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Associations Between Dispositions to Rash Action and Internalizing and Externalizing Symptoms in Children

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Impulsivity is not a unitary construct; instead, dispositions to rash action can be divided into five moderately-correlated dimensions. However, the associations between these dimensions and symptoms of psychopathology among youth remain unclear. The goal of this study was to examine associations between different dispositions to rash action and psychopathology in a community sample of middle school youth. One hundred forty-four youth (*M* age = 11.9; 65% Hispanic, 30% African American; 50% male; 81% qualifying for free school lunches) participated in this study. Self-reported questionnaire measures of dispositions to rash action (lack of planning, lack of perseverance, sensation seeking, negative urgency, and positive urgency) and psychopathology symptoms (conduct disorder [CD], alcohol use, depression, overall anxiety, panic, generalized anxiety, social anxiety, and separation anxiety, as well as teacher reports of attention deficit/hyperactivity disorder [ADHD] inattentive and hyperactive symptoms) were used. Negative and positive urgency were positively associated with all symptom types examined except certain anxiety subtypes (and positive urgency was not associated with ADHD symptoms). Lack of planning was positively associated with externalizing and depressive symptoms. Lack of perseverance was positively associated with CD. Sensation seeking was positively associated with both CD and alcohol use. When other dispositions were adjusted for, negative urgency remained a positive predictor of CD, whereas positive urgency remained a positive predictor of depressive and panic symptoms. Sensation seeking was negatively associated with separation anxiety. Psychopathology symptoms are differentially related to dispositions to rash action in children; emotion-based dispositions to rash action may be particularly important targets for future research.

Evidence supports the notion that impulsivity (including the related constructs of disinhibition and sensation-seeking) is not a unitary construct (e.g., Cloninger, Przybeck, & Svrakic, 1991; Depue & Collins, 1999; Eysenck & Eysenck, 1985; Zuckerman, 1979), and substantial research aimed at understanding when and how these constructs relate to symptoms of psychopathology has been conducted. The purpose of this study was to utilize a relatively new approach to the conceptualization and measurement of impulsivity to examine how different dimensions of self-reported dispositions to rash action were associated with internalizing and externalizing symptoms, as well as alcohol use, among middle school youth.

Impulsivity research as defined by self-report ratings grew out of research on the structure of personality (see Patton & Stanford, 2011, for a comprehensive history). Although researchers generally agree that impulsivity has subdimensions, these differ by model. For example, Eysenck found four subfactors: impulsivity narrow, risk taking, nonplanning, and liveliness (Eysenck & Eysenck, 1985). Although Barratt's model evolved over time, late in his career he focused on three subfactors: attentional impulsiveness, motor

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impulsiveness, and nonplanning impulsiveness (Patton, Stanford, & Barratt, 1995). Zuckerman pioneered the study of sensation seeking, and his widely used sensation-seeking scale has four factors: disinhibition, thrill and adventure seeking, boredom susceptibility, and experience seeking (Zuckerman, 1979, 2003). Surgency, a concept closely related to sensation seeking, contains four main components: impulsivity, high-intensity pleasure, activity level, and lack of shyness (Putnam, Ellis, & Rothbart, 2001). Regardless of the model examined, evidence supports the notion that these traits are genetically and biologically influenced (e.g., Zuckerman, 2003); among other correlates, they are related to the dopamine system (e.g., Campbell et al., 2010; Sheese, Voelker, Rothbart, & Posner, 2007) and the autonomic nervous system (e.g., Beauchaine, Gatzke-Kopp, & Mead, 2007). Theoretical and empirical research has explored the links between dimensions of temperament and symptoms of psychopathology in children, and this work highlights the fact that multiple temperament pathways can lead to the same disorder (e.g., Nigg, 2006).

