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The Youth Psychopathic traits Inventory: Psychometric properties and its relation to substance use and interpersonal style in a Dutch sample of non-referred adolescents

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A B S T R A C T

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This study presents evidence on the reliability and construct validity of the Dutch version of the Youth Psychopathic traits Inventory (YPI), a self-report instrument for psychopathic traits in adolescent boys and girls. In a sample of 776 Dutch non-referred adolescents, the YPI was found to have good internal consistency. Furthermore, exploratory Principal Components Analysis (PCA) indicated a three-factor structure for the YPI, including a Grandiose–manipulative, Callous–unemotional, and Impulsive–irresponsible dimension. Good internal consistency was demonstrated for all dimensions in boys as well as girls, except for the Callous–unemotional dimension. Results further indicated strong correlations between psychopathic traits and dominant and hostile interpersonal style. The Grandiose–manipulative dimension predicted dominant interpersonal behavior in boys, but not in girls. In girls, a dominant interpersonal style was predicted by the Impulsive–irresponsible dimension. Psychopathic traits, mainly the Impulsive–irresponsible dimension, were related to a higher frequency of self-reported drug and alcohol use in boys and girls.

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Introduction

The interest in the concept of psychopathy has broadened in the past decades. Although extensive research has shown that knowledge and descriptions of psychopathic character traits in adult male offenders are also applicable to the younger subset of male adolescent offenders (e.g., Brandt, Kennedy, Patrick, & Curtin, 1997; Forth, Hart, & Hare, 1990; Jones, Cauffman, Miller, & Mulvey, 2006; Neumann, Kosson, Forth, & Hare, 2006; Vincent, 2002), the assessment of psychopathic traits in children and adolescents remains subject to debate (Edens, Skeem, Cruise, & Cauffman, 2001; Seagrave & Grisso, 2002). Nevertheless, it has also been argued that the identification of psychopathic traits early in life might offer a better understanding of the etiology of the disorder and its conceptualization (Farrington, 2005; Forth et al., 1990). Better insight into the development of violent, persistent and criminal behavior can of course stimulate initiatives for preventive treatment intervention (Andershed, Kerr, Stattin, & Levander, 2001).

A growing body of research focuses on the nomological network surrounding adolescent psychopathy and its commonality with psychopathy in adulthood (Benning, Patrick, Blonigen, Kicks, & Iacono, 2005; Benning, Patrick, Salekin, & Leistico, 2005; Loney, Taylor, Butler, & Iacono, 2007; Lynam et al., 2005; Salekin, Leistico, Trobst, Schrum, & Lochman, 2005). The nomological network is a theoretical framework, which provides understanding of the construct validity of a measure

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(Cronbach & Meehl, 1955). In this framework, constructs are continually redefined and clarified through their relationships with other constructs. The nomological net surrounding psychopathy consists of three levels: 1) the convergence between measures of psychopathy, 2) the relationship between psychopathy measures and measures of personality disorders, and 3) the relationship between psychopathy measures and measures of normal-range personality dimensions (Benning, Patrick, Salekin, et al., 2005).

Assessment of psychopathic traits in adolescents

Originally, research on psychopathic traits in youth has focussed on adolescents who had been involved in criminal acts using the Psychopathy Checklist: Youth Version (PCL: YV; Forth, Kosson, & Hare, 2003). This downward extension of the Psychopathy Checklist-Revised (PCL-R; Hare, 1991, 2003) is a time consuming method in assessing psychopathic traits in adolescents, and extensive training and forensic experience is required. Furthermore, several critics have argued that the use of a simple downward extension of adult psychopathy measures may not be warranted because of several methodological and ethical problems (Seagrave & Grisso, 2002; Hart, Watt, & Vincent, 2002). Other instruments to measure psychopathic traits in children and adolescents such as the Antisocial Process Screening Device (APSD; Frick & Hare, 2002) and the Child Psychopathy Scale (CPS; Lynam, 1997) do not remediate these shortcomings. For instance, 1) the transparency of the ASPD items increases the chance of response bias (Poythress, Dembo, Wareham, & Greenbaum, 2006) and 2) only one item is used to measure each psychopathic trait (Andershed, Gustafson, Kerr, & Stattin, 2002).

