptoms reported by parents and

Table 1 Descriptive statistics

	Girls (n = 319)		Boys (n = 188)		<i>T</i> test	
	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>
Age (months)	188.11	17.69	192.27	17.21	4.15	.006
IQ	106.76	14.75	107.01	11.79	.89	-.255
Admit GAF	41.27	10.32	42.68	10.57	-1.40	.786
Affective empathy	39.71	7.58	35.21	8.61	6.14	<.001
Cognitive empathy	36.42	4.44	35.23	5.08	2.75	.01
Affective problems (Y)	13.26	5.99	10.37	5.96	5.45	<.001
Anxiety problems (Y)	5.85	3.04	4.94	3.33	3.25	<.001
ADHD problems (Y)	7.54	3.33	6.84	3.00	2.45	.015
ODD problems (Y)	4.69	2.50	4.59	2.39	.45	.653
Conduct problems (Y)	6.54	4.83	7.85	4.94	-3.05	.002
Affective problems (P)	12.82	4.65	11.51	4.58	3.18	.002
Anxiety problems (P)	5.44	2.82	5.01	3.02	1.67	.097
ADHD problems (P)	6.29	3.62	6.56	3.17	-.88	.377
ODD problems (P)	4.82	2.70	5.06	2.72	-.98	.327
Conduct problems (P)	6.85	5.44	7.62	5.40	-1.6	.111

Y youth, P parent

Table 3 Percentage of participants with clinical diagnoses according to DISC-Y

	Girls (%)	Boys (%)
ADHD	20.8	20
CD	13.3	21
ODD	20.8	16.4
Mania	4.2	3.8
Hypomania	3.3	.5
MDD	52.9	40
Dysthymia	1.4	2
SAD	15.2	6.6
GAD	18.2	10.8
OCD	26.9	18.8
Panic disorder	16.3	13.6
PTSD	10.8	3.8
Social Phobia	23.5	20.7
Specific Phobia	20.8	12.2
Agoraphobia	11.1	6.6
Anorexia	8.3	2.3
Bulimia	1.7	0
Schizophrenia	3.6	1.9

Table 4 Results of Spearman correlations between affective and cognitive empathy and psychopathological symptoms in girls

	Cognitive empathy	Affective empathy
Affective problems (Y)	.060	.261**
Anxiety problems (Y)	-.004	.369**
ADHD problems (Y)	.078	.148**
ODD problems (Y)	-.023	-.027
Conduct problems (Y)	-.051	-.117*
Affective problems (P)	-.019	.145*
Anxiety problems (P)	.003	.133*
ADHD problems (P)	.053	-.014
ODD problems (P)	-.061	-.078
Conduct problems (P)	-.131*	-.244**
Age (months)	.078	-.045

Y youth, P parent

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

adolescents that were previously significantly correlated with empathy in girls and boys were included as predictors in these regression models. Anxiety problems, ADHD problems and conduct problems reported by adolescents were the best predictors of affective empathy in girls: associations with anxiety and ADHD were positive, and a negative relation was found with conduct problems (Table 6). Anxiety problems were the best predictor of affective empathy in boys (Table 7). We did not conduct regression analysis for cognitive empathy as this variable

Table 5 Results of Spearman correlations between affective and cognitive empathy and psychopathological symptoms in boys

	Cognitive empathy	Affective empathy
Affective problems (Y)	.098	.208**
Anxiety problems (Y)	.054	.279**
ADHD problems (Y)	.086	.168*
ODD problems (Y)	.033	-.062
Conduct problems (Y)	.037	-.108
Affective problems (P)	.121	.177*
Anxiety problems (P)	.076	.158*
ADHD problems (P)	.000	.112
ODD problems (P)	-.005	.055
Conduct problems (P)	-.059	-.086
Age (months)	.071	-.121

Y youth, P parent

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

Table 6 Linear regression model for affective empathy in girls obtained by stepwise regression

Predictors	Beta	t	F	r ²
Anxiety problems (Y)	.29	5.20***	22.40***	.18
ADHD problems (Y)	.21	3.28***		
Conduct problems (Y)	-.26	-4.21***		

Y youth

*** $p < .001$

was related only to conduct problems reported by parents in girls and it was not related to psychopathological symptoms in boys.