Recently, Whiteside and Lynam (2001) developed a model of impulsivity based on the five-factor model of personality (McCrae & Costa, 1990). This model specified four primary dimensions of impulsivity, or dispositions to rash action. One was sensation seeking, or a tendency to seek novel and exciting stimulation. A second factor was lack of planning, or a tendency to act without thinking in advance, whereas a third was lack of perseverance, or a tendency to have difficulty tolerating boredom or remaining focused when distracted. Fourth, a mood-based factor was found: negative urgency, or a tendency to act rashly when experiencing distress or a negative mood). More recently, a fifth dimension, positive urgency—that is, a tendency to act rashly when experiencing a positive mood—has been added to this model (Cyders & Smith, 2008). This model's inclusion of emotion-based dispositions to rash action (negative and positive urgency) represents a particularly novel feature; these factors may provide a new angle on questions regarding impulsivity-psychopathology associations.

Research to date using this model of impulsivity has indicated that these dimensions are related to symptoms of psychopathology in both children and adults. Lack of planning is associated with attentional problems (Miller, Flory, Lynam, & Leukefeld, 2003; Zapolski, Stairs, Settles, Combs, & Smith, 2010), alcohol use and related problems (Magid & Colder, 2007; Miller et al., 2003; Verdejo-Garcia, Bechara, Recknor, & Perez-Garcia, 2007), and depressive and generalized anxiety symptoms (Miller et al., 2003). Negative urgency is related to early drinking and other substance use outcomes (Anestis, Selby, & Joiner, 2007; Fischer, Anderson, & Smith; 2004; Fischer & Smith, 2008; Gunn & Smith, 2010; Magid & Colder, 2007; Settles, Cyders, & Smith, 2010; Settles et al., 2012; Verdejo-Garcia et al., 2007), conduct problems, hyperactive/impulsive symptoms of attention deficit/hyperactivity disorder (ADHD), depressive symptoms, and generalized anxiety symptoms (Miller et al., 2003). Sensation seeking is associated with early drinking and other alcohol use outcomes (Fischer & Smith, 2008; Gunn & Smith, 2010; Magid & Colder, 2007; Magid, MacLean, & Colder, 2007; Miller et al., 2003), conduct problems, and ADHD symptoms (Miller et al., 2003). Lack of perseverance is associated with attentional problems (Zapolski et al., 2010), alcohol and other substance problems (Magid & Colder, 2007; Verdejo-Garcia, 2007), conduct problems, substance use, inattentive symptoms of ADHD, depressive symptoms, and generalized anxiety symptoms (Miller et al., 2003). Positive urgency is associated with early drinking (Gunn & Smith, 2010) and other substance use outcomes (Cyders, Flory, Rainer, & Smith, 2009; Settles et al., 2010).

The present study builds on previous work in several ways. First, we sought to examine the associations between these different dimensions of impulsivity and internalizing and externalizing symptoms using *Diagnostic and Statistical Manual of Mental Disorders*–based symptom categories. Second, we sought to examine the associations between these dispositions to rash action and internalizing symptoms in a more fine-grained way, separating depressive symptoms from anxiety symptoms and considering different types of anxiety symptoms separately. Third, we studied children specifically. This is especially important because these dispositions may influence symptoms and behaviors that in turn influence the ongoing development of these children. Finally, we sought to examine the internal consistency reliability of the UPPS–R–Child version (UPPS–R–C; UPPS = urgency, planning, perseverance, and sensation seeking), and the intercorrelations among the subscales, in a sample with different demographic characteristics as the sample in Zapolski et al. (2010; the only other study we are aware of to use the UPPS–R–C).

Based on theoretical reasons and previous research with both children and adults, we formed the following hypotheses. Lack of planning was expected to be positively associated with ADHD symptoms, alcohol use, and depressive symptoms (based on the previous literature review), as well as conduct disorder (CD) symptoms (based on theory and the comorbidity between ADHD and alcohol use and CD). Negative urgency was expected to be positively associated with all symptom types examined (based on the previous literature review for externalizing symptoms and depressive and generalized anxiety symptoms, and based on the emotion regulation

difficulties often experienced by youth with other anxiety subtypes). Based on previous research, sensation seeking was expected to be positively associated with ADHD symptoms, CD symptoms, and alcohol use, and negatively associated with anxiety symptoms. Also based on previous research lack of perseverance was expected to be positively associated with ADHD symptoms, CD symptoms, alcohol use, and depressive symptoms, and positive urgency was expected to be positively associated with alcohol use. We did not make specific hypotheses about the subtypes of anxiety due to the lack of a priori theoretical reasons to expect different associations.