Taking into account these shortcomings, The Youth Psychopathic Traits Inventory (YPI; Andershed et al., 2001) was developed. The YPI is a self-report instrument which was designed to measure the interpersonal (Grandiose–manipulative), affective (Callous–unemotional) and lifestyle (Impulsive–irresponsible) dimensions of psychopathy and focuses on 10 core traits of psychopathy in community youth (Andershed et al., 2001). The main purpose of the YPI is to measure personality traits, rather than behavioral traits related to psychopathy. The authors argue that behavioral characteristics associated with psychopathy do not apply to the same extent to non-referred youths, and that these characteristics do not seem to form the core of the psychopathy construct (Andershed et al., 2001). Guiding principles in the development of the YPI were: (1) each psychopathic trait should be measured with several items so that analyses can be done on the subscale level; (2) psychopathic traits should be measured indirectly, rather than directly, and (3) the items should be worded so that the traits sound positive to a person with psychopathic traits, but not to those without them. Since the YPI was developed as a measure for community youth, one of its advantages is that the instrument enables researchers to study the nomological network of psychopathic traits in adolescents in the general population. Furthermore, the self-report items of the YPI possibly provide a more accurate insight into the experiential aspects of psychopathy, which cannot be assessed by parent or teacher report (Andershed et al., 2002; Frick, Barry, & Brodin, 2000). However, concerns have also been raised regarding the appropriateness of self-report ratings of the affective characteristics of psychopathy (Benning, Patrick, Salekin, et al., 2005). Finally, because the YPI is a self-report measure, it is cost- and time effective (Andershed et al., 2002).

Prior research has demonstrated that the YPI is internally consistent and a useful measure for delineating a psychopathic-like subgroup of non-referred boys and girls with antisocial and behavioral problems (Andershed et al., 2002, 2001). Furthermore, exploratory and confirmatory factor analysis support a 'theoretically meaningful and useful' three-factor structure (Andershed et al., 2001, p. 151), similar to the three-factor structure found for the PCL-R (Cooke & Michie, 2001) and PCL: YV (Jones et al., 2006; Neumann et al., 2006; Salekin, Brannen, Zalot, Leistico, & Neumann, 2006). In institutionalized young offenders, the YPI was found to have good test-retest reliability, to be related to short-term institutional misbehavior, and to have a theoretically coherent inverse relationship with anxiety (Skeem & Cauffman, 2003). Furthermore, the Impulsive–irresponsible dimension showed positive correlations with thrill seeking, impulsiveness and irresponsibility (Dolan & Rennie, 2007) and was most strongly predictive of short-term institutional infractions (Skeem & Cauffman, 2003). In all, these findings suggest that the YPI is a promising self-report measure of psychopathic traits in adolescents.

Psychopathy and personality dimensions

Concerning the second level of the nomological network surrounding psychopathy, it has been suggested that the concept of psychopathy can be described as a malicious conceptualization of extremes of normal personality traits (e.g., Benning, Patrick, Salekin, et al., 2005; Widiger & Lynam, 1998). Research has demonstrated that effects of psychopathic traits on an individual's interpersonal style can be mapped around the interpersonal circumplex model (Benning, Patrick, Salekin, et al., 2005; Salekin et al., 2005). In the interpersonal circumplex, eight categories of interpersonal styles, PA (managerial-autocratic), BC (competitive-exploitive), DE (aggressive-blunt), FG (distrustful-skeptical), nFnG (reserved-aloof), HI (modest-self-efficacious), LM (cooperative-overconventional), and NO (responsible-overgenerous), are organized around two opposing axes: Dominance and Affection (Benning, Patrick, Salekin, et al., 2005). Interpersonal theory suggests that individuals show a distinctive interpersonal style resulting from personality traits and developmental experience, with an emphasis on one of the octants of the circumplex (Salekin et al., 2005). Strong correlations between psychopathic traits and a dominant interpersonal style were demonstrated in a sample of juvenile offenders (Salekin et al., 2005). Similarly, self-report psychopathy scores from an undergraduate student sample were associated with a dominant interpersonal style (Benning, Patrick, Salekin, et al., 2005).