Discussion

The aim of the current study was to examine the relationship between externalizing and internalizing disorders and cognitive and affective empathy, respectively, while controlling for covariance among different forms of psychopathology reported by various informants to determine the unique relationships between certain forms of psychopathology and cognitive or affective empathy in adolescent girls and boys. In line with our hypotheses and previous findings [22–26] internalizing symptoms (anxiety and affective problems) were shown to be associated with higher level of affective empathy in girls and boys and the correlations were stronger and more significant in girls than in boys. Surprisingly, not only internalizing symptoms but also self-reported ADHD symptoms were found to be positively correlated with affective empathy. Moreover, anxiety and self-reported ADHD symptoms were one of the best predictors of affective empathy in girls and self-

Table 7 Linear regression model for affective empathy in boys obtained by stepwise regression

Predictor	Beta	<i>t</i>	F	<i>r</i> ²
Anxiety problems (Y)	.25	3.74***	12.06***	.06

Y youth

*** $p < .001$

reported anxiety alone was the best predictor of empathy in boys. Since previous research focused mostly on exploring relationship between empathy and depression, finding that anxiety may be more strongly related to empathy than depression sheds new light on research on relationships between empathy and internalizing disorders. We can assume that affective empathy is related more strongly to personal distress, tendency to avoid facing negative emotions of other people or excessive involvement in caring for others than to sympathy and positive social functioning in adolescents with high severity of these symptoms.

One explanation for the positive relation between internalizing and ADHD symptoms to affective empathy can be that both children with internalizing symptoms and those with ADHD symptoms may exhibit negative self-debasing cognitions in which they see themselves harmful to other people [22]. Other people's feelings can evoke in them intensive emotional reactions among others: guilt over being better than others and/or harming others and anxiety. It can be particularly true in the case of children with ADHD who are very often criticized and blamed by their parents and teachers [49, 50]. Moreover, suffering of other people may evoke in them memories of own painful experiences. Children with internalizing and ADHD symptoms, who were shown to exhibit attention deficits [51–53], may experience difficulties in deployment of attention from such memories. Furthermore, all these disorders (especially ADHD and anxiety disorders) were shown to be associated with high emotional reactivity and difficulties in emotion regulation [54–56]. Thus, negative emotions caused by other people's distress may be evoked in these children more easily and they may experience difficulties in regulating them. Previous studies have shown that children who are characterized by higher emotional reactivity and low ability to regulate emotions are prone to personal distress in reaction to other people's negative emotions [57].

Our study is the first to explore relationships between empathy and ODD separately from CD symptoms and shows that ODD symptoms were unrelated to both cognitive and affective empathy in girls and boys. ODD symptoms are distinct from CD as they do not involve serious aggressive and antisocial acts. Thus, they are less likely to be associated with empathy than CD symptoms. However, surprisingly, CD symptoms were negatively related to

affective and cognitive empathy only in girls, but not in boys. These results stand in contrast to previous findings that revealed empathy deficits in boys and inconsistent findings for girls [16, 17]. Boys from our sample were characterized by high level of CD symptoms and lower variability of results in comparison to the population i.e. our sample includes mostly boys with average or high level of CD symptoms. Therefore, individual differences in conduct problems could be less readily detected due to overall severity of the sample and it could result in null findings in case of boys. Other explanation may be that there are mixed directions of relationships between affective empathy and CD symptoms in boys from our sample. Two subgroups of children with externalizing disorders are described in the literature [58, 59] which differ in the reactivity to emotional and threatening stimuli and comorbid psychopathological symptoms. First group is characterized by high reactivity to threatening and emotional stimuli, high level of CD, ADHD and internalizing symptoms. Thus, it may be that CD symptoms are associated with higher level of affective empathy and self-debasing distortions in this group due to comorbidity with ADHD, anxiety and affective disorders [58, 59]. Aggressive and antisocial acts in this group may do not result from low level of empathy, but have impulsive and reactive character. On the other hand, second group of children with CD is characterized by high level of callous-unemotional traits, low level of empathy and deficient emotionality [58, 60]. Opposite directions of relationships between affective empathy and CD in these two groups of children could result in lack of correlation between empathy and CD symptoms in boys. Since girls are more embedded in close relationships [37, 38], low level of empathy may be to a greater extent involved in development of conduct disorders in girls than in boys. However, as our results are not consistent with previous research, this topic should be explored further in future studies.