METHODS

Participants

Data for this study were drawn from the Camden Youth Development Study, a study of middle school students. Youth were in sixth or seventh grade at a charter school at the time of their participation ($n = 144$; 72 male, 72 female). The participants averaged nearly 12 years of age (range = 10–14, $M = 11.9$, $SD = .8$). According to self-reports, 65% were Hispanic, 30% were African American, 0.6% were Asian, 5% were Native American, 2% were White, and 6% endorsed being from another racial or ethnic category. (Youth could endorse more than one category.) Among students in these grades at this school, 81% qualified for free lunches and 43% of families received public assistance (not including unemployment or social security benefits).

Eighty-eight percent of parents contacted consented to their child's participation. All teachers (of students whose parents gave consent for their child's participation) consented to fill out questionnaires about their students, and 96% of students whose parents gave consent assented. This study was approved by the Institutional Review Board of Rutgers University.

Measures

Self-Report Measures

Paper-and-pencil questionnaires were completed by youth in classrooms, with one researcher reading the questionnaire aloud and at least one other researcher available to answer questions and help students.

Impulsivity. The UPPS–R–C was used to assess dispositions to rash action. It is a modification of the UPPS–R (developed by Whiteside & Lynam, 2001) that shortens the measure and reduces the reading level to be appropriate for children. The modification, resulting psychometric properties, reliability, and validity (on a sample of youth aged 7–13) are described in Zapolski et al. (2010). Five dimensions are assessed: lack of planning, negative urgency, sensation seeking, lack of perseverance, and positive urgency. Internal consistency reliability, as assessed by Cronbach's alpha, was generally adequate (lack of planning = .82, negative urgency = .86, sensation seeking = .78, lack of perseverance = .61, positive urgency = .89).

Depressive symptoms. The Mood and Feelings Questionnaire (Angold et al., 1995; Daviss et al., 2006; Messer et al., 1995) was used to assess depressive symptoms. This scale correlates highly with other questionnaire measures of depression as well as structured interview-based diagnoses of depression (e.g., Angold et al., 1995, in a sample of 8- to 16-year-olds). It consists of 33 items, each scored on a 3-point scale—0 (*not true*), 1 (*sometimes true*), and 2 (*true*). The range of reported scores was 0 to 44, with a mean of 12.8 ($SD = 11.3$).

Anxiety symptoms. The Screen for Child Anxiety and Related Disorders (Birmaher et al., 1997; Birmaher et al., 1999) was used to assess anxiety-related symptoms. This questionnaire correlates highly with other questionnaire and structured-interview-based assessments of anxiety (Monga et al., 2000; the mean age of this sample was 14, with participants ranging from 9 to 18). It has 41 items, each scored on a 3-point scale, ranging 0 (*not true*) to 2 (*very true*). Four subscales were used, along with the total score. Details of the scales were as follows: total score (range = 2–68, $M = 25.7$, $SD = 12.2$), panic disorder or significant somatic symptoms (13 items, range = 0–24, $M = 5.5$, $SD = 4.4$), generalized anxiety disorder (nine items, range = 0–16, $M = 6.3$, $SD = 3.6$), separation anxiety disorder (eight items, range = 0–16, $M = 5.6$, $SD = 3.5$), social anxiety disorder (seven items, range = 0–14, $M = 6.3$, $SD = 3.1$).

CD symptoms. Self-reports of lifetime CD symptoms were collected using a list of items corresponding to *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., American Psychiatric Association, 1994) symptoms of CD; the wording of symptoms was modified from the Conduct Disorder Rating Scale (Waschbusch & Elgar, 2007). This measure correlates highly with CD as assessed by diagnostic interview as well as with observer ratings of antisocial behavior (Waschbusch & Elgar, 2007; this sample comprised youth ages 5–12). It had 14 items, each scored on a 4-point scale, ranging 0 (*never*) to 3 (*5 or more times*). The resulting scale had a mean of 4.7 ($SD = 4.8$, range = 0–24).