Substance abuse and psychopathy

Research in adult samples (Hemphill, Hart, & Hare, 1994; Smith & Newman, 1990; Walsh, Allen, & Kosson, 2007), as well as adolescent samples (Mailloux, Forth, & Kroner, 1997; O'Neill, Lidz, & Heilbrun, 2003) has demonstrated a positive relation between psychopathic traits and substance use. This relation is demonstrated to be reciprocal in nature and to be primarily determined by the impulsive and irresponsible lifestyle dimension (Harvey, Stokes, Lord, & Pogge, 1996; Mailloux et al., 1997; Taylor & Lang, 2006; Walsh et al., 2007). Adolescent males with high PCL: YV scores had an earlier onset of substance use, a wider variety of drug use, and higher scores on self-report screening tests for substance use than those who had lower scores (Mailloux et al., 1997). Furthermore, recent prospective research in non-referred male adolescents has shown significant predictive value of psychopathy scores for (future) substance use (Loney et al., 2007). This study, using a self-report version of the Minnesota Temperament Inventory (MTI; Loney, Taylor, Butler, & Iacono, 2002), showed that features from the lifestyle dimension were unique in predicting symptoms of substance use.

Using the YPI in a sample of referred adolescents, significant relations were demonstrated between the dimensions Grandiose–manipulative and Impulsive–irresponsible and severity of drug use in the past year (Poythress et al., 2006). Results from structural equation modeling indicated that the Impulsive–irresponsible factor was primarily responsible for the significant correlation with past drug use. Using the YPI in a non-referred sample of adolescents, Andershed et al. (2002) demonstrated a positive association between psychopathic traits and drug use as well.

The present study

The present study examines the psychometric properties of the Dutch translation of the YPI in a sample of non-referred adolescents. Analyses were conducted separately for boys and girls, since studies report gender differences in PCL: YV (Andershed, Hodgins, & Tengström, 2007) and YPI scores (Andershed et al., 2002). The internal consistency and factor structure, using exploratory Principal Components Analysis (PCA), were studied. Further, scores on the YPI were related to scores on self-report instruments designed to measure interpersonal behavioral styles and alcohol and drug use. Special attention was directed at identifying the relative value of the separate dimensions of the YPI in the associations with the other measures. On the basis of previous research, strong associations were expected between psychopathic traits on the one hand, and a dominant and hostile interpersonal style and substance use, on the other hand. With regard to the separate dimensions of psychopathy, the Impulsive–irresponsible dimension was expected to be largely responsible for the association between psychopathic traits and self-reported alcohol and drug use.

Method

Subjects

The sample comprised 776 adolescents in the upper grades of two secondary schools in two rural areas of The Netherlands. Thirty-six adolescents (5%) did not complete the YPI and were removed from the sample. The final sample included 740 adolescents with a mean age of 15.6 years ($SD = .94$; range 14–19). Forty-seven percent of the sample was male (47%), 53% was female. The majority of the sample was Dutch (88.4%), while 12% had another ethnic origin (e.g., Somalian, Turkish, Netherlands-Antillean). Written informed consent was obtained from all participants. Furthermore, their parents were informed about the purpose and procedure of the study and were given the opportunity to object to participation (passive informed consent). The study was approved by the relevant ethics boards and the administration of the schools.