Moreover, our findings showed that the lowest level of affective empathy was associated with the combination of low anxiety, low self-reported ADHD symptoms and high levels of CD symptoms in girls. These characteristics may be related to callous-unemotional traits—which is the core dimension of psychopathy—that are under moderate to strong genetic influence [61] and has been shown to be a risk factor for instrumental and “cold-blooded” forms of aggression [60]. For a long time psychopathic traits were thought to be resistant to treatment and change, however several studies challenge this belief [62–64]. In particular, research shows that the affective component of the parent–child relationship (especially secure attachment and parental warmth) influences the level and manifestation of CU traits in children [62]. Moreover, family, individual and group therapies were found to be effective for individuals

with psychopathic traits and response to treatment was more pronounced in children and adolescents than in adults [63, 64]. We can assume that development of empathic abilities in warm, accepting and empathic therapeutic or family relationships is one of the important healing factors that leads to a decrease in callous-unemotional traits and antisocial behaviors. Boys and girls characterized by opposite pattern of psychopathological symptoms: high levels of internalizing and ADHD symptoms could take advantage from therapeutic interventions building links between affective empathy and sympathy and prosocial behaviors instead of personal distress, guilt, excessive involvement or avoidance.

Our findings confirm results of previous studies showing a distinction between affective and cognitive empathy. Cognitive empathy was related to CD symptoms reported by parents only in girls, however this relationship was very weak and may not have clinical significance. Psychopathological symptoms were not correlated with cognitive empathy in boys. In contrast, affective empathy was related to the several psychopathological symptoms observed by both adolescents and parents in girls and boys and self-reported psychopathological symptoms were the best predictor of affective empathy. Therefore, it seems that affective empathy is not only more closely related to psychopathological symptoms than cognitive empathy, but may be also to greater extent involved in building self-concept of adolescents.

There are several limitations to this study. First, the vast majority of the participants were Caucasian adolescents from well-educated and financially stable environments who were patients of the private psychiatric hospital. Thus, we cannot generalize these findings to other adolescent populations including community and outpatient samples from diverse backgrounds. Moreover, only one self-reported measure of empathy was used in the current study. Self-report measures are subjective and vulnerable to biases in particular may be influenced by social desirability bias or the participant's mood [65] which could increase correlations between internalizing symptoms and affective empathy. Ideally therefore, future studies should make use of multiple self-report measures of empathy to reduce error variance, or even better, also include experimentally-based measures of empathy.

Future studies may further explore relationships of empathy to externalizing and internalizing disorders in girls and boys. It would be valuable to include not only self-report measures assessing dispositional empathy, but also teacher and parent reports and experimental tasks investigating situational empathy. Moreover, it would be of great importance to conduct prospective longitudinal studies that explore causal pathways of empathy, emotional reactivity, emotion regulation, cognitive styles and

internalizing and externalizing disorders. It would be worth to include also other variables that can take part in acquiring ability to empathize especially various aspects of family functioning (attachment security, parents' abilities to mentalize).

Summary

Previous research revealed different patterns of association between empathy and either externalizing or internalizing disorders. However, this is the first study that explored differential relations between externalizing and internalizing symptoms and cognitive and affective empathy, respectively, using dimensional approach. 319 girls and 188 boys in the age range of 12–17 years completed the Basic Empathy Scale that measures affective and cognitive empathy. The Youth Self-Report Form and Child Behavior Checklist were used to assess the severity of externalizing and internalizing symptoms. We found that affective empathy was more strongly related to psychopathological symptoms in adolescents than cognitive empathy. On the one hand, high levels of affective empathy can be considered as one of the protective factors for the development of conduct disorders in girls. However, on the other hand, empathy was positively related to internalizing and self-reported ADHD symptoms in both girls and boys. In summary, our results suggest that therapeutic interventions should take into account the differential relations between cognitive and affective empathy with different dimensions of psychopathology to maximize effectiveness.

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