Alcohol use. Youth were asked whether they had ever had a drink of beer, wine, or hard liquor (''not just a sip or taste of someone else's''). Youth who reported having had at least one of these drinks at least one time were considered to have used alcohol (45%).

Teacher-Report Measures

Teacher questionnaires were completed by teachers on their own time, within 2 weeks of the youth questionnaire administrations.

ADHD symptoms. The Child and Adolescent Symptom Inventory–4th edition, Revised (Gadow & Sprafkin, 1997) was used to collect teachers' reports of youths' ADHD symptoms (Sprafkin et al., 2011). This scale has demonstrated reliability and validity in both community and clinical samples (e.g., Gadow & Sprafkin, 1997). Symptoms of hyperactivity and inattention were examined separately. Each scale had nine items, each scored from 0 to 3 (0 =*never* to 3 =*very often*). The scales had the following means: Hyperactivity $M = 3.83$ ($SD = 5.90$, range = 0–27); inattention $M = 6.85$ ($SD = 6.37$; range = 0–27). Teacher reports of ADHD were used because children tend to underreport ADHD symptoms (Kashani, Orvaschel, Burk, & Reid, 1985), though teacher reports of ADHD may be less reliable for adolescent students compared to younger children (Molina, Pelham, Blumenthal, & Galiszewski, 1998). There was conceptual overlap between the UPPS–R–C and the ADHD scales, with three out of eight items on the lack of planning scale judged to be similar to ADHD symptoms and six out of eight items on the lack of perseverance scale judged to be similar to ADHD symptoms (primarily the inattention symptom of failing to finish schoolwork or chores).

Statistical Analyses

Three youth were eliminated from these analyses due to concerns about the validity of their answers (they endorsed being only ''kind of honest'' instead of ''totally'' or ''mostly'' honest, or endorsed used of a fake drug). Due to mean differences on some subscales, all analyses adjusted for the effects of age (lack of perseverance was higher among older participants, $p < .05$), gender (males were higher on sensation-seeking, $p < .01$), and race (African American yes/no and Hispanic yes/no; negative and positive urgency were higher among African Americans, $p < .05$; lack of perseverance was higher among Hispanics, $p < .01$).

Pearson correlations, describing the associations among UPPS–R–C subscale scores, were conducted. Partial correlations among these subscales (adjusting for gender, age, and race) are also reported. Next, partial correlations (adjusting for age, gender, and race) were used to examine associations between UPPS–R–C subscales and psychopathology symptoms. The standard method for computing partial correlations was used; this yields the correlation that is equal to the Pearson correlation between the residuals of the variables of interest, after regression on the control variables (SAS version 9.2 documentation). Finally, to examine which of these dispositions to rash action most strongly predicted symptoms of psychopathology, we entered all five dispositions (and age, gender, and race) in multiple regressions predicting symptoms of psychopathology (using logistic regression for the binary outcome of alcohol use yes/no).

To account for the fact that multiple statistical tests were conducted and decrease the probability of Type I error, we adopted a $p < .01$ cutoff for considering a result significant. For the main set of analyses—multiple regressions examining associations between each disposition to rash action and each type of psychopathology symptom, reported in Table 2—50 regressions were conducted. Using this $p < .01$ cutoff, this corresponded to a 39% chance that (at least) one significant result would occur by chance.

For unadjusted correlations, we had at .8 power to detect significant effects at the level of $r = .27$ and above (had we used a $p < .05$ cutoff, we would have had similar power at the level of $r = .21$ and above). For multiple regressions, we had .8 power to detect significant effects for partial correlation levels of .29 and above (had we used a $p < .05$ cutoff, we would have had similar power at the level of .24 and above).