Instruments

YPI

The authorized Dutch translation of the Youth Psychopathic traits Inventory (YPI; Das & de Ruiter, 2003) was used to measure psychopathic traits. The YPI is a 50-item self-report measure. The applicability of the items is rated on a 4-point Likert scale (1 = Does not apply at all, 2 = Does not apply well, 3 = Applies fairly well, 4 = Applies very well). In the instruction, it is stressed that there are no right or wrong answers and that for each item the adolescent should consider what he or she generally thinks or feels and not how he or she feels at that moment. The YPI consists of 10 subdimensions designed to capture the core traits of psychopathy. These subdimensions pertain to either the Grandiose–manipulative, the Callous–unemotional or the Impulsive–irresponsible dimension. More specifically, the Grandiose–manipulative dimension consists of the subdimensions *Dishonest charm* (e.g., “When I need to, I use my smile and my charm to use others”), *Grandiosity* (e.g., “I am more important and valuable than other people”), *Lying* (e.g., “Sometimes I lie for no reason, other than because it's fun”), and *Manipulation* (e.g., “To get people to do what I want, I often find it efficient to con them”). Furthermore, the Callous–unemotional dimension consists of the subdimensions *Remorselessness* (e.g., “I seldom regret things I do, even if other people feel that they are wrong”), *Unemotionality* (e.g., “What scares others usually doesn't scare me”), and *Callousness* (e.g., “When other people have problems, it is often their own fault, therefore, one should not help them”). Finally, the subdimensions *Thrill seeking* (e.g., “I get bored quickly by doing the same thing over”), *Impulsiveness* (e.g., “I prefer to spend my money right away rather than save it”), and *Irresponsibility* (e.g., “I have cut classes more than

most other people”), belong to the Impulsive–irresponsible dimension. In line with previous research (Andershed et al., 2002; Andershed et al., 2001; Skeem & Cauffman, 2003), average continuous YPI total- and dimension-scores were used in the analyses.

Interpersonal Checklist-Revised

The authorized Dutch translation of the Interpersonal CheckList-Revised (ICL-R; de Jong, van den Brink, & Jansma, 2000) was used to map interpersonal behavioral styles onto the interpersonal circumplex. The ICL-R is a renewed version of the Interpersonal CheckList (LaForge & Sucek, 1955) and based on Leary's (1957) model of interpersonal behavior. The ICL-R consists of 160 items, which are rated yes or no. The instrument contains ten subscales: PA (managerial-autocratic), BC (competitive-exploitive), DE (aggressive-blunt), FG (distrustful-skeptical), nFnG (reserved-aloof), HI (modest-self-efficacing), JK (docile-dependent), LM (cooperative-overconventional), NO (responsible-overgenerous), and nNnO (extravert-gregarious). In the current study, item scores were prorated in case of two or less missing items. The instrument contains ten behavioral dimensions, which indicate whether the interpersonal style is predominantly characterized by dominance versus submissiveness, and by hostility versus friendliness. In previous research with the Dutch ICL-R, the intercorrelations and the circumplex analysis supported the hypothesized circular arrangement of the interpersonal styles (de Jong et al., 2000). The test-retest reliability of the interpersonal styles is moderate to good (ICC's range from .57 to .83; de Jong et al., 2000). For the current sample, good internal consistency was found for total ICL-R scores (Cronbach's alpha = .84).

Drug Use Disorders Identification Test

A Dutch version of the Drug Use Disorders Identification Test (DUDIT; Berman, Bergman, Palmstierna, & Schlyter, 2002; Dutch version: Das & de Ruiter, 2003) was used for the screening of drug use. The DUDIT is constructed to offer simplicity in identifying drug related problems. It contains 11 items, which provide information on different facets of drug use, such as frequency and poly drug use. The items are rated on a 3- or 5- point interval scale. In the current study, item scores were prorated in case of two or fewer missing items. The DUDIT was validated in several samples of heavy drug users, as well as in the general population (Berman et al., 2002) and was found to be internally consistent in both samples (Cronbach's alpha = .80 and .93, respectively). The internal consistency for the present sample was excellent (Cronbach's alpha = .92).

Screening of alcohol use

In co-operation with Tactus, an institute for addiction treatment, the authors constructed a screening instrument to measure frequency and reasons for drinking alcohol. The instrument for the Screening of Alcohol Use (SAU) consists of nine items, which can be rated on a 3- or 5-point continuous interval scale (e.g., “How often did you drink an alcoholic beverage in the last four weeks?”). The structure of the SAU is similar to the structure of the DUDIT. As in the ICL-R and DUDIT, scores were prorated in the case of two or fewer missing items. The internal consistency of the SAU in the present sample was acceptable (Cronbach's alpha = .65).

Procedure

The instruments were administered to 776 adolescents in the upper grades of two secondary schools, located in the north and in the south of The Netherlands. The questionnaires were completed within one hour in the classroom under the supervision of a teacher. A standardized introduction to the tests was given and a glossary was used when the adolescents asked for explanation of a term used in one of the questionnaires. The subjects were informed that their participation was voluntary and that their responses would be processed confidentially and anonymously.

Statistical analyses

The first set of analyses aimed at providing descriptive information concerning the distribution of YPI ratings in the sample. Student's *t*-test was used to test mean group differences in YPI scores between male and female subjects and Dutch and non-Dutch subjects. In addition, internal consistency (Cronbach's alpha) was calculated for the YPI total score, the three dimensions, and the ten subdimensions. To explore the factor structure of the Dutch YPI, exploratory Principal Components Analysis (PCA) with oblique Promax rotation was performed. The construct validity of the YPI was examined by calculating Pearson correlations between YPI total- and original dimensional scores, and scores on the ICL-R, DUDIT, and SAU. All statistical analyses were performed in SPSS 13.0 for Windows.

Results

Descriptive characteristics

Cronbach's alpha coefficients indicated acceptable internal consistencies for the three main dimensions and the YPI total score in boys and girls (Table 1). Internal consistencies for the subdimensions were largely acceptable, with the exception of *Unemotionality* ($\alpha = .51$) and *Callousness* ($\alpha = .32$) in boys, and *Callousness* ($\alpha = .52$) in girls.

Table 2 contains means and standard deviations for the subdimensions, dimensions and total YPI score for boys and girls separately. An independent samples *t*-test, demonstrated significantly higher scores for boys on all but one subdimension

Table 1Internal consistency for the ten subdimensions and three dimensions of the YPI in boys ($N = 341$) and girls ($N = 387$).

YPI subdimensions and dimensions	Alpha	
	Boys	Girls
Dishonest charm	.76	.78
Grandiosity	.82	.74
Lying	.70	.76
Manipulation	.78	.78
Remorselessness	.68	.63
Unemotionality	.51	.60
Callousness	.32	.52
Thrill-seeking	.62	.71
Impulsiveness	.60	.72
Irresponsibility	.60	.62
Grandiose–manipulative dimension	.84	.82
Callous–unemotional dimension	.66	.60
Impulsive–irresponsible dimension	.71	.78
Total Score	.70	.74

Note: YPI = Youth Psychopathic traits Inventory.

(*Impulsiveness*; $t(123) = 1.23, p = .22$). An examination of potential differences in YPI scores due to ethnicity, demonstrated a significantly higher score on the *Grandiosity* subdimension for non-Dutch participants ($t(701) = -2.47, p = .02$). Since scores on the other (sub)dimensions did not reveal significant differences between subjects of Dutch and Non-Dutch ethnic origin, we did not control for ethnicity in further analyses.

Table 2Descriptive statistics for the subdimensions, dimensions and total score of the YPI among boys ($N = 341$) and girls ($N = 387$).