RESULTS

The data were appropriate for correlation and regression analyses. Most continuous variables were normally distributed (CD and ADHD symptoms were slightly skewed but without outliers; log-transforming these variables had no effect on the pattern of significant results), the dispositions to rash action were associated with symptoms of psychopathology in a linear fashion, internal consistency reliabilities were acceptable, and the homoscedasticity assumption was tested and met.

Associations among different dispositions to rash action are presented in Table 1. Associations ranged from nonsignificant to quite high (between negative and positive urgency, unadjusted $r = .69$). The fact that most of the correlations were low to moderate generally supports the discriminant validity of these subscales; however, the high correlation between the two urgency subscales indicates that they may be measuring very similar constructs.

Associations between dispositions to rash action and externalizing and internalizing symptoms are presented

TABLE 1
Associations Among Dispositions to Rash Action

	Lack of Planning	*Negative Urgency*	*Sensation Seeking*	*Lack of Perseverance*	*Positive Urgency*
Lack of Planning		**.56***** (.43–.67)	.11 (−.06–.28)	**.45***** (.30–.58)	**.38***** (.22–.52)
Negative Urgency	**.61***** (.49–.71)		**.22**** (.05–.38)	.10 (−.07–.27)	**.69***** (.59–.77)
Sensation Seeking	.17 (−.01–.34)	**.26**** (.09–.42)		−.14 (−.30–.03)	**.32***** (.16–.47)
Lack of Perseverance	**.46***** (.31–.59)	.16 (−.02–.33)	−.06 (−.23–.12)		.07 (−.10–.24)
Positive Urgency	**.39***** (.23–.53)	**.67***** (.56–.76)	**.37***** (.21–.51)	.15 (−.03–.32)	

Note. Pearson correlation coefficients are reported. Above the diagonal, nonadjusted coefficients are reported; below the diagonal, partial correlations adjusting for gender, age, and race are presented. All scales are self-reports. Values considered significant ($p < .01$) are in bold.
$^{*}p < .01$. $^{***}p < .001$.

in Table 2. Lack of planning was positively associated with all externalizing symptoms (both ADHD symptom scales, CD symptoms, and alcohol use) and depressive symptoms; lack of perseverance was positively associated with CD symptoms only. Negative urgency was positively associated with all symptom types except certain subtypes of anxiety, whereas positive urgency demonstrated a similar pattern of positive associations but was not associated with ADHD symptoms. Sensation seeking was positively associated with CD symptoms and alcohol use.

For the most part, associations between each disposition to rash action and each domain of psychopathology had overlapping confidence intervals, indicating similar associations. However, there were some that differed, most of which involved sensation seeking being relatively weakly associated with psychopathology and urgency being particularly strongly associated with psychopathology. Specifically, (a) depressive and panic symptoms were more strongly positively associated with positive urgency than sensation seeking, (b) total and separation anxiety were both more strongly positively associated with negative and positive urgency than sensation seeking, (c) panic symptoms were more strongly positively associated with positive urgency than lack of perseverance, and (d) the hyperactivity symptoms of ADHD were positively associated with lack of planning more than sensation seeking.

The results of regression analyses simultaneously predicting psychopathology symptoms from all five dispositions to rash action (Table 3) indicated that after adjusting for all other dispositions to rash action, negative urgency was positively associated with CD, positive urgency was positively associated with depressive and panic symptoms, and sensation seeking was negatively associated with separation anxiety.

DISCUSSION

These results support the notion that dispositions to rash action are differentially associated with symptoms of psychopathology. The emotion-based dispositions to rash action (negative and positive urgency) were broadly associated with psychopathology: They were positively associated with most symptom subtypes and were significantly more strongly associated with several symptom subtypes than some other dispositions to rash action. In addition, lack of planning was positively associated with externalizing and depressive symptoms, whereas lack of perseverance and sensation seeking were associated in a more limited way with externalizing behavior.