Subscale	Gender	N	Mean	SD	t(df) =
					p =
Dishonest charm	Boys	331	1.98	.68	$t(705) = 5.21$ $p = .00$
	Girls	376	1.73	.62	
Grandiosity	Boys	320	1.84	.75	$t(692) = 10.24$ $p = .00$
	Girls	374	1.34	.46	
Lying	Boys	330	1.96	.63	$t(705) = 7.10$ $p = .00$
	Girls	377	1.64	.60	
Manipulation	Boys	325	1.96	.68	$t(700) = 8.23$ $p = .00$
	Girls	377	1.57	.57	
Remorselessness	Boys	326	1.97	.63	$t(695) = 9.43$ $p = .00$
	Girls	371	1.56	.50	
Unemotionality	Boys	328	2.21	.54	$t(695) = 13.02$ $p = .00$
	Girls	369	1.70	.49	
Callousness	Boys	327	2.48	.48	$t(695) = 15.94$ $p = .00$
	Girls	371	1.88	.51	
Thrill-seeking	Boys	327	2.75	.61	$t(701) = 6.14$ $p = .00$
	Girls	376	2.46	.63	
Impulsiveness	Boys	321	2.32	.61	$t(686) = 1.23$ $p = .22$
	Girls	367	2.26	.66	
Irresponsibility	Boys	328	1.80	.61	$t(698) = 5.81$ $p = .00$
	Girls	372	1.55	.53	
Grandiose–manipulative	Boys	291	7.72	2.28	$t(638) = 8.93$ $p = .00$
	Girls	349	6.25	1.81	
Callous–unemotional	Boys	304	6.66	1.28	$t(649) = 15.91$ $p = .00$
	Girls	347	5.16	1.11	
Impulsive–irresponsible	Boys	297	6.86	1.44	$t(639) = 5.21$ $p = .00$
	Girls	344	6.25	1.53	
Total YPI score	Boys	244	21.24	4.12	$t(540) = 10.42$ $p = .00$
	Girls	298	17.72	3.64	

Note: YPI = Youth Psychopathic traits Inventory.

Factor structure

In the male sample, Principal Component Analysis (PCA) with oblique rotation of the ten subdimensions revealed three factors with eigenvalues greater than one, accounting for 66% of the total variance. Although the three-factor structure was theoretically interpretable, three subdimensions (*Lying*, *Remorselessness* and *Callousness*) loaded above .30 on more than one factor. Exploratory PCA in the female sample demonstrated two factors with eigenvalues greater than one, accounting for 56% of the total variance. Three subdimensions (*Dishonest charm*, *Lying*, and *Irresponsibility*) loaded more than .30 on both factors. Extending this model with a third factor resulted in a model quite similar to that in boys, with the only difference that the subscale *Lying* clearly loaded on the interpersonal dimension in the sample of girls. The factor solutions for both boys and girls are presented in Table 3.

Construct validity

Interpersonal style

Table 4 presents correlations between the original Andershed et al. YPI dimension- and total scores and scores on the ICL-R. In boys, the YPI total score was significantly positively related to a dominant and hostile interpersonal style, while significantly inversely related to a submissive and friendly behavioral style. Regarding the separate dimensions, all three YPI dimensions were significantly positively related to a dominant and hostile interpersonal style (Table 4). These correlations were strongest for the Grandiose–manipulative dimension ($r = .30$). Furthermore, all three YPI dimensions showed significant inverse relationships with a submissive and friendly interpersonal style, with the strongest relation for the Callous–unemotional dimension ($r = -.41$).

Similar to boys, YPI total scores in girls were found to be significantly positively related to a dominant and hostile interpersonal style ($r = .25$), while significantly inversely related to a submissive and friendly interpersonal style ($r = -.22$). The patterns of association between the three main dimensions of psychopathy and ICL-R scores in girls were quite similar to those found in boys. However, a notable difference was that in girls the Impulsive–irresponsible dimension was most strongly related to a dominant and hostile interpersonal style, while in boys it was the Grandiose–manipulative dimension.

Substance use

Correlations between YPI dimension- and total scores and DUDIT and SAU scores are presented in Table 4. In boys, a significant association was demonstrated between the YPI total score, drug use disorder symptoms and frequency of alcohol use. Furthermore, all three YPI dimensions showed significant positive correlations with the DUDIT and SAU total scores, with the Impulsive–irresponsible dimension showing somewhat stronger associations. In girls, YPI total scores were significantly positively related to drug use disorder symptoms and frequency of alcohol use. All three dimensions were significantly related to the number of drug use symptoms, while only the Grandiose–manipulative and Impulsive–irresponsible dimension were associated with frequency of alcohol use.

Discussion

Reliability of the YPI

This study was the first to evaluate the psychometric properties of the YPI in a Dutch sample. In line with previous studies in community youth (Andershed et al., 2001), and clinical samples (Poythress et al., 2006; Skeem & Cauffman, 2003) the present results provide support for the internal consistency of dimension- and total scores of the YPI. For the subdimensions

Table 3
Youth Psychopathic traits Inventory factor oblique solutions (pattern matrix) for a sample of adolescent boys ($N = 341$) and girls ($N = 387$).

YPI Sub dimensions	Boys			Girls			
	G–M	C–U	I–I	G–M	C–U	I–I	I–I
Dishonest charm	.93	–.23	–.04	.79	–.14		.04
Grandiosity	.92	.06	–.20	.77	.20		–.16
Lying	.46	.05	.33	.75	–.22		.12
Manipulation	.87	–.03	.02	.96	–.11		–.09
Remorselessness	.35	.50	.19	.39	.23		.26
Unemotionality	.32	.54	.07	.48	.38		.03
Callousness	–.26	.96	–.13	–.13	.95		–.04
Thrill-seeking	–.17	–.03	.85	–.08	–.03		.90
Impulsiveness	–.04	–.09	.86	–.06	–.08		.88
Irresponsibility	.08	.00	.73	.26	.16		.57

Note. G–M = Grandiose–Manipulative, C–U = Callous–Unemotional, I–I = Impulsive–Irresponsible. All factor loadings >.30 are in bold.

Table 4Correlations between YPI dimensions, and total scores on the ICL-R, DUDIT and SAU in boys ($N = 341$) and girls ($N = 387$).

Interpersonal style ICL-R		YPI			
		Total	Grandiose–manipulative	Callous–unemotional	Impulsive–irresponsible
Dominance	Boys	.28**	.30**	.11*	.15**
	Girls	.25**	.21**	.12**	.25**
Affiliation	Boys	–.28**	–.17**	–.41**	–.13**
	Girls	–.22**	–.22**	–.24**	–.13*
DUDIT	Boys	.20**	.21**	.17*	.20**
	Girls	.24**	.21**	.20**	.13**
SAU	Boys	.24**	.21**	.18**	.28**
	Girls	.27**	.16**	.10	.35**

Note. YPI = Youth Psychopathic traits Inventory, ICL-R = Interpersonal Checklist-Revised, DUDIT = Drug Use Disorder Identification Test, SAU = Screening of Alcohol Use.

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

Unemotionality ($\alpha = .50$) and *Callousness* in boys ($\alpha = .32$), and the *Callousness* subdimension in girls ($\alpha = .52$) reliability was poor. Previous studies in clinical samples have also found poor reliability indices for the *Callousness* subdimension ($\alpha = .36$; Poythress et al., 2006; $\alpha = .49$; Skeem & Cauffman, 2003). The present findings strengthen previous suggestions that affective psychopathic characteristics are less well assessed by means of self-report instruments, because of their resistance to reliable description (Hall, Benning, & Patrick, 2004). Hall et al. (2004) concur that this is due to the lack of insight psychopathic individual have into their emotional deficits. Furthermore, the affective items may be sensitive to response bias and social desirability (Poythress et al., 2006). Since a deficient affective experience is generally considered to be at the core of the psychopathy construct (Cooke & Michie, 2001; Farrington, 2005; Vincent, 2002), a revision of the *Callousness* subdimension of the YPI is recommended.