Regression analyses examining the unique predictive power of each disposition to rash action, after adjusting for the effects of the other dispositions, were consistent with these patterns. Negative urgency remained a significant predictor of CD, whereas positive urgency remained a significant predictor of depressive and panic symptoms. Sensation seeking was negatively associated with separation anxiety. These results demonstrate the importance of distinguishing among dispositions to rash action, and specifically the importance of studying emotion-based dispositions (negative and positive urgency). Despite the incremental validity of these urgency scales, based on their high correlation (.69) and similar overall pattern of correlations with symptoms of psychopathology they may lack discriminant validity among children (in contrast to among adults; Cyders & Smith, 2008); future research examining this issue would be helpful. In addition, the broad overall associations between the urgency subscales and many different types of symptoms raises the possibility that they are tapping into an emotion-regulation dimension that is common to most types of mental health problems.

These results also demonstrate the importance of distinguishing among different types of internalizing symptoms. Despite the findings of Zapolski et al. (2010) indicating a nonsignificant association between an overall internalizing scale and these dimensions of rash action, we found specific associations with some internalizing scales. The differing directions of some associations (e.g., sensation seeking being positively associated

TABLE 2
Associations Between Dispositions to Rash Action and Externalizing and Internalizing Symptoms, Adjusting for the Effects of Gender, Age, and Race

	Externalizing Symptoms				*Internalizing Symptoms*					
	ADHD Hyperactivity Symptoms	*ADHD Inattentive Symptoms*	*Conduct Disorder Symptoms*	*Alcohol Use*[a]	*Depressive Symptoms*	*Total Anxiety Symptoms*	*Panic Symptoms*	*Generalized Anxiety Symptoms*	*Separation Anxiety Symptoms*	*Social Anxiety Symptoms*
Lack of Planning	**.35***** (.19–.50)	**.28**** (.11–.43)	**.46***** (.31–.59)	**.25**** (.08–.41)	**.26**** (.09–.42)	.04 (−.14–.22)	.08 (−.10–.25)	.00 (−.18–.18)	.03 (−.15–.21)	−.15 (−.32–.03)
Negative Urgency	**.30***** (.13–.45)	**.29**** (.12–.44)	**.55***** (.41–.66)	**.35***** (.19–.50)	**.37***** (.21–.51)	**.28**** (.11–.44)	**.32***** (.15–.47)	.23* (.06–.39)	.18* (.00–.35)	−.04 (−.22–.14)
Sensation Seeking	−.01 (−.19–.17)	.04 (−.14–.21)	**.26**** (.09–.42)	**.28**** (.11–.44)	.03 (−.15–.21)	−.09 (−.26–.09)	−.01 (−.19–.17)	.00 (−.18–.18)	−.22* (−.38–−.05)	−.15 (−.32–.03)
Lack of Perseverance	.19* (.02–.35)	.21* (.04–.37)	**.27**** (.10–.43)	.19* (.01–.36)	.21* (.04–.37)	.05 (−.13–.23)	.01 (−.17–.19)	−.06 (−.23–.12)	.09 (−.09–.26)	.05 (−.13–.23)
Positive Urgency	.15 (−.03–.32)	.16 (−.02–.33)	**.49***** (.34–.61)	**.37***** (.21–.51)	**.45***** (.30–.58)	**.31***** (.14–.46)	**.36***** (.20–.50)	**.26**** (.09–.42)	.18 (.00–.35)	−.02 (−.20–.16)

Note. Correlation coefficients represent partial correlations adjusting for gender, age, and race. All scales are self-reports except the attention deficit/hyperactivity disorder (ADHD) scales, which were reported by teachers. Values considered significant ($p < .01$) are in bold.

[a]Because this was a dichotomous variable, a point-biserial correlation was used.

$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

TABLE 3
Results of Multiple Regression Analyses Simultaneously Examining Associations Between All Dispositions to Rash Action and Internalizing and Externalizing Symptoms