Factor structure

The three factors that were extracted with exploratory factor analysis in the present sample were quite similar to the Grandiose–manipulative, Callous–unemotional and Impulsive–irresponsible dimensions, proposed by Andershed et al. (2001). Furthermore, and in line with previous findings (Andershed et al., 2001), the subdimensions *Remorselessness* and *Unemotionality* were found to load on all three main YPI dimensions in the female and male subsample. These findings may reflect the nature of the interrelationships between the separate psychopathy dimensions. Specifically, the finding that the subscales *Remorselessness* and *Unemotionality* load on all three factors, may support the notion that a deficient affective experience forms the core of the psychopathy syndrome (Cooke & Michie, 2001; Farrington, 2005; Vincent, 2002). Further research should use confirmatory factor analysis and item response theory analysis in order to further examine the nature of the interrelationships between psychopathy dimensions.

Construct validity

Similar to what was found in incarcerated adolescents (Salekin et al., 2005), the YPI total- and dimension scores demonstrated strong associations with a dominant and hostile interpersonal style, and significant inverse relations with a submissive and friendly interpersonal style. Furthermore, in line with previous findings in incarcerated (Mailloux et al., 1997) and non-referred samples (Andershed et al., 2002; Loney et al., 2007), the current findings indicate that adolescent psychopathic traits are strongly associated with substance abuse problems. However, some gender differences on the psychopathy dimensions were identified. Specifically, in boys, the Grandiose–manipulative dimension predicted dominant interpersonal behavior and the Impulsive–irresponsible dimension predicted number of drug use disorder symptoms and frequency of alcohol use. Conversely, in girls, the Grandiose–manipulative dimension was most predictive of the number of drug use disorder symptoms, while the Impulsive–irresponsible was most predictive of dominant interpersonal behavior. Previous research in female adult samples has also indicated gender differences in the associations between psychopathic traits and external correlates such as anxiety (Salekin, Rogers, & Sewell, 1997; Vitale & Newman, 2001; Vitale, Smith, Brinkley, & Newman, 2002). In a similar vein, boys generally score significantly higher on adolescent psychopathy measures than girls (Andershed et al., 2007; Forth et al., 2003; YPI: Andershed et al., 2002). In all, these findings suggest that the manifestation of psychopathic traits in females differs from male manifestations.

Methodological limitations

Results from the present study should be qualified by several caveats. First, an examination of the nomological net surrounding adolescent psychopathy, should also include an examination of the convergence of different instruments

measuring the same traits (Cronbach & Meehl, 1955). In fact, previous studies have demonstrated that instruments such as the APSD, CPS, PCL: YV, and YPI are unique in their method and not isomorphic (Benning, Patrick, Salekin, et al., 2005; Poythress et al., 2006; Skeem & Cauffman, 2003). Future research should focus on the convergent validity of the Dutch YPI with other adolescent psychopathy measures. A recent study by Andershed et al. (2007) demonstrated moderate correlations between total scores and conceptually corresponding factor scores of the PCL: YV and the YPI.

A second limitation includes the sole reliance on self-report instruments in this study. A number of studies have identified self-report to be a valid assessment method for psychopathic traits in community youth (Andershed et al., 2002). However, an absence of information from other (professional) informants may have limited the validity of ratings. Since all ratings in this study were obtained by self-report, relationships that found may reflect method factors. Caution is required when inferring causality between psychopathic traits and substance use in adolescence from self-report instruments. The representativeness of our sample is limited to adolescents from small towns in the north and south of The Netherlands. Finally, exploratory factor analyses were performed to evaluate the structure of the YPI. As suggested above, future studies should perform confirmatory factor, and item response theory analysis in order to provide further information on the underlying structure of the YPI and the discriminating power of specific traits (e.g., Cooke & Michie, 2001; Neumann et al., 2006).

Although a growing body of research has explored the nomological network of adolescent psychopathy, few studies have focused on psychopathic traits in non-referred adolescents from the perspective of general personality theory. In all, our findings strengthen current suggestions that the YPI is a time- and cost-effective instrument to assess and study psychopathic traits in community youth (Andershed et al., 2002; Andershed et al., 2001; Vaughn & Howard, 2005).

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