	Externalizing Symptoms				*Internalizing Symptoms*					
	ADHD Hyperactivity Symptoms	*ADHD Inattentive Symptoms*	*Conduct Disorder Symptoms*	*Alcohol Use*[a]	*Depressive symptoms*	*Total Anxiety Symptoms*	*Panic Symptoms*	*Generalized Anxiety Symptoms*	*Separation Anxiety Symptoms*	*Social Anxiety Symptoms*
Lack of Planning	.24	.09	.11	1.16 (.39–3.43)	−.02	−.22*	−.16	−.20	−.17	−.29*
Negative Urgency	.23	.28*	**.33****	.48 (.18–1.33)	.16	.28*	.25	.25	.23	.13
Sensation Seeking	−.07	−.01	.11	.46* (.24–.90)	−.12	−.21*	−.16	−.12	**−.29****	−.14
Lack of Perseverance	.06	.14	.15	.38 (.11–1.30	.12	.05	−.02	−.05	.07	.15
Positive Urgency	−.08	−.07	.17	.60 (.26–1.40)	**.37****	.28*	**.31****	.24*	.18	.06

Note. Values presented are standardized parameter estimates from regression equations predicting internalizing and externalizing symptoms (dependent variables) from all impulsivity dimensions, age, gender, and ethnicity (simultaneously entered). All scales are self-reports except the ADHD scales, which were reported by teachers. Values considered significant ($p < .01$) are in bold.

[a]Because this was a dichotomous outcome variable, a logistic regression was used for this analysis and odds ratios (with 95% confidence intervals) are presented.

$^{*}p < .05$. $^{**}p < .01$.

with depression but negatively associated with separation anxiety) may result in these effects canceling each other out when broad internalizing scales are used.

Similar to Zapolski et al. (2010), our results supported generally high levels of internal consistency reliability for each disposition to rash action, though the alpha for lack of perseverance was marginal (.61). However, we found a slightly different pattern of intercorrelations among these subscales. The samples differed in their demographic makeups (83% European American in Zapolski et al., compared to our 2%) and slightly in age (mean age of 10.5 with a range of 7 to 13 in Zapolski et al., compared to our 11.9 with a range of 10 to 14). It is important to note that 29% of the Zapolski et al. sample was recruited from clinical settings; these youth may differ from our entirely community-based sample. Research examining these associations in other samples would be useful, and specifically considering possible effects of race and ethnicity (and perhaps socioeconomic status as well) on these associations would be appropriate.

This study has limitations. Self-reports were used for most measures (i.e., all except ADHD symptoms); although these youths' reports clearly differentiated among different distributions to rash action and symptoms of psychopathology, it is not known how these measures would relate to behavioral measures of impulsivity and/or caretakers' reports of psychopathology. ADHD symptoms were assessed by teacher report due to youths' tendency to under-report these symptoms (Kashani et al., 1985), but this may have artificially lowered the apparent association between ADHD symptoms and self-reports of dispositions to rash action (relative to the associations reported for the other domains, in which the symptoms were also self-reported). The correlations found for these other domains likely represent overestimates of true associations due to shared method variance. In addition, teachers' reports on symptoms of ADHD in adolescents are not always reliable and appear to be less reliable than similar reports on younger children (Molina et al., 1998). Many items on the ADHD scales were similar to items on the Lack of Planning and Lack of Perseverance scales. It is conceptually impossible to separate these constructs (i.e., an integral part of ADHD is a difficulty in planning and difficulties persevering in cognitively demanding tasks), and therefore we did not remove these overlapping items, but this may have artificially increased associations between the ADHD scales and lack of planning and lack of perseverance. The correlations between these scales were in the small to moderate range (.19–.35) indicating that these dispositions to rash action can be differentiated from ADHD symptoms, at least when different informants are used. The relatively low level of internal consistency reliability for the Lack of Perseverance scale (.61) may have impaired our ability to detect associations. In addition, although a strength of this study was that it included participants from ethnic/racial and socioeconomic status groups that tend to be underrepresented in research, the makeup of the sample was not representative of the U.S. population.

In summary, this study supports the idea that dispositions to rash action, as measured via the self-reports of low-income children, relate differentially to symptoms of psychopathology even at this young age. This is consistent with the possibility that these dispositions may influence the development of symptoms and behaviors; these symptoms and behaviors are ones that, in turn, may predict risk for future dysfunction (e.g., early alcohol use predicts later alcohol dependence). Longitudinal research examining these possibilities would be useful.

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